

1967 INDUSTRIAL ELECTRONICS CATALOG NO. 67



LOS ANGELES AREA

Newark-Electronics Co., Inc.

4747 W. Century Blvd., Inglewood, Calif. 90301

Phone: (213) OR 8-0441

TWX: 213-673-1838



CINCINNATI

Newark-Herrlinger Electronics Corp.

112 E. Liberty St., Cincinnati, Ohio 45210

Phone: (513) 421-5282

TWX: 810-461-2662



GRAND RAPIDS

Newark Industrial Electronics Corp.

2114 S. Division Ave., Grand Rapids, Mich. 49507

Phone: (616) 452-1411

TWX: 810-273-6904



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Newark-Denver Electronics Supply Corp.

2170 S. Grape St., Denver, Colo. 80222

Phone: (303) 757-3351

TWX: 910-931-0479



DETROIT

Newark-Detroit Electronics, Inc.

20700 Hubbell Ave., Detroit, Mich. 48237

Phone: (313) 548-0250

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MAIL ORDER DIVISION

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46 YEARS OF RELIABLE SERVICE

Your Dependable Source for Dependable Test Instruments by



The world's most complete V-O-M line



MODEL 850
VTVM, 7" Scale



For Engineers,
Hobbyists...
in labs, maintenance!

Start with these Models

... the 310, Miniature V-O-M; the 630, Standard V-O-M; the 630 PLK, streamlined V-O-M with transistorized overload protection. The new 630-M one million ohms per volt V-O-M. Add to these the dozens of other standard models shown in this catalog and you will find the exact Triplet instrument for your needs. Triplet offers the broadest line of multitesters in the industry.



Rectangular
PL SERIES
2 1/2", 3 1/2", 4 1/2"



M SERIES
2 1/2", 3 1/2", 4 1/2"

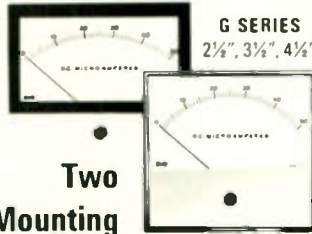
Round Phenolic
2 1/2", 3 1/2"



Now Choose from 4 Basic Panel Instrument Models

A complete stock of standard Triplet panel instruments in 2 1/2" to 4 1/2" sizes. In round: phenolic; rectangular: phenolic or clear plastic; and new slim rectangular style with easy view scale.

New Flexible Panel Meter Design



G SERIES
2 1/2", 3 1/2", 4 1/2"

Two
Mounting
Styles

An all new meter design that features flexibility and interchangeability, with optional mounting bezel for modern "Picture Window" appearance.

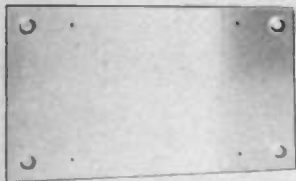
Self-shielded, Exact, Reliable—DC instruments have the famous Triplet BAR-RING movements—more torque, faster response, greater ruggedness.

Modern design provides a dominant scale with plenty of dial area.

SEE COMPLETE TRIPLET LISTINGS
IN TEST EQUIPMENT SECTION



630 630-A 630-PL 630-APL 630-NA 630-NS 630-M 630-PLK 631 310 310-C 800 666-R



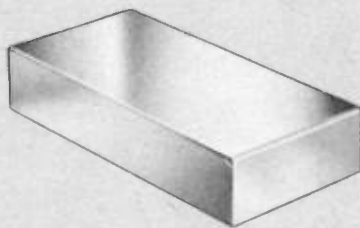
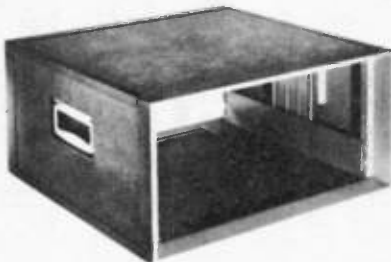
ALUMINUM BOTTOM PLATES

Now in 42 Sizes

Widest variety of standard sizes. Will fit all Bud chassis.

CLASSIC CABINETS

The ultimate in fine cabinetry. Designed and fabricated for sophisticated instrumentation and systems. Novel combination of patterned aluminum panels and extruded aluminum frame.



ALUMINUM CHASSIS

Now in 63 Sizes

Unsurpassed range of standard sizes. Reinforced welded corners. 5005 H-14 aluminum.



CLASSIC DOORS

Will fit any rack or cabinet with 19" panel space by attaching to panel mounting rails.



FLANGED PANELS

Made of 16 gauge steel with 1/2" flange all around. Standard 19" width. 12 sizes. Choice of five colors.

FRESH



IDEAS

BUD PRODUCES THE
WIDEST RANGE OF
STYLES AND SIZES OF
ELECTRONIC
CABINETS AND SIZES.

Newark HAS A
COMPLETE LINE OF
BUD PRODUCTS IN
EACH OF ITS 7
STOCKING
WAREHOUSES.

In its 112,000 square feet of space Bud has the facilities for large scale production. It is the nation's leading producer of sheet metal enclosures and accessories. Its cabinets, racks, cases, boxes and other fabrications are overwhelmingly preferred by this country's major manufacturers and assemblers. Bud products are used principally by the electronic, nuclear energy, aerospace, communications and instrument industries.

Each Bud product is the result of specialized engineering and fabrication processes. All material has been selected to provide the maximum service.

All Bud cabinets, chassis and other components are produced in a wide range of sizes so that the engineer and designer can select the proper type and size for his purpose without compromising the physical properties of his system. There are 1,500 sheet metal products from which to choose.

In addition to offering a myriad of standard products Bud offers special sheet metal fabrication for one or a thousand pieces. Your Newark Sales Engineer will be happy to explain this service.

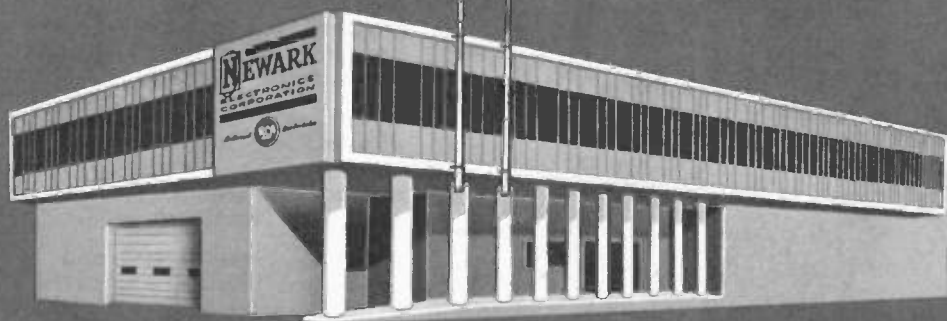


See Index for Complete Listing of Bud Products.

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NEWARK HAS A NEW HEADQUARTERS!



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2114 S. Division Avenue
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Newark-Denver Electronics Supply Corp.
2170 S. Grape Street
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Newark-Herrlinger Electronics Corp.
112 E. Liberty Street
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Phone: 513 421-5282
TWX: 810-461-2662

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Semiconductor Directory

KEY TO SEMICONDUCTOR MANUFACTURERS

AMP —Amperex
 BEN —General Electric
 GE —General Electric
 GI —General Instrument

HOF —Hoffman
 HUG —Hughes Aircraft
 INT —International Rectifier
 MOT —Motorola

RCA —Radio Corp. of America
 RAY —Raytheon
 SAR —Sarkis-Tarzian
 SPR —Sprague

SYL —Sylvania
 TI —Texas Instruments
 WES —Westinghouse

Type No.	Mfr.	1-9	10-99	100-999	1000-up
IN21B	SYL	.67	.58	.53	.....
IN21BMR	SYL	2.04	1.76	.....	.....
IN21BR	SYL	1.02	.88	.81	.....
IN21C	SYL	1.02	.88	.81	.....

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN21CM	SYL	2.43	2.12	1.94	.....

Type No.	Mfr.	1-9	10-99	100-999	1000-up
IN21CR	SYL	1.41	1.22	1.12	.....
IN21D	SYL	2.45	2.10	1.93	.....
IN21EMR	SYL	12.60	10.80	9.90	.....
IN21F	SYL	8.10	6.90	6.35	.....
IN21FMR	SYL	24.30	20.70	19.05	.....
IN21G	SYL	12.60	10.80	9.90	.....
IN21WE	SYL	5.25	4.50	4.15	.....
IN23B	SYL	.67	.58	.54	.....
IN23BR	SYL	1.02	.88	.81	.....
IN23C	SYL	1.02	.88	.81	.....
IN23CM	SYL	2.43	2.12	1.94	.....
IN23CR	SYL	1.41	1.22	1.12	.....
IN23D	SYL	2.45	2.10	1.93	.....

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN23DM	SYL	6.13	5.28	4.84	.....

Type No.	Mfr.	1-9	10-99	100-999	1000-up
IN23DR	SYL	3.68	3.16	2.90	.....
IN23E	SYL	4.20	3.60	3.30	.....
IN23ER	SYL	6.30	5.40	4.95	.....
IN23F	SYL	8.10	6.90	6.35	.....
IN23G	SYL	12.60	10.80	9.90	.....
IN23WE	SYL	5.25	4.50	4.15	.....
IN25	SYL	3.53	3.03	2.74	.....
IN26	SYL	6.50	5.60	5.10	.....
IN26A	SYL	7.75	6.60	6.05	.....
IN26AM	SYL	19.30	16.60	15.20	.....
IN26AMR	SYL	23.00	19.75	18.20	.....
IN26AR	SYL	11.65	10.99	9.15	.....
IN26B	SYL	27.25	23.70	21.75	.....
IN26BM	SYL	68.00	58.40	53.50	.....
IN26BMR	SYL	81.75	71.25	65.30	.....
IN26C	SYL	31.15	27.80	25.50	.....
IN26CM	SYL	77.85	69.50	63.75	.....
IN26CMR	SYL	96.40	82.50	76.45	.....
IN26M	SYL	16.15	13.85	12.75	.....
IN26MR	SYL	19.45	16.70	15.30	.....
IN26R	SYL	9.90	8.50	7.80	.....

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN34	AMP	.23	.....	.15	.....
IN34	GI	.30	.....	.23	.....
IN34	GE	.35	.....	.23	.....
IN34A	HUG	.23	.....	.20	.....
IN34A	SYL	.30	.....	.23	.14
IN34A	AMP	.39	.....	.26	.....
IN34A	GI	.30	.....	.23	.....
IN34A	GE	.35	.....	.23	.....

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN34AS	SYL	.30	.....	.23	.14
IN34AS	GE	.32	NET	.....	.....
IN35	SYL	1.58	.....	1.21	.99
IN35S	SYL	1.58	.....	1.21	.99
IN38	GI	.49	.....	.38	.....
IN38	AMP	.75	.....	.55	.....
IN38A	SYL	.49	.....	.38	.16
IN38A	GI	.49	.....	.38	.....
IN38AL	SYL	1.22	.....	.95	.....

Type No.	Mfr.	1-99	10-99	100-999	1000-up
IN38B	SYL	.49	.49	.38	.16

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN38BS	SYL	.49	.....	.38	.16
IN48	SYL	.30	.....	.20	.14
IN48S	SYL	.30	.....	.20	.14
IN50	GI	.30	.....	.22	.....
IN51	GI	.30	.....	.22	.....
IN52	GI	.38	.....	.24	.....
IN52A	SYL	1.06	.....	.83	.66
IN53	SYL	23.20	19.80	18.25	.....

Type No.	Mfr.	1-9	10-99	100-999	1000-up
IN53BM	SYL	74.50	64.00	58.50	.....
IN53BMR	SYL	98.45	84.25	77.25	.....
IN53C	SYL	46.79	40.25	37.45	.....
IN53CM	SYL	116.95	100.00	93.60	.....
IN53CMR	SYL	140.40	123.50	112.30	.....
IN53D	SYL	73.50	63.00	57.80	.....
IN53M	SYL	58.10	49.90	46.55	.....
IN53MR	SYL	72.75	62.50	57.00	.....

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN54	GI	.42	.....	.32	.....
IN54A	SYL	.42	.....	.32	.17
IN54A	GI	.42	.....	.32	.....
IN54AS	SYL	.42	.....	.32	.17
IN55	GI	.55	.....	.41	.....
IN55A	SYL	.40	.....	.31	.14
IN55AS	SYL	.40	.....	.31	.14
IN55B	GI	1.07	.....	.82	.....
IN55B	GI	1.07	.....	.82	.....
IN56	GI	.39	.....	.31	.....
IN56A	GI	.44	.....	.36	.....

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN58	GI	.55	.....	.41	.....
IN58AS	SYL	.55	.....	.41	.23
IN60	SYL	.30	.....	.23	.18
IN60	GI	.30	.....	.23	.....
IN60	GE	.48	NET	.....	.....
IN63	SYL	.36	.....	.28	.22
IN63	GI	.36	.....	.28	.....
IN63	GI	.36	.....	.28	.....
IN63S	SYL	.42	.....	.28	.22
IN64	SYL	.30	.....	.23	.18

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN64	GI	.30	.....	.23	.....
IN64	GE	.35	.....	.23	.....
IN64A	GI	.49	.....	.40	.....
IN65	SYL	.48	.....	.35	.30
IN66	GI	.39	.....	.30	.....
IN66A	GI	.39	.....	.30	.....
IN67	GI	.49	.....	.40	.....
IN67A	HUG	.58	.....	.44	.....
IN67A	GI	.49	.....	.40	.....
IN67A	AMP	.30	.....	.20	.....
IN67A	SYL	.28	.....	.21	.14
IN68	GI	.70	.....	.55	.....
IN68A	SYL	.28	.....	.21	.14
IN68A	GI	.70	.....	.55	.....
IN69	GI	.38	.....	.29	.....
IN69	GE	.35	.....	.23	.....
IN69	SYL	.30	.....	.23	.18
IN69A	SYL	.30	.....	.23	.18
IN69AL	SYL	.72	.....	.56	.....
IN70	SYL	.78	.....	.38	.30

Type No.	Mfr.	1-99	10-99	100-999	1000-up
IN76A	SYL	2.60	2.23	2.04	.....
IN78	SYL	4.50	3.85	3.54	.....
IN78A	SYL	5.00	4.28	3.99	.....
IN78E	SYL	7.00	6.00	5.50	.....
IN78E	SYL	31.50	27.00	.....	.....
IN78F	SYL	56.00	48.00	.....	.....

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN81A	SYL	.48	.....	.36	.30
IN82	SYL	.70	.....	.55	.44
IN82A	SYL	.70	.....	.55	.51
IN82AG	SYL	.91	.....	.71	.61
IN86	HUG	.46	.....	.35	.....
IN87A	AMP	.20	.....	.13	.....
IN87A	GE	.24	.....	.16	.....
IN88	GI	.51	.....	.38	.....
IN89	GI	.60	.....	.45	.....
IN90	HUG	.33	.....	.22	.....
IN90	GI	.33	.....	.22	.....

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN90	SYL	.33	.....	.22	.....
IN90	GE	.33	.....	.22	.14
IN91	GE	.33	.....	.22	.....
IN91	MOT	.90	.....	.60	.....
IN92	GE	.82	.....	.55	.....
IN92	MOT	1.95	.....	1.30	.....
IN93	GE	1.95	.....	1.30	.....
IN93	MOT	2.70	.....	1.80	.....
IN95	HUG	2.70	.....	1.80	.....
IN95	GI	.51	.....	.34	.....
IN96	HUG	.59	.....	.44	.....

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN96A	HUG	.59	.....	.44	.....
IN96A	GI	.57	.....	.38	.....
IN97	OHM	.57	.....	.38	.....
IN97	GI	.55	.....	.41	.34
IN97A	GI	.68	.....	.44	.....

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN98	HUG	.48	.....	.38	.....
IN98	SYL	.31	.....	.24	.12
IN98A	HUG	.48	.....	.38	.....
IN98A	GI	.57	.....	.38	.....
IN99	SYL	.50	.....	.39	.16
IN99	HUG	.50	.....	.39	.....
IN100	SYL	.32	.....	.27	.12
IN100	HUG	.50	.....	.39	.....
IN100	GI	.51	.....	.40	.....
IN100A	HUG	.50	.....	.39	.....

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN102	GI	2.25	.....	1.50	.....
IN115	SYL	5.00	4.00	.....	.....
IN116	HUG	.53	.....	.40	.....
IN116	SYL	.49	.....	.36	.13
IN116	GE	.54	.....	.36	.....
IN116A	GI	.49	.....	.36	.....
IN117	GI	.51	.....	.38	.....
IN118	HUG	.61	.....	.46	.....
IN118	SYL	.23	.....	.20	.13
IN118A	GI	.50	.....	.41	.....

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN118A	HUG				

Semiconductor Directory

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up	Type No.	Mfr.	1-99	100 Mix	100-999	1000-up	Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN249A	WES	2.54		1.69		IN429	INT	5.00		4.10		IN469A	HUG	3.50		2.60	
IN249B	WES	2.45		1.69		IN429	HOF	5.70	5.15	4.35		IN469A	INT	4.35		3.25	
IN249B	MOT	1.72		1.15		IN429	MOT	5.45	4.70	4.10		IN470	HUG	3.00		2.25	
IN249C	GE	2.03		1.35		IN430	INT	15.50		12.40		IN470	HOF	3.75	3.40	2.81	
IN250	GE	2.48		1.65		IN430	HOF	16.00	14.40	12.45		IN470A	HUG	3.50		2.60	
IN250A	GE	2.48		1.65		IN430A	HOF	24.00	21.60	18.70		IN470A	INT	4.35		3.25	
IN250B	GE	2.48		1.65		IN440	INT	.66		.44		IN471	HOF	5.20	4.70	3.90	
IN250B	WES	3.63		2.42		IN440	GE	.66		.44		IN472	HOF	5.20	4.70	3.90	
IN250B	MOT	2.45		1.65		IN440B	TI	.66		.44		IN473	HOF	5.20	4.70	3.90	
IN250C	GE	2.78		1.85		IN440B	INT	.66		.44		IN474	HOF	5.20	4.70	3.90	
IN250C	RCA	2.72		1.82		IN440B	GE	.66		.44		IN475	HOF	5.20	4.70	3.90	
IN251	GE	.65		.43		IN441	GE	.69		.46		IN480	GI	1.80		1.20	
IN251	TI	.65		.43		IN441B	TI	.69		.46		IN482	SYL	.66		.44	.19
IN251	SYL	.65		.43	.18	IN441B	GE	.69		.46		IN482	TI	.59		.46	
IN251	HUG	1.40		1.05		IN442B	INT	.79		.53		IN482	GI	.59		.48	
IN252	SYL	.65		.43	.18	IN442B	GE	.79		.53		IN482	RAY	.58		.44	
IN252	HUG	.91		.68		IN443	GE	.98		.65		IN482A	SYL	.69		.46	.19
IN253	GE	1.05		.70		IN443B	TI	.97		.65		IN482A	TI	.59		.46	
IN253	TI	1.05		.70		IN443B	INT	1.10		.73		IN482A	RAY	.59		.46	
IN254	TI	1.13		.75		IN443B	GE	.98		.65		IN482B	RAY	.59		.46	
IN255	GE	1.58		1.05		IN443B	RCA	.98		.65		IN483	SYL	.70		.47	.19
IN255	TI	1.72		1.15		IN444	INT	1.12		.75		IN483	TI	.61		.47	
IN270	GI	.32		.25		IN444	GE	1.05		.70		IN483	RAY	.61		.47	
IN270	HUG	.32		.25		IN444B	TI	1.05		.70		IN483A	SYL	.70		.47	.19
IN270	SYL	.32		.25	.11	IN444B	GE	1.05		.70		IN483A	TI	.61		.47	
IN273	HUG	.68		.51		IN445	GE	1.43		.95		IN483B	SYL	.70		.47	.19
IN276	SYL	.31		.24	.12	IN445B	GE	1.43		.95		IN483B	TI	.61		.47	
IN276	HUG	.31		.24		IN445B	RCA	1.42		.95		IN483B	GI	.61		.47	
IN276	GI	.31		.24		IN445B	GI	1.60		1.07		IN483B	RAY	.61		.47	
IN277	SYL	.34		.26	.14	IN448	HUG	1.00		.75		IN484	SYL	.70		.47	.22
IN277	GI	.34		.26		IN450	HUG	1.02		.77		IN484	TI	.71		.55	
IN277	HUG	.34		.26		IN456	SYL	.42		.28	.18	IN484	RAY	.71		.55	
IN278	HUG	1.03		.77		IN456	TI	.37		.28		IN484A	SYL	.70		.47	.22
IN279	SYL	.29		.22	.17	IN456	RAY	.36		.28		IN484A	TI	.71		.55	
IN279	HUG	.29		.22		IN456A	SYL	.42		.28	.18	IN484B	SYL	.70		.47	.22
IN279	GI	.29		.22		IN456A	TI	.37		.29		IN484B	TI	.71		.55	
IN279	GE	.33		.22		IN456A	RA	.36		.28		IN485	SYL	.90		.60	.24
IN281	SYL	.31		.24	.14	IN457	SYL	.45		.30	.19	IN485	TI	.85		.60	
IN281	HUG	.31		.24		IN457	TI	.45		.36		IN485A	SYL	.90		.60	.24
IN281	GI	.31		.24		IN457	RAY	.44		.35		IN485A	TI	.85		.60	
IN281	GE	.36		.24		IN457A	SYL	.45		.30	.19	IN485B	SYL	.90		.60	.24
IN283	SYL	.51		.40	.15	IN457A	TI	.45		.36		IN485B	TI	.85		.60	
IN283	HUG	.51		.40		IN457A	RAY	.44		.35		IN485B	RAY	.90		.60	
Type No.	Mfr.	1-99	10-999	100-999	1000-up	IN458	SYL	.48		.32	.21	IN486	SYL	.90		.60	.26
IN286	SYL	41.05	35.20	32.70		IN458	TI	.51		.40		IN486	TI	1.25		.98	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up	IN458	TI	.51		.42		IN486A	RAY	1.25		.98	
IN287	HUG	.42		.32		IN458	RAY	.50		.38		IN486B	SYL	.89		.60	.35
IN287	GI	.43		.28		IN458A	SYL	.48		.32	.21	IN486B	TI	.90		.60	.26
IN288	GI	.53		.40		IN458A	TI	.51		.40		IN486B	SYL	1.25		.98	
IN289	GI	.66		.50		IN458A	RAY	.50		.38		IN487	SYL	1.05		.70	.35
IN290	HUG	.66		.50		IN459	HOF	.66		.50		IN487A	SYL	1.41		.94	.38
IN291	GI	.84		.63		IN459	SYL	.51		.34	.21	IN488	SYL	1.17		.78	.45
IN282	HUG	.60		.45		IN459	TI	.66		.51		IN488A	SYL	1.78		1.19	.49
IN294	SYL	.34		.26	.15	IN459A	RAY	.66		.51		IN488A	TI	3.29		2.51	
IN295	SYL	.35		.27	.15	IN459A	TI	.66		.51		IN489	GI	.89		.79	
IN295	GI	.35		.27		IN461	SYL	.42		.28	.18	IN497	HUG	.45		.34	
IN295	GE	.35		.27		IN461	TI	.35		.28		IN497	SYL	.39		.30	.14
IN295A	GE	.41		.27		IN461	RAY	.35		.28		IN497	GI	.45		.34	
IN297	SYL	.34		.26	.14	IN461	TI	.35		.28		IN498	HUG	.50		.39	
IN297	GI	.68		.33		IN461	RAY	.35		.28		IN498	SYL	.44		.35	.15
IN298	SYL	.45		.30	.27	IN461	TI	.35		.28		IN499	GI	.93		.62	
IN298	HUG	.68		.53		IN461/	HD6001	.96		.72		IN500	GI	.53		.41	
IN298A	GI	.45		.30		IN461A	HUG	.96		.72		IN501	GI	1.25		.90	
IN304	GI	1.98		1.32		IN461A	SYL	.42		.28	.18	IN530	TI	.50		.33	
IN309	GI	.85		.72		IN461A	TI	.35		.28		IN531	TI	.53		.35	
IN313	GI	1.18		.79		IN461A	RAY	.35		.28		IN532	TI	.60		.40	
IN319A	HUG	3.50		2.60		IN462	SYL	.44		.29	.19	IN534	TI	.76		.51	
IN332	TI	1.72		1.15		IN462	TI	.38		.30		IN536	INT	.45		.30	
IN333	TI	1.72		1.15		IN462	RAY	.38		.28		IN536	GE	.45		.30	
IN335	TI	1.42		.95		IN462A	SYL	.44		.29	.19	IN536	TI	.45		.30	
IN342	TI	1.72		.95		IN462A	RAY	.38		.28	.22	IN536	WES	.40		.29	
IN343	TI	1.42		.95		IN463	SYL	.54		.36		IN536	RCA	.45		.30	
IN346	HUG	1.10		.74		IN463	TI	.46		.36	.22	IN537	GE	.50		.33	
IN347	TI	1.05		.70		IN463A	SYL	.54		.36		IN537	TI	.49		.33	
IN348	TI	1.05		.70		IN463A	RAY	.46		.36		IN537	RCA	.50		.33	
Type No.	Mfr.	1-99	10-999	100-999	1000-up	IN464	SYL	.53		.35	.21	IN537	WES	.45		.30	
IN358A	SYL	19.25	16.50	15.15		IN464	TI	.45		.35		IN538	GE	.53		.35	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up	IN464A	SYL	.53		.35	.21	IN538	INT	.53		.35	
IN368	GE	2.55		1.70		IN465	HUG	3.00		2.25		IN538	GI	.53		.35	
Type No.	Mfr.	1-99	10-999	100-999	1000-up	IN465	HOF	3.75	3.40	2.81		IN538	TI	.52		.35	
IN369	SYL	27.35	23.50	21.50		IN465A	HUG	3.50		2.60		IN538	RCA	.53		.36	
IN415E	SYL	4.20	3.60	3.30		IN465A	INT	4.35		3.25		IN538	WES	.50		.33	
IN415G	SYL	12.60	10.80	9.90		IN466	HUG	3.00		2.25		IN539	GE	.60		.40	
IN416B	SYL	.68	.58	.53		IN466	HOF	3.75	3.40	2.81		IN539	TI	.80		.40	
IN416E	SYL	4.20	3.60	3.30		IN466A	HUG	3.50		2.60		IN539	RCA	.60		.41	
IN416F	SYL	8.10	6.90	6.35		IN466A	INT	4.35		3.25		IN539	WES	.60		.45	
IN4166	SYL	12.60	10.80	9.90		IN467	HOF	3.75	3.40	2.81		IN540	WES	.75		.50	
						IN467A	HUG	3.50		2.60		IN540	GE	.68		.45	
						IN467A	INT	4.35		3.25		IN540	INT	.68		.45	
						IN468	HUG	3.00		2.25		IN540	TI	.68		.46	
						IN468	HOF	3.75	3.40	2.81		IN540	GI	.67		.45	
						IN468A	HUG	3.50		2.60		IN540	RCA	.68		.46	
						IN468A	INT	4.35		3.25		IN541	AMP	.21		.14	
						IN469	HUG	3.00		2.25		IN541	GE	.30		.20	
						IN469	HOF	3.75	3.40	2.81							

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Type No.	Mfr.	1-99	100 Mix	100-999	1000-up	Type No.	Mfr.	1-99	100 Mix	100-999	1000-up	Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
1N542	AMP	.45		.30		1N658	RAY	1.80		1.20		1N710A	HOF	2.60	2.34	1.95	
1N542	GE	.62		.41		1N658A	RAY	2.25		1.76		1N711	INT	1.50	1.38	1.25	.95
1N547	INT	.96		.64		1N659	HUG	.91		.68		1N711	HOF	1.85	1.65	1.38	
1N547	GE	.96		.64		1N659	SYL	.58		.39	.17	1N711	RAY	1.40		1.20	
1N547	TI	.96		.64		1N659	TI	.58		.39		1N711A	HOF	2.60	2.34	1.95	
1N547	RCA	.96		.64		1N659	RAY	.78		.44		1N711A	INT	1.75	1.63	1.50	1.14
1N547	WES	.95		.65		1N660	TI	.69		.46		1N711A	HUG	2.30		1.70	
1N548	GI	18.27		12.10		1N660	RAY	.98		.46		1N712	INT	1.50	1.38	1.25	.95
1N560	GE	1.80		1.20		1N661	TI	1.75		1.30		1N712	HOF	1.85	1.65	1.38	
1N560	WES	1.39		.95		1N661	RAY	1.95		1.32		1N712	RAY	1.40		1.20	
1N560	TI	1.50		1.00		1N662	TI	.66		.44		1N712	HUG	1.80		1.35	
1N561	WES	3.32		2.21		1N662	HUG	1.00		.78		1N712A	HOF	2.60	2.34	1.95	
1N561	TI	2.70		1.80		1N662	RAY	.92		.44		1N712A	HUG	2.30		1.70	
1N588	TI	6.30		4.25		1N662	SYL	.92		.44	.24	1N713	INT	1.50	1.38	1.25	.95
1N596/						1N662A	HUG	1.96		1.47		1N713	HOF	1.85	1.65	1.38	
EM1J2	INT	5.00				1N663	TI	1.20		.80		1N713	RAY	1.40		1.20	
1N597	HUG	5.60		4.87		1N663	HUG	1.54		1.13		1N713	HUG	1.80		1.35	
1N597/						1N663	SYL	1.20		.80	.26	1N713A	INT	1.75	1.63	1.50	1.14
FM1J2	INT	6.00				1N676	GE	.93		.62		1N713A	HUG	2.30		1.70	
1N598/						1N677	GE	1.05		.70		1N713A	HOF	2.60	2.34	1.95	
GM1J2	INT	8.50				1N678	GE	1.23		.82		1N714	INT	1.50	1.38	1.25	.95
1N599	GE	.47		.31		1N679	GE	1.95		.90		1N714	HOF	1.85	1.65	1.38	
1N600	GE	.49		.33		1N681	GE	1.53		1.02		1N714	RAY	1.40		1.20	
1N600/						1N690	RAY	2.86		1.92		1N714	HUG	1.80		1.35	
3BS1	INT	.53		.38		1N691	RAY	3.38		2.25		1N714A	INT	1.75	1.63	1.50	1.14
1N600A	GE	.63		.42		1N693	RAY	7.72		6.02		1N714A	TI	2.80		2.10	
1N601/						1N695	HUG	.77		.58		1N714A	HUG	2.30		1.70	
3CS1	INT	.54		.36		1N695	SYL	.30		.24	.14	1N714A	HOF	2.60	2.34	1.95	
1N602	TI	.52		.35		1N695A	HUG	.98		.74		1N715	INT	1.50	1.38	1.25	.95
1N602A	GE	.66		.44		1N697	RAY	4.20		2.95		1N715	HOF	1.85	1.65	1.38	
1N603	GE	.60		.40		1N702	INT	1.50	1.38	1.25	.95	1N715	RAY	1.40		1.20	
1N603/						1N702	HUG	1.80		1.35		1N715	HUG	1.80		1.35	
3ES1	INT	.66		.44		1N702	TI	2.10		1.60		1N715A	INT	1.75	1.63	1.50	
1N604/						1N702/						1N715A	HOF	2.60	2.34	1.95	
3FS1	INT	.81		.54		GZ-1	HOF	2.10	1.90	1.60		1N715A	HUG	2.30		1.70	
1N604A	TI	.79		.53		1N702A	HOF	2.60	2.34	1.95		1N716	INT	1.50	1.38	1.25	.95
1N605	GE	.76		.51		1N703	INT	1.50	1.38	1.25	.95	1N716	HOF	1.85	1.65	1.38	
1N605/						1N703	TI	2.10		1.60		1N716	RAY	1.40		1.20	
3GS1	INT	.90		.60		1N703	HUG	1.80		1.35		1N716	HUG	1.80		1.35	
1N606	GE	.96		.64		1N703/						1N716A	HUG	2.30		1.70	
1N606/						GZ-2	HOF	1.85	1.65	1.38		1N716A	HOF	2.60	2.34	1.95	
3HS1	INT	1.19		.79		1N703A	HOF	2.60	2.34	1.95		1N717	INT	1.50	1.38	1.25	.95
1N606A/						1N703A	INT	1.75	1.63	1.50	1.14	1N717	HOF	1.85	1.65	1.38	
3HS2	INT	2.00		1.35		1N704	INT	1.50	1.38	1.25	.95	1N717	RAY	1.40		1.20	
1N607	GE	1.01		.67		1N704/						1N717	TI	2.35		1.75	
1N608	TI	1.05		.70		GZ-3	HOF	1.85	1.65	1.38		1N717A	HOF	2.60	2.34	1.95	
1N610	TI	1.12		.75		1N704A	HUG	2.30		1.70		1N717A	HUG	2.30		1.70	
1N614	GE	2.40		1.60		1N704A	HOF	2.60	2.34	1.95		1N717A	RAY	2.30		1.70	
1N617	AMP	.27		.18		1N705	INT	1.50	1.38	1.25	.95	1N717A	INT	1.75	1.63	1.50	.95
1N625	SYL	.43		.29	.18	1N705	HUG	1.80		1.35		1N718	INT	1.58	1.38	1.25	.95
1N625	HUG	.54		.33		1N705	RAY	1.40		1.20		1N718	HOF	1.85	1.65	1.38	
1N625	TI	.43		.29		1N705/						1N718	RAY	1.40		1.20	
1N625	RAY	.54		.33		GZ-4	HOF	1.85	1.65	1.38		1N718	HUG	2.10		1.58	
1N626	SYL	.45		.30	.19	1N705A	INT	1.75	1.63	1.50	1.14	1N718	TI	2.35		1.75	
1N626	HUG	.70		.53		1N705A	HOF	2.60	2.34	1.95		1N718A	HUG	2.53		1.90	
1N626	TI	.43		.30		1N705A	TI	2.80		2.10		1N718A	HOF	2.60	2.34	1.95	
1N627	SYL	.60		.39	.21	1N705A	HUG	2.30		1.70		1N719	INT	1.50	1.38	1.25	.95
1N627	HUG	1.26		.95		1N706	INT	1.50	1.38	1.25	.95	1N719	HOF	1.85	1.65	1.38	
1N627	TI	.72		.47		1N706	HUG	1.80		1.35		1N719	RAY	1.40		1.20	
1N627	RAY	.67		.39		1N706	RAY	1.40		1.20		1N719	TI	2.35		1.75	
1N628	SYL	.72		.47	.22	1N706/						1N719A	HUG	2.30		1.70	
1N628	TI	.72		.47		GZ-5	HOF	1.85	1.65	1.38		1N719A	HUG	2.53		1.90	
1N628	RAY	.81		.47		1N706A	HOF	2.60	2.34	1.95		1N719A	HOF	2.60	2.34	1.95	
1N629	SYL	.81		.54	.24	1N706A	TI	2.95		2.20		1N720	HOF	1.85	1.65	1.38	
1N629	TI	.86		.55		1N706A	HUG	2.30		1.70		1N720	RAY	1.40		1.20	
						1N706A	INT	1.50	1.38	1.25	.95	1N720	HUG	2.10		1.58	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up	1N707	INT	1.50	1.38	1.25	.95	1N720	INT	1.50		1.25	.95
1N630R	SYL	53.50	45.80	42.00		1N707	TI	2.10		1.60		1N720	TI	2.35		1.75	
						1N707	HUG	1.80		1.35		1N720A	HOF	2.60	2.34	1.95	
						1N707	RAY	1.40		1.20		1N720A	HUG	3.21		2.41	
						1N707/						1N720A	INT	1.75	1.63	1.50	1.14
						GZ-6	HOF	1.85	1.65	1.38		1N721	HUG	1.98		1.49	
1N631	SYL	.80		.63	.50	1N707A	HOF	2.60	2.34	1.95		1N721	HOF	1.85	1.65	1.38	
1N631	GI	.80		.63		1N707A	INT	1.75	1.63	1.50	1.14	1N721	INT	1.50		1.25	.95
1N632	GI	.70		.54		1N707A	TI	2.95		2.20		1N721	TI	2.35		1.75	
1N633	SYL	.83		.65	.35	1N707A	HUG	2.30		1.70		1N721A	HUG	2.53		1.90	
1N633	GI	1.43		1.14		1N708	INT	1.50	1.38	1.25	.95	1N721A	HOF	2.60	2.34	1.95	
1N634	GI	1.02		.73		1N708	HOF	1.85	1.65	1.38		1N721A	INT	1.75	1.63	1.50	1.14
1N636	GI	.37		.28		1N708	HUG	2.30		1.70		1N722	INT	1.50		1.25	.95
1N643	TI	1.33		1.00		1N708	RAY	1.40		1.20		1N722	TI	2.35		1.75	
1N643A	SYL	1.50		1.00	.22	1N708A	INT	1.75	1.63	1.50	1.14	1N722A	HUG	2.53		1.90	
1N645	TI	1.40		.85		1N708A	HOF	2.60	2.34	1.95		1N722A	HOF	2.60	2.34	1.95	
1N645	GE	1.40		.85		1N709	INT	1.50	1.38	1.25	.95	1N722A	INT	1.75	1.63	1.50	1.14
1N645A	GE	1.65		1.10		1N709	HOF	1.85	1.65	1.38		1N723	HOF	1.85	1.65	1.38	
1N646	GE	1.65		1.10		1N709	TI	2.10		1.60		1N723	TI	2.35		1.75	
1N646	TI	1.65		1.10		1N709	HUG	1.80		1.35		1N723A	HOF	2.60	2.34	1.95	
1N647	GE	1.80		1.20		1N709	RAY	1.40		1.20		1N723A	INT	1.75	1.63	1.50	1.14
1N647	TI	1.80		1.20		1N709A	INT	1.75	1.63	1.50	1.14	1N724	HOF	1.85	1.65	1.38	
1N648	GE	1.95		1.30		1N709A	TI	2.80		2.10		1N724	INT	1.50		1.25	.95
1N648	TI	1.95		1.30		1N709A	HOF	2.60	2.34	1.95		1N724	TI	2.35		1.75	
1N649	GE	2.50		1.65		1N710	INT	1.50	1.38	1.25	.95	1N724A	HOF	2.60	2.34	1.95	
1N649	TI	2.50		1.65		1N710	HOF	1.85	1.65	1.38		1N7					

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Type No.	Mfr.	1-99	100 Mix	100-999	1000-up	Type No.	Mfr.	1-99	100 Mix	100-999	1000-up	Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN725A	HOF	2.60	2.34	1.95		IN753A	HUG					IN769A	INT	1.80	1.68	1.55	
IN725A	INT	1.75	1.63	1.50	1.14	IN753A	INT	1.75	1.63	1.50	.87	IN770	OHM	.62			.47
IN726	TI	2.35		1.75		IN753A	TI	2.05		1.51		IN770	HUG	.78			.58
IN726A	HOF	2.60	2.34	1.95		IN754	INT	1.50	1.38	1.25	.95	IN770	SYL	.48			.39
IN727	HOF	1.85	1.65	1.38		IN754	HOF	1.90		1.42		IN770	GI	.48			.38
IN727A	HOF	2.60	2.34	1.95		IN754	MOT	2.00	1.70	1.50		IN771	GI	.70			.40
IN728A	HOF	2.60	2.34	1.95								IN771A	GI	1.40			1.00
IN729	HOF	1.85	1.65	1.38								IN771B	HUG	1.28			.96
IN729A	HOF	2.60	2.34	1.95								IN772	GI	.75			.50
IN730A	HOF	2.60	2.34	1.95								IN772	HUG	.68			.50
IN731A	HOF	2.60	2.34	1.95								IN773A	HUG	.72			.54
IN732A	HOF	2.60	2.34	1.95								IN774	GI	.44			.29
IN733	HOF	1.85	1.65	1.38								IN775	GI	.70			.40
IN733A	HOF	2.60	2.34	1.95								IN775A	GI	.80			.50
IN734	HOF	2.60	2.34	1.95								IN775	HUG	.58			.44
IN735	HOF	1.85	1.65	1.38								IN776	HUG	.32			.24
IN735A	HOF	2.60	2.34	1.95								IN776	GI	.32			.21
IN736	HOF	1.85	1.65	1.38								IN777/					
IN736A	HOF	2.60	2.34	1.95								GTD990	GI	.87			.72
IN737	HOF	1.85	1.65	1.38								IN781	HUG	.90			.68
IN737A	HOF	2.60	2.34	1.95								IN789	RAY	.65			.51
IN738	HOF	1.85	1.65	1.38								IN789	GE	.77			.51
IN738A	HOF	2.60	2.34	1.95								IN791	GE	.77			.51
IN739A	HOF	2.60	2.34	1.95								IN793	GE	.93			.62
IN740	HOF	1.85	1.65	1.38								IN794	GE	.93			.62
IN740A	HOF	2.60	2.34	1.95								IN795	GE	.93			.62
IN741A	HOF	2.60	2.34	1.95								IN805	SYL	.29			.16
IN742	HOF	1.85	1.65	1.38								IN811	HUG	.70			.53
IN742A	HOF	2.60	2.34	1.95								IN812	HUG	.98			.74
IN743A	HOF	2.60	2.34	1.95								IN813	HUG	.77			.54
IN744A	HOF	2.60	2.34	1.95								IN814	HUG	1.47			1.10
IN745	HOF	1.85	1.65	1.38								IN815	HUG	.91			.68
IN745A	HOF	2.60	2.34	1.95								IN816	SYL	.52			.35
IN746	INT	1.50	1.38	1.25	.95							IN816W	SYL	.52			.35
IN746	HOF	1.90		1.42								IN818	HUG	1.12			.84
IN746	MOT	2.00	1.70	1.50													
IN746	HUG																
IN746	TI	1.50		1.10													
IN746A	MOT	2.75	2.35	2.05													
IN746A	HUG																
IN746A	TI	2.05		1.51													
IN747	INT	1.50	1.38	1.25	.95												
IN747	MCT	2.00	1.70	1.50													
IN747	TI	1.50		1.10													
IN747A	TI	2.15	1.94	1.61													
IN747A	MOT	2.75	2.35	2.05													
IN747A	INT	1.75	1.63	1.50	.87												
IN747A	TI	2.05		1.51													
IN748	INT	1.50	1.38	1.25	.95												
IN748	MOT	2.00	1.70	1.50													
IN748	TI	1.50		1.10													
IN748A	MOT	2.75	2.35	2.05													
IN748A	INT	1.75	1.63	1.50	.87												
IN748A	TI	2.05		1.51													
IN748A	HOF	2.15	1.94	1.61													
IN749	INT	1.50	1.38	1.25	.95												
IN749	HOF	1.90		1.42													
IN749	MOT	2.00	1.70	1.50													
IN749	TI	1.50		1.10													
IN749A	MOT	2.75	2.35	2.05													
IN749A	INT	1.75	1.63	1.50	.87												
IN749A	TI	2.05		1.51													
IN750	INT	1.50	1.38	1.25	.95												
IN750	HOF	1.90		1.42													
IN750	MOT	2.00	1.70	1.50													
IN750	HUG																
IN750	TI	1.50		1.10													
IN750A	MOT	2.75	2.35	2.05													
IN750A	HUG																
IN750A	INT	1.75	1.63	1.50	1.14												
IN750A	TI	2.05		1.51													
IN751	INT	1.50	1.38	1.25	.95												
IN751	HOF	1.90		1.42													
IN751	MOT	2.00	1.70	1.50													
IN751	HUG	1.80		1.35													
IN751	TI	1.50		1.10													
IN751A	MOT	2.75	2.35	2.05													
IN751A	HUG	2.30		1.70													
IN751A	INT	1.75	1.63	1.50	.87												
IN751A	TI	2.05		1.51													
IN752	INT	1.50	1.38	1.25	.95												
IN752	HOF	2.00		1.50													
IN752	MOT	2.00	1.70	1.50													
IN752	HUG	1.80		1.35													
IN752	TI	1.50		1.10													
IN752A	MOT	2.75	2.35	2.05													
IN752A	INT	1.75	1.63	1.50	.87												
IN752A	TI	2.05		1.51													
IN753	INT	1.50	1.38	1.25	.95												
IN753	HOF	1.90		1.42													
IN753	MOT	2.00	1.70	1.50													
IN753	HUG	1.80		1.35													
IN753	TI	1.50		1.10													
IN753A	MOT	2.75	2.35	2.05													
IN754A	TI	1.50		1.10													
IN754A	MOT	2.75	2.35	2.05													
IN754A	INT	1.75	1.63	1.50	.87												
IN754A	TI	2.05		1.51													
IN755	INT	1.50	1.38	1.25	.95												
IN755	MOT	2.00	1.70	1.50													
IN755	HUG	1.80		1.35													
IN755	TI	1.50		1.10													
IN755A	HOF	2.15	1.94	1.61													
IN755A	MOT	2.75	2.35	2.05													
IN755A	INT	1.75	1.63	1.50	.87												
IN755A	TI	2.05		1.51													
IN756	INT	1.50	1.38	1.25	.95												
IN756	HOF	1.90		1.42													
IN756	MOT	2.00	1.70	1.50													
IN756	HUG	1.80		1.35													
IN756	TI	1.50		1.10													
IN756A	MOT	2.75	2.35	2.05													
IN756A	HUG	2.30		1.70													
IN756A	INT	1.75	1.63	1.50	.87												
IN756A	TI	2.05		1.51													
IN757	INT	1.50	1.38	1.25	.95												
IN757	HOF	1.90		1.42													
IN757	MOT	2.00	1.70	1.50													

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Type No.	Mfr.	1-9	10-99	100-999	1000-up
IN827A	INT	12.00	10.50	9.00	
Type No.	Mfr.	1-24	25-99	100-999	100 Mix
IN827ML1	MOT	11.60	10.00	8.00	8.80
IN827ML2	MOT	13.75	11.85	9.50	10.45
IN827ML3	MOT	17.40	15.00	120.00	13.20
IN829	MOT	16.30	14.05	11.25	12.35
IN829A	MOT	19.55	16.85	13.50	14.85
IN829ML1	MOT	17.05	14.70	11.75	12.90
IN829ML2	MOT	19.20	16.55	13.25	14.55
IN829ML3	MOT	31.15	26.85	21.50	23.65
Type No.	Mfr.	1-9	10-99	100-999	1000-up
IN830	SYL	2.95	2.53	2.35	
IN830A	SYL	3.85	3.30	3.00	
IN831	SYL	6.85	5.87	5.40	
IN831A	SYL	10.90	9.35	8.60	
IN832	SYL	6.85	5.87	5.40	
IN832A	SYL	10.90	9.35	8.60	
IN833A	SYL	13.95	11.95	10.95	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN837	HUG	2.59		1.94	
IN844	HUG	2.27		1.70	
IN891	HUG	1.89		1.42	
IN903	GE	1.02		.68	
IN903	HUG	1.40		1.05	
IN903	RAY	1.50		1.00	
IN903A	SYL	1.02		.68	.31
IN903A	GE	1.17		.78	
IN903A	HUG	1.47		1.10	
IN904	GE	.99		.66	
IN904	HUG	1.33		1.00	
IN904	RAY	1.35		1.00	
IN904A	HUG	1.40		1.05	
IN905	HUG	1.26		.95	
IN905A	SYL	1.55		1.09	.98
IN905A	HUG	1.33		1.00	
IN906	HUG	.98		.74	
IN906	SYL	.90		.60	.30
IN906A	SYL	1.13		.75	.39
IN906A	HUG	1.05		.79	
IN907	HUG	1.05		.79	
IN907A	HUG	1.12		.84	
IN908	SYL	.87		.58	.27
IN908	HUG	1.12		.84	
IN908A	SYL	1.02		.68	.30
IN908A	HUG	1.19		.89	
IN914	HUG	1.89		1.42	
IN914	SYL	.45		.30	.18
IN914	TI	.45		.30	
IN914	RAY	1.25		.65	
IN914/					
IN4148	GE	.45		.30	
IN914A	GE	.50		.33	
IN914A	TI	.50		.33	.18
IN914A	SYL	.50		.33	
IN914A	RAY	1.50		.90	
IN914B	GE	.81		.54	
IN914B	TI	1.35		.90	
IN914B	SYL	1.35		.90	.22
IN915	HUG	1.54		1.16	
IN916	HUG	2.17		1.63	
IN916	SYL	.75		.50	.32
IN916	TI	.67		.44	
IN916	RAY	1.40		.85	
IN916/					
IN4149	GE	.67		.44	
IN916A	TI	.75		.50	
IN916A	SYL	.75		.50	.32
IN916A	HUG	2.24		1.68	
IN916A	RAY	1.49		.92	
IN916B	TI	.92		.61	
IN916B	HUG	2.31		1.73	
IN916B	SYL	.92		.61	.51
IN917	HUG	1.92		1.44	
IN921	RAY	5.28		4.12	
IN923	RAY	9.03		6.96	
IN925	GE	2.25		1.50	
IN927	GE	3.00		2.00	
IN929	HUG	1.26		.95	
IN929	HUG	1.29		.95	
IN930	HUG	1.68		1.26	
IN933	HUG	.96		.72	
IN935	HOF	2.35	2.11	1.76	
Type No.	Mfr.	1-24	25-99	100 Mix	100-999
IN935	MOT	2.30	2.00	1.75	1.60
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN935	INT	1.60			

Type No.	Mfr.	1-24	25-99	100 Mix	100-999
IN935A	MOT	2.60	2.25	2.00	1.80
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN935A	INT	1.80			
Type No.	Mfr.	1-24	25-99	100 Mix	100-999
IN935B	MOT	3.55	3.05	2.70	2.45
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN935B	INT	2.45		2.20	
Type No.	Mfr.	1-24	25-99	100-999	100 Mix
IN935BML1	MOT	4.25	3.70	2.95	3.25
IN935BML2	MOT	6.45	5.55	4.90	4.45
IN935BML3	MOT	8.20	7.05	5.65	6.20
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN936	HOF	2.80	2.52	2.10	
Type No.	Mfr.	1-24	25-99	100-999	100 Mix
IN936	MOT	2.75	2.35	2.10	1.90
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN936	INT	1.90			
Type No.	Mfr.	1-24	25-99	100-999	100 Mix
IN936A	MOT	3.55	3.05	2.70	2.45
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN936A	INT	2.45			
IN936B	HOF	4.25	3.82	3.18	
IN936B	INT	2.90			
Type No.	Mfr.	1-24	25-99	100-999	100 Mix
IN936B	MOT	4.20	3.60	3.20	2.90
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN937	INT	3.70			
Type No.	Mfr.	1-24	25-99	100-999	100 Mix
IN937A	MOT	6.15	5.30	4.65	4.25
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN937A	INT	4.25			
Type No.	Mfr.	1-24	25-99	100-999	100 Mix
IN937B	MOT	7.10	6.10	5.40	4.90
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN937B	INT	4.90			
Type No.	Mfr.	1-24	25-99	100-999	100 Mix
IN937BML1	MOT	7.85	6.75	5.40	5.95
IN937BML2	MOT	10.00	8.60	6.90	7.60
IN937BML3	MOT	12.20	10.50	8.40	9.25
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN938	HOF	7.10	6.39	5.32	
IN938	INT	4.80			
Type No.	Mfr.	1-24	25-99	100-999	100 Mix
IN938	MOT	6.95	6.00	5.30	4.80
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN938A	HOF	7.70	6.93	5.77	
IN938A	INT	5.20			
Type No.	Mfr.	1-24	25-99	100-999	100 Mix
IN938A	MOT	7.55	6.50	5.70	5.20
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN938B	HOF	11.30	9.90	8.47	
IN938B	INT	6.90			
Type No.	Mfr.	1-24	25-99	100 Mix	100-999
IN938B	MOT	10.00	8.60	6.90	7.60
IN938BML1	MOT	10.75	9.25	7.40	8.15
IN938BML2	MOT	12.90	11.10	8.90	9.80
IN938BML3	MOT	16.55	14.25	11.40	12.55

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN939	IN1	12.40			
IN939A	INT	17.50			
IN939B	INT	18.85			
Type No.	Mfr.	1-24	25-99	100 Mix	100-999
IN939A	MOT	25.35	21.85	19.25	17.50
IN939BML1	MOT	28.05	24.20	19.35	21.30
IN939BML2	MOT	20.25	26.05	20.85	22.95
IN939BML3	MOT	33.85	29.20	23.35	25.70
IN941	MOT	3.20	2.75	2.20	2.40
IN941B	MOT	3.60	3.10	2.50	2.75
IN941BML1	MOT	4.35	3.75	3.00	3.30
IN941BML2	MOT	6.50	5.60	4.50	4.95
IN941BML3	MOT	10.45	9.00	7.20	7.90
IN942	MOT	3.50	3.00	2.40	2.65
IN942A	MOT	4.35	3.75	3.00	3.30
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN943A	MOT	9.90	8.55	7.45	
Type No.	Mfr.	1-24	25-99	100-999	100 Mix
IN943BML1	MOT	7.90	6.80	5.45	6.00
IN943BML2	MOT	10.05	8.70	6.95	7.65
IN943BML3	MOT	15.95	13.75	11.00	12.10
IN944A	MOT	13.05	11.25	9.00	9.90
IN944B	MOT	17.30	14.95	11.95	13.15
IN944BML1	MOT	18.05	15.55	12.45	13.70
IN944BML2	MOT	20.20	17.45	13.95	15.35
IN944BML3	MOT	20.65	17.80	14.25	15.65
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN949	GI	.65		.50	
IN950	HUG	12.00		9.00	
IN951	HUG	12.00		9.00	
IN952	HUG	6.00		4.50	
IN953	HUG	4.50		3.25	
IN954	HUG	3.00		2.25	
IN955	HUG	3.00		2.25	
IN956	HUG	3.50		2.50	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN957	MOT	2.15	1.85	1.60	
IN957	INT	1.40	1.28	1.15	.87
IN957	TI	1.50		1.00	
IN957A	INT	1.50	1.38	1.25	.95
IN957B	HOF	2.96		2.22	
IN957B	INT	1.75	1.63	1.50	1.14
IN957B	MOT	2.95	2.55	2.20	
IN958	TI	1.50		1.00	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN958A	MOT	2.35	2.00	1.75	
IN958B	HOF	2.96		2.22	
IN958B	MOT	2.95	2.55	2.20	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN959	MOT	2.15	1.85	1.60	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN959	TI	1.50		1.00	
IN959A	INT	1.50	1.38	1.25	.95
IN959B	MOT	2.95	2.55	2.20	
IN959D	HOF	2.96		2.22	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN960	MOT	2.15	1.85	1.60	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN960	INT	1.40	1.2		

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Type No.	Mfr.	1-99	100 Mix	100-999	1000-up	Type No.	Mfr.	1-99	100 Mix	100-999	1000-up	Type No.	Mfr.	1-99	100 Mix	100-999	1000-up	
1N961B	INT	1.75	1.63	1.50	1.14	1N968	TI	1.50		1.00		1N974B						
1N961B	MOT	2.95	2.55	2.20		1N968A	INT	1.50	1.38	1.25	.95	ML3	MOT	5.70			4.30	
1N961B-	HI-RE L					1N968B	HOF	2.96		2.22		1N975B	MOT	2.95		2.55	2.20	
1N962	MOT	2.15	1.85	1.60		1N968B	INT	1.75	1.63	1.50	1.15	ML1	MOT	3.25			2.45	
1N962	INT	1.40	1.28	1.15	.87	1N968B	MOT	2.95	2.55	2.20		1N975B	ML2				3.25	
1N962	TI	1.50		1.00		1N968B-	HI-RE L					1N975B	ML3				4.30	
1N962A	HOF	2.37		1.78		1N968B	TI	1.70		1.20		1N976B	MOT	2.96			2.22	
1N962B	HOF	2.96		2.22		1N968B	ML1				2.45							
1N962B	INT	1.75	1.63	1.50	1.14	1N968B	ML2					1N976B	ML1				2.45	
1N962B	MOT	2.95	2.55	2.20		1N968B	ML3					1N976B	ML2				3.25	
1N962B	TI	1.70		1.20		1N969	MOT	5.70		4.30		1N976B	ML3				4.30	
1N962	BML1			2.45		1N969	INT	2.15	1.85	1.60		1N977	MOT	5.70			4.30	
1N962	BML2			3.25		1N969	INT	1.40	1.28	1.15	.87	1N977	MOT	2.15	1.85	1.60		
1N962	BML3			4.30		1N969	TI	1.50		1.00		1N977B	MOT	2.95	2.55	2.20		
1N963	MOT	5.70		4.30		1N969A-	HI-RE L					1N977B	ML1				2.45	
1N963	MOT	2.15	1.85	1.60		1N969B	HOF	2.96		2.22		1N977B	ML2				3.25	
1N963	INT	1.40	1.28	1.15	.87	1N969B	INT	1.75	1.63	1.50	1.15	1N977B	ML3				4.30	
1N963	TI	1.50		1.00		1N969B	MOT	2.95	2.55	2.20		1N978B	HOF				2.22	
1N963A	MOT	2.35	2.00	1.75		1N969B	TI	1.70		1.20		1N978B	ML1				2.45	
1N963A	INT	1.50	1.38	1.25	.95	1N969B-	HI-RE L					1N978B	ML2				3.25	
1N963B	HOF	2.96		2.22		1N969B	ML1					1N978B	ML3				4.30	
1N963B	INT	1.75	1.63	1.50	1.14	1N969B	ML2					1N978B	MOT	2.96			2.22	
1N963B	MOT	2.95	2.55	2.20		1N969B	ML3					1N978B	MOT	2.95	2.55	2.20		
1N963B	TI	1.70		1.20		1N969B	ML1					1N978B	MOT	3.25			2.45	
1N963B-	HI-RE L					1N969B	ML2					1N978B	MOT	4.30			3.25	
1N963	BML1			2.45		1N969B	ML3					1N979B	MOT	5.70			4.30	
1N963	BML2			3.25		1N970	MOT	5.70		4.30		1N979	MOT	2.15	1.85	1.60		
1N963	BML3			4.30		1N970	INT	2.15	1.85	1.60		1N979B	MOT	2.95	2.55	2.20		
1N964	MOT	5.70		4.30		1N970	TI	1.50		1.00		1N979B	ML1				2.45	
1N964	MOT	2.15	1.85	1.60		1N970A	INT	1.50	1.38	1.25	.95	1N979B	ML2				3.25	
1N964	TI	1.50		1.00		1N970B	INT	1.75	1.63	1.50	1.15	1N979B	ML3				4.30	
1N964A	HOF	2.37		1.78		1N970B	MOT	2.95	2.55	2.20		1N979B	MOT	5.70			4.30	
1N964A	MOT	2.35	2.00	1.75		1N970B	TI	1.70		1.20		1N980	MOT	2.15	1.85	1.60		
1N964A	INT	1.50	1.38	1.25	.95	1N970B	ML1					1N980B	MOT	2.95	2.55	2.20		
1N964A	HOF	2.96		2.22		1N970B	ML2					1N980B	MOT	5.70			4.30	
1N964B	INT	1.75	1.63	1.50	1.14	1N970B	ML3					1N980B	ML1				2.45	
1N964B	MOT	2.95	2.55	2.20		1N971	INT	1.40	1.28	1.15	.61	1N980B	ML2				3.25	
1N964B	TI	1.70		1.20		1N971	TI	1.50		1.00		1N980B	ML3				4.30	
1N964B	BML1			2.45		1N971A	INT	1.50	1.38	1.25	.69	1N980B	MOT	4.30			3.25	
1N964	BML2			3.25		1N971B	HOF	2.96		2.22		1N981B	MOT	2.95	2.55	2.20		
1N964	BML3			4.30		1N971B	INT	1.75	1.63	1.50	.71	1N981B	ML1				2.45	
1N965	MOT	5.70		4.30		1N971B	MOT	2.95	2.55	2.20		1N981B	ML2				3.25	
1N965	TI	1.50		1.00		1N971B	TI	1.70		1.20		1N981B	ML3				4.30	
1N965A	INT	1.50	1.38	1.25	.95	1N971B	ML1					1N981B	MOT	4.30			3.25	
1N965B	HOF	2.96		2.22		1N971B	ML2					1N981B	MOT	5.70			4.30	
1N965B	INT	1.75	1.63	1.50	1.14	1N971B	ML3					1N982	MOT	2.15	1.85	1.60		
1N965B	MOT	2.95	2.55	2.20		1N971B	ML1					1N982B	MOT	2.95	2.55	2.20		
1N965B	TI	1.70		1.20		1N972	INT	1.40	1.28	1.15	.87	1N982B	ML1				2.45	
1N965B-	HI-RE L					1N972	TI	1.50		1.00		1N982B	ML2				3.25	
1N965	BML1			2.45		1N972A	INT	1.50	1.38	1.25	.95	1N982B	ML3				4.30	
1N965	BML2			3.25		1N972B	HOF	2.96		2.22		1N982B	MOT	5.70			4.30	
1N965	BML3			4.30		1N972B	INT	1.75	1.63	1.50	1.15	1N983B	HI-RE L				2.75	
1N966	MOT	5.70		4.30		1N972B	MOT	2.96	2.55	2.20		1N983B	ML1				2.45	
1N966	MOT	2.15	1.85	1.60		1N972B	TI	1.70		1.20		1N983B	ML2				3.25	
1N966	INT	1.40	1.28	1.15	.87	1N972B-	HI-RE L					1N983B	ML3				4.30	
1N966	TI	1.50		1.00		1N972B	ML1					1N983B	MOT	5.70			4.30	
1N966A-	HI-RE L					1N972B	ML2					1N984	MOT	2.15	1.85	1.60		
1N966B	HOF	2.37		1.78		1N972B	ML3					1N984B	HOF	3.45			2.75	
1N966B	INT	1.75	1.63	1.50	1.14	1N973	MOT	5.70		4.30		1N984B	MOT	2.95	2.55	2.20		
1N966B	TI	1.70		1.20		1N973	INT	2.15	1.85	1.60		1N984B	ML1				2.45	
1N966	BML1			2.45		1N973	TI	1.40		1.15	.87	1N984B	ML2				3.25	
1N966	BML2			3.25		1N973A	HOF	1.50		1.00		1N984B	ML3				4.30	
1N966	BML3			4.30		1N973A	INT	2.37		1.78		1N985	MOT	2.60	2.25	1.95		
1N967	MOT	5.70		4.30		1N973A	MOT	1.50	1.38	1.25	.95	1N985B	HOF	3.45			2.75	
1N967	MOT	2.15	1.85	1.60		1N973B	HOF	2.96		2.22		1N985B	MOT	3.65	3.15	2.75		
1N967	TI	1.50		1.00		1N973B	INT	1.75	1.63	1.50	1.14	1N985B	HOF	3.45			2.75	
1N967A	INT	1.50	1.38	1.25	.95	1N973B	MOT	2.95	2.55	2.20		1N988B	MOT	3.65	3.15	2.75		
1N967B	HOF	2.96		2.22		1N973B	TI	1.70		1.20		1N988B	MOT	3.65	3.15	2.75		
1N967B	INT	1.75	1.63	1.50	1.15	1N973B	ML1					1N989B	MOT	3.65	3.15	2.75		
1N967B	MOT	2.95	2.55	2.20		1N973B	ML2					1N992	MOT	2.60	2.25	1.95		
1N967B	TI	1.70		1.20		1N973B	ML3					1N992B	HOF	3.45			2.75	
1N967	BML1			2.45		1N974	MOT	2.15	1.85	1.60		1N992B	MOT	3.65	3.15	2.75		
1N967	BML2			3.25		1N974B	MOT	2.95	2.55	2.20		1N993	HUG	1.33			1.00	
1N967	BML3			4.30		1N974B	ML1					1N995	HUG	.60			.45	
1N968	HOF	2.37		1.78		1N974B	ML2					1N995	SPL	.60			.45	.18
1N968	MOT	2.15	1.85	1.60		1N974B	ML3					1N996	HUG					

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Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN999/ RD800	RAY	4.15		3.15	
IN1082	INT	.75		.60	
IN1083	INT	.85		.67	
IN1084	INT	.94		.76	
IN1084	INT	.95	.95	.77	

Type No.	Mfr.	1-24	25-99	100-up
IN1084/ M500	SAR	.75	.63	.59
IN1085A/ IOLA	SAR	3.24	2.86	2.66

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN1095	INT	.76		.51	
IN1095	GE	.77		.51	
IN1095	TI	.76		.51	
IN1095	RCA	.88		.59	
IN1095	WES	.76		.51	
IN1096	INT	.96		.64	
IN1096	GE	.96		.64	
IN1096	TI	.97		.64	
IN1096	WES	.93		.63	
IN1101	TI	.63		.42	

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN1101	TI	.60		.40	
IN1103	TI	.67		.45	
IN1105	TI	.97		.64	
IN1115	TI	1.05		.70	
IN1115	GE	1.05		.70	
IN1116	TI	1.12		.75	
IN1116	GE	1.12		.75	
IN1117	GE	1.43		.95	
IN1118	TI	1.72		1.15	
IN1118	GE	1.73		1.15	

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN1119	TI	1.80		1.20	
IN1119	GE	1.80		1.20	
IN1120	GE	2.40		1.60	
IN1124	TI	2.10		1.40	
IN1124	HUG	2.20		1.47	
IN1124	GI	2.10		1.40	
IN1124	BEN	2.10		1.40	
IN1124A	TI	1.84		1.24	
IN1124A	BEN	2.10		1.40	
IN1124R	TI	2.10		1.40	

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN1125	GE	2.27		1.51	
IN1125	TI	2.55		1.70	
IN1126	TI	3.90		2.60	
IN1126	GI	3.80		2.60	
161126R	TI	3.90		2.60	
IN1127	GE	4.43		2.95	
IN1127	GI	5.25		3.50	

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN1128	TI	6.00		4.00	
IN1128A	TI	6.00		4.00	
IN1128R	TI	6.00		4.00	
IN1130	INT	6.22		4.15	
IN1130	TI	5.70		3.80	
IN1131	INT	6.22		4.15	
IN1131	TI	5.70		3.80	

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN1132	SYL	20.00	17.20	15.20	

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN1169	WES	.75		.50	
IN1183	WES	1.85		1.30	
IN1183	MOT	1.95		1.30	
IN1183A	RCA	2.15		1.43	
IN1183A	WES	2.40		1.10	
IN1183AR	WES	2.40		2.10	
IN1183R	WES	1.95		1.30	
IN1184	WES	2.40		1.60	
IN1184	GE	2.40		1.60	
IN1184	MOT	2.40		1.60	
IN1184A	RCA	2.48		1.65	
IN1184R	WES	2.40		1.60	
IN1185	WES	2.90		1.95	
IN1185	GE	2.93		1.95	
IN1185R	WES	2.90		1.95	
IN1186	WES	3.45		2.30	
IN1186	GE	3.45		2.30	
IN1186	MOT	3.45		2.30	
IN1186A	RCA	3.55		2.37	
IN1186R	WES	3.45		2.30	

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN1186RA	RCA	3.55		2.37	
IN1187	WES	5.13		3.42	
IN1187	GE	5.13		3.42	
IN1187	MOT	5.10		3.40	
161187A	RCA	4.95		3.30	
IN1187R	WES	5.13		3.42	
IN1188	WES	5.85		3.90	
IN1188	GE	5.85		3.90	
IN1188	MOT	5.85		3.90	

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN1188R	WES	5.85		3.90	
IN1189	WES	6.45		4.30	
IN1189	GE	6.45		4.30	
IN1189A	RCA	7.43		4.95	
IN1189R	WES	6.45		4.30	
IN1190	WES	6.90		4.60	
IN1190	GE	6.90		4.60	
IN1190	MOT	6.90		4.60	
IN1190A	WES	7.60		5.10	
IN1190A	RCA	8.65		5.80	

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN1190AR	WES	7.60		5.10	
IN1190R	WES	6.90		4.60	
IN1191	WES	1.65		1.10	
IN1191	MOT	1.35		.90	
IN1191R	WES	1.85		1.10	
IN1192	GE	1.73		1.15	
IN1192	WES	1.72		1.15	
IN1192	MOT	1.72		1.15	
IN1192R	WES	1.72		1.15	
IN1193	WES	2.10		1.40	

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN1193R	WES	2.10		1.40	
IN1194	GE	2.48		1.65	
IN1194	WES	2.45		2.10	
IN1194R	WES	2.45		2.10	
IN1195	WES	3.98		3.00	
IN1195	MOT	4.05		3.07	
IN1195R	WES	3.98		3.00	
IN1196	WES	5.00		3.30	
IN1196	MOT	4.95		3.30	
IN1196A	GE	4.95		3.20	

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN1196A	RCA	4.95		3.42	
IN1196A	RCA	4.95		3.30	
IN1196R	WES	5.00		3.30	
IN1197	MOT	6.15		4.10	
IN1197	WES	5.85		4.10	
IN1197R	WES	5.85		4.10	
IN1198	WES	6.60		4.40	
IN1198A	MOT	7.80		5.20	
IN1198A	RCA	7.01		4.85	
IN1198R	WES	6.60		4.40	

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN1199	GE	1.25		.83	
IN1199	WES	1.25		.83	
IN1199A	RCA	1.24		.83	
IN1199A	GE	1.25		.83	
IN1199A	INT	1.25		.85	
IN1199A	WES	1.25		.83	
IN1199AR	WES	1.25		.83	
IN1199R	WES	1.25		.83	
IN1199RA	RCA	1.24		.83	
IN1200	GE	1.41		.94	

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN1200	WES	1.41		.94	
IN1200	BEN	1.40		.93	
IN1200A	RCA	1.41		.94	
IN1200A	GE	1.41		.94	
IN1200A	INT	1.40		.95	
IN1200A	WES	1.41		.94	
IN1200AR	WES	1.41		.94	
IN1200R	WES	1.41		.94	
IN1200A	RCA	1.41		.94	

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN1201	INT	1.80		1.20	
IN1201	GE	1.82		1.21	
IN1201	WES	1.82		1.21	
IN1201A	GE	1.82		1.21	
IN1201A	INT	1.80		1.20	
IN1201A	WES	1.82		1.21	
IN1201AR	WES	1.82		1.21	
IN1201R	WES	1.82		1.21	
IN1202	GE	2.63		1.75	
IN1202	WES	2.63		1.75	

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN1202	BEN	2.60		1.75	
IN1202A	RCA	2.48		1.65	
IN1202A	GE	2.63		1.75	
IN1202A	INT	2.60		1.75	
IN1202A	WES	2.63		1.75	
IN1202AR	WES	2.63		1.75	
IN1202R	WES	2.63		1.75	
IN1202RA	RCA	2.48		1.65	
IN1203	INT	3.50		2.35	
IN1203	GE	3.60		2.40	

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN1203	WES	3.60		2.40	
IN1203A	GE	3.60		2.40	
IN1203A	INT	3.50		2.35	
IN1203A	WES	3.60		2.40	
IN1203AR	WES	3.60		2.40	
IN1203R	WES	3.60		2.40	
IN1204	INT	4.50		3.00	
IN1204	GE	4.58		3.05	
IN1204	WES	4.58		3.05	
IN1204	BEN	4.55		3.05	
IN1204A	RCA	4.46		2.97	
IN1204A	INT	4.50		3.00	

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN1204A	WES	4.58		3.05	
IN1204AR	WES	4.58		3.05	
IN1204R	WES	4.58		3.05	
IN1204R	INT	5.00		3.30	
IN1205	HUG				
IN1205	WES	5.33		3.55	
IN1205A	RCA	5.36		3.58	
IN1205A	INT	5.25		3.50	
IN1205A	WES	5.33		3	

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Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN1323A	MOT	5.45	4.70	4.10	
IN1323A	HOF	5.00	4.50	4.10	
IN1324	MOT	3.10	2.70	2.35	
IN1324A	MOT	5.45	4.70	4.10	
IN1325	MOT	3.10	2.70	2.35	
IN1325	HOF	3.10	2.70	2.35	
IN1325A	MOT	9.45	4.70	4.10	
IN1326	MOT	3.10	2.70	2.35	
IN1326	HOF	3.10	2.70	2.35	
IN1326A	MOT	5.45	4.70	4.10	
IN1327	MOT	3.10	2.70	2.35	
IN1327A	MOT	5.45	4.70	4.10	
Type No.	Mfr.	1-99	100-999	1000-up	
IN1341	INT	1.15	.75		
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN1341	GE	1.13		.75	
IN1341	WES	1.13		.75	
IN1341A	INT	1.75		.75	
IN1341A	GE	1.13		.75	
IN1341A	WES	1.13		.75	
IN1341AR	WES	1.13		.75	
IN1341R	WES	1.13		.75	
IN1341RB	RCA	1.16		.77	
IN1342	INT	1.25		.85	
IN1342	WES	1.28		.85	
IN1342A	INT	1.25		.85	
IN1342A	GE	1.28		.85	
IN1342A	WES	1.28		.85	
IN1342AR	WES	1.28		.85	
IN1342B	RCA	1.32		.88	
IN1342R	WES	1.28		.85	
IN1342RB	RCA	1.32		.88	
IN1343	GE	1.64		1.09	
IN1343	WES	1.64		1.09	
IN1343A	INT	1.60		1.10	
IN1343A	WES	1.64		1.09	
IN1343AR	WES	1.64		1.09	
IN1343R	WES	1.64		1.09	
IN1344	GE	2.22		1.48	
IN1344	WES	2.22		1.45	
IN1344A	INT	2.50		1.65	
IN1344A	GE	2.22		1.48	
IN1344A	WES	2.22		1.45	
IN1344AR	WES	2.22		1.45	
IN1344B	RCA	2.15		1.43	
IN1344R	WES	2.22		1.45	
IN1344RB	RCA	2.15		1.43	
IN1345	INT	3.15		2.08	
IN1345	WES	3.17		2.11	
IN1345	WES	3.17		2.11	
IN1345A	INT	3.70		2.50	
IN1345A	GE	3.17		2.11	
IN1345A	WES	3.17		2.11	
IN1345AR	WES	3.17		2.11	
IN1345RB	RCA	3.05		2.04	
IN1346	GE	4.11		2.74	
IN1346	WES	4.11		2.74	
IN1346A	INT	4.50		3.00	
IN1346A	GE	4.11		2.74	
IN1346A	WES	4.11		2.74	
IN1346AR	WES	4.11		2.74	
IN1346R	WES	4.11		2.74	
IN1346RB	RCA	3.96		2.65	
IN1347	WES	4.97		3.31	
IN1347A	INT	5.25		3.45	
IN1347A	WES	4.97		3.31	
IN1347AR	WES	4.97		3.31	
IN1347B	RCA	4.79		3.19	
IN1347R	WES	4.97		3.31	
IN1348	GE	5.93		3.95	
IN1348	HUG	5.93		3.95	
IN1348	WES	5.93		3.95	
IN1348A	GE	5.93		3.95	
IN1348A	WES	5.93		3.95	
IN1348AR	WES	5.93		3.95	
IN1348R	WES	5.93		3.95	
IN1348RB	RCA	5.78		3.85	
IN1351A	INT	5.10	4.45	3.80	
IN1353A	INT	5.10	4.45	3.80	
IN1354A	INT	5.10	4.45	3.80	
IN1355	HOF	6.75	5.85	5.10	
IN1355A	INT	5.10	4.45	3.80	
IN1356A	INT	5.10	4.45	3.80	
IN1357	HOF	6.75	5.85	5.10	
IN1357A	INT	5.10	4.45	3.80	
IN1358	HOF	6.75	5.85	5.10	
IN1358A	INT	5.10	4.45	3.80	
IN1359A	INT	5.10	4.45	3.80	
IN1360	HOF	6.75	5.85	5.10	
IN1360A	INT	5.10	4.45	3.80	
IN1361A	INT	5.10	4.45	3.80	

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN1362A	INT	5.10	4.45	3.80	
IN1363	HOF	6.75	5.85	5.10	
IN1363A	INT	5.10	4.45	3.80	
IN1364A	INT	5.10	4.45	3.80	
IN1366	HOF	6.75	5.85	5.10	
IN1366A	INT	5.10	4.45	3.80	
IN1368	HOF	6.75	5.85	5.10	
IN1368A	INT	5.10	4.45	3.80	
IN1369	HOF	6.75	5.85	5.10	
IN1370	HOF	6.75	5.85	5.10	
IN1370A	INT	5.10	4.45	3.80	
IN1371A	INT	5.10	4.45	3.80	
IN1372	HOF	6.75	5.85	5.10	
IN1375A	INT	5.10	4.45	3.80	
Type No.	Mfr.	1-24	25-99		
IN1396	WES	5.50	4.65		
IN1399	WES	6.80	5.75		
IN1398	WES	8.90	7.40		
IN1397	WES	11.15	8.90		
IN1400	WES	12.65	10.35		
IN1401	WES	13.70	11.35		
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN1402	WES	15.25		12.85	
Type No.	Mfr.	1-24	25-99	100-up	
IN1403	WES	17.95	14.85		
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN1409/EM1L4	INT	8.00			
IN1410/EM1L5	INT	9.00			
IN1411/EM1L6	INT	11.00			
IN1412/FM1L5	INT	13.50			
IN1413/FM1L6	INT	15.50			
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN1486	WES	.73		.48	
IN1486	WES	.85		.60	
IN1487	TI	.49		.33	
IN1487	GE	.53		.35	
IN1488	TI	.52		.35	
IN1489	TI	.60		.40	
IN1489	CE	.66		.44	
IN1490	TI	.67		.45	
IN1490	GE	.81		.54	
IN1491	GE	.90		.60	
IN1492	GE	1.19		.79	
IN1508	INT	2.75	2.45	2.10	
IN1508A	INT	3.45	3.05	2.65	
IN1509	INT	2.75	2.45	2.10	
IN1509A	INT	3.45	3.05	2.65	
IN1510	INT	2.75	2.45	2.10	
IN1510A	INT	3.45	3.05	2.65	
IN1511	INT	2.75	2.45	2.10	
IN1511A	INT	3.45	3.05	2.65	
IN1512	INT	2.75	2.45	2.10	
IN1512A	INT	3.45	3.05	2.65	
IN1513	INT	2.75	2.45	2.10	
IN1513A	INT	3.45	3.05	2.65	
IN1514	INT	2.75	2.45	2.10	
IN1514A	INT	3.45	3.05	2.65	
IN1515	INT	2.75	2.45	2.10	
IN1515A	INT	3.45	3.05	2.65	
IN1516	INT	2.75	2.45	2.10	
IN1516A	INT	3.45	3.05	2.65	
IN1517	INT	2.75	2.45	2.10	
IN1517A	INT	3.45	3.05	2.65	
IN1518	INT	2.95	2.63	2.30	
IN1518A	INT	3.60	3.20	2.80	
IN1519	INT	2.95	2.63	2.30	
IN1519A	INT	3.60	3.20	2.80	
IN1520	INT	2.95	2.63	2.30	
IN1520A	INT	3.60	3.20	2.80	
IN1521	INT	2.95	2.63	2.30	
IN1521A	INT	3.60	3.20	2.80	
IN1523	INT	2.95	2.63	2.30	
IN1523A	INT	3.60	3.20	2.80	
IN1524	INT	2.95	2.63	2.30	
IN1524A	INT	3.60	3.20	2.80	
IN1525	INT	2.95	2.63	2.30	
IN1525A	INT	3.60	3.20	2.80	
IN1526	INT	2.95	2.63	2.30	
IN1526A	INT	3.60	3.20	2.80	
IN1527	INT	2.95	2.63	2.30	
IN1527A	INT	3.60	3.20	2.80	
IN1528	INT	2.95	2.63	2.30	
IN1528A	INT	3.60	3.20	2.80	

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN1528A/1Z27T5	INT	3.60	3.20	2.80	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN1530	INT	15.60		12.40	
IN1530A	INT	15.60		12.40	
IN1530	HOF	16.00		12.45	
IN1530A	HOF	24.00	14.40	18.70	
IN1563	MOT	1.35		.90	
IN1563A	MOT	1.65		1.10	
IN1564	MOT	1.50		1.00	
IN1564A	MOT	1.87		1.25	
IN1565	MOT	1.65		1.10	
IN1566	MOT	1.80		1.20	
IN1566A	MOT	2.40		1.60	
IN1567A	MOT	2.85		1.90	
IN1568A	MOT	4.40		2.95	
IN1581	TI	1.10		.72	
IN1582	TI	1.20		.80	
IN1585	TI	4.05		2.70	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN1588	INT	3.75	3.30	3.00	
IN1588A	INT	4.50	4.00	3.60	
IN1589	INT	3.75	3.30	3.00	
IN1589A	INT	4.50	4.00	3.60	
IN1590	INT	3.75	3.30	3.00	
IN1590A	INT	4.50	4.00	3.60	
IN1591	INT	3.75	3.30	3.00	
IN1591A	INT	4.50	4.00	3.60	
IN1592	INT	3.75	3.30	3.00	
IN1592A	INT	4.50	4.00	3.60	
IN1593	INT	3.75	3.30	3.00	
IN1593A	INT	4.50	4.00	3.60	
IN1594	INT	3.75	3.30	3.00	
IN1594A	INT	4.50	4.00	3.60	
IN1595	INT	3.75	3.30	3.00	
IN1595A	INT	4.50	4.00	3.60	
IN1596	INT	3.75	3.30	3.00	
IN1596A	INT	4.50	4.00	3.60	
IN1597	INT	3.75	3.30	3.00	
IN1597A	INT	4.50	4.00	3.60	
IN1598	INT	3.75	3.30	3.00	
IN1598A	INT	4.50	4.00	3.60	
IN1599	INT	5.00	5.00	4.50	
IN1599A	INT	7.25	6.75	6.25	
IN1600	INT	5.00	5.00	4.50	
IN1600A	INT	7.25	6.75	6.25	
IN1601	INT	5.00	4.35	3.70	
IN1601A	INT	5.50	4.80	4.07	
IN1602	INT	5.00	4.35	3.70	
IN1602A	INT	5.50	4.80	4.07	
IN1603	INT	5.00	4.35	3.70	
IN1603A	INT	5.50	4.80	4.07	
IN1604	INT	5.00	4.35	3.70	
IN1604A	INT	5.50	4.80	4.07	
IN1605	INT	5.00	4.35	3.70	
IN1605A	INT	5.50	4.80	4.07	
IN1606	INT	5.00	4.35	3.70	
IN1606A	INT	5.50	4.80	4.07	
IN1607	INT	5.00	4.35	3.70	
IN1607A	INT	5.50	4.80	4.07	
IN1608	INT	5.00	4.35	3.70	
IN1608A	INT	5.50	4.80	4.07	
IN1609	INT	5.00	4.35	3.70	
IN1609A	INT	5.50	4.80		

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Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN1614A	BEN	1.90		1.27	
IN1614R	BEN	1.87		1.25	
IN1614R	RCA	1.90		1.27	
IN1615	WES	4.18		2.80	
IN1615	GE	3.75		2.50	
IN1615	RCA	3.71		2.48	
IN1615	TI	3.71		2.48	
IN1615	BEN	3.71		2.50	
IN1615R	BEN	3.75		2.50	
Type No.	Mfr.	1-24	25-99	100-up	
IN616	WES	5.25	3.50		
Type No.	Mfr.	1-99	100-999	1000-up	5000-up
IN1616	RCA	5.36		3.58	
IN1616	TI	5.36		3.58	
IN1616A	BEN	5.90		3.85	
Type No.	Mfr.	1-9	10-99	100-999	1000-up
IN1639/5V1	INT	.82	.43		
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN1670	WES	24.45		19.95	
IN1671	WES	29.35		23.90	
IN1672	WES	39.80		27.60	
IN1673	WES	41.65		33.80	
IN1674	WES	61.80		50.30	
IN1675	WES	81.00		66.00	
IN1676	WES	105.80		86.25	
IN1692	TI	.49		.33	
IN1692	INT	.45		.30	
IN1692	GE	NET	.45		
IN1692	GI	.45		.30	
IN1693	TI	.52		.35	
IN1693	INT	.48		.32	
IN1693	GE	.48		.32	
IN1693	GI	.52		.35	
IN1694	TI	.60		.40	
IN1694	INT	.56		.37	
IN1694	GE	.56		.37	
IN1694	GI	.60		.45	
IN1695	TI	.67		.45	
IN1695	INT	.66		.44	
IN1695	GE	.66		.44	
IN1695	GI	.67		.45	
IN1696	TI	.76		.51	
IN1696	GE	.72		.48	
IN1696	GI	.83		.55	
IN1697	TI	.97		.64	
IN1697	GE	.93		.62	
IN1701	INT	.75		.50	
IN1702	INT	.87		.58	
IN1703	INT	1.01		.68	
IN1704	INT	1.23		.82	
IN1705	INT	1.57		1.05	
Type No.	Mfr.	1-9	10-99	100-999	1000-up
IN1731	GE	6.30	5.18		
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN1731	MOT	5.30		4.80	
Type No.	Mfr.	1-9	10-99	100-999	1000-up
IN1732	GE	8.12	6.67		
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN1733	HUG	6.00		5.25	
IN1733	MOT	6.90		5.20	
IN1734	MOT	10.30		7.75	
IN1736	MOT	8.75	7.60	6.60	
IN1736A	MOT	10.70	9.25	8.05	
IN1763A	RCA	.42		.29	
IN1764A	RCA	.58		.40	
IN1765/4JZ					
IN1765	GE	2.40		1.60	
IN1765A	GE	3.00		2.00	
IN1766	HOF	2.80	2.52	2.10	
IN1766	GE	2.40		1.60	
IN1766/4JZ					
IN1766	4X6.2B	GE	2.40	1.60	
IN1766A	GE	3.00		2.00	
IN1766A	HOF	3.20	2.88	2.40	
IN1767	HOF	2.80	2.52	2.10	
IN1767	GE	2.40		1.60	
IN1767/4JZ					
IN1767	4X6.8B	GE	2.40	1.60	
IN1767A	INT	3.20	2.75	1.80	
IN1767A	HOF	3.20	2.88	2.40	
IN1766	HOF	2.80	2.52	2.10	
IN1768/4JZ					
IN1768	4X7.5B	GE	-2.40	1.60	
IN1768		2.40		1.60	

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN1768A	INT	2.85	2.55	2.25	
IN1769	HOF	2.80	2.52	2.10	
IN1769		3.00		2.00	
IN1769/4JZ					
IN1769A	4X8.2B	GE	3.00	2.00	
IN1769A	INT	2.85	2.55	2.25	
IN1770	HOF	2.80	2.52	2.10	
IN1770		3.00		2.00	
IN1770/4JZ					
IN1770	4X9.1B	GE	3.00	2.00	
IN1770A	HOF	3.20	2.88	2.40	
IN1770A	INT	2.85	2.55	2.25	
IN1771	HOF	2.80	2.52	2.10	
IN1771		3.00		2.00	
IN1771/4JZ	GE				
IN1771A	4X1.0B	INT	3.00	2.00	
IN1771A	INT	2.85	2.55	2.25	
IN1771A	HOF	3.20	2.88	2.40	
IN1772	HOF	2.80	2.52	2.10	
IN1772A	INT	2.85	2.55	2.25	
IN1773	HOF	2.80	2.52	2.10	
IN1773/4JZ					
IN1773A	4X1.2B	GE	3.00	2.00	
IN1773A	HOF	3.20	2.88	2.40	
IN1773A	INT	2.85	2.55	2.25	
IN1774/4JZ					
IN1774A	4X1.3B	GE	3.00	2.00	
IN1774A	INT	2.85	2.55	2.25	
IN1775	HOF	2.80	2.52	2.10	
IN1775		3.00		2.00	
IN1775/4JZ					
IN1775A	4X1.5B	GE	3.00	2.00	
IN1775A	HOF	3.20	2.88	2.40	
IN1775A	INT	2.85	2.55	2.25	
IN1776	HOF	2.80	2.52	2.10	
IN1776/4JZ					
IN1776A	4X1.6B	GE	3.00	2.00	
IN1776A	HOF	3.20	2.88	2.40	
IN1776A	GE	3.60		2.40	
IN1777	HOF	2.80	2.52	2.10	
IN1777A	INT	2.85	2.55	2.25	
IN1777A	HOF	3.20	2.88	2.40	
IN1778	HOF	2.80	2.52	2.10	
IN1778A	INT	2.85	2.55	2.25	
IN1778A	HOF	3.20	2.88	2.40	
IN1779	HOF	2.80	2.52	2.10	
IN1780	HOF	2.80	2.52	2.10	
IN1780A	INT	2.85	2.55	2.25	
IN1781	HOF	2.80	2.52	2.10	
IN1781A	INT	2.85	2.55	2.25	
IN1782	HOF	3.10	2.79	2.35	
IN1782A	INT	2.85	2.55	2.25	
IN1783	HOF	3.10	2.79	2.35	
IN1783A	INT	2.85	2.55	2.25	
IN1784	HOF	3.10	2.79	2.35	
IN1784A	INT	2.85	2.55	2.25	
IN1785A	INT	2.85	2.55	2.25	
IN1786	HOF	3.10	2.79	2.35	
IN1786A	INT	2.85	2.55	2.25	
IN1787A	INT	2.85	2.55	2.25	
IN1788	HOF	3.10	2.79	2.35	
IN1788A	INT	2.85	2.55	2.25	
IN1789A	INT	2.85	2.55	2.25	
IN1789A	HOF	4.00	3.60	3.00	
IN1790A	INT	2.85	2.55	2.25	
IN1791A	INT	2.85	2.55	2.25	
IN1792A	INT	2.85	2.55	2.25	
IN1793A	INT	2.85	2.55	2.25	
IN1794A	INT	2.85	2.55	2.25	
IN1795	HOF	3.25	2.95	2.40	
IN1795A	INT	2.85	2.55	2.25	
IN1796A	INT	3.25	3.00	2.75	
IN1797A	INT	3.25	3.00	2.75	
IN1799A	INT	2.85	2.55	2.25	
IN1804	HOF	6.75	5.85	5.10	
IN1805A	INT	5.10	4.45	3.80	
IN1807	HOF	6.75	5.85	5.10	
IN1807A	INT	5.10	4.45	3.80	
IN1811	HOF	6.75	5.85	5.10	
IN1812	HOF	6.75	5.85	5.10	
IN1815	HOF	9.20	7.95	6.90	
IN1816	INT	5.10	4.80	4.50	
IN1816	TI	5.10		4.50	
IN1816A	TI	5.80		5.05	
IN1817	HOF	6.80	5.85	5.10	
IN1817	TI	5.10		4.50	
IN1818	INT	5.10	4.80	4.50	
IN1819	TI	5.10		4.50	
IN1819R	TI	5.10		4.50	
IN1820	TI	5.10		4.50	
IN1820A	INT	6.50	5.75	5.05	
IN1821	INT	5.10	4.80	4.50	
IN1822	HOF	6.80	5.85	5.10	
IN1822	INT	5.10	4.80	4.50	

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN1822	TI	5.10		4.50	
IN1822A	TI	5.80		5.05	
IN1823	INT	5.10		4.50	
IN1823	TI	5.10		4.50	
IN1824	INT	5.10	4.80	4.50	
IN1824	TI	5.10		4.50	
IN1824A	TI	5.80		5.05	
IN1825A	HOF	8.84	7.80	6.63	
IN1826	TI	5.10		4.50	
IN1827A	INT	6.50	5.75	5.05	
IN1827C	TI	6.50		5.65	
IN1828	TI	5.10		4.50	
IN1831	INT	5.10	4.80	4.50	
IN1832	INT	5.10	4.80	4.50	
IN1832	TI	5.10		4.50	
IN1834	TI	5.10		4.50	
IN1836	TI	5.10		4.50	
IN1956	INT	2.08		1.68	
IN1957	INT	2.08		1.68	
IN1958	INT	2.08		1.68	
IN1959	INT	2.08		1.68	
IN1960	INT	2.08		1.68	
IN1961	INT	2.08		1.68	
IN1962	INT	2.08		1.68	
IN1963	INT	2.08		1.68	
IN1964	INT	2.08		1.68	
IN1965	INT	2.08		1.68	
IN2008	TI	5.10		4.50	
IN2011A	INT	6.50	5.75	5.05	
IN2011A	TI	5.80		5.05	
Type No.	Mfr.	1-24	25-99	100-up	
IN2012	TI	5.60	5.10	4.58	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN2012A	TI	5.80		5.05	
IN2045	HOF	6.60	5.85	4.95	
IN2049	HOF	6.60	5.85	4.95	
IN2054/70U5	INT	12.40			
IN2055/70U10	INT	13.90			
IN2056/70U15	INT	16.60	NET		
IN2057	INT	18.90	NET		
IN2057/70U20	INT	18.90	NET		
IN2058/70U25	INT	21.00			
IN2059/70U30	INT	22.10			
IN2060/70U35	INT	22.85			
IN2061	INT	23.95	NET		
IN2061/70U40	INT	23.95			
IN2062/70U45	INT	25.60			
IN2063/70U50	INT	30.10			
IN2064	INT	36.00	NET		
IN2066	INT	49.50	NET		
IN2068	INT	61.00	NET		
IN2069	GI	.50		.33	
Type No.	Mfr.	1-9	10-99	100-999	1000-up
IN2069	INT	.50	.33		
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN2069	SYL	.65		.43	.29
IN2069	TI	.49		.33	
IN2069	ERI	.50		.33	
IN2069A	SYL	.67		.45	.30
IN2069A	INT	.50		.33	
IN2070	GI	.68		.45	
Type No.	Mfr.	1-9	10-99	100-999	1000-up
IN2070	INT	.68	.45		
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up

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Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
1N2071	SYL	.87		.50	.33
1N2071	TI	.87		.58	
1N2071	ERI	.66		.51	.29
1N2071A	SYL	.92		.59	.39
1N2071A	INT	.87		.58	
1N2117	TI	9.95		6.25	
1N2130	INT	3.80			
1N2130A/25H15	INT	3.10		2.30	
1N2131	INT	4.50			
1N2133	INT	6.35			
1N2135	INT	6.70	NET		
1N2154	GE	2.39		1.59	
1N2155	GE	3.00		2.00	
1N2156	GE	4.38		2.92	
1N2156R	GE	4.38		2.92	
1N2157	GE	5.25		3.50	
1N2158	GE	5.92		3.95	
1N2158R	GE	5.92		3.95	
1N2159	GE	6.15			
1N2159R	GE	6.15		4.10	
1N2160	GE	6.30		4.20	
1N2175	TI	11.50		8.00	6.75
1N2175	HOF	11.50		8.00	
1N2326	RCA	.50		.35	
1N2482	SYL	.65		.43	.29
1N2483	SYL	.69		.46	.31
1N2464	SYL	.71		.47	.31
1N2498	TI	5.10		4.50	
1N2498A	INT	6.50		5.65	
Type No.	Mfr.	1-24	25-99	100-up	
1N2498C	TI	7.05	6.50	5.65	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
1N2499A	INT	6.50		5.65	
1N2500A	INT	6.50		5.65	
Type No.	Mfr.	1-99	100-999	100-999	1000-up
1N2510	SYL	18.20	15.60	14.30	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
1N2609	TI	.90		.60	
1N2610	GE	1.02		.68	
1N2610	WES	1.10		.75	
1N2610	TI	1.05		.70	
1N2611	GE	1.14		.76	
1N2611	WES	1.23		.84	
1N2611	TI	1.18		.79	
1N2612	GE	1.52		1.01	
1N2612	WES	1.60		1.08	
1N2612	TI	1.55		1.03	
1N2613	GE	1.71		1.14	
1N2613	WES	1.75		1.21	
1N2613	TI	1.70		1.16	
1N2614	GE	1.92		1.28	
1N2614	WES	2.00		1.35	
1N2614	TI	1.95		1.30	
1N2615	GE	2.30		1.53	
1N2615	WES	2.35		1.60	
1N2615	TI	2.30		1.55	
1N2616	WES	3.50		2.99	
1N2616	GE	3.38		2.25	
1N2616	TI	4.85		3.25	
1N2617	WES	4.75		3.99	
1N2617	GE	5.25		3.50	
1N2617	TI	7.50		5.00	
1N2620	MOT	4.10	3.55	3.05	
1N2620A	MOT	4.35	3.75	3.25	
1N2621	MOT	4.60	3.95	3.45	
1N2622A	MOT	8.15	7.05	6.10	
1N2623	MOT	8.80	7.60	6.60	
1N2725	INT	6.01	NET		
1N2728	INT	6.01	NET		
1N2731	INT	7.31			
1N2766	MOT	6.60		4.95	
1N2766A	MOT	8.70	7.55	6.55	
1N2767	MOT	9.05	7.80	6.80	
1N2768	MOT	11.15	9.65	8.40	
1N2804	MOT	5.65	4.90	4.25	
1N2804B	MOT	10.65	9.20	8.00	
1N2805B	MOT	10.65	9.20	8.00	
1N2806	MOT	5.65	4.90	4.25	
1N2807	MOT	5.65	4.90	4.25	
1N2808	MOT	5.65	4.90	4.25	
1N2808B	MOT	10.65	9.20	8.00	
1N2809	MOT	5.65	4.90	4.25	
1N2809B	MOT	10.60	9.54	8.46	
1N2810	MOT	5.65	4.90	4.25	
1N2810B	MOT	10.65	9.20	8.00	
1N2811	MOT	5.65	4.90	4.25	

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
1N2811B	MOT	10.65	9.20	8.00	
1N2812B	MOT	10.65	9.20	8.00	
1N2812B	MOT	10.65	9.20	8.00	
1N2813	MOT	5.65	4.90	4.25	
1N2813B	MOT	10.65	9.20	8.00	
1N2814	MOT	5.65	4.90	4.25	
1N2816	MOT	5.65	4.90	4.25	
1N2817	MOT	5.65	4.90	4.25	
1N2818	MOT	5.65	4.90	4.25	
1N2818A	MOT	7.65	6.60	5.75	
1N2818B	MOT	10.65	9.20	8.00	
1N2819	MOT	5.65	4.90	4.25	
1N2820	MOT	5.65	4.90	4.25	
1N2820B	HOF	10.60	9.54	8.46	
1N2820B	MOT	10.65	9.20	8.00	
1N2821	MOT	5.65	4.90	4.25	
1N2821B	HOF	10.60	9.54	8.46	
1N2822B	MOT	10.65	9.20	8.00	
1N2823	MOT	5.65	4.90	4.25	
1N2823B	HOF	10.60	9.54	8.46	
1N2823B	MOT	10.65	9.20	8.00	
1N2824	MOT	5.65	4.90	4.25	
1N2825B	MOT	10.65	9.20	8.00	
1N2826	MOT	5.65	4.90	4.25	
1N2827	MOT	5.65	4.90	4.25	
1N2829	MOT	5.65	4.90	4.25	
1N2830B	HOF	10.60	9.54	8.46	
1N2831B	MOT	10.65	9.20	8.00	
1N2832	MOT	5.65	4.90	4.25	
1N2833	MOT	5.65	4.90	4.25	
1N2833B	MOT	10.65	9.20	8.00	
1N2835	MOT	5.65	4.90	4.25	
1N2836	MOT	5.65	4.90	4.25	
1N2838	HOF	6.25	5.40	5.00	
1N2838B	HOF	10.60	9.54	8.46	
1N2838B	MOT	10.65	9.20	8.00	
1N2841B	MOT	17.95	15.50	13.50	
1N2842B	MOT	17.95	15.50	13.50	
1N2843B	MOT	17.95	15.50	13.50	
1N2845	MOT	6.80	5.85	5.10	
1N2846	MOT	6.80	5.85	5.10	
1N2858	RCA	.37		.25	
1N2858A	RCA	.37		.43	
1N2859A	RCA	.38		.46	
1N2859A	RCA	.38		.46	
1N2860A	RCA	.40		.28	
1N2860A	RCA	.40		.28	
1N2861A	RCA	.43		.30	
1N2862A	RCA	.61		.43	
1N2863A	RCA	.66		.46	
1N2864A	RCA	.83		.57	
1N2927	HOF	15.00	11.25		
1N2927A	HOF	19.00	13.35		
1N2928	HOF	12.50		9.40	
1N2928A	HOF	17.50		13.10	
1N2929	HOF	11.10		8.30	
1N2929A	HOF	17.50		13.10	
1N2930	HOF	11.10		8.30	
1N2930A	HOF	17.50		13.10	
1N2931	HOF	11.10		8.30	
1N2931A	HOF	17.50		13.10	
1N2932	HOF	11.10		8.30	
1N2933	HOF	11.10		8.30	
1N2939	GE	7.50		5.00	
1N2939A	GE	15.40		10.25	
1N2940	GE	5.65		3.75	
1N2941	GE	4.70		3.15	
1N2941A	GE	9.15		6.10	
1N2969	GE	5.25		3.50	
1N2969A	GE	10.50		7.00	
Type No.	Mfr.	1-99	100 Mix	100-499	500-999
1N2970	MOT	5.45	4.70	4.10	2.40
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
1N2970	TI	3.60		2.40	
1N2970A	INT	5.20	4.55	3.90	
1N2970A	TI	3.98		2.65	
1N2970B	INT	5.30	4.62	3.97	
Type No.	Mfr.	1-99	100 Mix	100-499	500-999
1N2970B	MOT	7.30	6.30	5.50	3.30
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
1N2970B	TI	4.95		3.30	
1N2971	MOT	5.45	4.70	4.10	
1N2971A	TI	3.98		2.65	
1N2971B	INT	5.30	4.62	3.97	
1N2971B	TI	4.95		3.30	
1N2972	TI	3.60		2.40	
1N2972A	INT	5.20	4.55	3.90	

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
1N2972A	IT	3.98		2.65	
1N2972B	INT	5.30	4.62	3.97	
Type No.	Mfr.	1-99	100 Mix	100-499	500-999
1N2972B	MOT	7.30	6.30	5.50	3.30
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
1N2972B	IT	4.95		3.30	
1N2973A	INT	5.20	4.55	3.90	
1N2973A	TI	3.98		2.65	
1N2975B	INT	5.30	4.62	3.97	
Type No.	Mfr.	1-99	100 Mix	100-499	500-999
1N2973B	MOT	7.30	6.30	5.50	3.30
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
1N2973B	TI	4.95		3.30	
1N2974	TI	3.60		2.40	
1N2974A	INT	5.20	4.55	3.90	
Type No.	Mfr.	1-24	25-99	100-up	
1N2974A	TI	5.50	5.10	4.40	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
1N2974B	INT	5.30	4.62	3.97	
Type No.	Mfr.	1-99	100 Mix	100-499	500-999
1N2974B	TI	4.95		3.30	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
1N2974B	TI	4.95		3.30	
Type No.	Mfr.	1-99	100 Mix	100-499	500-999
1N2975	MOT	5.45	4.70	4.10	2.40
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
1N2975A	TI	3.98		2.65	
1N2975B	TI	4.95		3.30	
1N2976	TI	3.60		2.40	
1N2976A	INT	5.20	4.55	3.90	
1N2976A	TI	3.98		2.65	
1N2976B	HOF	5.30		3.97	
1N2976B	INT	5.30	4.62	3.07	
Type No.	Mfr.	1-99	100 Mix	100-499	500-999
1N2976B	MOT	7.30	6.30	5.50	3.30
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
1N2976B	TI	4.95		3.30	
Type No.	Mfr.	1-24	25-99	100-up	
1N2977	TI	5.10	4.70	4.10	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
1N2977A	INT	5.20	4.55	3.90	
1N2977A	TI	3.98		2.65	
1N2977B	INT	5.30	4.62	3.97	
Type No.	Mfr.	1-99	100 Mix	100-499	500-999
1N2977B	MOT	7.30	6.30	5.50	3.30
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
1N2977B	TI	4.95		3.30	
Type No.	Mfr.	1-99	100 Mix	100-499	500-999
1N2978	MOT	5.45	4.70	4.10	2.40
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
1N2978	TI	3.60		2.40	
1N2978A	TI	3.98		2.65	
1N2978B	INT	5.30	4.62	3.97	
1N2978B	TI	4.95		3.30	
Type No.	Mfr.	1-99	100 Mix	100-499	500-999
1N2979	MOT	5.45	4.70	4.1	

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Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN2979B	TI	4.95	3.30		
IN2980A	INT	5.20	4.55	3.90	
IN2980	TI	3.98	2.65		
IN2980B	INT	5.30	4.62	3.97	
IN2980B	TI	4.95	3.30		
IN2981	MOT	5.45	4.70	4.10	2.40
IN2981	TI	3.60	2.40		
IN2981B	INT	5.30	4.62	3.97	
IN2981B	TI	4.95	3.30		
IN2982	TI	3.60	2.40		
IN2982A	MOT	5.85	5.05	4.40	2.85
IN2982A	TI	3.98	2.65		
IN2982B	INT	5.30	4.62	3.97	
IN2982B	MOT	7.30	6.30	5.50	3.30
IN2982B	TI	4.95	3.30		
IN2983	MOT	5.45	4.70	4.10	2.40
IN2983	TI	3.60	2.40		
IN2983A	TI	3.98	2.65		
IN2983B	TI	4.95	3.30		
IN2984	MOT	5.45	4.70	4.10	2.40
IN2984	TI	3.60	2.40		
IN2984A	INT	5.20	4.55	3.90	
IN2984A	TI	3.98	2.65		
IN2984B	INT	5.30	4.62	3.97	
IN2984B	MOT	7.30	6.30	5.50	3.30
IN2984B	TI	4.95	3.30		
IN2985	MOT	5.45	4.70	4.10	2.40
IN2985	TI	3.60	2.40		
IN2985A	TI	3.98	2.65		
IN2985B	HOF	5.30	3.97		
IN2985B	MOT	7.30	6.30	5.50	3.30
IN2985B	TI	4.95	3.30		
IN2986	MOT	5.45	4.70	4.10	2.40
IN2986	TI	3.60	2.40		
IN2986A	INT	5.20	4.55	3.90	
IN2986A	TI	3.98	2.65		
IN2986B	INT	5.30	4.62	3.97	
IN2986B	MOT	7.30	6.30	5.50	3.30
IN2986B	TI	4.95	3.30		
IN2987	TI	3.60	2.40		
IN2987A	TI	3.98	2.65		
IN2987B	INT	5.30	4.62	3.97	
IN2987B	MOT	7.30	6.30	5.50	3.30
IN2987B	TI	4.95	3.30		

Type No.	Mfr.	1-99	100 Mix	100-499	500-999
IN2988	MOT	5.45	4.70	4.10	2.40
IN2988A	INT	5.20	4.55	3.90	
IN2988A	TI	3.98	2.65		
IN2988B	INT	5.30	4.62	3.97	
IN2988B	MOT	7.30	6.30	5.50	3.30
IN2988B	TI	4.95	3.30		
IN2989	MOT	5.45	4.70	4.10	2.40
IN2989	TI	3.60	2.40		
IN2989A	INT	5.20	4.55	3.90	
IN2989A	TI	3.98	2.65		
IN2989B	HOF	5.30	3.97		
IN2989B	INT	5.30	4.62	3.97	
IN2989B	MOT	7.30	6.30	5.50	3.30
IN2989B	TI	4.95	3.30		
IN2990	MOT	5.45	4.70	4.10	2.40
IN2990	TI	3.60	2.40		
IN2990A	INT	5.20	4.55	3.90	
IN2990A	TI	3.98	2.65		
IN2990B	MOT	7.30	6.30	5.50	3.30
IN2990B	TI	4.95	3.30		
IN2991	MOT	5.45	4.70	4.10	2.40
IN2991	TI	3.60	2.40		
IN2991A	TI	3.98	2.65		
IN2991B	INT	5.30	4.62	3.97	
IN2991B	MOT	7.30	6.30	5.50	3.30
IN2991B	TI	4.95	3.30		
IN2992	MOT	5.45	4.70	4.10	2.40
IN2992	TI	3.60	2.40		
IN2992A	INT	5.20	4.55	3.90	
IN2992A	TI	3.98	2.65		
IN2992B	HOF	5.30	3.97		
IN2992B	INT	5.30	4.62	3.97	
IN2992B	TI	4.95	3.30		
IN2993	TI	3.60	2.40		
IN2993A	TI	3.98	2.65		
IN2993B	INT	5.30	4.62	3.97	
IN2993B	TI	4.95	3.30		
IN2994	TI	3.60	2.40		
IN2994A	TI	3.98	2.65		
IN2994B	INT	5.30	4.62	3.97	
IN2994B	TI	4.95	3.30		
IN2995	MOT	5.45	4.70	4.10	2.40
IN2995	TI	3.60	2.40		
IN2995A	TI	3.98	2.65		
IN2995B	TI	4.95	3.30		
IN2996	TI	3.60	2.40		
IN2996A	INT	5.20	4.55	3.90	
IN2996A	TI	3.98	2.65		
IN2996B	MOT	7.30	6.30	5.50	3.30
IN2996B	TI	4.95	3.30		

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN2996B	TI	4.95	3.30		
IN2997	TI	3.60	2.40		
IN2997A	TI	3.98	2.65		
IN2997B	HOF	5.30	3.97		
IN2997B	TI	4.95	3.30		
IN2998	MOT	5.45	4.70	4.10	2.40
IN2998	TI	3.60	2.40		
IN2998A	TI	3.98	2.65		
IN2998B	TI	4.95	3.30		
IN2999	MOT	5.45	4.70	4.10	2.40
IN2999	TI	3.60	2.40		
IN2999A	TI	3.98	2.65		
IN2999B	INT	5.30	4.62	3.97	
IN2999B	TI	4.95	3.30		
IN3000	TI	3.60	2.40		
IN3000	MOT	5.45	4.70	4.10	2.40
IN3000A	TI	5.50	5.10	4.40	
IN3000B	MOT	7.30	6.30	5.50	3.30
IN3000B	TI	4.95	3.30		
IN3001	TI	3.60	2.40		
IN3001A	INT	5.20	4.55	3.90	
IN3001A	TI	3.98	2.65		
IN3001B	INT	5.30	4.62	3.97	
IN3001B	MOT	7.30	6.30	5.50	3.30
IN3001B	TI	4.95	3.30		
IN3002	TI	5.10	4.70	4.10	
IN3002	TI	3.60	2.40		
IN3002A	TI	3.98	2.65		
IN3002B	INT	5.30	4.62	3.97	
IN3002B	MOT	7.30	6.30	5.50	3.30
IN3002B	TI	4.95	3.30		
IN3003	TI	3.60	2.40		
IN3003A	INT	5.20	4.55	3.90	
IN3003A	TI	3.98	2.65		
IN3003B	INT	5.30	4.62	3.97	
IN3003B	MOT	7.30	6.30	5.50	3.30
IN3003B	TI	4.95	3.30		
IN3004	TI	3.60	2.40		
IN3004A	INT	5.20	4.55	3.90	
IN3004A	TI	3.98	2.65		
IN3004B	INT	5.30	4.62	3.97	
IN3004B	TI	4.95	3.30		
IN3005	MOT	5.45	4.70	4.10	2.40
IN3005	TI	3.60	2.40		
IN3005A	INT	5.20	4.55	3.90	
IN3005A	TI	3.98	2.65		
IN3005B	HOF	5.30	3.97		
IN3005B	INT	5.30	4.62	3.97	
IN3005B	MOT	7.30	6.30	5.50	3.30
IN3005B	TI	4.95	3.30		
IN3006	TI	3.60	2.40		
IN3006A	INT	5.20	4.55	3.90	
IN3006A	TI	3.98	2.65		

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Type No.	Mfr.	1-99	100 Mix	100-499	500-999
IN3006B	MOT	7.30	6.30	5.50	3.30
Type No.	Mfr.	1-99	100 Mix	100-499	500-999
IN3006B	TI	4.95	3.30	2.40	1.80
IN3007	TI	3.60	2.40	1.80	1.30
IN3007A	TI	3.98	2.65	1.90	1.40
IN3007B	INT	5.30	4.62	3.97	2.90
Type No.	Mfr.	1-99	100 Mix	100-499	500-999
IN3007B	MOT	7.30	6.30	5.50	3.30
Type No.	Mfr.	1-99	100 Mix	100-499	500-999
IN3007B	TI	4.95	3.30	2.40	1.80
IN3008	TI	3.60	2.40	1.80	1.30
IN3008A	INT	5.20	4.55	3.90	2.90
IN3008A	TI	3.98	2.65	1.90	1.40
Type No.	Mfr.	1-99	100 Mix	100-499	500-999
IN3008B	MOT	7.30	6.30	5.50	3.30
Type No.	Mfr.	1-99	100 Mix	100-499	500-999
IN3008B	TI	4.95	3.30	2.40	1.80
Type No.	Mfr.	1-24	25-99	100-499	500-999
IN3009	TI	5.10	4.70	4.10	3.30
Type No.	Mfr.	1-99	100 Mix	100-499	500-999
IN3009A	INT	5.20	4.55	3.90	2.90
IN3009A	TI	3.98	2.65	1.90	1.40
IN3009B	INT	5.30	4.62	3.97	2.90
Type No.	Mfr.	1-99	100 Mix	100-499	500-999
IN3009B	MOT	7.30	6.30	5.50	3.30
Type No.	Mfr.	1-99	100 Mix	100-499	500-999
IN3009B	TI	4.95	3.30	2.40	1.80
IN3010	TI	3.60	2.40	1.80	1.30
IN3010A	INT	5.20	4.55	3.90	2.90
IN3010A	TI	3.98	2.65	1.90	1.40
IN3010B	INT	5.30	4.62	3.97	2.90
Type No.	Mfr.	1-99	100 Mix	100-499	500-999
IN3010B	MOT	7.30	6.30	5.50	3.30
Type No.	Mfr.	1-99	100 Mix	100-499	500-999
IN3010B	TI	4.95	3.30	2.40	1.80
Type No.	Mfr.	1-99	100 Mix	100-499	500-999
IN3011	MOT	5.45	4.70	4.10	2.40
Type No.	Mfr.	1-99	100 Mix	100-499	500-999
IN3011	TI	3.60	2.40	1.80	1.30
IN3011A	INT	5.20	4.55	3.90	2.90
IN3011A	TI	3.98	2.65	1.90	1.40
IN3011B	INT	5.30	4.62	3.97	2.90
Type No.	Mfr.	1-99	100 Mix	100-499	500-999
IN3011B	MOT	7.30	6.30	5.50	3.30
Type No.	Mfr.	1-99	100 Mix	100-499	500-999
IN3011B	TI	4.95	3.30	2.40	1.80
IN3012	TI	4.05	2.70	1.90	1.40
IN3012	INT	5.35	4.75	4.15	3.30
IN3012A	INT	5.70	4.95	4.20	3.30
IN3012A	TI	5.85	3.90	2.80	2.10
IN3012B	TI	9.30	6.20	4.50	3.30
IN3012B	INT	6.50	5.35	4.75	3.90
IN3013	TI	4.05	2.70	1.90	1.40
IN3013	INT	5.35	4.75	4.15	3.30
Type No.	Mfr.	1-99	100 Mix	100-499	500-999
IN3013	MOT	6.00	5.15	4.50	2.70
IN3013A	INT	5.70	4.95	4.20	3.30
Type No.	Mfr.	1-24	25-99	100-499	500-999
IN3013A	TI	8.45	7.75	6.75	5.50
Type No.	Mfr.	1-99	100 Mix	100-499	500-999
IN3013B	TI	9.30	6.20	4.50	3.30
IN3013B	INT	6.50	5.35	4.75	3.90
Type No.	Mfr.	1-99	100 Mix	100-499	500-999
IN3014	MOT	6.00	5.15	4.50	2.70

Type No.	Mfr.	1-99	100 Mix	100-499	500-999	1000-up
IN3014	TI	4.05	2.70	1.90	1.40	1.00
IN3014	INT	5.35	4.75	4.15	3.30	2.40
IN3014A	INT	5.85	3.90	2.80	2.10	1.60
IN3014A	TI	9.30	6.20	4.50	3.30	2.40
IN3014B	INT	5.70	4.95	4.20	3.30	2.40
IN3014B	TI	5.30	4.20	3.20	2.40	1.80
IN3014B	INT	6.50	5.35	4.75	3.90	2.90
Type No.	Mfr.	1-99	100 Mix	100-499	500-999	1000-up
IN3015	MOT	6.00	5.15	4.50	2.70	2.00
Type No.	Mfr.	1-99	100 Mix	100-499	500-999	1000-up
IN3015	TI	4.05	2.70	1.90	1.40	1.00
IN3015	INT	5.35	4.75	4.15	3.30	2.40
IN3015A	INT	5.70	4.95	4.20	3.30	2.40
IN3015A	TI	5.85	3.90	2.80	2.10	1.60
IN3015B	HOF	5.30	3.97	2.80	2.10	1.60
IN3015B	INT	6.50	5.35	4.75	3.90	2.90
Type No.	Mfr.	1-99	100 Mix	100-499	500-999	1000-up
IN3015B	MOT	13.75	11.90	10.40	6.20	4.50
Type No.	Mfr.	1-99	100 Mix	100-499	500-999	1000-up
IN3015B	TI	9.30	6.20	4.50	3.30	2.40
IN3016	MOT	2.85	2.45	2.15	1.60	1.20
IN3016	INT	2.60	2.05	1.50	1.10	0.80
IN3016	TI	2.36	2.05	1.50	1.10	0.80
IN3016A	INT	2.90	2.57	2.25	1.70	1.30
IN3016A	TI	2.59	2.25	1.70	1.30	1.00
IN3016B	HOF	2.90	2.16	1.60	1.20	0.90
IN3016B	INT	3.40	3.05	2.70	2.10	1.60
IN3016B	MOT	3.70	3.20	2.80	2.20	1.70
IN3016B	TI	2.89	2.60	2.10	1.60	1.20
IN3017	MOT	2.85	2.45	2.15	1.60	1.20
IN3017	INT	2.60	2.05	1.50	1.10	0.80
Type No.	Mfr.	1-24	25-99	100-499	500-999	1000-up
IN3017	TI	2.70	2.45	2.15	1.60	1.20
Type No.	Mfr.	1-99	100 Mix	100-499	500-999	1000-up
IN3017A	INT	2.90	2.57	2.25	1.70	1.30
Type No.	Mfr.	1-24	25-99	100-499	500-999	1000-up
IN3017A	TI	3.00	2.75	2.40	1.90	1.40
Type No.	Mfr.	1-99	100 Mix	100-499	500-999	1000-up
IN3017B	INT	3.40	3.05	2.70	2.10	1.60
IN3017B	MOT	3.70	3.20	2.80	2.20	1.70
Type No.	Mfr.	1-24	25-99	100-499	500-999	1000-up
IN3017B	TI	3.55	3.20	2.80	2.20	1.70
Type No.	Mfr.	1-99	100 Mix	100-499	500-999	1000-up
IN3018	MOT	2.85	2.45	2.15	1.60	1.20
Type No.	Mfr.	1-24	25-99	100-499	500-999	1000-up
IN3018	TI	2.70	2.45	2.15	1.60	1.20
Type No.	Mfr.	1-99	100 Mix	100-499	500-999	1000-up
IN3018A	INT	2.90	2.57	2.25	1.70	1.30
Type No.	Mfr.	1-24	25-99	100-499	500-999	1000-up
IN3018A	TI	3.00	2.75	2.40	1.90	1.40
Type No.	Mfr.	1-99	100 Mix	100-499	500-999	1000-up
IN3018A	MOT	3.20	2.75	2.40	1.90	1.40
IN3018B	INT	3.40	3.05	2.70	2.10	1.60
IN3018B	MOT	3.70	3.20	2.80	2.20	1.70
Type No.	Mfr.	1-24	25-99	100-499	500-999	1000-up
IN3018B	TI	3.55	3.20	2.80	2.20	1.70
Type No.	Mfr.	1-99	100 Mix	100-499	500-999	1000-up
IN3019	MOT	2.85	2.45	2.15	1.60	1.20
IN3019	INT	2.60	2.05	1.50	1.10	0.80
Type No.	Mfr.	1-24	25-99	100-499	500-999	1000-up
IN3019	TI	2.70	2.45	2.15	1.60	1.20
Type No.	Mfr.	1-99	100 Mix	100-499	500-999	1000-up
IN3019A	NT	2.90	2.57	2.25	1.70	1.30
Type No.	Mfr.	1-24	25-99	100-499	500-999	1000-up
IN3019A	TI	3.00	2.75	2.40	1.90	1.40

Type No.	Mfr.	1-99	100 Mix	100-499	500-999	1000-up
IN3019B	INT	3.40	3.05	2.70	2.10	1.60
IN3019B	MOT	3.70	3.20	2.80	2.20	1.70
Type No.	Mfr.	1-24	25-99	100-499	500-999	1000-up
IN3019B	TI	3.55	3.20	2.80	2.20	1.70
Type No.	Mfr.	1-99	100 Mix	100-499	500-999	1000-up
IN3020	INT	2.60	2.05	1.50	1.10	0.80
Type No.	Mfr.	1-24	25-99	100-499	500-999	1000-up
IN3020	TI	2.70	2.45	2.15	1.60	1.20
Type No.	Mfr.	1-99	100 Mix	100-499	500-999	1000-up
IN3020A	MOT	3.20	2.75	2.40	1.90	1.40
Type No.	Mfr.	1-24	25-99	100-499	500-999	1000-up
IN3020A	TI	3.00	2.75	2.40	1.90	1.40
Type No.	Mfr.	1-99	100 Mix	100-499	500-999	1000-up
IN3020B	HOF	2.90	2.16	1.60	1.20	0.90
IN3020B	INT	3.40	3.05	2.70	2.10	1.60
IN3020B	MOT	3.70	3.20	2.80	2.20	1.70
Type No.	Mfr.	1-24	25-99	100-499	500-999	1000-up
IN3020B	TI	3.55	3.20	2.80	2.20	1.70
Type No.	Mfr.	1-99	100 Mix	100-499	500-999	1000-up
IN3021	MOT	2.85	2.45	2.15	1.60	1.20
IN3021	INT	2.60	2.05	1.50	1.10	0.80
Type No.	Mfr.	1-24	25-99	100-499	500-999	1000-up
IN3021	TI	2.70	2.45	2.15	1.60	1.20
IN3021A	TI	3.00	2.75	2.40	1.90	1.40
Type No.	Mfr.	1-99	100 Mix	100-499	500-999	1000-up
IN3021B	INT	3.40	3.05	2.70	2.10	1.60
IN3021B	MOT	3.70	3.20	2.80	2.20	1.70
Type No.	Mfr.	1-24	25-99	100-499	500-999	1000-up
IN3021B	TI	3.55	3.20	2.80	2.20	1.70
Type No.	Mfr.	1-99	100 Mix	100-499	500-999	1000-up
IN3022	MOT	2.85	2.45	2.15	1.60	1.20
IN3022	HOF	2.90	2.16	1.60	1.20	0.90
IN3022	INT	2.60	2.05	1.50	1.10	0.80
Type No.	Mfr.	1-24	25-99	100-499	500-999	1000-up
IN3022	TI	2.70	2.45	2.15	1.60	1.20
Type No.	Mfr.	1-99	100 Mix	100-499	500-999	1000-up

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Type No.	Mfr.	1-24	25-99	100-999	1000-up
IN3024	TI	2.70	2.45	2.12	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN3024A	MOT	3.20	2.75	2.40	
IN3024A	INT	2.90	2.57	2.25	
Type No.	Mfr.	1-24	25-99	100-up	
IN3024A	TI	3.00	2.75	2.40	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN3024B	HOF	2.90		2.16	
IN3024B	INT	3.40	3.05	2.70	
IN3024B	MOT	3.70	3.20	2.80	
IN3024B	TI	2.89		2.60	
IN3025	MOT	2.85	2.45	2.15	
Type No.	Mfr.	1-24	25-99	100-up	
IN3025	TI	2.70	2.45	2.15	
IN3025A	TI	3.00	2.75	2.40	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN3025B	HOF	2.90		2.16	
IN3025B	INT	3.40	3.05	2.70	
IN3025B	MOT	3.70	3.20	2.80	
Type No.	Mfr.	1-24	25-99	100-up	
IN3025B	TI	3.55	3.20	2.80	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN3026	MOT	2.85	2.45	2.15	
IN3026	INT	2.60		2.05	
Type No.	Mfr.	1-24	25-99	100-up	
IN3026	TI	2.70	2.45	2.15	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN3026A	INT	2.90	2.57	2.25	
Type No.	Mfr.	1-24	25-99	100-up	
IN3026A	TI	3.00	2.75	2.40	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN3026B	INT	3.40	3.05	2.70	
IN3026B	MOT	3.70	3.20	2.80	
Type No.	Mfr.	1-24	25-99	100-up	
IN3026B	TI	3.55	3.20	2.80	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN3027	MOT	2.85	2.45	2.15	
IN3027	INT	2.60		2.05	
Type No.	Mfr.	1-24	25-99	100-up	
IN3027	TI	2.70	2.45	2.15	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN3027A	INT	2.90	2.57	2.25	
Type No.	Mfr.	1-24	25-99	100-up	
IN3027A	TI	3.00	2.75	2.40	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN3027B	HOF	2.90		2.16	
IN3027B	INT	3.40	3.05	2.70	
IN3027B	MOT	3.70	3.20	2.80	
Type No.	Mfr.	1-24	25-99	100-up	
IN3027B	TI	3.55	3.20	2.80	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN3028	INT	2.60		2.05	
Type No.	Mfr.	1-24	25-99	100-up	
IN3028	TI	2.70	2.45	2.15	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN3028A	INT	2.90	2.57	2.25	
Type No.	Mfr.	1-24	25-99	100-up	
IN3028A	TI	3.00	2.75	2.40	

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN3028B	INT	3.40	3.05	2.70	
IN3028B	MOT	3.70	3.20	2.80	
IN3028B	TI	2.89		2.60	
IN3029	MOT	2.85	2.45	2.15	
IN3029	INT	2.60		2.05	
Type No.	Mfr.	1-24	25-99	100-up	
IN3029	TI	2.70	2.45	2.15	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN3029A	INT	2.90	2.57	2.25	
Type No.	Mfr.	1-24	25-99	100-up	
IN3029A	TI	3.00	2.75	2.40	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN3029B	HOF	2.90		2.16	
IN3029B	INT	3.40	3.05	2.70	
IN3029B	MOT	3.70	3.20	2.80	
Type No.	Mfr.	1-24	25-99	100-up	
IN3029B	TI	3.55	3.20	2.80	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN3030	INT	2.60		2.05	
Type No.	Mfr.	1-24	25-99	100-up	
IN3030	TI	2.70	2.45	2.15	
IN3030A	TI	3.00	2.75	2.40	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN3030B	INT	3.40	3.05	2.70	
IN3030B	MOT	3.70	3.20	2.80	
Type No.	Mfr.	1-24	25-99	100-up	
IN3030B	TI	3.55	3.20	2.80	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN3031	INT	2.60		2.05	
Type No.	Mfr.	1-24	25-99	100-up	
IN3031	TI	2.70	2.45	2.15	
IN3031A	TI	3.00	2.75	2.40	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN3031B	HOF	2.90		2.16	
IN3031B	INT	3.40	3.05	2.70	
IN3031B	MOT	3.70	3.20	2.80	
IN3032	INT	2.60		2.05	
Type No.	Mfr.	1-24	25-99	100-up	
IN3032	TI	2.70	2.45	2.15	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN3032A	INT	2.90	2.57	2.25	
Type No.	Mfr.	1-24	25-99	100-up	
IN3032A	TI	3.00	2.75	2.40	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN3032B	HOF	2.90		2.16	
IN3032B	INT	3.40	3.05	2.70	
IN3032B	MOT	3.70	3.20	2.80	
Type No.	Mfr.	1-24	25-99	100-up	
IN3032B	TI	3.55	3.20	2.80	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN3033	INT	2.60		2.05	
Type No.	Mfr.	1-24	25-99	100-up	
IN3033	TI	2.70	2.45	2.15	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN3033A	INT	2.90	2.57	2.25	
Type No.	Mfr.	1-24	25-99	100-up	
IN3033A	TI	3.00	2.75	2.40	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN3033B	HOF	2.90		2.16	
IN3033B	INT	3.40	3.05	2.70	
IN3033B	MOT	3.70	3.20	2.80	

Type No.	Mfr.	1-24	25-99	100-999	1000-up
IN3033B	TI	3.55	3.20	2.80	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN3034	INT	2.60		2.05	
Type No.	Mfr.	1-24	25-99	100-up	
IN3034	TI	2.70	2.45	2.15	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN3034A	INT	2.90	2.57	2.25	
Type No.	Mfr.	1-24	25-99	100-up	
IN3034A	TI	3.00	2.75	2.40	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN3034B	INT	3.40	3.05	2.70	
IN3034B	MOT	3.70	3.20	2.80	
Type No.	Mfr.	1-24	25-99	100-up	
IN3034B	TI	3.55	3.20	2.80	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN3035	INT	2.60		2.05	
Type No.	Mfr.	1-24	25-99	100-up	
IN3035	TI	2.70	2.45	2.15	
IN3035A	TI	3.00	2.75	2.40	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN3035B	INT	3.40	3.05	2.70	
IN3035B	MOT	3.70	3.20	2.80	
Type No.	Mfr.	1-24	25-99	100-up	
IN3035B	TI	3.55	3.20	2.80	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN3036	INT	2.60		2.05	
Type No.	Mfr.	1-24	25-99	100-up	
IN3036	TI	2.70	2.45	2.15	
IN3036A	TI	3.00	2.75	2.40	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN3036B	INT	3.40	3.05	2.70	
IN3036B	MOT	3.70	3.20	2.80	
Type No.	Mfr.	1-24	25-99	100-up	
IN3036B	TI	3.55	3.20	2.80	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN3037	INT	2.60		2.05	
Type No.	Mfr.	1-24	25-99	100-up	
IN3037	TI	2.70	2.45	2.15	
IN3037A	TI	3.00	2.75	2.40	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN3037B	INT	3.40	3.05	2.70	
IN3037B	MOT	3.70	3.20	2.80	
Type No.	Mfr.	1-24	25-99	100-up	
IN3037B	TI	3.55	3.20	2.80	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN3038	INT	2.60		2.05	
Type No.	Mfr.	1-24	25-99	100-up	
IN3038	TI	2.70	2.45	2.15	
IN3038A	TI	3.00	2.75	2.40	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN3038B	INT	3.40	3.05	2.70	
IN3038B	MOT	3.70	3.20	2.80	
Type No.	Mfr.	1-24	25-99	100-up	
IN3038B	TI	3.55	3.20	2.80	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN3039	INT	2.60		2.05	
Type No.	Mfr.	1-24	25-99	100-up	
IN3039	TI	2.70	2.45	2.15	

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Type No.	Mfr.	1-99	Mix	100-999	1000-up
IN3039A	INT	2.90	2.57	2.25
Type No.	Mfr.	1-24	25-99	100-999	1000-up
IN3039A	TI	3.00	2.75	2.40	.....
Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
IN3039B	INT	3.40	3.05	2.70	.....
IN3039B	MOT	3.70	3.20	2.80	.....
Type No.	Mfr.	1-24	25-99	100-999	1000-up
IN3039B	TI	3.55	3.20	2.80	.....
Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
IN3040	INT	2.60	.....	2.05	.....
Type No.	Mfr.	1-24	25-99	100-999	1000-up
IN3040	TI	2.70	2.45	2.15	.....
IN3040A	TI	3.00	2.75	2.40	.....
Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
IN3040B	MOT	3.70	3.20	2.80	.....
Type No.	Mfr.	1-24	25-99	100-999	1000-up
IN3040B	TI	3.55	3.20	2.80	.....
Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
IN3041	INT	2.60	.....	2.05	.....
Type No.	Mfr.	1-24	25-99	100-999	1000-up
IN3041	TI	2.70	2.45	2.15	.....
Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
IN3041A	INT	2.90	2.57	2.25	.....
Type No.	Mfr.	1-24	25-99	100-999	1000-up
IN3041A	TI	3.00	2.75	2.40	.....
Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
IN3041B	INT	3.40	3.05	2.70	.....
IN3041B	MOT	3.70	3.20	2.80	.....
IN3042	INT	2.60	.....	2.05	.....
Type No.	Mfr.	1-24	25-99	100-999	1000-up
IN3042A	TI	3.00	2.75	2.40	.....
Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
IN3042B	MOT	3.70	3.20	2.80	.....
Type No.	Mfr.	1-24	25-99	100-999	1000-up
IN3042B	TI	3.55	3.20	2.80	.....
Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
IN3043	INT	2.60	.....	2.05	.....
Type No.	Mfr.	1-24	25-99	100-999	1000-up
IN3043A	TI	3.00	2.75	2.40	.....
Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
IN3043B	MOT	3.70	3.20	2.80	.....
Type No.	Mfr.	1-24	25-99	100-999	1000-up
IN3043B	TI	3.55	3.20	2.80	.....
Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
IN3044	INT	2.60	.....	2.05	.....
Type No.	Mfr.	1-24	25-99	100-999	1000-up
IN3044A	TI	3.00	2.75	2.40	.....
Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
IN3044B	INT	3.40	3.05	2.70	.....
IN3044B	MOT	3.70	3.20	2.80	.....
Type No.	Mfr.	1-24	25-99	100-999	1000-up
IN3044B	TI	3.55	3.20	2.80	.....
Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
IN3045	INT	2.70	.....	2.20	.....
IN3045	TI	2.55	.....	2.20	.....
IN3045A	INT	3.05	2.65	2.30	.....
IN3045A	TI	2.80	.....	2.45	.....

Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
IN3045A	MOT	3.25	.....	2.80	2.45
IN3045B	TI	4.05	.....	3.50	.....
IN3046	INT	2.70	.....	2.20	.....
IN3046A	TI	2.80	.....	2.45	.....
IN3046B	MOT	4.65	4.05	3.50	.....
IN3046B	TI	4.05	.....	3.50	.....
IN3047	INT	2.70	.....	2.20	.....
IN3047A	TI	2.80	.....	2.45	.....
IN3047B	MOT	4.65	4.05	3.50	.....
IN3047B	TI	4.05	.....	3.50	.....
IN3048	INT	2.70	.....	2.20	.....
IN3048A	INT	3.05	2.85	2.30	.....
Type No.	Mfr.	1-24	25-99	100-999	1000-up
IN3048A	TI	3.05	2.80	2.45	.....
Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
IN3048B	MOT	4.65	4.05	3.50	.....
IN3048B	TI	4.05	.....	3.50	.....
IN3049	INT	3.03	2.63	2.30	.....
IN3049A	TI	2.80	.....	2.45	.....
IN3049B	TI	4.05	.....	3.50	.....
IN3050	MOT	2.95	2.55	2.20	.....
IN3050	INT	2.70	.....	2.20	.....
IN3050A	INT	3.05	2.65	2.30	.....
IN3050A	TI	2.80	.....	2.45	.....
IN3050B	TI	4.20	.....	3.50	.....
IN3051	INT	4.20	3.75	3.35	.....
IN3051A	INT	3.05	2.65	2.30	.....
Type No.	Mfr.	1-24	25-99	100-999	1000-up
IN3051A	TI	3.05	2.80	2.45	.....
Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
IN3051B	HOF	4.35	.....	3.80	.....
IN3051B	MOT	4.65	4.05	3.50	.....
IN3051B	TI	4.05	.....	3.50	.....
Type No.	Mfr.	1-24	25-99	100-999	1000-up
IN3052	HUG	23.20	20.50	17.40	.....
IN3053	HUG	26.10	22.90	19.60	.....
IN3054	HUG	29.70	25.95	22.30	.....
IN3055	HUG	33.50	29.30	25.12	.....
IN3056	HUG	37.80	33.00	28.40	.....
IN3057	HUG	40.00	35.00	30.00	.....
IN3058	HUG	43.60	38.00	30.50	.....
IN3059	HUG	48.90	40.00	35.00	.....
IN3060	HUG	50.00	44.00	37.00	.....
IN3061	HUG	53.70	46.00	40.00	.....
Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
IN3062	RAY	5.75	.....	3.85	.....
IN3062	HUG	2.66	.....	2.00	.....
IN3063	HUG	2.45	.....	1.84	.....
IN3064	SYL	.67	.....	.44	.23
IN3064	TI	3.55	.....	2.80	.....
IN3064	HUG	2.24	.....	1.68	.....
IN3064	RAY	2.00	.....	1.20	.....
IN3064	TI	.67	.....	.44	.....
IN3064/IN4454	GE	.67	.....	.44	.....
IN3065	GE	1.35	.....	.90	.....
IN3065	RAY	6.00	.....	4.35	.....
IN3065	HUG	2.59	.....	1.94	.....
IN3066	RAY	5.75	.....	3.85	.....
IN3066	HUG	2.59	.....	1.94	.....
IN3067	HUG	1.40	.....	1.05	.....
IN3068	HUG	.84	.....	.63	.....
IN3069	HUG	1.40	.....	1.05	.....
IN3069	RAY	1.20	.....	.80	.....
IN3070	TI	5.25	.....	3.50	.....
IN3085	INT	8.00	.....	.....	.....
IN3086	INT	14.00	.....	.....	.....
IN3123	HUG	1.75	.....	1.31	.....
IN3124	HUG	1.47	.....	1.10	.....
IN3125	HUG	.80	.....	.60	.....
IN3125	SYL	.51	.....	.40	.32
IN3129	RCA	7.59	.....	5.24	.....
Type No.	Mfr.	1-9	10-99	100-999	1000-up
IN3143	SYL	5.60	4.80	4.40	.....
Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
IN3149	GE	4.70	.....	3.15	.....
IN3149A	GE	9.15	.....	6.10	.....
IN3150	GE	4.70	.....	3.15	.....
Type No.	Mfr.	1-24	25-99	100-999	100-Mix
IN3154ML1	MOT	3.25	2.80	2.25	2.45

Type No.	Mfr.	1-24	25-99	100-999	100-Mix
IN3154ML2	MOT	4.95	4.25	3.40	3.75
IN3154ML3	MOT	6.10	5.25	4.20	4.60
IN3155A	MOT	4.35	3.75	3.00	3.30
IN3155M3	MOT	7.55	6.50	5.20	5.70
IN3155ML1	MOT	4.15	3.55	2.85	3.15
IN3155ML2	MOT	6.10	5.25	4.20	4.60
Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
IN3156	MOT	6.15	5.30	4.25	4.65
Type No.	Mfr.	1-24	25-99	100-999	100-Mix
IN3156ML1	MOT	6.80	5.85	4.70	5.15
IN3156ML2	MOT	8.70	10.50	8.40	9.25
IN3156ML3	MOT	12.20	10.50	8.40	9.25
IN3157ML1	MOT	8.20	7.05	5.65	6.20
IN3157ML2	MOT	10.15	8.75	7.00	7.70
IN3157ML3	MOT	15.35	13.25	10.60	11.65
IN3161R	WES	18.75	15.70	.....	.....
IN3162R	WES	22.45	18.85	.....	.....
Type No.	Mfr.	1-24	25-99	100-999	1000-up
IN3163R	WES	26.45	22.55	.....	.....
IN3164R	WES	31.30	26.35	.....	.....
IN3165R	WES	35.65	30.00	.....	.....
IN3166R	WES	40.70	34.25	.....	.....
IN3167R	WES	52.05	43.80	.....	.....
IN3168R	WES	59.70	50.15	.....	.....
IN3169R	WES	72.20	60.70	.....	.....
IN3170R	WES	88.55	74.20	.....	.....
IN3171A	WES	102.95	87.40	.....	.....
IN3172A	WES	121.90	102.35	.....	.....
IN3172A	AR	121.90	102.35	.....	.....
IN3173A	WES	144.90	121.90	.....	.....
IN3173A	AR	144.90	121.90	.....	.....
IN3174A	WES	171.35	142.60	.....	.....
Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
IN3182	AME	.68	.....	.45	.....
IN3189	GI	3.00	.....	2.00	.....
IN3189	GE	2.70	.....	1.80	.....
IN3189	TI	3.00	.....	2.00	.....
IN3190	GE	3.75	.....	2.50	.....
IN3190	TI	4.50	.....	3.00	.....
IN3191	TI	7.20	.....	4.80	.....
IN3193	RCA	.35	.....	.24	.....
IN3194	RCA	.38	.....	.65	.....
IN3195	RCA	.66	.....	.46	.....
IN3196	RCA	.91	.....	.63	.....
IN3206	GI	4.50	.....	3.15	.....
IN3208	GE	1.73	.....	1.15	.....
IN3208R	MOT	1.15	.....	.79	.....
IN3208R	WES	1.30	.....	.88	.....
IN3209	GE	1.77	.....	1.18	.....
IN3209R	MOT	1.30	.....	.89	.....
IN3209R	WES	1.46	.....	.99	.....
IN3210	GE	1.82	.....	1.21	.....
IN3210R	MOT	1.75	.....	1.19	.....
IN3210R	WES	2.68	.....	1.80	.....
IN3211	GE	2.40	.....	1.60	.....
IN3211R	MOT	2.40	.....	1.60	.....
IN3212	GE	2.90	.....	1.93	.....
IN3212R	MOT	2.90	.....	1.93	.....
IN3213	GE	5.40	.....	3.60	.....
IN3214	MOT	6.75	.....	4.50	.....
IN3253	RCA	.40	.....	.28	.....
IN3254	RCA	.45	.....	.31	.....
IN3255	RCA	.70	.....	.48	.....
IN3256	RCA	.94	.....	.65	.....
IN3257	HUG	2.70	.....	2.03	.....
IN3258	HUG	2.84	.....	2.13	.....
Type No.	Mfr.	1-24	25-99	100-999	1000-up
IN3260	WES	7.50	6.35	.....	.....
IN3261	WES	8.55	7.25	.....	.....
IN3262	WES	11.30	9.83	.....	.....
IN3263	WES	14.85	12.60	.....	.....
IN3264	WES	17.10	14.10	.....	.....
IN3265	WES	17.95	14.70	.....	.....
IN3266	WES	18.75	15.45	.....	.....
IN3267	WES	19.55	16.20	.....	.....
IN3268	WES	21.75	17.95	.....	.....
IN3269	WES	25.60	21.00	.....	.....
IN3270	WES	28.90	23.80	.....	.....
IN3271	WES	32.05	26.45	.....	.....
IN3272	WES	35.30	28.90	.....	.....
IN3273	WES	38.55	32.00
IN3274	WES	42.00	35.20
IN3275	WES	46.20	38.85
IN3276	WES	50.95	43.05

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Type No.	Mfr.	1-99	100 Mix	100-999	1000-up	Type No.	Mfr.	1-99	100 Mix	100-999	1000-up	Type No.	Mfr.	1-99	100 Mix	100-999	1000-up	
IN3282	MOT	2.25	.....	1.50	.....	IN3341	MOT	6.80	5.85	5.10	.....	IN3600/	GE	3.75	.....	2.50	.....
IN3283	MOT	2.90	.....	1.95	.....	IN3342	MOT	6.80	5.85	5.10	.....	IN4150	HUG	2.59	.....	1.94	.....
IN3284	MOT	7.95	.....	5.30	.....	IN3343	MOT	6.80	5.85	5.10	.....	IN3604	SYL	.80	.....	.56	.32	
IN3285	MOT	10.05	.....	6.70	.....	IN3344	MOT	6.80	5.85	5.10	.....	IN3604/	IN3604/					
IN3287	HUG	.36	.....	.27	.....	IN3345	MOT	6.80	5.85	5.10	.....	IN4151	GE	.83	.....	.56	.....
IN3288	WES	6.80	.....	5.85	.....	IN3346	MOT	6.80	5.85	5.10	.....	Type No.	Mfr.	1-99	10-99	100-999	1000-up	
IN3289	WES	11.25	.....	9.00	.....	IN3347	MOT	6.80	5.85	5.10	.....	IN3605/	IN4152	GE	.72	.....	.48	.....
IN3289/						IN3348	MOT	6.80	5.85	5.10	.....	IN3606	HUG	2.94	.....	2.21	.....
4JA70B	GE	12.95	.....	10.15	.....	IN3349	MOT	6.80	5.85	5.10	.....	IN3606/	IN4153	GE	1.00	.....	.67	.....
IN4390	WES	12.75	.....	10.45	.....	IN3350	MOT	6.80	5.85	5.10	.....	IN3639	GE	.57	.....	.38	.....
IN3291	GE	15.40	.....	11.90	.....	IN3491R	MOT	.67	.....	.45	.40	.....	IN3640	GE	.72	.....	.48	.....
IN3291	WES	13.85	.....	11.45	.....	IN3492R	MOT	.76	.....	.51	.46	.....	IN3641	GE	1.05	.....	.70	.....
IN3292	WES	15.40	.....	12.75	.....	IN3493R	MOT	1.11	.....	.74	.67	.....	IN3642	GE	1.46	.....	.97	.....
IN3293	WES	18.10	.....	15.00	.....	IN3494R	MOT	1.27	.....	.85	.76	.....	IN3649	TI	11.10	.....	7.50	.....
IN3294	WES	22.85	.....	18.70	.....	IN3495R	MOT	1.48	.....	.99	.89	.....	IN3650	TI	13.75	.....	9.00	.....
IN3295	WES	27.20	.....	22.40	.....	IN3496	INT	3.70	.....	2.50	.....	.....	IN3659	MOT	.90	.....	.60	.54
IN3296/						IN3497	INT	5.75	.....	4.50	.....	.....	IN3659R	MOT	.90	.....	.60	.....
A70PB	GE	34.50	.....	26.40	.....	IN3498	INT	9.00	.....	7.00	.....	.....	IN3660	MOT	.99	.....	.66	.59
IN3298	RAY	3.50	.....	2.85	.....	IN3499	INT	19.00	.....	15.50	.....	.....	IN3660R	MOT	.99	.....	.66	.....
IN3305	MOT	5.65	4.90	4.25	.....	IN3506	TI	2.80	.....	2.10	.....	.....	IN3661	MOT	1.33	.....	.89	.80
IN3305A	INT	7.25	6.50	5.75	.....	IN3507	TI	2.80	.....	2.10	.....	.....	IN3661R	MOT	1.33	.....	.89	.....
IN3306	MOT	5.65	4.90	4.25	.....	IN3508	TI	2.80	.....	2.10	.....	.....	IN3662	MOT	1.48	.....	.99	.89
IN3306A	INT	7.25	6.50	5.75	.....	IN3509	TI	2.80	.....	2.10	.....	.....	IN3662R	MOT	1.48	.....	.99	.....
IN3307	MOT	5.65	4.90	4.25	.....	IN3510	INT	3.30	3.05	2.85	.....	.....	IN3663	MOT	1.70	.....	1.14	1.00
IN3307A	INT	7.25	6.50	5.75	.....	IN3510	INT	2.80	.....	2.10	.....	.....	IN3663R	MOT	1.70	.....	1.14	.....
IN3308	MOT	5.65	4.90	4.25	.....	IN3511	INT	2.80	.....	2.10	.....	.....	IN3666	HUG	.70	.....	.53	.....
IN3308A	INT	7.25	6.50	5.75	.....	IN3511	INT	3.30	3.05	2.85	.....	.....	IN3670	INT	20.65	.....	15.35	.....
IN3309	MOT	5.65	4.90	4.25	.....	IN3512	INT	2.80	.....	2.10	.....	.....	IN3670A	WES	7.06	.....	6.04	.....
IN3309A	INT	7.25	6.50	5.75	.....	IN3512	INT	3.30	3.05	2.85	.....	.....	IN3670A	WES	7.06	.....	6.04	.....
IN3310	MOT	5.65	4.90	4.25	.....	IN3513	INT	3.30	3.05	2.85	.....	.....	IN3671A	INT	23.60	.....	17.50	.....
IN3310A	INT	7.25	6.50	5.75	.....	IN3513	INT	2.80	.....	2.10	.....	.....	IN3671A	WES	9.50	.....	6.34	.....
IN3311	MOT	5.65	4.90	4.25	.....	IN3514	INT	3.30	3.05	2.85	.....	.....	IN3672A	INT	30.10	.....	22.30	.....
IN3311A	INT	7.25	6.50	5.75	.....	IN3515	INT	2.80	.....	2.10	.....	.....	IN3672A	WES	9.88	.....	6.59	.....
IN3312	MOT	5.65	4.90	4.25	.....	IN3515	TI	2.80	.....	2.10	.....	.....	IN3673A	GE	10.20	.....	6.80	.....
IN3312A	INT	7.25	6.50	5.75	.....	IN3516	INT	3.30	3.05	2.85	.....	.....	IN3673A	INT	36.60	.....	27.10	.....
IN3313	MOT	5.65	4.90	4.25	.....	IN3516	TI	2.80	.....	2.10	.....	.....	IN3673A	WES	11.25	.....	7.25	.....
IN3313A	INT	7.25	6.50	5.75	.....	IN3517	INT	3.30	3.05	2.85	.....	.....	IN3675	MOT	3.45	3.00	2.60	.....
IN3314	MOT	5.65	4.90	4.25	.....	IN3517	TI	2.80	.....	2.10	.....	.....	IN3675B	MOT	4.90	4.25	3.70	.....
IN3314	INT	5.50	4.87	4.25	.....	IN3518	INT	3.30	3.05	2.85	.....	.....	IN3676	MOT	3.45	3.00	2.60	.....
IN3314A	INT	7.25	6.50	5.75	.....	IN3518	INT	2.80	.....	2.10	.....	.....	IN3677	MOT	3.45	3.00	2.60	.....
IN3315	MOT	5.65	4.90	4.25	.....	IN3519	INT	3.30	3.05	2.85	.....	.....	IN3677B	MOT	4.90	4.25	3.70	.....
IN3315A	INT	7.25	6.50	5.75	.....	IN3519	TI	2.80	.....	2.10	.....	.....	IN3678	MOT	3.45	3.00	2.60	.....
IN3316	MOT	5.65	4.90	4.25	.....	IN3520	INT	3.30	3.05	2.85	.....	.....	IN3679	MOT	3.45	3.00	2.60	.....
IN3316A	INT	7.25	6.50	5.75	.....	IN3520	TI	2.80	.....	2.10	.....	.....	IN3679B	MOT	4.90	4.25	3.70	.....
IN3317	MOT	5.65	4.90	4.25	.....	IN3521	INT	2.80	.....	2.10	.....	.....	IN3680	MOT	3.45	3.00	2.60	.....
IN3317A	INT	7.25	6.50	5.75	.....	IN3521	TI	2.80	.....	2.10	.....	.....	IN3680B	MOT	4.90	4.25	3.70	.....
IN3318	MOT	5.65	4.90	4.25	.....	IN3522	INT	3.30	3.05	2.85	.....	.....	IN3681	MOT	3.45	3.00	2.60	.....
IN3318A	INT	7.25	6.50	5.75	.....	IN3522	TI	2.80	.....	2.10	.....	.....	IN3681B	MOT	4.90	4.25	3.70	.....
IN3319	MOT	5.65	4.90	4.25	.....	IN3523	INT	3.30	3.05	2.85	.....	.....	IN3682	MOT	3.45	3.00	2.60	.....
IN3319A	INT	7.25	6.50	5.75	.....	IN3524	INT	3.30	3.05	2.85	.....	.....	IN3682B	MOT	4.90	4.25	3.70	.....
IN3320	MOT	5.65	4.90	4.25	.....	IN3524	TI	2.80	.....	2.10	.....	.....	IN3683	MOT	3.45	3.00	2.60	.....
IN3320A	INT	7.25	6.50	5.75	.....	IN3524	TI	2.80	.....	2.10	.....	.....	IN3683B	MOT	4.90	4.25	3.70	.....
IN3321	MOT	5.65	4.90	4.25	.....	IN3525	INT	2.95	.....	2.20	.....	.....	IN3684	MOT	3.45	3.00	2.60	.....
IN3321A	INT	7.25	6.50	5.75	.....	IN3525	INT	3.30	3.05	2.85	.....	.....	IN3685	MOT	3.45	3.00	2.60	.....
IN3322	MOT	5.65	4.90	4.25	.....	IN3525	TI	2.95	.....	2.20	.....	.....	IN3685B	MOT	4.90	4.25	3.70	.....
IN3322A	INT	7.25	6.50	5.75	.....	IN3526	INT	2.95	.....	2.20	.....	.....	IN3686	MOT	3.45	3.00	2.60	.....
IN3323	MOT	5.65	4.90	4.25	.....	IN3527	INT	3.30	3.05	2.85	.....	.....	IN3686B	MOT	4.90	4.25	3.70	.....
IN3323A	INT	7.25	6.50	5.75	.....	IN3527	TI	2.95	.....	2.20	.....	.....	IN3687	MOT	3.45	3.00	2.60	.....
IN3324	MOT	5.65	4.90	4.25	.....	IN3528	INT	3.30	3.05	2.85	.....	.....	IN3687B	MOT	4.90	4.25	3.70	.....
IN3324A	INT	7.25	6.50	5.75	.....	IN3528	TI	2.95	.....	2.20	.....	.....	IN3688	MOT	3.45	3.00	2.60	.....
IN3325	MOT	5.65	4.90	4.25	.....	IN3529	INT	2.95	.....	2.20	.....	.....	IN3688B	MOT	4.90	4.25	3.70	.....
IN3325A	INT	7.25	6.50	5.75	.....	IN3529	TI	2.95	.....	2.20	.....	.....	IN3689	MOT	3.45	3.00	2.60	.....
IN3326	MOT	5.65	4.90	4.25	.....	IN3530	INT	3.30	3.05	2.85	.....	.....	IN3689B	MOT	4.90	4.25	3.70	.....
IN3326A	INT	7.25	6.50	5.75	.....	IN3530	TI	2.95	.....	2.20	.....	.....	IN3690	MOT	3.45	3.00	2.60	.....
IN3327	MOT	5.65	4.90	4.25	.....	IN3539	HOF	12.50	.....	9.40	.....	.....	IN3690B	MOT	4.90	4.25	3.70	.....
IN3327A	INT	7.25	6.50	5.75	.....	IN3539A	HOF	19.00	.....	13.35	.....	.....	IN3691	MOT	3.45	3.00	2.60	.....
IN3328	MOT	5.65	4.90	4.25	.....	IN3540	HOF	7.50	.....	5.70	.....	.....	IN3691B	MOT	4.90	4.25	3.70	.....
IN3328A	INT	7.25	6.50	5.75	.....	IN3540A	HOF	9.00	.....	6.75	.....	.....	IN3692	MOT	3.45	3.00	2.60	.....
IN3329	MOT	5.65	4.90	4.25	.....	IN3541	HOF	7.50	.....	5.70	.....	.....	IN3692B	MOT	4.90	4.25	3.70	.....
IN3329A	INT	7.25	6.50	5.75	.....	IN3541A	HOF	9.00	.....	6.75	.....	.....	IN3693	MOT	3.45	3.00	2.60	.....
IN3330	MOT	5.65	4.90	4.25	.....	IN3542	HOF	7.50	.....	5.70	.....	.....	IN3693B	MOT	4.90	4.25	3.70	.....
IN3330A	INT	7.25	6.50	5.75	.....	IN3542	HOF	9.00	.....	6.75	.....	.....	IN3694	MOT	3.45	3.00	2.60	.....
IN3331	MOT	5.65	4.90	4.25	.....	IN3542A	HOF	7.50	.....	5.70	.....	.....	IN3694B	MOT	4.90	4.25	3.70	.....
IN3331A	INT	7.25	6.50	5.75	.....	IN3543	HOF	7.50	.....	5.70	.....	.....	IN3695	MOT	3.45	3.00	2.60	.....
IN3332	MOT	5.65	4.90	4.25	.....	IN3543A	HOF	9.00	.....	6.75	.....	.....	IN3695B	MOT	4.90	4.25	3.70	.....
IN3332A	INT	7.25	6.50	5.75	.....	IN3544	GE	2.25	.....	1.50	.....	.....	IN3696	MOT	3.45	3.00	2.60	.....
IN3333	MOT	5.65	4.90	4.25	.....	IN3549	GE	8.45	.....	4.30	.....	.....	IN3696B	MOT	4.90	4.25	3.70	.....
IN3333A	INT	7.25	6.50	5.75	IN3555	TI	7.45	4.95	IN3697	MOT	3.45	3.00	2.60
IN3334	MOT	5.65	4.90	4.25	IN3556	TI	8.95	5.95	IN3697B	MOT				

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Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN3703B	MOT	4.90	4.25	3.70	
IN3722	GI	2.65		1.75	
IN3729/ RD500	RAY	4.45		3.48	
IN3730/ RD750	RAY	3.50		2.65	
Type No.	Mfr.	1-24	25-99	100-up	
IN3742	GE	84.00	66.00		
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN3754	RCA	.32		.22	
IN3755	RCA	.32		.22	
IN3756	RCA	.35		.24	
IN3765	WES	9.00		6.80	
IN3766	WES	9.90		7.25	
IN3775	TI	5.85		3.90	
IN3785	MOT	3.75	3.20	2.80	
IN3786	MOT	3.75	3.20	2.80	
IN3787	MOT	3.75	3.20	2.80	
IN3789	MOT	3.75	3.20	2.80	
IN3790	MOT	3.75	3.20	2.80	
IN3791	MOT	3.75	3.20	2.80	
IN3792	MOT	3.75	3.20	2.80	
IN3793	MOT	3.75	3.20	2.80	
IN3795	MOT	3.75	3.20	2.80	
IN3796	MOT	3.75	3.20	2.80	
IN3797	MOT	3.75	3.20	2.80	
IN3798	MOT	3.75	3.20	2.80	
IN3799	MOT	3.75	3.20	2.80	
IN3800	MOT	3.75	3.20	2.80	
IN3804	MOT	3.75	3.20	2.80	
IN3805	MOT	3.75	3.20	2.80	
IN3806	MOT	3.75	3.20	2.80	
IN3810	MOT	3.75	3.20	2.80	
IN3818	MOT	4.75	4.10	3.55	
IN3821	INT	2.00		1.60	
IN3821A	MOT	2.65	2.30	2.00	
IN3821A	INT	2.50		2.00	
IN3822	INT	2.00		1.60	
IN3822A	MOT	2.65	2.30	2.00	
IN3822A	INT	2.50		2.00	
IN3823	INT	2.00		1.60	
IN3823A	MOT	2.65	2.30	2.00	
IN3823A	INT	2.50		2.00	
IN3824	INT	2.00		1.60	
IN3824A	MOT	2.65	2.30	2.00	
IN3824A	INT	2.50		2.00	
IN3825	INT	2.00		1.60	
IN3825A	MOT	2.65	2.30	2.00	
IN3825A	INT	2.50		2.00	
IN3826	INT	2.00		1.60	
IN3826A	MOT	2.65	2.30	2.00	
IN3826A	INT	2.50		2.00	
IN3827	INT	2.00		1.60	
IN3827A	MOT	2.65	2.30	2.00	
IN3827A	INT	2.50		2.00	
IN3828	INT	2.00		1.60	
IN3828A	MOT	2.65	2.30	2.00	
IN3828A	INT	2.50		2.00	
IN3829	INT	2.00		1.60	
IN3829A	MOT	2.65	2.30	2.00	
IN3829A	INT	2.50		2.00	
IN3830A	MOT	2.65	2.30	2.00	
IN3847	RCA	4.95		3.42	
IN3858	RCA	6.52		4.50	
IN3859	RCA	8.17		5.64	
IN3862	RCA	7.67		5.30	
IN3863	RCA	9.41		6.50	
IN3874	TI	7.50		5.00	
IN3875	TI	8.03		5.35	
IN3876	TI	10.50		7.00	
IN3877	TI	14.62		9.75	
IN3878	TI	17.28		11.50	
IN3879	WES	5.25		3.50	
IN3879	GE	5.25		3.50	
IN3879	TI	5.25		3.50	
IN3879	MOT	5.25		3.50	
IN3880	WES	5.77		3.85	
IN3880	GE	5.77		3.85	
IN3880	TI	5.77		3.85	
IN3880	MOT	5.77		3.85	
IN3881	HUG	24.45		18.34	
IN3881	WES	8.25		5.50	
IN3881	GE	8.25		5.50	
IN3881	TI	8.25		5.50	
IN3881	MOT	8.25		5.50	
IN3882	WES	12.38		8.25	
IN3882	GE	12.38		8.25	
IN3882	TI	12.38		8.25	
IN3882	MOT	12.75		8.50	
IN3883	WES	14.50		9.40	
IN3883	TI	15.00		10.00	

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN3883	MOT	14.70		9.80	
IN3884	TI	8.55		5.70	
Type No.	Mfr.	1-24	25-99	100-up	
IN3884R	TI	16.50	13.25	11.25	
IN3885R	TI	19.50	15.25	13.25	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN3886	TI	12.00		8.00	
Type No.	Mfr.	1-24	25-99	100-up	
IN3886R	TI	23.00	17.50	15.75	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN3887	TI	16.90		10.25	
Type No.	Mfr.	1-24	25-99	100-up	
IN3887R	TI	26.00	20.25	17.75	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN3888	TI	19.90		13.25	
Type No.	Mfr.	1-24	25-99	100-up	
IN3888R	TI	28.00	22.75	19.00	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN3889	WES	6.30		4.20	
IN3889	GE	6.30		4.20	
IN3889	TI	6.30		4.20	
IN3889	MOT	6.30		4.20	
IN3889R	TI	6.30		4.20	
IN3890	WES	6.75		4.20	
IN3890	TI	6.75		4.50	
IN3890	MOT	6.75		4.50	
IN3890R	TI	6.75		4.50	
IN3891	WES	9.75		6.50	
IN3891	GE	9.75		6.50	
IN3891	TI	9.75		6.50	
IN3891	MOT	9.75		6.50	
IN3891R	TI	7.75		6.50	
IN3892	WES	14.65		9.75	
IN3892	GE	14.65		9.75	
IN3892	TI	14.65		9.75	
IN3892	MOT	14.65		9.75	
IN3892R	TI	14.65		9.75	
IN3893	WES	17.60		11.75	
IN3893	GE	17.60		11.75	
IN3893	TI	17.60		11.75	
IN3893	MOT	17.60		11.75	
IN3893R	TI	17.60		11.75	
IN3899	WES	15.00		12.80	
IN3900	WES	18.00		14.95	
IN3901	WES	26.00		18.60	
IN3902	WES	31.90		21.25	
IN3903	WES	36.00		24.00	
IN3909	WES	29.30		19.50	
IN3909	TI	30.00		22.60	
IN3910	WES	39.00		25.85	
IN3910	TI	41.50		31.20	
IN3911	WES	47.50		31.60	
IN3911	TI	51.00		38.20	
IN3912	WES	53.80		35.50	
IN3912	TI	57.00		44.00	
IN3913	WES	60.00		40.00	
IN3913	TI	64.00		48.00	
IN3948	HOF	12.50		9.40	
IN3987R	WES	6.38		5.59	
IN3988R	WES	8.20		5.80	
IN3989R	WES	9.35		6.25	
IN3990	GE	14.94		9.96	
IN3990R	WES	10.94		7.16	
IN3993	INT	5.60		4.00	
IN3993A	MOT	7.70	6.65	5.80	
IN3993A	INT	7.60		5.40	
IN3994	INT	5.60		4.00	
IN3994A	INT	7.60		5.40	
IN3995	INT	5.60		4.00	
IN3995A	MOT	7.70	6.65	5.80	
IN3995A	INT	7.60		5.40	
IN3996	INT	5.60		4.00	
IN3996	MOT	5.65	4.90	4.25	
IN3996A	MOT	7.70	6.65	5.80	
IN3996A	INT	7.60		5.40	
IN3997	INT	5.60		4.00	
IN3997	MOT	5.65	4.90	4.25	
IN3997A	MOT	7.70	6.65	5.80	
IN3997A	INT	7.60		5.40	
IN3998	MOT	5.65	4.90	4.25	
IN3998	INT	5.60		4.00	
IN3998A	MOT	7.70	6.65	5.80	

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN3998A	INT	7.60		5.40	
IN3999	INT	5.60		4.00	
IN3999A	MOT	7.70	6.65	5.80	
IN3999A	INT	7.60		5.40	
IN4000	MOT	5.65	4.90	4.25	
IN4001	MOT	.45		.30	
IN4001	TI	.45		.30	
IN4002	MOT	.49		.33	
IN4002	TI	.49		.33	
IN4003	MOT	.60		.40	
IN4003	TI	.60		.40	
IN4004	MOT	.67		.45	
IN4004	TI	.67		.45	
IN4005	MOT	.81		.54	.49
IN4005	TI	.96		.54	
IN4006	TI	2.25		1.70	
IN4007	MOT	1.80		1.20	1.08
IN4009	HUG	1.68		1.26	
IN4009/ IN4154	GE	.42		.28	
Type No.	Mfr.	1-24	25-99	100-up	
IN4044	WES	13.00	11.25		
IN4044R	WES	13.00	11.25		
IN4045	WES	20.00	15.75		
IN4045R	WES	20.00	15.75		
IN4046	WES	23.40	18.50		
IN4046R	WES	23.40	18.50		
IN4047	WES	28.00	21.40		
IN4047R	WES	28.00	21.40		
IN4048	WES	30.00	23.00		
IN4048R	WES	30.00	23.00		
IN4049	WES	32.40	24.75		
IN4049R	WES	32.40	24.75		
IN4050	WES	35.50	27.00		
IN4050R	WES	35.50	27.00		
IN4051	WES	44.00	34.00		
IN4051R	WES	44.00	34.00		
IN4052	WES	52.25	40.25		
IN4052R	WES	52.25	40.25		
IN4053	WES	58.50	45.00		
IN4053R	WES	58.50	45.00		
IN4054	WES	67.00	52.25		
IN4055	WES	72.00	57.50		
IN4056	WES	79.50	63.00		
IN4056R	WES	79.50	63.00		
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN4090	GE	3.35		2.20	
IN4099	MOT	5.05	4.35	3.80	
IN4099	TI	5.05		3.80	
IN4100	MOT	5.05	4.35	3.80	
IN4100	TI	5.05		3.80	
IN4101	MOT	5.05	4.35	3.80	
IN4101	TI	5.05		3.80	
IN4102	MOT	5.05	4.35	3.80	
IN4102	TI	5.05		3.80	
IN4103	MOT	5.05	4.35	3.80	
IN4103	TI	5.05		3.80	
IN4104	MOT	5.05	4.35	3.80	
IN4104	TI	5.05		3.80	
IN4105	MOT	5.05	4.35	3.80	
IN4105	TI	5.05		3.80	
IN4106	MOT	5.05	4.35	3.80	
IN4106	TI	5.05		3.80	
IN4107	MOT	5.05	4.35	3.80	
IN4108	MOT	5.05	4.35	3.80	
IN4109	MOT	5.05	4.35	3.80	
IN4110	MOT	5.05	4.35	3.80	
IN4111	MOT	5.05	4.35	3.80	
IN4112	MOT	5.05	4.35	3.80	
IN4113	MOT	5.05	4.35	3.80	
IN4114	MOT	5.05	4.3		

Semiconductor Directory

KEY TO SEMICONDUCTOR MANUFACTURERS

AMP —Amperex
 BEN —Bendix
 GE —General Electric
 GI —General Instrument

HOF —Hoffman
 HUG —Hughes Aircraft
 INT —International Rectifier
 MOT —Motorola

RCA —Radio Corp. of America
 RAY —Raytheon
 SAR —Sarkes-Tarzian
 SPR —Sprague

SYL —Sylvania
 TI —Texas Instruments
 WES —Westinghouse

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up	Type No.	Mfr.	1-99	100 Mix	100-999	1000-up	Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
1N4135	MOT	5.05	4.35	3.80		1N4565	MOT	8.65	7.45	6.50		1N4749A	MOT	1.93	1.66	1.45	
1N4136	WES	5.92		3.95		1N4565A	MOT	9.70	8.40	7.30		1N4750	MOT	1.26	1.09	.95	
1N4137	WES	7.73		5.16		1N4566	MOT	11.70	10.10	8.80		1N4750A	MOT	1.93	1.66	1.45	
1N4138	WES	9.12		6.12		1N4566A	MOT	13.05	11.25	9.80		1N4751	MOT	1.26	1.09	.95	
1N4148	GE	.45		.30		1N4567	MOT	23.80	20.60	17.90		1N4751A	MOT	1.93	1.66	1.45	
1N4150	GE	3.75		2.50		1N4567A	MOT	26.45	22.90	19.90		1N4752	MOT	1.26	1.09	.95	
1N4151	GE	.83		.56		1N4568	MOT	41.10	35.55	30.90		1N4752A	MOT	1.93	1.66	1.45	
1N4152	GE	.72		.48		1N4568A	MOT	45.75	39.55	34.40		1N4753	MOT	1.26	1.09	.95	
1N4153	GE	1.00		.67		1N4569	MOT	89.50	77.40	67.30		1N4753A	MOT	1.93	1.66	1.45	
1N4154	GE	.42		.28		1N4569A	MOT	99.50	86.00	74.80		1N4754	MOT	1.26	1.09	.95	
1N4156	GE	.75		.50		1N4570	MOT	5.85	5.05	4.40		1N4754A	MOT	1.93	1.66	1.45	
1N4157	GE	1.04		.69		1N4570A	MOT	6.50	5.65	4.90		1N4755	MOT	1.26	1.09	.95	
1N4305	GE	1.34		.88		1N4571	MOT	7.30	6.30	5.50		1N4755A	MOT	1.93	1.66	1.45	
1N4306	HUG	7.00		5.25		1N4571A	MOT	8.10	7.00	6.10		1N4756	MOT	1.26	1.09	.95	
1N4306	GE	8.25		5.50		1N4572	MOT	13.25	11.45	9.95		1N4756A	MOT	1.93	1.66	1.45	
1N4307	HUG	14.00		10.55		1N4572A	MOT	14.75	12.75	11.10		1N4757	MOT	1.26	1.09	.95	
1N4307	GE	16.50		11.00		1N4573	MOT	24.25	21.00	18.25		1N4757A	MOT	1.93	1.66	1.45	
1N4360	TI	2.80		2.10		1N4573A	MOT	27.00	23.35	20.30		1N4758	MOT	1.26	1.09	.95	
1N4364	TI	.45		.30		1N4574	MOT	56.50	48.85	42.50		1N4758A	MOT	1.93	1.66	1.45	
1N4365	TI	.48		.32		1N4574A	MOT	63.15	54.60	47.50		1N4759	MOT	1.26	1.09	.95	
1N4366	TI	.56		.37		1N4587	WES	8.10		6.90		1N4759A	MOT	1.93	1.66	1.45	
1N4367	TI	.66		.44		1N4588	WES	13.35		11.35		1N4760	MOT	1.26	1.09	.95	
1N4368	TI	.72		.48		1N4589	WES	15.25		12.50		1N4760A	MOT	1.93	1.66	1.45	
1N4369	TI	.90		.60		1N4590	WES	16.60		13.80		1N4761	MOT	1.26	1.09	.95	
1N4370	HOF	1.90		1.40		1N4591	WES	18.50		15.25		1N4761A	MOT	1.93	1.66	1.45	
1N4370	TI	2.00		1.50		1N4592	WES	21.80		17.85		1N4762	MOT	1.26	1.09	.95	
1N4370A	HOF	2.60		1.95		1N4593	WES	27.20		22.50		1N4762A	MOT	1.93	1.66	1.45	
1N4371	HOF	1.90		1.40		1N4594	WES	32.80		27.20		1N4763	MOT	1.26	1.09	.95	
1N4371	TI	2.00		1.50		1N4595	WES	55.00		40.00		1N4763A	MOT	1.93	1.66	1.45	
1N4371A	HOF	2.60		1.95		1N4596	WES	75.00		50.00		1N4764	MOT	1.93	1.66	1.45	
1N4372	HOF	1.90		1.40		1N4606	GE	1.32		.88		1N4765	MOT	8.65	7.45	6.50	
1N4372	TI	2.00		1.50		1N4607	GE	1.42		.95		1N4765A	MOT	9.70	8.40	7.30	
1N4372A	HOF	2.60		1.95		1N4608	GE	1.49		.99		1N4766	MOT	11.70	10.10	8.80	
1N4374	TI	7.50		5.00		1N4719						1N4766A	MOT	13.05	11.25	9.80	
1N4383	TI	.67		.45		MR1030A	MOT	.55		.37	.33	1N4767	MOT	23.80	20.60	17.90	
1N4383	GI	.48		.38		1N4720/						1N4767A	MOT	26.45	22.90	19.90	
1N4384	TI	.73		.49		MR1031A	MOT	.60		.40	.36	1N4768	MOT	41.10	35.55	30.90	
1N4384	GI	.58		.41		1N4721/						1N4768A	MOT	45.75	39.55	34.40	
1N4385	TI	.81		.54		MR1032A	MOT	.67		.45	.40	1N4769	MOT	89.50	77.40	67.30	
1N4385	GI	.78		.54		1N4726	GE	.42		.28		1N4769A	MOT	99.50	86.00	74.80	
Type No.	Mfr.	1-99	100-999	100-999	1000-up	1N4727	GE	.42		.28		1N4770	MOT	5.85	5.05	4.40	
1N4387	MOT	42.00	35.00	28.00		1N4728	MOT	1.26	1.09	.95		1N4770A	MOT	6.50	5.65	4.90	
1N4388	MOT	42.00	35.00	28.00		1N4728A	MOT	1.93	1.66	1.45		1N4771	MOT	7.30	6.30	5.50	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up	1N4729	MOT	1.26	1.09	.95		1N4771A	MOT	8.10	7.08	6.10	
1N4389	HUG	1.05		.80		1N4729A	MOT	1.93	1.66	1.45		1N4772	MOT	13.25	11.45	9.95	
1N4390	HUG	2.85		2.15		1N4730	MOT	1.26	1.09	.95		1N4772A	MOT	14.25	12.75	11.10	
1N4391	HUG	2.15		1.60		1N4730A	MOT	1.93	1.66	1.45		1N4773	MOT	24.25	21.00	18.25	
1N4392	HUG	1.55		1.20		1N4731	MOT	1.26	1.09	.95		1N4773A	MOT	27.00	23.35	20.30	
1N4393	HOF	11.85		8.88		1N4731A	MOT	1.93	1.66	1.45		1N4774	MOT	56.50	48.85	42.50	
1N4394	HOF	9.60		7.20		1N4732	MOT	1.26	1.09	.95		1N4774A	MOT	63.15	54.60	47.50	
1N4395	HOF	8.15		6.10		1N4732A	MOT	1.93	1.66	1.45		1N4775	MOT	8.65	7.45	6.50	
1N4396	HOF	8.15		6.10		1N4733	MOT	1.26	1.09	.95		1N4775A	MOT	9.70	8.40	7.30	
1N4397	HOF	8.15		6.10		1N4733A	MOT	1.93	1.66	1.45		1N4776	MOT	11.70	10.10	8.80	
1N4398	HOF	8.15		6.10		1N4734	MOT	1.26	1.09	.95		1N4776A	MOT	13.05	11.25	9.80	
1N4399	HOF	8.15		6.10		1N4734A	MOT	1.93	1.66	1.45		1N4777	MOT	23.80	20.60	17.90	
1N4444	GE	1.56		1.04		1N4735	MOT	1.26	1.09	.95		1N4777A	MOT	26.45	22.90	19.90	
1N4446	GE	.50		.33		1N4735A	MOT	1.93	1.66	1.45		1N4778	MOT	41.10	35.55	30.90	
1N4448	GE	1.35		.90		1N4736	MOT	1.26	1.09	.95		1N4778A	MOT	45.75	39.55	34.40	
1N4450	GE	1.48		.97		1N4736A	MOT	1.93	1.66	1.45		1N4779	MOT	89.50	77.40	67.30	
1N4451	GE	1.54		1.03		1N4737	MOT	1.26	1.09	.95		1N4779A	MOT	99.50	86.00	74.80	
1N4452	GE	1.95		1.30		1N4737A	MOT	1.93	1.66	1.45		1N4780	MOT	5.85	5.05	4.40	
1N4453	GE	.54		.36		1N4738	MOT	1.26	1.09	.95		1N4780A	MOT	6.50	5.65	4.90	
1N4454/						1N4738A	MOT	1.93	1.66	1.45		1N4781	MOT	7.30	6.30	5.50	
1N3064	GE	.67		.44		1N4739	MOT	1.26	1.09	.95		1N4781A	MOT	8.10	7.00	6.10	
1N4461	HOF	4.80		3.60		1N4739A	MOT	1.93	1.66	1.45		1N4782	MOT	13.25	11.45	9.95	
1N4464	HOF	4.80		3.60		1N4740	MOT	1.26	1.09	.95		1N4782A	MOT	14.25	12.75	11.10	
1N4467	HOF	4.80		3.60		1N4740A	MOT	1.93	1.66	1.45		1N4783	MOT	24.25	21.00	18.25	
1N4469	HOF	4.80		3.60		1N4741	MOT	1.26	1.09	.95		1N4783A	MOT	27.00	23.35	20.30	
1N4471	HOF	4.80		3.60		1N4741A	MOT	1.93	1.66	1.45		1N4784	MOT	56.50	48.85	42.50	
1N4472	HOF	4.80		3.60		1N4742	MOT	1.26	1.09	.95		1N4784A	MOT	63.15	54.60	47.50	
1N4474	HOF	4.80		3.60		1N4742A	MOT	1.93	1.66	1.45		1N4785	RCA	1.08		.75	
1N4475	HOF	4.80		3.60		1N4743	MOT	1.26	1.09	.95		1N4816	WES	.28		.22	
1N4477	HOF	4.80		3.60		1N4743A	MOT	1.93	1.66	1.45		1N4817	WES	.32		.26	
1N4531	GE	.59		.39		1N4744	MOT	1.26	1.09	.95		1N4818	WES	.38		.30	
1N4532	GE	.78		.52		1N4744A	MOT	1.93	1.66	1.45		1N4819	WES	.42		.34	
1N4533	GE	.96		.63		1N4745	MOT	1.26	1.09	.95		1N4820	WES	.46		.37	
1N4534	GE	1.20		.80		1N4745A	MOT	1.93	1.66	1.45		1N4821	WES	.50		.40	
1N4536	GE	.59		.39		1N4746	MOT	1.26	1.09	.95		1N4822	WES	.58		.46	
1N4538	TI	18.75		12.10		1N4746A	MOT	1.93	1.66	1.45		1N4823	WES	1.65		1.08	
1N4539	TI	20.40		13.60		1N4747	MOT	1.26	1.09	.95		1N4824	WES	1.85		1.26	
1N4540	TI	22.90		15.30		1N4747A	MOT	1.93	1.66	1.45		1N4828	GE	.45		.30	
						1N4748	MOT	1.26	1.09	.95		1N4829	GE	.69		.46	
						1N4748A	MOT	1.93	1.66	1.45		1N4830	GE	.93		.62	
						1N4749	MOT	1.26	1.09	.							

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Type No.	Mfr.	1-99	100 Mix	100-999	1000-up	Type No.	Mfr.	1-99	100 Mix	100-999	1000-up	Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
IN4864	GE	.58		.39		2N235B	BEN	1.80		1.20		2N344	SPR	3.45		2.50	
IN4864	GE	1.35		.90		2N236A	BEN	2.48		1.65		2N345	SPR	4.35		3.15	
IN4951/						2N240	SPR	5.60		4.10		2N346	SPR	5.85		4.25	
D16U1	GE	.42		.28		2N241A	GE	.98		.65		2N350A	MOT	1.65		1.10	
IN452/						2N242	MOT	1.65		1.10		2N351	RCA	1.73		1.20	
D16U2	GE	.48		.32		2N250	TI	1.90		1.25		2N351A	MOT	1.70		1.15	
IN5004	WES	1.65		1.08		2N250A	TI	1.90		1.15		2N370	RCA	.81		.56	
IN5005	WES	1.85		1.26		2N251	TI	2.25		1.50		2N371	RCA	.80		.55	
IN5006	WES	2.60		1.81		2N251A	TI	2.25		1.25		2N372	RCA	.80		.55	
IN5007	WES	3.55		2.40		2N255	BEN	1.13		.75		2N375	MOT	2.20		1.65	
IN5052	WES	.80		.64		2N255A	BEN	1.13		.75		2N376	BEN	1.85		1.25	
IN5053	WES	.96		.77		2N256	BEN	1.13		.75		2N376A	BEN	1.85		1.25	
IN5054	WES	1.30		1.04		2N256A	BEN	1.13		.75		2N376A	MOT	1.85		1.25	
IN5139	MOT	5.85		3.90		2N264	TI	11.50		7.65		2N378	MOT	1.80		1.20	
IN5139A	MOT	6.45		4.30		2N265	GE	1.95		1.30		2N380	BEN	1.70		1.26	
IN5140	MOT	5.85		3.90		2N270	RCA	.70		.48		2N380	MOT	1.70		1.26	
IN5140A	MOT	6.45		4.30		2N274	RCA	1.24		.86		2N381	MOT	.82		.55	
IN5141	MOT	5.85		3.90		2N277	MOT	2.25		1.65		2N382	MOT	1.12		.75	
IN5141A	MOT	6.45		4.30		2N277	RCA	2.72		1.88		2N383	MOT	1.42		.95	
IN5142	MOT	5.85		3.90		2N278	MOT	2.80		2.07		2N384	RCA	1.65		1.14	
IN5142A	MOT	6.45		4.30		2N278	RCA	3.10		2.14		2N388	RCA	.50		.35	
IN5143	MOT	5.85		3.90		2N279	AMP	.70		.47		2N388	TI	.60		.40	
IN5143A	MOT	6.45		4.30		2N284A	AMP	1.68		1.12		2N388A	RCA	1.04		.72	
IN5144	MOT	5.85		3.90		2N285A	BEN	3.45		2.30		2N388A	TI	1.03		.69	
IN5144A	MOT	6.45		4.30		2N290	INT	33.70		15.50		2N389	BEN	21.00		14.00	
IN5145	MOT	5.85		3.90		2N291	INT	38.50		21.75		2N389	TI	21.00		14.00	
IN5145A	MOT	6.45		4.30		2N291	GE	.83		.55		2N389A	BEN	21.00		14.00	
IN5146	MOT	5.85		3.90		2N292	GE	.83		.55		2N393	SPR	4.35		3.15	
IN5146A	MOT	6.45		4.30		2N292	INT	34.00		24.00		2N394A	GE	.60		.40	
IN5147	MOT	5.85		3.90		2N297A	MOT	1.60		1.17		2N395	RCA	.50		.33	
IN5147A	MOT	6.45		4.30		2N301	BEN	1.26		.84		2N395	TI	.50		.33	
IN5148	MOT	5.85		3.90		2N301A	BEN	2.82		2.10		2N396	GE	.62		.41	
IN5148A	MOT	6.45		4.30		2N307	BEN	.93		.69		2N396	RCA	.61		.41	
IN5149	MOT	27.00		18.00		2N307	MOT	1.12		.75		2N396	TI	.61		.41	
IN5150	MOT	42.00		28.00		2N307	RCA	1.49		1.03		2N396A	GE	.62		.41	
IN5151/						2N307A	BEN	1.87		1.25		2N397	RCA	1.11		.74	
MV1808A	MOT	42.00		28.00		2N307A	MOT	1.87		1.25		2N398	MOT	1.30		.87	
IN5152	MOT	42.00		28.00		2N315	GI	2.25		1.50		2N398	RCA	.99		.69	
IN5153/						2N317	GI	4.35		2.90		2N398	TI	1.24		.83	
MV1808C	MOT	42.00		28.00		2N319	GE	.44		.29		2N398A	MOT	1.30		.87	
IN5154/						2N320	GE	.59		.39		2N398A	RCA	1.08		.75	
MV1810A	MOT	42.00		28.00		2N320	MOT	.59		.39		2N398A	TI	1.24		.83	
IN5155	MOT	42.00		28.00		2N321	GE	.65		.43		2N398B	RCA	1.24		.86	
2N35	SYL	.91		.61		2N321	MOT	.65		.43		2N399	BEN	2.70		1.80	
2N43	GE	4.13		2.75		2N322	GE	.42		.28		2N404	AMP	.67		.45	
2N43A	GE	4.13		2.75		2N322	MOT	.42		.28		2N404	GE	.47		.31	
2N44	GE	2.93		1.95		2N323	GE	.59		.39		2N404	RCA	.42		.28	
2N78	GE	2.49		1.66		2N323	MOT	.59		.39		2N404	TI	.46		.31	
2N78A	GE	2.75		1.83		2N324	GE	.72		.48		2N404A	GE	.66		.44	
2N102/13	SYL	9.00		6.00		2N324	MOT	.63		.42		2N404A	RCA	.58		.39	
2N104	RCA	1.65		1.14		2N326	SYL	25.50		17.00		2N404A	TI	.66		.44	
2N107	GE	.63		.48		2N327A	HUG	2.45		1.84		2N405	TI	.37		.25	
2N109	RCA	.60		.41		2N327A	RAY	3.65		2.80		2N406	RCA	.33		.23	
2N117	TI	8.15		5.45		2N327A	SPR	2.25		1.50		2N407	RCA	.42		.29	
2N118	TI	8.15		5.45		2N327B	RAY	3.65		2.80		2N408	RCA	.38		.27	
2N123	GE	3.68		2.45		2N328A	HUG	5.75		4.31		2N410	RCA	.40		.28	
2N139	RCA	1.16		.80		2N328A	RAY	5.75		4.31		2N411	RCA	.47		.32	
2N140	RCA	1.24		.86		2N328A	RAY	5.75		4.31		2N412	RCA	.43		.30	
2N155	RAY	2.83		2.25		2N328A	SPR	4.50		3.00		2N414	GE	.42		.29	
2N157A	CBS	9.00		6.00		2N328A	TI	4.50		3.00		2N414	RCA	.42		.28	
2N167	GE	5.16		3.44		2N328B	RAY	6.35		4.80		2N420	BEN	2.40		1.60	
2N167A	GE	5.16		3.44		2N329A	HUG	10.95		8.21		2N420A	BEN	4.20		2.90	
2N169	GE	1.59		1.06		2N329A	RAY	9.00		6.50		2N424	BEN	16.50		11.00	
2N169A	GE	2.42		1.61		2N329A	SPR	6.50		4.35		2N424A	BEN	16.50		11.00	
2N170	GE	.85		.66		2N329B	TI	6.50		4.35		2N426	TI	.72		.48	
2N173	MOT	3.40		2.50		2N331	RAY	9.90		7.20		2N427	TI	.92		.61	
2N173	RCA	3.75		2.59		2N332	MOT	1.50		1.00		2N428	TI	1.23		.82	
2N174	MOT	3.60		2.67		2N332	GE	4.65		3.10		2N440	GI	2.85		1.90	
2N174	RCA	4.01		2.77		2N332	TI	4.65		3.10		2N441	MOT	1.85		1.25	
2N174A	MOT	3.80		2.79		2N332	GE	4.65		3.10		2N441	RCA	2.33		1.54	
2N175	RCA	1.64		1.13		2N333	TI	4.65		3.10		2N442	MOT	1.95		1.30	
2N176	MOT	1.20		.87		2N333	TI	4.90		3.30		2N442	RCA	2.31		1.60	
2N176	RCA	1.31		.90		2N333A	TI	4.90		3.30		2N443	MOT	1.90		1.39	
2N187A	GE	1.50		.90		2N334	TI	4.65		3.10		2N443	RCA	2.09		1.65	
2N188A	GE	1.50		1.00		2N335	GE	4.95		3.30		2N444A	GI	1.35		.90	
2N189	GE	1.65		1.10		2N335A	GE	5.25		3.50		2N445A	GI	1.35		.90	
2N190	GE	.78		.52		2N335	TI	4.90		3.30		2N450	GE	2.10		1.40	
2N191	GE	.83		.55		2N335A	TI	5.20		3.50		2N456	BEN	1.80		1.20	
2N192	GE	.90		.60		2N335B	GE	8.90		5.95		2N456A	BEN	1.80		1.20	
2N213	SYL	1.59		1.06		2N336	GE	6.00		4.00		2N456A	MOT	1.80		1.20	
2N214	SYL	.91		.61		2N336	TI	4.90		3.30		2N456A	TI	1.80		1.20	
2N215	RCA	1.73		1.20		2N336A	GE	6.30		4.20		2N456B	BEN	1.80		1.20	
2N216	SYL	1.24		.83		2N336A	TI	6.25		4.20		2N456B	TI	1.80		1.20	
2N217	RCA	.52		.36		2N337	GE	4.85		3.20		2N457	BEN	2.18		1.45	
2N218	RCA	1.16		.80		2N337	TI	4.85		3.20		2N457A	BEN	2.18		1.45	
2N219	RCA	1.24		.86		2N338	GE	5.50		3.65		2N457A	MOT	2.20		1.45	
2N220	RCA	1.52		1.05		2N338	TI	5.50		3.65		2N457A	TI	2.65		1.45	
2N228	SYL	1.59		1.05		2N338A	GE	5.80		3.85		2N457B	BEN	2.18		1.45	
2N229	GE	.50		.33		2N339	TI	10.15		6.75		2N457B	TI	2.65		1.45	
2N231	SPR	1.15		.85		2N340	SPR	5.60		4.10		2N458	BEN	2.63		1.75	
2N233	SYL	.50		.33		2N340	TI	10.80		7.20		2N458A	BEN	2.63		1.75	
2N234A	BEN	1.13		.75		2N341	TI	17.50		11.65		2N458A	MOT	2.63		1.75	
2N235A	BEN	1.58		1.05		2N342B	TI	16.75		11.20		2N458A	TI	2.65		1.75	
						2N343	TI	18.40		12.25		2N458A	TI	2.80		1.75	

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Type No.	Mfr.	1-99	100 Mix	100-999	1000-up	Type No.	Mfr.	1-99	100 Mix	100-999	1000-up	Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
2N716	TI	43.10		28.70		2N869	MOT	5.85		3.90		2N967	MOT	1.25		.83	
2N717	RAY	.89		.66		2N871	RAY	5.25		3.20		2N967	SYL	.87		.58	
2N718	GE	1.30		.86		2N876	TI	7.20		5.40		2N967	TI	.87		.58	
2N718	GI	.84		.56		2N877	HOF	6.80		5.10		2N968	MOT	1.53		1.02	
2N718	MOT	1.29		.86		2N877	TI	10.00		6.70		2N968	TI	.90		.60	
2N718	TI	1.30		.86		2N878	HOF	7.85		5.85		2N969	TI	.84		.56	
2N718A	GI	1.52		1.01		2N878	TI	13.00		8.90		2N970	MOT	.89		.59	
2N718A	MOT	1.51		1.01		2N879	GE	11.10		7.40		2N970	TI	.81		.54	
2N718A	RAY	1.50		1.00		2N879	TI	17.77		11.85		2N971	MOT	.84		.56	
2N718A	RCA	1.08		.72		2N880	TI	28.25		18.90		2N971	TI	.80		.53	
2N718A	TI	2.00		1.33		2N881	TI	30.00		20.00		2N972	MOT	1.60		1.07	
2N720	RAY	1.83		1.22		2N884	HOF	7.50		5.60		2N972	TI	.93		.62	
2N720	TI	1.83		1.22		2N884	TI	9.00		6.00		2N973	TI	.89		.59	
2N720A	GE	2.48		1.65		2N885	GE	9.00		6.00		2N974	MOT	.94		.63	
2N720A	GI	3.30		2.20		2N885	HOF	8.70		6.50		2N974	TI	.83		.55	
2N720A	HCA	1.32		.88		2N885	TI	11.25		7.50		2N975	TI	.81		.54	
2N720A	TI	2.71		1.81		2N886	GE	11.00		7.30		2N976	SPR	4.35		3.20	
2N721	HUG	6.00		4.50		2N886	HOF	9.80		7.35		2N979	SPR	1.40		1.05	
2N721	RAY	5.04		3.75		2N886	TI	14.70		9.80		2N980	SPR	1.20		.90	
2N721	TI	5.60		3.75		2N887	HOF	11.90		8.95		2N982	SPR	3.65		2.70	
2N722	HUG	6.00		4.50		2N887	TI	21.60		14.40		2N983	SPR	2.35		1.75	
2N722	MOT	5.60		3.75		2N888	TI	33.00		22.00		2N984	SPR	1.00		.75	
2N722	RAY	5.04		3.75		2N888	HOF	20.00		15.00		2N985	MOT	2.88		1.92	
2N722	TI	5.60		3.75		2N889	TI	36.00		24.00		2N985	TI	2.83		1.89	
2N722A	RAY	6.95		4.50		2N910	GE	2.37		1.58		2N990	AMP	.68		.45	
2N726	TI	3.00		2.00		2N910	TI	2.61		1.74		2N995	MOT	5.85		3.90	
2N727	TI	3.15		2.10		2N911	TI	5.55		3.70		2N997	GE	14.90		9.95	
2N730	TI	.99		.66		2N914	GE	1.40		.93		2N997	RAY	13.50		9.10	
2N731	TI	1.30		.86		2N914	MOT	1.26		.84		2N997	SPR	13.50		9.00	
2N735	TI	2.50		1.65		2N914	RCA	1.57		1.05		2N998	MOT	13.50		9.00	
2N736	TI	2.50		1.65		2N914	RAY	1.04		.84		2N998	RAY	10.90		8.80	
2N736A	TI	2.50		1.65		2N914	TI	1.04		.84		2N999	MOT	14.85		9.90	
2N739	TI	2.70		1.80		2N915	GE	5.08		3.39		2N999	RAY	14.50		9.70	
2N740	TI	2.70		1.80		2N915	MOT	4.95		3.30		2N1008	MOT	.75		.50	
2N741	MOT	2.18		1.45		2N915	RAY	4.50		3.04		2N1008A	MOT	.83		.55	
2N741	SYL	2.15		1.45		2N916	GE	3.65		2.30		2N1008B	MOT	.92		.61	
2N741A	MOT	3.30		2.20		2N916	MOT	4.35		2.90		2N1010	RCA	2.89		2.00	
2N741A	SYL	3.30		2.20		2N916	RAY	3.65		2.90		2N1011	MOT	1.95		1.45	
2N743	SYL	6.20		4.15		2N916	TI	3.65		2.90		2N1013	BEN	5.85		3.90	
2N743	TI	6.20		4.15		2N917	GE	4.95		3.30		2N1015	BEN	19.00		14.00	
2N743A	GE	6.65		4.45		2N917	RAY	4.95		3.30		2N1015	WES	19.00		14.00	
2N743/46	SYL	7.35		4.90		2N917	RCA	4.85		3.30		2N1015A	BEN	25.00		18.60	
2N744	GI	2.90		1.95		2N917	TI	4.95		3.30		2N1015A	WES	25.00		18.60	
2N744	MOT	2.90		1.85		2N918	GE	5.25		3.50		2N1015B	BEN	34.00		25.20	
2N744	SYL	2.90		1.95		2N918	MOT	5.25		3.50		2N1015B	WES	34.00		25.20	
2N744	TI	2.90		1.85		2N918	RAY	5.25		3.50		2N1015C	BEN	44.00		33.00	
2N744A	GE	3.40		2.25		2N918	RCA	5.78		3.85		2N1015C	WES	44.00		33.00	
2N753	GE	5.17		3.44		2N918	TI	5.25		3.50		2N1015D	WES	58.00		43.00	
2N753	TI	1.97		1.31		2N929	GE	3.67		2.44		2N1015E	WES	77.00		57.30	
2N759A	TI	2.70		1.80		2N929	MOT	3.60		2.40		2N1016	BEN	21.00		16.00	
2N760	GE	1.80		1.20		2N929	RAY	3.80		2.40		2N1016	WES	21.00		16.00	
2N760	TI	2.50		1.60		2N929	SPR	3.52		2.35		2N1016A	BEN	29.00		21.60	
2N760A	GE	1.83		1.22		2N929	TI	3.60		2.40		2N1016A	WES	29.00		21.60	
2N760A	RAY	2.70		1.80		2N929A	RAY	4.50		3.00		2N1016B	BEN	38.00		28.30	
2N760A	TI	2.70		1.80		2N930	GE	4.00		2.67		2N1016B	WES	38.00		28.30	
2N768	SPR	5.85		4.25		2N930	MOT	4.35		2.90		2N1016C	BEN	51.00		37.70	
2N769	SPR	6.75		4.95		2N930	RAY	3.87		2.65		2N1016C	WES	51.00		37.70	
2N779A	SPR	3.50		2.55		2N930	RAY	3.87		2.65		2N1016D	WES	67.00		50.00	
2N780	TI	7.50		5.00		2N930	SPR	3.85		2.64		2N1016E	WES	89.00		66.50	
2N794	SPR	1.25		.95		2N930	TI	3.87		2.65		2N1021	BEN	3.10		2.05	
2N795	SPR	1.75		1.30		2N935	RAY	2.40		1.80		2N1021	MOT	3.10		2.05	
2N796	SPR	2.55		1.90		2N936	RAY	5.75		4.00		2N1021	TI	3.55		2.05	
2N797	TI	4.27		2.85		2N937	RAY	9.00		6.50		2N1021A	BEN	3.10		2.05	
2N299A	SPR					2N938	RAY	3.85		2.80		2N1022	BEN	3.60		2.40	
2N827	MOT	2.50		1.65		2N939	RAY	6.00		4.50		2N1022	MOT	3.60		2.40	
2N828	MOT	3.30		2.20		2N940	RAY	10.50		8.20		2N1022	TI	4.15		2.40	
2N834	GE	2.58		1.72		2N941	RAY	9.75		7.50		2N1022A	BEN	3.60		2.40	
2N834	MOT	2.00		1.35		2N942	SPR	5.30		3.55		2N1022A	TI	4.15		2.40	
2N834	RCA	3.05		2.04		2N943	SPR	7.85		5.25		2N1023	RCA	2.72		1.88	
2N835	GI	2.70		1.80		2N944	RAY	5.20		4.00		2N1024	RAY	3.50		2.70	
Type No.	Mfr.	1-99	100-999	100-999	1000-up	2N944	SPR	5.70		3.80		2N1024	SPR	2.70		1.80	
2N835	SYL	1.50	1.50	1.00		2N945	SPR	3.75		2.50		2N1025	RAY	3.90		3.00	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up	2N956	GE	2.17		1.44		2N1025	SPR	3.35		2.25	
2N846A	SPR	5.40		3.95		2N956	MOT	2.16		1.44		2N1026	RAY	6.50		5.00	
2N850	TI	7.10		4.75		2N956	RAY	2.17		1.44		2N1026	SPR	5.00		3.35	
2N852/						2N956	TI	2.60		1.73		2N1027	RAY	3.90		3.00	
TI423	TI	9.43		6.30		2N960	TI	.96		.64		2N1027	SPR	3.00		2.00	
2N858	RAY	3.70		2.50		2N961	SYL	.91		.61		2N1028	RAY	3.90		3.00	
2N858	SPR	8.70		6.45		2N961	MOT	1.21		.81		2N1028	SPR	2.90		1.95	
2N859	RAY	5.75		4.00		2N961	TI	.91		.61		2N1034	HUG	4.35		3.25	
2N859	SPR	9.35		6.95		2N962	MOT	1.18		.79		2N1034	RAY	3.55		2.70	
2N860	RAY	2.40		1.80		2N962	TI	.86		.57		2N1034	SPR	2.70		1.80	
2N861	RAY	3.00		2.00		2N963	MOT	1.08		.72		2N1035	HUG	6.25		4.69	
2N861	SPR	6.00		4.40		2N963	SYL	.83		.55		2N1035	RAY	6.10		4.64	
2N862	RAY	2.20		1.60		2N963	TI	.83		.55		2N1035	SPR	4.05		2.70	
2N862	SPR	6.65		4.95		2N964	MOT	1.57		1.04		2N1036	HUG	10.23		7.67	
2N863	RAY	2.40		1.80		2N964A	MOT	5.25		3.50		2N1036	RAY	6.95		5.35	
2N863	SPR	4.50		3.30		2N964	TI	.99		.66		2N1036	SPR	5.10		3.40	
2N864	SPR	5.70		4.25		2N965	MOT	1.44		.96		2N1037	HUG	6.65		5.00	
2N865	SPR	8.25		6.05		2N965	SYL	.94		.63		2N1037	RAY	6.30		3.75	
						2N965	TI	.94		.63		2N1037	SPR	4.50		3.00	
						2N966	TI	.89		.59		2N1038	BEN	2.85		1.90	
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Type No.	Mfr.	1-99	100 Mix	100-999	1000-up	Type No.	Mfr.	1-99	100 Mix	100-999	1000-up	Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
2N1038	TI	2.85	.....	1.90	.....	2N1132	RAY	5.60	.....	3.75	.....	2N1233	RAY	17.90	.....	13.75	.....
2N1038-1	BEN	3.00	.....	2.00	.....	2N1132	SYL	5.60	.....	3.75	.....	2N1234	HUG	20.50	.....	15.38	.....
2N1038-1/2N2552	TI	3.00	.....	2.00	.....	2N1132	TI	5.60	.....	3.75	.....	2N1242	HUG	17.60	.....	13.20	.....
2N1038-2	BEN	3.05	.....	2.05	.....	2N1132A	RAY	7.50	.....	5.00	.....	2N1244	HUG	27.65	.....	20.75	.....
2N1039	SYL	3.75	.....	2.50	.....	2N1132A	SYL	6.00	.....	4.00	.....	2N1247	TI	13.50	.....	9.00	.....
2N1039	TI	3.75	.....	2.50	.....	2N1132B	MOT	16.70	.....	11.15	.....	2N1250	BEN	43.50	.....	29.00	.....
2N1039	BEN	3.75	.....	2.50	.....	2N1132B	RAY	9.00	.....	6.00	.....	2N1251	SYL	.75	.....	.50	.....
2N1039-1	BEN	3.90	.....	2.60	.....	2N1132B	SYL	9.00	.....	6.00	.....	2N1255	HUG	10.27	.....	7.70	.....
2N1039-1/2N2553	TI	3.90	.....	2.60	.....	51	SYL	21.00	.....	14.00	.....	2N1259	HUG	12.85	.....	9.64	.....
2N1039-2	BEN	3.95	.....	2.65	.....	2N1136	BEN	2.48	.....	1.65	.....	2N1273	TI	.42	.....	.28	.....
2N1039-2/2N2557	TI	3.95	.....	2.65	.....	2N1136A	BEN	3.23	.....	2.15	.....	2N1274	TI	.50	.....	.33	.....
2N1040	BEN	5.70	.....	3.80	.....	2N1136B	BEN	4.58	.....	3.05	.....	2N1430	BEN	10.55	.....	6.90	.....
2N1040	SYL	5.70	.....	3.80	.....	2N1137	BEN	2.85	.....	1.90	.....	2N1275	HUG	6.50	.....	4.88	.....
2N1040	TI	5.70	.....	3.80	.....	2N1137A	BEN	3.98	.....	2.65	.....	2N1275	RAY	6.50	.....	4.88	.....
2N1040-1	BEN	5.85	.....	3.90	.....	2N1137B	BEN	5.70	.....	3.80	.....	2N1278	TI	4.75	.....	3.15	.....
2N1040-2	BEN	5.90	.....	3.95	.....	2N1138	BEN	3.23	.....	2.15	.....	2N1285	RCA	1.72	.....	1.19	.....
2N1041	BEN	7.50	.....	5.00	.....	2N1138A	BEN	4.73	.....	3.15	.....	2N1294	SYL	19.50	.....	13.00	11.70
2N1041	TI	7.50	.....	5.00	.....	2N1138B	BEN	6.45	.....	4.30	.....	2N1296	SYL	35.25	.....	23.50	.....
2N1041-1	BEN	7.65	.....	5.10	.....	2N1141	MOT	4.83	.....	3.22	.....	2N1300	RCA	.91	.....	.63	.....
2N1041-2	BEN	7.75	.....	5.15	.....	2N1141	TI	4.83	.....	3.22	.....	2N1300	SPR	1.25	.....	.95	.....
2N1042	BEN	4.25	.....	3.00	.....	2N1141A	TI	13.70	.....	9.14	.....	2N1301	RCA	1.08	.....	.72	.....
2N1042	SYL	4.25	.....	3.00	.....	2N1142	MOT	4.20	.....	2.80	.....	2N1301	SPR	1.50	.....	1.10	.....
2N1042	TI	4.50	.....	3.00	.....	2N1142	SYL	4.20	.....	2.80	.....	2N1302	RCA	.45	.....	.31	.....
2N1042-1	BEN	4.45	.....	3.00	.....	2N1142	TI	4.20	.....	2.80	.....	2N1302	TI	.50	.....	.33	.....
2N1042-2	SYL	4.25	.....	3.00	.....	2N1142A	TI	6.29	.....	4.18	.....	2N1303	GI	.50	.....	.33	.....
2N1042-1/2N2560	TI	4.45	.....	2.95	.....	2N1143	MOT	3.50	.....	2.33	.....	2N1303	GE	.49	.....	.33	.....
2N1042-2	BEN	4.30	.....	2.85	.....	2N1143	SYL	3.50	.....	2.33	.....	2N1303	RCA	.53	.....	.36	.....
2N1042-2/2N2564	TI	4.30	.....	2.85	.....	2N1143	TI	3.50	.....	2.33	.....	2N1303	TI	.50	.....	.33	.....
2N1043	BEN	5.85	.....	3.90	.....	2N1143A	TI	5.86	.....	3.91	.....	2N1304	AMP	.70	.....	.47	.....
2N1043	TI	5.85	.....	3.90	.....	2N1146	BEN	2.75	.....	1.80	.....	2N1304	TI	.60	.....	.40	.....
2N1043-1	BEN	5.80	.....	3.85	.....	2N1146A	BEN	3.10	.....	2.25	.....	2N1304	RCA	.53	.....	.37	.....
2N1043-2	BEN	5.65	.....	3.75	.....	2N1149	TI	8.65	.....	5.75	.....	2N1304	TI	.60	.....	.40	.....
2N1043-2/2N2565	TI	5.65	.....	3.75	.....	2N1151	TI	8.65	.....	5.75	.....	2N1305	AMP	.70	.....	.47	.....
2N1044	BEN	8.80	.....	5.85	.....	2N1155/952	TI	13.15	.....	8.80	.....	2N1305	GI	.60	.....	.40	.....
2N1044	TI	8.80	.....	5.85	.....	2N1156	TI	17.65	.....	11.75	.....	2N1305	GE	.52	.....	.35	.....
2N1044-1	BEN	8.70	.....	5.80	.....	2N1162	MOT	4.45	.....	3.30	.....	2N1305	RCA	.53	.....	.36	.....
2N1044-2	BEN	8.55	.....	5.70	.....	2N1163	MOT	4.45	.....	3.30	.....	2N1305	TI	.80	.....	.40	.....
2N1044-2	SYL	8.55	.....	5.70	.....	2N1163A	MOT	5.08	.....	3.75	.....	2N1306	AMP	.74	.....	.50	.....
2N1045	BEN	11.45	.....	7.65	.....	2N1164A	MOT	6.95	.....	5.15	.....	2N1306	RCA	.75	.....	.52	.....
2N1045	TI	11.45	.....	7.65	.....	2N1165	BEN	6.35	.....	4.70	.....	2N1306	TI	.80	.....	.53	.....
2N1045-1	BEN	11.40	.....	7.60	.....	2N1165	MOT	6.35	.....	4.70	.....	2N1307	GE	.66	.....	.44	.....
2N1045-2	BEN	11.25	.....	7.50	.....	2N1165A	BEN	6.95	.....	5.15	.....	2N1307	RCA	.75	.....	.50	.....
2N1045-2	SYL	11.25	.....	7.50	.....	2N1165A	MOT	6.95	.....	5.15	.....	2N1307	TI	.80	.....	.53	.....
2N1046	TI	8.25	.....	5.50	.....	2N1166A	MOT	8.10	.....	6.00	.....	2N1308	AMP	.93	.....	.68	.....
2N1046A	TI	18.35	.....	12.25	.....	2N1167	MOT	7.55	.....	5.60	.....	2N1308	RCA	1.08	.....	.75	.....
2N1046B	TI	25.00	.....	16.67	.....	2N1167A	MOT	8.10	.....	6.00	.....	2N1308	TI	1.08	.....	.72	.....
2N1047	TI	14.30	.....	9.55	.....	2N1175	MOT	.87	.....	.58	.....	2N1309	AMP	.93	.....	.68	.....
2N1048	TI	18.10	.....	12.05	.....	2N1175	GE	.93	.....	.60	.....	2N1309	RCA	1.08	.....	.75	.....
2N1049	TI	16.75	.....	11.15	.....	2N1175A	GE	1.35	.....	.92	.....	2N1309	TI	1.07	.....	.72	.....
2N1050	TI	22.10	.....	14.20	.....	2N1177	RCA	.83	.....	.57	.....	2N1310	TI	4.50	.....	3.00	.....
2N1050A	TI	22.10	.....	14.20	.....	2N1178	RCA	.81	.....	.56	.....	2N1311	TI	3.23	.....	2.15	.....
2N1059	SYL	1.00	.....	.67	.....	2N1179	RCA	.81	.....	.56	.....	2N1312	GI	1.78	.....	1.18	.....
2N1066	RCA	1.98	.....	1.37	.....	2N1180	RCA	.68	.....	.47	.....	2N1312	TI	1.78	.....	1.18	.....
2N1069	BEN	8.15	.....	5.40	.....	2N1183	RCA	1.82	.....	1.25	.....	2N1321	SYL	10.10	.....	6.75	.....
2N1070	BEN	11.95	.....	7.95	.....	2N1183A	RCA	2.31	.....	1.60	.....	2N1358	MOT	4.15	.....	3.06	.....
2N1073	BEN	2.40	.....	1.78	.....	2N1183B	RCA	2.89	.....	2.00	.....	2N1358	RCA	4.59	.....	3.17	.....
2N1073	MOT	2.40	.....	1.78	.....	2N1184	RCA	2.48	.....	1.71	.....	2N1360	MOT	1.70	.....	1.25	.....
2N1073A	BEN	3.60	.....	2.67	.....	2N1184A	RCA	2.81	.....	1.94	.....	2N1362	MOT	2.85	.....	2.20	.....
2N1073A	MOT	3.60	.....	2.67	.....	2N1184B	RCA	4.13	.....	2.85	.....	2N1363	MOT	3.10	.....	2.30	.....
2N1073B	BEN	4.50	.....	3.30	.....	2N1187	MOT	2.60	.....	1.75	.....	2N1365	MOT	5.00	.....	3.70	.....
2N1073B	MOT	4.50	.....	3.30	.....	2N1188	MOT	3.15	.....	2.10	.....	2N1370	TI	.72	.....	.48	.....
2N1086	GE	1.11	.....	.74	.....	2N1189	MOT	1.50	.....	1.00	.....	2N1371	TI	1.14	.....	.76	.....
2N1090	RCA	1.11	.....	.77	.....	2N1191	MOT	1.12	.....	.75	.....	2N1372	TI	.81	.....	.54	.....
2N1091	RCA	1.41	.....	.97	.....	2N1192	MOT	1.12	.....	.75	.....	2N1373	TI	1.02	.....	.68	.....
2N1097	GE	.57	.....	.38	.....	2N1193	MOT	1.12	.....	.75	.....	2N1374	TI	1.38	.....	.92	.....
2N1098	GE	.42	.....	.28	.....	2N1193	MOT	1.50	.....	1.00	.....	2N1375	TI	1.29	.....	.86	.....
2N1099	RCA	4.31	.....	2.98	.....	2N1194	MOT	1.65	.....	1.10	.....	2N1375	TI	1.29	.....	.86	.....
2N1100	MOT	4.50	.....	3.34	.....	2N1195	MOT	3.95	.....	2.63	.....	2N1376	TI	1.50	.....	1.00	.....
2N1100	RCA	5.02	.....	3.49	.....	2N1195	MOT	3.95	.....	2.63	.....	2N1377	SYL	1.50	.....	1.00	.....
2N1101	SYL	.58	.....	.43	.....	2N1204	MOT	1.65	.....	1.10	.....	2N1377	TI	1.23	.....	.86	.....
2N1102	SYL	.64	.....	.43	.....	2N1204A	MOT	1.65	.....	1.10	.....	2N1378	TI	1.20	.....	.80	.....
2N1118	SPR	11.15	8.25	2N1208	BEN	43.00	29.00	2N1379	TI	1.4496
2N1118A	RAY	9.55	7.10	2N1209	BEN	28.00	18.75	2N1380	TI	.6644

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Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
2N1772	INT	6.55		4.00	
2N1772/5RC10A	INT	6.55		4.00	
2N1772A	GE	9.00		6.00	
2N1772A/5RC10B	INT	8.10		4.40	
2N1773	GE	6.97		4.65	
2N1773A	GE	11.10		7.40	
2N1773	INT	8.75		4.85	
2N1773A/5RC15B	INT	10.00		5.35	
2N1773/5RC15A	INT	8.75		4.85	
2N1774A	GE	13.50		9.00	
2N1774	GE	8.17		5.45	
2N1774	INT	9.35		5.80	
2N1774	TI	8.15		5.45	
2N1774A/5RC20B	INT	12.10		6.15	
2N1774/5RC20A	INT	9.35		5.60	
2N1775A	GE	15.75		10.50	
2N1775A/5RC25B	INT	14.20		6.87	
2N1776A	GE	18.40		12.25	
2N1776A/5RC30B	INT	16.50		8.25	
2N1777A	GE	23.85		15.75	
2N1777A/5RC40B	INT	21.25		9.20	
2N1778	WES	66.50		51.50	
2N1786	SPR	.95		.70	
2N1787	SPR	1.00		.75	
2N1788	SPR	1.35		.95	
2N1789	SPR	1.15		.85	
2N1790	SPR	1.20		.90	
2N1792	WES	24.80		19.20	
2N1793	WES	28.80		22.30	
2N1795	WES	38.00		29.40	
2N1800	WES	97.50		75.50	
2N1808	TI	.58		.39	
Type No.	Mfr.	1-24	25-99	100-up	
2N1805	WES	80.50	62.50		
2N1806	WES	97.50	75.50		
Type No.	Mfr.	1-24	25-99	100-up	
2N1809	WES	75.00	62.00		
2N1810	WES	114.00	75.00		
2N1811	WES	140.00	93.00		
2N1812	WES	171.00	113.00		
2N1813	WES	210.00	146.00		
2N1814	WES	259.00	177.00		
2N1816	WES	100.00	93.00		
2N1817	WES	153.00	101.00		
2N1818	WES	188.00	124.00		
2N1819	WES	231.00	155.00		
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
2N1820	WES	285.00	190.00		
2N1823	WES	134.00	110.00		
2N1824	WES	203.00	135.00		
2N1825	WES	250.00	167.00		
2N1826	WES	303.00	206.00		
2N1830	WES	178.00	145.00		
2N1831	WES	269.00	179.00		
2N1832	WES	331.00	221.00		
2N1833	WES	403.00	274.00		
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
2N1842	MOT	4.35		2.90	
2N1842A	GE	5.55		3.75	
2N1842A	MOT	5.60		3.75	
2N1842A	WES	5.55		3.75	
2N1842/10RC2	INT	6.00		3.50	
2N1843	MOT	4.80		3.20	
2N1843A	MOT	6.20		4.15	
2N1843A	WES	6.15		4.10	
2N1843A/10RC5A	INT	7.60		4.25	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
2N1844	GE	6.25		4.15	
2N1844	MOT	5.45		3.65	
2N1844A	GE	6.90		4.60	
2N1844A	MOT	6.50		4.35	
2N1844A	WES	6.90		4.60	
2N1844A/10RC10A	INT	8.30		4.62	
2N1845	MOT	6.75		4.50	
2N1845A	GE	8.70		5.40	
2N1845A	MOT	8.25		5.50	
2N1845A	WES	8.10		5.40	
2N1845A	RCA	5.94		3.96	

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
2N1845A/10RC15A	INT	10.25		5.40	
2N1846	GE	8.70		5.80	
2N1846	MOT	8.00		5.35	
2N1846	WES	8.70		5.80	
2N1846A	GE	9.50		6.35	
2N1846A	INT	11.70		6.49	
2N1846A	MOT	9.30		6.20	
2N1846A	WES	9.50		6.35	
2N1846A	RCA	6.19		4.13	
2N1846B	TI	6.19		4.13	
2N1847	MOT	11.40		7.60	
2N1847	WES	9.75		6.50	
2N1847A	GE	10.65		7.10	
2N1847A	MOT	13.40		8.95	
2N1847A	WES	10.65		7.10	
2N1847A/10RC25A	INT	14.50		7.25	
2N1848	MOT	13.40		8.95	
2N1848	WES	11.65		7.75	
2N1848A	GE	12.70		8.45	
2N1848A	MOT	16.20		10.80	
2N1848A	WES	12.70		8.45	
2N1848A	RCA	7.01		4.68	
2N1849	MOT	17.10		11.40	
2N1849	WES	13.85		9.25	
2N1849A	GE	15.80		10.40	
2N1849A	MOT	21.30		14.20	
2N1849A	RCA	8.25		5.50	
2N1849A	WES	15.60		10.40	
2N1849A/10RC40A	INT	19.60		10.70	
2N1849B	TI	15.60		10.40	
2N1850	MOT	19.50		13.00	
2N1850A	GE	18.40		12.25	
2N1850A	MOT	28.10		18.75	
2N1850A	RCA	9.90		6.00	
2N1850A/10RC50A	INT	22.50		12.25	
2N1865	SPR	1.10		.80	
2N1866	SPR	1.20		.90	
2N1867	SPR	1.15		.85	
2N1868	SPR	1.88		1.38	
2N1882/K1882	HOF	4.15		2.75	
2N1885	HOF	12.40		8.25	
2N1893	GE	2.10		1.60	
2N1893	MOT	2.45		1.65	
2N1893	RCA	1.32		.88	
2N1893	RAY	2.45		1.65	
2N1893	TI	3.42		2.28	
2N1905	RCA	4.13		2.85	
2N1906	RCA	6.60		4.56	
2N1907	TI	7.90		5.25	
2N1908	TI	11.30		7.50	
Type No.	Mfr.	1-24	25-99	100-up	
2N1910	WES	24.80	19.20		
2N1911	WES	28.80	22.30		
2N1912	WES	33.40	25.40		
2N1913	WES	38.00	29.80		
2N1915	WES	50.00	39.20		
2N1916	WES	66.50	51.50		
2N1916	WES	66.50	51.50		
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
2N1916/C50D	GE	66.50		51.50	
2N1917	SPR	6.60		4.40	
2N1918	SPR	5.30		3.55	
2N1919	RAY	6.75		4.50	
2N1919	SPR	8.80		5.25	
2N1924	GE	1.57		1.04	
2N1924	MOT	1.57		1.04	
2N1925	GE	1.77		1.18	
2N1925	MOT	1.77		1.18	
2N1926	GE	2.08		1.39	
2N1926	MOT	2.18		1.39	
2N1929	TI	6.15		4.10	
2N1929	TI	7.65		5.10	
2N1930	TI				
2N1930/C8F	GE	7.65		5.10	
2N1933	TI	15.00		10.00	
2N1934	TI	18.00		12.00	
2N1936	TI	67.50		45.00	
2N1937	TI	75.00		50.00	
Type No.	Mfr.	1-99	100-999	1000-up	
2N1958	SYL	3.95	3.95	2.65	
2N1959	SYL	4.45	4.45	2.95	

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
2N1959A/51	SYL	20.00		12.50	
2N1970	MOT	2.35		1.73	
2N1973	TI	8.00		6.00	
2N1974	TI	6.70		5.00	
2N1975	TI	5.30		4.00	
2N1980	MOT	4.50		3.00	
2N1981	MOT	5.50		3.70	
2N1982	MOT	7.80		5.20	
2N1983	RAY	1.87		1.50	
2N1987	RAY	4.15		3.20	
2N1990	GI	3.90		2.60	
2N1990	RAY	3.60		2.60	
2N1991	HUG	3.95		2.96	
2N1991	MOT	3.95		2.96	
2N1993	GI	2.48		1.85	
2N1993	TI	1.48		.99	
2N1994	TI	3.32		1.55	
2N1995	TI	3.77		2.50	
2N1997	TI	1.77		1.18	
2N1998	TI	1.88		1.25	
2N1999	TI	2.07		1.38	
2N2000	TI	2.50		1.67	
2N2001	TI	2.17		1.45	
2N2002	RAY	5.20		4.00	
2N2002	SPR	4.50		3.00	
2N2003	SPR	3.00		2.05	
2N2004	SPR	6.00		4.05	
2N2005	SPR	4.35		2.90	
2N2010	HOF	4.15		2.75	
2N2014	HOF	34.15		22.75	
2N2015	RCA	9.08		6.25	
2N2016	RCA	9.90		6.85	
2N2017	GE	1.95		1.30	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
2N2023/70RC2B	INT	20.15	15.75		
2N2024/70RC5B	INT	25.60	18.15		
2N2025/70RC10B	INT	29.90	21.78		
2N2026/70RC15B	INT	34.50	25.00		
2N2027/70RC20B	INT	39.20	27.50		
2N2028/70RC25B	INT	43.75	30.80		
2N2029/70RC30B	INT	52.25	35.80		
2N2030/70RC40B	INT	68.75	42.35		
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
2N2032	BEN	28.00		18.75	
2N2042	MOT	1.85		1.25	
2N2042A	MOT	2.25		1.50	
2N2043	MOT	2.25		1.50	
2N2048	SPR	1.80		1.32	
2N2048A	SPR	2.05		1.50	
2N2060	GI	27.00		18.00	
2N2060	MOT	27.00		18.00	
2N2060	RAY	27.44		22.00	
2N2060	TI	27.00		18.00	
2N2060A	MOT	36.00		24.00	
2N2075	MOT	5.20		3.84	
2N2076	MOT	3.60		2.67	
2N2076A	MOT	4.75		3.17	
2N2077	MOT	2.85		2.12	
2N2078	MOT	1.90		1.39	
2N2079	MOT	7.20		5.34	
2N2080	MOT	5.10		3.78	
2N2081	MOT	3.15		2.32	
2N2082	MOT	2.40		1.78	
2N2084/T/33C-ASF	AMP	1.34		.90	
2N2089	AMP	.84		.56	
2N2090	AMP	.67		.45	
2N2092	AMP	.67		.45	
2N2095	SPR	12.15		8.90	
2N2096	MOT	1.65		1.10	
2N2097	MOT	3.30		2.20	
2N2098	SPR	10.55		7.80	
2N2099	MOT	2.17		1.45	
2N2100	MOT	3.80		2.55	
2N2101	BEN	42.00		28.00	
2N2102	RCA	1.41		.97	
2N2102A	RAY	1.05		.85	
2N2102A	RAY	9.45		6.30	
2N2106	GE	1.97		1.32	
2N2107	GE	2.09		1.39	

Semiconductor Directory

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up	Type No.	Mfr.	1-99	100 Mix	100-999	1000-up	Type No.	Mfr.	1-99	100 Mix	100-999	1000-up	
2N2348	GE	18.90		12.60		2N2431	AMP	.62		.42		2N2554/						
2N2349/						2N2432/						1040-1	TI	5.75			3.15	
4D-22	GE	2.32		1.54		2N2433	WES	89.00		66.50		2N2555	BEN	7.65			5.10	
2N2350	RAY	3.58		2.88		2N2453	RAY	30.00		20.00		2N2555	SYL	7.65			5.10	
2N2350A	RAY	3.75		3.00		2N2453	TI	24.00		16.00		2N2556	BEN	3.05			2.05	
						2N2453A	GE	50.00		33.50		2N2556/						
						2N2467	BEN	6.00		4.00		1038-2	TI	3.05			2.05	
						2N2468	BEN	7.50		5.00		2N2556/						
						2N2469	BEN	11.25		7.50		2N1038-2	TI	3.05			2.05	
												2N2557	BEN	3.95			2.65	
												2N2557	SYL	3.95			2.65	
												2N2557	TI	3.95			2.65	
												2N2558	BEN	5.90			3.95	
												2N2558	SYL	5.90			3.95	
												2N2559	BEN	7.75			5.15	
												2N2559	SYL	7.75			5.15	
												2N2560	BEN	4.45			2.95	
												2N2560/						
												1042-1	TI	4.45			3.95	
												2N2560	SYL	4.45			2.95	
												2N2561	BEN	5.80			3.85	
												2N2560/						
												1013-1	TI	5.80			3.85	
												2N2561	SYL	5.80			3.85	
												2N2562	BEN	8.70			5.80	
												2N2562	SYL	8.70			5.80	
												2N2562A	RAY	16.05			13.05	
												2N2563	BEN	11.40			7.60	
												2N2563	SYL	11.40			7.60	
												2N2564	BEN	4.30			2.85	
												2N2564/						
												1042-2	TI	4.30			2.85	
												2N2565	SYL	5.65			3.75	
												2N2565	SYL	5.65			3.75	
												2N2565/						
												1043-2	TI	5.65			3.75	
												2N2566	BEN	8.55			5.70	
												2N2566	SYL					
												2N2567	BEN	11.25			7.50	
												2N2567	SYL					
												2N2574	MOT	7.55			5.50	
												2N2575	MOT	8.45			5.85	
												2N2577	MOT	16.85			11.25	
												2N2586	TI	7.50			5.00	
												2N2604	RAY	6.00			4.00	
												2N2604	TI	6.00			4.00	
												2N2605	RAY	6.60			4.40	
												2N2605	TI	6.60			4.40	
												2N2611	GE	6.90			4.60	
												2N1613	RAY					
												2N2613	RCA	.55			.38	
												2N2614	RCA	.50			.35	
												2N2630						
												2N2630	SYL	3.25			2.15	
												2N2631	TI	4.79			3.31	
												2N2631						
												2N2635	MOT	1.75			1.15	
												2N2635	TI	.94			.63	
												2N2636	BEN	29.25			18.50	
												2N2637	BEN	33.75			22.50	
												2N2638	BEN	38.25			25.50	
												2N2639	GE	27.00			18.00	
												2N2639	MOT					
												2N2639	RAY	20.16			16.20	
												2N2639	TI	22.00			14.90	
												2N2640	GE	20.25			13.50	
												2N2640	RAY	15.12			12.15	
												2N2641	GE	9.90			5.50	
												2N2641	RAY	7.39			5.94	
												2N2641	TI	5.00			6.00	
												2N2642	GE	38.00			25.25	
												2N2642	RAY	30.00			20.00	
												2N2642	SPR	25.50			17.00	
												2N2642	TI	38.00			25.25	
												2N2642	TI	26.25			17.50	
												2N2643	GE	30.00			20.00	
												2N2643	RAY	22.40			18.00	
												2N2643	TI	25.00			16.70	
												2N2644	GE	18.37			8.25	
												2N2644	RAY	13.72			11.02	
												2N2644	TI	15.60			10.40	
												2N2646	GE	1.05			.70	
												2N2646	MOT	1.08			.72	
												2N2647	MOT	3.00			2.00	
												2N2647	GE	3.00			2.00	
												2N2652	RAY	14.00			11.25	
												2N2652A	RAY	16.25			13.05	
												2N2653	TI	24.00			16.00	
												2N2654	AMP	1.42			.96	
												2N2657	BEN	28.75			19.17	
												2N2658	BEN	38.00			24.00	
												2N2659	TI	1.80			1.20	
												2N2660	TI	2.35			1.55	

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Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
2N2661	TI	2.85	1.90		
2N2662	TI	1.95	1.30		
2N2663	TI	2.50	1.65		
2N2664	TI	3.00	2.00		
2N2665	TI	2.40	1.60		
2N2666	TI	3.10	2.05		
2N2667	TI	3.75	2.50		
2N2668	TI	2.55	1.70		
2N2669	TI	3.25	2.15		
2N2670	TI	3.90	2.60		
2N2671	AMP	.84	.56		
2N2672	AMP	.67	.45		
2N2679	TI	15.50	10.25		
2N2680	TI	20.00	13.60		
2N2681	TI	30.00	20.00		
2N2682	TI	43.00	28.80		
2N2683	TI	11.10	7.40		
2N2684	TI	14.90	9.90		
2N2685	TI	22.00	14.80		
2N2686	TI	36.00	24.00		
2N2687	TI	6.00	4.00		
2N2688	TI	9.40	6.15		
2N2689	TI	15.00	9.90		
2N2690	TI	24.00	16.00		
2N2692	TI	15.00	10.00		
2N2693	TI	7.75	5.50		
2N2694	TI	5.25	3.50		
2N2695	TI	12.40	8.25		
2N2696	TI	7.50	5.00		
2N2706	AMP	.57	.38		
2N2708	RCA	4.95	3.42		
2N2708	RAY	4.38	3.50		
Type No.	Mfr.	1-99	100-999	1000-up	5000-up
2N2711	GI	.45	.30	.20	.19
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
2N2711	GE	.45		.30	
Type No.	Mfr.	1-99	100-999	1000-up	5000-up
2N2712	GI	.48	.32	.22	.20
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
2N2712	GE	.48		.32	
Type No.	Mfr.	1-99	100-999	1000-up	5000-up
2N2713	GI	.51	.34	.24	.22
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
2N2713	GE	.51		.34	
Type No.	Mfr.	1-99	100-999	1000-up	5000-up
2N2714	GI	.53	.35	.25	.23
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
2N2714	GE	.53		.35	
2N2726	GE	2.10	1.40		
2N2727	GE	4.27	2.85		
2N2728	MOT	11.25	7.50		
Type No.	Mfr.	1-24	25-99	100-up	
2N2739	WES	57.00	48.00		
2N2740	WES	74.00	62.00		
2N2741	WES	95.00	80.00		
2N2742	WES	122.00	102.00		
2N2745	WES	63.00	52.00		
2N2746	WES	82.00	68.00		
2N2747	WES	105.00	87.00		
2N2748	WES	134.00	112.00		
2N2751	WES	70.00	59.00		
2N2752	WES	90.00	76.00		
2N2753	WES	115.00	98.00		
Type No.	Mfr.	1-99	100-999		
2N2754	WES	147.00	124.00		
2N2757	WES	57.00	48.00		
2N2758	WES	74.00	62.00		
2N2759	WES	95.00	80.00		
2N2760	WES	122.00	102.00		
2N2761	WES	158.00	130.00		
2N2763	WES	63.00	52.00		
2N2764	WES	82.00	68.00		
2N2765	WES	105.00	87.00		
2N2766	WES	134.00	112.00		
2N2769	WES	70.00	59.00		
2N2770	WES	90.00	78.00		

Type No.	Mfr.	1-99	100-999	1000-up	
2N2771	WES	115.00	98.00		
2N2772	WES	147.00	124.00		
2N2775	WES	77.00	64.90		
2N2776	WES	99.00	83.60		
2N2777	WES	126.50	107.80		
2N2778	WES	161.70	136.40		
2N2782	WES	6.40	4.30		
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
2N2784	GE	11.25		7.50	
2N2784	SYL	1.66		1.10	
2N2784/46	SYL	2.48		1.65	
2N2784/51	SYL	5.95		3.90	
2N2785	SPR	12.00		8.00	
2N2787	GI	6.40		4.30	
2N2795	SPR	4.15		3.05	
2N2796	SPR	2.35		1.75	
2N2797	SPR	1.60		1.20	
2N2798	SPR	1.85		1.40	
2N2799	SPR	1.35		1.00	
2N2800	MOT	6.75		4.50	
2N2800	SYL	6.75		4.50	
2N2801	MOT	7.10		4.75	
2N2801	RAY	7.10		4.75	
2N2801	SYL	7.10		4.75	
2N2802	SPR	39.00		26.00	
2N2802/TI619	TI	39.50		26.30	
2N2803/TI620	TI	24.00		16.00	
2N2804/TI621	TI	21.45		14.30	
2N2805/2N2805/TI622	TI	40.50		27.00	
2N2805/TI622	TI	41.10		27.40	
2N2806/TI623	TI	26.00		17.30	
2N2807/TI624	TI	22.50		15.00	
2N2809	RAY	12.50		8.30	
2N2809A	RAY	15.50		10.40	
2N2810	RAY	11.20		7.50	
2N2810A	RAY	13.70		9.15	
2N2833	MOT	13.00		8.70	
2N2834	MOT	22.50		15.00	
2N2837	RAY	6.75		4.50	
2N2838	MOT	7.10		4.75	
2N2838	RAY	7.10		4.75	
2N2840	GE	6.35		4.25	
2N2845	GE	4.95		3.30	
2N2845	SPR	4.95		3.30	
2N2846	GE	4.95		3.30	
2N2846	SPR	4.95		3.30	
2N2847	SPR	5.85		3.90	
2N2848	SPR	5.85		3.90	
2N2857	RCA	16.50		11.40	
2N2860	SYL	2.25		1.50	
2N2861	TI	8.50		5.65	
2N2862	TI	6.00		4.00	
2N2863	TI	6.00		4.00	
2N2865	TI	6.50		4.35	
2N2868	GE	1.68		1.12	
2N2869/2N 301	RCA	1.52		1.05	
2N2870/2N 301A	RCA	3.15		2.18	
2N2876	RCA	21.10		14.60	
2N2876	TI	14.50		10.05	
2N2883	TI	30.00		20.00	
2N2884	TI	39.00		26.00	
2N2894	TI	1.95		1.30	
2N2895	RCA	1.41		.97	
2N2896	RCA	2.06		1.43	
2N2897	RCA	1.16		.80	
2N2900	RCA	1.90		1.31	
2N2903	SPR	15.00		10.00	
2N2903A	SPR	25.50		17.00	
2N2903A	RAY	24.00		16.00	
2N2904	MOT	7.50		5.00	
2N2904	SPR	7.50		5.00	
2N2904	TI	7.50		5.00	
2N2904A	MOT	10.50		7.00	
2N2904A	RAY	10.50		7.00	
2N2904A	SPR	10.50		7.00	
2N2904A	TI	10.50		7.00	
2N2904A	ML1				
2N2904A	MOT	10.65		7.10	
2N2904A	ML2				
2N2904A	MOT	11.25		7.50	
2N2904A	ML3				
2N2904A	MOT	12.00		8.00	

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
2N2904	ML1	7.65			5.10
2N2904	ML2		8.25		5.50
2N2904	ML3			9.00	6.00
2N2905	MOT	9.00			6.00
2N2905	RAY	9.00			6.00
2N2905	SPR	9.00			6.00
2N2905	TI	9.00			6.00
2N2905A	MOT	12.00			8.00
2N2905A	RAY	12.00			8.00
2N2905A	SPR	12.00			8.00
2N2905A	TI	12.00			8.00
2N2905	ML1	9.15			6.10
2N2905	ML2		9.75		6.50
2N2905	ML3		10.50		7.00
2N2905A	ML1	12.15			8.10
2N2905A	ML2		12.75		8.50
2N2905A	ML3			13.50	9.00
2N2906	RAY	7.20			4.80
2N2906	SPR	7.20			4.80
2N2906	SYL	6.48			4.32
2N2906	TI	7.20			4.80
2N2906A	RAY	10.05			6.70
2N2906A	SPR	10.05			6.70
2N2906A	TI	10.50			6.70
2N2906A	ML1		10.20		6.80
2N2906A	ML2		10.80		7.20
2N2906A	ML3			11.55	7.70
2N2906	ML1		7.35		4.90
2N2906	ML2		7.95		5.30
2N2906	ML3			8.70	5.80
2N2907	MOT	8.70			5.80
2N2907	RAY	8.75			5.80
2N2907	SPR	8.70			5.80
2N2907	SYL	7.83			5.22
2N2907	TI	8.70			5.80
2N2907A	RAY	11.55			7.70
2N2907A	SPR	11.55			7.70
2N2907A	TI	11.55			7.70
2N2907A	ML1		11.70		7.80
2N2907A	ML2			12.30	8.20
2N2907A	ML3			13.05	8.70
2N2907	ML1		8.85		5.90
2N2907	ML2		9.45		6.30
2N2907	ML3			10.20	6.80
2N2910	GE	12.75			9.35
2N2912	MOT	8.10			5.40
2N2913	GE	10.00			6.70
2N2913	MOT	9.75			6.50
2N2913	RAY	10.00			6.70
2N2914	GE	15.00			10.00
2N2914	MOT	12.45			8.30
2N2914	RAY	15.00			10.00
2N2915	GE	27.00			18.00
2N2915	MOT	27.75			18.50
2N2915	RAY	27.00			18.00
2N2915	SPR	30.00			20.00
2N2916	MOT	30.75			20.50
2N2916	RAY	30.00			20.00
2N2917	MOT	22.50			15.00
2N2917	RAY	21.00			14.00
2N2918	MOT	25.50			17.00
2N2918	RAY	27.00			18.00
2N2919	GE	29.95			19.50
2N2919	MOT	29.25			19.50
2N2919	RAY	30.00			20.00
2N2920	GE	32.25			21.50
2N2920	MOT	32.25			21.50
2N2920	RAY	32.25			21.50
2N2920	SPR	42.00			32.40
Type No.	Mfr.	1-99	100-999	1000-up	5000-up
2N2923	GI	.48	.32	.22	.20

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Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
2N3311	MOT	2.70		1.80	
2N3312	MOT	3.30		2.20	
2N3313	MOT	4.20		2.80	
2N3314	MOT	3.15		2.10	
2N3315	MOT	3.90		2.60	
2N3316	MOT	5.25		3.50	
2N3317	SPR	12.75		9.45	
2N3318	SPR	7.40		5.50	
2N3319	SPR	3.75		2.80	
2N3320	SPR	3.50		2.60	
2N3321	SPR	2.25		1.65	
2N3322	SPR	1.50		1.10	
2N3323	MOT	.90		.60	
2N3324	MOT	.82		.55	
2N3325	MOT	.75		.50	
2N3328	TI	10.50		7.00	
2N3329	TI	9.15		6.10	
2N3330	TI	7.50		5.05	
2N3331	TI	9.15		6.10	
2N3332	TI	13.20		10.50	

Type No.	Mfr.	1-24	25-99	100-999	1000-up
2N3333	TI	271.50	235.00	181.00	
2N3334	TI	213.00	184.00	142.00	
2N3335	TI	193.50	167.80	129.00	
2N3336	TI	98.00	85.00	65.40	

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
2N3343	RAY	6.75		4.50	
2N3344	RAY	6.75		4.50	
2N3347	SPR	34.80		23.00	
2N3347	TI	34.90		23.00	
2N3348	TI	20.70		13.80	
2N3349	TI	18.50		11.00	
2N3350	SPR	45.00		30.00	
2N3350	TI	45.00		30.00	
2N3351	TI	33.99		22.60	
2N3352	TI	27.75		18.50	
2N3375	RCA	23.10		15.95	
2N3375	MOT	23.90		15.95	

Type No.	Mfr.	1-99	100-999	1000-up	5000-up
2N3391	GI	.72	.48	.36	.33
2N3391	GE	.72	.48		
2N3391A	GE	.80	.53	.40	.37
2N3391A	GE	.80	.53		
2N3392	GI	.53	.35	.25	.23
2N3392	GE	.53	.35		
2N3393	GI	.45	.30	.20	.19
2N3393	GE	.45	.30		
2N3394	GI	.43	.29	.19	.18
2N3394	GE	.43	.29		
2N3395	GE	.59	.39	.29	.27
2N3395	GE	.59	.39		
2N3396	GI	.54	.36	.26	.24
2N3396	GE	.54	.36		
2N3397	GI	.51	.34	.24	.22
2N3397	GE	.51	.34		
2N3398	GI	.59	.39	.29	.27
2N3398	GE	.59	.39		
2N3399	AMP	2.55	1.70		
2N3402	GE	.75	.50		
2N3403	GE	.80	.53		
2N3404	GE	.80	.53		
2N3405	GE	.86	.58		
2N3409	MOT	13.50	9.00		
2N3410	SPR	15.00	10.00		
2N3411	MOT	18.00	12.00		
2N3411	SPR	18.00	12.00		
2N3414	GI	.59	.39	.29	.27
2N3414	GE	.59	.39		
2N3415	GE	.65	.43		.30
2N3416	GI	.65	.43	.32	.30
2N3416	GE	.65	.43		
2N3417	GE	.69	.46		
2N3418	TI	12.45	8.30		
2N3419	TI	14.10	9.40		
2N3420	TI	13.35	8.90		
2N3421	TI	16.95	11.30		
2N3427	MOT	1.34	.69		
2N3428	MOT	1.50	1.00		
2N3429	WES	29.00	21.60		
2N3430	WES	38.00	28.30		
2N3431	WES	51.00	37.70		
2N3432	WES	67.00	50.00		
2N3433	WES	89.00	66.50		
2N3439	RCA	4.13	2.85		
2N3440	RCA	2.06	1.43		
2N3441	RCA	2.89	2.00		
2N3442	RCA	4.95	3.42		
2N3442	WES	4.95	3.42		
2N3444	MOT	12.00	8.00		
2N3444	TI	12.00	8.00		
2N3445	MOT	12.00	8.00		

Type No.	Mfr.	1-99	100-999	1000-up	5000-up
2N3446	MOT	18.00	12.00		
2N3447	MOT	19.50	13.00		
2N3448	MOT	29.95	19.50		
2N3467	MOT	9.75	9.50		

Type No.	Mfr.	1-24	25-99	100-up
2N3470	WES	44.00	29.00	
2N3470	WES	44.00	29.00	
2N3471	WES	61.00	41.00	
2N3472	WES	83.00	55.00	
2N3473	WES	112.00	75.00	
2N3474	WES	73.00	48.00	
2N3475	WES	99.00	66.00	
2N3476	WES	132.00	88.00	
2N3477	WES	183.00	122.00	

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
2N3478	RCA	1.90			1.31

Type No.	Mfr.	1-99	100-999	1000-4999	5000-up
2N3485	MOT	8.70	5.80		
2N3485	RAY	8.70	5.80		
2N3485	TI	8.70	5.30		
2N3485A	TI	12.00	8.00		
2N3485A	RAY	12.00	8.00		
2N3486	MOT	10.20	6.80		
2N3486	RAY	10.40	6.80		
2N3486	TI	10.20	6.80		
2N3486A	TI	13.50	9.00		
2N3486A	RAY	13.50	9.00		
2N3487	MOT	42.00	28.00		
2N3488	MOT	57.00	38.00		
2N3489	MOT	69.00	46.00		
2N3490	MOT	48.00	32.00		
2N3491	MOT	63.00	42.00		
2N3492	MOT	75.00	50.00		
2N3493	MOT	14.25	9.50		
2N3494	MOT	9.75	6.50		
2N3495	MOT	12.75	8.50		
2N3496	MOT	9.75	6.50		
2N3497	MOT	12.75	8.50		
2N3498	MOT	6.60	4.40		
2N3499	MOT	7.40	4.95		
2N3500	MOT	11.25	7.50		
2N3501	MOT	12.60	8.40		
2N3506	MOT	11.55	7.70		
2N3507	MOT	13.20	8.80		
2N3509	MOT	5.40	3.60		
2N3510	MOT	1.42	.95		
2N3511	MOT	1.80	1.20		

Type No.	Mfr.	1-99	100-999	1000-up	5000-up
2N3512	RCA	3.71	2.57		
2N3512	RCA	3.71	2.57		
2N3513	GE	10.65	13.10		
2N3516	GE	24.15	16.10		
2N3521	GE	32.60	21.70		
2N3522	GE	35.10	23.40		
2N3522	SPR	34.50	23.00		
2N3525	RCA	2.31	1.60		
2N3528	RCA	1.63	1.12		
2N3529	RCA	2.31	1.60		
2N3544	MOT	7.50	5.00		
2N3546	MOT	5.25	3.50		
2N3551	TI	100.00	67.50		
2N3552	TI	112.50	75.00		
2N3553	RCA	4.95	3.42		
2N3553	MOT	5.15	3.42		
2N3554	TI	8.10	5.40		
2N3558	TI	14.20	9.45		
2N3559	TI	5.75	3.83		
2N3560	TI	6.15	4.10		
2N3561	TI	8.60	5.75		
2N3562	TI	9.50	6.33		
2N3563	GI	.75	.50	.35	.29
2N3564	GI	.65	.48	.40	.34
2N3565	GI	.62	.43	.28	.24
2N3566	GI	.60	.41	.26	.22
2N3570	TI	150.00	100.00		
2N3571	TI	15.00	10.00		
2N3572	TI	9.75	6.50		
2N3573	TI	21.75	14.50		
2N3574	TI	17.25	11.50		
2N3575	TI	18.60	12.50		
2N3576	TI	9.40	6.25		
2N3583	RCA	3.30	2.28		
2N3584	RCA	6.60	4.56		
2N3585	RCA	13.20	9.10		
2N3588	AMP	.94	.56		
2N3600	RCA	5.78	3.99		
2N3605	GI	.60	.40	.30	.28

Type No.	Mfr.	1-99	100-999	1000-up	5000-up
16J1	GE	.60	.40		
2N3605/16J1	GE	.86	.58		

Type No.	Mfr.	1-99	100-999	1000-up	5000-up
2N3606	GI	.54	.36	.26	.24
2N3606	GE	.54	.36		
16J2		.54	.36		
2N3606/16J2	GE	.54	.36		
16J2		.69	.46		
2N3607	GI	.51	.34	.24	.22
2N3607		.51	.34		
16J3	GE	.51	.34		
2N3611	BEN	1.15	.78		

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
2N3611	MOT	1.15			.78
2N3612	BEN	1.30			.88
2N3612	MOT	1.30			.88
2N3613	BEN	1.25			.65
2N3613	MOT	1.25			.85
2N3614	BEN	1.40			.94
2N3614	MOT	1.40			.94
2N3615	BEN	1.65			1.10
2N3615	MOT	1.65			1.10
2N3616	BEN	1.95			1.30
2N3616	MOT	2.10			1.39
2N3617	BEN	1.88			1.25
2N3617	MOT	1.88			1.25
2N3618	BEN	2.37			1.58
2N3618	MOT	2.37			1.58
2N3619	BEN	9.00			6.00
2N3620	BEN	9.75			6.50
2N3621	BEN	18.00			12.00
2N3622	BEN	13.50			9.00
2N3623	BEN	15.00			10.00
2N3624	BEN	15.75			10.50
2N3625	BEN	30.00			20.00
2N3626	BEN	24.00			16.00
2N3627	BEN	20.25			13.50
2N3628	BEN	21.00			14.00
2N3629	BEN	49.50			33.00
2N3630	BEN	37.50			25.00
2N3632	RCA	33.00			22.80
2N3632	MOT	34.20			22.80
2N3634	MOT	13.20			8.80
2N3635	MOT	14.40			9.60
2N3636	MOT	19.40			12.95
2N3637	MOT	21.30			14.20

Type No.	Mfr.	1-99	100-999	1000-up	5000-up
2N3638	GI	.46	.31	.28	.27
2N3638A	GI	.70	.54	.43	.37
2N3641	GI	.79	.57	.41	.35
2N3642	GI	.89	.63	.45	.39
2N3643	GI	.84	.60	.43	.37
2N3644	GI	.75	.50	.43	.39
2N3645	GI	.96	.64	.55	.50
2N3647	MOT	2.25			

Semiconductor Directory

KEY TO SEMICONDUCTOR MANUFACTURERS

AMP —Amperelex
 BEN —Bendix
 GE —General Electric
 GI —General Instrument

HOF —Hoffman
 HUG —Hughes Aircraft
 INT —International Rectifier
 MOT —Motorola

RCA —Radio Corp. of America
 RAY —Raytheon
 SAR —Sarkes-Tarzian
 SPR —Sprague

SYL —Sylvania
 TI —Texas Instruments
 WES —Westinghouse

Type No.	Mfr.	1-99	100-999	1000-up	5000-up
2N3703	TI	.39	.26		
2N3704	GI	.62	.41	.37	.35
2N3704	TI	.60	.37		
2N3705	GI	.50	.37	.34	.33
2N3705	TI	.57	.38		
2N3706	GI	.53	.35	.31	.30
2N3706	TI	.52	.35		
2N3707	GI	.60	.40	.36	.35
2N3707	TI	.60	.37		
2N3708	GI	.48	.32	.29	.28
2N3708	TI	.45	.30		
2N3709	GI	.45	.30	.27	.26
2N3709	TI	.48	.32		
Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
2N3709	TI	.45	.30		
Type No.	Mfr.	1-99	100-999	1000-up	5000-up
2N3710	GI	.50	.33	.29	.28
2N3710	TI	.49	.33		
2N3711	GI	.54	.36	.33	.32
2N3711	TI	.54	.36		
2N3712	TI	2.25	1.50		
2N3712	TI	3.00	2.00		
2N3713	MOT	4.40	2.95		
2N3714	MOT	4.70	3.15		
2N3715	MOT	4.85	3.25		
2N3716	MOT	6.75	4.50		
2N3719	MOT	11.90	7.95		
2N3720	MOT	13.40	8.95		
Type No.	Mfr.	1-99	100-999	1000-4999	5000-up
2N3721	GI	.43	.29	.19	.18
2N3721	GE	.41	.27		
2N3722	GE	10.50	7.00		
2N3723	GE	12.97	8.65		
2N3730	RCA	1.24	.86		
2N3731	RCA	1.62	1.12		
2N3732	RCA	1.08	.75		
2N3733	RCA	49.50	34.20		
2N3734	MOT	6.00	4.00		
2N3735	MOT	6.00	4.00		
2N3736	MOT	6.60	4.48		
2N3737	MOT	6.60	4.40		
2N3738	MOT	2.25	1.50		
2N3739	MOT	2.49	1.65		
2N3740	MOT	2.90	1.95		
2N3741	MOT	3.15	2.10		
2N3742	MOT	12.60	8.40		
2N3743	MOT	29.25	19.50		
2N3762	MOT	7.50	5.00		
2N3763	MOT	7.50	5.00		
2N3764	MOT	8.25	5.50		
2N3765	MOT	8.25	5.50		
2N3766	MOT	2.10	1.40		
2N3767	MOT	2.30	1.55		
2N3771	RCA	5.78	3.99		
2N3771	WES	5.78	3.99		
2N3772	RCA	5.78	3.99		
2N3772	WES	5.78	3.99		
2N3773	RCA	7.84	5.42		
2N3773	WES	7.84	5.42		
2N3783/					
MM2500	MOT	30.00	20.00		
2N3784	MOT	30.00	20.00		
2N3785/					
MM2502	MOT	6.75	4.50		
2N3789	MOT	8.90	5.95		
2N3790	MOT	10.65	7.10		
2N3791	MOT	12.35	8.25		
2N3792	MOT	14.85	9.90		
2N3796	MOT	13.50	9.00		
2N3797	MOT	16.50	11.00		
2N3798	MOT	6.15	4.10		
2N3799	MOT	6.75	4.50		
2N3800	MOT	14.25	9.50		
2N3801	MOT	15.75	10.50		
2N3802	MOT	21.00	14.00		
2N3803	MOT	22.50	15.00		
2N3804	MOT	26.25	17.50		
2N3805	MOT	27.25	18.50		
2N3806	MOT	14.25	9.50		

Type No.	Mfr.	1-99	100-999	1000-up	5000-up
2N3807	MOT	15.75	10.50		
2N3808	MOT	21.00	14.00		
2N3809	MOT	22.50	15.00		
2N3810	MOT	26.25	17.50		
Type No.	Mfr.	1-24	25-99	100-up	
2N3811	MOT	27.75		18.50	
Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
2N3818	MOT	45.00		30.00	
2N3819	TI	2.95		1.95	
2N3820	TI	2.95		1.95	
2N3821	TI	22.50		14.95	
2N3821	MOT	22.40		14.95	
2N3822	TI	21.70		14.95	
2N3822	MOT	21.65		14.65	
2N3823	TI	12.90		8.60	
2N3824	TI	14.15		9.40	
2N3824	MOT	14.15		9.45	
2N3825	TI	.58		.39	
2N3826	TI	.54		.36	
2N3827	TI	.58		.39	
2N3828	TI	.90		.60	
2N3829	TI	6.00		4.00	
2N3830	TI	13.50		9.00	
2N3831	TI	9.00		8.00	
2N3832	TI	7.50		5.00	
2N3836	TI	66.00		44.00	
2N3837	TI	99.00		66.00	
Type No.	Mfr.	1-24	25-99	100-999	
2N3838	TI	30.15	26.13	20.10	
Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
2N3840	SPR	9.60		6.40	
2N3841	SPR	8.70		5.80	
2N3842	SPR	15.30		10.20	
2N3843	GE	.54		.36	
Type No.	Mfr.	1-99	100-999	1000-up	5000-up
2N3843A	GI	.59	.39	.29	.27
Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
2N3843A	GE	.59		.39	
2N3844	GE	.57		.38	
Type No.	Mfr.	1-99	100-999	1000-up	5000-up
2N3844A	GI	.62	.42	.31	.29
Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
2N3844A	GE	.62		.42	
2N3845	GE	.62		.42	
Type No.	Mfr.	1-99	100-999	1000-up	5000-up
2N3845A	GI	.67	.45	.34	.31
Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
2N3845A	GE	.67		.45	
2N3846	TI	90.00		60.00	
2N3847	TI	105.00		70.00	
2N3848	TI	125.00		85.00	
2N3849	TI	160.00		105.00	
2N3854	GE	.51		.34	
2N3854A	GE	.54		.36	
2N3855	GE	.53		.35	
2N3855A	GE	.54		.38	
2N3856/					
16L65	GE	.57		.38	
Type No.	Mfr.	1-99	100-999	1000-up	5000-up
2N3858	GI	.48	.32	.22	.20
2N3856A	GE	.62	.42		
Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
2N3858	GE	.48		.32	
2N3858A	GE	.59		.39	

Type No.	Mfr.	1-99	100-999	1000-up	5000-up
2N3859	GI	.49	.33	.23	.21
Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
2N3859	GE	.49		.33	
2N3859A	GE	.60		.40	
Type No.	Mfr.	1-99	100-999	1000-up	5000-up
2N3860	GI	.54	.36	.26	.24
Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
2N3860	GE	.54		.36	
2N3866	RCA	4.92		3.42	
2N3866	MOT	5.15		3.42	
2N3870	RCA	4.70		3.25	
2N3871	RCA	5.12		3.53	
2N3872	RCA	7.18		4.96	
2N3873	RCA	10.50		7.25	
2N3877	GE	.56		.38	
2N3877A	GE	.63		.42	
16X1	GE	.63		.42	
2N3878	RCA	4.54		3.14	
2N3879	RCA	5.36		3.71	
2N3883	MOT	1.35		.90	
2N3886	RCA	4.95		3.42	
2N3887	RCA	5.36		3.71	
2N3888	RCA	7.43		5.13	
2N3889	RCA	10.75		7.40	
Type No.	Mfr.	1-99	100-999	1000-up	5000-up
2N3900	GI	.67	.45	.34	.31
Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
2N3900	GE	.67		.45	
Type No.	Mfr.	1-99	100-999	1000-up	5000-up
2N3900A	GI	.75	.50	.37	.34
Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
2N3900A	GE	.75		.50	
Type No.	Mfr.	1-99	100-999	1000-up	5000-up
2N3903	GI	.75	.50	.37	.35
Type No.	Mfr.	1-99	100-999	1000-up	1000-up
2N3903	MOT	.75	.50		
Type No.	Mfr.	1-99	100-999	1800-up	5000-up
2N3904	GI	.83	.55	.41	.38
Type No.	Mfr.	1-99	100-Mix	180-999	1000-up
2N3904	MOT	.82	.55		
Type No.	Mfr.	1-99	100-999	1000-up	5000-up
2N3905	GI	.75	.50	.37	.35
Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
2N3905	MOT	.75	.50	.37	.35
Type No.	Mfr.	1-99	100-999	1000-up	5000-up
2N3906	GI	.83	.55	.41	.38
Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
2N3906	MOT	.82	.55	.41	.38
2N3910	RAY	7.50		5.25	
2N3911	RAY	7.75		5.40	
2N3912	RAY	8.00		5.70	
2N3913	RAY	5.20		4.00	
2N3914	RAY	6.75		4.50	
2N3915	RAY	7.75		5.50	
2N3924	MOT	5.15		3.42	
2N3925	MOT	14.70		9.80	
2N3926	MOT	23.90		15.96	
2N3927	MOT	34.20		22.80	
2N3932	RCA	2.06		1.43	
2N3933	RCA	2.31		1.60	

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Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
2N3936	TI	7.35		4.90	
2N3937	TI	14.60		9.75	
2N3938	TI	18.75		12.50	
2N3939	TI	26.25		17.50	
2N3940	TI	30.00		20.00	
2N3946	MOT	2.40		1.60	
2N3947	MOT	2.75		1.85	
2N3959/ MM2400	MOT	10.50		7.00	
2N3960/ MM2401	MOT	13.10		8.75	
2N3961	MOT	14.70		9.80	
2N3973	GE	.89		.59	
2N3974	GE	.94		.62	
2N3975	GE	.79		.53	
2N3976	GE	.82		.54	
2N3977	SPR	3.30		2.20	
2N3978	SPR	3.00		2.00	
2N3979	SPR	3.30		2.20	
2N4036	RCA	1.62		1.12	
2N4037	RCA	1.31		.91	
2N4048	MOT	6.35		4.25	
2N4049	MOT	10.80		7.20	
2N4050	MOT	14.25		9.50	
2N4051	MOT	7.40		4.95	
2N4052	MOT	12.00		8.00	
2N4053	MOT	16.10		10.75	
2N4054					
D20D1	GE	1.56		1.04	
2N4055					
D20D3	GE	1.44		.96	
2N4056					
D20D5	GE	1.20		.80	
2N4057					
O20D7	GE	1.08		.72	
2N4058	TI	.66		.44	
2N4059	TI	.54		.36	
2N4060	TI	.55		.37	
2N4061	TI	.57		.38	
2N4062	TI	.60		.40	
2N4074	RCA	.73		.51	
2N4077	AMP	1.27		.85	
2N4078	AMP	1.20		.80	
2N4080	RAY	6.80		4.50	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
2N4123	MOT	.52		.35	
2N4124	MOT	.60		.40	
2N4125	MOT	.52		.35	.26
2N4126	MOT	.60		.40	.30
2N4140	GI	.90		.60	.54
2N4141	GI	1.20		.80	.72
2N4142	GI	.90		.60	.54
2N4143	GI	1.20		.80	.72
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
2N4151/ MCR230					
4-1	MOT	1.45		1.05	
2N4152/ MCR230					
4-2	MOT	1.60		1.10	
2N4153/ MCR230					
4-3	MOT	1.75		1.25	
2N4154/ MCR230					
4-4	MOT	1.95		1.35	
2N4155/ MCR230					
4-5	MOT	2.40		1.60	
2N4155/ MCR230					
4-6	MOT	2.80		1.85	
2N4157/ MCR230					
4-7	MOT	5.00		3.35	
2N4158/ MCR230					
4-8	MOT	6.75		4.50	
2N4159/ MCR230					
4L-1	MOT	1.49		1.09	
2N4160/ MCR230					
4L-2	MOT	1.64		1.14	
2N4161/ MCR230					
4L-3	MOT	1.79		1.29	
2N4162/ MCR230					
4L-4	MOT	1.99		1.39	

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
2N4163/ MCR230					
4L-5	MOT	2.44		1.64	
2N4164/ MCR230					
4L-6	MOT	2.84		1.89	
2N4165/ MCR230					
4L-7	MOT	5.04		3.39	
2N4166/ MCR230					
4L-8	MOT	6.79		4.54	
2N4167/ MCR230					
5-1	MOT	1.60		1.20	
2N4168/ MCR230					
5-2	MOT	1.75		1.25	
2N4169/ MCR230					
5-3	MOT	1.90		1.40	
2N4170/ MCR230					
5-4	MOT	2.10		1.50	
2N4171/ MCR230					
5-5	MOT	2.55		1.75	
2N4172/ MCR230					
5-6	MOT	2.95		2.00	
2N4173/ MCR230					
5-7	MOT	5.15		3.50	
2N4174/ MCR230					
5-8	MOT	6.90		4.65	
2N4175/ MC2305					
L-1	MOT	1.64		1.24	
2N4176/ MC2305					
L-2	MOT	1.79		1.29	
2N4177/ MC2305					
L-3	MOT	1.94		1.44	
2N4178/ MC2305					
L-4	MOT	2.14		1.54	
2N4179/ MC2305					
L-5	MOT	2.59		1.79	
2N4180/ MC2305					
L-6	MOT	2.99		2.04	
2N4181/ MC2305					
L-7	MOT	5.19		3.54	
2N4182/ MC2305					
L-8	MOT	6.94		4.69	
2N4183/ MCR260					
4L-1	MOT	1.59		1.19	
2N4184/ MCR260					
4L-2	MOT	1.74		1.24	
2N4185/ MCR260					
4L-3	MOT	1.89		1.39	
2N4186/ MCR260					
4L-4	MOT	2.09		1.49	
2N4187/ MCR260					
4L-5	MOT	2.54		1.74	
2N4188/ MCR260					
4L-6	MOT	2.94		1.99	
2N4189/ MCR260					
4L-7	MOT	5.14		3.49	
2N4190/ MCR260					
4L-8	MOT	6.89		4.64	
2N4191/ MCR260					
5L-1	MOT	1.59		1.19	
2N4192/ MCR260					
5L-2	MOT	1.74		1.24	
2N4193/ MCR260					
5L-3	MOT	1.89		1.39	

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
2N4194/ MCR260					
5L-4	MOT	2.09		1.49	
2N4195/ MCR260					
5L-5	MOT	2.54		1.74	
2N4196/ MCR260					
5L-6	MOT	2.94		1.99	
2N4197/ MCR260					
5L-7	MOT	5.14		3.49	
2N4198/ MCR260					
5L-8	MOT	6.89		4.64	
2N4199	MOT	21.25		15.00	
2N4200	MOT	28.75		20.00	
2N4201	MOT	32.50		22.50	
2N4202	MOT	47.50		32.50	
2N4203	MOT	77.50		52.50	
2N4204	MOT	107.50		72.50	
2N4220	MOT	2.85		1.90	
2N4221	MOT	2.85		1.90	
2N4222	MOT	2.85		1.90	
2N4223	MOT	5.85		3.90	
2N4224	MOT	3.85		2.45	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
2N4227	GI	1.01		.67	.58
2N4228	GI	1.01		.67	.58
2N4234	MOT	3.00		2.00	
2N4235	MOT	3.60		2.39	
2N4236	MOT	4.00		2.66	
2N4237	MOT	2.25		1.50	
2N4238	MOT	2.75		1.85	
2N4239	MOT	3.05		2.05	
2N4254	TI	.90		.60	
2N4255	TI	.85		.57	
2N4256	GE	.69		.46	
2N4260	MOT	12.35		8.25	
2N4261	MOT	14.60		9.75	
2N4264	MOT	.80		.40	.30
2N4265	MOT	.67		.45	.34
2N4276	MOT	4.85		3.10	.31
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
2N4277	MOT	5.60		3.75	
2N4278	MOT	6.15		4.10	
2N4279	MOT	7.10		4.75	
2N4280	MOT	10.55		7.05	
2N4281	MOT	11.75		7.85	
2N4282	MOT	14.00		9.35	
2N4283	MOT	15.90		10.60	
2N4300	TI	12.75		8.50	
2N4301	TI	58.50		39.00	
2N4351	MOT	12.75		8.50	
2N4351A	MOT	8.10		5.40	
2N4352	MOT	6.75		4.50	
2N4352A	MOT	7.35		4.90	
2N4353	GI	10.00		6.70	
Type No.	Mfr.	1-24	25-99	100-up	
2N4371	WES	33.50	26.00		
2N4372	WES	48.00	35.70		
2N4373	WES	76.00	59.00		
2N4374	WES	117.00	91.80		
2N4375	WES	174.00	136.00		
2N4376	WES	244.00	191.00		
2N4377	WES	331.00	259.00		
2N4378	WES	424.00	329.00		
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
3N34	TI	5.00		4.15	
3N35	TI	22.50		15.00	
3N58	GE	3.40		2.25	
3N59	GE	3.75		2.50	
3N60	GE	4.15		2.75	
3N74/ TI1X608	TI	15.60		10.40	
3N75	TI	25.50		17.00	
3N81	GE	3.40		2.25	
3N82	GE	4.95		3.30	
3N83	GE	2.13		1.42	
3N84	GE	1.98		1.32	
3N85	GE	3.30		2.20	
3N86	GE	6.00		4.00	
3N86	GE	6.00		4.00	
3N90	SPR	19.50		13.00	
3N91	SPR	16.50		11.00	
3N92	SPR	13.50		9.00	
3N93	SPR	34.50		23.00	
3N94	SPR	28.50		19.00	
3N95	SPR	22.50		15.00	

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Type No.	Mfr.	1-99	100 Mix	100-999	1000-up	Type No.	Mfr.	1-99	100 Mix	100-999	1000-up	Type No.	Mfr.	1-99	100 Mix	100-999	1000-up	
3N100	SPR	16.50		11.00		1.5M30Z5/						1ZM15T20	INT	.80			.60	
3N101	SPR	21.00		14.00		1N3800B	MOT	6.95	6.00	5.25		2A	HOF	7.50			6.00	
3N102	SPR	27.00		18.00		1.5M33Z5/						2AFB05AP	INT	4.05			3.25	
3N103	SPR	36.00		24.00		1N3801B	MOT	6.95	6.00	5.25		2AFB1AP	INT	4.30			3.45	
3N104	SPR	18.00		12.00		1.5M39Z5/						2AFB2AP	INT	5.15			4.15	
3N105	SPR	7.50		5.00		1N3803B	MOT	6.95	6.00	5.25		2AFB3AP	INT	5.55			4.50	
3N106	SPR	9.00		6.00		1.5M62Z5/						2AFB4AP	INT	6.50			5.30	
3N107	SPR	12.00		8.00		1N3808B	MOT	6.95	6.00	5.25		2AFB5AP	INT	8.00			6.40	
3N108	SPR	40.50		27.00		1.5M68Z5/						2E4	INT	.50			.42	
3N108	TI	41.00		27.25		1N3809B	MOT	6.95	6.00	5.25		Type No.	Mfr.	1-24	25-99	100-up		
3N109	SPR	28.50		19.00		1.5M6.8Z5/						2F4	SAR	.40	.36			
3N109	TI	29.00		19.25		1N3785B	MOT	6.95	6.00	5.25		2R174	GE	2.20	NET	.33		
3N110	SPR	24.00		16.00		1.5M75Z5/						3AF1	SAR	.60	.53			
3N110	TI	24.00		16.25		1N3810B	MOT	6.95	6.00	5.25		3AF2	SAR	.65	.57	.49		
3N111	SPR	15.00		10.00		1.5M7.5Z5/						3AF3	SAR	.85	.72	.67		
3N111	TI	15.00		10.00		1N3786B	MOT	6.95	6.00	5.25		3AF4	SAR	1.25	1.07	1.00		
3N112	SPR	92.00		42.00		1.5M8.2Z5/						3AF6	SAR	.85	.72	.67		
3N113	SPR	63.00		68.00		1N3787B	MOT	6.95	6.00	5.25		Type No.	Mfr.	1-9	10-99	100-999	1000-up	
3N114	SPR	13.50		9.00		1.5M8.2Z5/						3F10	INT	1.20			.79	
3N115	SPR	10.50		7.00		1Z10T10/						3F100	INT	11.75			7.76	
3N116	SPR	7.50		5.00		1N1523	INT	2.95	2.63	2.30		3F20	INT	2.20			1.45	
3N117	SPR	15.00		10.00		1Z12T10/						3F30	INT	2.75			1.82	
3N118	SPR	12.00		8.00		1N1524	INT	2.95	2.63	2.30		3F40	INT	3.85			2.58	
3N119	SPR	9.00		6.00		1Z15T10/						3F50	INT	4.95			3.32	
3N123	SPR	3.30		2.20		1N1525	INT	2.95	2.63	2.30		3F80	INT	9.05			5.97	
3N123	SPR	3.20		2.20		1Z18T10/						3Z10/						
3N124	MOT	4.35		2.90		1N1526	INT	2.95	2.63	2.30		1N1593	INT	3.75	3.30	3.00		
3N125	MOT	4.35		2.90		1Z22T10/						3Z12/						
3N126	MOT	4.35		2.90		1N1527	INT	2.95	2.63	2.30		1N1594	INT	3.75	3.30	3.00		
1/4M100Z	MOT	2.80	2.60	2.25		1Z27T10/						3Z15/						
1/4M10Z	MOT	2.10	1.95	1.70		1N1528	INT	2.95	2.63	2.30		1N1595	INT	3.75	3.30	3.00		
1/4M10Z5	MOT	4.00	3.65	3.20		1Z3.9T10/						3Z18/						
1/4M12Z5	MOT	4.00	3.65	3.20		1N1518	INT	3.00	2.70	2.40		1N1596	INT	3.75	3.30	3.00		
1/4M13Z5	MOT	4.00	3.65	3.20		1Z4.7T10/						3Z18/						
1/4M150Z	MOT	2.80	2.60	2.25		1N1519	INT	3.00	2.70	2.40		1N1596	INT	3.75	3.30	3.00		
1/4M15Z	MOT	2.10	1.95	1.70		1Z5.1T5	INT	3.65	3.50	2.90		3Z22/						
1/4M15Z5	MOT	4.00	3.65	3.20		1Z5.6T10/						1N1597	INT	3.75	3.30	3.00		
1/4M16Z5	MOT	4.00	3.65	3.20		1N1520	INT	2.95	2.63	2.30		3Z27/						
1/4M20Z	MOT	2.10	1.95	1.70		1Z6.8T10/						1N1598	INT	3.75	3.30	3.00		
1/4M20Z5	MOT	4.00	3.65	3.20		1N1521	INT	2.95	2.63	2.30		3Z3.9/						
1/4M2.4AZ	MOT	2.10	1.95	1.70		1ZF11T10	INT	1.12		.85		1N1588	INT	3.85	3.45	3.05		
1/4M2.4AZ5	MOT	4.00	3.65	3.20		1ZF12T10	INT	1.12		.85		3Z4.7/						
1/4M2.7AZ	MOT	2.10	1.95	1.70		1ZF13T10	INT	1.12		.85		1N1589	INT	3.85	3.45	3.05		
1/4M2.7AZ5	MOT	4.00	3.65	3.20		1ZF16T10	INT	1.12		.85		1N1590	INT	3.75	3.30	3.00		
1/4M3.0AZ	MOT	4.35	4.00	3.50		1ZF20T10	INT	1.12		.85		3Z5.6/						
1/4M3.0AZ5	MOT	4.35	4.00	3.50		1ZF24T10	INT	1.12		.85		1N1590	INT	3.75	3.30	3.00		
1/4M3.3AZ	MOT	2.10	1.95	1.70		1ZF27T10	INT	1.12		.85		3Z6.8/						
1/4M3.3AZ5	MOT	4.00	3.65	3.20		1ZF30T10	INT	1.12		.85		1N1591	INT	3.75	3.30	3.00		
1/4M3.6AZ	MOT	4.00	3.65	3.20		1ZF4.3T10	INT	1.34		1.02		3Z8.2/						
1/4M3.6AZ5	MOT	2.00	1.70	1.50		1ZF5.1T10	INT	1.34		1.02		1N1592	INT	3.75	3.30	3.00		
1/4M4.3AZ	MOT	4.00	3.65	3.20		1ZF6.2T10	INT	1.34		1.02		Type No.	Mfr.	1-9	10-99	100-999	1000-up	
1/4M4.3AZ5	MOT	2.10	1.95	1.70		1Z7.5T10	INT	1.12		.85		4JPA107	GE	95.60	63.75	42.50		
1/4M4.7AZ	MOT	4.00	3.65	3.20		1Z7.9T10	INT	1.12		.85		4JPA113	GE	15.15	10.10	6.75		
1/4M4.7AZ5	MOT	4.00	3.65	3.20		1ZM3.3T10	INT	1.20		.90		Type No.	Mfr.	1-99	100 Mix	100-999	1000-up	
1/4M5.0Z5	MOT	4.35	4.00	3.50		1ZM3.6T10	INT	1.20		.90		4JA10A	A10A	GE	.51		.34	
1/4M6.2AZ	MOT	2.10	1.95	1.70		1ZM3.9T10	INT	1.20		.90		4JA10B/	A10B	GE	.53		.35	
1/4M6.2AZ5	MOT	4.00	3.65	3.20		1ZM4.3T10	INT	1.20		.90		4JA10C	A10C	GE	.66		.44	
1/46.8AZ	MOT	2.10	1.95	1.70		1ZM4.7T10	INT	1.20		.90		4JA10D	A10D	GE	.77		.51	
1/4M6.8AZ5	MOT	4.00	3.65	3.20		1ZM5.1T10	INT	1.20		.90		4JA10E	A10E	GE	.87		.58	
1/4M6.8Z5	MOT	4.00	3.65	3.20		1ZM5.6T10	INT	1.20		.90		4JA10M/	A10M	GE	1.04		.69	
1/4M7.5Z5	MOT	4.00	3.65	3.20		1ZM6.8T5	INT	1.20		.90		4JA10N	A10N	GE	1.80		1.20	
1/4M8.2Z5	MOT	4.00	3.65	3.20		1ZM7.5T5	INT	1.20		.90		4JA211C	82AC1	GE	25.70		22.50	
1/4M9.1Z5	MOT	4.00	3.65	3.20		1ZM8.2T10	INT	1.20		.90		Type No.	Mfr.	1-9	10-99	100-999	1000-up	
1D303	GE	1.60		Net		1ZM9.1T10	INT	1.20		.90		4JPA112	GE	20.50	13.65	9.10		
1.5M100Z5						1ZM9.1T5	INT	1.20		.90		4JPA114	GE	17.30	11.55	7.70		
1.5M102Z5						1ZM10T5	INT	1.20		.90		4JPA116	GE	73.10	48.75	32.50		
1.5M112Z5						1ZM11T5	INT	1.20		.90		4JPA345	GE	44.75	29.95	19.90		
1.5M122Z5						1ZM12T5	INT	1.20		.90		4JPA358	GE	39.40	26.25	17.50		
1.5M132Z5						1ZM13T5	INT	1.20		.90		4JPA908	GE	9.65	6.45	4.30		
1.5M18Z5						1ZM15T5	INT	1.20		.90		4JPA909	GE	9.65	6.45	4.30		
1N3795B	MOT	6.95	6.00	5.25		1ZM18T10	INT	.90		.70		Type No.	Mfr.	1-99	100 Mix	100-999	1000-up	
1.5M20Z5						1ZM7.5T20	INT	.80		.60		24X5.6B	GE	.84			.56	
1.5M22Z5						1ZM8.2T20	INT	.80		.60		24X6.2B	GE	.84			.56	
1.5M22Z5/						1ZM9.1T20	INT	.80		.60		24X6.8B	GE	.84			.56	
1N3796B	MOT	6.95	6.00	5.25		1ZM10T10	INT	.80		.60		24X7.5B	GE	.84			.56	
1.5M22Z5/						1ZM11T10	INT	.80		.60		24X8.2B	GE	.84			.56	
1N3797B	MOT	6.95	6.00	5.25		1ZM12T10	INT	.80		.60		24X9.1B	GE	.84			.56	
1.5M24Z5/						1ZM13T10	INT	.80		.60		24X10B	GE	.84			.56	
1N3798B	MOT	6.95	6.00	5.25		1ZM15T10	INT	.80		.60		24X11B	GE	.84			.56	
1.5M25Z5						1ZM6.8T20	INT	.80		.60		24X12B	GE	.84			.56	
						1ZM7.5T20	INT	.80		.60		24X13B	GE	.84			.56	
						1ZM8.2T20	INT	.80		.60		24X15B	GE	.84			.56	
						1ZM9.1T20	INT	.80		.60								
						1ZM10T20	INT	.80		.60								
						1ZM11T20	INT	.80		.60								
						1ZM12T20	INT	.80		.60								
						1ZM13T20	INT	.80		.60								

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Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
Z4X16B	GE	.84		.56	
5A10	INT	2.45		1.43	
5A2/1N2069	INT	.50		.33	
5A3	INT	.78		.61	
5A4	INT	.68		.45	
5A4-95	INT	3.85			
5A5	INT	.78		.52	
5A6	INT	.87		.58	
5A8	INT	2.00		1.18	
5E35	GE	1.35		.90	
5E36	GE	2.67		1.78	
5E4	INT	.59		.49	
5E6	INT	1.20		.80	
SMA4-95	INT	6.00			
SMA10	INT	3.40		2.40	
SMA2	INT	.75		.60	
SMA5	INT	1.25		.99	
SMA5	INT	1.25		.99	
SMA6	INT	1.70		1.35	
SMA8	INT	2.70		1.95	
SSM1020E6	INT	13.20		12.15	
SSMBSL	INT	3.50		3.10	
SSMB10L	INT	3.98		3.45	
SSMB20L	INT	4.54		3.85	
6F10	INT	1.25		.85	
6F5	INT	1.15		.75	
6GD1	GE	NET	.54		
6RD21SA					
6D6	GE	2.75		1.97	
6RS20SP					
1B1	GE	.69		.52	
6RS20SP					
2B2	GE	.80		.60	
6RS20SP					
3B3	GE	.91		.69	
6RS20SP					
4B4	GE	1.03		.78	
6RS20SP					
5B5	GE	1.15		.87	
6RS20SP					
6B6	GE	1.26		.95	
6RS20SP					
7B7	GE	1.38		1.04	
6RS20SP					
8B8	GE	1.50		1.13	
6RS20SP					
9B9	GE	1.62		1.22	
6RS20SP					
10B10	GE	1.73		1.31	
Type No.	Mfr.	1-49	50-999	1000-up	
6RS21SA					
1D1	GE	1.87		1.33	
6RS21SA					
2D2	GE	2.00		1.45	
6RS21SA					
3D3	GE	2.20		1.63	
6RS21SA					
4D4	GE	2.38		1.70	
6RS21SA					
5D5	GE	6.00		4.00	
6RS21SA					
606	GE	2.31		1.54	
6RS21SA					
7D7	GE	2.90		2.10	
6RS21SA					
8D8	GE	3.10		2.25	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
6RS21SA					
9D9	GE	3.30		2.40	
Type No.	Mfr.	1-49	50-999	1000-up	
6RS21SA					
10D10	GE	3.47		2.55	
6RS21SA					
11D11	GE	3.65		2.70	
6RS21SA					
12D12	GE	3.85		2.88	
6RS21SA					
20D20	GE	5.25		4.30	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
6RS5SP1B1	GE	.62		.47	
6RS5SP2B2	GE	.68		.51	
6RS5SP4B4	GE	.81		.61	
7A-32	GE	2.25		1.50	
7A30	GE	1.01		.67	
7A31	GE	1.08		.72	
7A35	GE	2.40		1.60	

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
7B4/2N2201	GE	6.90		4.60	
7PS834	MOT	.70		.46	
7R322/1N3491	MOT	.67		.45	.40
8R331R	MOT	9.75		6.50	5.85
10	SAR	NET	.54		
Type No.	Mfr.	1-24	25-99	100-999	1000-up
10-H	SAR	.35	.33	.31	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
10B1	INT	.50		.37	
10B2	INT	.55		.40	
10B4	INT	.80		.64	
10B5	INT	.95		.75	
10B10	INT	2.05		1.64	
Type No.	Mfr.	1-24	25-99	100-999	1000-up
10C	SAR	.35	.33	.31	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
10C1	INT	.32		.29	
10C2	INT	.35		.32	
10C3	INT	.38		.36	
10C4	INT	.42		.38	
10C5	INT	.47		.43	
10C6	INT	.52		.46	
10C8	INT	.75		.65	
10C10	INT	1.70		1.20	
10D10	INT	2.45		1.43	
10D2	INT	.50		.33	
10D3	INT	.55		.40	
10D4	INT	.68		.45	
10D5	INT	.78		.52	
10D6	INT	.87		.58	
10D8	INT	2.00		1.18	
10DB2A	INT	2.50		2.25	
10DB3	INT	2.60		2.35	
10DB4A	INT	2.75		2.48	
10DB5A	INT	2.90		2.60	
10DB6A	INT	3.05		2.75	
10DB7A	INT	3.35		3.00	
10DB8A	INT	3.60		3.24	
10DB10A	INT	5.40		4.85	
Type No.	Mfr.	1-24	25-99	100-999	1000-up
10H3P	SAR	1.20	1.03	.96	
10JM	SAR	2.24	1.92	1.80	
10JZ1N1621	SAR	2.24	1.92	1.80	
10LA/1N1085A	SAR	3.24	2.86	2.66	
10M	SAR	.60	.55	.51	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
10RC100	INT	48.00		31.80	
10RC5/2N1843	INT	6.75		3.85	
10RC80	INT	40.00		25.80	
Type No.	Mfr.	1-24	25-99	100-999	1000-up
10T5.6	SAR	4.83	4.14	3.86	
10T6.2	SAR	4.83	4.14	3.86	
10T7.5	SAR	4.83	4.14	3.86	
10T9.1	SAR	4.83	4.14	3.86	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
10Z10T10/1N16 04	INT	5.00	4.35	3.70	
10Z12T10/1N16 05	INT	5.00	4.35	3.70	
10Z15T10/1N16 06	INT	5.00	4.35	3.70	
10Z18T10/1N16 07	INT	5.00	4.35	3.70	
10Z22T10/1N16 08	INT	5.00	4.35	3.70	
10Z27T10/1N16 09	INT	5.00	4.35	3.70	
10Z39T10/1N1 599	INT	5.50	5.00	4.50	
10Z4.7T10/1N1 60C	INT	5.50	5.00	4.50	
10Z5.6T10/1N1 601	INT	5.00	4.35	3.70	
10Z6.8T10/1N1 602	INT	5.00	4.35	3.70	
10Z8.2T10/1N1 603	INT	5.00	4.35	3.70	

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
12A8	GE	5.65		3.75	
12F10	INT	1.40		.95	
12F15	INT	1.80		1.25	
Type No.	Mfr.	1-9	10-99	100-999	1000-up
12MB10L	INT	3.18	NET		
12MB20L	INT	3.94	NET		
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
12X207-1	GE	75.00		50.00	
12X207-2	GE	60.00		40.00	
12X218	GE	82.50		55.00	
12X235	GE	22.50		15.00	
12X239	GE	35.10		23.50	
12X257	GE	45.00		30.00	
Type No.	Mfr.	1-24	25-99	100-999	1000-up
14A 502	GE	15.00	10.00		
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
16F10	INT	1.54		1.05	
16F15	INT	1.98		1.38	
16F20	INT	3.03		2.04	
16F30	INT	4.10		2.60	
16F40	INT	4.90		3.15	
16F5	INT	1.38		.94	
16F50	INT	5.60		3.60	
16F60	INT	6.70		4.30	
16L43/2N3854	GE	.51		.34	
16L44/2N3855	GE	.53		.35	
16L45/2N3856	GE	.57		.38	
16L63/2N3854A	GE	.54		.36	
16L64/2N3855A	GE	.57		.38	
16RC100	INT	56.20		37.00	
Type No.	Mfr.	1-24	25-99	100-999	1000-up
20C	SAR	.40	.36	.33	
20H3P	SAR	1.25	1.07	1.00	
20J2	SAR	2.80	2.40	2.24	
20LA	SAR	4.00	3.43	3.20	
20M	SAR	.65	.57	.53	
20ORAN	SAR	4.30	3.72	3.46	
20SP4B4	GE	1.40	NET		
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
25-2005	INT	.90		.75	
25H20/1N2131A	INT	4.75			
25H25/1N2128A	INT	2.50			
25H25/1N2132A	INT	5.75			
25H30/1N2133A	INT	7.00			
25H35/1N2128	INT	2.04	NET		
25H35/1N2134A	INT	7.75			
25H40/1N2135A	INT	8.60			
25H50/1N2137A	INT	10.25			
25HB10/1N2129	INT	3.05	NET		
Type No.	Mfr.	1-24	25-99	100-999	1000-up
30J2	SAR	3.45	2.96	2.67	
30LA	SAR	4.67	4.00	3.73	
30M	SAR	.70	.61	.57	
Type No.	Mfr.	1-9	10-99	100-999	1000-up
36RC10A	INT	19.30	15.10		
36RC20A	INT	25.30	20.00		
36RC40A	INT	45.00	35.25		
Type No.	Mfr.	1-24	25-99	100-999	1000-up
40-H	SAR	.45	.40	.37	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
40HF-5	INT	1.15		.80	
40HF-0	INT	1.45		1.05	
40HF-20	INT	2.00		1.40	
40HF-30	INT	2.55		1.85	
40HF-40	INT	3.05		2.20	

Semiconductor Directory

KEY TO SEMICONDUCTOR MANUFACTURERS

AMP —Amperex
 BEN —Bendix
 GE —General Electric
 GI —General Instrument

HOF —Hoffman
 HUG —Hughes Aircraft
 INT —International Rectifier
 MOT —Motorola

RCA —Radio Corp. of America
 RAY —Raytheon
 SAR —Sarkes-Tarzian
 SPR —Sprague

SYL —Sylvania
 TI —Texas Instruments
 WES —Westinghouse

Type No.	Mfr.	1-24	25-99	100-up	
40-LF	SAR	5.35	4.67	4.27	
40B	WES	1.75	1.51	1.41	
40C	SAR	.45	.40	.37	
40H3P	SAR	1.95	1.67	1.56	
40J2	SAR	4.24	3.62	3.40	
40J3N	SAR	4.44	3.84	3.60	
40J3P	SAR	4.48	3.84	3.60	
40LA	SAR	5.35	4.67	4.27	
40SAN	SAR	6.90	4.93	5.54	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
43-1803	INT	.12		.10	
43-1804	INT	.25		.20	
45L10/					
1N3085	INT	8.00			
45L15	INT	10.75			
45L20/					
1N3086	INT	14.00			
45L25	INT	16.25			
45L30/					
1N3087	INT	17.75			
45L35	INT	18.90			
45L40/					
1N3088	INT	25.00			
45L45	INT	21.75			
45L50/					
1N3089	INT	22.50			
50	SAR	NET	.70		
51C	HOF	2.50		2.00	
52C	HOF	3.60		2.80	
55C	HOF	1.50		1.20	
58C	HOF	1.00		.80	
58CL	HOF	1.25	1.15	1.05	
Type No.	Mfr.	1-24	25-99	100-up	
60B	WES	1.95	1.66	1.54	
60C	SAR	.55	.45	.42	
60H3P	SAR	2.70	2.32	2.16	
60LA	WES	6.45	5.52	5.15	
60LA	SAR	6.45	5.52	5.15	
60M	SAR	.85	.70	.66	
Type No.	Mfr.	1-9	10-99	100-999	
61-8968	INT	1.15	.93	.84	
61-8969	INT	2.95	2.35	1.95	
65	SAR	.75	NET		
72DK	TI	49.50	NET		
73DK	TI	49.50	NET		
74DK	TI	49.50	NET		
75	SAR	.81	NET		
Type No.	Mfr.	1-24	25-99	100-up	
80SM	SAR	3.15	2.71	2.54	
100	SAR	NET	1.02		
100-150	SAR	.72	NET		
Type No.	Mfr.	1-9	10-99	100-999	1000-up
100SC2	INT	2.75	2.55		
Type No.	Mfr.	1-24	25-99	100-up	
109UA/					
2N2739	WES	57.00	48.00		
109UB/					
2N2740	WES	74.00	62.00		
109UC/					
2N2741	WES	95.00	80.00		
109WA/					
2N2745	WES	63.00	52.00		
109WB/					
2N2746	WES	82.00	68.00		
109WC/					
2N2747	WES	105.00	87.00		
109XA/					
2N2751	WES	70.00	59.00		
109XB/					
2N2752	WES	90.00	76.00		
109XC/					
2N2753	WES	115.00	98.00		

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
110C	HOF	1.90		1.50	
110CL	HOF	2.15	1.95	1.75	
120C-10		4.10		3.40	
120C-9		4.80		4.00	
120C/					
B120CG	HOF	2.25		1.75	
120C-8	HOF	3.75		3.45	
Type No.	Mfr.	1-24	25-99	100-up	
120SM	SAR	4.00	3.43	3.20	
150	SAR	1.02	NET		
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
151-04	WES	5.55		4.35	
151-06	WES	8.40		6.55	
151-08	WES	11.30		8.70	
151-09	WES	12.75	9.90		
151-10	WES	14.30		11.10	
Type No.	Mfr.	1-9	10-99	100-999	1000-up
151RE100	INT	295.00	203.00		
151RE120	INT	3.64	255.00		
151RE60	INT	159.00	112.00		
151RE80	INT	236.00	150.00		
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
152-04	WES	6.45		5.00	
152-06	WES	9.50		7.40	
152-08	WES	12.80		9.80	
152-09	WES	14.15		11.00	
152-10	WES	15.75		12.25	
153-04	WES	5.55		4.35	
153-05	WES	7.00		5.45	
153-06	WES	8.40		6.55	
153-07	WES	9.85		7.64	
153-08	WES	11.30		8.70	
153-09	WES	12.75		9.90	
153-10	WES	14.30		11.10	
153-12	WES	16.15		12.40	
153-14	WES	18.20		14.00	
153-16	WES	20.50		15.70	
153-18	WES	23.10		17.80	
153-20	WES	28.10		20.00	
153-22	WES	29.50		22.60	
153-24	WES	34.10		25.75	
153-26	WES	38.80		29.30	
153-28	WES	4.00		33.40	
154-04	WES	6.45		5.00	
154-05	WES	7.95		6.45	
154-06	WES	9.50		7.40	
154-08	WES	12.60		9.80	
154-10	WES	15.75		12.25	
154-12	WES	18.60		14.30	
154-14	WES	20.90		16.10	
154-16	WES	23.60		18.20	
154-18	WES	26.60		20.25	
154-20	WES	28.80		22.00	
154-22	WES	32.60		24.80	
154-24	WES	37.10		28.30	
154-26	WES	42.25		32.20	
154-28	WES	48.10		36.70	
Type No.	Mfr.	1-24	25-99	100-up	
160SM	SAR	4.75	4.15	3.86	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
163-04	WES	14.50		11.25	
163-05	WES	16.80		12.50	
163-06	WES	18.50		13.30	
163-07	WES	19.50		14.05	
163-08	WES	20.50		14.75	
163-09	WES	21.50		15.46	
163-10	WES	22.50		16.20	
163-12	WES	25.50		18.35	
163-14	WES	28.50		20.50	
163-16	WES	31.50		22.65	
163-18	WES	34.50		24.80	
163-20	WES	37.50		27.00	
164-04	WES	19.40		14.05	

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
164-05	WES	20.50		14.75	
164-06	WES	21.50		15.50	
164-07	WES	22.50		16.20	
164-08	WES	23.50		16.90	
164-09	WES	24.50		17.65	
164-10	WES	25.50		18.35	
164-12	WES	28.50		20.50	
164-14	WES	31.50		22.65	
164-16	WES	34.50		24.80	
164-18	WES	37.50		27.00	
164-20	WES	40.50		29.20	
1N3671	WES	9.50		6.34	
Type No.	Mfr.	1-24	25-99	100-up	
200	SAR	1.26	NET		
200SM	SAR	5.65	4.86	4.53	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
202M	WES	18.00		12.00	
203M	WES	2.20	NET	16.10	
210 6500	BEN	.50		.25	.20
210 6518	BEN	.40		.20	.16
Type No.	Mfr.	1-24	25-99	100-up	
211A	WES	16.60		14.60	
211B	WES	21.50	16.80		
211C	WES	25.10	19.60		
211D	WES	28.50	22.30		
211E	WES	32.00	25.00		
211F	WES	38.00	29.70		
211H	WES	50.15	39.25		
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
211M	WES	73.15		57.25	
211Z	WES	148.75		117.50	
211S	WES	108.00		85.05	
212A	WES	32.80	25.00		
212B	WES	37.00	28.50		
212D	WES	47.20	37.00		
212F	WES	61.80	48.40		
212H	WES	84.00	63.00		
212K	WES	97.50	76.00		
212M	WES	117.00	91.20		
212S	WES	259.00	149.50		
212V	WES	305.00	175.00		
212Z	WES	360.00	206.00		
213A	WES	22.40	17.90		
213B	WES	27.00	20.35		
213D	WES	33.00	26.30		
213F	WES	42.80	34.00		
213H	WES	57.50	45.00		
213K	WES	68.00	53.75		
213M	WES	82.25	64.75		
213S	WES	132.00	105.50		
213V	WES	141.00	113.00		
213Z	WES	165.00	131.00		
Type No.	Mfr.	1-24	25-99	100-up	1000-up
218B	INT	67.00	56.80		
218C	INT	70.00	59.00		
218D	INT	73.00	62.00		
218F	INT	85.00	74.00		
218H	INT	109.00	93.00		
218K	INT	134.00	113.00		
218M	INT	156.00	134.00		
218P	INT	205.00	162.00		
218S	INT	238.00	197.00		
218V	INT	277.00	237.00		
218Z	INT	315.00	269.00		
218ZB	INT	351.00	296.00		
218ZD	INT	406.00	332.00		
219A	INT	19.50	15.50		
219B	INT	22.50	18.00		
219C	INT	26.50	20.50		
219D	INT	30.00	23.50		
219F	INT	40.00	31.50		
219H	INT	52.50	41.00		
219K	INT	63.50	49.50		
219M	INT	76.50	60.00		
219P	INT	94.00	74.00		
219S	INT	113.50	89.50		
219V	INT	132.00	104.50		
219Z	INT	156.00	123.50		

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Type No.	Mfr.	1-24	25-99	100-up	1000-up
2192B	INT	182.50	137.00		
2192D	INT	205.00	154.50		
240SM	SAR	6.50	5.57	5.20	
242ZB	WES	15.75	14.30		
242ZD	WES	22.85	19.25		
242ZH	WES	37.50	32.20		
242ZM	WES	51.50	44.25		
250	SAR	1.29	NET		
254A	WES	29.50	22.90		
254F	WES	58.50	45.50		
254K	WES	96.60	75.00		
254V	WES	207.00	162.00		
254ZB	WES	213.75	196.24		
254ZF	WES	373.00	292.00		
280SM	SAR	7.35	6.30	5.87	

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
300	SAR	1.32	NET		

Type No.	Mfr.	9	10-29	30-99	100-up
300-500	SAR	2.20	NET		

Type No.	Mfr.	99	100 Mix	999	1000-up
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366A	WES	.65		.54	
366B	WES	.68		.57	
366C	WES	.74		.59	
366F	WES	1.08		.70	
366H	WES	1.27		.80	
366K	WES	1.50		.93	
366M	WES	1.76		1.08	
367A	WES	.68		.57	
367B	WES	.72		.60	
367C	WES	.79		.62	
367F	WES	1.15		.75	
367K	WES	1.59		.99	
368A	WES	.73		.61	
368B	WES	.78		.64	
368C	WES	.86		.66	
368D	WES	1.03		.69	
368H	WES	1.43		.90	
368K	WES	1.68		1.05	
368M	WES	1.97		1.22	
368F	WES	1.22		.80	

371A	WES	1.15		.85	
371B	WES	1.25		.95	
371C	WES	1.50		1.00	
371D	WES	1.75		1.10	
371F	WES	2.10		1.35	
371H	WES	2.53		1.70	
371K	WES	3.46		2.40	
371M	WES	3.90		2.75	
374A	WES	3.05		2.55	
374B	WES	3.50		2.95	
374C	WES	4.20		3.55	
374D	WES	5.25		4.50	
374F	WES	6.55		5.50	
374H	WES	7.50		6.30	
374K	WES	8.80		7.40	
374M	WES	10.40		8.75	
376A	WES	5.80		4.90	
376B	WES	7.00		5.90	
376C	WES	8.45		7.10	
376D	WES	10.20		9.00	

376F	WES	13.10		11.00	
376H	WES	15.00		12.60	
376M	WES	20.80		17.50	
377A	WES	7.95		6.25	
377B	WES	9.45		7.50	
377C	WES	11.40		8.90	
377D	WES	15.45		11.00	
377E	WES	16.50		12.30	
377H	WES	20.20		16.00	
377K	WES	25.30		22.10	
377M	WES	31.00		26.10	
386 IAY	WES	1.35		.90	
386 ICY	WES	1.74		1.20	
386 IFY	WES	2.40		1.62	
386 IKY	WES	3.00		2.05	
387C	WES	22.00		16.50	

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
400	SAR	1.68	NET		
416A	WES	2.80		2.16	
416B	WES	3.90		2.69	
416C	WES	4.60		3.30	
416F	WES	6.50		4.52	
416K	WES	8.50		5.69	
416P	WES	11.00		9.65	
416V	WES	13.75		10.85	
416Z	WES	15.00		11.40	
416S	WES	12.50		10.32	

Type No.	Mfr.	1-24	25-99	100-up
439A/				
IN3161	WES	18.75	15.70	
439B/				
IN3162	WES	22.45	18.85	
439C/				
IN3163	WES	26.45	22.55	
439D/				
IN3164	WES	31.30	26.35	
439E/				
IN3165	WES	35.65	30.00	

439F/				
IN3166	WES	40.70	34.25	
439G/				
IN3167	WES	52.05	43.80	
439H/				
IN3168	WES	59.70	50.15	
439K/				
IN3169	WES	72.20	60.70	
439M/				
IN3170	WES	88.55	74.20	

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
478-C	WES	6.10		4.70	
479-C	WES	7.50		5.90	
500	SAR	1.74	NET		

Type No.	Mfr.	1-24	25-99	100-up
509C/				
916H14	WES	3.52	2.80	
509C/				
916H16	WES	3.80	2.88	
509C/				
916H18	WES	5.00	3.80	
509C/				
916H22	WES	8.00	7.00	
509C/				
916H74	WES	4.25	3.60	
509C/				
916H76	WES	5.80	4.90	
509C/				
916H78	WES	8.05	7.20	

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
600	TI	1.94		1.58	
601	TI	3.60		2.94	
601	TI	3.60		2.94	
604	TI	3.25		2.66	
606	TI	3.25		2.66	
608	TI	3.25		2.66	
610	TI	3.30		2.70	
612	TI	3.40		2.78	
614	TI	3.50		2.86	
616	TI	3.60		2.94	
618	TI	3.60		2.94	
620	TI	3.65		2.99	
622	TI	3.70		3.03	
622	TI	3.70		3.03	
624	TI	3.75		3.07	
624	TI	3.75		3.07	
650	TI	4.35		3.65	
650C0	TI	4.35		3.65	
650C3	TI	4.85		4.15	
651C0	TI	4.85		4.15	

651C4	TI	4.85		4.15	
651C5	TI	4.85		4.15	
652	TI	4.35		3.65	
652C	TI	4.35		3.65	
652C0	TI	4.85		4.15	
652C5	TI	4.85		4.15	
653C	TI	4.35		3.65	
653C0	TI	4.85		4.15	
653C2	TI	4.85		4.15	
653C4	TI	4.85		4.15	
653C9	TI	4.85		4.15	
654C9	TI	4.85		4.15	
655C9	TI	4.85		4.15	
703FFR	WES	.89		.75	
703A	WES	.47		.40	
703AR	WES	.47		.40	
703-B	WES	.54		.45	
703D	WES	.78		.65	
703DR	WES	.78		.65	
703BR	WES	.54		.45	

Type No.	Mfr.	1-24	25-99	100-up
760ZHR	WES	109.00	104.00	
760ZMR	WES	125.00	120.00	
770ZDR	WES	96.00	81.00	
809P	WES	120.00	94.00	
809V	WES	172.00	133.00	
809ZB	WES	248.00	190.00	
809ZD	WES	286.00	215.00	

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
809Z	WES	210.00		155.00	
809S	WES	145.00		112.00	
904A/					
2N1151	TI	8.65		5.75	
953/					
2N1156	TI	17.65		11.75	
4402	RCA	1.67		1.15	
4403	RCA	1.21		.84	
4404	RCA	1.32		.92	
4413	RCA	2.39		1.65	
4423	RCA	2.10		1.45	
4425	RCA	2.10		1.45	
4448	RCA	1.32		.92	
4450	RCA	1.37		.95	
4451	RCA	1.37		.95	
4453	RCA	1.28		.88	
7163	RCA	1.21		.84	
7163V1	RCA	1.28		.88	
7163V2	RCA	1.21		.84	
7412	RCA	2.06		1.43	

354001-100	TI	.15		.10	
354001-99	TI	.15		.10	
40004	RCA	1.65		1.05	
40005	RCA	1.82		1.25	
40006	RCA	3.30		2.28	
40022	RCA	.83		.57	
40050	RCA	1.13		.78	
40051	RCA	1.29		.89	
40053/					
2N3053	RCA	.99		.69	
40062	RCA	6.90		6.85	
40080	RCA	1.08		.75	
40081	RCA	1.65		1.14	
40082	RCA	5.69		3.93	
40108	RCA	.99		.69	
40108R	RCA	.99		.69	
40109	RCA	1.16		.80	
40109R	RCA	1.16		.80	
40110	RCA	1.57		1.09	
40110R	RCA	1.57		1.09	

40111R	RCA	2.15		1.48	
40112	RCA	2.48		1.71	
40112R	RCA	2.48		1.71	
40113	RCA	3.14		2.17	
40113R	RCA	3.14		2.17	
40114	RCA	3.71		2.57	
40114R	RCA	3.71		2.57	
40115R	RCA	6.60		4.56	
40208R	RCA	1.19		.83	
40209R	RCA	1.32		.92	
40210R	RCA	1.78		1.23	
40211R	RCA	2.39		1.65	
40212R	RCA	2.89		2.00	
40213	RCA	3.63		2.51	
40213R	RCA	3.63		2.51	
40214	RCA	4.21		2.91	
40214R	RCA	4.21		2.91	
40217	RCA	.99		.69	
40218	RCA	1.19		.82	
40219	RCA	1.32		.92	

40220	RCA	3.06		2.11	
40221	RCA	1.57		1.09	
40222	RCA	1.24		.86	
40225	RCA	4.79		3.31	
40231	RCA	.47		.32	
40232	RCA	.53		.37	
40233	RCA	.60		.42	
40234	RCA	.42		.29	
40235	RCA	.88		.61	
40236	RCA	.80		.55	
40237	RCA	.66		.46	

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Type No.	Mfr.	1-99	100 Mix	100-999	1000-up	Type No.	Mfr.	1-99	100 Mix	100-999	1000-up	Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
40257	RCA	.33		.23		A467	AMP	.92		.61		B170018	BEN	2.48		1.65	
40269	RCA	.52		.36		A473	AMP	.92		.61		B170019	BEN	2.63		1.75	
40279	RCA	125.00				A-580	TI	7.00		5.25		B170020	BEN	2.70		1.80	
40280	RCA	4.62		3.19		A130	AMP	1.35		.90		B170021	BEN	2.63		1.75	
40281	RCA	23.10		15.95		A13A2	GE	.42		.28		B170022	BEN	2.70		1.80	
40282	RCA	33.00		22.80		A13B2	GE	.46		.31		B170023	BEN	2.85		1.90	
40283	RCA	3.71		2.57		A13C2	GE	.54		.36		B170024	BEN	3.15		2.10	
40285	RCA	42.90		29.65		A13D2	GE	.56		.37		B170025	BEN	3.30		2.20	
40287	RCA	24.75		17.10		A13E2	GE	.68		.45		B170026	BEN	3.63		2.55	
40291	RCA	14.85		10.25		A13F2	GE	.37		.25		Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
40292	RCA	33.00		22.80		A13M2	GE	.75		.50		B10M	INT	7.00	6.65	4.55	
40294	RCA	33.40		23.10		A15M	INT	10.40		7.15		B10PL	INT	2.90		2.12	
40295	RCA	14.85		10.25		Type No.	Mfr.	1-99	100 Mix	100-999	1000-up	B12F10	INT	8.75	7.95		
40296	RCA	48.70		33.65		A15PL	INT	6.20	4.40			B12F20	INT	13.11	11.40		
40306	RCA	66.00		45.00		Type No.	Mfr.	1-99	100 Mix	100-999	1000-up	B12F40	INT	20.62	17.20		
40307	RCA	99.00		68.40		A1B	INT	1.22		.82		B1B	INT	1.28		.86	
40309	RCA	.70		.48		A1H	INT	.43		.30		B1H	INT	.40		.28	
40310	RCA	1.21		.84		A22M	GE	4.50		3.60		B220C	HOF	5.00		3.90	
40311	RCA	.73		.51		A23M	GE	8.98		4.65		Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
40312	RCA	1.26		.87		A27D	GE	6.90		4.60		B25H10	INT	16.95	15.25		
40313	RCA	2.23		1.54		A38B/	IN4525	GE	6.45	4.30		B25H40	INT	36.80	29.44		
40314	RCA	.78		.54		A38D/	IN4526	GE	8.78	5.85		B3M	INT	1.75	1.55		
40315	RCA	.75		.52		A38M/	IN4527	GE	10.70	6.90		Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
40316	RCA	1.21		.84		A38N/	IN4528	GE	12.30	8.20		B5000	BEN	.99		.75	
40317	RCA	.78		.54		A38P/	IN4529	GE	13.50	9.00		BD1	GE	5.00		3.30	
40318	RCA	2.10		1.45		A38PB/	IN4530	GE	17.25	11.50		BD2	GE	5.00		3.30	
40319	RCA	1.32		.92		A40A	GE	1.77		1.18		BD3	GE	3.00		2.00	
40320	RCA	.78		.54		A40B	GE	1.82		1.21		BD4	GE	5.00		3.30	
40321	RCA	1.24		.86		A40C	GE	2.40		1.60		BHS					
40322	RCA	2.15		1.48		A40D	GE	2.90		1.93		CODED					
40323	RCA	.70		.48		A40E	GE	3.53		2.35		INS					
40324	RCA	1.21		.84		A40F	GE	1.73		1.15		RECT	CON	1.50	NET		
40325	RCA	2.48		1.71		A40M	GE	4.20		2.80		BY100S	CON	.69		.46	
40326	RCA	.78		.54		A41B	GE	1.82		1.21		Type No.	Mfr.	1-24	25-99	100-up	
40327	RCA	1.24		.86		A44A	GE	1.10		.77		C180C	AME	120.00	106.00		
40328	RCA	2.19		1.52		A44B	GE	1.16		.73		C180M	GE	197.00	167.00		
40329	RCA	.38		.27		A44C	GE	1.28		.85		C180PC	GE	535.00	455.00		
40340	RCA	33.00		22.80		A44F	GE	1.05		.70		Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
40341	RCA	33.00		22.80		A581	TI	11.00		7.50		C-1	GE	1.60	NET		
40346	RCA	1.14		.79		A582	TI	7.00		5.25		C-145A	GE	17.00		12.75	
40347	RCA	.80		.55		A583	TI	13.00		10.00		C-145M	GE	54.00		40.50	
40348	RCA	1.06		.73		A584	TI	7.00		5.25		C-145N	GE	75.00		56.60	
40349	RCA	1.56		1.08		A585	TI	15.00		12.50		C-145P	GE	106.00		79.50	
40354	RCA	1.18		.81		A586	TI	8.00		6.25		C-2	GE	1.60	NET		
40355	RCA	1.24		.86		A587	TI	13.00		10.00		C106A1	GE	1.35		.90	
40360	RCA	1.03		.71		A588	TI	10.00		7.25		C106A2	GE	1.35		.90	
40361	RCA	1.46		1.01		A589	TI	17.00		13.00		C106A3	GE	1.35		.90	
40362	RCA	1.54		1.07		Type No.	Mfr.	1-99	100 Mix	100-999	1000-up	C106A4	GE	1.35		.90	
40363	RCA	2.48		1.71		A5M	INT	7.00	6.85	4.55		C106B1	GE	1.50		1.00	
40364	RCA	4.46		3.08		A5PL	INT	2.40	1.80			C106B2	GE	1.50		1.00	
40365	RCA	2.31		1.60		Type No.	Mfr.	1-99	100 Mix	100-999	1000-up	C106B3	GE	1.50		1.00	
40366	RCA	8.25		5.70		A70A	GE	11.35		9.05		C106B4	GE	1.50		1.00	
40367	RCA	8.25		5.70		Type No.	Mfr.	1-99	100 Mix	100-999	1000-up	C106F1	GE	1.20		.80	
40368	RCA	14.85		10.25		A725EH	GE	4.48	3.68	3.66	3.20	C106F2	GE	1.20		.80	
40369	RCA	18.15		12.55		2AB1	GE					C106F3	GE	1.20		.80	
40372	RCA	2.15		1.48		Type No.	Mfr.	1-99	100 Mix	100-999	1000-up	C106F4	GE	1.20		.80	
40373	RCA	2.97		2.05		A7B	GE	1.95		1.30		C106G1	GE	1.44		.96	
40374	RCA	3.38		2.34		A7D	GE	1.95		1.30		C106G2	GE	1.44		.96	
40375	RCA	4.62		3.19		A7E	GE	1.95		1.30		C106G3	GE	1.44		.96	
40378	RCA	1.62		1.12		A7G	GE	1.95		1.30		C106G4	GE	1.44		.96	
40379	RCA	2.31		1.60		B-5000	BEN	.99		.75		C106Y1	GE	1.05		.70	
40389	RCA	1.08		.75		B170000	BEN	2.55		1.70		C106Y2	GE	1.05		.70	
40390	RCA	2.15		1.48		B170001	BEN	2.70		1.80		C106Y3	GE	1.05		.70	
40391	RCA	1.39		.96		B170002	BEN	2.77		1.85		C106Y4	GE	1.05		.70	
40392	RCA	1.08		.75		B170003	BEN	2.70		1.80		C10A/					
40394	RCA	1.39		.96		B170004	BEN	2.77		1.85		2N1772A	GE	9.00		6.00	
40395	RCA	.38		.27		B170005	BEN	2.93		1.95		C10B/					
40396	RCA	.83		.57		B170006	BEN	3.25		2.15		2N1774A	GE	13.50		9.00	
40397	RCA	.66		.46		B170007	BEN	3.38		2.25		C10C/					
40398	RCA	.60		.42		B170008	BEN	3.98		2.65		2N1776A	GE	18.40		12.25	
40400	RCA	.50		.35		B170009	BEN	2.40		1.60		C10D/					
40404	RCA	1.65		1.14		B170010	BEN	2.55		1.70		2N1777A	GE	23.65		15.75	
40405	RCA	2.06		1.43		B170011	BEN	2.63		1.75		C10F/					
40406	RCA	1.36		.94		B170012	BEN	2.55		1.70		2N1771A	GE	7.00		4.65	
40407	RCA	.81		.56		B170013	BEN	2.63		1.75		C10G/					
40408	RCA	1.08		.75		B170014	BEN	2.77		1.85		2N1773A	GE	11.10		7.40	
40409	RCA	1.14		.79		B170015	BEN	3.08		2.05		C10H/					
40410	RCA	1.64		1.13		B170016	BEN	3.25		2.15		2N1775A	GE	15.75		10.50	
40411	RCA	5.81		3.88		B170017	BEN	3.83		2.55		C11A/					
40422	RCA	1.03		.71		A1567	AMP	.62		.41		2N1772	GE	5.77		3.85	
40423	RCA	1.11		.77		A321	AMP	.94		.64		C11B/					
40424	RCA	.98		.68		A322	AMP	1.60		.71		2N1774	GE	8.17		5.45	
40425	RCA	1.06		.73		A323	AMP	1.20		.80		C11F/					
40426	RCA	.93		.64		A324	AMP	1.62		1.08		2N1771	GE	4.65		3.10	
40427	RCA	1.01		.70		A415	AMP	.75		.50							
70318-1	TI	.15		.05		A466	AMP	.92		.61							

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Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
C11G/2N1773	GE	6.97		4.65	
C12D	GE	30.00	20.00		
C12D	GE	30.00	20.00		
C12G	GE	20.25	13.50		
C135B/2N3755	GE	14.25	9.50		
C135C/2N3756	GE	21.00	14.00		
C135D/2N3757	GE	25.50	17.00		
C135F/2N3753	GE	9.40	6.25		
C135M/2N3759	GE	37.50	25.00		
C135N/2N3761	GE	48.00	32.00		
C145B	GE	22.00	16.50		
C145C	GE	29.00	21.80		
C15A	GE	2.10	1.40		
C15B	GE	3.75	2.50		
C15C	GE	6.75	4.50		
C15D	GE	9.75	6.50		
C15F	GE	1.88	1.25		
C15G	GE	2.14	1.45		
Type No. Mfr. 1-24 25-99 100-up					
C180A	GE	82.50	70.50		
C180B	GE	99.00	64.00		
Type No. Mfr. 1-99 100 Mix 100-999 1000-up					
C180C	GE	120.00		108.00	
C180D	GE	145.00		123.00	
C1B	INT	1.46		1.00	
C1H	INT	.42		.29	
C20A	GE	1.92		1.28	
C20B	GE	1.98		1.32	
C20C	GE	2.64		1.76	
C20D	GE	3.00		2.00	
C20F	GE	1.77		1.18	
C20U	GE	1.71		1.14	
C22A	GE	1.62		1.08	
C22B	GE	1.68		1.12	
C22C	GE	2.34		1.56	
C22D	GE	2.70		1.80	
C22F	GE	1.47		.98	
C22U	GE	1.41		.94	
C30A	GE	4.95		3.30	
C30B	GE	5.75		3.85	
C30C	GE	7.40		4.95	
C30D	GE	9.35		6.25	
C30F	GE	4.10		2.75	
C30U	GE	3.75		2.50	
C31B	GE	6.45		4.30	
C31C	GE	8.10		5.40	
C31D	GE	10.25		6.85	
C31F	GE	4.50		3.00	
C31U	GE	5.00		2.75	
C32A	GE	4.55		3.05	
C32B	GE	5.40		3.60	
C32C	GE	7.05		4.70	
C32D	GE	9.00		6.00	
C32F	GE	3.75		2.50	
C32U	GE	3.35		2.25	
C33B	GE	5.90		3.95	
C33C	GE	7.70		5.15	
C33D	GE	9.90		6.60	
C33F	GE	4.10		2.75	
C33U	GE	3.75		2.50	
C35A/2N683	GE	8.05		5.35	
C35B/2N685	GE	11.10		7.40	
C35C/2N687	GE	14.60		9.75	
C35D/2N688	GE	17.10		11.40	
C35E/2N689	GE	20.60		13.75	
C35F/2N682	GE	7.30		4.85	
C35H/2N686	GE	12.45		9.30	
C35N/2N692	GE	36.00		24.00	
C36A/2N1844	GE	6.25		4.15	
C36B	GE	8.70		5.80	
C362/2N1848	GE	11.65		7.75	
C36G/2N1845	GE	7.35		4.90	

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
C36H/2N1847	GE	9.75		6.50	
C36N	GE	30.00	20.00		
C37B	GE	5.75		3.85	
C37D	GE	12.25		8.15	
C37E	GE	15.00		10.00	
C37M	GE	18.00		12.00	
C37S	GE	21.00		14.00	
C38D	GE	34.15		22.75	
C38H	GE	23.25		15.50	
C40A	GE	11.70		7.80	
C40B	GE	17.40		11.60	
C40G	GE	14.50		9.65	
Type No. Mfr. 1-24 25-99 100-up					
C45E	GE	60.25		47.15	
C45H	GE	32.00		25.00	
C45T	GE	126.50		99.50	
C45U	GE	14.95		11.70	
C46A	GE	21.50		16.80	
C46B	GE	28.50		22.30	
C46C	GE	38.00		29.70	
C46D	GE	50.15		39.25	
C46E	GE	60.25		47.15	
C46H	GE	32.00		25.00	
C46T	GE	126.50		99.50	
C46U	GE	14.95		11.70	
C50A/2N1911	GE	28.80		22.30	
C50B/2N1913	GE	38.00		29.40	
C50N	GE	145.00		112.00	
C50T	GE	172.00		133.00	
C50U/2N1909	GE	19.50		15.10	
Type No. Mfr. 1-99 100 Mix 100-999 1000-up					
C511A	GE	6.75		4.50	
C511D	GE	22.60		15.05	
C511F	GE	4.58		3.05	
C511G	GE	9.20		6.15	
C511H	GE	14.25		9.50	
C511U	GE	4.28		2.85	
Type No. Mfr. 1-24 25-99 100-up					
C52N	GE	145.00		112.00	
C52S	GE	120.00		94.00	
C52T	GE	172.00		133.00	
C55M	GE	117.00		91.80	
C56A	GE	34.50		27.00	
C56B	GE	45.50		35.60	
C56G	GE	40.00		31.30	
C56M	GE	117.00		91.80	
C60E	GE	92.50		72.50	
Type No. Mfr. 1-99 100 Mix 100-999 1000-up					
C611A	GE	2.40		1.60	
C611B	GE	2.60		1.73	
C611F	GE	2.20		1.45	
C611G	GE	2.50		1.67	
C611U	GE	2.10		1.40	
C6A	GE	1.87		1.25	
C6B	GE	2.07		1.38	
C6F	GE	1.65		1.10	
C6G	GE	1.98		1.32	
C6U	GE	1.57		1.05	
C7A/2N2346	GE	13.35		8.90	
C7B	GE	19.80		13.20	
C7B/2N2348	GE	18.90		12.60	
C7F/2N2345	GE	9.15		6.10	
C80A/2N2543	GE	75.00		64.00	
Type No. Mfr. 1-24 25-99 100-up					
C80N	GE	433.00		340.00	
C80S	GE	361.00		284.00	
Type No. Mfr. 1-99 100 Mix 100-999 1000-up					
CK735/IN300	RAY	4.55		3.50	
CR101	RCA	5.75		5.47	
CR102	RCA	7.20		6.85	
CR103	RCA	8.15		7.75	
CR104	RCA	9.60		9.10	
CR105	RCA	10.55		10.05	
CR106	RCA	12.00		11.40	
CR108	RCA	13.90		13.20	
CR110	RCA	16.30		15.50	
CR201	RCA	3.10		2.96	

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
CR203	RCA	4.80		4.56	
CR204	RCA	5.75		5.47	
CR206	RCA	6.95		6.60	
CR208	RCA	8.40		8.00	
CR210	RCA	10.10		9.60	
CR212	RCA	12.00		11.40	
Type No. Mfr. 1-29 30-up					
CR301	RCA	28.00		26.55	
CR303	RCA	51.00		48.45	
CR304	RCA	62.00		58.90	
CR305	RCA	73.00		69.35	
CR306	RCA	83.00		79.85	
CR307	RCA	93.00		88.35	
CR311	RCA	30.00		28.50	
CR312	RCA	42.00		39.90	
CR313	RCA	53.00		50.35	
CR314	RCA	64.00		60.75	
Type No. Mfr. 1-99 100 Mix 100-999 1000-up					
CR315	RCA	75.00		71.25	
CR315	RCA	75.00		71.25	
Type No. Mfr. 1-29 30-up					
CR316	RCA	85.00		80.75	
CR317	RCA	95.00		90.25	
CR321	RCA	35.00		33.25	
CR322	RCA	49.00		46.55	
CR323	RCA	62.00		48.90	
CR324	RCA	75.00		72.20	
CR325	RCA	90.00		85.50	
CR331	RCA	37.00		35.15	
CR332	RCA	52.00		49.40	
CR333	RCA	65.00		61.75	
CR334	RCA	79.00		75.05	
CR335	RCA	93.00		88.35	
CR341	RCA	44.00		41.80	
CR342	RCA	61.00		57.95	
CR343	RCA	78.00		74.10	
CR344	RCA	94.00		89.30	
CR351	RCA	46.00		43.70	
CR352	RCA	64.00		60.80	
CR353	RCA	82.00		72.90	
CR354	RCA	98.00		93.10	
CR401	RCA	28.00		26.60	
CR402	RCA	32.00		30.40	
CR403	RCA	44.00		41.80	
CR404	RCA	30.00		28.50	
CR406	RCA	54.00		51.30	
CR407	RCA	40.00		38.00	
CR408	RCA	48.00		45.60	
CR409	RCA	64.00		60.80	
CR501	RCA	40.00		38.00	
CR502	RCA	48.00		45.60	
CR503	RCA	50.00		47.50	
CR504	RCA	62.00		58.90	
CR505	RCA	64.00		60.80	
CR506	RCA	84.00		79.80	
Type No. Mfr. 1-24 25-99 100-up					
CS020G8	INT	NET		4.50	
Type No. Mfr. 1-99 100 Mix 100-999 1000-up					
CS120	INT	2.35		1.57	
Type No. Mfr. 1-9 10-99 100-999 1000-up					
CS120M6	INT	2.35		2.35	1.57
Type No. Mfr. 1-99 100 Mix 100-999 1000-up					
CS120V16	INT	NET		3.50	
Type No. Mfr. 1-24 25-99 100-up					
CS120V6	INT	NET		1.95	
Type No. Mfr. 1-99 100 Mix 100-999 1000-up					
D13D1	GE	1.50		1.00	
D13E1	GE	1.85		1.10	
D6623	SYL	.48		.32	.21
D6623A	SYL	.52		.35	.21
D6624A	SYL	.56		.38	.23
D6625	SYL	.57		.38	.23
D6625A	SYL	.60		.40	.24
D16K1	GE	.94		.62	
D16K2	GE	.98		.66	
D16K3	GE	1.06		.70	
D16KT					
1300 Kit	GE	NET		25.00	

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Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
D16U3	GE	.63		.41	
D16U4	GE	.72		.48	
D26E2	GE	3.60	2.40		
D26E1	GE	2.30			
D26E3	GE	2.20		1.45	
D26E4	GE	2.55		1.50	
D26E5	GE	2.95		1.95	
D26E6	GE	1.55		1.05	
D26G1	GE	3.25		2.17	
Type No.	Mfr.	1-99	100-999	1000-up	
D4800H	SYL	90.80	77.00		
D4801H	SYL	60.00	51.50		
D4810H	SYL	68.00	58.25		
D4821H	SYL	75.00	64.30		
D4841C	SYL	35.00	30.00		
D5046	SYL	90.00	77.00	71.00	
D5046A	SYL	150.00	129.00	118.00	
D5046B	SYL	240.00	206.00	189.00	
D5047A	SYL	120.00	103.00	94.00	
D5047B	SYL	170.00	146.00	134.00	
Type No.	Mfr.	1-99	100-999	1000-up	
D5047C	SYL	230.00	197.00	181.00	
D5047D	SYL	380.00	326.00	290.00	
D5146	SYL	110.00	94.00	86.50	
D5146A	SYL	150.00	129.00	118.00	
D5146B	SYL	190.00	163.00	149.00	
D5147A	SYL	120.00	103.00	94.00	
D5147B	SYL	170.00	146.00	134.00	
D5147C	SYL	230.00	197.00	181.00	
Type No.	Mfr.	1-99	100-999	1000-up	
DD-190	INT	.99	.89		
DDD4	INT	NET	.49		
DD05	INT	NET	.49		
DD06	INT	NET	.49		
DD07	INT	NET	1.25		
DP2	INT	9.00		6.15	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
DR303	GI	1.12		.90	
DR351	GI	.75		.60	
DR352	GI	1.19		.95	
DR482	GI	.90		.64	
DR498	GI	1.45		1.09	
Type No.	Mfr.	1-24	25-99	100-up	
DUAL CLIP	SAR	.24	.22	.19	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
E85	TI	3.00		2.50	
E86	TI	3.00		2.50	
E87	TI	3.00		2.50	
E140	TI	3.00		2.50	
E141	TI	3.00		2.50	
E142	TI	3.00		2.50	
E143	TI	3.00		2.50	
E144	TI	3.00		2.50	
E261	TI	3.00		2.50	
E262	TI	3.00		2.50	
Type No.	Mfr.	1-24	25-99	100-up	
E84	TI	3.80		2.50	
EA7E1	HOF	6.75		5.10	
EA7E2	HOF	6.00		4.50	
EA7E3	HOF	5.10		3.80	
ED3001A	ERI	.45		.30	.21
ED3003A	ERI	.58		.39	.23
ED3005A	ERI	.64		.49	.28
ED3007A	ERI	.69		.54	.34
ED3008A	ERI	.72		.57	.42
ED3009A	ERI	.74		.59	.44
ED3010A	ERI	.76		.61	.46
EM1505	RAY	.65		.51	
Type No.	Mfr.	1-24	25-99	100-up	
F-2	SAR	.35	.32	.29	
F-4	SAR	.40	.36	.33	
F-6	SAR	.45	.40	.37	
F-8	SAR	.60	.49	.46	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
FN1024	RAY	27.50		22.30	
FN1034	RAY	27.50		22.30	
FWB3001A	ERI	1.80		1.45	
FWB3002A	ERI	1.80		1.50	
FWB3003A	ERI	1.90		1.60	
FWB3004A	ERI	2.00		1.75	
FWB3005A	ERI	2.25		1.80	
FWB3006A	ERI	2.50		1.90	
FWB3007A	ERI	2.60		2.10	
FWB3008A	ERI	2.75		2.30	
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
FWB3009A	ERI	2.85		2.40	
FWB3010A	ERI	3.00		2.50	

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
FWDA					
3001A	ERI	.97		.69	.59
FWDA					
3002A	ERI	.98		.70	.60
FWDA					
3003A	ERI	.99		.71	.61
FWDA					
3004A	ERI	1.00		.72	.62
FWDA					
3005A	ERI	1.01		.73	.63
FWDA					
3006A	ERI	1.09		.76	.63
FWDA					
3007A	ERI	1.12		.81	.70
FWDA					
3008A	ERI	1.18		.84	.73
FWDA					
3009A	ERI	1.27		.91	.78
FWDA					
3010A	ERI	1.57		1.12	.88
G02	TI	.60		.49	
G100B	G1	.47		.33	
G100D	G1	.48		.38	
G100G	GI	.58		.41	
G100J	GI	.78		.54	
G100K	G1	1.20		.80	
G100M	G1	2.70		1.80	
G129	TI	1.30		.85	
G130	TI	1.30		.85	
G222	TI	.75		.65	
G296	TI	.85		.70	
GAD-					
2000-1	HUG	2.50		1.87	
GAD-					
2001-1	HUG	2.00		1.50	
GAD-					
2002-1	HUG	1.50		1.13	
GAD-					
2003-1	HUG	1.00		.75	
GAD-					
3000-1	HUG	3.20		2.40	
GAD-					
3001-1	HUG	2.50		1.87	
GAD-					
3002-1	HUG	2.00		1.50	
GAD-					
3003-1	HUG	1.50		1.13	
GAT-					
1003-1	HUG	3.20		2.40	
GAT-					
1001-1	HUG	2.00		1.50	
GAT-					
1002-1	HUG	1.00		.75	
GAT-					
1003-1	HUG	3.20		2.40	
GE-1	GE	1.15	NET		
GE-10	GE	2.00	NET		
GE-11	GE	1.53	NET		
GE-2	GE	.95	NET		
GE-3	GE	2.30	NET		
GE-4	GE	4.45	NET		
GE-5	GE	1.60	NET		
GE-6	GE	1.70	NET		
GE-7	GE	1.60	NET		
GE-8	GE	1.30	NET		
GE-9	GE	1.25	NET		
GE-X1	GE	5.00	NET		
GE-X10	GE	3.95	NET		
GE-X11	GE	1.80	NET		
GE-X14	GE	1.15	NET		
GE-X2	GE	2.80	NET		
GE-X3	GE	4.80	NET		
GE-X4	GE	1.60	NET		
GE-X5	GE	3.55	NET		
GE-X6	GE	1.40	NET		
GE-X7	GE	.80	NET		
GE-X8	GE	.70	NET		
GE-X9	GE	.70	NET		
GES04	GE	1.00	NET		
GEX-12	GE	5.30	NET		
GEX-13	GE	1.60	NET		
GEX-16	GE	3.45	NET		
GEX15	GE	3.45	NET		
G01	TI	.85		.66	
GT1200/					
2N1310	GI	4.47		3.00	
G734	GI	.85		.55	
GTD970	GI	1.50		1.10	
GTD979/					
1N775	GI	.60		.40	
H-60	TI	8.00		5.60	
H-61	TI	9.00		6.25	
H-62	TI	13.50		10.00	

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
H11	TI	4.00		2.80	
H1D1	GE	95.00	NET		
H35	TI	5.00		3.50	
H38	TI	4.00		2.80	
Type No.	Mfr.	1-99	100-499	500-999	1000-up
4M100ZS-					
10	MOT	1.35	.90	.85	.76
4M100ZS-5	MOT	1.60	1.05	1.00	.90
4M102S-10	MOT	1.15	.75	.71	.64
4M102S-5	MOT	1.40	.95	.87	.78
4M112S-10	MOT	1.15	.75	.71	.64
4M112S-5	MOT	1.40	.95	.87	.78
4M122S-10	MOT	1.15	.75	.71	.64
4M122S-5	MOT	1.40	.95	.87	.78
4M132S-10	MOT	1.15	.75	.71	.64
4M132S-5	MOT	1.40	.95	.87	.78
4M152S-10	MOT	1.15	.75	.71	.64
4M152S-5	MOT	1.40	.95	.87	.78
4M162S-10	MOT	1.15	.75	.71	.64
4M162S-5	MOT	1.40	.95	.87	.78
4M182S-10	MOT	1.15	.75	.71	.64
4M182S-5	MOT	1.40	.95	.87	.78
4M202S-10	MOT	1.15	.75	.71	.64
4M202S-5	MOT	1.40	.95	.87	.78
4M222S-10	MOT	1.15	.75	.71	.64
4M222S-5	MOT	1.40	.95	.87	.78
4M242S-10	MOT	1.15	.75	.71	.64
4M242S-5	MOT	1.40	.95	.87	.78
4M272S-10	MOT	1.15	.75	.71	.64
4M272S-5	MOT	1.40	.95	.87	.78
4M302S-10	MOT	1.15	.75	.71	.64
4M302S-5	MOT	1.40	.95	.87	.78
4M332S-10	MOT	1.15	.75	.71	.64
4M332S-5	MOT	1.40	.95	.87	.78
4M362S-10	MOT	1.35	.90	.85	.76
4M362S-5	MOT	1.60	1.05	1.00	.90
4M382S-10	MOT	1.35	.90	.85	.76
4M382S-5	MOT	1.60	1.05	1.00	.90
4M3.3ZS-					
10	MOT	1.15	.75	.71	.64
4M3.3ZS-5	MOT	1.40	.95	.87	.78
4M3.6ZS-					
10	MOT	1.15	.75	.71	.64
4M3.6ZS-5	MOT	1.40	.95	.87	.78
4M3.9ZS-					
10	MOT	1.15	.75	.71	.64
4M3.9ZS-5	MOT	1.40	.95	.87	.78
4M43ZS-10	MOT	1.35	.90	.85	.76
4M43ZS-5	MOT	1.60	1.05	1.00	.90
4M47ZS-10	MOT	1.35	.90	.85	.76
4M47ZS-5	MOT	1.60	1.05	1.00	.90
4M4.3ZS-					
10	MOT	1.15	.75	.71	.64
4M4.3ZS-5	MOT	1.40	.95	.87	.78
4M4.7ZS-					
10	MOT	1.15	.75	.71	.64
4M4.7ZS-5	MOT	1.40	.95	.87	.78
4M51ZS-10	MOT	1.35	.90	.85	.76
4M51ZS-5	MOT	1.60	1.05	1.00	.90
4M56ZS-10	MOT	1.35	.90	.85	.76
4M56ZS-5	MOT	1.60	1.05	1.00	.90
4M5.1ZS-					
10	MOT	1.15	.75	.71	.64
4M5.1ZS-5	MOT	1.40	.95	.87	.78
4M5.6ZS-					
10	MOT	1.15	.75	.71	.64
4M5.6ZS-5	MOT	1.40	.95	.87	.78
4M62ZS-10	MOT	1.35	.90	.85	.76
4M62ZS-5	MOT	1.60	1.05	1.00	.90
4M62ZS-10	MOT	1.35	.90	.85	.76
4M62ZS-5	MOT	1.60	1.05	1.00	.90
4M6.2ZS-					
10	MOT	1.15	.75	.71	.64
4M6.2ZS-5	MOT	1.40	.95	.87	.78
4M6.8ZS-					
10	MOT	1.15	.75	.71	.64
4M6.8ZS-5					

Semiconductor Directory

KEY TO SEMICONDUCTOR MANUFACTURERS

AMP —Amperex
BEN —Bendix
GE —General Electric
GI —General Instrument

HOF —Hoffman
HUG —Hughes Aircraft
INT —International Rectifier
MOT —Motorola

RCA —Radio Corp. of America
RAY —Raytheon
SAR —Sarkes-Tarjian
SPR —Sprague

SYL —Sylvania
TI —Texas Instruments
WES —Westinghouse

Type No.	Mfr.	1-99	100-499	500-999	1000-up
4M9.12S-5	MOT	1.40	.95	.87	.78
Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
HA7523	HUG	9.90		7.42	
HA7524	HUG	27.70		20.78	
HA7527	HUG	16.13		12.10	
HA7528	HUG	35.39		27.23	
HA7533	HUG	9.00		6.75	
HA7534	HUG	21.05		15.79	
HA7537	HUG	14.65		11.00	
HA7538	HUG	20.00		15.00	
HA7630	HUG	2.50		1.88	
HA7631	HUG	3.50		2.25	
HA7632	HUG	3.60		2.70	
HA7633	HUG	4.40		3.30	
HA7730	HUG	2.50		1.88	
HA7731	HUG	3.00		2.25	
HA7732	HUG	3.60		2.70	
HA7733	HUG	4.40		3.30	
HA9048	HUG	3.20		2.40	
HA9049	HUG	3.60		2.70	
HB1	HOF	.44		.44	
HB2	HOF	.44		.44	
HB3	HOF	.44		.44	
HB6	HOF	.44		.44	
HC7060	HUG	3.50		2.50	
HC7085	HUG	2.70		2.00	
HC7090	HUG	3.50		2.50	
HC7097	HUG	3.50		2.50	
HD-5000	HUG	2.85		2.14	
HD-5001	HUG	2.55		1.91	
HD-5004	HUG	.90		.60	
HD1810	HUG	.98		.74	
HD1811	HUG	.77		.58	
HD1812	HUG	.39		.29	
HD1840	HUG	.98		.75	
HD1841	HUG	.88		.68	
HD1842	HUG	.49		.37	
HD1870	HUG	.98		.74	
HD1871	HUG	.88		.68	
HD1872	HUG	.63		.47	
HD2051	HUG	.89		.67	
HD2135	HUG	.84		.64	
HD2149	HUG	.64		.48	
HD2155	HUG	.85		.64	
HD2166	HUG	.85		.64	
HD6224	HUG	1.19		.89	
HD6225	HUG	1.68		1.26	
HE9001	HUG	3.01		2.26	
HE9002	HUG	2.73		2.05	
HE9003	HUG	3.46		2.60	
HE9004	HUG	2.94		2.21	
HE9005	HUG	2.45		1.84	
HE9006	HUG	3.36		2.52	
HE9007	HUG	2.97		2.23	
HE9008	HUG	2.45		1.84	
HE9009	HUG	1.96		1.47	
HE9010	HUG	1.54		1.16	
HLS-50	HOF	8.09		6.05	
HMN9009	HUG	1.96		1.47	
HMN9010	HUG	1.54		1.16	
HS-6	HOF	1.30		.85	
HS-7	HOF	3.50		2.10	
HS-8	HOF	3.50		2.10	
HS-10	HOF	5.00		3.10	
HS-14	HOF	6.00		3.70	
HSS-P-2-40	HOF	5.50		4.10	
HSSP-6	HOF	20.00	NET		
HT-90	HOF	12.50	11.25	9.40	
HT-91	HOF	11.10	9.99	8.30	
HU-25	HOF	7.50	5.70		
HU10	HOF	7.50		5.70	
HU100	HOF	7.50		5.70	
HU25A	HOF	9.00		6.75	
HU5	HOF	7.50		5.70	
HU50	HOF	7.50		5.70	
HU5A	HOF	9.00		6.75	
Type No.	Mfr.	1-24	25-99	100-499	500-999
HVC1800	SAR	12.50	10.70	10.00	9.00
HVC2100	SAR	14.60	12.50	11.67	10.50
HVC240	SAR	3.60	3.08	2.87	2.59
HVC2500	SAR	17.50	15.00	14.00	13.60
HVC300	SAR	3.85	3.28	3.07	2.76
HVC3000	SAR	20.80	17.90	16.70	15.03
HVC400	SAR	4.00	3.44	3.20	2.88
HVC500	SAR	4.15	3.67	3.34	3.01
HVC600	SAR	4.55	3.92	3.66	3.29
HVC650	SAR	5.00	4.29	4.00	3.60
HVC750	SAR	5.40	4.64	4.34	3.91
HVC840	SAR	5.85	5.00	4.66	4.19
HVC960	SAR	6.65	5.72	5.34	4.81
Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
HW6.8B	HOF	1.65		1.25	
HW8.2B	HOF	1.65		1.25	
HW9.1B	HOF	1.65		1.25	
HW10B	HOF	1.65		1.25	
HW11B	HOF	1.65		1.25	
HW12B	HOF	1.65		1.25	
HW15B	HOF	1.65		1.25	
HW18B	HOF	1.65		1.25	
HW20B	HOF	1.65		1.25	
HW22B	HOF	1.65		1.25	
HW24B	HOF	1.65		1.25	
HW27B	HOF	1.65		1.25	
IN91	MOT	.82		.55	
I26ZT5	INT	3.60		3.20	2.80
Type No.	Mfr.	1-9	10-99	100-999	1000-up
J116B04	INT	6.08		5.15	
J116B1	INT	8.91		7.54	
J116B5	INT	26.48		22.41	
J116B8	INT	37.13		31.42	
J135B04	INT	7.70		6.26	
J135B1	INT	10.86		9.19	
Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
J14C04	INT	1.04		.80	
J14C1	INT	1.52		1.29	
J14C5	INT	3.90		3.30	
J14C8	INT	5.34		4.52	
Type No.	Mfr.	1-9	10-99	100-999	1000-up
J29B04	INT	1.70		1.44	
J29B1	INT	2.48		2.10	
J29B17	INT	15.35		12.99	
J29B5	INT	7.02		5.94	
J29B8	INT	10.25		8.25	
J58B04	INT	3.41		2.88	
J58B1	INT	4.90		4.15	
J58B17	INT	30.68		25.96	
J58B5	INT	13.98		11.83	
J58B8	INT	19.38		16.40	
JD116K	INT	1.75		1.49	
JD117K	INT	2.34		2.00	
JD241K	INT	3.35		3.04	
Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
J11010	INT	1.60		1.35	
J11020	INT	1.60		1.35	
K-896	INT	4.40	NET		
K1038	HOF	6.30		4.75	
Type No.	Mfr.	1-9	10-99	100-999	1000-up
KA10D1	INT	9.60		8.47	7.34
KA14DBF	INT	9.60		8.47	7.34
KA1DAF	INT	1.04		.84	.64
KA2DAF	INT	1.24		1.04	.84
KA5DAF	INT	1.84		1.64	1.44
KA6DBF	INT	2.04		1.84	1.64
KA8DAF	INT	3.74		3.08	
KA9DBF	INT	8.92		7.87	6.82
KL1DAF	INT	2.97		2.62	2.27
KL2DAF	INT	3.57		3.15	2.73
KL5DAF	INT	5.95		5.25	4.55
KL6DBF	INT	6.71		5.92	5.13
KL7-1	INT	59.50	NET		
KY10DPF	INT	1.74		1.53	1.33
Type No.	Mfr.	1-9	10-99	100-999	1000-up
KY1DPF	INT	.93		.82	.71
KY2DPF	INT	1.02		.90	.78
KY5DPF	INT	1.27		1.12	.97
KY6DPF	INT	1.36		1.20	1.04
KZ10DPF	INT	2.08		1.84	1.59
KZ14DPF	INT	2.49		2.20	1.90
KZ1DPF	INT	.98		.86	.75
KZ2DPF	INT	1.15		1.01	.88
KZ5DPF	INT	1.53		1.35	1.17
KZ6DPF	INT	1.74		1.53	1.33
KZ9DPF	INT	2.00		1.76	1.53
Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
L9A	GE	7.00		4.65	
L9B	GE	11.85		7.90	
L9F	GE	4.90		3.25	
L9U	GE	4.50		3.00	
L9B	GE	13.05		8.70	
L9F	GE	5.40		3.60	
L9U	GE	4.95		3.30	
L811A	GE	8.50		5.45	
L811A	GE	8.50		5.45	
L811F	GE	6.40		4.00	
L811U	GE	6.00		3.75	
L9A	GE	5.40		3.60	
L9B	GE	7.65		5.10	
L9F	GE	4.95		3.30	
Type No.	Mfr.	1-24	25-99	100-999	1000-up
L9U	GE	4.95		3.30	
Type No.	Mfr.	1-9	10-99	100-999	1000-up
LED7	GE	135.00			
LED8	GE	135.00			
LED9	GE	12.00			
LED10	GE	45.00			
LED11	GE	45.00			
LIV	GE	3.15		2.10	
Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
LS-222	TI	6.00		5.45	
LS-600	TI	13.00		9.50	
LS221	TI	24.00		20.00	
LS400	TI	13.50		11.80	
LSX515	TI	14.95		10.30	
Type No.	Mfr.	1-24	25-99	100-999	1000-up
LSX900	TI	85.00		73.00	
LU300K	SPR	3.90		3.15	2.70
LU305K	SPR	4.20		3.35	2.95
LU306K	SPR	4.20		3.35	2.95
LU314K	SPR	4.20		3.35	2.95
LU315K	SPR	4.20		3.35	2.95
LU316K	SPR	4.20		3.35	2.95
LU320K	SPR	5.55		4.50	3.95
LU331K	SPR	4.20		3.35	2.95
LU332K	SPR	4.20		3.35	2.95
M CODED					
INST. RECT.		2.06	NET		
M-150	SAR	.85		.57	.53
M-150 KIT	SAR	.94		.85	.77
Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
M1B	INT	1.72		1.03	
M1H	INT	.56		.34	
M4L2052	MOT	2.			

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Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
MA202	MOT	.67		.45	
MA203	MOT	.75		.50	
MA204	MOT	.58		.39	
MA205	MOT	.50		.33	
MA206	MOT	.42		.28	
MA881	MOT	.72		.48	
MA882	MOT	.80		.52	
MA883	MOT	.89		.59	
MA884	MOT	.89		.65	
MA885	MOT	.59		.33	
MA886	MOT	.59		.39	
MA887	MOT	.68		.45	
MA888	MOT	.75		.50	
MA889	MOT	.84		.56	
MA1703	MOT	1.17		.78	
MA1704	MOT	1.34		.89	
MA1706	MOT	1.00		.67	
MA1707	MOT	1.17		.78	
MC1050F	MOT	5.30	4.25	3.55	
MC1051F	MOT	5.30	4.25	3.55	
MC1052F	MOT	5.30	4.25	3.55	

Type No.	Mfr.	1-24	25-99	100-up
MC281G	MOT	18.75	16.50	15.00
MC282G	MOT	22.50	19.80	18.00
MC284G	MOT	16.85	14.85	13.50
MC652G	MOT	12.00	10.50	9.55
MC1110	MOT	25.00	20.00	15.00
MC1111	MOT	43.40	34.60	26.00
MC1112	MOT	49.70	39.55	29.75
MC1113	MOT	54.25	43.20	32.50
MC1114	MOT	40.50	32.25	24.25
MC1115	MOT	38.00	30.25	22.75
MC1116	MOT	20.10	19.40	
MC1117	MOT	29.10	19.40	
MC1118	MOT	51.60	34.40	
MC1430	MOT	18.00	15.00	12.00
MC1431	MOT	20.85	16.85	13.50
MC1511	MOT	13.45	11.80	10.75
MC1512	MOT	15.30	13.50	12.25
MC1514	MOT	195.00	156.00	117.00
MC1515	MOT	265.00	200.00	158.00
MC1516	MOT	215.00	175.00	130.00
MC1519	MOT	50.00	40.00	30.00
MC1524	MOT	70.00	55.00	40.00
MC1524G	MOT	70.00	55.00	40.00
MC1525	MOT	60.00	48.00	36.00
MC1526	MOT	60.00	48.00	36.00
MC1528	MOT	75.00	60.00	45.00
MC1530G	MOT	27.00	22.00	18.00
MC1531G	MOT	30.00	25.00	20.00

Type No.	Mfr.	1-99	100 Mix	100-999
MC207F	MOT	19.15	17.05	15.20
MC207G	MOT	17.15	15.05	13.70
MC208F	MOT	19.15	17.05	15.20
MC208G	MOT	17.15	15.05	13.70
MC209F	MOT	24.20	21.50	19.25
MC209G	MOT	22.20	19.50	17.75
MC212F	MOT	20.10	17.95	16.00
MC212G	MOT	18.10	15.95	14.50
MC213F	MOT	20.10	17.95	16.00
MC213G	MOT	18.10	15.95	14.50
MC215F	MOT	11.75	10.60	9.30
MC215G	MOT	9.75	8.60	7.80
MC217F	MOT	10.30	9.30	8.15
MC217G	MOT	8.30	7.30	6.65

Type No.	Mfr.	1-24	25-99	100-up
MC251F	MOT	6.40	5.85	5.00
MC251G	MOT	4.40	3.85	3.50
MC252F	MOT	6.05	5.60	4.75

Type No.	Mfr.	1-99	100 Mix	100-999
MC252G	MOT	4.05	3.60	3.25

Type No.	Mfr.	1-24	25-99	100-up
MC253F	MOT	5.10	4.75	4.00

Type No.	Mfr.	1-99	100 Mix	100-999
MC253G	MOT	3.10	2.75	2.50

Type No.	Mfr.	1-24	25-99	100-up
MC254F	MOT	7.80	7.10	6.15
MC254G	MOT	5.80	5.10	4.85
MC255F	MOT	8.00	7.30	6.30
MC255G	MOT	6.00	5.30	4.80
MC256F	MOT	7.60	6.95	6.00

Type No.	Mfr.	1-24	25-99	100-up
MC256G	MOT	5.60	4.95	4.50
MC257F	MOT	7.80	7.10	6.15
MC257G	MOT	5.80	5.10	4.65
MC258F	MOT	7.80	7.10	6.15
MC258G	MOT	5.80	5.10	4.65
MC259F	MOT	11.95	10.75	9.45
MC259G	MOT	9.95	8.75	7.95
MC260F	MOT	12.50	11.30	9.95
MC260G	MOT	10.50	9.30	8.45
MC262F	MOT	8.00	7.30	6.30
MC262G	MOT	6.00	5.30	4.80
MC263F	MOT	8.00	7.30	6.30
MC263G	MOT	6.00	5.30	4.80
MC265F	MOT	5.30	4.90	4.15
MC265G	MOT	3.30	2.90	2.65
MC267F	MOT	4.80	4.50	3.75
MC267G	MOT	2.80	2.50	2.25
MC301F	MOT	12.65	10.15	8.45
MC301G	MOT	11.55	9.25	7.70
MC302F	MOT	14.85	11.90	9.90
MC302G	MOT	13.70	11.00	9.15
MC303F	MOT	16.70	13.40	11.15
MC303G	MOT	15.60	12.50	10.40

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
MC304F	MOT	8.40	6.70	5.60	
MC305F	MOT	8.40	6.70	5.60	
MC305G	MOT	7.25	5.80	4.85	
MC306F	MOT	11.30	9.05	7.55	
MC306G	MOT	10.20	8.15	6.80	
MC307F	MOT	11.30	9.05	7.55	
MC307G	MOT	10.20	8.15	6.80	
MC308F	MOT	18.80	15.05	12.55	
MC308G	MOT	17.70	14.15	11.80	
MC309F	MOT	13.70	11.00	9.15	
MC309G	MOT	12.60	10.10	8.40	
MC310F	MOT	13.70	11.00	9.15	
MC310G	MOT	12.60	10.10	8.40	
MC311F	MOT	13.70	11.00	9.15	
MC311G	MOT	12.60	10.10	8.40	
MC312F	MOT	16.70	13.40	11.15	
MC312G	MOT	15.60	12.50	10.40	
MC314F	MOT	18.35	14.70	12.25	
MC314G	MOT	30.35	24.30	20.25	
MC313F	MOT	21.95	17.60	14.65	
MC314G	MOT	20.85	16.70	13.90	
MC315F	MOT	24.35	19.50	16.25	
MC315G	MOT	23.25	18.60	15.50	
MC316F	MOT	11.30	9.05	7.55	
MC316G	MOT	10.20	8.15	6.80	
MC317F	MOT	11.30	9.05	7.55	
MC317G	MOT	10.20	8.15	6.80	
MC351F	MOT	6.55	6.00	5.15	

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
MC351G	MOT	4.55	4.00	3.65	

Type No.	Mfr.	1-24	25-99	100-up
MC352F	MOT	6.55	6.00	5.15

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
MC352G	MOT	4.55	4.00	3.65	

Type No.	Mfr.	1-24	25-99	100-up
MC353F	MOT	7.95	7.20	6.25

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
MC353G	MOT	5.95	5.20	4.75	

Type No.	Mfr.	1-24	25-99	100-up
MC354F	MOT	4.45	4.15	3.45

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
MC354G	MOT	2.45	2.15	1.95	

Type No.	Mfr.	1-24	25-99	100-up
MC355F	MOT	4.80	4.45	3.75

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
MC355G	MOT	2.80	2.45	2.25	

Type No.	Mfr.	1-24	25-99	100-up
MC356F	MOT	5.55	5.15	4.35

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
MC356G	MOT	3.55	3.15	2.85	

Type No.	Mfr.	1-24	25-99	100-up
MC357F	MOT	5.55	5.15	4.35
MC357G	MOT	3.55	3.15	2.85
MC358F	MOT	11.50	10.35	9.10

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
MC358G	MOT	9.50	8.35	7.60	

Type No.	Mfr.	1-24	25-99	100-up
MC359F	MOT	5.70	5.25	4.45

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
MC359G	MOT	3.70	3.25	2.95	

Type No.	Mfr.	1-24	25-99	100-up
MC360F	MOT	5.70	5.25	4.45

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
MC360G	MOT	3.70	3.25	2.95	

Type No.	Mfr.	1-24	25-99	100-up
MC361F	MOT	5.70	5.25	4.45

Type No.	Mfr.	1-99	100-999	1000-up	5000-up
MC361G	MOT	3.70	3.25	2.95	
MC362F	MOT	7.00	6.40	5.50	
MC362G	MOT	5.00	4.40		

Type No.	Mfr.	1-24	25-99	100-up
MC363F	MOT	7.35	6.50	5.90
MC364F	MOT	12.20	10.70	9.75
MC365F	MOT	11.05	9.75	8.85
MC365G	MOT	9.20	8.10	7.35
MC366F	MOT	8.10	7.15	6.50
MC366G	MOT	6.25	5.50	5.00
MC367F	MOT	7.50	6.60	6.00
MC367G	MOT	5.60	4.95	4.50
MC650G	MOT	8.65	7.60	6.90
MC615G	MOT	12.00	10.50	9.55
MC652G	MOT	12.00	10.50	9.55

Type No.	Mfr.	1-999	1000-4999
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MC700G	MOT	1.85	1.40
MC701G	MOT	1.85	1.40
MC702G	MOT	1.85	1.40
MC703G	MOT	1.85	1.40
MC704G	MOT	2.60	1.95
MC705G	MOT	3.00	2.25
MC706G	MOT	3.00	2.25
MC707G	MOT	1.85	1.40
MC708G	MOT	1.60	1.20
MC709G	MOT	1.85	1.40

MC710G	MOT	1.40	1.05
MC711G	MOT	1.40	1.05
MC712G	MOT	1.60	1.20
MC713G	MOT	2.75	2.05
MC714G	MOT	1.85	1.40
MC715F	MOT	1.00	.75
MC715G	MOT	2.20	1.65
MC717F	MOT	1.08	.81
MC718G	MOT	2.00	1.50
MC718P	MOT	1.00	.75

MC719P	MOT	1.08	.81
MC715P	MOT	1.00	.75
MC723P			

Semiconductor Directory

Type No.	Mfr.	1-24	25-99	100-up
MC845P	MOT	3.00	2.25	
MC846P	MOT	1.65	1.25	
MC848P	MOT	3.00	2.25	
MC862P	MOT	1.65	1.25	
MC799G	MOT	5.75	5.05	4.80
MC800G	MOT	3.60	2.90	2.40
MC801G	MOT	3.60	2.90	2.40
MC802G	MOT	3.60	2.90	2.40
MC803G	MOT	3.60	2.90	2.40
MC804G	MOT	3.65	2.95	2.45
MC805G	MOT	5.25	4.20	3.50
MC806G	LOW	5.25	4.20	3.50
MC807G	MOT	3.60	2.90	2.40
MC812G	MOT	3.70	3.25	2.95
MC815G	MOT	3.95	3.20	2.65
MC816G	MOT	6.60	5.30	4.40
MC826G	MOT	6.60	5.30	4.40
MC827G	MOT	3.95	3.20	2.65
MC830F	MOT	6.90	5.50	4.60
MC830G	MOT	6.50	5.20	4.35
MC831F	MOT	10.80	8.65	7.20
MC831G	MOT	10.25	8.20	6.85
MC832F	MOT	7.85	6.30	5.25
MC832G	MOT	7.50	6.00	5.00
MC833F	MOT	4.70	3.80	3.15
MC833G	MOT	4.50	3.60	3.00
MC844F	MOT	8.00	6.40	5.35
MC844G	MOT	7.65	6.10	5.10
MC845F	MOT	10.80	8.65	7.20
MC845G	MOT	10.25	8.20	6.85
MC846F	MOT	7.80	6.25	5.20
MC848F	MOT	10.80	8.65	7.20
MC848G	MOT	10.25	8.20	6.85
MC862F	MOT	7.80	6.25	5.20
MC899G	MOT	8.35	5.60	5.10
MC900G	MOT	6.75	5.40	4.50
MC901G	MOT	6.75	5.40	4.50
MC902G	MOT	6.75	5.40	4.50
MC903G	MOT	6.75	5.40	4.50
MC904G	MOT	8.10	6.50	5.40
MC905G	MOT	8.10	6.50	5.40
MC906G	MOT	8.10	6.50	5.40
MC907G	MOT	6.75	5.40	4.50
MC908G	MOT	7.95	6.35	5.30
MC909G	MOT	7.50	6.00	5.00
MC910G	MOT	6.45	5.15	4.30
MC911G	MOT	6.45	5.15	4.30
MC912G	MOT	7.50	6.00	5.00
MC913G	MOT	8.90	7.15	5.95
MC914G	MOT	6.75	5.40	4.50
MC915G	MOT	6.75	5.40	4.50
MC916G	MOT	10.10	8.10	6.75
MC918G	MOT	6.75	5.40	4.50
MC920G	MOT	10.10	8.10	6.75
MC921G	MOT	5.60	4.50	3.75
MC926G	MOT	10.10	8.10	6.75
MC927G	MOT	6.75	5.40	4.50
MC928G	MOT	4.70	3.80	3.15
MC929G	MOT	6.75	5.40	4.50
MC930F	MOT	13.70	11.00	9.15
MC930G	MOT	12.35	9.90	8.25
MC931F	MOT	20.20	16.10	13.75
MC931G	MOT	18.05	14.45	12.05
MC932F	MOT	15.80	12.65	10.55
MC932G	MOT	14.25	11.40	9.50
MC933F	MOT	7.10	5.70	4.75
MC933G	MOT	6.75	5.40	4.50
MC944F	MOT	16.05	12.85	10.70
MC944G	MOT	14.45	11.60	9.65
MC945F	MOT	20.10	16.10	13.40
MC945G	MOT	18.05	14.45	12.05
MC946F	MOT	15.60	12.50	10.40
MC948F	MOT	20.10	16.10	13.40
MC948G	MOT	18.05	14.45	12.05
MC962F	MOT	15.60	12.50	10.40
MC999G	MOT	8.25	6.60	5.50
MC999G	MOT	8.25	6.60	5.50

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
MCR1907-3	MOT	11.25		7.50	
MCR1907-4	MOT	16.20		10.80	
MCR1907-5	MOT	24.45		16.30	
MCR1907-6	MOT	29.25		19.50	
MCR2304-1	MOT	1.45		1.05	
MCR2304-2	MOT	1.80		1.10	
MCR2304-3	MOT	1.75		1.25	
MCR2304-4	MOT	1.95		1.35	
MCR2304-5	MOT	2.40		1.60	
MCR2304-6	MOT	2.80		1.85	
MCR2305-1	MOT	1.60		1.20	
MCR2305-2	MOT	1.75		1.25	
MCR2305-3	MOT	1.90		1.40	
MCR2305-4	MOT	2.10		1.50	
MCR2305-5	MOT	2.55		1.75	
MCR2305-6	MOT	2.95		2.00	
MCR2604-1	MOT	1.55		1.15	
MCR2604-2	MOT	1.70		1.20	
MCR2604-3	MOT	1.85		1.35	
MCR2604-4	MOT	2.05		1.45	
MCR2604-5	MOT	2.50		1.70	
MCR2604-6	MOT	2.90		1.95	
MCR2605-1	MOT	1.70		1.20	
MCR2605-2	MOT	1.85		1.35	
MCR2605-3	MOT	2.05		1.45	
MCR2605-4	MOT	2.05		1.45	
MCR2605-5	MOT	2.50		1.70	
MCR2605-6	MOT	2.90		1.95	
MCR808-4	MOT	4.50		3.60	
MCR808-5	MOT	6.75		5.40	
MCR808-6	MOT	7.25		4.85	
MCS2136	MOT	7.85		5.25	
MCS2137	MOT	7.65		5.10	
MCS2138	MOT	8.25		5.50	
MD2218AF	MOT	15.90		10.60	
MD2218F	MOT	11.25		7.50	
MD2219AF	MOT	17.70		11.80	
MD2219F	MOT	12.45		8.30	
MD2904AF	MOT	22.50		15.00	
MD2904F	MOT	16.05		10.70	
MD2905AF	MOT	25.50		17.00	
MD2905F	MOT	18.90		12.60	
MD3250AF	MOT	29.25		19.50	
MD3250F	MOT	17.25		11.50	
MD3251AF	MOT	30.75		20.50	
MD3251F	MOT	19.10		12.75	
MD6001F	MOT	15.30		10.20	
MD6002F	MOT	18.00		12.00	
MD982	MOT	27.60		18.40	
MD984	MOT	20.65		13.75	
MD986F	MOT	30.15		20.10	
MD-1133	MOT	15.00		10.00	
MD-1133F	MOT	22.50		15.00	
MD-985	MOT	9.00		6.00	
MD-985F	MOT	13.50		9.00	
MD1120	MOT	19.10		12.75	
MD1120F	MOT	42.95		28.65	
MD1121	MOT	24.80		16.55	
MD1121F	MOT	55.80		37.20	
MD1122	MOT	37.00		24.65	
MD1122F	MOT	83.15		55.45	
MD1123	MOT	27.60		18.40	
MD1123F	MOT	49.70		33.15	
MD1124	MOT	36.00		24.00	
MD1124F	MOT	64.80		43.20	
MD1125	MOT	53.65		35.75	
MD1125F	MOT	83.15		55.45	
MD1127	MOT	12.00		8.00	
MD1129	MOT	51.75		34.50	
MD1129F	MOT	93.15		62.10	
MD1130	MOT	58.20		38.80	
MD1131	MOT	28.35		18.90	
MD1131F	MOT	39.60		26.40	
MD1132	MOT	38.25		25.50	
MD1132F	MOT	48.50		33.00	
MD1134	MOT	11.64		7.65	
MD2218	MOT	6.75		4.50	
MD2218A	MOT	11.40		7.60	
MD2219	MOT	7.95		5.30	
MD2219A	MOT	13.20		8.80	
MD2904	MOT	11.55		7.70	
MD2904A	MOT	18.00		12.00	
MD2905	MOT	14.40		9.60	
MD2905A	MOT	21.00		14.00	
MD3250	MOT	9.75		6.50	
MD3250A	MOT	19.50		13.00	
MD3251	MOT	11.60		7.75	
MD3251A	MOT	23.25		15.50	
MD6001	MOT	10.80		7.20	
MD6002	MOT	13.50		9.00	
MD981F	MOT	29.10		19.40	
MD982F	MOT	49.70		33.15	
MD984F	MOT	37.20		25.80	

Type No.	Mfr.	1-24	25-99	100-up
MDA986	MOT	18.90		12.60
MDA942-1	MOT	2.15	1.90	1.60
MDA942-2	MOT	2.40	2.15	1.80
MDA942-3	MOT	2.65	2.40	2.00
MDA942-5	MOT	3.10	2.80	2.35
MDA942-6	MOT	4.10	3.70	3.10
MDA952-1	MOT	3.25	2.95	2.45
MDA952-2	MOT	3.50	3.20	2.65
MDA952-3	MOT	4.45	4.00	3.55
MDA952-4	LOW	4.90	4.65	3.70
MEM10000	GI	32.00		26.40
MEM10032	GI	12.00		8.00
MEM1008	GI	18.00		13.50
MEM1050	GI	68.50		45.50
MEM2004	GI	67.75		44.40
MEM2005	GI	55.50		37.18
MEM2008	GI	37.50		25.10
MEM200	GI	40.06	26.80	
MEM3021	GI	74.50		50.00
MEM3050	GI	83.30		55.80
MEM5021-32	GI	360.00		245.00
MEM5021-50	GI	360.00		245.00
MEM517	GI	28.45		18.90
MEM520	GI	11.00		7.40
MEM551	GI	17.75		11.55
MEM501/MEM302	GI	74.50	62.25	50.00
MEM511	GI	10.00		6.70
MEM517A	GI	27.50		18.25
MEM1005/MEM529	GI	77.50	62.25	52.50
MEM3020/MEM521	GI	15.00	12.50	10.00
MEM550	GI	17.50		11.30
MF3304	MOT	6.75		4.50
MF22093	MOT	2.85		1.90
MF22094	MOT	2.85		1.90
MF22095	MOT	2.85		1.90
MHO-AMP	RAY	100.00	85.00	60.00
MJ 2249	MOT	2.02		1.35
MJ 2250	MOT	2.15		1.45
MJ 2251	MOT	1.87		1.25
MJ 2252	MOT	2.02		1.35
MJ 2253	MOT	2.65		1.76
MJ 2254	MOT	2.90		1.95
MJ 2255	MOT	2.70		1.80
MJ 2256	MOT	3.05		2.05
MJ 2257	MOT	4.40		1.60
MJ 3701	MOT	2.40		1.60
MK10	MOT	.23		.15
MK15	MOT	.23		.15
MK20	MOT	.35		.23
MM1736/2N3634	MOT	13.20		8.80
MM1737/2N3635	MOT	14.40		9.60
MM1738/2N3636	MOT	19.40		12.95

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Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
MM1739/2N3637	MOT	21.30		14.20	
MM1803	MOT	11.70		7.80	
MM1941	MOT	1.95		1.30	
MM1943	MOT	3.00		2.00	
MM2090/3N124	MOT	4.35		2.90	
MM2091/3N125	MOT	4.35		2.90	
MM2092/3N126	MOT	4.35		2.90	
MM2102	MOT	8.10		5.40	
MM2103	MOT	7.35		4.90	
MM2483	MOT	4.50		3.00	
MM2484	MOT	5.25		3.50	
MM2503	MOT	26.25		17.50	
MM2550	MOT	9.00		6.00	
MM2552	MOT	9.00		6.00	
MM2554	MOT	9.00		6.00	
MM719	MOT	4.50		3.00	
MP1337-1	MOT	3.95		2.95	
MP1337-2	MOT	4.95		3.30	
MP1337-3	MOT	6.75		4.50	
MP1337-4	MOT	9.00		6.00	
MP1337-5	MOT	12.00		8.00	
MP2060	MOT	1.05		.75	
MP2061	MOT	1.15		.85	
MP2062	MOT	1.35		1.00	
MP2063	MOT	1.65		1.25	
MP500	MOT	5.70		3.80	
MP504	MOT	6.60		4.40	
MP506	MOT	13.85		9.25	
MPC1A	TI	4.75	4.10		
MPC2	TI	6.50	NET		
MPC4	TI	3.50	NET		
Type No. Mfr. 1-24 25-99 100-999 1000-up					
MPC5A	TI	3.50	2.60	2.10	1.95
Type No. Mfr. 1-99 100-999 1000-up 5000-up					
MPS2711	MOT	.40	.27	.20	.19
MPS2712	MOT	.43	.29	.22	.20
MPS2713	MOT	.48	.32	.24	.22
MPS2714	MOT	.51	.34	.25	.24
MPS2715	MOT	.57	.38	.28	.27
MPS2716	MOT	.60	.40	.30	.28
Type No. Mfr. 1-99 100 Mix 100-999 1000-up 5000-up					
MPS2894	MOT	.75		.50	
MPS2923	MOT	.43	.29	.22	.20
MPS2924	MOT	.51	.34	.25	.24
Type No. Mfr. 1-99 100-999 1000-up 5000-up					
MPS2925	MOT	.60	.40	.30	.28
MPS3392	MOT	.51	.34	.25	.24
MPS3393	MOT	.40	.27	.20	.19
MPS3394	MOT	.39	.26	.19	.18
MPS3395	MOT	.58	.39	.29	.27
MPS3396	MOT	.54	.36	.27	.25
MPS3397	MOT	.48	.32	.24	.22
MPS3398	MOT	.57	.38	.28	.27
MPS3563	MOT	.57	.38	.28	.27
Type No. Mfr. 1-99 100 Mix 100-999 1000-up 5000-up					
MPS3638	MOT	.76	.51		
Type No. Mfr. 1-99 100 Mix 100-999 1000-up 5000-up					
MPS3639	MOT	.65		.43	
Type No. Mfr. 1-99 100-999 1000-up 5000-up					
MPS3640	MOT	.57	.38	.28	.27
MPS3646	MOT	.69	.46	.35	.32
MPS3707	MOT	.60	.40	.30	.28
MPS3708	MOT	.48	.32	.24	.22
MPS3709	MOT	.45	.30	.22	.21
MPS3710	MOT	.49	.33	.25	.23
MPS3711	MOT	.54	.36	.27	.25
MPS6512	MOT	.54	.36	.27	.25
MPS6513	MOT	.57	.38	.28	.27
MPS6514	MOT	.60	.40	.30	.28
Type No. Mfr. 1-99 100-999 1000-up 5000-up					
MPS6515	MOT	.64	.43	.32	.30
MPS6520	MOT	.82	.55	.41	.38
MPS6521	MOT	.90	.60	.45	.42
MPS706	MOT	.45	.30	.22	.21
MPS918	MOT	1.30	.87	.65	.61
MR1123	MOT	1.33	.89		
MR1125	MOT	1.85	1.25		
MR1128	MOT	5.60	3.75		
MR1130	MOT	7.85	5.25		

Type No.	Mfr.	1-9	10-24	25-up
MR1202FL	MOT	4.80	4.30	3.60
MR1204FL	MOT	5.60	5.05	4.20
MR1207FL	MOT	6.65	6.00	5.00
MR1208FL	MOT	8.00	7.20	6.00
MR1209FL	MOT	9.65	8.70	7.25
MR1212SB	MOT	5.65	5.05	4.20
MR1214SB	MOT	6.80	6.10	5.10
MR1216SB	MOT	9.05	8.15	6.80
MR1218SB	MOT	9.95	9.00	7.50
MR1219SB	MOT	11.75	10.60	8.85
Type No. Mfr. 1-24 25-99 100-up				
MR1222FB	MOT	11.95	10.80	9.00
MR1222FL	MOT	11.65	10.50	8.75
MR1224FB	MOT	13.95	12.60	10.50
MR1224FL	MOT	13.65	12.30	10.25
MR1225FB	MOT	13.95	12.60	10.50
MR1225FL	MOT	13.65	12.30	10.25
MR1226FL	MOT	15.65	14.10	11.75
MR1228FB	MOT	17.95	16.20	13.50
MR1228FL	MOT	17.60	15.90	13.25
MR1229FL	MOT	20.95	18.90	15.75
Type No. Mfr. 1-24 25-99 100-up				
MR1232FB	MOT	15.25	13.75	11.45
MR1232FL	MOT	14.75	13.30	11.10
MR1232SB	MOT	15.45	13.90	11.60
MR1232SL	MOT	15.10	13.60	11.35
MR1234FB	MOT	17.35	15.65	13.05
MR1234FL	MOT	16.90	15.25	12.70
MR1234SB	MOT	17.55	15.85	13.20
MR1234SL	MOT	17.20	15.55	12.95
MR1235FB	MOT	17.35	15.65	13.05
MR1235FL	MOT	16.90	15.25	12.70
Type No. Mfr. 1-24 25-99 100-up				
MR1235SB	MOT	17.55	15.85	13.20
MR1235SL	MOT	17.20	15.55	12.95
MR1236FB	MOT	22.30	20.10	16.75
MR1236FL	MOT	21.60	19.50	16.25
MR1236SB	MOT	22.30	20.10	16.75
MR1236SL	MOT	22.30	20.10	16.75
MR1238FB	MOT	25.95	23.40	19.50
MR1238FL	MOT	25.60	23.10	19.25
MR1238SB	MOT	25.95	23.40	19.50
MR1238SL	MOT	25.60	23.10	19.25
Type No. Mfr. 1-99 100 Mix 100-999 1000-up				
MR1242FB	MOT	19.35	17.45	14.55
MR1242SB	MOT	20.00	18.05	15.05
MR1242SL	MOT	19.50	17.60	14.65
MR1244FB	MOT	23.60	21.30	17.75
MR1244SB	MOT	24.25	21.90	18.25
MR1244SL	MOT	23.75	21.40	17.85
MR1245FB	MOT	23.60	21.30	17.75
MR1245SB	MOT	24.25	21.90	18.25
MR1245SL	MOT	23.75	21.40	17.85
MR1246FB	MOT	26.60	24.00	20.00
Type No. Mfr. 1-99 100 Mix 100-999 1000-up				
MR1246SB	MOT	27.25	24.60	20.50
MR1246SL	MOT	27.25	24.60	20.50
MR1248FB	MOT	42.55	38.40	32.00
MR1248SB	MOT	45.20	40.80	34.00
MR1248SL	MOT	42.55	38.40	32.00
Type No. Mfr. 1-99 100 Mix 100-999 1000-up				
MR327	MOT	2.40		1.60 1.45
MR327R	MOT	2.40		1.60 1.45
MR328R	MOT	3.35		2.25 2.00
MR330R	MOT	6.75		4.50 4.05
MR991	MOT	2.10		1.40
MR993	MOT	6.60		4.40
Type No. Mfr. 1-99 100 Mix 100-999 1000-up				
MR1030B/IN4997	MOT	.55		.37 .33
MR1031B/IN4998	MOT	.60		.40 .36
Type No. Mfr. 1-99 100-999 1000-up 5000-up				
MR1032B/IN4999	MOT	.67		.45 .40
MR1033B	MOT	.76		.51 .46
MR1034A/IN4722	MOT	.97		.65 .58
MR1035B	MOT	1.08		.72 .65
MR1035A/IN4723	MOT	1.33		.89 .80
MR1036B/IN5001	MOT	1.33		.89 .80
Type No. Mfr. 1-99 100-999 1000-up 5000-up				
MR1038A/IN4724	MOT	4.10		2.75 2.45
MR1038B	MOT	4.10		2.75 2.45
MR1040A/IN4725	MOT	6.35		4.25 3.80
MR1040B	MOT	6.35		4.25 3.80
MR1120	MOT	.97		.65
MR1121	MOT	1.05		.70
MR1122	MOT	1.18		.79
MR1124	MOT	1.50		1.00
MR1126	MOT	2.45		1.65

Type No.	Mfr.	1-24	25-99	100-up
MR1200FL	MOT	2.55	2.30	1.90
MR1201FL	MOT	3.45	3.10	2.60
MR1205FL	MOT	5.60	5.05	4.20
MR1210SB	MOT	3.40	3.05	2.55
MR1211SL	MOT	4.10	3.70	3.10
MR1212SL	MOT	5.45	4.90	4.10
MR1213SL	MOT	5.45	4.90	4.10
MR1214SL	MOT	6.65	6.00	5.00
MR1216SL	MOT	8.90	8.05	6.70
MR1217SL	MOT	8.90	8.05	6.70
Type No. Mfr. 1-24 25-99 100-up				
MR1218SL	MOT	9.85	8.90	7.40
MR1219SL	MOT	11.65	10.50	8.75
MR1227SB	MOT	15.95	14.40	20.00
MR1230SB	LOW	11.30	10.20	8.50
Type No. Mfr. 1-99 100 Mix 100-999 1000-up				
MR1290	MOT	60.00		54.00
MR1290R	MOT	60.00		54.00
MR1291	MOT	66.50		60.00
MR1291R	MOT	66.50		60.00
MR1292	MOT	76.50		69.00
MR1292R	MOT	76.50		69.00
MR1293	MOT	76.50		69.00
MR1293R	MOT	76.50		69.00
MR1294	MOT	87.50		79.00
MR1294R	MOT	87.50		79.00
Type No. Mfr. 1-99 100 Mix 100-999 1000-up				
MR1295	MOT	98.50		88.75
MR1295R	MOT	98.50		88.75
MR1296	MOT	98.50		88.75
MR1296R	MOT	98.50		88.75
MR1297	MOT	98.50		88.75
MR1297R	MOT	98.50		88.75
Type No. Mfr. 1-24 25-99 100-up				
MR1810SB	MOT	4.05	3.65	3.05
MR1811SB	MOT	4.90	4.45	3.70
MR1812SB	MOT	6.25	5.65	4.70
MR1813SB	MOT	6.25	5.65	4.70
MR1814SB	MOT	7.45	6.70	5.80
MR1815SB	MOT	7.45	6.70	5.80
MR1816SB	MOT	9.70	8.75	7.30
MR1817SB	MOT	9.70	8.75	7.30
MR1818SB	MOT	10.65	9.60	8.00
MR1819SB	MOT	12.45	11.20	9.35
Type No. Mfr. 1-99 100 Mix 100-999 1000-up				
MR312/IN3208	MOT	1.15		.79
MR314/IN3210	MOT	1.75		1.19
MR315/IN3211	MOT	2.40		1.69
MR316/IN3212	MOT	2.90		1.93
MR322B/IN3491R	MOT	.67		.45 .40
Type No. Mfr. 1-99 100 Mix 100-999 1000-up				
MR323/IN3492	MOT	.76		.51 .46
MR323R/IN3492R	MOT	.76		.51 .46
MR324/IN3493	MOT	1.11		.74 .67
MR324R/IN3493R	MOT	1.11		.74 .67
MR325/IN3494	MOT	1.27		.85 .76
Type No. Mfr. 1-99 100 Mix 100-999 1000-up				
MR325R/IN3494R	MOT	1.27		.85 .76
MR326/IN3495	MOT	1.48		.99 .89
MR326R/IN3495R	MOT	1.48		.99 .89
MR328	MOT	3.35		2.25 2.00
MR330	MOT	6.75		4.50 4.05
MR991	MOT	2.10		1.40
MR993	MOT	6.60		4.40
Type No. Mfr. 1-24 25-99 100-up				
MS10	MOT	2.10	1.75	
MS15	MOT	2.10	1.75	
Type No. Mfr. 1-99 100 Mix 100-999 1000-up				
MSD6100	MOT	1.12	.75	.56 .52
Type No. Mfr. 1-99 100 Mix 100-999 1000-up				
MU1864A	MOT	12.00	10.00	8.00
MU1872	MOT	10.50	8.75	7.00
MU1876	MOT	10.50	8.75	7.00

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KEY TO SEMICONDUCTOR MANUFACTURERS

AMP —Amperex **HOF** —Hofman **RCA** —Radio Corp. of America **SYL** —Sylvania
BEN —Bendix **HUG** —Hughes Aircraft **RAY** —Raytheon **TI** —Texas Instruments
GE —General Electric **INT** —International Rectifier **SAR** —Sarkes-Tarzian **WES** —Westinghouse
GI —General Instrument **MOT** —Motorola **SPR** —Sprague

Type No.	Mfr.	1-9	10-99	100-999	1000-up
MV1808B	MOT	42.00	35.00	28.00	.....
MV1866	MOT	10.50	8.75	7.00	.....
MV1868	MOT	10.50	8.75	7.00	.....
MV1870	MOT	10.50	8.75	7.00	.....
MV1871	MOT	10.50	8.75	7.00	.....
MV1874	MOT	10.50	8.75	7.00	.....
MV1877	MOT	10.50	8.75	7.00	.....
MV1878	MOT	10.50	8.75	7.00	.....
MV1892	MOT	42.00	35.00	28.00	.....

Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
MV830	MOT	1.35	.....	.90	.....
MV831	MOT	1.35	.....	.90	.....
MV832	MOT	1.35	.....	.90	.....
MV833	MOT	1.35	.....	.90	.....
MV834	MOT	1.35	.....	.90	.....
MV835	MOT	1.35	.....	.90	.....
MV836	MOT	1.35	.....	.90	.....
MV837	MOT	1.35	.....	.90	.....
MV838	MOT	1.35	.....	.90	.....
MV839	MOT	1.35	.....	.90	.....
MV840	MOT	1.35	.....	.90	.....

Type No.	Mfr.	1-10	11-99	100-999
MZ605	MOT	73.50	65.15	49.00
MZ610	MOT	52.50	46.55	35.00
MZ620	MOT	37.50	33.25	25.00
M640	MOT	28.50	25.25	19.00
MZ805	MOT	67.50	59.85	45.00
MZ810	MOT	48.00	42.55	32.00
MZ820	MOT	33.00	29.25	22.00
MZ840	MOT	23.25	20.60	15.50

Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
MZ10T10/IN1512	INT	2.75	2.45	2.10	.....
MZ12T10/IN1513	INT	2.75	2.45	2.10	.....
MZ13T5	INT	3.45	3.05	2.65	.....
MZ15T10/IN1514	INT	2.75	2.45	2.10	.....
MZ22T10/IN1516	INT	2.75	2.45	2.10	.....

Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
MZ27T10/IN1517	INT	2.75	2.45	2.10	.....
MZ4.7T10	INT	2.75	2.45	2.10	.....
MZ5.6T10	INT	2.75	2.45	2.10	.....
MZ6.8T10/IN1510	INT	2.75	2.45	2.10	.....
MZ8.2T10/IN1511	INT	2.75	2.45	2.10	.....
MZK100	MOT	NET	79.00	.....	.....

Type No.	Mfr.	1-24	25-99	100-999	1000-up
N302R1000	GE	31.59	25.26	21.05	.....
N302S1000	GE	6.67	5.33	4.44	.....
N303R1000	GE	31.59	25.26	21.05	.....
N303S1000	GE	6.67	5.33	4.44	.....
N304R1000	GE	52.68	42.13	35.11	.....
N304S1000	GE	13.34	10.67	8.89	.....
N305R1000	GE	52.68	42.13	35.11	.....
N305S1000	GE	13.34	10.67	8.89	.....
N306R1000	GE	52.68	42.13	35.11	.....
N306S1000	GE	13.34	10.67	8.89	.....

Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
N-120-CG-10L	HOF	5.05	.....	4.25	.....
N1120-CG-11L	HOF	7.45	.....	6.25	.....
N-120-CG-12L	HOF	14.65	.....	12.25	.....
N-120-CG-8L	HOF	3.85	.....	3.25	.....
N-120-CG-9L	HOF	4.35	.....	3.65	.....

Type No.	Mfr.	1-24	25-99	100-up
N101R350	GE	26.34	21.06	17.55
N102R350	GE	26.34	21.06	17.55

Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
N220					
CG-10L	HOF	8.65	.....	7.25	.....
Type No.	Mfr.	1-24	25-99	100-up	
N301R1000	GE	31.59	25.26	21.05	.....
N301S1000	GE	6.67	5.33	4.44	.....

Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
NC-10	GI	52.50	.....	42.00	.....
NC-101	GI	50.00	.....	40.00	.....
NC-11	GI	56.00	.....	44.50	.....
NC-12	GI	43.50	.....	34.50	.....
NC-16	GI	52.50	.....	42.00	.....
NC-17	GI	50.50	.....	48.50	.....
NC-19	GI	58.50	.....	46.50	.....
NC-511	GI	50.00	.....	40.00	.....
NC-513	GI	50.00	.....	40.00	.....
NC-8	GI	58.50	.....	46.50	.....
NC-9	GI	31.00	.....	24.50	.....
NCS-390	GI	110.00	.....	88.00	.....

Type No.	Mfr.	1-24	25-99	100-999	100-Mix
NE106J	SPR	5.10	4.10	3.60	3.40
NE112J	SPR	7.65	6.15	5.40	5.10
NE116J	SPR	6.55	5.20	4.60	4.35
NE124J	SPR	10.40	8.35	7.35	6.95
NE125J	SPR	11.55	9.25	8.10	7.70
NE156J	SPR	7.65	6.15	5.40	5.10
NE161J	SPR	26.10	21.00	18.40	17.45

Type No.	Mfr.	1-24	25-99	100-999	100-Mix
NE170J	SPR	7.45	5.95	5.20	4.95
NE180J	SPR	7.45	5.95	5.20	4.95
NE416J	SPR	11.25	9.00	7.90	7.50
NE424J	SPR	15.00	12.00	10.50	10.00
NE455J	SPR	12.00	9.60	8.40	8.00
NE480J	SPR	12.00	9.60	8.40	8.00

Type No.	Mfr.	1-24	25-99	100-999	100-Mix
NE506K	SPR	26.25	21.00	18.50	17.50
NE518K	SPR	11.25	9.00	7.90	7.50

Type No.	Mfr.	1-24	25-99	100-999	100-Mix
NE806J	SPR	5.20	4.20	3.80	3.50
NE808J	SPR	6.55	5.20	4.60	4.35
NE816J	SPR	6.55	5.20	4.60	4.35
NE825J	SPR	11.55	9.25	8.10	7.70
NE826J	SPR	15.00	12.00	10.50	10.00
NE840J	SPR	7.10	5.70	5.10	4.80
NE855J	SPR	7.65	6.15	5.40	5.10
NE870J	SPR	7.45	5.95	5.20	4.95
NE880J	SPR	7.45	5.95	5.20	4.95

Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
OC71N	AMP	.49	.....	.32	.....

Type No.	Mfr.	1-24	25-99	100-up
P322	GE	55.00	44.00	.....
P323	GE	67.00	53.50	.....
P324	GE	53.50	42.80	.....
P326	GE	52.00	41.50	.....

Type No.	Mfr.	1-9	10-99	100-999	1000-up
PA107	GE	95.60	63.75	42.50	.....
PA113	GE	15.15	10.10	6.75	.....
PA310	GI	.43	.....	.28	.....
PA340	GI	.63	.....	.42	.....
PADT-25	AMP	1.26	.....	.84	.....
PADT-26	AMP	1.50	.....	1.00	.....
PADT-28	AMP	2.36	.....	1.51	.....
PADT50	AMP	5.00	.....	3.34	.....
PC-10	GI	58.50	.....	46.50	.....

Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
PC-101	GI	50.00	.....	40.00	.....
PC-11	GI	61.50	.....	49.00	.....
PC-12	GI	43.50	.....	34.50	.....
PC-13	GI	117.00	.....	93.00	.....
PC-14	GI	102.00	.....	81.00	.....
PC-15	GI	109.00	.....	87.00	.....
PC-16	GI	52.50	.....	42.00	.....
PC-17	GI	60.50	.....	48.50	.....

Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
PC-18	GI	87.50	.....	70.00	.....
PC-19	GI	58.50	.....	46.50	.....
PC-200	GI	100.00	.....	80.00	.....
PC-201	GI	150.00	.....	120.00	.....
PC-202	GI	200.00	.....	160.00	.....
PC-401	GI	100.00	.....	80.00	.....
PC-402	GI	72.50	.....	58.00	.....
PC-501	GI	65.00	.....	52.00	.....
PC-502	GI	80.00	.....	64.00	.....
PC-503	GI	65.00	.....	52.00	.....
PC-504	GI	80.00	.....	64.00	.....
PC-511	GI	50.00	.....	40.00	.....
PC-512	GI	60.00	.....	48.00	.....
PC-513	GI	50.00	.....	40.00	.....
PC-514	GI	60.00	.....	48.00	.....
PC-8	GI	58.50	.....	46.50	.....
PC-9	GI	31.00	.....	24.50	.....

Type No.	Mfr.	1-9	10-99	100-999	1000-up
PCA-1-14	AMP	6.00	.....	4.00	.....
PCA-1-9	AMP	6.00	.....	4.00	.....
PCA-2-14	AMP	4.55	.....	2.88	.....
PCA-3B-18	AMP	15.00	.....	10.00	.....
PT5	GI	.76	.....	.51	.....
PT505	GI	.45	.....	.30	.....
PT520	GI	.52	.....	.34	.....
PT530	GI	.62	.....	.41	.....

Type No.	Mfr.	1-9	10-99	100-999	1000-up
Q1B	INT	.55	.41	.33	.....
Q1H	INT	.38	.29	.23	.....
Q4B	INT	1.15	.86	.69	.....

Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
RA1	GE	4.50	.....	3.00	.....
RA1A	GE	7.95	.....	5.30	.....
RA1B	GE	14.10	.....	9.40	.....
RA2	GE	7.95	.....	5.30	.....
RA2A	GE	22.50	.....	15.00	.....
RA3	GE	8.25	.....	5.50	.....

Type No.	Mfr.	1-24	25-99	100-up
RC1031	RAY	16.00	10.00	8.00
RC1031A	RAY	12.00	9.00	5.00
RC1032A	RAY	10.50	7.00	5.00
RC1033A	RAY	15.00	10.00	5.50
RC1033A	RAY	15.00	10.00	6.00
RC103B	RAY	15.00	10.00	6.00
RC144B	RAY	20.00	12.00	9.00
RC322B	RAY	18.00	12.00	10.50
RC322C	RAY	30.00	20.00	14.50
RC323B	RAY	30.00	19.50	14.00
RC323C	RAY	40.80	25.50	18.00
RC401B	RAY	24.00	15.00	12.00
RIV3036		100.00	NET	.....

Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
RM201G	RAY	15.70	.....	10.00	.....
RM202G	RAY	15.70	.....	10.00	.....
RM211G	RAY	15.70	.....	10.00	.....
RM212G	RAY	15.70	.....	10.00	.....
RM214G	RAY	15.70	10.00
RM217G	RAY	12.90	8.20
RM220G	RAY	16.00	10.10
RM421G	RAY	15.70	10.00</	

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Type No.	Mfr.	1-99	100 Mix	100-999	1000-up	Type No.	Mfr.	1-99	100 Mix	100-999	1000-up	Type No.	Mfr.	1-99	100-999	100-999	1000-up	
RM224G	RAY	15.70	.....	10.00	.....	SIM	INT	2.25	.....	2.00	.....	SE505G	SPR	25.50	20.50	17.85	17.00
RM226G	RAY	17.80	.....	11.25	.....	Type No.	Mfr.	1-99	100-999	1000-up	.....	SE505K	SPR	22.50	18.00	15.75	15.00
RM227G	RAY	12.90	.....	8.20	.....	S26	GE	9.95	8.30	.....	.....	SE506K	SPR	52.50	42.00	36.75	35.00
RM231G	RAY	15.70	.....	10.00	.....	S27	GE	11.30	9.45	.....	.....	SE518K	SPR	22.50	18.00	15.75	15.00
RM246G	RAY	17.80	.....	11.25	.....	Type No.	Mfr.	1-99	100 Mix	100-999	1000-up	Type No.	Mfr.	1-24	25-99	100-999	1000-Mix
RM286G	RAY	19.00	.....	12.00	.....	S3M	INT	3.95	.....	3.51	.....	SE806J	SPR	10.40	8.40	7.50	7.00
RM3002	RAY	25.70	.....	16.40	.....	Type No.	Mfr.	1-99	100-999	1000-up	.....	SE808J	SPR	13.35	10.70	9.40	8.90
RM5008	RAY	26.00	.....	18.00	.....	S4M	INT	3.95	3.51	.....	.....	SE816J	SPR	13.35	10.70	9.40	8.90
RM5008D	RAY	35.00	.....	24.00	.....	Type No.	Mfr.	1-24	25-99	100-up	.....	SE825J	SPR	19.80	15.80	13.90	13.20
RM8007	RAY	22.00	.....	15.00	.....	S5130	SAR	22.50	19.30	18.00	.....	SE826J	SPR	30.00	24.00	21.00	20.00
RM8007D	RAY	31.00	.....	21.00	.....	Type No.	Mfr.	1-99	100 Mix	100-999	1000-up	SE840J	SPR	14.20	11.40	10.20	9.60
RN1030A	RAY	5.70	.....	3.85	.....	S5M	INT	4.95	.....	4.40	.....	SE855J	SPR	15.50	12.25	10.80	10.20
RN1030	RAY	4.80	.....	3.25	.....	SSW5P/AC	INT	2.98	.....	2.10	.....	SE870J	SPR	14.80	11.90	10.40	9.90
RN1020	RAY	5.25	.....	3.55	.....	S6V2P/DC	INT	.75	.....	.61	.....	SE880J	SPR	14.80	11.90	10.40	9.90
RN3020	RAY	4.80	.....	3.25	.....	Type No.	Mfr.	1-24	25-99	100-up	.....	Type No.	Mfr.	1-24	25-99	100-up	.....
RN3030	RAY	3.95	.....	2.65	.....	SA10	SYL	83.75	72.00	66.00	.....	SF10-02	SYL	12.40	9.90	8.35	.....
RS6	HOF	1.80	1.60	1.35	.....	SA10	SYL	83.75	72.00	64.80	.....	SF10-03	SYL	12.40	9.90	8.35	.....
RT3333	RAY	10.00	.....	6.70	.....	SA11	SYL	56.00	48.00	44.00	.....	SF11-02	SYL	10.50	8.40	7.10	.....
RT3333A	RAY	12.50	.....	9.00	.....	SA11	SYL	56.00	48.00	43.20	.....	SF11-03	SYL	10.50	8.40	7.10	.....
RT4318	RAY	5.20	.....	4.00	.....	SA20	SYL	15.60	14.40	12.00	.....	SF12-02	SYL	9.30	7.40	6.25	.....
RT4319	RAY	6.75	.....	4.50	.....	SA20	SYL	15.60	14.40	12.00	.....	SF12-03	SYL	9.30	7.40	6.25	.....
RT4320	RAY	7.75	.....	5.50	.....	Type No.	Mfr.	1-24	25-99	100-up	.....	SF13-02	SYL	6.20	4.95	4.20	.....
RT5204	RAY	2.30	.....	1.70	.....	SC1000	HUG	30.00	16.00	12.00	.....	SF13-03	SYL	6.20	4.95	4.20	.....
RT5401	RAY	9.00	.....	6.00	.....	SC1100	HUG	75.00	63.50	49.25	.....	SF20-02	SYL	16.45	13.15	11.10	.....
RT5402	RAY	11.00	.....	7.35	.....	Type No.	Mfr.	1-99	100 Mix	100-999	1000-up	SF20-03	SYL	16.45	13.15	11.10	.....
RT5403	RAY	14.00	9.35	SC40B/	Z1257B	GE	3.81	2.54	SF21-02	SYL	14.00	11.20	9.45
RT5404	RAY	16.00	.....	10.65	.....	SC40D	GE	5.85	.....	3.90	.....	SF21-03	SYL	14.00	11.20	9.45	.....
RT6	HOF	1.80	1.35	SC41B/	Z1285B	GE	3.36	2.24	SF22-02	SYL	12.30	9.80	8.30
RT930H	RAY	6.30	.....	4.20	.....	SC41D	GE	5.40	.....	3.60	.....	SF22-03	SYL	12.30	9.80	8.30	.....
S100A1	GE	6.90	4.60	SC45B/	Z1290B	GE	4.32	2.88	SF23-02	SYL	8.25	6.55	5.55
S100A2	GE	8.95	.....	5.95	.....	SC45D	GE	6.85	.....	4.57	.....	SF23-03	SYL	8.25	6.55	5.55	.....
S100A3	GE	7.45	.....	4.95	.....	SC46D	GE	6.40	.....	4.27	.....	SF30-02	SYL	16.45	13.15	11.10	.....
S100A4	GE	9.85	.....	6.55	.....	Type No.	Mfr.	1-99	100 Mix	100-999	1000-up	SF30-03	SYL	16.45	13.15	11.10	.....
S100B1	GE	7.80	.....	5.20	.....	SC5074	HUG	110.00	68.00	44.00	.....	SF31-02	SYL	14.00	11.20	9.45	.....
S100B2	GE	9.75	.....	6.50	.....	SC5091	HUG	4.00	3.40	3.00	.....	SF32-02	SYL	12.30	9.80	8.30	.....
S100B3	GE	8.35	.....	5.55	.....	SC5124	HUG	5.00	4.60	4.25	.....	SF32-03	SYL	8.25	6.55	5.55	.....
S100B4	GE	10.70	.....	7.15	.....	SC5140	HUG	27.50	22.00	18.00	.....	SF33-03	SYL	8.25	6.55	5.55	.....
S100C1	GE	8.80	.....	5.85	.....	SC5250	HUG	34.00	31.00	27.00	.....	SF50-02	SYL	18.50	14.75	12.50	.....
S100C2	GE	10.80	.....	7.20	.....	Type No.	Mfr.	1-99	100 Mix	100-999	1000-up	SF51-02	SYL	15.75	12.50	10.60	.....
S100C3	GE	9.30	.....	6.20	.....	SD-91	INT	.53	.....	.35	.....	SF51-03	SYL	15.75	12.50	10.60	.....
S100C4	GE	11.70	.....	7.80	.....	SD-91A	INT	.59	.....	.39	.....	SF52-02	SYL	13.85	11.05	9.35	.....
S100D1	GE	8.20	.....	5.45	.....	SD-92	INT	.63	.....	.42	.....	SF52-03	SYL	13.85	11.05	9.35	.....
S100D2	GE	10.20	.....	6.80	.....	SD-92A	INT	.68	.....	.46	.....	SF53-02	SYL	9.30	7.40	6.25	.....
S100D3	GE	8.70	.....	5.80	.....	SD-93	INT	.73	.....	.52	.....	SF53-03	SYL	9.30	7.40	6.25	.....
S100D4	GE	11.20	.....	7.45	.....	SD-93A	INT	.86	.....	.57	.....	SF250-02	SYL	12.40	9.90	8.35	.....
S100E1	GE	8.80	.....	5.85	.....	SD-94	INT	.89	.....	.64	.....	SF260-02	SYL	12.40	9.90	8.35	.....
S100E2	GE	10.80	.....	7.20	.....	SD-94A	INT	.96	.....	.64	.....	SF260-03	SYL	12.40	9.90	8.35	.....
S100E3	GE	9.30	.....	6.20	.....	SD-95	INT	.99	.....	.67	.....	SF261-02	SYL	10.50	8.40	7.10	.....
S100E4	GE	11.70	.....	7.80	.....	SD-95A	INT	1.06	.....	.71	.....	SF261-03	SYL	10.50	8.40	7.10	.....
S100F1	GE	8.20	.....	5.45	.....	SD500	INT	.68	.....	.57	.....	SF262-02	SYL	9.30	7.40	6.25	.....
S100F2	GE	10.20	.....	6.80	.....	SDA1020E6	INT	5.40	.....	4.30	.....	SF262-03	SYL	9.30	7.40	6.25	.....
S100F3	GE	8.70	.....	5.80	.....	SDA1020E8	INT	6.75	.....	6.00	.....	SF263-02	SYL	6.20	4.95	4.20	.....
S100F4	GE	11.20	.....	7.45	.....	Type No.	Mfr.	1-24	25-99	100-999	100 Mix	SF263-03	SYL	6.20	4.95	4.20	.....
S100G1	GE	5.70	.....	3.80	.....	SE106J	SPR	7.30	5.70	5.10	4.85	SG42-03	SYL	9.30	7.40	6.25	.....
S100G2	GE	7.75	.....	5.15	.....	SE111J	SPR	15.50	12.25	10.80	10.20	SG43-02	SYL	6.20	4.95	4.20	.....
S100G3	GE	6.25	.....	4.15	.....	SE112J	SPR	15.50	12.25	10.80	10.20	SG50-02	SYL	12.40	9.90	8.35	.....
S100G4	GE	8.65	.....	5.75	.....	SE116J	SPR	13.35	10.70	9.40	8.90	SG50-03	SYL	12.40	9.90	8.35	.....
Type No.	Mfr.	1-99	100-999	1000-up	.....	SE124J	SPR	17.85	14.30	12.50	11.90	SG51-02	SYL	10.50	8.40	7.10	.....
S-487	SAR	.87	.78	.70	.....	SE125J	SPR	19.80	15.80	13.90	13.20	SG51-03	SYL	10.50	8.40	7.10	.....
S-488	SAR	1.19	1.07	.95	.....	SE155J	SPR	15.50	12.25	10.80	10.20	SG52-02	SYL	6.20	4.95	4.20	.....
S-489	SAR	1.51	1.36	1.21	.....	SE156J	SPR	15.50	12.25	10.80	10.20	SG52-03	SYL	9.30	7.40	6.25	.....
S-490	SAR	1.83	1.65	1.46	.....	SE161J	SPR	59.90	48.00	40.20	39.95	SG53-02	SYL	6.20	4.95	4.20	.....
S-491	SAR	2.15	1.94	1.72	.....	SE170J	SPR	14.80	11.90	10.40	9.90	SG53-03	SYL	6.20	4.95	4.20	.....
S-492	SAR	2.47	2.22	1.98	.....	SE180J	SPR	14.80	11.90	10.40	9.90	SG60-02	SYL	12.40	9.90	8.35	.....
S-493	SAR	3.11	2.80	2.49	.....	SE416J	SPR	22.50	17.95	15.80	14.95	SG60-03	SYL	12.40	9.90	8.35	.....
S-494	SAR	3.75	3.38	3.00	.....	SE421J	SPR	30.00	24.00	21.00	20.00	SG61-02	SYL	10.50	8.40	7.10	.....
S-495	SAR	4.39	3.95	3.51	.....	SE455J	SPR	23.20	18.55	16.25	15.45	SG61-03	SYL	10.50	8.40	7.10	.....
Type No.	Mfr.	1-24	25-99	100-up	.....	SE480J	SPR	23.20	18.55	16.25	15.45	SG62-02	SYL	9.30	7.40	6.25	.....
S-5018	SAR	12.00	10.30	9.60	Type No.	Mfr.	1-99	100 Mix	100-999	1000-up	SG62-03	SYL	9.30	7.40	6.25	
S-5019/	IN1239	SAR	18.10	15.50	14.45	SE501G	SPR	37.									

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Type No.	Mfr.	1-24	25-99	100-up	Type No.	Mfr.	1-24	25-99	100-up	Type No.	Mfr.	1-24	25-99	100-up
SN14236	TI	14.00	11.20	9.50	SN1730	TI	7.00	6.05	5.10	SN532	TI	11.35	9.00	7.70
SN14246	TI	15.55	12.40	10.55	SN1730-L	TI	7.00	6.05	5.10	SN533	TI	11.35	9.00	7.70
SN14261	TI	12.50	9.50	8.50	SN1730A	TI	7.00	6.05	5.10	SN5331	TI	13.00	10.25	8.80
SN14286	TI	15.55	12.40	10.55	SN1731	TI	6.00	5.20	4.40	SN534	TI	11.35	9.00	7.70
SN14286	TI	18.65	14.85	12.65	SN1731-L	TI	6.00	5.20	4.40	SN535	TI	11.35	9.00	7.70
SN14296	TI	18.65	14.85	12.65	SN1731A	TI	6.00	5.20	4.40	SN5360	TI	13.00	10.25	8.80
SN14306	TI	8.05	6.40	5.45	SN1732	TI	5.25	4.55	3.85	SN5370	TI	16.20	12.90	11.00
SN14306N	TI	8.05	6.40	5.45	SN1732-L	TI	5.25	4.55	3.85	SN5380	TI	21.40	17.00	14.50
SN14310	TI	8.05	6.40	5.45	SN1732A	TI	5.25	4.55	3.85	SN54-930	TI	11.40	9.10	7.70
SN14310N	TI	8.05	6.40	5.45	SN1733	TI	6.00	5.20	4.40	SN54-932	TI	13.00	10.40	8.80
SN14313	TI	9.80	7.75	6.65	SN1733-L	TI	6.00	5.20	4.40	SN54-946	TI	13.00	10.40	8.80
SN14313N	TI	9.80	7.75	6.65	SN1733A	TI	6.00	5.20	4.40	SN54-948	TI	17.80	14.40	12.00
SN14315	TI	9.80	7.75	6.65	SN1734	TI	7.00	6.05	5.10	SN54-962	TI	13.00	10.40	8.80
SN14315N	TI	9.80	7.75	6.65	SN1734-L	TI	7.00	6.05	5.10	SN54-965	TI	11.40	9.10	7.70
SN14316	TI	8.05	6.40	5.45	SN1734A	TI	7.00	6.05	5.10	SN54-966	TI	13.00	10.40	8.80
SN14324	TI	7.15	5.70	4.85	SN1735	TI	8.20	7.10	6.00	SN5400	TI	13.00	10.40	8.80
SN14324N	TI	7.15	5.70	4.85	SN1735-L	TI	8.20	7.10	6.00	SN5410	TI	13.00	10.40	8.80
SN14326	TI	8.05	6.40	5.45	SN1735A	TI	8.20	7.10	6.00	SN5420	TI	11.40	9.10	7.70
SN14326N	TI	8.05	6.40	5.45	SN1761	TI	5.40	4.70	3.95	SN5430	TI	11.40	9.10	7.70
SN14327	TI	4.50	3.55	3.05	SN1761-L	TI	5.40	4.70	3.95	SN5440	TI	13.00	10.40	8.80
SN14327N	TI	4.50	3.55	3.05	SN1762	TI	4.95	4.30	3.75	SN5450	TI	14.20	11.40	9.60
SN14331	TI	7.15	5.70	4.85	SN1762-L	TI	4.95	4.30	3.75	SN5451	TI	16.20	12.90	11.00
SN14331N	TI	7.15	5.70	4.85	SN1763	TI	4.40	3.85	3.35	SN5460	TI	10.40	8.40	7.00
SN14336	TI	8.05	6.40	5.45	SN1763-L	TI	4.40	3.85	3.35	SN5470	TI	17.80	14.40	12.00
SN14336N	TI	8.05	6.40	5.45	SN1764	TI	3.80	3.65	2.80	SN54930-L	TI	11.40	9.10	7.70
SN14346	TI	8.90	7.05	6.05	SN1764-L	TI	3.80	3.65	2.80	SN54932-L	TI	13.00	10.40	8.80
SN14346N	TI	8.90	7.05	6.05	SN1765	TI	4.40	3.85	3.35	SN54946-L	TI	13.00	10.40	8.80
SN14361	TI	7.15	5.70	4.85	SN1765-L	TI	4.40	3.85	3.35	SN54948-L	TI	17.80	14.40	12.00
SN14361N	TI	7.15	5.70	4.85	SN1766	TI	4.95	4.30	3.75	SN54962-L	TI	13.00	10.40	8.80
SN14366	TI	8.90	7.05	6.05	SN1766-L	TI	4.95	4.30	3.75	SN54965-L	TI	11.40	9.10	7.70
SN14366N	TI	8.90	7.05	6.05	SN1767	TI	6.00	5.20	4.40	SN54966-L	TI	13.00	10.40	8.80
SN14386	TI	10.70	8.55	7.25	SN1767-L	TI	6.00	5.20	4.40	SN5500	TI	56.00	44.50	38.00
SN14386N	TI	10.70	8.55	7.25	SN17808	TI	5.40	4.70	3.95	SN5510	TI	13.80	10.95	9.30
SN14396	TI	10.70	8.55	7.25	SN17808L	TI	5.40	4.70	3.95	SN7000	TI	6.00	4.80	4.10
SN14396N	TI	10.70	8.55	7.25	SN17809	TI	4.95	4.30	3.75	SN7001	TI	6.00	4.80	4.10
SN14830N	TI	5.05	4.00	3.40	SN17809L	TI	4.95	4.30	3.75	SN717A	TI	130.00	103.00	.....
SN15830	TI	3.90	3.10	2.65	SN17810	TI	4.40	3.85	3.35	SN723	TI	27.60	22.00	18.75
SN15830L	TI	7.20	5.75	4.90	SN17810L	TI	4.40	3.85	3.35	SN723-L	TI	27.60	22.00	18.75
SN15830N	TI	1.90	1.50	1.25	SN17811	TI	4.40	3.85	3.35	SN724	TI	16.20	12.90	11.00
SN15831	TI	6.65	5.25	4.50	SN17811L	TI	4.40	3.85	3.35	SN724-L	TI	16.20	12.90	11.00
SN15831L	TI	11.50	9.15	7.80	SN17812	TI	4.95	4.30	3.75	SN7300	TI	8.10	6.45	5.50
SN15831N	TI	3.65	2.90	2.45	SN17812L	TI	4.95	4.30	3.75	SN7301	TI	8.50	6.75	5.75
SN15832	TI	4.70	3.70	3.20	SN17813	TI	6.00	5.20	4.40	SN7301-L	TI	8.50	6.75	5.75
SN15832L	TI	8.35	6.65	5.65	SN17813L	TI	6.00	5.20	4.40	SN7302	TI	10.50	8.35	7.15
SN15832N	TI	2.00	1.60	1.35	SN17821	TI	3.80	3.65	2.80	SN7304	TI	10.50	8.35	7.15
SN15833	TI	3.45	2.75	2.35	SN17821L	TI	3.80	3.65	2.80	SN7310	TI	5.65	4.50	3.85
SN15833L	TI	5.00	4.00	3.40	SN17908	TI	7.35	6.35	5.40	SN7310-L	TI	5.65	4.50	3.85
SN15833N	TI	1.60	1.30	1.10	SN17908L	TI	7.35	6.35	5.40	SN7311	TI	6.50	5.15	4.40
SN15844	TI	4.70	3.70	3.20	SN17909	TI	7.00	6.05	5.10	SN7311-L	TI	6.50	5.15	4.40
SN15844L	TI	8.35	6.65	5.65	SN17909L	TI	7.00	6.05	5.10	SN7320	TI	5.65	4.50	3.85
SN15844N	TI	2.00	1.60	1.35	SN17910	TI	6.00	5.20	4.40	SN7320-L	TI	5.65	4.50	3.85
SN15845	TI	5.45	4.35	3.70	SN17910L	TI	6.00	5.20	4.40	SN7330	TI	5.65	4.50	3.85
SN15845L	TI	11.50	9.15	7.80	SN17911	TI	6.00	5.20	4.40	SN7330-L	TI	5.65	4.50	3.85
SN15845N	TI	3.65	2.90	2.45	SN17911L	TI	6.00	5.20	4.40	SN7331	TI	6.50	5.15	4.40
SN15846	TI	4.90	3.40	2.90	SN17912	TI	7.00	6.05	5.10	SN7331-L	TI	6.50	5.15	4.40
SN15846L	TI	8.20	6.50	5.55	SN17912L	TI	7.00	6.05	5.10	SN7350	TI	5.65	4.50	3.85
SN15846N	TI	2.00	1.60	1.35	SN17913	TI	8.20	7.10	6.00	SN7350-L	TI	5.65	4.50	3.85
SN15848	TI	5.45	4.35	3.70	SN17913L	TI	8.20	7.10	6.00	SN7360	TI	6.50	5.15	4.40
SN15848L	TI	11.50	9.15	7.80	SN17921	TI	5.25	4.55	3.85	SN7360-L	TI	6.50	5.15	4.40
SN15848N	TI	3.85	2.90	2.45	SN17921J	TI	5.25	4.55	3.85	SN7370	TI	7.70	6.15	5.55
SN15850	TI	11.70	9.30	8.00	SN336A	TI	53.00	42.00	.....	SN7370-L	TI	7.70	6.15	5.55
SN15850N	TI	12.50	7.40	7.15	SN344A	TI	58.00	47.00	36.50	SN7380	TI	9.75	7.75	6.60
SN15851	TI	11.70	9.30	8.00	SN345A	TI	89.00	71.00	.....	SN7380-L	TI	9.75	7.75	6.60
SN15851L	TI	14.75	11.75	10.00	SN346A	TI	53.50	42.60	36.30	SN74930	TI	5.70	4.55	3.85
SN15851N	TI	11.30	9.05	7.70	SN348A	TI	69.00	54.75	46.75	SN74930N	TI	5.70	4.55	3.85
SN15862	TI	4.30	3.40	2.90	SN351A	TI	142.00	114.00	.....	SN74932	TI	6.50	5.20	4.40
SN15862L	TI	8.20	6.50	5.55	SN5101	TI	28.25	22.50	19.20	SN74932N	TI	6.50	5.20	4.40
SN15862N	TI	2.00	1.60	1.35	SN510A	TI	28.25	22.50	19.20	SN74946	TI	6.50	5.20	4.40
SN15930	TI	6.90	5.50	4.70	SN5111	TI	31.10	24.75	21.10	SN74946N	TI	6.50	5.20	4.40
SN15930L	TI	15.40	12.25	10.45	SN5112	TI	31.10	24.75	21.10	SN74948	TI	8.90	7.20	6.00
SN15931	TI	11.75	9.35	8.00	SN5113	TI	28.25	22.50	19.20	SN74948N	TI	8.90	7.20	6.00
SN15931L	TI	20.40	16.25	13.85	SN511A	TI	31.10	24.75	21.10	SN74962	TI	6.50	5.20	4.40
SN15932	TI	8.30	6.60	5.65	SN512A	TI	22.30	17.75	15.15	SN74962N	TI	6.50	5.20	4.40
SN15932L	TI	17.65	14.65	12.00	SN513A	TI	24.55	19.55	16.65	SN74965	TI	5.70	4.55	3.85
SN15933	TI	6.10	4.85	4.15	SN515A	TI	22.30	17.75	15.15	SN74965N	TI	5.70	4.55	3.85
SN15933L	TI	7.15	5.70	4.85	SN5161	TI	22.30	17.75	15.15	SN74966	TI	6.50	5.20	4.40
SN15944	TI	8.30	6.60	5.65	SN5162	TI	24.55	19.55	16.65	SN74966N	TI	6.50	5.20	4.40
SN15944L	TI	17.65	14.05	12.00	SN516A	TI	22.30	17.75	15.15	SN7400	TI	6.50	5.20	4.40
SN15945	TI	9.70	7.75	6.60	SN517A	TI	29.50	23.50	20.00	SN7410	TI	6.50	5.20	4.40
SN15945L	TI	20.40	16.25	13.85	SN518A	TI	29.50	23.50	20.00	SN7420	TI	5.70	4.55	3.85
SN15946	TI	7.60	6.05	5.20	SN5191	TI	29.50	23.50	20.00	SN7430	TI	5.70	4.55	3.85
SN15946L	TI	17.00	13.55	11.55	SN519A	TI	22.30	17.75	15.15	SN7440	TI	6.50	5.20	4.40
SN15948	TI	9.70	7.75	6.60	SN521A	TI	36.50	29.00	24.80	SN7450	TI	7.10	5.70	4.80
SN15948L	TI	20.40	16.25	13.85	SN522A	TI	36.50	29.00	24.80	SN7451	TI	8.10	6.45	5.50
SN15950	TI	20.40	16.25	13.85	SN523A	TI	28.00	20.80	17.60	SN7453N	TI	8.05	6.40	5.45
SN15950L	TI	20.40	16.25	13.85	SN524A	TI	29.95	23.25	19.80	SN7460	TI	5.20	4.20	3.50
SN15951	TI	20.40	16.25	13.85	SN525A	TI	57.00	45.00	38.50	SN7470	TI	8.90	7.20	6.00
SN15951L	TI	34.00	27.10	23.10	SN526A	TI	57.00	45.00	38.50	SN7472N	TI	5.85	4.50	3.95
SN15962	TI													

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Type No.	Mfr.	1-24	25-99	100-up	1000-up
SN74966-L	TI	6.50	5.20	4.40
SN7500	TI	33.00	26.25	22.24
SN7500-L	TI	33.00	26.25	22.24	.....
Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
SP5G26C	INT	9.95	NET	.....	.....
Type No.	Mfr.	1-99	100-999	100-999	1000-up
SQ2501	RCA	2.89	2.00	.....	.....
SQ2503	RCA	1.32	.92	.....	.....
SQ2503V1	RCA	1.21	.84	.....	.....
SQ2508	RCA	1.90	1.32	.....	.....
SQ2519	RCA	1.65	1.14	.....	.....
SQ2520	RCA	1.82	1.25	.....	.....
SQ2521	RCA	1.82	1.25	.....	.....
SQ2523	RCA	2.10	1.45	.....	.....
SQ2524	RCA	2.10	1.45	.....	.....
SQ2525	RCA	1.82	1.25	.....	.....
SQ2526	RCA	1.82	1.25	.....	.....
SQ2527	RCA	1.82	1.25	.....	.....
SQ2528	RCA	1.73	1.20	.....	.....
SQ2529	RCA	1.65	1.14	.....	.....
SQ2534	RCA	1.65	1.14	.....	.....
SQ2535	RCA	2.39	1.65	.....	.....
SQ2536	RCA	1.49	1.03	.....	.....
SQ2537	RCA	1.62	1.12	.....	.....
SQ2538	RCA	.63	.44	.....	.....
SQ2541	RCA	.68	.47	.....	.....
SQ2542	RCA	.80	.55	.....	.....
SQ2543	RCA	2.06	1.43	.....	.....
SQ2544	RCA	1.90	1.31	.....	.....
SQ2544V1	RCA	1.90	1.31	.....	.....
SQ2545	RCA	1.90	1.31	.....	.....
SQ2545V1	RCA	1.90	1.31	.....	.....
SQ2546	RCA	1.90	1.31	.....	.....
Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
SR6587	SYL	1.20	.....	.80	.40
SR6588	SYL	1.29	.....	.80	.40
SR6589	SYL	1.38	.....	.92	.36
SR6590	SYL	2.07	.....	1.38	.69
SR6591	SYL	3.30	.....	2.20	1.10
SR6592	SYL	.45	.....	.30	.25
SR200B	SYL	.65	.....	.42	.25
SR500B	SYL	.68	.....	.45	.26
SR92	SYL	1.28	.....	.88	.78
ST-1					
IN2630	INT	9.97	8.90	.....	.....
ST-1A					
IN570	INT	29.00	24.65	.....	.....
ST-2					
IN2631	INT	9.97	8.90	.....	.....
ST-2/					
ZJ238	GE	1.02	.....	.68	.....
Type No.	Mfr.	1-99	10-99	100-999	1000-up
ST-2A	INT	14.79	13.20	.....	.....
IN2632	INT	9.97	8.90	.....	.....
ST-3	INT	9.97	8.90	.....	.....
IN2633	INT	9.97	8.90	.....	.....
ST-4	INT	9.97	8.90	.....	.....
IN2634	INT	22.50	21.00	.....	.....
ST-7A	INT	73.55	60.95	.....	.....
ST-9	INT	5.95	5.05	.....	.....
ST14	INT	5.95	5.05	.....	.....
Type No.	Mfr.	1-24	25-99	100-up	1000-up
ST2-10P	SAR	1.40	1.21	1.02	.....
ST2-30P	SAR	3.70	3.17	2.97	.....
ST220P	SAR	1.55	1.32	1.23	.....
ST260P	SAR	3.30	2.83	2.64	.....
ST3-10P	SAR	2.00	1.17	1.60	.....
ST3-20P	SAR	3.30	2.54	2.38	.....
ST3-40P	SAR	6.60	5.85	5.29	.....
ST360P	SAR	3.80	3.28	3.06	.....
ST4-20P	SAR	3.10	2.66	2.48	.....
ST460P	SAR	6.60	5.50	5.14	.....
SU300K	SPR	7.35	6.30	5.25	.....
SU305K	SPR	8.20	6.95	5.85	.....
SU306K	SPR	8.20	6.95	5.85	.....
SU314K	SPR	8.20	6.95	5.85	.....
SU315K	SPR	8.20	6.95	5.85	.....
SU316K	SPR	13.30	11.40	9.50	.....
SU320K	SPR	8.20	6.95	5.85	.....
SU331K	SPR	8.20	6.95	5.85	.....
SU332K	SPR	8.20	6.95	5.85	.....
Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
SV-910	RAY	10.00	.....	.....	.....
SV-912	RAY	10.00	.....	.....	.....

Type No.	Mfr.	1-9	10-99	100-999	1000-up
TO65/7	INT	.74	.62	.44	.....
TO75/150	INT	.74	.62	.44	.....
Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
T173	TI	1.03	.....	.85	.....
Type No.	Mfr.	1-99	10-99	100-999	1000-up
T200/300	INT	1.10	.92	.61	.....
T550/650	INT	2.08	1.73	.....	.....
Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
TD251	GE	7.50	.....	5.00	.....
TD251A	GE	12.00	.....	8.00	.....
TD252	GE	7.50	.....	5.00	.....
TD252A	GE	12.00	.....	8.00	.....
TD253	GE	6.00	.....	4.00	.....
TD253A	GE	9.00	.....	6.00	.....
TD253B	GE	12.00	.....	8.00	.....
TD254A	GE	12.00	.....	8.00	.....
TD255	GE	7.50	.....	5.00	.....
TD255A	GE	12.00	.....	8.00	.....
DT256	GE	7.50	.....	5.00	.....
TD256A	GE	12.00	.....	8.00	.....
TD-1/					
IN3712	GE	3.30	.....	2.20	.....
TD104/					
TD-253B	GE	12.00	.....	8.00	.....
TD-1A/					
IN3713	GE	5.00	.....	3.30	.....
TD-2/					
IN3714	GE	2.90	.....	1.95	.....
TD-3/					
IN3716	GE	2.25	.....	1.50	.....
TD-3A/					
IN3717	GE	3.90	.....	2.60	.....
TD-4/					
IN3718	GE	2.25	.....	1.50	.....
TD-4A/					
IN3719	GE	3.90	.....	2.60	.....
TD-5/					
IN3720	GE	1.60	.....	1.05	.....
TD-9	GE	4.00	.....	2.65	.....
TD554/					
IN3118	GE	9.15	.....	6.10	.....
T16	TI	.48	.....	.39	.....
T1874	TI	8.60	.....	6.50	.....
TI-550	TI	4.20	.....	2.70	.....
TI-551	TI	9.60	.....	7.50	.....
TI-111/					
2N1596	TI	4.50	.....	3.05	.....
TI-112/					
2N1597	TI	9.45	.....	6.30	.....
TI-1121	TI	18.00	.....	12.00	.....
TI-1122	TI	16.30	.....	10.85	.....
TI-1123	TI	14.30	.....	9.55	.....
TI-1124	TI	12.70	.....	8.45	.....
TI-1125	TI	9.50	.....	6.35	.....
TI-1126	TI	8.65	.....	5.75	.....
TI-1131	TI	18.15	.....	12.25	.....
TI-1132	TI	16.65	.....	11.10	.....
TI-1133	TI	14.70	.....	9.80	.....
TI-1134	TI	13.05	.....	8.70	.....
TI-1135	TI	9.90	.....	6.60	.....
TI-1136	TI	9.00	.....	6.00	.....
TI-1141	TI	22.20	.....	14.80	.....
TI-1142	TI	20.40	.....	13.60	.....
TI-1143	TI	19.95	.....	13.30	.....
TI-1144	TI	17.40	.....	11.60	.....
TI-1145	TI	14.85	.....	9.90	.....
TI-1146	TI	12.75	.....	8.50	.....
TI-1151	TI	22.95	.....	15.30	.....
TI-1152	TI	21.15	.....	14.10	.....
TI-1153	TI	18.70	.....	13.80	.....
TI-1154	TI	18.15	.....	12.10	.....
TI-1155	TI	15.60	.....	10.40	.....
TI-1156	TI	13.50	.....	9.00	.....
TI-130/					
2N1600	TI	5.10	.....	3.40	.....
TI-131/					
2N1601	TI	5.70	.....	3.45	.....
TI-3010	TI	1.73	.....	1.30	.....
TI-3011	TI	1.93	.....	1.45	.....
TI-3012	TI	2.15	.....	1.60	.....
TI-3013	TI	2.93	.....	2.20	.....
TI-3014	TI	4.66	.....	3.50	.....
TI-3027	TI	1.35	.....	.80	.....
TI-3028	TI	1.45	.....	.95	.....
TI-3029	TI	1.65	.....	1.10	.....
TI-3030	TI	1.90	.....	1.25	.....
TI-3031	TI	2.05	.....	1.35	.....
TI-3042	TI	44.65	.....	29.75	.....
TI-395	TI	.66	.....	.44	.....

Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
TI-407	TI	.59	.....	.39	.....
TI-408	TI	.57	.....	.38	.....
TI-409	TI	.54	.....	.36	.....
TI-40A0	TI	1.70	.....	1.18	.....
TI-40A1	TI	1.85	.....	1.28	.....
TI-40A2	TI	2.05	.....	1.52	.....
TI-40A4	TI	5.50	.....	3.55	.....
TI-42	TI	.87	.....	.58	.....
TI-43	TI	1.02	.....	.68	.....
Type No.	Mfr.	1-24	25-99	100-up	1000-up
TI-C01	TI	126.00	97.00	84.00	.....
TI-C02	TI	156.00	124.00	103.00	.....
TI-C03	TI	212.00	169.00	129.00	.....
TI-C04	TI	239.00	188.00	157.00	.....
TI-C05	TI	432.00	327.00	279.00	.....
Type No.	Mfr.	1-99	100-Mix	100-999	1000-up
T110	TI	.68	.....	.56	.....
T1140A0	TI	4.65	.....	3.10	.....
T1140A2	TI	6.30	.....	4.20	.....
T1140A3	TI	8.70	.....	5.80	.....
T1140A4	TI	10.30	.....	6.85	.....
T1145A0	TI	1.60	.....	1.10	.....
T1141A1	TI	1.75	.....	1.25	.....
T1145A2	TI	1.95	.....	1.35	.....
T1156	TI	2.25	.....	1.50	.....
T1156L	TI	2.40	.....	1.60	.....
T1158	TI	3.00	.....	2.00	.....
T1158A	TI	3.30	2.20
T1158AL	TI	2.62	1.75
T1158L	TI	3.00	2.00
T1159	TI	3.90	2.60
T1160	TI	3.90			

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KEY TO SEMICONDUCTOR MANUFACTURERS

AMP —Amperex	HOF —Hoffman	RCA —Radio Corp. of America	SYL —Sylvania
BE —Bendix	HUG —Hughes Aircraft	RAY —Raytheon	TI —Texas Instruments
GE —General Electric	INT —International Rectifier	SAR —Sarkes-Tarzian	WES —Westinghouse
GI —General Instrument	MOT —Motorola	SPR —Sprague	

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
TIC12	TI	9.60	.....	6.40	.....
TIC13	TI	12.50	.....	8.35	.....
TIC20	TI	6.82	.....	4.55	.....
TIC21	TI	7.50	.....	5.00	.....
TIC22	TI	6.98	.....	4.65	.....
TIC23	TI	7.66	.....	5.11	.....
TID12	TI	4.00	.....	2.60	.....
TID13	TI	3.75	.....	2.35	.....
TID14	TI	3.50	.....	2.10	.....
TID15	TI	3.25	.....	1.90	.....
TID16	TI	2.35	.....	1.80	.....
TID31	TI	3.40	.....	2.28	.....
TID32	TI	3.00	.....	1.95	.....
TID33	TI	2.81	.....	1.76	.....
TID34	TI	2.63	.....	1.58	.....
TID35	TI	2.44	.....	1.43	.....
TID36	TI	1.76	.....	1.35	.....
TID37	TI	1.76	.....	1.35	.....
TIG05	TI	3.90	.....	2.90	.....
TIG06	TI	4.85	.....	3.70	.....
TIG08	TI	4.40	.....	3.15	.....
TIG10	TI	5.75	.....	4.15	.....
TIP24	TI	1.50	.....	.95	.....
TIP14	TI	1.50	.....	.95	.....
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
TIS-22	TI	4.20	.....	2.80	.....
TIS-23	TI	5.65	.....	3.10	.....
TIS-24	TI	6.45	.....	4.30	.....
TIS03/					
2N3702	TI	.45	.....	.30	.....
TIS04/					
2N3703	TI	.49	.....	.33	.....
TIS05	TI	30.00	.....	20.00	.....
TIS25	TI	34.60	.....	22.50	.....
TIS26	TI	32.70	.....	21.80	.....
TIS27	TI	30.15	.....	20.50	.....
TIS34	TI	3.45	.....	2.60	.....
TIS43	TI	1.08	.....	.72	.....
TIV-300	TI	1.00	.....	.80	.....
TIV-301	TI	1.00	.....	.80	.....
TIV-302	TI	1.25	.....	1.00	.....
TIV-303	TI	1.25	.....	1.00	.....
TIX317	TI	5.80	.....	3.90	.....
TIX318	TI	6.80	.....	4.55	.....
TIX93	TI	11.10	.....	7.40	.....
TIX94	TI	14.78	.....	9.85	.....
TIX-155	TI	74.25	.....	49.75	.....
TIX-210/					
2N3551	TI	100.00	.....	67.50	.....
TIX-211/					
2N3552	TI	112.50	.....	75.00	.....
TIX-440	TI	12.75	.....	8.50	.....
TIX-441	TI	16.10	.....	10.75	.....
TIX-442	TI	20.25	.....	13.50	.....
TIX3024	TI	52.50	.....	35.00	.....
TIX3033	TI	20.60	.....	13.75	.....
TIX3034	TI	28.35	.....	18.90	.....
TIX3035	TI	23.35	.....	16.90	.....
TIX3036	TI	33.00	.....	22.00	.....
Type No.	Mfr.	1-99	10-99	100-999	1000-up
TIXD-17	TI	4.38	2.92	2.10	1.60
TIXD-18	TI	3.10	2.05	1.50	1.15
TIXD-19	TI	4.38	2.92	2.10	1.60
TIXD-20	TI	3.10	2.05	1.50	1.15
TIXD21	TI	25.00	16.80	12.10	9.15
TIXD22	TI	22.50	15.00	11.00	8.25

Type No.	Mfr.	1-99	10-99	100-999	1000-up
TIXD23	TI	25.00	16.80	12.10	9.15
TIXD24	TI	22.50	15.00	11.00	8.25
TIXD25	TI	54.00	36.00	26.20	20.00
TIXD26	TI	46.50	31.00	22.50	17.10
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
TIXM-201	TI	.47	.....	.31	.....
TIXM-202	TI	.41	.....	.27	.....
TIXM-203	TI	.39	.....	.26	.....
TIXM-204	TI	.41	.....	.21	.....
TIXM-205	TI	.38	.....	.25	.....
TIXM-206	TI	.38	.....	.25	.....
TIXM01	TI	.92	.....	.61	.....
TIXM02	TI	.92	.....	.61	.....
TIXM03	TI	.92	.....	.61	.....
TIXM04	TI	.92	.....	.61	.....
TIXM05	TI	.52	.....	.35	.....
TIXM06	TI	.92	.....	.61	.....
TIXM07	TI	.92	.....	.61	.....
TIXM08	TI	.92	.....	.61	.....
TIXM10	TI	.92	.....	.61	.....
TIXP07	TI	85.00	.....	59.90	.....
Type No.	Mfr.	1-24	25-99	100-up	
TIXS09	TI	35.00	29.40	19.60	.....
TIXS10	TI	15.00	11.85	7.90	.....
Type No.	Mfr.	1-99	10-99	100-999	1000-up
TIXV01	TI	125.00	100.00	90.00	.....
TIXV02	TI	150.00	120.00	100.00	.....
TIXV03	TI	225.00	200.00	175.00	.....
TIXV04	TI	525.00	475.00	375.00	.....
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
TN-238	SPR	.75	.....	.50	.....
TN-53	SPR	.95	.....	.63	.....
TN-54	SPR	.95	.....	.63	.....
TN-55	SPR	1.35	.....	.90	.....
TN-56	SPR	1.35	.....	.90	.....
TN-59	SPR	.75	.....	.50	.....
TN-60	SPR	.75	.....	.50	.....
TN-61	SPR	.65	.....	.43	.....
TN-62	SPR	.65	.....	.43	.....
TN-63	SPR	.45	.....	.30	.....
TN-64	SPR	.45	.....	.30	.....
TN237	SPR	.75	.....	.50	.....
TN-238	SPR	.75	.....	.50	.....
TN57	SPR	.85	.....	.56	.....
TN58	SPR	.85	.....	.56	.....
TQ-55	SPR	2.95	.....	1.95	.....
TQ-56	SPR	2.95	.....	1.95	.....
TQ-59	SPR	1.45	.....	.90	.....
TQ-60	SPR	1.45	.....	.90	.....
TQ-61	SPR	1.20	.....	.80	.....
TQ-62	SPR	1.20	.....	.80	.....
TQ-63	SPR	.83	.....	.55	.....
TQ-64	SPR	.83	.....	.55	.....
TW-135	SPR	7.10	.....	4.75	.....
U212	TI	.49	.....	.33	.....
U213	TI	.67	.....	.45	.....
U214	TI	.87	.....	.58	.....
US-0100B	SPR	26.85	.....	NET	.....
US-0101B	SPR	29.55	.....	NET	.....
US-0102B	SPR	21.20	.....	NET	.....
US-0103B	SPR	23.30	.....	NET	.....
US-0104B	SPR	21.20	.....	NET	.....
US-0105B	SPR	21.20	.....	NET	.....

Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
US-0106B	SPR	21.20	NET	.....	.....
US-0107B	SPR	28.00	NET	.....	.....
US-0108B	SPR	28.00	NET	.....	.....
US-0109B	SPR	28.00	NET	.....	.....
US-0110C	SPR	27.70	NET	.....	.....
US-0111C	SPR	30.50	NET	.....	.....
US-0112C	SPR	21.90	NET	.....	.....
US-0113C	SPR	24.10	NTT	.....	.....
US720J	SPR	15.60	12.50	10.95	10.40
Type No.	Mfr.	1-24	25-99	100-999	100 Mix
US721J	SPR	15.60	12.50	10.95	10.40
US727J	SPR	15.60	12.50	10.95	10.40
US729J	SPR	18.60	14.90	13.10	12.40
US730J	SPR	14.10	11.25	9.90	9.40
US731J	SPR	8.00	6.40	5.65	5.35
US732J	SPR	8.00	6.40	5.65	5.35
Type No.	Mfr.	1-99	10-99	100-999	1000-up
V100HF	INT	5.50	3.85	3.30	.....
V125HF	INT	6.85	4.80	4.11	.....
V150HF	INT	7.75	5.42	4.65	.....
V175HF	INT	9.10	6.37	5.46	.....
V50HF	INT	3.43	2.40	2.06	.....
V75HF	INT	4.60	3.22	2.76	.....
Type No.	Mfr.	1-24	25-99	100-up	
VR-10A	SAR	1.60	.86	.80	.....
VR-20A	SAR	1.00	.86	.80	.....
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
W463A	TI	3.35	.....	2.25	.....
W463B	TI	5.85	.....	3.90	.....
W463C	TI	7.25	.....	4.90	.....
W463D	TI	9.75	.....	6.50	.....
W463E	TI	11.85	.....	7.90	.....
W463F	TI	15.00	.....	10.00	.....
X-150 KITS	HOF	4.95	NET	.....	.....
X-200 KITS	HOF	9.95	NET	.....	.....
XA587	TI	13.00	.....	10.00	.....
Type No.	Mfr.	1-24	25-99	100-up	
XC63	MOT	150.00	125.00	100.00	.....
XC72	MOT	250.00	225.00	200.00	.....
Type No.	Mfr.	1-99	100 Mix	100-999	1000-up
XH-100					
KIT	GI	10.00	.....	7.50	.....
Z4XL12	GE	.75	.....	.50	.....
Z4XL14	GE	.75	.....	.50	.....
Z4XL16	GE	.75	.....	.50	.....
Z4XL18	GE	.75	.....	.50	.....
Z4XL18B	GE	.84	.....	.56	.....
Z4XL20	GE	.75	.....	.50	.....
Z4XL22	GE	.75	.....	.50	.....
Z4XL22B	GE	.84	.....	.56	.....
Z4XL6.2	GE	.75	.....	.50	.....
Z4XL9.1	GE	.75	.....	.50	.....
Z4XL7.5	GE	.75	.....	.50	.....
ZJ291B/					
SC46B	GE	3.87	.....	2.58	.....
ZRS1/					
IN1735	HOF	6.20	5.60	4.65	.....
ZRS3/					
IN1737	HOF	13.00	11.70	9.80	.....

SEMICONDUCTOR GUIDE IS CURRENT AS OF AUGUST 15, 1966.
PRICES FOR QUANTITIES ARE COMPETITIVE WITH THE MANUFACTURER
OEM PRICES. ORDERS WILL BE BILLED AT PRICES IN
EFFECT AT THE TIME OF SHIPMENT.

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Type No.	Mfr.	Mil. Spec.	1-99	100-999 Mix	100-up Sgls.
JAN 1N93A	GE	S-19500/293A	3.45	2.30
JAN 1N128	GI	E-1/158B	.32	.....	.25
JAN 1N198	GI	S-19500/109	.35	.....	.28
JAN 1N249B	WES	S-19500/134A	2.45	.....	1.69
USA 1N249B	RCA	S-19500/134	2.89	.....	2.00
JAN 1N250B	WES	S-19500/134A	3.63	.....	2.42
USA 1N250B	RCA	SN19500/134	3.55	.....	2.45
JAN 1N251	GE	S-19500/188A	.72	.....	.48
JAN 1N251	RAY	S-19500/1364	1.10	.....	.75
JAN 1N251	SYL	S-19500/188A	.72	.....	.48
JAN 1N251	TI	S-19500/188A	1.52	.....	1.07
JAN 1N253	GI	S-19500/194A	1.25	.....	.83
JAN 1N253	TI	S-19500/194A	1.25	.....	.83
JAN 1N254	GI	S-19500/194A	1.34	.....	.89
JAN 1N254	TI	S-19500/194A	1.34	.....	.89
JAN 1N255	GI	S-19500/194A	2.06	.....	1.37
JAN 1N255	TI	S-19500/194A	2.06	.....	1.37
JAN 1N256	GI	S-19500/194A	2.64	.....	1.73
JAN 1N256	TI	S-19500/194A	2.66	.....	1.76
JAN 1N270	GI	S-19500/200	.32	.....	.25
JAN 1N270	SYL	S-19500/200	.32	.....	.25
JAN 1N276	GI	S-19500/192	.31	.....	.24
JAN 1N276	SYL	S-19500/192	.31	.....	.24
JAN 1N277	GI	S-19500/201	.34	.....	.26
JAN 1N277	SYL	S-19500/201	.34	.....	.26
JAN 1N281	GI	E-1/961	.31	.....	.24
USAF 1N429	MOT	S-19500/299	7.30	6.30	5.50
USAF 1N429	HOF	E-1/1143	7.25	6.55	5.50
USN 1N430	HOF	E-1/1060	16.00	14.40	12.45
JAN 1N457	GI	S-19500/193A	.45	.....	.30
JAN 1N457	RAY	S-19500/1132	.44	.35	.....
JAN 1N457	SYL	S-19500/193A	.45	.....	.30
JAN 1N457	TI	S-19500/193A	.45	.....	.30
JAN 1N458	GI	S-19500/193A	.48	.....	.32
JAN 1N458	RAY	S-19500/1132	.50	.....	.38
JAN 1N458	SYL	S-19500/193A	.48	.....	.32
JAN 1N458	TI	S-19500/193A	.51	.....	.40
JAN 1N459	GI	S-19500/193A	.51	.....	.34
JAN 1N459	RAY	S-19500/1132	.66	.....	.51
JAN 1N459	SYL	S-19500/193A	.51	.....	.34
JAN 1N459	TI	S-19500/193A	.66	.....	.51
JAN 1N483B	RAY	S-19500/2-61	.61	.....	.47
USN 1N483B	GI	S-19500/118A	.61	.....	.47
JAN 1N485B	RAY	S-19500/2-61	.90	.....	.60
JAN 1N486B	RAY	S-19500/2-61	1.25	.....	.98
USN 1N486B	GI	S-19500/118A	1.20	.....	.90
JAN 1N538	GI	S-202A	.72	.....	.48
JAN 1N538	GE	S-19500/202A	.72	.....	.48
JAN 1N540	GI	S-202A	.90	.....	.60
JAN 1N540	GE	S-19500/202A	.90	.....	.60
JAN 1N547	GI	S-202A	1.28	.....	.85
JAN 1N547	GE	S-19500/202A	1.28	.....	.85
JAN 1N643	RAY	S-19500/329	1.33	.....	1.00
JAN 1N643	TI	S-19500/265B	1.50	.....	1.04
USA 1N643	GI	E-1/1171	1.50	.....	1.00
AF 1N645	TI	E-1/1143	1.55	.....	.98
JAN 1N645	GI	S-19500/240A	2.07	.....	1.33
JAN 1N645	GE	S-19500/240B	2.40	.....	1.60
JAN 1N645	TI	S-19500/240A	1.55	.....	1.00
USAF 1N645	GI	E-1/1143	1.40	.....	.85
USAF 1N646	TI	E-1/1143	1.85	.....	1.25
USAF 1N646	GI	E-1/1143	1.80	.....	1.20
AF 1N647	TI	E-1/1143	2.05	.....	1.35
JAN 1N647	GI	S-19500/240A	3.75	.....	2.50
JAN 1N647	GE	S-19500/240B	4.05	.....	2.70
USAF 1N647	GI	E-1/1143	1.95	.....	1.30
AF 1N648	TI	E-1/1143	2.15	.....	1.45
USAF 1N648	GI	E-1/1143	2.10	.....	1.40
AF 1N649	TI	E-1/1143	3.00	.....	2.43
JAN 1N649	GI	S-19500/240A	5.00	.....	3.00
JAN 1N649	GE	S-19500/240B	5.25	.....	3.50
USAF 1N649	GI	E-1/1143	2.59	.....	1.69
JAN 1N658	RAY	S-6700	1.80	.....	1.20
USA 1N658	GI	E-1/1160	1.76	.....	1.29
USN 1N658	SYL	S19500/127EL	1.76	.....	1.20
JAN 1N682	RAY	S-19500/329	.92	.....	.44
JAN 1N682	SYL	S-19500/329	1.00	.....	.78
JAN 1N682	TI	S-19500/256B	1.14	.....	.80
USA 1N682	GI	S-256A	.90	.....	.60
JAN 1N683	RAY	S-19500/329	1.35	.....	1.05
JAN 1N683	SYL	S-19500/256B	1.20	.....	.80
JAN 1N746A	MOT	S-19500/127C	2.95	2.55	2.20
JAN 1N746A	TI	S-19500/127D	2.15	.....	1.65
USN 1N746A	GI	S-19500/127B	2.95	.....	2.20
JAN 1N746A	MOT	S-19500/127D	2.95	2.55	2.20
JAN 1N747A	MOT	S-19500/127C	2.95	2.55	2.20
JAN 1N747A	TI	S-19500/127D	2.15	.....	1.65
USN 1N747A	GI	S-19500/127B	2.95	.....	2.20
USN 1N747A	HOF	S-19500/127C	2.20	.....	1.75
USN 1N747A	MOT	S-19500/127D	2.95	2.55	2.20
JAN 1N748A	MOT	S-19500/127C	2.95	2.55	2.20
JAN 1N748A	TI	S-19500/127D	2.15	.....	1.65
JAN 1N748A	GI	S-19500/127B	2.95	.....	2.20

Type No.	Mfr.	Mil. Spec.	1-99	100-999 Mix	100-up Sgls.
USN 1N748A	HOF	S-19500/127C	2.20	.....	1.75
USN 1N748A	MOT	S-19500/127D	2.95	2.55	2.20
JAN 1N749A	MOT	S-19500/127C	2.95	2.55	2.20
JAN 1N749A	TI	S-19500/127D	2.15	.....	1.65
USN 1N749A	GI	S-19500/127B	2.95	.....	2.20
USN 1N749A	HOF	S-19500/127C	2.20	.....	1.75
USN 1N749A	MOT	S-19500/127D	2.95	2.55	2.20
JAN 1N750A	MOT	S-19500/127C	2.95	2.55	2.20
JAN 1N750A	TI	S-19500/127D	2.15	.....	1.65
USN 1N750A	GI	S-19500/127B	2.95	.....	2.20
USN 1N750A	HOF	S-19500/127C	2.20	.....	1.75
USN 1N750A	MOT	S-19500/127D	2.95	2.55	2.20
JAN 1N751A	MOT	S-19500/127C	2.95	2.55	2.20
JAN 1N751A	TI	S-19500/127D	2.15	.....	1.65
USN 1N751A	GI	S-19500/127B	2.95	.....	2.20
USN 1N751A	HOF	S-19500/127C	2.20	.....	1.75
USN 1N751A	MOT	S-19500/127D	2.95	2.55	2.20
JAN 1N752A	MOT	S-19500/127C	2.95	2.55	2.20
JAN 1N752A	TI	S-19500/127D	2.15	.....	1.65
USN 1N752A	GI	S-19500/127B	2.95	.....	2.20
USN 1N752A	HOF	S-19500/127C	2.20	.....	1.75
USN 1N752A	MOT	S-19500/127D	2.95	2.55	2.20
JAN 1N753A	MOT	S-19500/127C	2.95	2.55	2.20
JAN 1N753A	TI	S-19500/127D	2.15	.....	1.65
USN 1N753A	GI	S-19500/127B	2.95	.....	2.20
USN 1N753A	HOF	S-19500/127C	2.20	.....	1.75
USN 1N753A	MOT	S-19500/127D	2.95	2.55	2.20
JAN 1N754A	MOT	S-19500/127C	2.95	2.55	2.20
JAN 1N754A	TI	S-19500/127D	2.15	.....	1.65
USN 1N754A	GI	S-19500/127B	2.95	.....	2.20
USN 1N754A	HOF	S-19500/127C	2.20	.....	1.75
USN 1N754A	MOT	S-19500/127D	2.95	2.55	2.20
JAN 1N755A	MOT	S-19500/127C	2.95	2.55	2.20
JAN 1N755A	TI	S-19500/127D	2.15	.....	1.65
USN 1N755A	GI	S-19500/127B	2.95	.....	2.20
USN 1N755A	HOF	S-19500/127C	2.20	.....	1.75
USN 1N755A	MOT	S-19500/127D	2.95	2.55	2.20
JAN 1N756A	MOT	S-19500/127C	2.95	2.55	2.20
JAN 1N756A	TI	S-19500/127D	2.15	.....	1.65
USN 1N756A	GI	S-19500/127B	2.95	.....	2.20
USN 1N756A	HOF	S-19500/127C	2.20	.....	1.75
USN 1N756A	MOT	S-19500/127D	2.95	2.55	2.20
JAN 1N757A	MOT	S-19500/127C	2.95	2.55	2.20
JAN 1N757A	TI	S-19500/127D	2.15	.....	1.65
USN 1N757A	GI	S-19500/127B	2.95	.....	2.20
USN 1N757A	HOF	S-19500/127C	2.20	.....	1.75
USN 1N757A	MOT	S-19500/127D	2.95	2.55	2.20
JAN 1N758A	MOT	S-19500/127C	2.95	2.55	2.20
JAN 1N758A	TI	S-19500/127D	2.15	.....	1.65
USN 1N758A	GI	S-19500/127B	2.95	.....	2.20
USN 1N758A	HOF	S-19500/127C	2.20	.....	1.75
USN 1N758A	MOT	S-19500/127D	2.95	2.55	2.20
JAN 1N759A	MOT	S-19500/127C	2.95	2.55	2.20
JAN 1N759A	TI	S-19500/127D	2.15	.....	1.65
USN 1N759A	GI	S-19500/127B	2.95	.....	2.20
USN 1N759A	HOF	S-19500/127C	2.20	.....	1.75
USN 1N759A	MOT	S-19500/127D	2.95	2.55	2.20
USN 1N816W	SYL	S-19500/199	.52	.....	.35
USN 1N821	HOF	S-19500/127C	5.60	.....	4.50

Type No.	Mfr.	Mil. Spec.	1-24	25-99	100-up
USN 1N821	MOT	S-19500/159B	2.95	2.55	2.25
JAN 1N823	MOT	S-19500/159B	4.35	3.75	3.30
USN 1N823	MOT	S-19500/159B	4.35	3.75	3.30
JAN 1N825	MOT	S-19500/159B	7.10	6.10	5.40
USN 1N825	MOT	S-19500/159B	7.10	6.10	5.40
JAN 1N827	MOT	S-19500/159B	14.50	12.50	11.00
USN 1N827	MOT	S-19500/159B	14.50	12.50	11.00
JAN 1N829	MOT	S-19500/159B	28.25	24.35	21.45
USN 1N829	MOT	S-19500/159B	28.25	24.35	21.45

Type No.	Mfr.	Mil. Spec.	1-9	10-99	100-up
USN 1N830A	SYL	S-19500/299	3.85	3.30	3.00
JAN 1N914	GE	S119500/116B	.45	.45	.30
JAN 1N914	TI	S119500/116B	.45	.45	.30

Type No.	Mfr.	Mil. Spec.	1-24	25-99	100-up
JAN 1N935B	MOT	S-19500/156C	5.30	4.55	4.00
USN 1N935B	MOT	S-19500/156C	5.30	4.55	4.00
JAN 1N937B	MOT	S-19500/156C	9.30	8.00	7.05
USN 1N937B	MOT	S-19500/156C	9.30	8.00	7.05
JAN 1N938B	MOT	S-19500/156C	13.35	11.75	10.35
USN 1N938B	MOT	S-19500/156C	13.35	11.75	10.35
JAN 1N939B	MOT	S-19500/156C	29.80	26.70	23.50
USN 1N939B	MOT	S-19500/156C	29.80	26.70	23.50
JAN 1N941B	MOT	S-19500/157D	7.45	6.70	5.90
USN 1N941B	MOT	S-19500/157D	7.45	6.70	5.90
JAN 1N943B	MOT	S-19500/157D	12.80	11.55	10.15
USN 1N943B	MOT	S-19500/157D	12.80	11.55	10.15
JAN 1N944B	MOT	S-19500/157D	17.30	15.60	13.75
USN 1N944B	MOT	S-19500/157D	17.30	15.60	13.75

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Type No.	Mfr.	Mil. Spec.	1-99	100-999 Mix	100-up Sgls.	Type No.	Mfr.	Mil. Spec.	1-99	100-999 Mix	100-up Sgls.
JAN 1N962B	MOT	S-19500/117B	3.50	3.05	2.65	USN 1N986B	GI	S-19500/117B	4.50	.....	3.35
JAN 1N962B	TI	S-19500/117C	1.70	.....	1.20	USN 1N987B	GI	S-19500/117B	4.50	.....	3.35
USN 1N962B	GI	S-19500/117B	3.50	.....	2.65	USN 1N988B	GI	S-19500/117B	4.50	.....	3.35
USN 1N962B	HOF	S-19500/159	3.60	3.24	2.65	USN 1N989B	GI	S-19500/117B	4.50	.....	3.35
USN 1N962B	MOT	S-19500/117B	3.50	3.05	2.65	USN 1N990B	GI	S-19500/117B	4.50	.....	3.35
JAN 1N963B	MOT	S-19500/117B	3.50	3.05	2.65	USN 1N991B	GI	S-19500/117B	4.50	.....	3.35
JAN 1N963B	TI	S-19500/117C	1.70	.....	1.20	USN 1N992B	GI	S-19500/117B	4.50	.....	3.35
USN 1N963B	GI	S-19500/117B	3.50	.....	2.65	USN 1N124A	TI	S-19500/104B	3.37	.....	2.25
USN 1N963B	HOF	S-19500/117B	3.60	3.24	2.65	USN 1N124A	BEN	S-19500/104B	3.35	.....	2.25
USN 1N963B	MOT	S-19500/117B	3.50	3.05	2.65	USN 1N126A	TI	S-19500/104B	5.25	.....	3.50
JAN 1N964	MOT	S-19500/258A	2.71	.....	1.81	USN 1N126A	BEN	S-19500/104B	5.25	.....	3.50
JAN 1N964	TI	S-19500/258A	1.27	.....	.85	USN 1N128A	BEN	S-19500/104B	7.50	.....	5.00
USN 1N964	MOT	S-19500/258A	2.71	.....	1.81	USN 1N128T	TI	S-19500/104B	7.50	.....	5.00
USN 1N964	SYL	S-19500/25B	1.65	.....	1.10	JAN 1N1130	TI	S-19500/259A	7.03	.....	4.69
JAN 1N964B	MOT	S-19500/117B	3.50	3.05	2.65	JAN 1N1131	TI	S-19500/259A	7.03	.....	4.69
JAN 1N964B	TI	S-19500/117C	1.70	.....	1.20	JAN 1N1184	WES	S-19500/297	3.70	.....	2.47
USN 1N964B	GI	S-19500/117B	3.50	.....	2.65	USAF 1N1184	RCA	E-1/1135	3.75	.....	2.50
USN 1N964B	HOF	S-19500/117B	3.60	3.24	2.65	JAN 1N1186	WES	S-19500/297	5.60	.....	4.30
USN 1N964B	MOT	S-19500/117B	3.50	3.05	2.65	USAF 1N1186	RCA	E-1/1135	5.20	.....	3.47
JAN 1N965B	MOT	S-19500/117B	3.50	3.05	2.65	JAN 1N1188	WES	S-19500/297	8.85	.....	6.18
JAN 1N965B	TI	S-19500/117C	1.70	.....	1.20	USAF 1N1188	RCA	E1-1135	7.84	.....	5.23
USN 1N965B	GI	S-19500/117B	3.50	.....	2.65	JAN 1N1190	WES	S-19500/297	12.05	.....	8.05
USN 1N965B	HOF	S-19500/117B	3.60	3.24	2.65	USAF 1N1190	RCA	E-1/1135	11.55	.....	8.00
USN 1N965B	MOT	S-19500/117B	3.50	3.05	2.65	JAN 1N188A	RCA	E-1/1108	7.84	.....	5.42
JAN 1N966B	MOT	S-19500/117B	3.50	3.05	2.65	USAF 1N1199	BEN	E-1108	1.90	.....	1.31
JAN 1N966B	TI	S-19500/117C	1.70	.....	1.20	USAF 1N1200	BEN	E-1108	2.15	.....	1.48
USN 1N966B	GI	S-19500/117B	3.50	.....	2.65	USAF 1N1201	BEN	E-1108	2.64	.....	1.82
USN 1N966B	MOT	S-19500/117B	3.50	3.05	2.65	USAF 1N1202	GE	E-1108	3.14	.....	2.17
JAN 1N967B	MOT	S-19500/117B	3.50	3.05	2.65	JAN 1N1202	BEN	S-19500/260	3.96	.....	2.64
JAN 1N967B	TI	S-19500/117C	1.70	.....	1.20	JAN 1N1202	BEN	E-1/1108	3.96	.....	2.64
USN 1N967B	GI	S-19500/117B	3.50	.....	2.65	USAF 1N1203	BEN	E-1108	4.29	.....	2.96
USN 1N967B	MOT	S-19500/117B	3.50	3.05	2.65	USAF 1N1204	BEN	E-1108	5.28	.....	3.65
JAN 1N968B	MOT	S-19500/117B	3.50	3.05	2.65	JAN 1N1204	BEN	S-19500/260	5.55	.....	3.70
JAN 1N968B	TI	SN19500/117C	1.70	.....	1.20	JAN 1N1204	BEN	E-1/1108	5.55	.....	3.70
USN 1N968B	GI	S-19500/117B	3.50	.....	2.65	USAF 1N1204	WES	E-1/1108	5.28	.....	6.52
USN 1N968B	HOF	S-19500/117	3.60	3.24	2.65	USAF 1N1205	BEN	E-1108	6.19	.....	4.28
USN 1N968B	MOT	S-19500/117B	3.50	3.05	2.65	USAF 1N1206	BEN	E-1108	7.01	.....	4.85
JAN 1N969B	MOT	S-19500/117B	3.50	3.05	2.65	JAN 1N1206	BEN	S-19500/260	8.25	.....	5.50
JAN 1N969B	TI	SN19500/117C	1.70	.....	1.20	JAN 1N1206	WES	S-19500/260	8.25	.....	5.50
USN 1N969B	GI	S-19500/117B	3.50	.....	2.65	USA 1N1614	BEN	S-19500/162A (EL)	3.03	.....	2.02
USN 1N969B	HOF	S-19500/117A	3.60	3.24	2.65	USA 1N1615	BEN	S-19500/162A (EL)	5.25	.....	3.50
USN 1N969B	MOT	S-19500/117B	3.50	3.05	2.65	USA 1N1616	BEN	S-19500/162A (EL)	7.15	.....	4.77
JAN 1N970B	MOT	S-19500/117B	3.50	3.05	2.65	USA 1N1731	GI	S-19500/142	5.80	.....	4.20
JAN 1N970B	TI	SN19500/117C	1.70	.....	1.20	USA 1N1733	GI	S-19500/142	8.75	.....	6.35
USN 1N970B	GI	S-19500/117B	3.50	.....	2.65	USA 1N1734	GI	S-19500/142	13.70	.....	9.95
USN 1N970B	HOF	S-19500/117A	3.60	3.24	2.65	USN 1N1816A	TI	E-1/1259	8.05	.....	6.70
USN 1N970B	MOT	S-19500/117B	3.50	3.05	2.65	USN 1N1817A	TI	E-1/1259	8.05	.....	6.70
JAN 1N971B	MOT	S-19500/117B	3.50	3.05	2.95	USN 1N1818A	TI	E-1/1259	8.05	.....	6.70
JAN 1N971B	TI	SN19500/117C	1.70	.....	1.20	USN 1N1819A	TI	E-1/1259	8.05	.....	6.70
USN 1N971B	GI	S-19500/117B	3.50	.....	2.65	USN 1N1820A	TI	E-1/1259	8.05	.....	6.70
USN 1N971B	HOF	S-19500/117B	3.60	3.24	2.65	USN 1N1821A	TI	E-1/1259	8.05	.....	6.70
USN 1N971B	MOT	S-19500/117B	3.50	3.05	2.65	USN 1N1822A	TI	E-1/1259	8.05	.....	6.70
JAN 1N972B	MOT	S-19500/117B	4.00	3.45	3.00	USN 1N1823A	TI	E-1/1259	8.05	.....	6.70
JAN 1N972B	TI	S-19500/117C	1.70	.....	1.20	USN 1N1824A	TI	E-1/1259	8.05	.....	6.70
USN 1N972B	GI	S-19500/117B	3.60	.....	3.00	USN 1N1825A	TI	E-1/1259	8.05	.....	6.70
USN 1N972B	HOF	S-19500/117A	4.00	3.60	3.00	USN 1N1826A	TI	E-1/1259	8.05	.....	6.70
USN 1N972B	MOT	S-19500/177B	4.00	3.45	3.00	USN 1N1827A	TI	E-1/1259	8.05	.....	6.70
JAN 1N973B	MOT	S-19500/177B	4.00	3.45	3.00	USN 1N1828A	TI	E-1/1259	8.05	.....	6.70
JAN 1N973B	TI	S-19500/117C	1.70	.....	1.20	USN 1N1829A	TI	E-1/1259	8.05	.....	6.70
USN 1N973B	GI	S-19500/117B	3.60	.....	3.00	USN 1N1830A	TI	E-1/1259	8.05	.....	6.70
USN 1N973B	HOF	S-19500/117A	3.60	3.24	2.65	USN 1N1830R	TI	E-1/1259	8.05	.....	6.70
USN 1N973B	MOT	S-19500/117B	4.00	3.45	3.00	USN 1N1831A	TI	E-1/1259	8.05	.....	6.70
JAN 1N974B	MOT	S-19500/117B	4.00	3.45	3.00	USN 1N1832A	TI	E-1/1259	8.05	.....	6.70
USN 1N974B	GI	S-19500/117B	3.60	.....	3.00	USN 1N1833A	TI	E-1/1259	8.05	.....	6.70
USN 1N974B	MOT	S-19500/117B	4.00	3.45	3.00	USN 1N1834A	TI	E-1/1259	8.05	.....	6.70
JAN 1N975B	MOT	S-19500/117B	4.00	3.45	3.00	USN 1N1835A	TI	E-1/1259	8.05	.....	6.70
USN 1N975B	GI	S-19500/117B	3.60	.....	3.00	USN 1N1836A	TI	E-1/1259	8.05	.....	6.70
USN 1N975B	MOT	S-19500/117B	4.00	3.45	3.00	JAN 1N2135A	WES	S-19500/134A	7.10	.....	4.80
JAN 1N976B	MOT	S-19500/117B	4.00	3.45	3.00	USA 1N2135A	RCA	S-19500/134	6.11	.....	4.22
USN 1N976B	GI	S-19500/117B	3.60	.....	3.00	USN 1N2804B	MOT	S-19500/114A	14.65	12.65	11.00
USN 1N976B	MOT	S-19500/117B	4.00	3.45	3.00	USN 1N2805B	MOT	S-19500/114A	14.65	12.65	11.00
JAN 1N977B	MOT	S-19500/117B	4.00	3.45	3.00	USN 1N2806B	MOT	S-19500/114A	14.65	12.65	11.00
USN 1N977B	GI	S-19500/117B	3.60	.....	3.00	USN 1N2807B	MOT	S-19500/114A	14.65	12.65	11.00
USN 1N977B	MOT	S-19500/117B	4.00	3.45	3.00	USN 1N2808B	MOT	S-19500/114A	14.65	12.65	11.00
JAN 1N978B	MOT	S-19500/117B	4.00	3.45	3.00	USN 1N2809B	MOT	S-19500/114A	14.65	12.65	11.00
USN 1N978B	GI	S-19500/117B	3.60	.....	3.00	USN 1N2810B	MOT	S-19500/114A	14.65	12.65	11.00
USN 1N978B	MOT	S-19500/117B	4.00	3.45	3.00	USN 1N2811B	MOT	S-19500/114A	14.65	12.65	11.00
JAN 1N979B	MOT	S-19500/117B	4.00	3.45	3.00	USN 1N2812B	MOT	S-19500/114A	14.65	12.65	11.00
USN 1N979B	GI	S-19500/117B	3.60	.....	3.00	USN 1N2813B	MOT	S-19500/114A	14.65	12.65	11.00
USN 1N979B	MOT	S-19500/117B	4.00	3.45	3.00	USN 1N2814B	MOT	S-19500/114A	14.65	12.65	11.00
JAN 1N980B	MOT	S-19500/117B	4.00	3.45	3.00	USN 1N2815B	MOT	S-19500/114A	14.65	12.65	11.00
USN 1N980B	GI	S-19500/117B	3.60	.....	3.00	USN 1N2816B	MOT	S-19500/114A	14.65	12.65	11.00
USN 1N980B	MOT	S-19500/117B	4.00	3.45	3.00	USN 1N2817B	MOT	S-19500/114A	14.65	12.65	11.00
JAN 1N981B	MOT	S-19500/117B	4.00	3.45	3.00	USN 1N2818B	MOT	S-19500/114A	14.65	12.65	11.00
USN 1N981B	GI	S-19500/117B	3.60	.....	3.00	USN 1N2819B	MOT	S-19500/114A	14.65	12.65	11.00
USN 1N981B	MOT	S-19500/117B	4.00	3.45	3.00	USN 1N2820B	MOT	S-19500/114A	14.65	12.65	11.00
JAN 1N982B	MOT	S-19500/117B	4.00	3.45	3.00	USN 1N2821B	MOT	S-19500/114A	14.65	12.65	11.00
USN 1N982B	GI	S-19500/117B	3.60	.....	3.00	USN 1N2822B	MOT	S-19500/114A	14.65	12.65	11.00
USN 1N982B	MOT	S-19500/117B	4.00	3.45	3.00	USN 1N2823B	MOT	S-19500/114A	14.65	12.65	11.00
JAN 1N983B	MOT	S-19500/117B	4.00	3.45	3.00	USN 1N2824B	MOT	S-19500/114A	14.65	12.65	11.00
USN 1N983B	GI	S-19500/117B	3.60	.....	3.00	USN 1N2825B	MOT	S-19500/114A	14.65	12.65	11.00
JAN 1N983B	MOT	S-19500/117B	4.00	3.45	3.00	USN 1N2826B	MOT	S-19500/114A	14.65	12.65	11.00
USN 1N984B	MOT	S-19500/117B	4.00	3.45	3.00	USN 1N2827B	MOT	S-19500/114A	14.65	12.65	11.00
USN 1N984B	GI	S-19500/117B	3.60	.....	3.00	USN 1N2828B	MOT	S-19500/114A	14.65	12.65	11.00
USN 1N984B	MOT	S-19500/117B	4.00	3.45	3.00	USN 1N2829B	MOT	S-19500/114A	14.65	12.65	11.00
USN 1N985B	GI	S-19500/117B	4.50	3.35	USN 1N2830B	MOT	S-19500/114A	14.65	12.65	11.00

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Type No.	Mfr.	Mil. Spec.	1-99	100-999 Mix	100-up Sgls.
USN 1N2831B	MOT	S-19500/114A	14.65	12.65	11.00
USN 1N2832B	MOT	S-19500/114A	14.65	12.65	11.00
USN 1N2833B	MOT	S-19500/114A	14.65	12.65	11.00
USN 1N2834B	MOT	S-19500/114A	14.65	12.65	11.00
USN 1N2835B	MOT	S-19500/114A	14.65	12.65	11.00
USN 1N2836B	MOT	S-19500/114A	14.65	12.65	11.00
USN 1N2837B	MOT	S-19500/114A	14.65	12.65	11.00
USN 1N2838B	MOT	S-19500/114A	14.65	12.65	11.00
USN 1N2840B	MOT	S-19500/114A	25.75	22.25	19.35
USN 1N2841B	MOT	S-19500/114A	25.75	22.25	19.35

Type No.	Mfr.	Mil. Spec.	1-24	25-99	100-up
JAN 1N2970B	TI	S-19500/124C	7.85	7.40	5.85
JAN 1N2971B	MOT	S-19500/124C	7.85	7.40	5.85
JAN 1N2972B	MOT	S-19500/124C	7.85	7.40	5.85
JAN 1N2973B	MOT	S-19500/124C	7.85	7.40	5.85
JAN 1N2974B	MOT	S-19500/124C	7.85	7.40	5.85
JAN 1N2975B	TI	S-19500/124C	7.85	7.40	5.85

Type No.	Mfr.	Mil. Spec.	1-99	100-999 Mix	100-499 Sgls.
USA 1N2970B	MOT	S-19500/124B	7.80	6.70	5.85
JAN 1N2971B	HOF	S-19500/124A	7.85	.....	5.85
JAN 1N2971B	TI	S-19500/124C	7.80	.....	5.85
USA 1N2971B	MOT	S-19500/124B	7.80	.....	5.85
JAN 1N2972B	MOT	S-19500/124C	7.80	6.70	5.85
USA 1N2972B	TI	S-19500/124B	7.80	6.70	5.85
JAN 1N2973B	MOT	S-19500/124C	7.80	6.70	5.85
USA 1N2973B	TI	S-19500/124B	7.80	6.70	5.85
JAN 1N2974B	MOT	S-19500/124C	7.80	6.70	5.85
USA 1N2974B	MOT	S-19500/124B	7.80	6.70	5.85

Type No.	Mfr.	Mil. Spec.	1-24	25-99	100-up
JAN 1N2976B	MOT	S-19500/124C	7.85	7.40	5.85
JAN 1N2977B	TI	S-19500/124C	7.85	7.40	5.85
JAN 1N2979B	TI	S-19500/124C	7.85	7.40	5.85
JAN 1N2980B	TI	S-19500/124C	7.85	7.40	5.85
JAN 1N2982B	TI	S-19500/124C	7.85	7.40	5.85

Type No.	Mfr.	Mil. Spec.	1-99	100-999 Mix	100-up Sgls.
JAN 1N2978B	MOT	S-19500/124C	7.80	6.70	5.85
JAN 1N2978B	MOT	S-19500/124B	7.80	6.70	5.85
USA 1N2979B	MOT	S-19500/124C	7.80	6.70	5.85
USA 1N2979B	MOT	S-19500/124B	7.80	6.70	5.85
USA 1N2980B	MOT	S-19500/124B	7.80	6.70	5.85
JAN 1N2981B	MOT	S-19500/124B	7.80	6.70	5.85
USA 1N2981B	MOT	S-19500/124C	7.80	6.70	5.85
JAN 1N2982B	MOT	S-19500/124C	7.80	6.70	5.85
USA 1N2982B	MOT	S-19500/124B	7.80	6.70	5.85
JAN 1N2983B	MOT	S-19500/124C	7.80	6.70	5.85

Type No.	Mfr.	Mil. Spec.	1-24	25-99	100-up
JAN 1N2988B	TI	S-19500/124C	7.85	7.40	5.85
JAN 1N2989B	TI	S-19500/124C	7.85	7.40	5.85
JAN 1N2990B	TI	S-19500/124C	7.85	7.40	5.85
JAN 1N2990B	HOF	S-19500/124A	7.85	.....	5.85
JAN 1N2990B	MOT	S-19500/124C	7.80	6.70	5.85
USA 1N2990B	MOT	S-19500/124B	7.80	7.40	5.85
JAN 1N2991B	MOT	S-19500/124C	7.85	6.70	5.85
USA 1N2991B	MOT	S-19500/124B	7.80	6.70	5.85

Type No.	Mfr.	Mil. Spec.	1-24	25-99	100-up
JAN 1N2992B	HOF	S-19500/124A	7.80	.....	5.85
JAN 1N2992B	MOT	S-19500/124C	7.85	6.70	5.85
USA 1N2992B	MOT	S-19500/124B	7.80	6.70	5.85
JAN 1N2993B	HOF	S-19500/124A	7.80	.....	5.85
JAN 1N2993B	MOT	S-19500/124C	7.85	6.70	5.85
USA 1N2993B	MOT	S-19500/124B	7.80	6.70	5.85
JAN 1N2994B	MOT	S-19500/124C	7.80	6.70	5.85
USA 1N2994B	MOT	S-19500/124B	7.80	6.70	5.85
JAN 1N2995B	HOF	S-19500/124A	7.80	6.70	5.85
JAN 1N2995B	MOT	S-19500/124C	7.85	.....	5.85

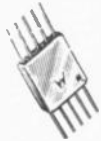
Type No.	Mfr.	Mil. Spec.	1-99	100-999 Mix	100-up Sgls.
USA 1N2995B	MOT	S-19500/124B	7.80	6.70	5.85
JAN 1N2996B	MOT	S-19500/124C	7.80	6.70	5.85
USA 1N2996B	MOT	S-19500/124B	7.80	6.70	5.85
JAN 1N2997B	HOF	S-19500/124A	7.85	.....	5.85
JAN 1N2997B	MOT	S-19500/124C	7.80	6.70	5.85
USA 1N2997B	MOT	S-19500/124B	7.80	6.70	5.85
JAN 1N2998B	MOT	S-19500/124C	7.80	6.70	5.85
USA 1N2998B	MOT	S-19500/124B	7.80	6.70	5.85
JAN 1N2999B	HOF	S-19500/124A	7.85	5.85
JAN 1N2999B	MOT	S-19500/124C	7.80	6.70	5.85

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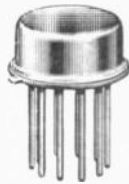
Type No.	Mfr.	Mil. Spec.	1-99	100-999 Mix	100-up Sgls.	Type No.	Mfr.	Mil. Spec.	1-99	100-999 Mix	100-up Sgls.
USN 1N3030B	MOT	S-19500/115C	4.00	3.45	3.00	JAN 1N3823A	MOT	S-19500/115C	5.05	4.35	3.80
JAN 1N3031B	TI	S-19500/115D	3.45	.....	3.00	USN 1N3823A	MOT	S-19500/115C	5.05	4.35	3.80
USN 1N3031B	HOF	S-19500/115B	3.90	3.70	2.90	JAN 1N3824A	MOT	S-19500/115C	5.05	4.35	3.80
USN 1N3031B	MOT	S-19500/115C	4.00	3.45	3.00	USN 1N3824A	MOT	S-19500/115C	5.05	4.35	3.80
JAN 1N3032B	TI	S-19500/115D	3.45	.....	3.00	JAN 1N3825A	MOT	S-19500/115C	5.05	4.35	3.80
USN 1N3032B	HOF	S-19500/115B	3.90	3.70	2.90	USN 1N3825A	MOT	S-19500/115C	5.05	4.35	3.80
USN 1N3032B	MOT	S-19500/115C	4.00	3.45	3.00	JAN 1N3826A	MOT	S-19500/115C	5.05	4.35	3.80
JAN 1N3033B	TI	S-19500/115D	3.45	.....	3.00	USN 1N3826A	MOT	S-19500/115C	5.05	4.35	3.80
USN 1N3033B	MOT	S-19500/115C	4.00	3.45	3.00	JAN 1N3827A	MOT	S-19500/115C	5.05	4.35	3.80
JAN 1N3034B	TI	S-19500/115D	3.45	.....	3.00	USN 1N3827A	MOT	S-19500/115C	5.05	4.35	3.80
USN 1N3034B	MOT	S-19500/115C	4.00	3.45	3.00	JAN 1N3828A	MOT	S-19500/115C	5.05	4.35	3.80
JAN 1N3035B	TI	S-19500/115D	3.45	.....	3.00	USN 1N3828A	MOT	S-19500/115C	5.05	4.35	3.80
USN 1N3035B	MOT	S-19500/115C	4.00	3.45	3.00	JAN 1N3993A	MOT	S-19500/272A	11.95	10.35	9.00
JAN 1N3036B	TI	S-19500/115D	3.45	.....	3.00	USN 1N3993A	MOT	S-19500/272A	11.95	10.35	9.00
USN 1N3036B	MOT	S-19500/115C	4.00	3.45	3.00	JAN 1N3994A	MOT	S-19500/272A	11.95	10.35	9.00
JAN 1N3037B	TI	S-19500/115D	3.45	.....	3.00	USN 1N3994A	MOT	S-19500/272A	11.95	10.35	9.00
USN 1N3037B	MOT	S-19500/115C	4.00	3.45	3.00	JAN 1N3995A	MOT	S-19500/272A	11.95	10.35	9.00
JAN 1N3038B	TI	S-19500/115D	3.45	.....	3.00	USN 1N3995A	MOT	S-19500/272A	11.95	10.35	9.00
USN 1N3038B	MOT	S-19500/115C	4.00	3.45	3.00	JAN 1N3996A	MOT	S-19500/272A	11.95	10.35	9.00
JAN 1N3039B	TI	S-19500/115D	3.45	.....	3.00	USN 1N3996A	MOT	S-19500/272A	11.95	10.35	9.00
USN 1N3039B	MOT	S-19500/115C	4.00	3.45	3.00	JAN 1N3997A	MOT	S-19500/272A	11.95	10.35	9.00
JAN 1N3040B	TI	S-19500/115D	3.45	.....	3.00	USN 1N3997A	MOT	S-19500/272A	11.95	10.35	9.00
USN 1N3040B	MOT	S-19500/115C	4.00	3.45	3.00	JAN 1N3998A	MOT	S-19500/272A	11.95	10.35	9.00
JAN 1N3041B	TI	S-19500/115D	3.45	.....	3.00	USN 1N3998A	MOT	S-19500/272A	11.95	10.35	9.00
USN 1N3041B	MOT	S-19500/115C	4.00	3.45	3.00	JAN 1N3999A	MOT	S-19500/272A	11.95	10.35	9.00
JAN 1N3042B	TI	S-19500/115D	3.45	.....	3.00	USN 1N3999A	MOT	S-19500/272A	11.95	10.35	9.00
USN 1N3042B	MOT	S-19500/115C	4.00	3.45	3.00	JAN 1N4000A	MOT	S-19500/272A	11.95	10.35	9.00
JAN 1N3043B	TI	S-19500/115D	3.45	.....	3.00	USN 1N4000A	MOT	S-19500/272A	11.95	10.35	9.00
USN 1N3043B	MOT	S-19500/115C	4.00	3.45	3.00	JAN 1N4148	GE	S-19500/116B	.45	.....	.30
JAN 1N3044B	TI	S-19500/115D	4.00	3.45	3.00	USN 1N4306	GE	S-19500/278	8.25	.....	5.50
USN 1N3045B	MOT	S-19500/115C	6.90	6.00	5.20	JAN 1N4307	GE	S-19500/284	16.50	.....	11.00
USN 1N3046B	MOT	S-19500/115C	6.90	6.00	5.20	JAN 1N4370A	TI	S-19500/127D	2.95	.....	2.25
USN 1N3047B	MOT	S-19500/115C	6.90	6.00	5.20	USN 1N4370A	MOT	S-19500/127C	2.95	2.55	2.20
USN 1N3048B	MOT	S-19500/115C	6.90	6.00	5.20	JAN 1N4371A	TI	S-19500/127D	2.95	.....	2.25
USN 1N3049B	MOT	S-19500/115C	6.90	6.00	5.20	USN 1N4371A	MOT	S-19500/127C	2.95	2.55	2.20
USN 1N3050B	MOT	S-19500/115C	6.90	6.00	5.20	JAN 1N4372A	TI	S-19500/127D	2.95	.....	2.25
USN 1N3051B	MOT	S-19500/115C	6.90	6.00	5.20	USN 1N4372A	MOT	S-19500/127C	2.95	2.55	2.20
JAN 1N3064	GE	S-19500/144C	.67	.....	.44	JAN 1N4454	GE	S-19500/144C	.67	.....	.43
JAN 1N3064	RAY	S-19500/12-61	2.00	.....	1.20	JAN 2N167A	GE	S-19500/11B	5.67	.....	3.78
JAN 1N3064	SYL	S-19500/144A	.67	.....	.44	JAN 2N174	RCA	T-19500/13A	4.77	.....	3.29
JAN 1N3064	TI	S-19500/144C	.67	.....	.44	JAN 2N174A	MOT	S-19500/13B	4.30	.....	3.18
JAN 1N3070	RAY	S-19500/3-64	5.25	.....	3.50	JAN 2N220	RCA	T-19500/1	1.56	.....	1.25
JAN 1N3070	TI	S-19500/169C	5.30	.....	3.54	USA 2N274	RCA	T-19500/26	1.87	.....	1.50
JAN 1N3154	MOT	S-19500/158C	3.50	3.00	2.65	JAN 2N297A	MOT	S-19500/36B	2.40	.....	1.78
USN 1N3154	MOT	S-19500/158C	3.50	3.00	2.65	USA 2N297A	BEN	S-19500/36B	2.40	.....	1.78
JAN 1N3155	MOT	S-19500/158C	4.95	4.25	3.75	USA 2N297A	BEN	S-19500/36A(SC)	2.40	.....	1.78
USN 1N3155	MOT	S-19500/158C	4.95	4.25	3.75	JAN 2N328A	RAY	S-19500/595	6.35	.....	4.85
JAN 1N3156	MOT	S-19500/158C	9.55	8.25	7.25	JAN 2N329A	RAY	S-19500/595	11.00	.....	7.35
USN 1N3156	MOT	S-19500/158C	9.55	8.25	7.25	JAN 2N331	MOT	S-19500/4C	1.80	.....	1.20
JAN 1N3157	MOT	S-19500/158C	12.75	11.00	9.70	USN 2N332	TI	T-19500/37A	4.95	.....	3.30
USN 1N3157	MOT	S-19500/158C	12.75	11.00	9.70	JAN 2N333	GE	S-19500/37C	4.95	.....	3.30
USA 1N3164	WES	S-19500/211/0	35.20	29.70	.....	JAN 2N333	TI	S-19500/37C	4.95	.....	3.30
USA 1N3168	WES	S-19500/211/0	65.65	55.15	.....	USN 2N334	TI	T-19500/37A	4.95	.....	3.30
USA 1N3170	WES	S-19500/211/0	97.40	81.60	.....	JAN 2N335	GE	S-19500/37C	5.25	.....	3.50
JAN 1N3189	GE	S-19500/155C	3.00	.....	2.00	JAN 2N336	GE	S-19500/37C	6.30	.....	4.20
USN 1N3189	GI	S-19500/155	3.45	.....	2.30	JAN 2N336	TI	S-19500/37C	6.30	.....	4.20
JAN 1N3190	GE	S-19500/155C	5.40	.....	3.60	JAN 2N337	GE	S-19500/69D	5.15	.....	3.40
USN 1N3190	GI	S-19500/155	6.15	.....	4.10	JAN 2N337	TI	S-19500/69D	5.15	.....	3.40
JAN 1N3190	GE	S-19500/155C	7.55	.....	5.05	JAN 2N338	GE	S-19500/69D	5.80	.....	3.85
USN 1N3190	GI	S-19500/155	9.00	.....	6.00	JAN 2N338	TI	S-19500/69D	5.80	.....	3.85
USA 1N3263	WES	S-19500/212	20.90	.....	17.65	JAN 2N341	TI	S-19500/31B	17.50	.....	11.65
USA 1N3267	WES	S-19500/212	36.45	.....	30.55	JAN 2N342	TI	S-19500/16E	14.55	.....	9.65
USA 1N3269	WES	S-19500/212	62.15	.....	52.50	JAN 2N343	TI	S-19500/16E	21.75	.....	14.45
JAN 1N3277W	SYL	S-19500/205	.45	.....	.35	JAN 2N358A	TI	S-19500/63C	3.92	.....	2.62
JAN 1N3289R	GE	S-19500/246C	14.90	.....	12.10	JAN 2N384	RCA	S-19500/27C	3.30	.....	2.28
JAN 1N3291R	GE	S-19500/246C	17.95	.....	13.85	JAN 2N388	RCA	T-19500/65L2	.61	.....	.42
JAN 1N3293R	GE	S-19500/246C	22.05	.....	17.45	JAN 2N388	TI	S-19500/65A	.61	.....	.41
JAN 1N3294R	GE	S-19500/246C	29.30	.....	23.40	JAN 2N389	TI	S-19500/173A	21.50	.....	14.35
JAN 1N3295R	GE	S-19500/246C	34.10	.....	27.10	JAN 2N396A	GE	S-19500/64C	.74	.....	.49
USN 1N3611	MOT	S-19500/228C	1.20	.....	.80	JAN 2N398	RCA	S-19500/174	1.27	.....	.88
USN 1N3612	MOT	S-19500/228C	1.65	.....	1.10	USN 2N404	MOT	S-19500/174	1.47	.....	.98
USN 1N3613	MOT	S-19500/228C	2.10	.....	1.40	JAN 2N404	RCA	T-19500/20L2	.50	.....	.35
JAN 1N3713	GE	S-19500/269	5.30	.....	3.55	JAN 2N404	TI	T-19500/2D	.50	.....	.33
JAN 1N3715	GE	S-19500/269	4.95	.....	3.30	JAN 2N404A	TI	S-19500/20B	.50	.....	.33
JAN 1N3717	GE	S-19500/269	4.30	.....	2.85	USA 2N416	TI	T-19500/56A	1.09	.....	.73
JAN 1N3719	GE	S-19500/269	4.30	.....	2.85	USA 2N417	TI	T-19500/57A	1.27	.....	.85
JAN 1N3721	GE	S-19500/269	4.30	.....	2.85	JAN 2N424	TI	S-19500/173A	17.00	.....	11.35
USAF 1N3747	SYL	S-19500/281	19.75	16.95	15.50	USA 2N427	TI	T-19500/43A	.134	.....	.89
JAN 1N3821A	MOT	S-19500/115C	5.05	4.35	3.80	JAN 2N428M	TI	S-19500/44C	1.48	.....	.99
USN 1N3821A	MOT	S-19500/115C	5.05	4.35	3.80	USA 2N456A	BEN	S-19500/217(SC)	2.25	.....	1.50
JAN 1N3822A	MOT	S-19500/115C	5.05	4.35	3.80	USA 2N457A	BEN	S-19500/217(SC)	3.10	.....	1.75
USN 1N3822A	MOT	S-19500/115C	5.05	4.35	3.80	USA 2N458A	BEN	S-19500/217(SC)	3.25	.....	2.05
JAN 1N3822A	MOT	S-19500/115C	5.05	4.35	3.80	JAN 2N461	GE	T-19500/45	1.92	.....	1.28
USAF 1N3747	SYL	S-19500/281	19.75	16.95	15.50	USAF 2N461	MOT	T-19500/45	1.95	.....	1.28
JAN 1N3821A	MOT	S-19500/115C	5.05	4.35	3.80	USA 2N465	MOT	T-19500/50A	1.80	.....	1.20
JAN 1N3822A	MOT	S-19500/115C	5.05	4.35	3.80	JAN 2N466	MOT	S-19500/51D	1.95	.....	1.30
USN 1N3822A	MOT	S-19500/115C	5.05	4.35	3.80	USA 2N467	MOT	T-19500/52B	2.25	.....	1.50
JAN 1N3822A	MOT	S-19500/115C	5.05	4.35	3.80	AF 2N489	TI	T-19500/75	7.85	.....	5.25
USAF 1N3747	SYL	S-19500/281	19.75	16.95	15.50	JAN 2N489A	GE	T-19500/75A	7.80	.....	5.20
JAN 1N3821A	MOT	S-19500/115C	5.05	4.35	3.80	JAN 2N489A	TI	S-19500/75A	7.85	.....	5.25
JAN 1N3822A	MOT	S-19500/115C	5.05	4.35	3.80	USAF 2N490	TI	T-19500/75	8.55	.....	5.70



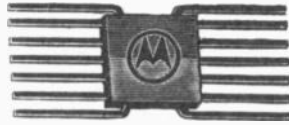
Motorola Integrated Circuits



A



B



C



D



TO-5

MECL INTEGRATED CIRCUITS (Operating Temperature: -55°C to +125°C)

Type	Function	Case	Delay @ 25°C nsec max.				1-24	25-99	100-999
			"OR" Output		"NOR" Output				
			td1	td2	td1	td2			
MC301F	5-Input Gate	A	11.0	9.0	9.5	14.5	12.65	10.15	8.45
MC302F	R-S Flip-Flop	A		tdr=14.0, tdf=19.5			14.85	11.90	9.90
MC303F	Half Adder	A			9.0	10.5	16.70	13.40	11.15
MC304F	Bias Driver	A					8.40	6.70	5.60
MC305F	Expander	A	8.5		10.0 any output		8.40	6.70	5.60
MC309F	Dual 2-Input Gate	A			9.0	10.5	13.70	11.00	9.15
MC310F	Dual 2-Input Gate	A			9.0	10.5	13.70	11.00	9.15
MC311F	Dual 2-Input Gate	A			9.0	10.5	13.70	11.00	9.15
MC312F	Dual 3-Input Gate	14-pin flat			8.5	10.0	16.70	13.40	11.15
MC313F	Quad 2-Input Gate	A					18.35	14.70	12.25
MC314F	J-K Flip-Flop	A					30.35	24.30	20.25
MC315F	Line Driver	A	16.0	14.0	14.0	17.0	24.35	19.50	16.25
MC316F	Lamp Driver	A					11.30	9.05	7.55
MC317F	Level Translator	A					11.30	9.05	7.55
MC301G	5-Input Gate	TO-5	11.0	9.0	9.5	14.5	11.55	9.25	7.70
MC302G	R-S Flip-Flop	TO-5		tdr=14.0, tdf=19.5			13.70	11.00	9.15
MC303G	Half Adder	TO-5			9.0	10.5	15.60	12.50	10.40
MC305G	Expander	TO-5	8.5		10.0 any output		7.25	5.80	4.85
MC306G	3-Input Gate	TO-5	10.0	8.0	8.5	10.0	10.20	8.15	6.80
MC307G	3-Input Gate	TO-5	10.0	8.0	8.5	10.0	10.20	8.15	6.80
MC308G	J-K Flip-Flop	TO-5		tdr=11.0 tdf=14.0			17.70	14.15	11.80
MC312G	Dual 3-Input Gate	TO-5			8.5	10.0	15.60	12.50	10.40
MC314G	J-K Flip-Flop	TO-5					29.25	23.40	19.50
MC315G	Line Driver	TO-5	16.0	14.0	14.0	17.0	23.95	18.60	15.50
MC316G	Lamp Driver	TO-5					10.20	8.15	6.80
MC317G	Level Translator	TO-5					10.20	8.15	6.80

INDUSTRIAL MECL INTEGRATED CIRCUITS (Operating Temperature 0°C to +75°C)

Type	Function	Case	Delay @ 25°C nsec max.				1-24	25-99	100-999
			"OR" Output		"NOR" Output				
			td1	td2	td1	td2			
MC351F	5-Input Gate	A	14.0	9.0	11.0	12.0	6.55	6.00	5.15
MC352F	R-S Flip-Flop	A		tdr=10.0, tdf=14.0			6.55	6.00	5.15
MC353F	Half Adder	A			6.5	7.5	7.95	7.20	6.25
MC354F	Bias Driver	A					4.45	4.15	3.45
MC355F	Expander	A	10.0		11.0 any output		4.80	4.45	3.75
MC356F	3-Input Gate	A	10.0	7.5	8.0	10.0	5.55	5.15	4.35
MC357F	3-Input Gate	A	10.0	7.5	8.0	10.0	5.55	5.15	4.35
MC358F	J-K Flip-Flop	A		tdr=12.0, tdf=14.0			11.50	10.35	9.10
MC359F	Dual 2-Input Gate	A			6.5	7.5	5.70	5.25	4.45
MC360F	Dual 2-Input Gate	A			6.5	7.5	5.70	5.25	4.45
MC361F	Dual 2-Input Gate	A			6.5	7.5	5.70	5.25	4.45
MC362F	Dual 3-Input Gate	14-pin flat			8.0	10.0	7.00	6.40	5.50
MC363F	Quad 2-Input Gate	A			11.0	13.5	7.35	6.50	5.90
MC364F	J-K Flip-Flop	A					13.45	11.80	10.75
MC365F	Line Driver	A	17.0	15.0	18.0		11.20	10.10	8.85
MC366F	Lamp Driver	A					8.10	7.15	6.50
MC367F	Level Translator	A					7.50	6.60	6.00
MC351G	5-Input Gate	TO-5	14.0	9.0	11.0	12.0	4.55	4.00	3.65
MC352G	R-S Flip-Flop	TO-5		tdr=10.0, tdf=14.0			4.55	4.00	3.65
MC353G	Half Adder	TO-5			6.5	7.5	5.95	5.20	4.75
MC354G	Bias Driver	TO-5					2.45	2.15	1.95
MC355G	Expander	TO-5	10.0		11.0 any output		2.80	2.45	2.25
MC356G	3-Input Gate	TO-5	10.0	7.5	8.0	10.0	3.55	3.15	2.85
MC357G	3-Input Gate	TO-5	10.0	7.5	8.0	10.0	3.55	3.15	2.85
MC358G	J-K Flip-Flop	TO-5		tdr=12.0, tdf=14.0			9.50	8.35	7.60
MC359G	Dual 2-Input Gate	TO-5			6.5	7.5	3.70	3.25	2.95
MC360G	Dual 2-Input Gate	TO-5			6.5	7.5	3.70	3.25	2.95
MC361G	Dual 2-Input Gate	TO-5			6.5	7.5	3.70	3.25	2.95
MC362G	Dual 3-Input Gate	12-pin TO-5			8.0	10.0	5.00	4.40	4.00
MC364G	J-K Flip-Flop	TO-5					11.55	10.15	9.25
MC365G	Line Driver	TO-5	17.0	15.0	15.0	18.0	9.20	9.10	7.35
MC366G	Lamp Driver	TO-5					6.25	5.50	5.00
MC367G	Level Translator	TO-5					5.60	4.95	4.50

MONOLITHIC CURRENT MODE LOGIC

Type	Function	1-24	25-99	100-999
MC1050F	Dual 5-Input Gate	5.30	4.25	3.55
MC1051F	Dual 5-Input Gate			
MC1052F	Single 8-Input Gate			

DTL LOGIC CIRCUITS (-55° TO +125°C)

Type	Function	Fig.	Tpd	NA	1-24	25-99	100-999	Type	Function	Fig.	Tpd	NA	1-24	25-99	100-999
MC207G	3-2 NAND Gate	B	12	17	17.15	15.05	13.70	MC213G	3-3 NAND Gate	B	30	30	18.10	15.95	14.50
MC208G	3-2 NAND Gate	B	30	30	17.15	15.05	13.70	MC215G	3-3 NAND Gate	B			9.75	8.60	7.80
MC212G	3-3 NAND Gate	B	12	15	18.10	15.95	14.50	MC217G	3-3 Diode Array	B			8.30	7.30	6.65

Motorola Integrated Circuits



DTL LOGIC CIRCUITS (CONT'D.)

—55 To +125°C

Type	Function	Case	Delay	Diss.	1-24	25-99	100-999
MC207F	3-2 NAND Gate	B	30	17	19.15	17.05	15.20
MC208F	3-2 NAND Gate	B	30	30	19.15	17.05	15.20
MC212F	3-3 NAND Gate	B	30	15	20.10	17.95	16.00

Type	Function	Case	Delay	Diss.	1-24	25-49	100-999
MC213F	3-3 NAND Gate	B	30	30	20.10	17.95	16.00
MC215F	3-3 NAND Gate	B	—	—	11.75	10.60	9.30
MC217F	3-3 Diode Array	B	—	—	10.30	9.30	8.15

0 To +75°C

Type	Function	Case	Delay	Diss.	1-24	25-99	100-999
MC251G	4-Input Gate	B	30	10	4.40	3.85	3.50
MC252G	3-Input Gate	B	30	10	4.05	3.60	3.25
MC253G	6-Diode Gate	B	—	—	3.10	2.75	2.50
MC254G	Power Gate	B	40	66	5.80	5.10	4.65
MC255G	Line Driver	B	50	65	6.00	5.30	4.80
MC256G	2-2 Dual Gate	B	30	20	5.60	4.95	4.50
MC257G	3-2 Dual Gate	B	30	20	5.80	5.10	4.65
MC258G	3-2 Dual Gate	B	30	34	5.80	5.10	4.65
MC259G	R-S Flip-Flop	B	—	16	9.95	8.70	7.95

Type	Function	Case	Delay	Diss.	1-24	25-49	100-999
MC260G	Flip-Flop	B	—	16	10.50	9.30	8.45
MC262G	3-3 Dual Gate	B	30	19	6.00	5.30	4.80
MC263G	3-3 Dual Gate	B	30	33	6.00	5.30	4.80
MC265G	Dual AND Gate	B	—	—	2.80	2.90	2.65
MC267G	Dual Diode Array	B	—	—	2.80	2.50	2.25
MC281G	Dual Gate	B	18	19	18.75	16.50	15.00
MC282G	R-S Flip-Flop	B	18	19	22.50	19.80	18.00
MC284G	4-Input Gate	B	18	9.5	16.85	14.85	13.50

0 To +75°C

Type	Function	Case	Delay	Diss.	1-24	25-99	100-999
MC251F	4-Input Gate	A	30	10	6.40	5.85	5.00
MC252F	3-Input Gate	A	30	10	6.05	5.60	4.75
MC253F	6-Diode Gate	A	—	—	5.10	4.75	4.00
MC254F	Power Gate	A	40	66	7.80	7.10	6.15
MC255F	Line Driver	A	50	65	8.00	7.30	6.30
MC256F	2-2 Dual Gate	A	30	20	7.60	6.95	6.00
MC257F	3-2 Dual Gate	A	30	20	7.80	7.10	6.15

Type	Function	Case	Delay	Diss.	1-24	25-49	100-999
MC258F	3-2 Dual Gate	A	30	34	7.80	7.10	6.15
MC259F	R-S Flip-Flop	A	—	16	11.95	10.75	9.45
MC260F	Flip-Flop	A	—	16	12.50	11.30	9.95
MC262F	3-3 Dual Gate	A	30	19	8.00	7.30	6.30
MC263F	3-3 Dual Gate	A	30	33	8.00	7.30	6.30
MC265F	Dual AND Gate	A	—	—	5.30	4.90	4.15
MC267F	Dual Diode Array	A	—	—	4.80	4.50	3.75

—55 To +125°C

Type	Function	Case	Trr. Nsec.	PD. mW	1-24	25-99	100-999
MC1111	3-4 Diode and Gate	B	15	200	43.40	34.60	26.00
MC1112	2-2-2 Diode and Gate	B	15	300	49.70	39.55	29.75
MC1113	1-1-1-2 Diode & Gate	B	15	400	54.25	43.20	32.50
MC1114	8-Diode and Gate	B	15	100	40.50	32.25	24.25

Type	Function	Vcc Vdc	VBB Vdc	Ton Nsec.	Toff Nsec.	Pd mw	1-24	25-99	100-999
MC1115	Dual Invt.	10	7	20	45	250	38.00	30.25	22.75

Type	Function	Case	Trr Nsec.	VF @ 300mA	1-99	100-999
MC1116	Common P 9 Diodes	B	90	1.2 max	29.10	19.40
MC1117	Common N 9 Diodes	B	90	1.2 max	29.10	19.40
MC1118	Series/Parallel Matrix	B	90	1.2 max	51.60	34.40

MDTL LOGIC CIRCUITS

High fan out. 8 PD per gate. 8 mw typ. Prop. delay nsec. is 30. Toggle freq. MHz (min) is 5.

—55 To +125°C

Type	Function	Case	1-24	25-99	100-999
MC830G	Dual 2-3 Input Gate	D	12.35	9.90	8.25
MC830F	Dual 4 Input Gate	D	13.70	11.00	9.15
MC831G	Clocked Flip Flop	C	18.05	14.45	12.05
MC831F	Clocked Flip Flop	C	20.10	16.10	13.40
MC832G	Dual 3-2 Input Buffer	D	14.25	11.40	9.50
MC832F	Dual 4 Input Buffer	C	15.80	12.65	10.55
MC833G	Gate Expander	D	6.75	5.40	4.50
MC833F	Gate Expander	C	7.10	5.70	4.75

Type	Function	Case	1-24	25-99	100-999
MC844G	Dual 2-3 Input Power Gate	D	14.45	11.60	9.65
MC844F	Dual 4 Input Power Gate	C	16.05	12.85	10.70
MC845G	Clocked Flip Flop	D	18.05	14.45	12.05
MC845F	Clocked Flip Flop	C	20.10	16.10	13.40
MC846F	Quad 2 Input NAND NOR Gate	C	15.60	12.50	10.40
MC848G	Clocked Flip Flop	D	18.05	14.45	12.05
MC848F	Clocked Flip Flop	C	20.10	16.10	13.40
MC862F	Triple 3 Input NAND/NOR Gate	C	15.60	12.50	10.40

0 To +75°C

Type	Function	Case	1-24	25-99	100-999
MC830G	Dual 2-3 Input Gate	D	6.50	5.20	4.35
MC830F	Dual 4 Input Gate	C	6.90	5.50	4.60
MC831G	Clocked Flip Flop	D	10.25	8.20	6.85
MC831F	Clocked Flip Flop	C	10.80	8.65	7.20
MC832G	Dual 2-3 Input Buffer	D	7.50	6.00	5.00
MC832F	Dual 4 Input Buffer	C	7.85	6.30	5.25
MC833G	Gate Expander	D	4.50	3.60	3.00
MC833F	Gate Expander	C	4.70	3.80	3.15

Type	Function	Case	1-24	25-99	100-999
MC844G	Dual 2-3 Input Power Gate	D	7.65	6.10	5.10
MC844F	Dual 4 Input Power Gate	C	8.00	6.40	5.35
MC845G	Clocked Flip Flop	D	10.25	8.20	6.85
MC845F	Clocked Flip Flop	C	10.50	8.65	7.20
MC846F	Quad 2 Input NAND/NOR Gate	C	7.50	6.25	5.20
MC848G	Clocked Flip Flop	D	10.25	8.20	6.85
MC848F	Clocked Flip Flop	C	10.80	8.65	7.20
MC862F	Triple 3 Input NAND/NOR Gate	C	2.80	6.25	5.20

MILLIWATT RTL LOGIC CIRCUITS

—55 To +125°C

Type	Function	Case	Delay	Diss.	1-24	25-99	100-999
MC908G	Adder	8-pin	90	10	7.95	6.35	5.30
MC909G	Buffer	To-5	80	10	7.50	6.00	5.00
MC910G	Dual 2 Input Gate	To-5	45	4	6.45	5.15	4.30
MC911G	4-Input Gate	To-5	80	4	6.45	5.15	4.30
MC912G	Half Adder	To-5	90	8	7.50	6.00	5.00

Type	Function	Case	Delay	Diss.	1-24	25-99	100-999
MC913G	Type D Flip-Flop	To-5	100	12	8.90	7.15	5.95
MC918G	Dual 3 Input Gate	...	30	4	6.75	5.40	4.50
MC920G	J-K Flip-Flop	...	60	10	10.10	8.10	6.75
MC928G	5-Input Gate	...	50	4	4.70	3.80	3.15
MC921G	Expander	To-5	45	...	5.60	4.50	3.75

MILLIWATT MRTL LOGIC CIRCUITS

+15° To +55°C

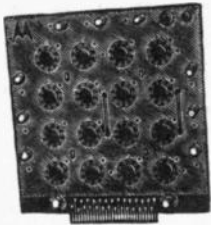
To-99 Case, except MC7186, To-100

Type	Function	Delay	Diss.	1-999	1000-4999
MC708G	Adder	50	4	1.60	1.20
MC709G	Buffer	25	30	1.85	1.40
MC710G	Dual 2 Input Gate	25	4	1.40	1.05
MC711G	4 Input Gate	25	4	1.40	1.05
MC712G	Half Adder	50	4	1.60	1.20

Type	Function	Delay	Diss.	1-999	1000-4999
MC713G	Type D Flip-Flop	70	3	2.75	2.05
MC718G	Dual 3 Input Gate	25	4	2.00	1.50
MC720G	J-K Flip-Flop	60	2	3.80	2.85
MC721G	Expander	25	0.5	1.40	1.05
MC728G	5-Input Gate	25	4	1.40	1.05



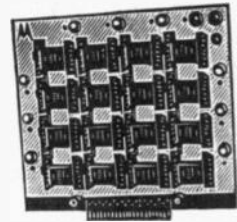
Motorola Integrated Circuits



XC83



TO5



XC72

MRTL COMPONENTS FOR INDUSTRIAL, AND COMMERCIAL APPLICATIONS 0 to 100°C

Type	Function	Case	Prop Delay nsec.	Fan Out	Diss (mw)	1-24	25-99	100-999
MC800G	Buffer	TO-99	15	25	16*	3.60	2.90	2.40
MC801G	Counter Adapter	TO-99	22	5	55	3.60	2.90	2.40
MC802G	Flip flop	TO-99	14	4	22	3.60	2.90	2.40
MC803G	3 input gate	TO-99	12	5	19*	3.60	2.90	2.40
MC804G	Half Adder	TO-99	14	5	45	3.65	2.95	2.45
MC805G	Half Shift Reg.	TO-99	22	5	53	5.25	4.20	3.50
MC806G	Half Shift Reg. (wo/inv.)	TO-99	22	4	36	5.25	4.20	3.50

* Input High

Type	Function	Case	Prop Delay nsec.	Fan Out	Diss (mw)	1-24	25-99	100-999
MC807G	4 input gate	TO-99	12	5	19*	3.60	2.90	2.40
MC814G	Dual 2 input gate	TO-99	12	5	19*	3.70	3.25	2.95
MC815G	Dual 3 input gate	TO-99	12	5	19*	3.95	3.20	2.65
MC816G	J-K flip flop	TO-99	35	3	54	6.60	5.30	4.40
MC826G	J-K flip flop	TO-99	60	5	56	6.60	5.30	4.40
MC827G	Quad inverter	TO-99	12	5	19*	3.95	3.20	2.65
MC829G	5 input gate	TO-99	12	5	19*	3.85	3.40	3.10
MC896G	Dual buffer	TO-99	15	25	16*	6.35	5.60	5.10

+ 15 to +55°C

Type	Function	Case	Prop Delay nsec.	Fan Out	Diss (mw)	1-999	1000-4999
MC700G	Buffer	TO-100	15	80	20	1.85	1.40
MC701G	Counter adapter	TO-100	20	16	20	1.85	1.40
MC702G	Flip flop	TO-100	10	13	20	1.85	1.40
MC703G	3 input gate	TO-100	10	16	20	1.85	1.40
MC704G	Half adder	TO-100	10	16	20	2.60	1.95
MC705G	Half shift reg.	TO-100	20	16	20	3.00	2.25
MC706G	Half shift reg. (w/o invt.)	TO-100	20	13	20	3.00	2.25

Type	Function	Case	Prop Delay nsec.	Fan Out	Diss (mw)	1-999	1000-4999
MC707G	4 input gate	TO-100	10	16	20	1.85	1.40
MC714G	Dual 2 input gate	TO-100	10	16	20	1.85	1.40
MC715G	Dual 3 input gate	TO-100	10	16	20	2.20	1.65
MC723G	J-K flip flop	TO-100	25	10	20	3.80	2.85
MC726G	J-K flip flop	TO-100	25	16	20	3.80	2.85
MC727G	Quad inverter	TO-100	10	16	20	2.20	1.65
MC729G	5 input gate	TO-100	10	16	20	1.85	1.40
MC799G	Dual buffer	TO-100	15	80	20	2.25	1.70

UNIBLOC MRTL and MILLIWATT MRTL SERIES

Low cost, plastic encapsulated integrated circuits. Temperature range +15°C to 55°C.

MRTL TYPES

Type	Function	1-999	1000-4999
MC715P	Dual 3 input gate	1.00	.75
MC723P	J-K flip flop	1.35	1.00
MC724P	Quad 2 input gate	1.08	.81
MC725P	Dual 4 input gate	1.08	.81
MC788P	Dual buffer (non-inverting)	1.35	1.00

Type	Function	1-999	1000-4999
MC789P	Hex inverter	1.08	.81
MC790P	Dual J-K flip flop	2.00	1.50
MC792P	Triple 3 input gate	1.20	.90
MC799P	Dual buffer	1.08	.81

* Trademark of Motorola Inc.

MILLIWATT MRTL TYPES

Type	Function	1-999	1000-4999
MC717P	Quad 2 input gate	1.08	.81
MC718P	Quad 3 input gate	1.00	.75
MC719P	Dual 4 input gate	1.08	.81

Type	Function	1-999	1000-4999
MC783P	Triple 3 input gate	1.20	.90
MC798P	Dual buffer	1.35	1.00

LINEAR CIRCUITS — FIG. B

Type	Function	1-24	25-99	100-999
MC1110	Emitter-Coupled Amp.*	25.00	20.00	15.00
MC1430	High gain oper. Amp.	12.00	10.00	8.50
MC1431	High Input Imp. operational Amp.	14.25	11.85	9.50
MC1511	DTL-MECL Level Trans.	13.45	11.80	10.75
MC1512	MECL-DTL level Trans.	15.30	13.50	12.25
MC1513F	A/D Ladder Network	45.00	37.50	30.00
MC1519	Wide Band Diff Amp	50.00	40.00	30.00

Type	Function	1-24	25-99	100-999
MC1524	Audio Power	70.00	55.00	40.00
MC1525	NPNDiff.	60.00	48.00	36.00
MC1526	NPNDiff.	60.00	48.00	36.00
MC1530	High gain oper. Amp.	27.00	22.50	18.00
MC1531	High input imp. operational amp.	30.00	25.00	20.00

* 5 pin TO-5 package

MVTL INTEGRATED CIRCUITS

Noise immunity from 2 to 5v; logic swing 4 to 10v; propagation delay 50 nsec at +25°C; Temp. Range from 0 to +70°C; for application to 1 MHz.

MC650G	Dual 3 input NAND/NOR gate	8.65	7.60	6.90
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MC651G	R-S flip flop	12.00	10.50	9.55
MC652F	16 14 Pin Sockets	14.45	12.70	11.55

INTEGRATED CIRCUIT PATCHBOARDS

These 16-socket patchboards are designed to allow rapid interconnection and evaluation of individual integrated circuits or complete logic designs. With three supply voltages at each socket, double pin jacks, 22-pin I-C edge connector or a 9 BNC coaxial connector Input/Output arrangement, plus banana plugs

for power connection between boards. Complete breadboarding flexibility with simple "plug in-plug out" changes possible. Designed using 1/16" glass epoxy with 2 oz. gold plated runs, rated for DC to 50 mc freq. and -65°C to +150° temp. performance.

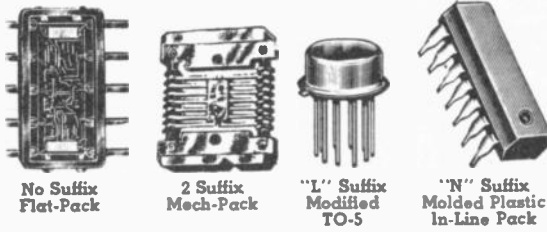
Type	Function	1-24	25-99	100-999
XC83	16 10 pin sockets for TO-5 cases.	150.00	125.00	100.00

Type	Function	1-24	25-99	100-999
XC72	16 14 Pin Sockets for IC and 14-pin flat packs	250.00	225.00	200.00

Texas Instruments Integrated Circuits



Series 74 (Continued)



MILITARY TEMP. RANGE DEVICES (—55° TO +125°C) Series 51-Low Power Digital-RCTL

Type No.	Circuit Functions	1-24	25-99	100-999
SNS10A	R-S Flip-Flop/Counter	28.25	22.50	19.20
SNS101	R-S Flip-Flop with Dual Preset	28.25	22.50	19.20
SNS11A	R-S Flip-Flop/Counter with emitter-follower outputs	31.10	24.75	21.10
SNS111	R-S Flip-Flop with emitter-follower outputs and Dual Preset	31.10	24.75	21.10
SNS112	Ripple-counter Flip-Flop (Vcc=3 to 6V)	31.10	24.75	21.10
SNS113	Ripple-counter Flip-flop (Vcc=4 to 6V)	28.25	22.50	19.20
SNS12A	6-input NAND/NOR Gate	22.30	17.75	15.15
SNS13A	6-input NAND/NOR Gate with emitter-follower output	24.55	19.55	16.65
SNS14A	Dual 3-input NAND/NOR Gate	22.30	17.75	15.15
SNS15A	EXCLUSIVE-OR Gate	22.30	17.75	15.15
SNS16A	Dual 2-input NAND/NOR Gate and inverter/buffer	22.30	17.75	15.15
SNS181	Triple 2-input NAND-NOR Gate	22.30	17.75	15.15
SNS182	Triple 2-input NAND/NOR Gate with emitter-follower output	24.55	19.55	16.65
SNS17A	Clock Driver	29.50	23.50	20.00
SNS18A	"One Shot" Monostable multivibrator	29.50	23.50	20.00
SNS191	Pulse exclusive-OR Gate	29.50	23.50	20.00

Series 73 Digital-Modified DTL

SN7300	J-K F-F w/preset	8.10	6.45	5.50
SN7301	J-K F-F w/preset and clear	8.50	6.75	5.75
SN7302	2, J-K F-F w/preset	10.50	8.35	7.15
SN7204	2, J-K F-F w/preset and clear	10.50	8.35	7.15
SN7310	5-input expand, NAND/NOR	5.65	4.50	3.85
SN7311	2, 5-input NAND/NOR	6.50	5.15	4.40
SN7320	5-input expand	5.65	4.50	3.85
SN7330	2, 3-input NAND-NOR	5.65	4.50	3.85
SN7331	3, 3-input NAND/NOR	6.50	5.15	4.40
SN7350	4 inverter/driver	5.65	4.50	3.85
SN7360	4, 2-input NAND/NOR	6.50	5.15	4.40
SN7370	2 Exclusive-OR	7.70	6.15	5.25
SN7380	"1-Shot"	9.75	7.75	6.60
SN7315	10-input—1 gate	6.50	5.15	4.40

Also available in "L" suffix package and "N" suffix package Series 53 Digital-Modified DTL

SNS530	J-K F-F w/preset	17.75	14.20	12.20
SNS531	5-input Expand, NAND/NOR	11.35	9.00	7.70
SNS532	5-input AND/OR	11.35	9.00	7.70
SNS533	2, 3-input NAND/NOR	11.35	9.00	7.70
SNS534	2, AND/OR (2 & 3 inputs)	11.35	9.00	7.70
SNS535	4 Inverter/Driver	11.35	9.00	7.70

Also available in "L" suffix package and "N" suffix package Series 54 High Speed Digital-TTL (—55°C to +125°C)

SNS400	Quadruple 2-input positive NAND Gate	13.00	10.40	8.80
SNS410	Triple 3-input positive NAND Gate	13.00	10.40	8.80
SNS420	Dual 4-input positive NAND Gate	11.40	9.10	7.70
SNS430	8-input positive NAND gate	11.40	9.10	7.70
SNS440	Dual 4-input Positive NAND "Power" Gate	13.00	10.40	8.80
SNS450	Dual EXCLUSIVE-OR Gate with expander inputs	14.20	11.40	9.60
SNS451	Dual EXCLUSIVE-OR Gate	13.00	10.40	8.80
SNS453	Quad-2 AND/OR invert	14.20	11.40	9.60
SNS460	Dual 4-input expander	10.40	8.40	7.70
SNS470	Single-phase J-K Flip-Flop	17.80	14.40	12.00
SNS472	Single MASTER/Slave Flip-Flop	14.60	11.60	9.90
SNS473	Dual MASTER/Slave Flip-Flop	23.20	18.45	15.75
SNS474	Dual Latch	22.80	18.20	15.40
SNS480	Fuller Adder	28.60	22.90	19.30

Series 74 High Speed Digital-TTL (0°C to +70°C)

SN7400	Quadruple 2-input Positive NAND Gate	6.50	5.20	4.40
SN7410	Triple 3-input Positive NAND Gate	6.50	5.20	4.40
SN7420	Dual 4-input Positive NAND Gate	5.70	4.55	3.85
SN7430	8-input Positive NAND Gate	5.70	4.55	3.85
SN7440	Dual 4-input Positive NAND "Power" Gate	6.50	5.20	4.40

Type No.	Circuit Functions	1-24	25-99	100-999
SN7450	Dual EXCLUSIVE/OR Gate with expander inputs	7.10	5.70	4.80
SN7451	Dual EXCLUSIVE/OR Gate	6.50	5.20	4.40
SN7453	Quad AND/OR invert	11.50	9.15	7.80
SN7460	Dual 4-input expander	5.20	4.20	3.50
SN7470	Single-phase J-K Flip-Flop	8.90	7.20	6.00
SN7472	Single Master/Slave Flip-Flop	7.30	5.80	4.95
SN7473	Dual Master/Slave Flip-Flop	11.60	9.20	7.85
SN7474	Dual Latch	11.40	9.10	7.70
SN7480	Full Adder	14.30	11.45	9.60
SN7490	Decade Counter	23.20	18.50	15.75
SN7491	8-bit Shift Register	31.25	24.85	21.25
SN7400N	Quadruple 2-input Positive NAND Gate	4.55	3.60	3.10
SN7410N	Triple 3-input Positive NAND Gate	4.55	3.60	3.10
SN7420N	Dual 4-input Positive NAND Gate	4.55	3.60	3.10
SN7430N	8-input Positive NAND Gate	4.55	3.60	3.10
SN7440N	Dual 4-input Positive NAND "Power" Gate	5.00	4.00	3.40
SN7450	Dual EXCLUSIVE/OR Gate with expander inputs	5.00	4.00	3.40
SN7451N	Dual EXCLUSIVE/OR Gate	4.55	3.60	3.10
SN7453N	Quad AND/OR invert	8.05	6.40	5.45
SN7460N	Dual 4-input expander	3.65	2.95	2.45
SN7470N	Single-phase J-K Flip-Flop	7.30	5.80	4.95
SN7472N	Single Master/Slave Flip-Flop	5.85	4.65	3.95
SN7473N	Dual Master/Slave Flip-Flop	8.90	7.10	6.05
SN7470N	Dual Latch	11.40	9.10	7.70
SN748N	Full Adder	10.00	8.00	6.70
SN7490N	Decade Counter	16.25	12.95	11.00
SN7491N	8-bit Shift Register	21.90	17.40	14.90

LINEAR CIRCUITS

Series 52 Differential Operational Amplifiers

SNS521A	Operational Amplifier	40.50	32.25	27.50
SN522A	Operational Amplifier with emitter-follower output	40.50	32.25	27.50
SN523A	Gen. purp. Differ. Amp	38.95	31.00	26.40
SN5231AL	Same as above	38.95	31.00	26.40
SN524A	Gen. purp. Oper. Amp.	29.25	23.25	19.80
SN524AL	Same as above	29.25	23.25	19.80
SN525	High-per. Differ. Amp.	57.00	45.00	38.50
SN526	High-per. Oper. Amp.	57.00	45.00	38.50

Temp. range for Series 52: —55 to +125°

Series 72 Differential/Operational Amplifiers

SN723	Gen. purp. Differ. Amp	27.60	22.00	18.75
SN723L	Same as above	27.60	22.00	18.75
SN724	Gen. purp. Oper. Amp.	16.20	12.90	11.00

Industrial Temperature Range Devices (0°C to +70°C)

Series 55 High Frequency Amplifiers

SNS5500	Magnetic-core Sense Amplifier	56.00	44.50	38.00
SNS5510	Video Differential Amplifier	13.80	10.95	9.30

Military temperature range: —55 to +125°C

Series 75 High Frequency Amplifiers

SN7500	Magnetic-core Sense Amplifier	24.40	19.35	16.50
SN7501	Magnetic-core Sense Amplifier with Flip-Flop output	37.00	29.75	24.25
SN7502	Magnetic-core Sense Amplifier with one shot output	37.00	29.75	24.25
SN7500L	Magnetic-core Sense Amplifier	24.40	19.35	16.50
SN7501L	Magnetic-core Sense Amplifier with Flip-Flop output	37.00	29.75	24.25
SN7502L	Magnetic-core Sense Amplifier with one-shot output	37.00	29.75	24.25

Industrial temperature range: 0 to +70°C.

DTL REPLACEMENT 930 SERIES—15-930: —55° to +125°C.

Type	Function	1-24	25-99	100-999	Type	1-24	25-99	100-999
SN15933L	2, 4-input expan	7.15	5.70	4.85	SN15933	6.10	4.85	4.15
SN15930L	2, 4-input expan NAND	15.40	12.25	10.45	SN15930	6.90	5.50	4.70
SN15932L	2, 4-input expan buf.	17.65	14.05	12.00	SN15932	8.30	6.60	5.65
SN15946L	4, 2-input NAND	17.00	13.55	11.55	SN15946	7.60	6.05	5.20
SN15944	2, 4-input expan NAND	17.65	14.05	12.00	SN15944	8.30	6.60	5.65
SN15962L	3, 3-input NAND NOR	17.00	13.55	11.55	SN15962	7.60	6.05	5.20
SN15931L	J-K/R-S F-F	20.40	16.25	13.85	SN15931	11.75	9.35	8.00
SN15945L	Hi-per J-K/R-S F-F	20.40	16.25	13.85	SN15945	9.70	7.75	6.60
SN15948L	Fast rise J-K/R-S F-F	20.40	16.25	13.85	SN15948	9.70	7.75	6.60
SN14950L	A-C F-F	20.40	16.25	13.85	SN15850	20.40	16.25	13.85
SN15951L	"1-Shot"	34.00	27.10	23.10	SN15951	20.40	16.25	13.85

Integrated Circuits

TEXAS INSTRUMENTS INTEGRATED CIRCUITS

DTL REPLACEMENT 930 SERIES 15-83°: 0° to +70°C

Type	Function	1-24	25-99	100-999	Type	1-24	25-99	100-999	1000-4999	5000-up	Type	1-24	25-99	100-999
SN15833L	Dual 4-input expander	5.00	4.00	3.40	SN15833N	1.60	1.30	1.10	1.00	.95	SN15833	3.45	2.75	2.35
SN15830L	Dual 4-input expandable NAND gate	7.20	5.75	4.90	SN15830N	1.90	1.50	1.25	1.15	1.10	SN15830	3.90	3.10	2.65
SN15832L	Dual 4-input expandable buffer	8.35	6.65	5.65	SN15832N	2.00	1.60	1.35	1.25	1.20	SN15832	4.70	3.70	3.20
SN15846L	Quadruple 2-input NAND gate	8.20	6.50	5.55	SN15846N	2.00	1.60	1.35	1.25	1.20	SN15846	4.30	3.40	2.90
SN15844L	2, 4-input expandable NAND "power" gate	8.35	6.65	5.65	SN15844N	2.00	1.60	1.35	1.25	1.20	SN15844	4.70	3.70	3.20
SN15862L	Triple 3-input	8.20	6.50	5.55	SN15862N	2.00	1.60	1.35	1.25	1.20	SN15862	4.30	3.40	2.90
SN15831L	J-K/R-S flip-flop	11.50	9.15	7.80	SN15831N	3.65	2.90	2.45	2.25	1.95	SN15831	6.65	5.25	4.50
SN15845L	High performance J-K/R-S flip flop	11.50	9.15	7.80	SN15845N	3.65	2.90	2.45	2.25	1.95	SN15845	5.45	4.35	3.70
SN15848L	Fast rise time J-K/R-S flip flop	11.50	9.15	7.80	SN15848N	3.65	2.90	2.45	2.25	1.95	SN15848	5.45	4.35	3.70
SN15851L	"One shot" monostable multivibrator	14.75	11.75	10.00	SN15851N	11.30	9.05	7.70	7.00	6.50	SN15851	11.70	9.30	8.00
					SN15850N	12.50	7.40	7.15	6.50	6.05	SN15850	11.70	9.30	8.00

TTL REPLACEMENT 930 DTL

54-930: -55° to +125°C

74-930: 0° to 70°C

Type	Function	1-24	25-99	100-999	Type	1-24	25-99	100-999	Type	1-24	25-99	100-999
SN54930	Dual 4-input NAND gate	11.40	9.10	7.70	SN74930	5.70	4.55	3.95	SN74930N	5.70	4.55	3.85
SN54932	Dual 4-input buffer	13.00	10.40	8.80	SN74932	6.50	5.20	3.75	SN74932N	6.50	5.20	4.40
SN54946	Quadruple 2-input NAND gate	13.00	10.40	8.80	SN74946	6.50	5.20	3.35	SN74946N	6.50	5.20	4.40
SN54948	Flip-flop	17.80	14.40	12.00	SN74948	8.90	7.20	2.80	SN74948N	8.90	7.20	6.00
SN54962	Triple 3-input NAND gate	13.00	10.40	8.80	SN74962	6.50	5.20	3.35	SN74962N	6.50	5.20	4.40
SN54965	8-input NAND gate	11.40	9.10	7.70	SN74965	5.70	4.55	3.75	SN74965N	5.70	4.55	3.85
SN54966	Dual exclusive or gate	13.00	10.40	8.80	SN74966	6.50	5.20	4.40	SN74966N	6.50	5.20	4.40

RTL CIRCUITRY

17-900: -55° to +125°C

17-800: 0° to +70°C

Type	Function	1-24	25-99	100-999	Type	1-24	25-99	100-999	Type	1-24	25-99	100-999
SN17908L	Adder	7.35	6.35	5.40	SN17908	7.35	6.35	5.40	SN17908L	5.40	4.70	3.95
SN17909L	Buffer	7.00	6.05	5.10	SN17909	7.00	6.05	5.10	SN17909L	4.95	4.30	3.75
SN17910L	Dual 2-input gate	6.00	5.20	4.40	SN17910	6.00	5.20	4.40	SN17910L	4.40	3.85	3.35
SN17921L	Dual 2-input expander gate	5.25	4.55	3.85	SN17921	5.25	4.55	3.85	SN17921L	3.80	3.65	2.80
SN17911L	4-input gate	6.00	5.20	4.40	SN17911	6.00	5.20	4.40	SN17911L	4.40	3.85	3.35
SN17912L	Half-adder	7.00	6.05	5.10	SN17912	7.00	6.05	5.10	SN17912L	4.95	4.30	3.75
SN17913L	Register	8.20	7.10	6.00	SN17913	8.20	7.10	6.00	SN17913L	6.00	5.20	4.40

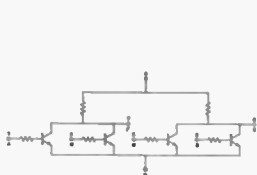
DTL REPLACE 200 SERIES

14-200: -55° to 125°C

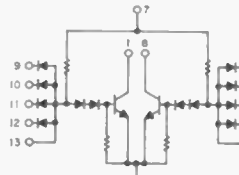
SERIES 14-300 HIGH SPEED DIGITAL DTL: 0° to +70°C

Type	Function	1-24	25-99	100-999	Type	1-24	25-99	100-999	Type	1-24	25-99	100-999
SN14224	Single NAND gate, 8-inputs + NODE, w/o RC	12.50	9.95	8.50	SN14324	7.15	5.70	4.85	SN14324N	7.15	5.70	4.85
SN14231	Dual NAND gate, 4-inputs + NODE/gate, w/o RC	12.50	9.95	8.50	SN14331	7.15	5.70	4.85	SN14331N	7.15	5.70	4.85
SN14261	Dual NAND gate, 4-inputs + NODE/gate, with RC	12.50	9.95	8.50	SN14361	7.15	5.70	4.85	SN14361N	7.15	5.70	4.85
SN14216	Triple NAND gate, 3, 3, 2 + NODE inputs, w/o RC	14.00	11.20	9.50	SN14306	8.05	6.40	5.45	SN14306N	8.05	6.40	5.45
SN14216	Triple NAND gate, 3, 3, 2 + NODE inputs, with RC	14.00	11.20	9.50	SN14316	8.05	6.40	5.45	SN14316N	8.05	6.40	5.45
SN14226	Triple NAND gate, 3, 3, 2 + NODE inputs with RC	14.00	11.20	9.50	SN14326	8.05	6.40	5.45	SN14326N	8.05	6.40	5.45
SN14236	Triple NAND gate, 3-inputs/gate, with RC	14.00	11.20	9.50	SN14336	8.05	6.40	5.45	SN14336N	8.05	6.40	5.45
SN14246	Quad NAND gate, 2-inputs/gate w/o RC	15.55	12.40	10.55	SN14346	8.90	7.05	6.05	SN14346N	8.90	7.05	6.05
SN14266	Quad NAND gate, 2-inputs/gate, with RC	15.55	12.40	10.55	SN14366	8.90	7.05	6.05	SN14366N	8.90	7.05	6.05
SN14286	Hex NAND gate, inv. w/o RC	18.65	14.85	12.65	SN14386	10.70	8.55	7.25	SN14386N	10.70	8.55	7.25
SN14296	Hex NAND gate, inv. w/RC	18.65	14.85	12.65	SN14396	10.70	8.55	7.25	SN14396N	10.70	8.55	7.25
SN14227	Diode Expander, 4, 3, 3, Array	6.35	5.05	4.30	SN14327	4.50	3.55	3.05	SN14327N	4.50	3.55	3.05
SN14213	Pulse Binary Counter	17.10	13.65	11.65	SN14313	9.80	7.75	6.65	SN14313N	9.80	7.75	6.65
SN14215	J-K Flip flop	17.10	13.65	11.65	SN14315	9.80	7.75	6.65	SN14315N	9.80	7.75	6.65
SN14210	Dual Driver, 3-input/driver	14.00	11.20	9.50	SN14310	8.05	6.40	5.45	SN14310N	8.05	6.40	5.45

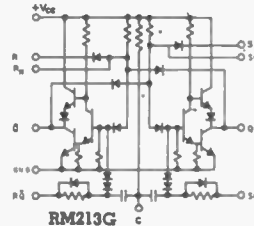
RAYTHEON INTEGRATED CIRCUITS



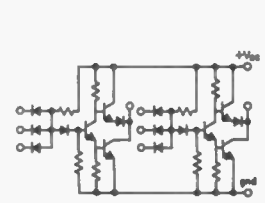
RC322



RM231G



RM213G



RM210G

INTEGRATED CIRCUITS

RM 200 SERIES DTL

Type	Function	1-24	25-99	100-999
RC103A	3-input NOR Gate	15.00	10.00	6.00
RC103B	3-input NOR Gate	15.00	10.00	6.00
RC1031A	3-input NOR Gate	12.00	9.00	5.00
RC1032A	3-input NOR Gate	10.50	7.00	5.00
RC1033A	3-input NOR Gate	15.00	10.00	5.50
RC144B	Dual 3-input NOR Gate	20.00	12.00	9.00
RC322B	Dual 2-input NOR Gate	18.00	12.00	10.50
RC322C	Dual 2-input NOR Gate	30.00	20.00	14.50
RC323B	Dual 3-input NOR Gate	30.00	19.50	14.00
RC323C	Dual 3-input NOR Gate	40.80	25.50	18.00
RC401B	4-input NOR Gate	24.00	15.00	12.00

See Next Page for Case Sizes.

Type	Function	1-49	50-499
RM201G	Dual 3 NAND	15.70	10.00
RM202G	RS Flip-flop 3-inputs/side	15.70	10.00
RM206G	Triple 3 NAND node	17.60	11.25
RM210G	Dual 3 NAND Line Driver	16.00	10.10
RM211G	Dual 4 NAND	15.70	10.00
RM212G	RS Flip-flop 3-input/node	15.70	10.00
RM213G	Pulse Binary Counter	17.40	11.10
RM214G	Single 6 NAND nodes	15.70	10.00
RM215G	J-K Flip-flop	17.40	11.10
RM217G	Diode array 2-4's/2 with node	12.90	8.20
RM220G	Dual 3 NAND Line Driver/node	16.00	10.10

RM Series Continued on Next Page.

RAYTHEON INTEGRATED CIRCUITS

RM200 SERIES DTL (CONT'D)

Type	Function	-199	100-199
RM286G	Hex Gate 1 diode input/gate	19.00	12.00
RM296G	Hex Gate 1 input/gate Pull ups	19.00	12.00
RM6172G	Dual 3 NAND nodes	15.70	10.00
RM6175G	Hex Gate 1 node/gate	19.00	12.00
RM6176G	Hex Gate 1 node/gate Pull up	19.00	12.00
RM6178G	Triple 2 NAND/1 Node	17.80	11.25
RM6179G	Triple 2 NAND/1 Node		
RM6180G	Quad 2 NAND dual 2/dual 1		
RM6181G	Quad 2 NAND dual 2/dual 1		
RM6184G	Triple 2 NAND/1-3 diode		
RM6185G	Triple 2 NAND/1-3 diode		

Type	Function	-199	100-199
RM221G	Dual 3 Nand with node	15.70	10.00
RM222G	RS Flip-flop 3 input/node	15.70	10.00
RM224G	Single 8 NAND node	15.70	10.00
RM226G	Triple 3 NAND 1 gate 2 input	17.80	11.25
RM227G	Diode Array 4-3-3	12.90	8.20
RM231G	Dual 4 NAND/Nodes	15.70	10.00
RM234G	Single 8 NAND/nodes	15.70	10.00
RM236G	Triple 3 NAND	17.80	11.25
RM241G	Dual 4 NAND	15.70	10.00
RM246G	Quad 2 NAND	17.80	11.25
RM281G	Dual 4 NAND/Nodes	15.70	10.00
RM286G	Quad 2 NAND Pull ups	17.80	11.25

RCA

LINEAR INTEGRATED CIRCUITS

Type	Function	1-24	25-99	100-999
CA3000	Push-Pull Input & Output	6.80	5.55	4.70
CA3001	Push-Pull Input & Output	6.40	5.20	4.40
CA3002	Push-Pull Input	4.40	3.60	3.05
CA3004	Push-Pull Input & Output	4.40	3.60	3.05
CA3005	Push-Pull Input & Output	4.80	3.90	3.30
CA3006	Push-Pull Input & Output	6.80	5.55	4.70
CA3007	Audio Amplifier	6.00	4.90	4.15
CA3008	Operational Amplifier	13.60	11.05	9.35
CA3010	Operational Amplifier	12.00	9.75	8.25
CA3011	Wide-Band Amplifier	2.00	1.65	1.40
CA3012	Wide-Band Amplifier	2.25	1.85	1.55
CA3013	Wide-Band Amplifier-Discriminators	2.65	2.15	1.85

Type	Function	1-24	25-99	100-999
CA3014	Wide-Band Amplifier-Discriminators	3.15	2.55	2.15
CD2100	Dual Four-Input Gate	6.00	4.90	4.15
CD2101	Quadruple Two-Input Nor Gate	6.35	5.15	4.35
CD2150	Dual Four-Input Gate	5.20	4.25	3.60
CD2151	Dual Four-Input Gate	5.20	4.25	3.60
CD2152	Eight-Input Gate	5.20	4.25	3.60
CD2200	Dual Four-Input Gate	6.00	4.90	4.15
CD2201	Quadruple Two-Input Gate	6.35	5.15	4.35
CD2203	J-K Flip-Flop	8.00	6.50	5.50

GENERAL INSTRUMENTS INTEGRATED CIRCUITS

HIGH SPEED DIGITAL MICROCIRCUITS (Continued)



HIGH SPEED DIGITAL MICROCIRCUITS

Illustrations indicate shape only; number of leads varies from type to type.

Type	Function	Fig.	1-99	100-249
NC-8	Flip-Flop (20 mc)	A	58.50	46.50
NC-9	Steering Gate (20 mc)	A	31.00	24.50
NC-10	Single 4-input NOR gate (8 nsec delay)	A	52.50	42.00
NC-11	Single 4-input NAND gate (8 nsec delay)	A	56.00	44.50
NC-12	Non-inverting amp.	A	43.50	34.50
NC16	Cross-coupled multivibrator	A	52.50	42.00
NC-17	Schmitt Trigger	A	60.50	48.50
NC-19	Astable vibrator	A	58.50	48.50
NC-101	Video amplifier	A	50.00	40.00
NC-511	Volt. Reg. (+12V)	A	50.00	40.00
NC-513	Volt. Reg. (-12V)	A	50.00	40.00
NC8-390	Low-power compl. Flip Flop	A	110.00	88.00
PC8	Flip-Flop (20 mc)	B	58.50	46.50
PC9	Steering Gate (20 mc)	B	31.00	24.50
PC10	Single 6-input NOR gate	B	58.50	46.50
PC-11	Single 6-input NAND gate	B	61.50	49.00
PC12	Non-inverting amp.	B	43.50	34.50
PC13	RST Flip-Flop	B	117.00	93.00
PC14	Dual 3-input NOR gate	B	102.00	81.00
PC15	Dual 3-input NAND gate	B	109.00	87.00
PC16	Cross-coupled Multivibrator	B	52.50	42.00
PC17	Schmitt Trigger	B	60.50	48.50
PC18	Triggered Multivibrator	B	87.50	70.00
PC19	Astable vibrator	B	58.50	46.50
PC101	Video amplifier	B	50.00	40.00
PC200	Gen. Purpose Diff. Amp.	B	100.00	80.00
PC201	High common mode differential amp.	B	150.00	120.00
PC202	Symmetrical diff. amp.	B	200.00	132.00
PC401	Analog switch (single input)	B	100.00	80.00
PC402	Analog switch (double input)	B	72.00	58.00

Type	Function	Fig.	1-99	100-249
PC501	Volt. reg. (+12V, overload protected)	B	65.00	52.00
PC502	Volt. reg. (+24V, overload protected)	B	80.00	64.00
PC503	Volt. reg. (-12V, overload protected)	B	65.00	52.00
PC504	Volt. reg. (-24V, overload protected)	B	80.00	64.00
PC511	Volt. Reg. (+12V)	B	50.00	40.00
PC512	Volt. Reg. (+24V)	B	60.00	48.00
PC513	Volt. Reg. (-12V)	B	50.00	40.00
PC514	Volt. Reg. (-24V)	B	60.00	48.00

MOS MICROCIRCUIT LOGIC ARRAYS

Operating temperature range -55°C to +85°C.

Type	Function	1-99	100-999
MEM1000	Dual full adder.	32.00	26.40
MEM1002	Dual 3-input NOR-Gate.	12.00	8.00
MEM1005	R-S-T flip flop	15.00	10.00
MEM1008	Dual OR/NOT Gate	18.00	13.50
MEM1050	4 stage binary up-down counter.	68.50	45.50
MEM3020	20-bit shift register.	70.00	48.90
MEM3021	21-bit shift register.	74.50	55.80
MEM3050	Dual 25-bit shift register.	83.30	50.00

DIGITAL DIFFERENTIAL ADDER ELEMENT (DDA)

Type	Function	1-99	100-999
MEM5021-50	Complete Digital Diff. Anal.	360.00	245.00
MEM5021-32	Integrator of ternary type	360.00	245.00

MOS MULTIPLEXER CIRCUITS

MOS multiplexer circuits feature 10¹⁰ ohms input impedance to gate, zener gate protection, square law transfer characteristics, gate, zener gate protection, square law transfer characteristics, low crosstalk and low "on" resistance. Multiplex applications include analog and time division multiplexing and chopping.

Type	Bdss	BVgss	1-99	100-999
MEM2004	-30	-40	67.75	45.40
MEM2005	-30	-25	55.50	37.18
MEM2009	-30	-30	40.00	26.60

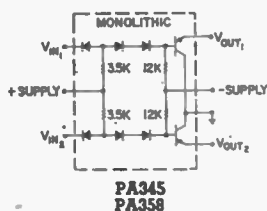
MOS INTEGRATED SERIES—SHUNT CHOPPER

MOS integrated choppers have no offset voltage, high on-to-off ratio, close thermal track and stability.

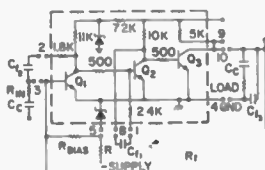
Type	On-to-off Ratio	Frequency (kHz)	1-99	100-999
MEM1006	200 db	100	37.50	25.10



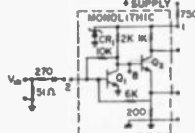
Integrated Circuits



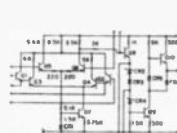
PA345
PA358



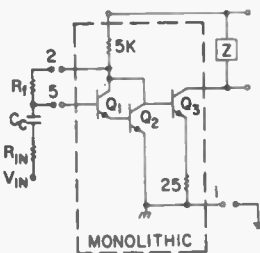
PA116



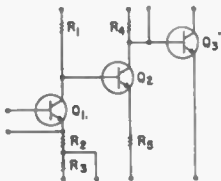
PA108



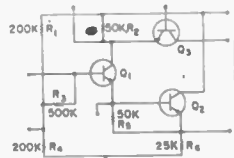
PA107



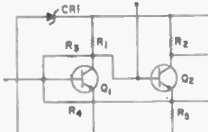
PA114



D12X207-1
D12X207-2



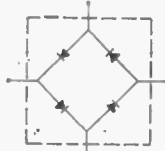
12X218



D12X257



PA113



PA909

Offer optimum in performance, size and reliability. Hybrid circuits fabricated utilizing transistor and diode elements in combination with thin film resistors and capacitors. Fabricated with diffusion techniques in single silicon epitaxial monolithic substance. All integrated circuits feature planar epitaxial passivated construction and are enclosed in hermetically sealed package.

TYPE D 12X207—TO-5

Medium frequency amplifiers with 3 very high gain transistors in combination with 5 resistors. Input impedance is 10 Kohms min. and noise voltage is 10 mv max. between 400 and 100,000 cycles. High frequency 3 db point of these amplifiers is 40 kc.

Type	Supply v. (min)	Volt. gain (mv)	Max. opt. volts	1-99	100-999
D12X207-2	30	500/850	6	75.00	50.00
D12X207-1	20	350/700	4.5	60.00	40.00

TYPE D 12X218—12-LEAD FLAT-PACK

Amplifier circuit featuring unity voltage gain with minimum input impedance of 50 megohms. Output resistance is a minimum of 1.5 Kohms. Supply voltage: 45 volts.

Type	Op. temp. rng.	1-99	100-999
D12X218	-25 to +125°C	82.50	55.00

TYPE D 12X257—TO-5

Video amplifier with 2 transistors exhibiting ft's in excess of 600 mcs. Broad band capabilities up to 25 mcs.

Type D12X257. 1-99 45.00 100-999 30.00

LOW LEVEL SWITCHES—6-LEAD FLAT-PACK

Contain 6 diodes, 4 resistors and 2 transistors. Feature extremely low offset voltage, low capacitances, and low leakage current. PA345 is tighter spaced than PA358.

Type	1-9	10-99	100-999
PA345	44.75	29.95	19.90
PA358	39.40	26.25	17.50

TYPE PA-107—TO-5

High-performance operational amplifier with low input.

Type	Output V swing	1-9	10-99	100-999
PA107	20 V. peak to peak	85.60	63.75	42.50

VIDEO AMPLIFIER—TO-5

Typical bandwidth of 50 mcs. Input impedance is 20 ohms; output impedance is 500 ohms.

Type	Output V swing	1-9	10-99	100-999
PA108	1 v. peak to peak	38.30	25.50	17.00

TYPE PA113—TO-5

3-stage direct-coupled amplifier featuring high current and high power gains. Easy application of either negative feedback for high gain stability, or positive feedback for monostable, bistable or astable applications.

Type	Supply V		1-9	10-99	100-999
	Min.	Max.			
PA113	4.5	15	15.15	10.10	6.75

TYPE PA116—TO-5

Summing amplifier featuring high gain and accurate addition of AC signals. Circuit can also be used as a stable high gain voltage amplifier. Low input and output capacitances with a large output voltage swing. Current gain bandwidth without feedback; 100 mcs.

Type	Current gain	1-9	10-99	100-999
PA116	100,000	78.75	52.50	35.00

AUDIO FREQUENCY AMPLIFIER

Designed for general purpose high gain applications. Features typical current gain with feedback of 6,000. Power supply voltage 12 volts. Also has option for additional stages and provisions for incorporation of a feedback circuit.

Type	Bandwidth (typ.)	1-9	10-99	100-999
PA114	1 mc	27.00	18.00	12.00

DIODE QUADS FOR GATING RING DEMODULATION APPLICATIONS—TO-5

Close matching of forward voltage and low leakage currents.

Type	Description	1-9	10-99	100-999
PA908	shunt quad	16.87	11.25	7.50
PA909	series quad	16.87	11.25	7.50

THIS INTEGRATED CIRCUIT LISTING IS COMPLETE TO THE DATE OF PRINTING, AUGUST 15, 1966, BUT NEW ITEMS ARE CONTINUALLY BEING DEVELOPED AND ARE ADDED TO THE NEWARK STOCK. CHECK WITH THE NEWARK INDUSTRIAL DEPARTMENT FOR ANY NEW INTEGRATED CIRCUITS NOT LISTED. ORDERS WILL BE BILLED TO YOU AT THOSE PRICES IN EFFECT AT TIME OF SHIPMENT.



Sylvania Integrated Circuits

SUHL I (CONTINUED FROM PRECEDING PAGE)

Type	Circuit	TPD (nsecs)	Fan-Out Military	Fan-Out Industrial	1-24	25-99	100-249
SF20-02	20mc	15	.....	.....	16.45	13.15	11.10
SF20-03	20mc	15	.....	.....	16.45	13.15	11.10
SF21-02	Two phase SR clocked flip-flop	20mc	7	.....	14.00	11.20	9.45
SF21-03	20mc	7	.....	.....	14.00	11.20	9.45
SF22-02	20mc	.....	12	12.30	9.80	8.30	.....
SF22-03	20mc	12	.....	12.30	9.80	8.30	.....
SF23-02	20mc	.....	6	8.25	6.55	5.55	.....
SF23-03	20mc	.....	6	8.25	6.55	5.55	.....
SF30-02	12mc	15	.....	.....	16.45	13.15	11.10
SF30-03	12mc	15	.....	.....	16.45	13.15	11.10
SF31-02	12mc	7	.....	.....	14.00	11.20	9.45
SF31-03	12mc	7	.....	.....	14.00	11.20	9.45
SF32-02	12mc	.....	12	12.30	9.80	8.30	.....
SF32-03	12mc	12	.....	12.30	9.80	8.30	.....
SF33-02	12mc	.....	6	8.25	6.55	5.55	.....
SF33-03	12mc	.....	6	8.25	6.55	5.55	.....

Type	Circuit	TPD (nsecs)	Fan-Out Military	Fan-Out Industrial	1-24	25-99	100-249
SF50-02	20mc	15	.....	.....	18.50	14.75	12.50
SF50-03	20mc	15	.....	.....	18.50	14.75	12.50
SF51-02	J-K Flip-Flop	20mc	7	.....	15.75	12.55	10.60
SF51-03	20mc	7	.....	.....	15.75	12.55	10.60
SF52-02	(and inputs)	20mc	.....	12	13.85	11.05	9.35
SF52-03	20mc	.....	12	13.85	11.05	9.35	.....
SF53-02	20mc	.....	6	9.30	7.40	6.25	.....
SF53-03	20mc	.....	6	9.30	7.40	6.25	.....
SF60-02	20mc	15	.....	.....	18.50	14.75	12.50
SF60-03	20mc	15	.....	.....	18.50	14.75	12.50
SF61-02	J-K flip-flop	20mc	7	.....	15.75	12.55	10.60
SF61-03	(or inputs)	20mc	.....	12	13.85	11.05	9.35
SF62-02	20mc	.....	6	9.30	7.40	6.25	.....
SF62-03	20mc	.....	6	9.30	7.40	6.25	.....
SF63-02	20mc	.....	6	9.30	7.40	6.25	.....
SF63-03	20mc	.....	6	9.30	7.40	6.25	.....

SUHL II

Type	Circuit	TPD (nsecs)	Fan-Out Military	Fan-Out Industrial	1-24	25-99	100-249
SG210-02	7	.....	.....	.....	12.40	9.90	8.35
SG210-03	7	11	.....	.....	12.40	9.90	8.35
SG211-02	7	11	.....	.....	10.50	8.40	7.10
SG211-03	7	6	.....	.....	10.50	8.40	7.10
SG212-02	7	6	9	.....	9.30	7.40	6.25
SG212-03	7	.....	9	.....	9.30	7.40	6.25
SG213-02	7	.....	5	.....	6.20	4.95	4.20
SG213-03	7	.....	5	.....	6.20	4.95	4.20
SG220-02	6	.....	.....	.....	13.70	10.90	9.25
SG220-03	6	11	.....	.....	13.70	10.90	9.25
SG221-02	6	11	.....	.....	11.85	9.30	7.85
SG221-03	6	6	.....	.....	11.85	9.30	7.85
SG222-02	6	6	9	.....	10.25	8.20	6.95
SG222-03	6	.....	9	.....	10.25	8.20	6.95
SG223-02	6	.....	5	.....	6.85	5.45	4.60
SG223-03	6	.....	5	.....	6.85	5.45	4.60
SG230-02	2	.....	.....	.....	9.95	7.95	6.70
SG230-03	2	.....	.....	.....	9.95	7.95	6.70
SG231-02	2	.....	.....	.....	9.95	7.95	6.70
SG231-03	2	.....	.....	.....	9.95	7.95	6.70
SG232-02	2	.....	.....	.....	5.85	4.70	3.95
SG232-03	2	.....	.....	.....	5.85	4.70	3.95
SG233-02	2	.....	.....	.....	5.85	4.70	3.95
SG233-03	2	.....	.....	.....	5.85	4.70	3.95
SG240-02	6	11	.....	.....	12.40	9.90	8.35
SG240-03	6	11	.....	.....	12.40	9.90	8.35
SG241-02	6	6	.....	.....	10.50	8.40	7.10
SG241-03	6	6	.....	.....	10.50	8.40	7.10
SG242-02	6	.....	9	.....	9.30	7.40	6.25
SG242-03	6	.....	9	.....	9.30	7.40	6.25
SG243-02	6	.....	5	.....	6.20	4.95	4.20
SG243-03	7.5	.....	5	.....	6.20	4.95	4.20
SG250-02	7.5	11	.....	.....	12.40	9.90	8.35
SG250-03	7.5	11	.....	.....	12.40	9.90	8.35
SG251-02	7.5	6	.....	.....	10.50	8.40	7.10
SG251-03	7.5	6	.....	.....	10.50	8.40	7.10

Type	Circuit	TPD (nsecs)	Fan-Out Military	Fan-Out Industrial	1-24	25-99	100-249
SG252-02	OR Gate	7.5	.....	9	9.30	7.40	6.25
SG252-03	7.5	.....	9	9.30	7.40	6.25	.....
SG253-02	7.5	.....	5	6.20	4.95	4.20	.....
SG253-03	7.5	.....	5	6.20	4.95	4.20	.....
SG260-02	8	11	.....	.....	12.40	9.90	8.35
SG260-03	8	11	.....	.....	12.40	9.90	8.35
SG261-02	Single 8 Input NAND/NOR Gate	8	6	.....	10.50	8.40	7.10
SG261-03	8	6	.....	.....	10.50	8.40	7.10
SG262-02	8	.....	9	.....	9.30	7.40	6.25
SG262-03	8	.....	9	.....	9.30	7.40	6.25
SG263-02	8	.....	5	6.20	4.95	4.20	.....
SG263-03	8	.....	5	6.20	4.95	4.20	.....
SG270-02	2	.....	.....	.....	8.70	6.95	5.90
SG270-03	2	.....	.....	.....	8.70	6.95	5.90
SG271-02	Dual 4 Input OR Expander	2	.....	.....	8.70	6.95	5.90
SG271-03	2	.....	.....	.....	8.70	6.95	5.90
SG272-02	2	.....	.....	.....	5.15	4.10	3.45
SG272-03	2	.....	.....	.....	5.15	4.10	3.45
SG273-02	2	.....	.....	.....	5.15	4.10	3.45
SG273-03	2	.....	.....	.....	5.15	4.10	3.45
SF250-02	30mc	11	.....	.....	12.40	9.90	8.35
SF250-03	30mc	11	.....	.....	12.40	9.90	8.35
SF251-02	J-K Flip-Flop and Inputs	30mcs	6	.....	10.50	8.40	7.10
SF251-03	30mcs	6	.....	.....	10.50	8.40	7.10
SF252-02	30mcs	.....	9	.....	9.30	7.40	6.25
SF252-03	30mcs	.....	9	.....	9.30	7.40	6.25
SF253-02	30mcs	.....	5	6.20	4.95	4.20	.....
SF253-03	30mcs	.....	5	6.20	4.95	4.20	.....
SF260-02	30mcs	11	.....	.....	12.40	9.90	8.35
SF260-03	30mcs	11	.....	.....	12.40	9.90	8.35
SF261-02	J-K Flip-Flop	30mcs	6	.....	10.50	8.40	7.10
SF261-03	30mcs	6	.....	.....	10.50	8.40	7.10
SF262-02	30mcs	.....	9	.....	9.30	7.40	6.25
SF262-03	30mcs	.....	9	.....	9.30	7.40	6.25
SF263-02	30mcs	.....	5	6.20	4.95	4.20	.....
SF263-03	30mcs	.....	5	6.20	4.95	4.20	.....

MONOLITHIC DIGITAL FUNCTIONAL ARRAYS

Type	Circuit Function	1-24	25-99	100-249
SM10-02	Full Adder	34.75	27.70	23.45
SM10-03		34.75	27.70	23.45
SM11-02		29.55	23.55	19.95
SM11-03		29.55	23.55	19.95
SM12-02		26.05	20.80	17.60
SM12-03		26.05	20.80	17.60
SM13-02		17.40	13.85	11.75
SM13-03	17.40	13.85	11.75	
SM20-02	Fast Adder Dependent Carry	34.75	27.70	23.45
SM20-03		34.75	27.70	23.45
SM21-02		29.55	23.55	19.95
SM21-03		29.55	23.55	19.95
SM22-02		26.05	20.80	17.60
SM22-03		26.05	20.80	17.60
SM23-02		17.40	13.85	11.75
SM23-03	17.40	13.85	11.75	

Type	Circuit Function	1-24	25-99	100-249
SM30-02	Fast Adder Independent Carry	34.75	27.70	23.45
SM30-03		34.75	27.70	23.45
SM31-02		29.55	23.55	19.95
SM31-03		29.55	23.55	19.95
SM32-02		26.05	20.80	17.60
SM32-03		26.05	20.80	17.60
SM33-02		17.40	13.85	11.75
SM33-03	17.40	13.85	11.75	
SM40-02	Carry Decoder	34.75	27.70	23.45
SM40-03		34.75	27.70	23.45
SM41-02		29.55	23.55	19.95
SM41-03		29.55	23.55	19.95
SM42-02		26.05	20.80	17.60
SM42-03		26.05	20.80	17.60
SM43-02		17.40	13.85	11.75
SM43-03	17.40	13.85	11.75	

AMPLIFIERS

SA10	Sense Amplifier	125	45	.....	35.90	28.60	24.20
SA11	Flat-pack only	125	45	.....	30.60	26.00	22.00
SA20	Wide band video amplifier, 18 Lead TO-5 can	100 mc linear	20db typical gain.	.....	10.05	8.00	6.80

MIXING PRIVILEGES

Pricing for mixed quantities of integrated circuits: Price benefit given where single order consists of mixture of Integrated Circuit types listed on the price list & in the same type package. Types within the following groups may not be added to any other group in calculating price cut.

- A:—SA10 and SA11
- B:—SA20 only
- C:—Any SF or SG prefixed types
- D:—SM10, SM20, SM30, SM40 series
- E:—SM50 series
- F:—SM60 and SM70 series

SM50 SERIES

Type	Function	Application	1-24	25-99	100-249
SM50-02	Decade Divider	MP*	78.15	60.75	51.40
SM50-03		MP*	78.15	60.75	51.40
SM51-02		MS**	64.75	51.85	43.70
SM51-03		MS**	64.75	51.85	43.70
SM52-02		IP†	57.15	45.55	38.55
SM52-03		IP†	57.15	45.55	38.55
SM53-02		IS‡	38.10	30.40	25.70
SM53-03		IS‡	38.10	30.40	25.70

*MILITARY PRIME

**MILITARY STANDARD

†INDUSTRIAL PRIME

‡INDUSTRIAL STANDARD

Integrated Circuits

SPRAGUE MONOLITHIC NETWORKS

DTL UTILOGIC ELEMENTS (+10C to 55C) in
10-LEAD TO-5 PACK

COMPATIBLE TTL ELEMENTS (—0°C to +70°C) in
14-LEAD FLAT PACK

Same as series SU 300 Except reduced temperature range.

Type	Description	1-24	25-99	100-999	1000-999 Sgl.	1000-2499
LU300K	Dual 3-Input Gate Expander	3.90	3.15	2.70	2.60	2.45
LU305K	6-Input and Gate	4.20	3.35	2.95	2.80	2.65
LU306K	Dual 3-Input and Gate	4.20	3.35	2.95	2.80	2.65
LU314K	7-Input NOR Gate	4.20	3.35	2.95	2.80	2.65
LU315K	Dual 3-Input NOR Gate	4.20	3.35	2.95	2.80	2.65
LU316K	Dual 2-Input NOR Gate*	4.20	3.35	2.95	2.80	2.65
LU320K	J-Binary Element	5.55	4.50	3.95	3.75	3.55
LU331K	Dual 2-Input OR Gate*	4.20	3.35	2.95	2.80	2.65
LU332K	Dual 3-Input OR Gate	4.20	3.35	2.95	2.80	2.65

DTL UTILOGIC ELEMENTS (—20°C to 85°C) in
10-LEAD TO-5 PACK

High noise margins up to 1.2v, gate fan-outs of up to 17 and a J-K binary element for low system cam counts.

Type	Function	1-24	25-99	100-999
SU300K	Dual 3-Input Gate Expander	7.35	6.30	5.25
SU305K	6-Input and Gate	8.20	6.95	5.85
SU306K	Dual 3-Input and Gate	8.20	6.95	5.85
SU314K	7-Input NOR Gate	8.20	6.95	5.85
SU315K	Dual 3-Input NOR Gate	8.20	6.95	5.85
SU316K	Dual 2-Input NOR Gate*	8.20	6.95	5.85
SU320K	J-K Binary Element	13.30	11.40	9.50
SU331K	Dual 2-Input OR Gate*	8.20	6.95	5.85
SU332K	Dual 3-Input OR Gate	8.20	6.95	5.85

COMPATIBLE DTL ELEMENTS (0°C to 70°C) in
14-LEAD Flat Pack

For Industrial uses and Mil range systems.

Type	Function	1-24	25-99	Mix 100-999	100-999
NE106J	Dual 5-Input Gate Expander	5.10	4.10	3.60	3.40
NE112J	Dual 3-Input High Fanout NAND/NOR Gate	7.65	6.15	5.40	5.10
NE116J	Dual 4-Input NAND/NOR Gate*	6.55	5.20	4.60	4.35
NE124J	RST binary element	10.40	8.35	7.35	6.95
NE125J	J-K binary element	11.55	9.25	8.10	7.70
NE156J	Dual 4-Input Clock/CAPACITIVE Line Drivers	7.65	6.15	5.40	5.10
NE161J	One-shot Multivibrator	26.10	21.00	18.40	17.45
NE170J	Triple 3-Input NAND/NOR Gate	7.45	5.95	5.20	4.95
NE180J	Quad 2-Input NANS/NOR Gate	7.45	5.95	5.20	4.95

LINEAR CIRCUITS (—55°C to 125°C) 10-LEAD TO-5 PACK

SE501K	Video Amplifier	34.40	27.50	24.00	22.90
SE505K	General Purpose Differential Amplifier	22.50	18.00	15.75	15.00
SE506K	Differential Operational Amplifier	52.50	42.00	36.75	35.00
SE518K	Analog Comparator	22.50	18.00	15.75	15.00

COMPATIBLE TTL ELEMENTS (—55°C to +125°C) in
14-LEAD FLAT PACK

For high speed applications where DTL speeds are not sufficient. Gates utilize multiple-emitter input transistors to optimize switching speeds and push-pull outputs to maintain high speeds under heavy capacitive loads.

Type	Description	1-24	25-99	MIX 100-999	100-999
SE806J	Dual 4-Input Expander	10.40	8.40	7.50	7.00
SE808J	Single 8-Input NAND Gate	13.35	10.70	9.40	8.90
SE816J	Dual 4-Input NAND Gate	13.35	10.70	9.40	8.90
SE825J	J-K Binary Element	19.80	15.80	13.90	13.20
SE826J	Dual AC Binary Element	30.00	24.00	21.00	20.00
SR840J	Dual Exclusive OR Gate	14.20	11.40	10.20	9.60
SE855J	Dual 4-Input Power Gate	15.50	12.25	10.80	10.20
SE870J	Triple 3-Input NAND Gate	14.80	11.90	10.40	9.90
SE880J	Quad 2-Input NAND Gate	14.80	11.90	10.40	9.90

HUGHES

● NEW THIN FILM CIRCUITS

Type No.	Application High V op Amp Voltage	Swing ±36V	Package Low TO-5	1-99	100-999
HMC1148				35.00	26.00

Type	Description	1-24	25-99	MIX 100-999	100-999
NE806J	Dual 4-Input Expander	5.20	4.20	3.80	3.50
NE808J	Single 8-Input NAND Gate	6.55	5.20	4.60	4.35
NE816J	Dual 4-Input NAND Gate	6.55	5.20	4.60	4.35
NE825J	J-K Binary Element	11.55	9.25	8.10	7.70
NE826J	Dual AC Binary Element	15.00	12.00	10.50	10.00
NE840J	Dual Exclusive OR Gate	7.10	5.70	5.10	4.80
NE855J	Dual 4-Input Power Gate	7.65	6.15	5.40	5.10
NE870J	Triple 3-Input NAND Gate	7.45	5.95	5.20	4.95
NE880J	Quad 2-Input NAND Gate	7.45	5.95	5.20	4.95

COMPATIBLE LOW-POWER ELEMENTS (—55°C to +125°C)
14-LEAD FLAT PACK

SE416J	Dual 4-Input NAND/NOR Gate*	22.50	17.95	15.80	14.95
SE424J	Dual AC Binary Element	30.00	24.00	21.00	20.00
SE455J	Dual 4-Input BUFFER/DRIVER	23.20	18.55	16.25	15.45
SE480J	Quad 2-Input NAND/NOR Gate	23.20	18.55	16.25	15.45

COMPATIBLE LOW-POWER ELEMENTS (0°C to 70°C) in
14-LEAD FLAT PACK

NE416J	Dual 4-Input NAND/NOR Gate*	11.25	9.00	7.90	7.50
NE424J	Dual AC Binary Element	15.00	12.00	10.50	10.00
NE455J	Dual 4-Input BUFFER/DRIVER	12.00	9.60	8.40	8.00
NE480J	Quad 2-Input NAND/NOR Gate	12.00	9.60	8.40	8.00

COMPATIBLE DTL ELEMENTS (—55°C to +125°C) in
14-LEAD FLAT PACK

For military/aerospace applications. Noise margins, speed and fan outs are guaranteed from —55°C to +125°C (under worst case power supply & temperature differentials between driving and driven units). The most complete performance guaranteed line of high reliability DTL available.

Type	Description	1-24	Mix + 25-99	Mix + 100-999	100-999 Sgl. Type
SE106J	Dual 5-Input Gate Expander	7.90	5.70	5.10	4.85
SE111J	Dual 4-Input High Fan-Out NAND/NOR Gate	15.50	12.25	10.80	10.20
SE112J	Dual 3-Input High Fan-Out NAND/NOR Gate*	15.50	12.25	10.80	10.20
SE116J	Dual 4-Input NAND/NOR Gate*	13.35	10.70	9.40	8.90
SE124J	RST Binary Element	17.85	14.30	12.50	11.90
SE125J	J-K Binary Element	19.80	15.80	13.90	13.20
SE155J	Dual 4-Input Clock/Capacitive Line Driver*	15.50	12.25	10.80	10.20
SE156J	Dual 4-Input Clock/Capacitive Line Driver*	15.50	12.25	10.80	10.20
SE161J	One-Shot Multivibrator	59.90	48.00	40.20	39.95
SE170J	Triple 3-Input NAND/NOR Gate	14.80	11.90	10.40	9.90
SE180J	Quad 2-Input NAND/NOR Gate	14.80	11.90	10.40	9.90
US720J	Quad 2-Input NAND/NOR Gate	15.60	12.50	10.95	10.40
US721J	Triple 3-Input NAND/NOR Gate	15.60	12.50	10.95	10.40
US727J	Triple 2-Input NAND/NOR Gate*	15.60	12.50	10.95	10.40
US729J	RST Binary Element	18.60	14.90	13.10	12.40
US730J	Dual 5-Input NAND/NOR Gate	14.10	11.25	9.90	9.40
US731J	Quad 2-Input Gate Expander	8.00	6.40	5.65	5.35
US732J	12-Input Gate Expander	8.00	6.40	5.65	5.35

LINEAR CIRCUITS (—55°C to +125°C) in 10-LEAD FLAT PACK
Monolithic construction using planar and epitaxial techniques.

SE501G	Video Amplifier	37.40	29.95	26.15	24.15
SE505G	Gen. Purpose Differential Amplifier	25.50	20.50	17.85	17.00

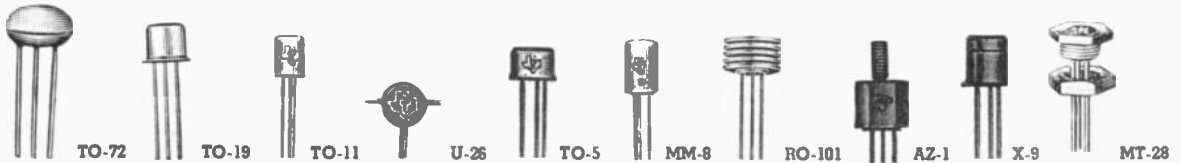
LINEAR CIRCUITS (0°C to 70°C) in 10-LEAD TO-5 PACK

NE506K	Differential operational Amplifier	26.25	21.00	18.50	17.50
NE518K	Analog Comparator	11.25	9.00	7.90	7.50

Make NEWARK Your One Stop Source
For INTEGRATED CIRCUITS



Texas Instruments Semiconductors



GERMANIUM CONSUMER TRANSISTORS

Type	Case	Max Ccb pf	Max rb/Cc psec	Min fT Mc	1-99	100-999
TXM01	TO-72	1	15	355	.92	.61
TXM02	TO-72	1	15	282	.92	.61
TXM03	TO-72	1	15	316	.92	.61
TXM04	TO-72	1	15	224	.92	.61
TXM06	TO-72	1	1.0	380	.92	.61
TXM07	TO-72	1	15	315	.92	.61
TXM08	TO-72	1	15	380	.92	.61
TXM10	TO-72	1	6	630	.92	.61
TXM11	TO-72	1	15	500	.92	.61

All Epitaxial Planar. Power Dissipation, 75 mw @ 25°C.

Type	Case	Coll Volt v	Max Cre. pf	Max rb/Cc psec	fT Mc Typ	1-99	100-999
TI400	TO-18	18	1	15	500	.92	.61
TI401	TO-18	18	1	15	500	.92	.61
TI402	TO-18	18	1	15	500	.92	.61
TI403	TO-18	18	1	15	500	.92	.61

All are Epitaxial Mesa. Power Diss., 75 mw, free air. Ic=50 ma.

GERMANIUM HI-FREQ. SMALL SIGNAL TRANSISTORS

Type	Case	Pwr Diss. Free Air Mw	Ic mA	Coll. Volt v	fT/Mc Min.	1-99	100-999
2N1141	TO-11	300	100	35	.....	4.83	3.22
2N1141A	TO-11	300	100	35	500	13.70	9.14
2N1142	TO-11	300	100	30	.....	4.20	2.80
2N1142A	TO-11	300	100	30	400	6.29	4.18
2N1143	TO-11	300	100	25	.....	3.50	2.33
2N1143A	TO-11	300	100	30	400	5.86	3.91
2N1195	TO-11	225	40	30	400	3.95	2.63
2N1385	TO-11	300	100	25	250	15.47	10.31
2N1488	TO-11	125	30	40	60	1.28	.85
2N1489	TO-11	125	30	40	102	1.64	1.09
2N1490	TO-11	125	30	60	60	1.47	.98
2N2986†	TO-18	75	50	15	400	1.48	.99
2N2987†	TO-18	75	50	30	400	3.38	2.25
2N2998	TO-18	75	50	15	600	52.50	35.00
TX3024†	U-26	75	20	15	1500	52.50	35.00

All mesa except (†) epitaxial mesa.

GERMANIUM ALLOY PNP GENERAL PURPOSE AMPLIFIERS

Type	Case	Pd Mw	Ic Ma	Coll. Volt v	LFE Min	1-99	100-999
2N650A	TO-5	200	500	45	33	1.69	1.13
2N651A	TO-5	200	500	45	45	1.69	1.13
2N652A	TO-5	200	500	45	80	2.25	1.50
2N658	TO-5	250	1000	30	25	1.28	.85
2N659	TO-5	250	1000	30	40	1.30	.87
2N660	TO-5	250	1000	30	60	1.48	.99
2N661	TO-5	250	1000	30	80	1.71	1.14
2N662	TO-5	250	1000	30	30	1.40	.93
2N1273	TO-5	150	150	15	30	.42	.28
2N1274	TO-5	150	150	25	30	.50	.33
2N1370	TO-5	150	150	25	50	.72	.48
2N1371	TO-5	150	150	45	50	1.14	.76
2N1372	TO-5	250	200	25	30	.81	.54
2N1378	TO-5	250	200	45	30	1.20	.80
2N1379	TO-5	250	200	25	50	1.02	.68
2N1374	TO-5	250	200	45	50	1.38	.92
2N1375	TO-5	250	200	25	75	1.29	.86
2N1376	TO-5	250	200	45	75	1.50	1.00
2N1377	TO-5	250	200	12	95	1.29	.86
2N1379	TO-5	250	200	25	95	1.44	.96
2N1380	TO-5	250	200	12	30	.66	.44
2N1381	TO-5	250	200	25	30	.72	.48
2N1382	TO-5	200	200	25	50	.99	.66
2N1383	TO-5	200	200	25	30	.92	.61

GERMANIUM POWER TRANSISTORS

Type	Case	Ic a	Pd 25°C Case	V(br) cbo	hFE Min.	1-99	100-999
TI158L*	MM-8	3	25	30	25	2.25	1.50
TI158L*	MM-8	3	25	60	25	2.62	1.75
TI158AL*	MM-8	3	25	80	25	3.30	2.20
TI159	RO-101	3	20	40	20	3.00	2.00
TI160	RO-101	3	20	60	20	3.90	2.60
TI161	RO-101	3	20	80	20	5.85	3.90
TI162	RO-101	3	20	100	20	7.65	5.10
2N250A	TO-3	7	90	40	25	1.80	1.15

(Continued in next column)

GERMANIUM POWER TRANSISTORS (Continued)

Type	Case	Ic a	Pd 25°C Case	V(br) cbo	hFE Min.	1-99	100-999
2N251A	TO-3	7	90	60	25	2.25	1.25
2N456A	TO-3	7	150	40	30	1.80	1.20
2N456B	TO-3	7	150	40	30	1.80	1.20
2N457A	TO-3	7	150	60	30	2.85	1.45
2N457B	TO-3	7	150	60	30	2.85	1.45
2N458A	TO-3	7	150	80	30	2.80	1.75
2N458B	TO-3	7	150	80	30	2.80	1.75
2N511	TO-3	7	150	40	20	4.05	2.70
2N511A	TO-3	25	150	60	20	4.75	3.15
2N511B	TO-3	25	150	80	20	5.20	3.45
2N512	TO-3	25	150	40	20	4.75	3.15
2N512B	TO-3	25	150	80	20	7.10	4.75
2N513	TO-3	25	150	40	20	6.00	4.00
2N513B	TO-3	25	150	80	20	8.70	5.80
2N514	TO-3	25	150	40	20	8.25	5.50
2N514B	TO-3	25	150	80	20	12.00	8.00
TI539	AZ-1	3 5	25	80	30	7.65	5.10
TI540	AZ-1	3.5	25	80	45	7.87	5.25
2N1021	TO-3	7	150	100	30	3.55	2.05
2N1022	TO-3	7	150	120	30	4.15	2.40
2N1022A	TO-3	7	150	120	30	4.15	2.40
2N1038	X-9	3	20	40	20	2.85	1.90
2N1039	X-9	3	20	60	20	3.75	2.50
2N1040	X-9	3	20	80	20	5.70	3.80
2N1041	X-9	3	20	100	20	7.50	5.00
2N1042	AZ-1	3.5	20	40	20	4.50	3.00
2N1043	AZ-1	3.5	20	60	20	5.85	3.90
2N1044	AZ-1	3.5	20	80	20	8.80	5.85
2N1045	AZ-1	3.5	20	100	20	11.45	7.65
2N1539	TO-3	5	150	40	50	1.60	1.05
2N1540	TO-3	5	150	60	50	1.80	1.20
2N1541	TO-3	5	150	80	50	2.05	1.90
2N1542	TO-3	5	150	100	50	3.50	2.35
2N2554/1040-1	TO-3	5	150	120	50	5.75	3.15
2N1543	AZ-1	3	20	40	20	3.00	2.00
2N2552/1038-1	AZ-1	3	20	80	20	5.85	3.05
2N2556/1038-2	MT-28	3	20	40	20	3.05	2.05
2N2560/1042-1	AZ-1	3.5	20	40	20	4.45	3.95
2N2561/1043-1	AZ-1	3.5	20	60	20	5.80	3.85
2N2564/1042-2	X-9	3.5	20	40	20	4.30	2.85
2N2565/1043-2	X-9	3.5	20	60	20	5.65	3.75
2N2659	X-9	3	15	50	30	1.80	1.20
2N2660	X-9	3	15	70	30	2.35	1.55
2N2661	X-9	3	15	90	30	2.85	1.90
2N2662	AZ-1	3	15	50	30	1.95	1.30
2N2663	AZ-1	3	15	70	30	2.50	1.60
2N2664	AZ-1	3	15	90	30	3.00	2.00
2N2665	X-9	3	15	50	30	2.40	1.60
2N2666	X-9	3	15	70	30	3.10	2.05
2N2667	X-9	3	15	90	30	3.75	2.50
2N2668	AZ-1	3	15	50	30	2.55	1.70
2N2669	AZ-1	3	15	70	30	3.25	2.15
2N2670	AZ-1	3	15	90	30	3.90	2.60
TI3027	TO-3	7	150	45	40	1.35	.80
TI3028	TO-3	7	150	60	40	1.45	.95
TI3029	TO-3	7	150	80	30	1.65	1.10
TI3030	TO-3	7	150	100	30	1.90	1.25
TI3031	TO-3	7	150	120	30	2.05	1.35
2N3146	TO-3	15	150	150	25	4.60	3.50

GERMANIUM SWITCHING TRANSISTORS

Type	Case	Pwr Diss mw	Coll. Curr. ma	Coll. Volt v	hfb Mc Min	1-99	100-999
2N388	TO-5	150	200	25	5	.60	.40
2N388A	TO-5	150	200	40	5	1.03	.69
2N395	TO-5	150	250	30	3	.50	.33
2N396	TO-5	150	250	30	5	.61	.41
2N404	TO-5	150	100	25	4	.46	.31
2N404A	TO-5	150	150	40	4	.66	.44
2N426	TO-5	150	400	30	3	.72	.48
2N427	TO-5	150	400	30	5	.92	.61
2N428	TO-5	150	400	30	10	1.23	.82
2N594†	TO-5	150	300	20	1.5	2.75	1.83
2N595†	TO-5	150	300	20	3	4.25	2.83
2N596†	TO-5	150	300	20	3	5.65	3.77
2N705†	TO-18	150	50	15	.....	1.04	.69
2N711*	TO-18	150	50	12	.....	.89	.59
2N711A†	TO-18	150	100	15	150	.89	.59
2N711B†	TO-18	150	100	15	150	.94	.63
2N797†	TO-18	150	150	20	600	4.27	2.85
2N960†	TO-18	150	100	15	300	.96	.64
2N961†	TO-18	150	100	12	300	.91	.61
2N962†	TO-18	150	100	12	300	.86	.57

†Bidirectional. All alloy except (†) Epitaxial Mesa.

Texas Instrument Semiconductors



GERMANIUM SWITCHING TRANSISTORS (Continued)

Type	Case	Pwr Diss mW	Coll. Curr. mA	Coll. Volt V	h _{fb} Mc Min	1-99	100- 999	Type	Case	Pwr Diss mW	Coll. Curr. mA	Coll. Volt V	h _{fb} Mc Min	1-99	100- 999
2N963	TO-18	150	100	12		.83	.55	2N1304	TO-5	150	300	30	5	.60	.40
2N964	TO-18	150	100	12	300	.99	.66	2N1305	TO-5	150	300	30	5	.80	.40
2N965	TO-18	150	100	15	300	.94	.63	2N1306	TO-5	150	300	25	10	.80	.53
2N966	TO-18	150	100	12	300	.89	.59	2N1307	TO-5	150	300	30	10	.80	.53
2N967	TO-18	150	100	12		.87	.58	2N1308	TO-5	150	300	25	15	1.08	.72
2N968	TO-18	150	200	12	300	.90	.60	2N1309	TO-5	150	300	30	15	1.07	.72
2N969	TO-18	150	200	15	300	.84	.56	2N1404	TO-5	150	300	25	4	.58	.39
2N970	TO-18	150	200	12	300	.81	.54	2N1605	TO-5	150	100	25	4	.72	.48
2N971	TO-18	150	200	12	300	.80	.53	2N1808	TO-5	150	300	25	4	.58	.39
2N972	TO-18	150	200	7	300	.93	.62	2N1993	TO-5	150	300	30	3	1.48	.99
2N973	TO-18	150	200	15	300	.89	.59	2N1994	TO-5	150	300	30	3	2.23	1.55
2N974	TO-18	150	200	12	300	.83	.55	2N1997	TO-5	250	500	45		1.77	1.18
2N975	TO-18	150	200	12	300	.81	.54	2N1998	TO-5	250	500	35		1.88	1.25
2N985	TO-18	150	200	7	300	2.83	1.89	2N1999	TO-5	250	500	30		2.07	1.38
2N1302	TO-5	150	300	13	3	.50	.33	2N2000	TO-5	300	1000	50	2	2.50	1.67
2N1303	TO-5	150	300	25	3	.50	.33	2N2001	TO-5	300	1000	30	6	2.17	1.45
								2N2635	TO-18	150	100	30	150	.94	.63

†Bi-directional. All Alloy except (#) Epitaxial Mesa, (*) Alloy diffused. All NPN except (\$) PUP

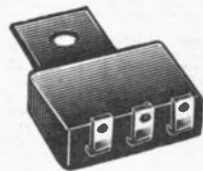
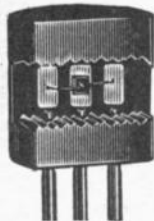
"SILECT"

HIGH RELIABILITY PLASTIC ENCAPSULATED TRANSISTORS

- Plastic packages
- One-piece construction

- Heat and moisture resistant
- Reduce cost of electronic systems

Cutaway model at left shows simple, rugged TO-92 package. The solid, one piece construction provides excellent protection for active element and fine connecting wires, assuring stable performance under condition of severe shock or vibration. The plastic compound meets MIL-STD 202-C, for moisture protection. The model at right shows the TAB-PAC package, which is used in the TAB-PAC SILECT power transistor. Provides 10 watts at 75°C case temperature.



GENERAL PURPOSE — AUDIO

Type	Nearest Equiv.	Pw mW	V _{ceo} V	Mfr's Type	1- 99	100- 999
2N3702	2N2904	300	25	PNP	.60	.40
2N3703	2N2904	300	30	PNP	.39	.26
2N3704	2N2217	300	30	NPN	.60	.37
2N3705	2N2217	300	30	NPN	.57	.38
2N3706	2N2217	300	20	NPN	.52	.35

GENERAL PURPOSE — LOW NOISE

Type	Nearest Equiv.	Pw mW	V _{ceo} V	Mfr's Type	1- 99	100- 999
2N4058	2N2605	250	30	PNP	.66	.44
2N4059	2N2604	250	30	PNP	.54	.36
2N4060	2N2604	250	30	PNP	.55	.37
2N4061	2N2604	-250	30	PNP	.57	.38
2N4062	2N2605	250	30	PNP	.60	.40
2N3707	2N329	250	30	NPN	.60	.37
2N3708	2N329	250	30	NPN	.45	.30
2N3709	2N329	250	30	NPN	.48	.32
2N3710	2N329	250	30	NPN	.49	.33
2N3711	2N329	250	30	NPN	.54	.36

SILICON FIELD EFFECT — FET

Type	Channel	Pd mW	B V _{GSS} V	I _{GSS} Na	1- 99	100- 999
2N3819	N	200	-25	2	2.95	1.95
2N3820	P	200	20	20	2.95	1.95

HIGH FREQUENCY AMPLIFIER

Type	Nearest Equiv.	Pw mW	V _{ceo} V	Mfr's Type	1- 99	100- 999
2N3825	.....	250	15	NPN	.58	.39
2N3826	2N929	200	15	NPN	.54	.36
2N3827	2N929	200	60	NPN	.58	.39
2N3828	.....	300	40	NPN	.90	.60
2N4254	.....	.....	.....	.....	.90	.60
2N4255	.....	.....	.....	.....	.85	.57
TI407	2N918	200	12	NPN	.59	.39
TI408	2N918	200	12	NPN	.57	.38
TI409	2N918	200	12	NPN	.54	.36

POWER

Type	Case	IC A	Pd w	V (br) V	h _{fe} Min	1- 99	100- 999
TIP14	*	4.0	10	60	30	1.50	.95
TIP24	*	2.0	10	70	19	1.50	.95

* TAB PAK. TIP14 is high frequency (min. ft. 40 mc.); TIP24 for AF.

HIGH-VOLTAGE SWITCHING

Type	Case	Pd Free Air mW	Coll. Curr. mA	Coll. Volt V	Min hFE	h _{fb} Mc	1-99	100- 999
2N398	TO-5	50	100	105	20	0.8	1.24	.83
2N398A	TO-5	150	200	105	20	0.8	1.24	.83
2N1310	TO-5	120	100	90	20	2.4	4.50	3.00
2N1312	TO-5	120	100	50	20	2.6	.....	1.18

HIGH FREQUENCY — SWITCHING

Type	Case	Max Ic a	Pd 25°C Case	V (br)cbc v	hFE Min.	1-99	100- 999
2N1907	TO-3	20	60w	100	30	7.80	5.25
2N1908	TO-3	20	60w	130	30	11.30	7.50

GALLIUM ARSENIDE VARACTOR DIODES

Type	Case	Min. Cap. @ Vr=0 v pF	Min. Cutoff fr. @ Vr=2 v, Gc	1 99	10- 99	100- 999
TLKV01	SS	.35	100	125.00	100.00	80.00
TLKV02	SS	.35	150	150.00	120.00	100.00
TLKV03	SS	.35	200	225.00	200.00	175.00
TLKV04	SS	.35	300	525.00	475.00	375.00

SILICON PHOTOCONDUCTIVE LIGHT SENSORS

Type	Case	Bias Volt. V	Max. Dark Current @ 25°C ±50 volts in μA	Max. Dark Current @ 100°C ±50 volts in μA	Min.* Light Current @ 25°C ±10 volts in μA	1-99	100- 999
1N2175	CC	±50	.5	100	100	11.50	8.00
H-11	CC	±50	.5		40	4.00	2.80
H-35	CC	±50	.5		60	5.00	3.50
H-38	CC	±50	10.0		100	4.00	2.80
H-60	CC	±50	.5	100	100	8.00	5.60
H-61	CC	±50	.5	100	200	9.00	6.25
H-62	CC	±50	.5	100	300	13.50	10.00

* Light Current measured in terms of radiation. Radiation=9 mw/cm² in a frequency bandwidth of .7 to 1 micron.

PLANAR SILICON PHOTO DEVICES

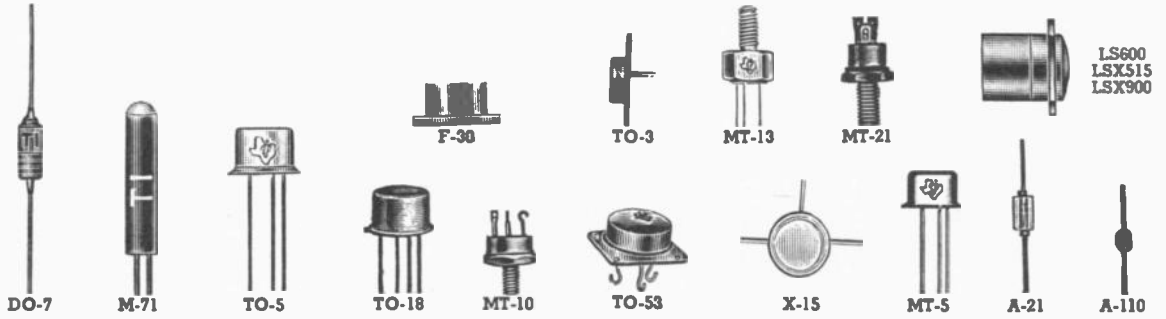
Type	Out (typ)	Load (ohms)	1-99	100-999
LS222	290 μ amps	1,000	6.00	5.45

Test conditions: 280 ft. candles, 2500°K.

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Texas Instruments Transistors



PLANAR SILICON PHOTO DEVICES

Type LS-400. Microminiature. Designed for photo switch-switching, tape-read-out, differential amplifiers, and proportional control. VR, 30 volts; BVR, 50 volts at 100 μ a; BVF, 8 volts at 100 μ a.
Type LSX600. Ideally suited for line read-out application, and high density matrix equipment. Velocity indicators, encoders, tape and card readers. Coll. Emit. v., 50 v; emit-coil. v., 7 v.

Type	Case	Lt. Cur. 5 VDC	Dk. Curr. 30 VDC	P.	1-99	100-999
LS400	M-71	1.0 ma	.025 μ a	50 ma	13.50	10.80
LS600	LSX600	0.8 ma	.025 μ a	50 ma	13.00	9.50
LSX515	LSX515	.9 ma	1.0 μ a	.....	14.95	11.30
LSX900	LSX900	.9 ma	6.0 μ a	.....	85.00	73.00

SILICON-VOLTAGE-VARIABLE-CAPACITANCE DIODES

Type	Case	$@V_r=4$ V Ct pf	V(br) V	1-99	100-999
A-580	DO-7	22	35	7.00	5.25
A-581	DO-7	22	60	11.00	7.50
A-582	DO-7	27	35	7.00	5.25
A-583	DO-7	27	60	13.00	10.00
A-584	DO-7	33	35	7.00	5.25
A-585	DO-7	33	60	15.00	12.50
A-588	DO-7	39	35	8.00	6.25
A-587	DO-7	39	60	13.00	10.00
A-588	DO-7	47	35	10.00	7.25
A-589	DO-7	47	60	17.00	13.00
TIV300†	A-21	7	15	1.00	.80
TIV301†	A-21	12	15	1.00	.80
TIV302†	A-21	20	15	1.25	1.00
TIV303†	A-21	33	15	1.25	1.00

Mfg. Process: all Si epitax except (†) Si diff $Q=60-100$.

SILICON MONOLITHIC DARLINGTON POWER TRANSISTOR

Type	Case	V(br) _{ceo} V	Min. hFE	Switching Time		1-99	100-999
				T-on	T-off		
2N3836	X-15	60	2000	5 ms	1 μ s	66.00	44.00
2N3837	X-15	80	2000	5 ms	1 μ s	99.00	66.00

SILICON PNP DUAL TRANSISTORS

Type	Case	Equiv. Triode	Pd w	μ v/C°	1-99	100-999
2N2802	MT-5	2N2411	0.5	10	39.50	26.30
2N2803	MT-5	2N2411	0.5	20	24.00	16.00
2N2804	MT-5	2N2411	0.5	.....	21.45	14.30
2N2805	MT-5	2N2412	0.5	10	41.10	27.40
2N2806	MT-5	2N2412	0.5	20	26.00	17.30
2N2807	MT-5	2N2412	0.5	.....	22.50	15.00
2N3347†	MT-5	2N2604	0.6	10	34.50	23.00
2N3348†	MT-5	2N2604	0.6	20	20.70	13.80
2N3349†	MT-5	2N2604	0.6	40	16.50	11.00
2N3350†	MT-5	2N2605	0.6	10	45.40	30.80
2N3351†	MT-5	2N2605	0.6	20	33.90	22.60
2N3352†	MT-5	2N2605	0.6	40	27.75	18.50

All are Planar except (†) Epitaxial Planar.

Type	Case	Equiv. Triode	Pd w	μ v/C°	1-24	25-99	100-999
2N3838	*	2N2907	.35	.....	30.15	26.13	20.10

*Dual NPN/PNP in Flat-pack.

HIGH FREQUENCY — SWITCHING — POWER

Type	Case	Ic ma	Pd 100°C	V (br) ceo V	hFE Min	1-99	100-999
2N1907	TO-3	20	60	100	30	7.90	5.25
2N1908	TO-3	20	60	130	30	11.30	7.50
2N1046	TO-3	20	50	100	60	8.25	5.50

SILICON NPN DUAL TRANSISTORS

Type	Case	Equiv. Triode	Pd w	μ v/C°	1-99	100-999
2N2060	MT-5	2N1711	0.6	10	27.00	18.00
2N2223	MT-5	2N1711	0.6	25	10.00	6.70
2N2223A	MT-5	2N1711	0.6	25	15.00	10.00
2N2453	MT-5	2N930	0.3	10	24.00	16.00
2N2639	MT-5	2N929	0.6	20	22.00	14.70
2N2641	MT-5	2N929	0.6	.....	9.00	6.00
2N2642	MT-5	2N930	0.6	20	26.25	17.50
2N2643	MT-5	2N930	0.6	20	25.00	16.70
2N2644	MT-5	2N930	0.6	.....	15.60	10.40
2N3680	MT-5	2N2484	0.6	5	49.00	32.60

All are Planar.

SILICON RADIATION-TOLERANT DIODES

Type	Case	V (br)	Max. Ic μ a 25° C	Min Ioff At 1 v ma	1-99	100-999
T1550	A-21	200	0.1	100	8.60	6.50
T1551	A-21	290	0.1	100	9.60	7.50

Capacitance at 0 volts, 20 pf.

SILICON COMPUTER DIODES

Type	Case	V(br) V	Max Ir @ 25°C μ a	@ 100°C μ a	If @ 1v ma	1-99	100-999
1N251	A-21	40	0.1	10	5	.65	.43
1N625	A-21	30	1	30	4	.43	.29
1N626	A-21	50	1	30	4	.43	.30
1N627	A-21	100	1	30	4	.72	.47
1N628	A-21	150	1	30	4	.72	.47
1N629	A-21	200	1	30	4	.86	.55
1N643	A-21	200	0.025	10	10	1.33	1.00
				1	15		
1N659	A-21	60	5	25	6	.58	.39
1N660	A-21	110	5	50	6	.69	.46
1N661	A-21	240	10	100	6	1.75	1.30
				1	20		
1N662	A-21	100	20	100	10	.66	.44
1N663	A-21	100	5	50	100	1.20	.80
1N914	A-21	100	5	50	10	.45	.30
				0.025			
1N914A	A-21	100	0.025	50	20	.50	.33
1N914B	A-21	100	0.025	50	100	1.35	.90
1N3064	A-21	75	.01	100	10	.67	.44
1N3070	A-21	200	0.1	100	100	5.25	3.50
1N916	A-21	100	5	50	10	.67	.44
				0.025			
1N916A	A-21	100	0.025	50	20	.75	.50
1N916B	A-21	100	0.025	50	30	.92	.61
T16	A-110	30	1	10	5	.38	.31
T17	A-110	50	0.025	100	10	.41	.34
T18	A-110	60	0.025	10	10	.49	.40
T19	A-110	70	0.025	10	10	.55	.46
T110	A-110	80	0.025	10	10	.68	.56
T1D12	A-21	100	0.025	50	200	4.00	2.60
T1D13	A-21	75	0.025	50	200	3.75	2.35
T1D14	A-21	100	0.025	50	150	3.50	2.10
T1D15	A-21	75	0.025	50	150	3.25	1.90
T1D16	A-21	100	0.025	50	100	2.35	1.80
T173	A-21	40	1	20	1.03	.85
T174	A-21	40	1	30	1.19	1.02
T175	A-21	40	5	75	1.52	1.30
T1251	A-110	40	1	10	5	.85	.70

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Texas Instruments Semiconductors



SILICON POWER TRANSISTORS

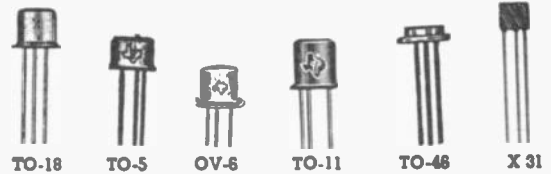
Type	Case	Ic max α	Pd 100°C Case	V(br) ceo V	hFE Min	1-99	100-999	Type	Case	Ic max α	Pd 100°C Case	V(br) ceo V	hFE Min	1-99	100-999
2N089	TO-53	3	45	60	12	21.00	14.00	TIP-24	.....	2	10	70	19	1.50	.85
T1486	TO-5	.75	15	60	20	4.90	3.25	T11154	MT-10	7.5	80	75	10	18.15	12.10
T1487	MT-21	.75	15	60	20	5.60	3.75	T11155	MT-10	7.5	80	50	20	15.60	10.40
2N497	TO-5	.5	4	60	12	1.89	1.26	T11156	MT-10	7.5	80	50	10	13.50	9.00
2N497A	TO-5	.5	5	60	12	2.05	1.37	2N1714	TO-5	.75	10	60	20	6.00	4.00
2N498	TO-5	.5	4	100	12	2.12	1.41	2N1715	TO-5	.75	10	60	20	8.25	5.50
2N658	TO-5	.5	4	60	30	2.03	1.35	2N1716	TO-5	.75	10	100	40	7.50	5.00
2N657	TO-5	.5	4	100	30	2.20	1.47	2N1718	MT-13	.75	10	60	20	6.75	4.50
2N1047	MT-5	1	23	80	12	14.30	9.55	2N1719	MT-13	.75	10	60	20	9.00	6.00
2N1048	MT-5	1	23	120	12	18.10	12.05	2N1720	MT-13	.75	10	100	40	8.25	5.50
2N1049	MT-5	1	23	80	30	16.75	11.15	2N1721	MT-13	.75	10	100	40	12.00	8.00
2N1050	MT-5	1	23	120	30	22.10	14.20	2N1722	TO-53	7.5	50	80	20	52.50	35.00
2N1050A	MT-5	1	23	120	30	22.10	14.20	2N1722A	TO-53	7.5	50	120	30	60.00	40.00
T11121	TO-53	7.5	80	100	30	18.00	12.00	2N1724	MT-10	7.5	50	80	20	55.50	37.00
T11122	TO-53	7.5	80	100	15	16.30	10.85	2N1724A	MT-10	7.5	50	120	30	63.00	42.00
T11123	TO-53	7.5	80	75	30	14.30	9.55	2N1725	MT-10	7.5	50	80	50	57.00	38.00
T11124	TO-53	7.5	80	75	15	12.70	8.45	2N1936	MT-10	20	150	60	10	87.50	45.00
T11125	TO-53	7.5	80	50	30	9.50	6.35	2N1937	MT-10	20	150	80	10	75.00	50.00
T11126	TO-53	7.5	80	50	15	6.65	5.75	2N2151*	H	2	30	80	40	24.75	16.50
T11131	MT-10	7.5	80	100	30	18.15	12.25	2N2877†	TO-5	1	15	80	25	8.25	5.50
T11132	MT-10	7.5	80	100	15	16.65	11.10	2N2988†	TO-5	1	15	100	25	11.25	7.50
T11133	MT-10	7.5	80	75	30	14.70	9.80	2N2989†	TO-5	1	15	80	60	10.20	6.75
T11134	MT-10	7.5	80	75	15	13.05	8.70	2N2990†	TO-5	1	15	100	60	13.10	8.75
T11135	MT-10	7.5	80	50	30	9.90	6.60	2N2991†	MT-13	1	15	80	25	9.00	6.00
T11136	MT-10	7.5	80	50	15	9.00	6.00	2N2992†	MT-13	1	15	100	25	12.00	8.00
T11141	TO-53	7.5	80	100	20	22.20	14.80	2N2993†	MT-13	1	15	80	60	10.90	7.25
T11142	TO-53	7.5	80	100	10	20.40	13.60	2N2994†	MT-13	1	15	100	60	13.90	9.25
T11143	TO-53	7.5	80	75	20	19.95	13.30	2N3418*	TO-5	5	10	60	20	12.45	8.30
T11144	TO-53	7.5	80	75	10	17.40	11.60	2N2419*	TO-5	5	10	80	20	14.10	9.40
T11145	TO-53	7.5	80	50	20	14.85	9.90	2N3420*	TO-5	5	10	60	40	13.35	8.90
T11146	TO-53	7.5	80	50	10	12.75	8.50	2N3421*	TO-5	5	10	80	40	16.95	11.30
T11151	MT-10	7.5	80	100	20	22.95	15.30	2N3551	X-15	12	40	80	20	100.00	67.50
T11152	MT-10	7.5	80	100	10	21.15	14.10	2N3552	X-15	12	40	80	20	112.50	75.00
T11153	MT-10	7.5	80	75	20	19.70	13.80	2N4301	TO-18	2	.....	80	30	12.75	8.50
TIP-14	.....	4	10	60	30	1.50	.95	2N4300	MT-10	10	.....	80	2	58.50	39.00

All Mesa except (*) Epitaxial Planar and (†) Planar.

SILICON NPN GENERAL PURPOSE TRANSISTORS

Type	Case	Rated Vcho v	Pd w	hFE Min.	1-99	100-999
T1482*	TO-5	20	0.6	20	2.15	1.65
T1483*	TO-5	40	0.6	20	2.40	1.85
T1484*	TO-5	40	0.6	40	2.95	2.25
2N696*	TO-5	60	0.6	20	.93	.62
2N697*	TO-5	60	0.6	40	1.12	.75
2N698*	TO-5	120	0.8	20	1.57	1.05
2N699*	TO-5	120	0.6	40	1.73	1.15
2N702*	TO-18	25	0.3	20	6.75	4.50
2N703*	TO-18	25	0.3	40	6.75	4.50
2N718*	TO-18	60	0.4	40	1.90	.86
2N718A*	TO-18	75	0.5	40	2.00	1.33
2N720*	TO-18	120	0.4	40	1.83	1.22
2N720A*	TO-18	120	0.5	40	2.71	1.81
2N730*	TO-18	60	0.5	20	.99	.66
2N731*	TO-18	60	0.5	40	1.30	.86
2N910*	TO-18	100	0.5	75	2.61	1.74
2N911*	TO-18	100	0.5	35	5.55	3.70
2N956*	TO-18	75	0.5	100	2.60	1.73
2N1420*	TO-5	60	0.6	100	1.20	.80
2N1507*	TO-5	60	0.6	100	1.20	.80
2N1613*	TO-5	75	(0.8)	40	2.30	1.53
2N1711*	TO-5	75	0.8	100	2.98	1.98
2N1893*	TO-5	120	0.8	40	3.42	2.28
2N1973*	TO-5	100	0.8	75	8.00	6.00
2N1974*	TO-5	100	0.8	35	6.70	5.00
2N1975*	TO-5	100	0.8	15	5.30	4.00
2N2192†	TO-5	60	0.8	100	4.20	2.80
2N2192A†	TO-5	60	0.8	100	4.45	2.95
2N2193†	TO-5	60	0.8	40	2.95	1.95
2N2193A†	TO-5	60	0.8	40	3.15	2.10
2N2194A†	TO-5	60	0.8	20	2.45	1.63
2N2217†	TO-5	60	0.8	20	3.02	2.01
2N2218†	TO-5	60	0.8	40	3.56	2.37
2N2218A†	TO-5	60	0.8	40	5.26	3.51
2N2219†	TO-5	60	0.8	100	3.56	2.37
2N2219A†	TO-5	60	0.8	100	6.07	4.05
2N2220†	TO-18	60	0.5	20	3.02	2.01
2N2221A†	TO-18	60	0.5	40	5.26	3.51
2N2222†	TO-18	60	0.5	100	3.98	2.65
2N2222A†	TO-18	60	0.5	100	6.07	4.05
2N2243†	TO-5	60	0.8	40	4.80	3.20
2N2243A†	TO-5	60	0.8	40	5.10	3.40
2N3036†	TO-5	120	0.8	50	5.50	3.70
2N3114†	TO-5	150	0.8	30	6.00	4.00
2N3712	TO-5	150	.8	30	3.00	2.00
TIS22	X-31	45	.15	40	4.20	2.80
TIS23	X-31	45	.15	100	4.65	3.10
TIS24	X-31	60	.15	100	6.45	4.30

*Mfg. Proc., Planar. †Mfg. Proc., Epitaxial Planar.



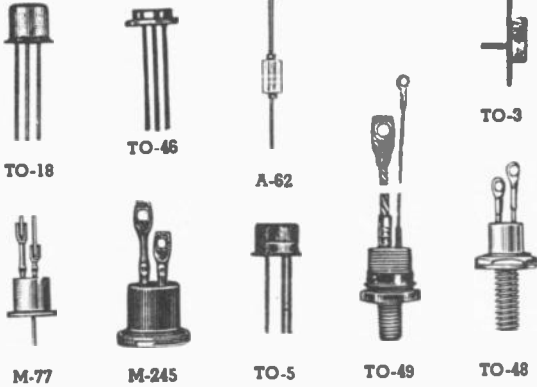
SILICON NPN SWITCHING TRANSISTORS

Type	Case	Min ft Mc	Pd mw	Rated Vce V	Max Ics nsc	1-99	100-999
T1485	TO-18	100	300	14	60	3.25	2.50
2N706	TO-18	200	300	15	25	.99	.66
2N706A	TO-18	200	300	15	25	1.19	.79
2N706B	TO-18	200	300	15	25	1.49	.99
2N708	TO-18	300	360	15	25	1.32	.88
2N709	TO-18	600	300	6	6	2.48	1.65
2N743	TO-18	282	300	12	14	6.20	4.15
2N744	TO-18	282	300	12	18	2.90	1.95
2N753	TO-18	200	300	15	35	1.97	1.31
2N914	TO-18	300	360	15	20	1.04	.84
2N2368	TO-18	400	360	15	10	2.31	1.54
2N2369	TO-18	500	360	15	13	2.40	1.60
2N369A	TO-18	500	360	15	13	3.45	2.30
2N2410	TO-5	200	800	40	40	4.50	3.00
2N2537	TO-5	250	800	30	20	4.95	3.30
2N2538	TO-5	250	800	30	20	5.85	3.90
2N2539	TO-18	250	500	30	20	4.95	3.30
2N2540	TO-18	250	500	30	20	5.85	3.90
2N2692	TO-18	150	300	30	500	15.00	10.00
2N2693	TO-18	150	300	30	900	7.75	5.50
2N2694	TO-18	150	300	20	1800	5.25	3.50
2N3009	TO-18	350	360	15	18	1.98	1.32
2N3010	TO-18	600	300	6	6	1.90	1.27
2N3011	TO-18	400	360	12	13	1.98	1.32
2N3013	TO-18	350	360	15	18	7.00	4.69
2N3014	TO-18	350	360	20	18	3.60	2.40
2N3015	TO-5	250	800	30	60	3.50	2.00
2N3033	TO-18	.....	300	100	5	45.00	30.00
2N3034	TO-18	.....	300	70	5	14.50	9.67
2N3035	TO-18	.....	300	50	5	12.50	8.30
2N3252	TO-5	200	800	30	40	9.75	6.50
2N3253	TO-5	175	800	40	40	9.75	6.50
2N3444	TO-5	150	800	50	40	12.00	8.00
2N3554	TO-5	150	800	30	65	8.10	5.40
2N3829	TO-18	350	360	20	50	6.00	4.00
2N3830	TO-18	.....	1	50	40	13.50	9.00
2N3831	TO-18	.....	1	40	40	9.00	8.00
2N3832	TO-18	.....	200	6	10	7.50	5.00

All Epitaxial Planar except (*) Mesa.



Texas Instrument Semiconductors



NPN SILICON GROWN-JUNCTION TRANSISTORS

Type	Case	Polarity	Rated V _{ceo} v	P _d 250°C mw	1-99	100-999
2N117	A-62	NPN	30	150	8.15	5.45
2N118	A-62	NPN	45	150	8.15	5.45
2N119	A-62	NPN	45	150	11.05	7.35
2N332	TO-5	NPN	45	150	4.65	3.10
2N332A	TO-5	NPN	45	500	4.90	3.30
2N333	TO-5	NPN	45	150	4.65	3.10
2N333A	TO-5	NPN	45	500	4.90	3.30
2N334	TO-5	NPN	45	150	4.65	3.10
2N335	TO-5	NPN	45	150	4.90	3.30
2N335A	TO-5	NPN	45	500	5.20	3.50
2N336	TO-5	NPN	45	150	4.90	3.30
2N336A	TO-5	NPN	45	500	6.25	4.20
2N542	TO-5	NPN	45	200	6.30	4.20
2N1149	A-62	NPN	45	150	8.65	5.75
2N1151	A-62	NPN	45	150	8.65	5.75
2N1278	TO-5	NPN	40	150	4.75	3.15
T1480	TO-49	NPN	50	150	1.55	1.20
T1481	TO-49	NPN	80	600	1.90	1.45
T1492	TO-5	NPN	40	600	1.55	1.20
T1493	TO-5	NPN	40	150	1.90	1.45
T1494	TO-5	NPN	40	125	2.50	1.90
T1495	TO-5	NPN	40	125	3.00	2.30
T1496	TO-49	NPN	70	125	1.75	1.35

SILICON PNP GENERAL PURPOSE TRANSISTORS

Type	Case	Rated V _{ceo} v	P _d mw	Min. hFE	1-99	100-999
2N721	TO-18	50	400	20	5.60	3.75
2N722	TO-18	50	400	30	5.60	3.75
2N1131	TO-5	50	600	20	5.60	3.75
2N1132	TO-5	50	600	30	5.60	3.75
2N2895	TO-46	25	360	30	12.40	8.25
2N2896	TO-18	25	360	30	7.50	5.00
2N2904	TO-5	60	600	40	7.50	5.00
2N2904A	TO-5	60	600	100	9.00	6.00
2N2905	TO-5	60	600	100	12.00	8.00
2N2905A	TO-5	60	600	100	12.00	8.00
2N2906	TO-18	60	400	40	7.20	4.80
2N2906A	TO-18	60	400	40	10.50	6.70
2N2907	TO-18	60	400	100	8.70	5.80
2N2907A	TO-18	60	400	100	11.55	7.70

SILICON PNP SWITCHING TRANSISTORS

Type	Case	Min ft Mc	P _d 25°C mw	Rated V _{ceo} v	T _s Max. nsec.	1-99	100-999
2N726*	TO-18	140	300	20		3.00	2.00
2N727*	TO-18	140	300	20		3.15	2.10
2N2411	TO-18	140	300	20	90	3.15	2.10
2N2412	TO-18	140	300	20	90	6.00	4.00
2N2894	TO-18	400	360	12	(90)	1.95	1.30
2N3012	TO-18	400	360	12	(75)	1.95	1.30
2N3304	TO-18	500	360	6	30	8.25	5.50
2N3578	TO-18	400	360	15	30	9.40	6.25

All Epitaxial Planar except (*) Mesa.

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SILICON NPN AVALANCHE SWITCH

Type	Case	Output Pulse v	V _{be} v	V(br)cer v	Ton nsec	1-99	100-999
2N3033	TO-18	45	1.5	100	5	45.00	30.00
2N3034	TO-18	30	1.5	70	5	14.50	9.67
2N3035	TO-18	20	1.5	50	5	12.50	8.30

All Epitaxial Mesa.

NPN HI-FREQUENCY SILICON POWER TRANSISTORS

Type	Case	I _c Max a	P _d Case W	V _{ceo} V	1-99	100-999
2N2631	TO-5	1.5	8.75	60	4.79	3.31
2N2876	TO-60	2.5	17.00	60	14.50	10.05

SILICON PNP LOW-LEVEL AMPLIFIER

Type	Case	I _c Range ma	V _{ceo} v	Min fr hfb Mc	1-99	100-999
2N2604	TO-46	.01-10	45	30	6.00	4.00
2N2805	TO-46	.01-10	45	30	6.60	4.40
2N2861	TO-18	.01-10	20	60	8.50	5.65
2N2862	TO-18	.01-10	20	45	6.00	4.00

All are Epitaxial Planar.

SCR TRIGGER DIODES

Type	Case	Avg. Pwr. mw	V(br)f	V(br)f	1-99	100-999
TI42	A-62	100	32 v	32 v	.87	.58
TI43	A-62	100	32 v	32 v	1.02	.68

Peak Current, 1 amp.

SILICON NPN LOW-LEVEL AMPLIFIER

Type	Case	I _c Range ma	V _{ceo} v	Min fr Mc	1-99	100-999
2N735	TO-18	1-30	60	60	2.50	1.65
2N736	TO-18	1-30	60	60	2.50	1.65
2N736A	TO-18	1-30	80	100	2.50	1.65
2N739	TO-18	1-30	80	60	2.70	1.80
2N740	TO-18	1-30	80	60	2.70	1.80
2N759A	TO-18	1-30	60	50	2.70	1.80
2N760	TO-18	1-30	45	50	2.50	1.60
2N760A	TO-18	1-30	60	50	2.70	1.80
2N780	TO-18	.03-10	45	60	7.50	5.00
2N929*	TO-18	.01-30	45	30	3.60	2.40
2N930*	TO-18	.01-30	45	30	3.87	2.65
2N1247*	TO-5	.005-1	6		13.50	9.00
2N1564	TO-5	1-30	60	30	2.50	1.65
2N1565	TO-5	1-30	60	60	2.50	1.65
2N1566	TO-5	1-30	60	60	2.50	1.65
2N1566A	TO-5	1-30	80	100	2.50	1.65
2N2483*	TO-18	.01-10	60	60	3.60	2.40
2N2484*	TO-18	.001-10	60	60	3.87	2.65
2N2586	TO-18	.001-10	45	45	7.50	5.00

All Mesa except (*) Planar.

SILICON NPN HIGH FREQ. AMPLIFIER-OSCILLATOR

Type	Case	Min ft Mc	P _d mw	Cobo pf	1-24	25-99	100-999
TIK509	F		200	1.7	125.00	105.00	70.00
TIK510	F		200	1.7	95.00	75.00	50.00
					1-99	100-999	
2N715*	TO-18	70	500	6	34.65	23.10	
2N716*	TO-18	70	500	6	43.10	28.70	
2N916	TO-18	300	360	6	3.65	2.90	
2N917	TO-18	500	200	1.7	4.95	3.30	
2N918	TO-18	600	200	1.7	5.25	3.50	
2N2863	TO-5	150	800	13	6.00	4.00	
2N2865	TO-18	600	200	2.5	6.50	4.35	
2N3570	TO-18	1500	200	0.75	150.00	100.00	
2N3571	TO-18	1200	200	0.85	15.00	10.00	
2N3572	TO-18	1000	200	0.85	9.75	6.50	

All Epitaxial Planar except (*) Planar.

SILICON CONTROLLED RECTIFIERS

Type	Case	I _o a	wv Fwd.-Rev.	1-99	100-999
TI40A0	TO-3	5	50	1.70	1.18
TI40A1	TO-3	5	100	1.85	1.28
TI40A2	TO-3	5	200	2.05	1.52
TI40A3	TO-3	5	300	3.65	2.45
TI40A4	TO-3	5	400	5.50	3.55
TI-145A0	TO-5	0.56	50	1.60	1.10
TI145A1	TO-5	0.56	100	1.75	1.25

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SILICON CONTROLLED RECTIFIERS, CONT'D

Type	Case	Ic α	WV Fwd.-Rev.	1-99	100- 999
2N145A2	TO-5	0.56	200	1.95	1.35
2N682	TO-48	16	50	4.13	2.75
2N682A	TO-48	18	50	4.55	3.03
2N685	TO-48	16	200	6.60	4.40
2N685A	TO-48	18	200	7.25	4.84
2N686	TO-48	16	250	7.01	4.68
2N687	TO-48	16	300	14.60	9.75
2N688	TO-48	16	400	17.10	11.40
2N689A	TO-48	18	500	22.60	15.10
2N876	TO-18	0.20	15	7.20	5.40
2N877	TO-18	0.20	30	10.00	6.70
2N878	TO-18	0.20	60	13.00	8.90
2N879	TO-18	0.20	100	17.77	11.85
2N880	TO-18	0.20	150	28.25	18.90
2N881	TO-18	0.20	200	30.00	20.00
2N884	TO-18	0.20	15	9.00	6.00
2N885	TO-18	0.20	30	11.25	7.50
2N886	TO-18	0.20	60	14.70	9.80
2N887	TO-18	0.20	100	21.80	14.40
2N888	TO-18	0.20	150	33.00	22.00
2N889	TO-18	0.20	200	36.00	24.00
2N1595	TO-5	1	50	3.00	2.00
2N1596	TO-5	1	100	4.50	3.05
2N1597	TO-5	1	200	9.35	6.20
2N1600	TO-3	3	50	5.10	3.40
2N1601	TO-3	3	100	5.70	3.45
2N1771	TO-3	4.7	50	4.65	3.10
2N1772	TO-3	4.7	100	5.75	3.85
2N1774	TO-3	4.7	200	8.15	5.45
2N1846B	TO-48	16	200	6.19	4.13
2N1849B	TO-48	16	400	15.60	10.40
2N2653	TO-18	140*	400	24.00	18.00
2N2679	TO-18	0.35	30	15.50	10.25
2N2680	TO-18	0.35	60	20.00	13.60
2N2681	TO-18	0.35	100	30.00	20.00
2N2682	TO-18	0.35	200	43.00	28.60

Type	Case	Ic α	WV Fwd.-Rev.	1-99	100- 999
2N2683	TO-18	0.28	30	11.10	7.40
2N2684	TO-18	0.28	60	14.90	9.90
2N2685	TO-18	0.28	100	22.00	14.80
2N2686	TO-18	0.28	200	36.00	24.00
2N2687	TO-18	0.28	30	6.00	4.00
2N2688	TO-18	0.28	60	9.40	6.15
2N2689	TO-18	0.28	100	15.00	9.90
2N2690	TO-18	0.28	200	24.00	16.00
2N3001	TO-18	0.250	30	7.45	4.95
2N3002	TO-18	0.250	60	8.95	5.95
2N3003	TO-18	0.250	100	11.20	7.45
2N3004	TO-18	0.250	200	14.20	9.45
2N3005	TO-18	0.250	30	5.75	3.83
2N3006	TO-18	0.250	60	6.15	4.10
2N3007	TO-18	0.250	100	8.60	5.75
2N3008	TO-18	0.250	200	9.50	6.33
2N3936	TO-3	7	7	7.35	4.90
2N3937	TO-3	7	200	14.60	9.75
2N3938	TO-3	7	300	18.75	12.50
2N3939	TO-3	7	400	26.25	17.50
2N3940	TO-3	7	500	30.00	20.00
TI3010	M-245	5	50	1.73	1.30
TI3011	M-245	5	100	1.93	1.45
TI3012	M-245	5	200	2.15	1.60
TI3013	M-245	5	300	2.93	2.20
TI3014	M-245	5	400	4.66	3.50
TI3037	TO-48	18	50	9.00	6.40
TI3038	TO-48	18	100	10.00	7.00
TI3039	TO-48	18	200	14.00	9.35
TI3040	TO-48	18	300	19.00	13.50
TI3041	TO-48	18	400	29.25	19.50
TI3042	TO-48	18	500	44.65	29.75
2N3559	TO-5	1	30	5.75	3.83
2N3560	TO-5	1	60	6.15	4.10
2N3561	TO-5	1	100	8.60	5.75
2N3562	TO-5	1	200	9.50	6.33

SILICON VOLTAGE REGULATOR DIODES Cont.

Type	Case	V(br)@ I(br)t volts	Z(br)@ I(br)t ohms	Vr(1)Static Rev. Cur. αα	Pd watts	1- 99	100- 999
1N970	A-62	24	33	5	400	1.50	1.00
1N971	A-62	27	41	5	400	1.50	1.50
1N972	A-62	30	49	5	400	1.50	1.50
1N973	A-62	33	58	5	400	1.50	1.50
1N3506	A-62	3.3	24	4	400	2.80	2.10
1N3507	A-62	3.6	22	2	400	2.80	2.10
1N3508	A-62	3.9	20	0.4	400	2.80	2.10
1N3509	A-62	4.3	18	0.1	400	2.80	2.10
1N3510	A-62	4.7	16	5	400	2.80	2.10
1N3511	A-62	5.1	14	2	400	2.80	2.10
1N3512	A-62	5.6	8	5	400	2.80	2.10
1N3513	A-62	6.2	3	5	400	2.80	2.10
1N3515	A-62	7.5	4	.5	400	2.80	2.10
1N3516	A-62	8.2	5	.25	400	2.80	2.10
1N3517	A-62	9.1	6	0.025	400	2.80	2.10
1N3518	A-62	10	7	.01	400	2.80	2.10
1N3519	A-62	11	8	.01	400	2.80	2.10
1N3520	A-62	12	10	.01	400	2.80	2.10
1N3521	A-62	13	12	.01	400	2.95	2.20
1N3522	A-62	15	14	.01	400	2.95	2.20
1N3523	A-62	16	16	.01	400	2.95	2.20
1N3524	A-62	18	18	.01	400	2.95	2.20
1N3525	A-62	20	20	.01	400	2.95	2.20
1N3526	A-62	22	35	.01	400	2.95	2.20
1N3527	A-62	24	38	.01	400	2.95	2.20
1N3528	A-62	27	40	.01	400	2.95	2.20
1N3529	A-62	30	48	.01	400	2.95	2.20
1N3530	A-62	33	50	0.01	400	2.95	2.20
1N4099	A-62	6.8	200	10	400	5.05	3.80
1N4100	A-62	7.5	200	10	400	5.05	3.80
1N4101	A-62	8.2	200	1	400	5.05	3.80
1N4102	A-62	8.7	200	1	400	5.05	3.80
1N4103	A-62	9.1	200	1	400	5.05	3.80
1N4104	A-62	10	200	1	400	5.05	3.80
1N4105	A-62	11	200	.05	400	5.05	3.80
1N4106	A-62	12	200	.05	400	5.05	3.80
1N4360	A-62	2.28-2.52	60	75	400	2.80	2.10
1N4370	A-62	2.28	30	100	400	2.00	1.50
1N4371	A-62	2.7	30	75	400	2.00	1.50
1N4372	A-62	3.0	30	50	400	2.00	1.50
650	C-3	3.7-4.5		0.1	150	4.35	3.65
652	C-3	5.26-6.4		0.1	150	4.35	3.65
650C0	C-3	3.7		0.15	150	4.85	4.15
650C3	C-3	4.0			150	4.85	4.15
651C4	C-3	4.5			150	4.85	4.15
651C5	C-3	5.0			150	4.85	4.15
651C9	C-3	5.4			150	4.85	4.15
652C0	C-3	5.5			150	4.85	4.15
652C5	C-3	6.0			150	4.85	4.15
653C0	C-3	6.5			150	4.85	4.15
653C2	C-3	6.7			150	4.85	4.15
653C4	C-3	7.0			150	4.85	4.15
653C9	C-3	8.0			150	4.85	4.15
654C9	C-3	8.9-9.5			150	4.85	4.15
655C9	C-3	9.5-10.5			150	4.85	4.15



S-19



A-62



DO-3



C-3

SILICON VOLTAGE REGULATOR DIODES

Type	Case	V(br) I(br)t volts	Z(br)@ I(br)t ohms	Vr(1)Static Rev. Cur. αα	Pd watts	1- 99	100- 999
1N702	A-62	2.0-3.2	60	75	400	2.10	1.60
1N703	A-62	3.0-3.9	55	50	400	2.10	1.60
1N707	A-62	6.2-8.0	11	5	400	2.10	1.60
1N717	A-62	13.0	10	.....	400	2.35	1.75
1N718	A-62	15.0	13.0	.....	400	2.35	1.75
1N719	A-62	16.0	15.0	.....	400	2.35	1.75
1N720	A-62	18.0	17.0	.....	400	2.35	1.75
1N721	A-62	20.0	20.0	.....	400	2.35	1.75
1N722	A-62	22.0	24.0	.....	400	2.35	1.75
1N723	A-62	24.0	28.0	.....	400	2.35	1.75
1N724	A-62	27.0	35.0	.....	400	2.35	1.75
1N725	A-62	30.0	42.0	.....	400	2.35	1.75
1N726	A-62	33.0	50.0	.....	400	2.35	1.75
1N746	A-62	3.3	28	10	400	1.50	1.10
1N747	A-62	3.6	24	10	400	1.50	1.10
1N748	A-62	3.9	23	10	400	1.50	1.10
1N749	A-62	4.3	22	2	400	1.50	1.10
1N750	A-62	4.7	19	2	400	1.50	1.10
1N751	A-62	5.1	17	1	400	1.50	1.10
1N752	A-62	5.6	11	1	400	1.50	1.10
1N753	A-62	6.2	7	0.1	400	1.50	1.10
1N754	A-62	6.8	5	0.1	400	1.50	1.10
1N755	A-62	7.5	6	0.1	400	1.50	1.10
1N756	A-62	8.2	8	0.1	400	1.50	1.10
1N757	A-62	9.1	10	0.1	400	1.50	1.10
1N758	A-62	10.1	17	0.1	400	1.50	1.10
1N759	A-62	12.0	30	0.1	400	1.50	1.10
1N761	A-62	4.3-5.4	55	.....	400	1.90	1.40
1N763	A-62	6.2-8.0	8	.....	400	1.90	1.40
1N767	A-62	13.5-18	120	.....	400	2.10	1.60
1N768	A-62	17-21	200	.....	400	2.10	1.60
1N769	A-62	20-27	300	.....	400	2.10	1.60
1N857	A-62	6.8	4.5	150	400	1.50	1.00
1N958	A-62	7.5	5.5	75	400	1.50	1.00
1N959	A-62	8.2	6.5	50	400	1.50	1.00
1N960	A-62	9.1	7.5	25	400	1.50	1.00
1N961	A-62	10	8.5	10	400	1.50	1.00
1N962	A-62	11	9.5	5	400	1.50	1.00
1N963	A-62	12	11.5	5	400	1.50	1.00
1N964	A-62	13	13	5	400	1.50	1.00
1N965	A-62	15	16	5	400	1.50	1.00
1N966	A-62	16	17	5	400	1.50	1.00
1N967	A-62	18	21	5	400	1.50	1.00
1N968							



Texas Instruments Semiconductors



X-20



S-11



DO-3



A-3



A-31



DO-10



DO-29



DO-4

SILICON POWER REGULATOR 10 WATT DOUBLE ANODE

Type	Case	V _Z Nominal v	I _{rt} ma	Max. Z _s @ 25°C ohms	1-99	100-999
1N1816	S-11	13	500	2	5.10	4.50
1N1817	S-11	15	500	2	5.10	4.50
1N1823	S-11	27	250	3	5.10	4.50
1N1824	S-11	30	250	4	5.10	4.50
1N1826	S-11	36	150	5	5.10	4.50
1N1828	S-11	43	150	6	5.10	4.50
1N1832	S-11	62	50	12	5.10	4.50
1N1834	S-11	75	50	20	5.10	4.50
1N1836	S-11	91	50	35	5.10	4.50
1N2008	S-11	100	50	40	5.10	4.50
1N2498	S-11	10	500	2	5.10	4.50

SILICON POWER REGULATOR 10 WATT SINGLE ANODE

Type	Case	V _Z Nominal v	I _{rt} ma	Max. Z _s @ 25°C ohms	1-99	100-999
1N2970	S-11	6.8	370	1.2	3.60	2.40
1N2972	S-11	8.2	305	1.5	3.60	2.40
1N2974	S-11	10	250	3.0	3.60	2.40
1N2976	S-11	12	210	3.0	3.60	2.40
1N2977	S-11	13	190	3.0	3.60	2.40
1N2982	S-11	18	140	4.0	3.60	2.40
1N2984	S-11	20	125	4.0	3.60	2.40
1N2985	S-11	22	115	5.0	3.60	2.40
1N2986	S-11	24	105	5.0	3.60	2.40
1N2989	S-11	30	85	8.0	3.60	2.40
1N3003	S-11	82	30	25	3.60	2.40
1N3004	S-11	91	28	35	3.60	2.40
1N3005	S-11	100	25	40	3.60	2.40
1N3007	S-11	110	23	55	3.60	2.40
1N3008	S-11	120	20	75	3.60	2.40
1N3009	S-11	130	19	100	3.60	2.40
1N3012	S-11	160	16	200	4.05	2.70
1N3014	S-11	180	14	260	4.05	2.70
1N3015	S-11	200	12	300	4.05	2.70
1N2991	S-11	36	70	10	3.60	2.40
1N2993	S-11	43	60	12	3.60	2.40
1N2997	S-11	51	50	15	3.60	2.40
1N2999	S-11	56	45	16	3.60	2.40
1N3000	S-11	62	40	17	3.60	2.40
1N3001	S-11	68	37	18	3.60	2.40
1N3002	S-11	75	33	22	3.60	2.40

SILICON POWER REGULATOR 1 WATT SINGLE ANODE

Type	Case	V _Z Nominal v	I _{rt} ma	Max. Z _s @ 25°C ohms	1-99	100-999
1N3016	A-31	6.8	37	3.5	2.36	2.05
1N3017	A-31	7.5	34	4.0	2.36	2.05
1N3018	A-31	8.2	31	4.5	2.36	2.05
1N3019	A-31	9.1	28	5.0	2.36	2.05
1N3020	A-31	10	25	7.0	2.36	2.05
1N3021	A-31	11	23	8.0	2.36	2.05
1N3022	A-31	12	21	9.0	2.36	2.05
1N3023	A-31	13	19	10.0	2.36	2.05
1N3024	A-31	15	17	14.0	2.36	2.05
1N3025	A-31	16	15.5	16.0	2.36	2.05
1N3026	A-31	18	14.0	20.0	2.36	2.05
1N3027	A-31	20	12.5	22.0	2.36	2.05
1N3028	A-31	22	11.5	23.0	2.36	2.05
1N3029	A-31	24	10.5	25.0	2.36	2.05
1N3030	A-31	27	9.5	35.0	2.36	2.05
1N3031	A-31	30	8.5	40.0	2.36	2.05
1N3032	A-31	33	7.5	45.0	2.36	2.05
1N3033	A-31	36	7.0	50.0	2.36	2.05
1N3034	A-31	39	6.5	60.0	2.36	2.05
1N3035	A-31	43	6.0	70.0	2.36	2.05
1N3036	A-31	47	5.5	80.0	2.36	2.05
1N3037	A-31	51	5.0	95.0	2.36	2.05
1N3038	A-31	56	4.5	110.0	2.36	2.05
1N3039	A-31	62	4.0	125	2.36	2.05
1N3040	A-31	68	3.7	150	2.36	2.05
1N3041	A-31	75	3.3	175	2.36	2.05
1N3045	A-31	100	2.3	450	2.55	2.20

SILICON RECTIFIERS

Type	Case	V _r v	I _o α	I _r ma	1-99	100-999
1N253	S-11	100	3.0	0.01	1.05	.70
1N254	S-11	200	3.0	0.01	1.13	.75
1N255	S-11	400	3.0	0.01	1.58	1.05
1N332	S-11	400	1.2	0.2	1.72	1.15
1N333	S-11	400	0.6	0.2	1.72	1.15

SILICON RECTIFIERS Cont.

Type	Case	V _r (Max.) V	I _o α	I _r ma	1-99	100-999
1N335	S-11	300	0.6	0.2	1.42	.95
1N342	S-11	400	0.6	0.5	1.72	1.15
1N343	S-11	300	1.2	0.5	1.42	.95
1N345	S-11	200	1.2	0.5	1.12	.75
1N347	S-11	100	3.0	0.5	1.05	.70
1N348	S-11	100	1.2	0.5	1.05	.70
1N440B	DO-3	100	0.75	0.3μa	.66	.44
1N441B	DO-3	200	0.75	0.75μa	.69	.46
1N433B	DO-3	400	0.75	1.5μa	.97	.65
1N444B	DO-3	500	0.65	1.75μa	1.05	.70
1N530	DO-3	100	0.3	3.0μa	.49	.33
1N531	DO-3	200	0.3	7.5μa	.52	.35
1N532	DO-3	300	0.3	10.0μa	.60	.40
1N534	DO-3	500	0.3	17.5μa	.76	.51
1N536	DO-3	50	0.75	0.01	.45	.30
1N537	DO-3	100	0.75	0.01	.49	.33
1N538	DO-3	200	0.75	0.01	.52	.35
1N539	DO-3	300	0.75	0.01	.60	.40
1N540	DO-3	400	0.75	0.01	.67	.45
1N547	DO-3	600	0.75	0.01	.96	.64
1N589	DO-3	1500	0.015	0.05	6.30	4.25
1N599	DO-3	1500	0.05	0.05	6.30	4.25
1N602	DO-3	200	0.4	0.025	.52	.35
1N604A	DO-3	400	0.4	1.5μa	.79	.53
1N607	S-11	50	1.0	0.025	1.00	.67
1N608	S-11	100	1.0	0.025	1.05	.70
1N610	S-11	200	1.0	0.025	1.12	.75
1N1095	DO-3	500	0.75	0.01	.76	.51
1N1096	DO-3	600	0.75	0.01	.97	.64
1N1101	DO-3	200	0.75	0.3	.63	.42
1N1102	DO-3	300	0.75	0.3	.60	.40
1N1103	DO-3	400	0.75	0.3	.67	.45
1N1105	DO-3	600	0.75	0.3	.97	.64
1N1115	S-11	100	1.5	0.4	1.05	.70
1N1116	S-11	200	1.5	0.3	1.12	.75
1N1118	S-11	400	1.5	0.3	1.72	1.15
1N1119	S-11	500	1.5	0.3	1.80	1.20
1N1124A	S-11	200	3.3	0.01	2.10	1.40
1N1128A	S-11	600	3.3	0.1	6.00	4.00
1N1130	S-11	1500	0.3	0.5	5.70	3.80
1N1131	S-11	1500	0.3	0.5	5.70	3.80
1N1487	DO-3	100	0.75	0.3	.49	.33
1N1488	DO-3	200	0.75	0.3	.52	.35
1N1489	DO-3	300	0.75	0.3	.60	.40
1N1490	DO-3	400	0.75	0.3	.67	.45
1N1591	S-11	50	10.0	0.3	1.10	.72
1N1592	S-11	100	10.0	0.3	1.20	.80
1N1593	S-11	200	10.0	0.3	2.25	1.50
1N1595	S-11	400	10.0	0.3	4.05	2.70
1N1612	S-11	500	15.0	0.3	1.07	.72
1N1613	S-11	100	15.0	0.3	1.20	.80
1N1614	S-11	200	15.0	0.3	1.87	1.25
1N1615	S-11	400	15.0	0.3	3.71	2.48
1N1616	S-11	600	15.0	0.3	5.36	3.58
1N1692	DO-3	100	0.75	0.3	.49	.33
1N1693	DO-3	200	0.75	0.3	.52	.35
1N1694	DO-3	300	0.75	0.3	.60	.40
1N1695	DO-3	400	0.75	0.3	.67	.45
1N1696	DO-3	500	0.75	0.3	.76	.51
1N1697	DO-3	600	0.75	0.3	.97	.64
1N2069	A-3	200	0.75	10μa	.49	.33
1N2070	A-3	400	0.75	10μa	.67	.45
1N2071	A-3	600	0.75	10μa	.87	.58
50°C						
1N3775	S-11	1500	3.3	5μa	5.85	3.90
1N3874	DO-10	50	6*	15μa	7.50	5.00
1N3875	DO-10	100	6*	15μa	8.03	5.35
1N3876	DO-10	200	6*	15μa	10.50	7.00
1N3877	DO-10	300	6*	15μa	14.62	9.75
1N3878	DO-10	400	6*	15μa	17.28	11.50
1N3879	S-11	50	6*	15μa	5.25	3.50

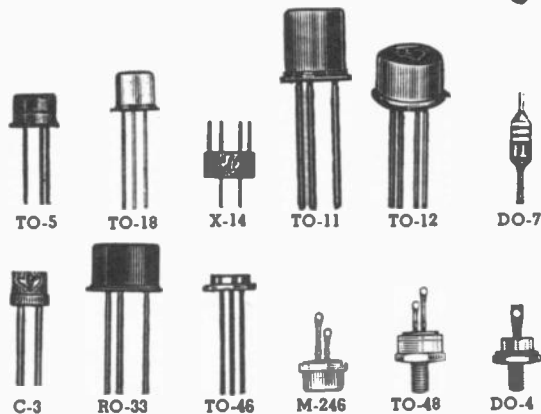
*I_c at 100°C.

NEWARK CAN SUPPLY ALL
TEXAS INSTRUMENT SEMICONDUCTORS



SILICON RECTIFIERS

Type	Case	V _r (max) v	I _o α	I _r mA	1-99	100-999
1N3882	S-11	300	6	15μa	12.38	8.25
1N3883	S-11	400	6	15μa	15.00	10.00
1N3884	DO-10	50	12	5	8.55	5.70
1N3885	DO-10	100	12	5	9.00	6.00
1N3886	DO-10	200	12	5	12.00	8.00
1N3888	DO-10	400	12	5	19.90	13.25
1N3889	S-11	50	12	5	6.30	4.20
1N3890	S-11	100	12	5	6.75	4.50
1N3891	S-11	200	12	5	9.75	6.50
1N3892	S-11	300	12	5	14.65	9.75
1N3893	S-11	400	12	5	17.60	11.75
1N4364	DO-3	100	0.75	1.0μa	.45	.30
1N4365	DO-3	200	0.75	1.0μa	.48	.32
1N4366	DO-3	300	0.75	1.0μa	.56	.37
1N4367	DO-3	400	0.75	1.0μa	.66	.44
1N4368	DO-3	500	0.75	1.0μa	.72	.48
1N4369	DO-3	600	0.75	1.0μa	.90	.60
1N4374	DO-3	1500	0.75	300μa	7.50	5.00
1N4383	DO-29	200	1.0	275μa	.67	.45
1N4384	DO-29	400	1.0	250μa	.73	.49
1N4385	DO-29	600	1.0	225μa	.81	.54



SILICON PNP ALLOY REPLACEMENT TRANSISTORS

Type	Case	Pd mw	B V _{ceo} V	I _{co} Na	LFE Min.	1-99	100-999
2N328A	TO-5	500	35	100	18	4.50	3.00
2N329A	TO-5	500	30	100	36	6.50	4.35

GROWN JUNCTION TETRODE TRANSISTORS

Type	Case	Rated V _{ceo} V	hFE	Power Diss TA=25°C mw	1-99	100-999
3N34	TO-12	30	30	125	5.00	4.15
3N35	TO-12	30	70	125	22.50	15.00

MEDIUM — POWER GROWN JUNCTION TRANSISTORS

Type	Case	V _{ce} V	I _c mA	hFE	Power Diss TA=25°C mw	1-99	100-999
2N339	TO-11	55	9-90	1	10.15	6.75	7.20
2N340	TO-11	85	9-90	1	10.80	7.20	7.20
2N341	TO-11	125	9-90	1	17.50	11.65	11.65
2N342B	TO-11	85	7-32	1	16.75	11.20	11.20
2N343	TO-11	60	28-90	1	18.40	12.25	12.25
2N1155	TO-18	80	9 Min.	0.75	13.15	8.80	8.80
2N1156	TO-18	120	9 Min.	0.75	17.65	11.75	11.75

SILICON BIDIRECTIONAL TRIODE THYRISTORS

Type	Case	Block Volts V	Anode Curr. α	IGT ma	VG T V	1-99	100-999
TIC20	M-246	200	6	100	3	6.82	4.55
TIC21	M-246	300	6	100	3	7.50	5.00
TIC22	TO-48	200	6	100	3	6.98	4.65
TIC23	TO-48	300	6	100	3	7.66	5.11

HIGH FREQUENCY SILICON RECTIFIERS

Type	Case	V _{rm} V	I _o α	I _r ma	T _{rr} nsec.	1-99	100-999
1N3909	DO-5	50	30	80	200	30.00	22.60
1N3910	DO-5	100	30	80	200	41.50	31.20
1N3911	DO-5	200	30	80	200	51.00	38.20
1N3912	DO-5	300	30	80	200	57.00	44.10
1N3913	DO-5	400	30	80	200	64.00	48.00

SILICON DOUBLE-EMITTER CHOPPERS

Type	Case	Offset Voltage μv	Max IEIE2 na	Max ΔVEIE2E/ΔTA μv	1-99	100-999
3N74*	TO-18	50	±100	75	15.60	10.40
3N108	TO-18	30	±10	50	41.00	27.25
3N109	TO-18	150	±10	150	29.06	19.25
3N110	TO-18	30	±10	50	24.00	16.25
3N111	TO-18	150	±10	150	15.00	10.00

All PNP except (*) NPN

P-CHAN DUAL FIELD-EFFECT CHOPPER

Type	Case	Ciss Input Cap. pf	Min. V(BR)GSS V	Max ID (off) na	Min Yfs μm	1-99	100-999
TB05	TO-18	12	25	2.0	6K	30.00	20.00

SILICON CHOPPER TRANSISTORS

Type	Case	Vec(off) Offset Voltage μv	Min V(br)eco v	Max IEB na	1-99	100-999
2N2432*	TO-18	500	15	2.0	12.00	8.00
2N2944	TO-46	300	10	0.1	5.75	3.85
2N2945	TO-46	500	20	0.2	5.00	3.35
2N2946	TO-46	800	35	0.5	5.75	3.85

All Epitaxial Planar and PNP except (*) Planar and NPN.

SILICON FIELD-EFFECT TRANSISTORS

Type	Case	IDSS ma	Min. Yfs mho	Min. V(BR)GSS V	1-99	100-999
2N2386	TO-5		1000	20	6.75	4.50
2N2497	TO-5	1-3	1000	20	12.90	8.60
2N2498	TO-18	2-6	1500	20	11.11	7.40
2N2499	TO-18	5-15	2000	20	12.90	8.60
2N2500	TO-18	1-6	1000	20	19.20	12.80
2N3328	TO-18	1 max	100	20	10.50	7.00
2N3329	TO-18	1-3	1000	20	9.15	6.10
2N3330	TO-18	2-6	1500	20	7.50	5.05
2N3331	TO-18	5-15	2000	20	9.15	6.10
2N3332	TO-18	1-6	1000	20	13.20	10.50
2N3573	TO-18	.02-1	100	25	21.75	14.50
2N3574	TO-18	.075-375	200	25	17.25	11.50
2N3575†	TO-18	2-1.0	300	25	18.60	12.50

All P-chan. Polarity. Mfg. Process; all Planar except (†) MOS.

SILICON DUAL FIELD EFFECT TRANSISTORS

Type	Case	Min. Yfs mho	Ciss Max (pf)	1-24	25-99	100-999
2N3333	X-14	600	30	271.50	235.00	181.00
2N3335	X-14	600	30	193.50	167.80	129.00
2N3336	X-14	600	30	98.00	85.00	65.40
TIS25	TO-5*	1500	50	34.60	34.60	22.50
TIS26	TO-5*	1500	50	32.70	32.70	21.80
TIS27	TO-5*	1500	50	30.15	30.15	20.50

All Planar. All P-chan except (*) N-chan.

SILICON GROWN UNIUNCTION TRANSISTORS

Type	Case	Intrinsic Standoff Ratio	I _{eo} μa	1-99	100-999
2N489	RO-33	51-.62	12	7.10	4.75
2N489B	RO-33	51-.62	0.2	9.15	6.10
2N490	RO-33	51-.62	12	7.80	5.20
2N491	RO-33	56-.68	12	8.40	5.60
2N491B	RO-33	56-.68	0.2	10.40	6.95
2N492	RO-33	56-.68	12	9.80	6.55
2N493	RO-33	62-.75	12	10.75	7.20
2N494	RO-33	62-.75	12	10.90	7.30
2N1671*	RO-33	47-.62	12	2.95	1.98
2N1671A*	RO-33	47-.62	12	3.20	2.14
2N1671B*	RO-33	47-.62	0.2	3.55	2.36
2N2160*	RO-33	47-.80	12	1.49	.99

Peak Emitter current, 2A Rated Bbb. 65V except (*) 35V.

MINIATURE TRANSISTORS

Type	Case	Equivalent (Dual/Single)	Pd mw	1-99	100-999	
2N850	TO-50	2N753	300	7.10	4.75	
2N852	TO-50	2N744	300	9.43	6.30	
2N2387	TO-50	2N929	450	11.55	7.70	
2N2388	TO-50	2N930	450	14.40	9.65	
2N2394	TO-50	2N1132	450	18.00	12.00	
2N2395	TO-50	2N696	450	10.10	6.75	
2N2396	TO-50	2N697	450	11.55	7.70	
2N3037	TO-50	2N2243	360	18.00	12.00	
2N3038	TO-50	2N1890	360	19.50	13.00	
2N3039	TO-50	2N2904	360	22.50	15.00	
2N3040	TO-50	2N2904	360	24.00	16.00	
2N3043	X-14	2N2642/2N930	250 per triode	44.00	38.00	29.40
2N3045	X-14	2N2644/2N930		22.40	19.40	14.90
2N3047	X-14	2N2640/2N929		29.90	25.90	19.90
2N3049	X-14	2N2804/2N2412		50.90	44.00	34.00

Semiconductors, Transistors, and Diodes

TEXAS INSTRUMENT SEMICONDUCTORS

MINIATURE TRANSISTORS (Cont'd.)

Type	Case	Equivalent (Dual/Single)	Pd mW	1-24	25-99	100-999
2N3050†	X-14‡	2N808/2N2412	250	49.55	43.00	33.15
2N3051†	X-14‡	2N2807/2N2412	per triode	39.00	33.80	26.00
2N3052†	X-14‡	2N914		39.00	33.80	26.00
2N3333†	X-14**	2N2497 (FET)	20	271.50	235.00	181.00
2N3335†	X-14**	2N2497 (FET)	per triode	193.50	167.80	129.00
2N3336†	X-14**	2N2497 (FET)		98.00	85.00	65.40

GENERAL PURPOSE SILICON DIODES

Type	Case	Vr	FWDI ma. DC	Max IR µA	Pd mW	1-99	100-999
1N456	DO-7	25	40	.025	500	.37	.29
1N456A	DO-7	25	100	.025	500	.37	.29
1N457	DO-7	60	20	.025	500	.45	.36
1N457A	DO-7	60	100	.025	500	.45	.36
1N458	DO-7	125	7	.025	500	.51	.40
1N458A	DO-7	125	100	.025	500	.51	.40
1N459	DO-7	175	3	.025	500	.66	.51
1N459A	DO-7	175	100	.025	500	.66	.51
1N461	DO-7	25	15	.5	200	.35	.28
1N461A	DO-7	25	100	.5	200	.35	.28
1N462	DO-7	60	5	.5	200	.38	.30
1N463	DO-7	175	1	.5	200	.46	.36

GENERAL PURPOSE SILICON DIODES (Continued)

Type	Case	Vr	FWDI ma. DC	Max IR µA	Pd mW	1-99	100-999
1N464	DO-7	125	3	.5	200	.45	.35
1N482	DO-7	30	100*	.25	500	.59	.46
1N482A	DO-7	30	200	.025	500	.59	.46
1N483	DO-7	60	100*	.25	500	.61	.47
1N483A	DO-7	60	200	.025	500	.61	.47
1N483B	DO-7	60	200	.025	500	.61	.47
1N484	DO-7	125	100*	.25	500	.71	.55
1N484A	DO-7	125	200	.025	500	.71	.55
1N484B	DO-7	125	200	.025	500	.71	.55
1N485	DO-7	75	100*	.25	500	.85	.60
1N485A	DO-7	175	200	.025	500	.85	.60
1N485B	DO-7	175	200	.025	500	.85	.60
1N488	DO-7	225	100*	.25	500	1.25	.98
1N486B	DO-7	225	200	.05	500	1.25	.98
600	C-3	27	3	1.0	500	1.94	1.58
601	C-3	45	10	.025	150	3.60	2.94
622	C-3	150	7	.2	150	3.70	3.03
624	C-3	220	3	.2	150	3.75	3.07
1N645	DO-7	225	400	.2	600	1.40	.85
1N646	DO-7	300	400	.2	600	1.65	1.10
1N647	DO-7	400	400	.2	600	1.80	1.20
1N648	DO-7	500	400	.2	600	1.95	1.30
1N649	DO-7	600	400	.2	600	2.50	1.65

* Measured at 1.1 v.

SPRAGUE TRANSISTORS AND DIODES



TO-1 TO-5 TO-9 TO-18 TO-24

SEPT — NPN PLANAR EPITAXIAL HIGH SPEED — SILICON

Type	Case TO-	Pd (W)	BVcbo V	hFE @ Ic=150mA	Vce (max)	1-99	100-999
2N2217	5	0.8	60	20-60	0.4	3.35	2.25
2N2218	5	0.8	60	40-120	0.4	3.35	2.25
2N2218A	5	0.8	75	40-120	0.3	3.75	2.50
2N2219	5	0.8	60	100-300	0.4	3.95	2.65
2N2219A	5	0.8	75	100-300	0.3	4.35	2.90
2N2220	18	0.5	60	20-60	0.4	3.35	2.25
2N2221	18	0.5	60	40-120	0.4	3.35	2.25
2N2221A	18	0.5	75	40-120	0.3	3.75	2.50
2N2222	18	0.5	60	100-300	0.4	3.95	2.65
2N2222A	18	0.5	75	100-300	0.3	4.35	2.90
2N2476	5	0.6	60	20	0.4	2.85	1.90
2N2477	5	0.6	60	40	0.4	3.30	2.20
2N2537	5	0.8	60	50-150	0.45	4.95	3.30
2N2538	5	0.8	60	100-300	0.45	5.85	3.90
2N2539	18	0.5	60	50-150	0.45	4.95	3.30
2N2540	18	0.5	60	100-300	0.45	5.85	3.90
2N2845	18	0.36	60	30-120	0.4	4.95	3.30
2N2846	5	0.8	60	30-120	0.4	4.95	3.30
2N2847	18	0.36	60	40-140	0.4	5.85	3.90
2N2848	5	0.8	60	40-140	0.4	5.85	3.90
2N2958	5	0.6	20	40-120	0.5	1.80	1.20
2N2959	5	0.6	20	100-300	0.5	1.45	.95
2N3115	18	0.4	20	40-120	0.5	1.80	1.20
2N3116	18	0.4	20	100-300	0.5	1.45	.95
TN-53	5	0.8	45	50	0.5	.95	.63
TN-54	18	0.5	45	50	0.5	.95	.63
TN-59	5	0.8	30	100	0.4	.75	.50
TN-60	18	0.5	30	100	0.4	.75	.50
TN-61	5	0.8	30	50	0.4	.65	.43
TN-62	18	0.5	30	50	0.4	.65	.43
TN-63	5	0.8	20	25	0.5	.45	.30
TN-64	18	0.5	20	25	0.5	.45	.30
TN-237	5	0.8	35	50	0.4	.75	.50
TN-238	18	0.5	35	50	0.4	.75	.50

PNP DIFFERENTIAL AMPLIFIERS — SILICON

Type	Case 6 Lead	Structure	BVcbo V	hFE @ Ic			1-99	100-999	
				min.	max.	µA			
2N2802	TO-5	PNP	25	20	120	100	10%	39.00	26.00
2N2805	TO-5	PNP	25	40	120	100	10%	40.50	27.00
2N3049	Flat-D	PNP	25	20	120	10	10%	51.00	34.00
2N3347	TO-5	PNP	60	40	300	10	10%	34.50	23.00
2N3350	TO-5	PNP	60	100	300	10	10%	45.00	30.00

Type No.	Case TO-	BVcbo V	BVceo V	hFE @ 10 mA	hFE @ 100 mA	1-99	100-999
2N997	18	75	40	4000	7000	13.50	9.00
2N2785	18	60	40	1200	2000	12.00	8.00

SEPT PNP PLANAR EPITAXIAL HIGH SPEED MEDIUM CURRENT — SILICON

Type	Case TO-	BVcbo V	BVceo V	hFE c Ic=150mA	ft	1-99	100-999
TQ-59	TO-5	40	30	100	100	1.45	.90
TQ-60	TO-18	40	30	100	100	1.45	.90
TQ-61	TO-5	40	30	50	100	1.20	.80
TQ-62	TO-18	40	30	50	100	1.20	.80
TQ-63	TO-5	20	20	25	20	.83	.55
TQ-64	TO-18	20	20	25	20	.83	.55
2N2904	TO-5	60	40	40-120	200	7.50	5.00
2N2904A	TO-5	60	60	40-120	200	10.50	7.00
2N2905	TO-5	60	40	100-300	200	9.00	6.00
2N2905A	TO-5	60	60	100-300	200	12.00	8.00
2N2906	TO-18	60	40	40-120	200	7.20	4.80
2N2906A	TO-18	60	60	40-120	200	10.05	6.70
2N2907	TO-18	60	40	100-300	200	8.70	5.80
2N2907A	TO-18	60	60	100-300	200	11.55	7.70

SEPT PLANAR LOW LEVEL-LOW NOISE AMPLIFIERS—SILICON

Type	Case TO-	Structure	BVcbo V	hFE @ Ic			NF db	1-99	100-999
				min.	max.	µA			
2N929	18	NPN	45	40	120	10	4	3.52	2.35
2N930	18	NPN	45	100	300	10	3	3.85	2.64
TN-55	5	NPN	40	100	.....	10	2	1.35	.90
TN-56	18	NPN	40	100	.....	10	2	1.35	.90
2N3058	46	PNP	6	40	120	0.1	.....	18.00	12.00
2N3059	46	PNP	10	100	300	10	3	14.25	9.50
TQ-55	5	PNP	40	40	100	10	2	2.85	1.95
TQ-56	18	PNP	40	40	100	10	2	2.85	1.95

PNP PLANAR DUAL EMITTER CHOPPERS—SILICON DUET

Type	Case 4 Lead	BVceo V	BVcbo V	BVceo V	Vo µV	ree (ohms)	1-99	100-999
3N90	TO-72	30	30	30	50	100	19.50	13.00
3N91	TO-72	30	30	30	100	100	16.50	11.00
3N92	TO-72	30	30	30	200	100	13.50	9.00
3N93	TO-72	50	50	50	50	75	34.50	23.00
3N94	TO-72	50	50	50	100	75	28.50	19.00
3N95	TO-72	50	50	50	200	100	22.50	15.00
3N108	TO-72	50	50	50	30	50	40.50	27.00
3N109	TO-72	50	50	50	150	50	28.50	19.00
3N110	TO-72	30	30	30	30	50	24.00	16.00
3N111	TO-72	30	30	30	150	50	15.00	10.00
3N114	TO-72	12	12	12	50	50	13.50	9.00
3N115	TO-72	12	12	12	100	50	10.50	7.00
3N116	TO-72	12	12	12	200	50	7.50	5.00
3N117	TO-72	20	20	20	50	50	15.00	10.00
3N118	TO-72	20	20	20	100	50	12.00	8.00
3N119	TO-72	20	20	20	200	50	9.00	6.00
3N100	TO-72	10	10	10	50	50	16.50	11.00
3N101	TO-72	30	30	30	50	50	21.00	14.00
3N102	TO-72	40	40	40	50	50	27.00	18.00
3N103								

Transistors



PNP PLANAR FOR ALLOY REPLACEMENTS—SILICON

Type	Case	Vcb V	Ic (mA)	1-99	100-999
2N327A	TO-5	50	100	2.25	1.50
2N328A	TO-5	50	100	4.50	3.00
2N329A	TO-5	50	100	6.50	4.35
2N942	TO-18	25	50	5.30	3.55
2N943	TO-18	40	50	7.85	5.25
2N944	TO-18	40	50	5.70	3.80
2N945	TO-18	50	50	3.75	2.50
2N1024	TO-5	18	100	2.70	1.80
2N1025	TO-5	40	100	3.35	2.25
2N1026	TO-5	40	100	5.00	3.35
2N1027	TO-5	18	100	3.00	2.00
2N1028	TO-5	12	100	2.90	1.95
2N1034	TO-5	50	50	2.70	1.80
2N1035	TO-5	50	50	4.05	2.70
2N1036	TO-5	50	50	5.10	3.40
2N1037	TO-5	50	50	4.50	3.00
2N1917	TO-5	25	50	6.60	4.40
2N1918	TO-5	25	50	5.30	3.55
2N1919	TO-5	40	50	8.80	5.25
2N2002	TO-5	30	100	4.50	3.00
2N2003	TO-5	30	100	3.00	2.05
2N2004	TO-5	30	100	6.00	4.05
2N2005	TO-5	50	100	4.35	2.90

MADT PNP GERMANIUM TRANSISTORS FOR UHF APPLICATIONS

Type	Case	Junction Temp.	Vcb V	Pt mW	Ic mA	1-99	100-999
2N1742	TO-9	125°C	20	60	50	2.93	2.15
2N1743	TO-9	125°C	20	60	50	2.67	2.11
2N1744	TO-9	125°C	20	60	50	2.25	1.65
2N2360	TO-12	125°C	20	60	50	2.40	1.80
2N2361	TO-12	125°C	20	60	50	2.25	1.65
2N2362	TO-12	125°C	20	60	50	2.10	1.55
2N2398	TO-12	125°C	20	60	50	3.45	2.50
2N2399	TO-12	125°C	20	60	50	3.35	2.45

SPAT PNP CHOPPERS—SILICON

Junct. Temp. 140°C * Price per Pair

Type	Case	Vcb (volts)	-Vcb (volts)	Pd @ 25°C (mW)	-Ic (mA)	1-99	100-999
2N1676	TO-5	4.5V	4.5	100mW	50	11.70	8.60
2N2162	TO-5	30V	30	150mW	50	8.00	5.95
2N2163	TO-5	15V	15	150mW	50	6.65	4.95
2N2164	TO-5	12V	8	150mW	50	7.40	5.50
2N2165	TO-5	30V	30	150mW	50	5.70	4.25
2N2166	TO-5	15V	15	150mW	50	4.35	3.25
2N2167	TO-5	12V	8	150mW	50	5.05	3.75
2N2185	TO-18	30V	30	150mW	50	15.00	11.00
2N2186	TO-18	30V	30	150mW	50	30.60	22.45*
2N2277	TO-18	15V	10	150mW	50	13.20*	9.65*
2N2279	TO-18	15V	15	150mW	50	25.80*	18.90*
2N2280	TO-18	10V	6	150mW	50	4.50	3.30
2N2281	TO-18	10V	6	150mW	50	10.05*	7.35*
2N3317	TO-18	30V	30	150mW	50	12.75	9.45
2N3318	TO-18	15V	15	150mW	50	7.40	5.50
2N3319	TO-18	10V	6	150mW	50	3.75	2.80

SPAT PNP SWITCH & AMPLIFIERS—SILICON

Type	Case	Junction (volts)	-Vcb (volts)	-Vce (volts)	Pd @ 25°C (mW)	-Ic (mA)	1-99	100-999
2N1118	TO-5	140°C	25	25	150mW	50	11.15	8.25
2N1429	TO-5	140°C	6	6	150mW	50	8.75	6.45
2N861	TO-18	140°C	25	25	150mW	50	6.00	4.40
2N863	TO-18	140°C	15	15	150mW	50	4.50	3.30
2N864	TO-18	140°C	6	6	150mW	50	5.70	4.25
2N865	TO-18	140°C	10	6	150mW	50	8.25	6.05
2N2377	TO-18	140°C	25	25	150mW	50	11.15	8.25
2N2378	TO-18	140°C	10	10	150mW	50	11.15	8.25

SPAT PNP SYMMETRICAL—SILICON

2N2968	TO-5	140°C	30	10	150mW	50	39.80	29.50
2N2969	TO-18	140°C	30	10	150mW	50	39.80	29.50
2N2970	TO-5	140°C	30	20	150mW	50	26.50	19.75
2N2971	TO-18	140°C	30	20	150mW	50	26.50	19.75

SEPT PNP GENERAL PURPOSE AMPLIFIERS—SILICON

Type	Case	BVcbo V	BVcbo V	hFE @ Ic=1mA	hFE @ Ic=1mA	1-99	100-999
2N3060	TO-46	70	30	30	90	20	3.45
2N3061	TO-46	70	40	60	180	60	2.40
2N3062	TO-46	90	40	20	80	20	3.90
2N3063	TO-46	90	40	50	150	50	2.00
2N3064	TO-46	110	50	15	45	15	6.0
2N3065	TO-46	110	50	30	90	30	5.10

SEPT PLANAR—CHOPPERS SWITCHES & AMPLIFIERS—SILICON

Type	Structure	Case	BVcbo V	BVcbo V	Voff mV	V5 (ohms)	1-99	100-999
2N2944	PNP	TO-46	15	15	6	20	5.75	3.85
2N2945	PNP	TO-46	25	25	1	35	5.00	3.35
2N2946	PNP	TO-46	40	40	2	45	5.75	3.85
2N3217	PNP	TO-46	15	15	1.25	20	2.55	1.70
2N3218	PNP	TO-46	25	25	1.5	35	2.25	1.50
2N3219	PNP	TO-46	40	40	2.5	45	2.55	1.70
2N3840	PNP	TO-46	50	50	2	20	9.60	6.40
2N3841	PNP	TO-18	100	80	2	25	8.70	5.80
2N3842	PNP	TO-18	120	120	3	40	15.30	10.20
2N2330	NPN	TO-5	30	5	0.75	....	4.35	2.90
2N2331	NPN	TO-18	30	5	0.75	....	4.35	2.90
2N3977	PNP	TO-46	15	15	1.25	20	3.30	2.20
2N3978	PNP	TO-46	25	25	1.5	35	3.00	2.00
2N3979	PNP	TO-46	40	40	2.5	45	3.30	2.20
TW-135	PNP	TO-18	30	15	1.0	20	7.10	4.75

NPN DIFFERENTIAL AMPLIFIERS — SILICON

Type	Structure	BVcbo V	Case 6 Lead	hFE @ Ic min. max.	hFE @ Ic μA	hFE1 hFE2	1-99	100-499
2N2480	NPN	75	TO-5	20	100	20%	13.50	9.00
2N2642	NPN	45	TO-5	100	300	10	25.50	17.00
2N2903	NPN	60	TO-5	60	10	10%	15.00	10.00
2N2915	NPN	45	TO-5	60	240	10	30.00	20.00
2N2920	NPN	60	TO-5	150	600	10	42.00	28.00
2N2975	NPN	45	TO-18	150	600	10	30.00	20.00
2N2979	NPN	60	TO-18	150	600	10	31.50	21.00
2N3043	NPN	45	Flat-D	100	300	10	43.50	29.00
2N3046	NPN	45	Flat-D	50	200	10	40.50	27.00
2N3410	NPN	60	TO-5	20	....	10	15.00	10.00
2N3411	NPN	60	TO-5	20	....	10	18.00	12.00
2N3522	NPN	70	TO-18	100	300	10	34.50	23.00

ECDC & MADT PNP HIGH SPEED SWITCHES—GERMANIUM

Type No.	Case	Junction Temp.	Vcb (volts)	Pt (mW)	Ic (mA)	1-99	100-999
2N501	TO-1	15	—	60mW	50	6.35	4.65
2N769	TO-18	12	—	35mW	100	6.75	4.85
2N779A	TO-18	15	—	60mW	100	3.50	2.55
2N976	TO-18	15	—	100mW	100	4.35	3.20
2N982	TO-18	20	15	60mW	100	3.65	2.70
2N984	TO-18	15	10	60mW	100	1.00	.75
2N1499A	TO-9	20	—	60mW	100	1.40	1.05
2N1499B	TO-9	30	20	75mW	100	1.55	1.15
2N1500	TO-9	15	—	60mW	50	6.95	5.10
2N1754	TO-9	13	—	50mW	100	1.35	.95
2N2048	TO-9	20	15	150mW	100	1.80	1.32
2N2048A	TO-9	30	20	150mW	100	2.05	1.50
2N2400	TO-18	12	7	150mW	100	1.25	.95
2N2401	TO-18	15	10	150mW	100	1.45	1.05
2N2402	TO-18	15	12	150mW	100	2.25	1.65
2N2488	TO-18	15	10	60mW	100	2.95	2.15
2N2489	TO-18	20	15	60mW	100	3.65	2.70
2N2795	TO-18	25	15	75mW	100	4.15	3.05
2N2796	TO-18	20	12	75mW	100	2.35	1.75
2N2798	TO-9	60	25	75mW	100	1.85	1.40
2N2799	TO-9	30	15	75mW	100	1.35	1.00
2N3320	TO-18	15	10	75mW	100	3.50	2.60
2N3321	TO-18	12	7	75mW	100	2.25	1.65

MADT PNP COMMUNICATIONS TYPES—GERMANIUM

2N499	TO-1	85°C	30	30	50	3.95	2.90
2N502	TO-9	85°C	20	60	100	2.90	2.15
2N502A	TO-9	100°C	30	75	100	3.45	2.50
2N502B	TO-9	100°C	30	75	100	3.75	2.80
2N504	TO-1	85°C	35	30	50	3.45	2.25
2N588	TO-1	85°C	15	30	50	1.45	1.05
2N1726	TO-9	100°C	20	60	50	1.15	.85
2N1727	TO-9	100°C	20	60	50	1.00	.75
2N1728	TO-9	100°C	20	60	50	1.10	.80
2N1747	TO-9	100°C	20	60	50	1.00	.75
2N1748	TO-9	100°C	25	60	50	1.05	.80
2N1748A	TO-9	100°C	25	60	50	1.15	.85
2N1749	TO-9	100°C	40	75	10	1.45	1.05
2N1752	TO-9	100°C	12	60	50	.95	.70
2N1788	TO-9	100°C	35	60	50	1.35	.95
2N1789	TO-9	100°C	35	60	50	1.15	.85
2N1866	TO-9	100°C	35	60	50	1.20	.90
2N1867	TO-9	100°C	35	60	50	1.15	.85

SBT PNP SWITCH—GERMANIUM

Type No.	Case	Junction (volts)	Vcb (volts)	Pt (mW)	Pd @ 25°C (mW)	Ic (mA)	1-99	100-999
2N231.	TO-24	85°C	4.5	4.5	9mW	3	1.15	.85
2N240	TO-24	85°C	6	6	30mW	15	5.60	4.10
2N344	TO-24	85°C	5	5	20mW	5	3.45	2.50
2N345	TO-24	85°C	5	5	20mW	5	4.35	3.15
2N346	TO-24	85°C	5	5	20mW	5	5.85	4.25

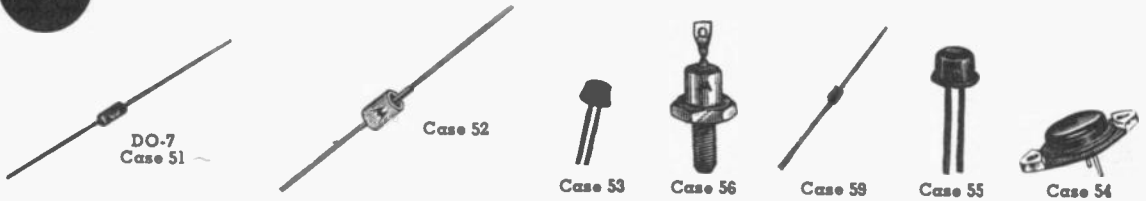
MAT PNP SWITCH—GERMANIUM

2N393	TO-24	100°C	6	6	25mW	50	4.35	3.15
2N1122	TO-24	100°C	12	11	25mW	50	5.45	4.00

COMPLETE INFORMATION & ENGINEERING BULLETIN IMMEDIATELY AVAILABLE UPON REQUEST



Motorola Diodes



TEMPERATURE COMPENSATED ZENER REFERENCE DIODES

6.2 VOLT SUBMINIATURES

DO-7, Dissipation: 400 mW @ 25°C, Vz=6.2 ± 5% @ Izt=7.5 mA.

Type No.	V. Temp. Coef. %/°C	Temp. Range °C	Max. Dyn. Z Ω	1-24 99	25-99	Mix. 10 of Type	100-999
1N821	.01	-55 to +100	15	2.75	2.35	2.10	1.90
1N821A	.01	-55 to +100	10	3.05	2.60	2.30	2.10
1N821 ML1	.01	-65 to +175	15	3.50	3.00	2.65	2.40
1N821 ML2	.01	-65 to +175	15	5.65	4.85	4.30	3.90
1N821 ML3	.01	-65 to +175	15	5.85	5.05	4.45	4.05
1N823	.005	-55 to +100	15	3.60	3.10	2.75	2.50
1N823A	.005	-55 to +100	10	3.90	3.35	2.95	2.70
1N823 ML1	.005	-65 to +175	15	4.35	3.75	3.30	3.00
1N823 ML2	.005	-65 to +100	15	6.50	5.60	4.95	4.50
1N823 ML3	.005	-65 to +100	15	7.25	6.25	5.50	5.00
1N825	.002	-55 to +100	15	5.80	5.00	4.40	4.00
1N825A	.002	-55 to +100	10	6.50	5.60	4.95	4.50
1N825 ML1	.002	-65 to +175	15	6.50	5.60	4.95	4.50
1N825 ML2	.002	-65 to +175	15	8.70	7.50	6.60	6.00
1N825 ML3	.002	-65 to +175	15	10.00	8.60	7.60	6.90
1N827 ML1	.001	-65 to +175	15	11.60	10.00	8.80	8.00
1N827 ML2	.001	-65 to +175	15	13.75	11.85	10.45	9.50
1N827 ML3	.001	-65 to +175	15	17.40	15.00	13.20	12.00
1N829	.0005	-55 to +100	15	16.30	14.05	12.35	11.25
1N829A	.0005	-55 to +100	10	19.55	16.95	14.85	13.50
1N829 ML1	.0005	-65 to +175	15	17.05	14.70	12.90	11.75
1N829 ML2	.0005	-65 to +175	15	19.20	16.65	14.55	13.25
1N829 ML3	.0005	-65 to +175	15	31.15	26.85	23.65	21.50

8.4 VOLT SUBMINIATURE

DO-7, Dissipation: 250 mW @ 25°C, Vz=8.4V ± 5% @ Izt=10mA.

Type	V. Temp. Coef. %/°C	Temp. Range °C	Max. Dyn. Z Ω	1-99	Mix. 10 of Type	100-999	
1N3154 ML1	.01	-55 to 100	15	3.25	2.80	2.45	2.25
1N3154 ML2	.01	-55 to 100	15	4.95	4.25	3.75	3.40
1N3154 ML3	.01	-55 to 100	15	6.10	5.25	4.60	4.20
1N3155 ML1	.005	-55 to 100	15	4.15	3.55	3.15	2.85
1N3155 ML2	.005	-55 to 100	15	6.10	5.25	4.60	4.20
1N3155 ML3	.005	-55 to 100	15	7.55	6.50	5.70	5.20
1N3156 ML1	.002	-55 to 100	15	6.80	5.85	5.15	4.70
1N3156 ML2	.002	-55 to 100	15	8.70	7.50	6.60	6.00
1N3156 ML3	.002	-55 to 100	15	12.20	10.50	9.25	8.40
1N3157 ML1	.001	-55 to 100	15	8.20	7.05	6.20	5.65
1N3157 ML2	.001	-55 to 100	15	10.15	8.75	7.70	7.00
1N3157 ML3	.001	-55 to 100	15	15.35	13.25	11.65	10.60

6.4 VOLT LOW LEVEL SUBMINIATURES

DO-7, Dissip.: 250 mW @ 50°C, Vz=6.4V ± 5% @ Izt=0.5 mA.

Type	V. Temp. Coef. %/°C	Temp. Range °C	Max. Dyn. Z Ω	1-99	Mix. 10 of Type	100-999
1N4565	.01	0 to +75	200	8.65	7.45	6.50
1N4565A	.01	-55 to +100	200	9.70	8.40	7.30
1N4566	.005	0 to +75	200	11.70	10.10	8.80
1N4566A	.005	-55 to +100	200	13.05	11.25	9.80
1N4567	.002	0 to +75	200	23.80	20.60	17.90
1N4567A	.002	-55 to +100	200	26.45	22.90	19.90
1N4568	.001	0 to +75	200	41.10	35.55	30.90
1N4568A	.001	-55 to +100	200	45.75	39.55	34.40
1N4569	.0005	0 to +75	200	89.50	77.40	67.30
1N4569A	.0005	-55 to +100	200	99.50	86.00	74.80

DO-7, Dissipation: 400 mW @ 50°C, Vz=6.4V ± 5% @ Izt=1.0mA.

Type	V. Temp. Coef. %/°C	Temp. Range °C	Max. Dyn. Z Ω	1-24	100 Mix	25-99	100-999
1N4570	.01	0 to +75	100	5.85	5.05	4.40	
1N4570A	.01	-55 to +100	100	6.50	5.65	4.90	
1N4571	.005	0 to +75	100	7.30	6.30	5.50	
1N4571A	.005	-55 to +100	100	8.10	7.00	6.10	
1N4572	.002	0 to +75	100	13.25	11.45	9.95	
1N4572A	.002	-55 to +100	100	14.75	12.75	11.10	
1N4573	.001	0 to +75	100	24.25	21.00	18.25	
1N4573A	.001	-55 to +100	100	27.00	23.35	20.30	
1N4574	.0005	0 to +75	100	56.50	48.85	42.50	
1N4574A	.0005	-55 to +100	100	63.15	54.60	47.50	

8.5 VOLT LOW-LEVEL SUBMINIATURES

DO-7, Dissip.: 250 mW @ 50°C, Vz=8.5V, ± 5% @ Izt=0.5 mA.

Type	V. Temp. Coef. %/°C	Temp. Range °C	Max. Dyn. Z Ω	1-24	100 Mix	25-99	100-999
1N4775	.01	0 to +75	200	8.65	7.45	6.50	
1N4775A	.01	-55 to +100	200	9.70	8.40	7.30	
1N4776	.005	0 to +75	200	11.70	10.10	8.80	
1N4776A	.005	-55 to +100	200	13.05	11.25	9.80	
1N4777	.002	0 to +75	200	23.80	20.60	17.90	
1N4777A	.002	-55 to +100	200	26.45	22.90	19.90	
1N4778	.001	0 to +75	200	41.10	35.55	30.90	
1N4778A	.001	-55 to +100	200	45.75	39.55	34.40	
1N4779	.0005	0 to +75	200	89.50	77.40	67.30	
1N4779A	.0005	-55 to +100	200	99.50	86.00	74.80	

8.5 VOLT LOW-LEVEL SUBMINIATURES (CONT'D)

DO-7, Dissip.: 250 mW @ 50°C, Vz=8.5V ± 5% @ Izt=0.5 mA.

Type	V. Temp. Coef. %/°C	Temp. Range °C	Max. Dyn. Z Ω	1-99	100 mix 10 of Type	100-999
1N4780	.01	0 to +75	100	5.85	5.05	4.40
1N4780A	.01	-55 to +100	100	6.50	5.65	4.90
1N4781	.005	0 to +75	100	7.30	6.30	5.50
1N4781A	.005	-55 to +100	100	8.10	7.00	6.10
1N4782	.002	0 to +75	100	13.25	11.45	9.95
1N4782A	.002	-55 to +100	100	14.75	12.75	11.10
1N4783	.001	0 to +75	100	24.25	21.00	18.25
1N4783A	.001	-55 to +100	100	27.00	23.35	20.30
1N4784	.0005	0 to +75	100	56.50	48.85	42.50
1N4784A	.0005	-55 to +100	100	63.15	54.60	47.50

9.1 VOLT LOW LEVEL SUBMINIATURE

DO-7, Diss.: 250 mW @ 50°C, Vz=9.1V ± 5% 1/2 Izt=0.5 mA.

Type	V. Temp. Coef. %/°C	Temp. Range °C	Max. Dyn. Z Ω	1-99	100 Mix	25-99	100-999
1N4765	.01	0 to +75	350	8.65	7.45	6.50	
1N4765A	.01	-55 to +100	350	9.70	8.40	7.30	
1N4766	.005	0 to +75	350	11.70	10.10	8.80	
1N4766A	.005	-55 to +100	350	13.05	11.25	9.80	
1N4767	.002	0 to +75	350	23.80	20.60	17.90	
1N4767A	.002	-55 to +100	350	26.45	22.90	19.90	
1N4768	.001	0 to +75	350	41.10	35.55	30.90	
1N4768A	.001	-55 to +100	350	45.75	39.55	34.40	
1N4769	.0005	0 to +75	350	89.50	77.40	67.30	
1N4769A	.0005	-55 to +100	350	99.50	86.00	74.80	

DO-7, Diss.: 250 mW @ 50°C, Vz=9.1V ± 5% @ Izt=1.0 mA.

Type	V. Temp. Coef. %/°C	Temp. Range °C	Max. Dyn. Z Ω	1-99	100 Mix	25-99	100-999
1N4770	.01	0 to +75	200	5.85	5.05	4.40	
1N4770A	.01	-55 to +100	200	6.50	5.65	4.90	
1N4771	.005	0 to +75	200	7.30	6.30	5.50	
1N4771A	.005	-55 to +100	200	8.10	7.00	6.10	
1N4772	.002	0 to +75	200	13.25	11.45	9.95	
1N4772A	.002	-55 to +100	200	14.75	12.75	11.10	
1N4773	.001	0 to +75	200	24.25	21.00	18.25	
1N4773A	.001	-55 to +100	200	27.00	23.35	20.30	
1N4774	.0005	0 to +75	200	56.50	48.85	42.50	
1N4774A	.0005	-55 to +100	200	63.15	54.60	47.50	

9.3 VOLT MINIATURES

Case 52, Dissip.: 750 mW @ 25°C, Vz=9.3V ± 5% @ Izt=10 mA.

Type	V. Temp. Coef. %/°C	Temp. Range °C	Max. Dyn. Z Ω	1-24	100 Mix	25-99	100-999
1N2620	.01	0 to +75	15	4.10	3.55	3.05	
1N2620A	.01	-55 to +100	15	4.35	3.75	3.25	
1N2620B	.01	-55 to +100	15	4.30	4.20	3.65	
1N2621	.005	0 to +75	15	4.60	3.95	3.45	
1N2621A	.005	-55 to +100	15	5.55	4.80	4.15	
1N2622	.002	-55 to +100	15	8.15	7.05	6.10	
1N2622A	.002	-55 to +100	15	9.35	8.05	7.00	
1N2623	.001	0 to +75	15	18.00	15.80	13.90	
1N2623A	.001	-55 to +100	15	20.05	17.50	15.35	
1N2624	.0005	0 to +75	15	22.00	19.00	16.55	
1N2624B	.0005	-55 to +100	15	38.50	33.30	28.95	

9.0 VOLT SUBMINIATURES

DO-7, Dissipation: 500 mW @ 25°C, Vz=9.0V ± 5% @ Izt=7.5mA.

Type	V. Temp. Coef. %/°C	Temp. Range °C	Max. Dyn. Z Ω	1-24	100 Mix	25-99	100-999
1N935	.01	0 to +75	20	2.30	2.00	1.75	1.60
1N935A	.01	-55 to +100	20	2.60	2.25	2.00	1.80
1N935B	.01	-55 to +150	20	3.55	3.05	2.70	2.45
1N935B ML1	.01	-55 to +150	20	4.25	3.70	3.25	2.95
1N935B ML2	.01	-55 to +150	20	6.45	5.55	4.90	4.45
1N935B ML3	.01	-55 to +150	20	8.20	7.05	6.20	5.65
1N936	.005	0 to +75	20	2.75	2.35	2.10	1.90
1N936A	.005	-55 to +100	20	3.55	3.05	2.70	2.45
1N936B	.005	-55 to +150	20	4.20	3.60	3.20	2.90
1N937A	.002	-55 to +100	20	6.15	5.30	4.65	4.25
1N937B	.002	-55 to +150	20	7.10	6.10	5.40	4.90
1N937B ML1	.002	-55 to +150	20	7.85	6.75	5.95	5.40
1N937B ML2	.002	-55 to +150	20	10.00	8.60	7.60	6.90
1N937B ML3	.002	-55 to +150	20	12.20	10.50	9.25	8.40
1N938	.001	0 to +75	20	8.95	6.00	5.30	4.80
1N938A	.001	-55 to +100	20	7.55	6.50	5.70	5.20
1N938B	.001	-55 to +150	20	10.06	8.60	7.60	6.90
1N938B ML1	.001	-55 to +150	20	10.75	9.25	8.15	7.40
1N938B ML2	.0						



TEMPERATURE COMPENSATED ZENER REFERENCE DIODES (Cont'd.)

11.7 VOLT SUBMINIATURES

DO-7. Dissipation: 500 mW @ 25°C. Vz=11.7 ± 5% @ Izt=7.5 mA.

Type No.	V.-Temp. Coef. %/°C.	Temp. Range °C.	Max. Dyn. Z Ω	1-24	25-99	100 Mix. 10 of Type	100-999	Type No.	V.-Temp. Coef. %/°C.	Temp. Range °C.	Max. Dyn. Z Ω	1-24	25-99	100 Mix. 10 of Type	100-999
IN941	.01	0 to +75	30	3.27	2.75	2.40	2.20	IN943B ML1	.002	-55 to +150	30	7.90	6.80	6.00	5.45
IN941B	.01	-55 to +150	30	3.60	3.10	2.75	2.50	IN943B ML2	.002	-55 to +150	30	10.05	8.70	7.65	6.95
IN941B ML1	.01	-55 to +150	30	4.35	3.75	3.30	3.00	IN943B ML3	.002	-55 to +150	30	15.95	13.75	12.10	11.00
IN941B ML2	.01	-55 to +150	30	6.50	5.60	4.95	4.50	IN944A	.001	-55 to +100	30	13.05	11.25	9.90	9.00
IN941B ML3	.01	-55 to +150	30	10.45	9.00	7.90	7.20	IN944B	.001	-55 to +150	30	17.30	14.95	13.15	11.95
IN942	.005	0 to +75	30	3.50	3.00	2.65	2.40	IN944B ML1	.001	-55 to +150	30	18.06	15.55	13.70	12.45
IN942A	.005	-55 to +100	30	4.35	3.75	3.30	3.00	IN944B ML2	.001	-55 to +150	30	20.20	17.45	15.35	13.95
IN943B	.002	-55 to +150	30	7.15	6.20	5.45	4.95	IN944B ML3	.001	-55 to +150	30	20.65	17.80	15.65	14.25

11.7 MINIATURES

Case 52. Dissip.: 750 m @ 25°C. Vz=11.7 ± 5% @ Izt=7.5 mA.

IN3580	.01	0 to +75	25	4.90	4.20	3.65	IN3583B	.001	-55 to +150	25	15.65	13.55	11.75
IN3581	.....	.....	.....	5.55	4.80	4.15	IN3584	.005	0 to +75	25	25.30	21.85	19.00
IN3582	.....	.....	.....	8.95	7.75	6.70	IN3584A	.005	-55 to +150	25	32.80	28.35	24.65
IN3583	.001	0 to +75	25	10.90	9.40	8.20	IN3584B	.005	-55 to +100	25	36.80	31.80	27.65

TEMPERATURE COMPENSATED REFERENCES DIODE MOLDED ASSEMBLIES

Type	Zener Volt. Vz±5% (Volts)	Max. Dyn. Imp. zT (Ohms)	Temp. Coef. (%/°C)	1-99	100 Mix.	100-up	Type	Zener Voltage Vz±5% (Volts)	Max. Dyn. Imp. zT (Ohms)	Temp. Coef. (%/°C)	1-99	100 Mix.	100-up
IN429	6.2	.20	.01	7.30	6.30	5.50	IN1736A	12.4	40	.005	10.70	9.25	8.05
IN1735	6.2	.20	.01	5.40	4.65	4.05	IN2767	20.4	60	.005	9.05	7.80	6.80
IN1736	12.4	.40	.01	8.75	7.68	6.60	IN2768	27.2	80	.005	11.15	8.65	8.40

PRECISION REFERENCE DIODES

Stability certified to as low as 5 parts per million per 1000 hours.

6.2 VOLT PRECISION REFERENCE DIODES

Type	PPM/1000 hours	1-10	11-99	100-999
MZ840	40	28.50	25.25	19.00
MZ820	20	37.50	33.25	25.00
MZ810	10	52.50	46.55	35.00
MZ805	5	73.50	65.15	49.00

Certificate in and data with each diode.

8.4 VOLT PRECISION REFERENCE DIODES

Type	PPM/1000 hours	1-10	11-99	100-999
MZ840	40	23.25	20.60	15.50
MZ820	20	33.00	29.25	22.00
MZ810	10	48.00	42.25	32.00
MZ805	5	67.50	59.85	45.00

SILICON ZENER DIODES

Nominal zener voltage is tested at the 1/4 power point. Dynamic impedance is measured at two points. Rating from 2.4 to 150 Mw.

Case 53. 150 mW diffused. "A" suffix indicates ±5 tolerances. Other units ±10%.

Type	Voltage	1-99	100 Mixed	100-999
IN1313	8.75	3.10	2.70	2.35
IN1313A	8.75			
IN1314	10.50			
IN1314A	10.50			
IN1315	12.75			
IN1315A	12.75	5.45	4.70	4.10
IN1316	15.75			
IN1316A	15.75			
IN1317	19.00			
IN1317A	19.00			
IN1318	23.50	4.00	3.65	3.20
IN1318A	23.50			
IN1319	28.50			
IN1319A	28.50			
IN1320	34.50			

Type	Voltage	1-99	100 Mixed	100-999
IN1320A	34.50	3.10	2.70	2.35
IN1321	41.00			
IN1321A	41.00			
IN1322	48.50			
IN1322A	48.50			
IN1323	58.00	5.45	4.70	4.10
IN1323A	58.00			
IN1324	71.00			
IN1324A	71.00			
IN1325	87.50			
IN1325A	87.50	4.00	3.65	3.20
IN1326	105.00			
IN1326A	105.00			
IN1327	127.50			
IN1327A	127.50			

DO-7—1/4 WATT PASSIATED DIFFUSED ZENER DIODES

DO-7 INDUSTRIAL 1/4 WATT DIFFUSED ZENER DIODES

No suffix on type indicate ±20% to. "5" indicates ±5%. If ±10% tol. is desired, append "10" to type no.

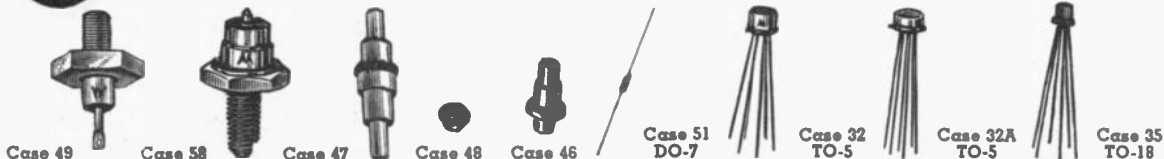
Type	Vz	1-99	100 Mixed	100-999
1/4M6.8Z	6.8	2.10	1.95	1.70
1/4M7.5Z	7.5			
1/4M8.2Z	8.2			
1/4M9.1Z	9.1			
1/4M10Z	10			
1/4M12Z	12	2.60	2.40	2.10
1/4M13Z	13			
1/4M14Z	15			
1/4M15Z	15			
1/4M16Z	16			
1/4M30Z	30	2.80	2.60	2.25
1/4M39Z	39			
1/4M50Z	50			
1/4M62Z	62			
1/4M100Z	100			
1/4M150Z	150	4.35	4.00	3.50
1/4M16Z	16			
1/4M30Z	30			
1/4M39Z	39			
1/4M50Z	50			

Type	Vz	1-99	100 Mixed	100-999
IN4099	6.8	5.05	4.35	3.80
IN4100	7.5			
IN4101	8.2			
IN4102	8.7			
IN4103	9.1			
IN4104	10			
IN4105	11			
IN4106	12			
IN4107	13			
IN4108	14			
IN4109	15	4.00	3.65	3.20
IN4110	16			
IN4111	17			
IN4112	18			
IN4113	19			
IN4114	20			
IN4115	22			
IN4116	24			
IN4117	25			
IN4118	27			
IN4119	28	3.50	3.20	2.80
IN4120	30			
IN4121	33			
IN4122	36			
IN4123	39			

(Continued on next page.)



Motorola Diodes



1/4 WATT PASSIVATED DIFFUSED ZENER DIODES (Cont'd.)

Type	Vz	1-99	100 Mixed	100-999
IN4124	43			
IN4125	47			
IN4126	51			
IN4127	56			
IN4128	60			
IN4129	62	5.05	4.35	3.80
IN4130	68			
IN4131	75			
IN4132	82			
IN4133	87			
IN4134	91			
IN4135	100			

DO-7—INDUSTRIAL 1/4 WATT LOW VOLTAGE ZENER DIODES

Suffix "S" indicates $\pm 5\%$ tolerance. For $\pm 10\%$ tolerance add "10" suffix to type no. No suffix, $\pm 20\%$.

Type	Vz	1-99	100 Mixed	100-999
1/4M2.4AZ	2.4			
1/4M2.4AZ5	2.4			
1/4M2.7AZ	2.7			
1/4M2.7AZ5	2.7			
1/4M3.0AZ	3.0			
1/4M3.0AZ5	3.0			
1/4M3.3AZ	3.3			
1/4M3.3AZ5	3.3			
1/4M3.9AZ	3.9			
1/4M4.7AZ	4.7			
1/4M4.7AZ5	4.7			
1/4M5.6AZ	5.6			
1/4M6.2AZ	6.2			
1/4M6.2AZ5	6.2			
1/4M6.8AZ	6.8			
1/4M6.8AZ5	6.8			

DO-7 400 DIFFUSED ZENER DIODES

No suffix on type number $\pm 20\%$ tolerance; "A" suffix indicates $\pm 10\%$ tolerance; "B" suffix indicates $\pm 5\%$ tolerance.

Type	Nom. Zener Volt.	1-99	100 Mixed	100-999
IN957	6.8			
IN957B	6.8			
IN958A	7.5			
IN958B	7.5			
IN959	8.2			
IN959B	8.2			
IN960	9.1			
IN960A	9.1			
IN960B	9.1			
IN961	10			
IN961A	10			
IN961B	10			
IN962	11			
IN962B	11			
IN963	12			
IN963A	12			
IN963B	12			
IN964	13			
IN964B	13			
IN965	15			
IN965B	15			
IN966	16			
IN966B	16			
IN967	18			
IN967B	18			
IN968	20			
IN968B	20			
IN969	22			
IN969B	22			
IN970	24			
IN970B	24			
IN971B	27			
IN972B	30			
IN973	32			
IN973B	33			
IN974	36			
IN974B	36			
IN975B	38			
IN976B	43			
IN977	47			

400 MILLIWATTS DIFFUSED ZENER DIODES (Cont'd.)

Type	Vz	1-99	100 Mix.†	100-999
IN978	51			
IN979	56			
IN980	62			
IN981	68			
IN982	75			
IN983	82			
IN984	91			
IN985	100			
IN986	110			
IN987	120			
IN988	130			
IN989	150			
IN990	160			
IN991	180			
IN992	200			

MEG-A-LIFE II HIGH RELIABILITY DEVICES ($\pm 5\%$ tolerance)

Type	Vz	1-99	100-up
IN962B ML1	11		
IN962B ML2	11		
IN962B ML3	11		
IN963B ML1	12		
IN963B ML2	12		
IN963B ML3	12		
IN964B ML1	13		
IN964B ML2	13		
IN964B ML3	13		
IN965B ML1	15		
IN965B ML2	15		
IN965B ML3	15		
IN966B ML1	16		
IN966B ML2	16		
IN966B ML3	16		
IN968B ML1	18		
IN967B ML2	18		
IN967B ML3	18		
IN968B ML1	20		
IN968B ML2	20		
IN968B ML3	20		
IN969B ML1	22		
IN969B ML2	22		
IN969B ML3	22		
IN970B ML1	24		
IN970B ML2	24		
IN970B ML3	24		
IN971B ML1	27		
IN971B ML2	27		
IN971B ML3	27		
IN972B ML1	30		
IN972B ML2	30		
IN972B ML3	30		
IN973B ML1	33		
IN973B ML2	33		
IN973B ML3	33		
IN974B ML1	36		
IN974B ML2	36		
IN974B ML3	36		
IN975B ML1	39		
IN975B ML2	39		
IN975B ML3	39		
IN976B ML1	43		
IN976B ML2	43		
IN976B ML3	43		
IN977B ML1	47		
IN977B ML2	47		
IN977B ML3	47		
IN978B ML1	51		
IN978B ML2	51		
IN978B ML3	51		
IN979B ML1	56		
IN979B ML2	56		
IN979B ML3	56		
IN980B ML1	62		
IN980B ML2	62		
IN980B ML3	62		
IN981B ML1	68		
IN981B ML2	68		
IN981B ML3	68		

MEG-A-LIFE II (Cont'd.)

Type	Vz	1-99	100-up
IN982B ML1	75		
IN982B ML2	75		
IN982B ML3	75		
IN983B ML1	82		
IN983B ML2	82		
IN983B ML3	82		
IN984B ML1	91		
IN984B ML2	91		
IN984B ML3	91		

DO-7 INDUSTRIAL 400 MW ALLOY ZENER DIODES

No suffix on type number indicates $\pm 10\%$ tolerance; "A" suffix indicates $\pm 5\%$ tolerance. Meg-A-Life II devices available for high reliability on three levels, all $\pm 5\%$ tolerance.

Type	Vz	1-99	100 Mix.†	100-999
IN746	3.3			
IN746A	3.3			
IN747	3.6			
IN747A	3.6			
IN748	3.9			
IN748A	3.9			
IN749	4.3			
IN749A	4.3			
IN750	4.7			
IN750A	4.7			
IN751	5.1			
IN751A	5.1			
IN752	5.6			
IN752A	5.6			
IN753	6.2			
IN753A	6.2			
IN754	6.8			
IN754A	6.8			
IN755	7.5			
IN755A	7.5			
IN756	8.2			
IN756A	8.2			
IN757	9.1			
IN757A	9.1			
IN758	10.0			
IN758A	10.0			
IN759	12.0			
IN759A	12.0			

CASE 59—1/4 WATT SURMETIC ZENER DIODES

No suffix on type no. indicates $\pm 20\%$ tolerance; "A" suffix indicates $\pm 10\%$ tolerance; "B" suffix indicates $\pm 5\%$ tolerance.

Type	Vz	1-99	100 Mixed	100-999
IN3675	6.8			
IN3676	7.5			
IN3677	8.2			
IN3678	9.1			
IN3679	10			
IN3680	11			
IN3681	12			
IN3682	13			
IN3683	15			
IN3684	16			
IN3685	18			
IN3686	20			
IN3687	22			
IN3688	24			
IN3689	27			
IN3690	30			
IN3691	33			
IN3692	36			
IN3693	39			
IN3694	43			
IN3695	47			
IN3696	51			
IN3697	56			
IN3698	62			
IN3699	68			
IN3700	75			
IN3701	82			
IN3702	91			
IN3703	100			

Motorola Zener Diodes



400 mW LOW COST "SURMETIC" ZENER DIODES
Surmetic encapsulated DO-7 package. Add suffix "10" for ±10% tolerance; suffix "5" for ±5% tolerance.

Type No.	Vz	1-99	100-499	500-999	1K-up	Type	Vz	1-99	100-499	500-999	1K-up
.4M3.3ZS	3.3					.4M20ZS	20		"10" SUFFIX		
.4M3.6ZS	3.6					.4M22ZS	22	1.15	.75	.71	.64
.4M3.9ZS	3.9					.4M24ZS	24		"5" SUFFIX		
.4M4.3ZS	4.3					.4M27ZS	27		"10" SUFFIX		
.4M4.7ZS	4.7					.4M30ZS	30	1.40	.95	.87	.78
.4M5.1ZS	5.1					.4M33ZS	33		"5" SUFFIX		
.4M5.6ZS	5.6	1.15	.75	.71	.64	.4M36ZS	36		"10" SUFFIX		
.4M6.2ZS	6.2					.4M39ZS	39		"5" SUFFIX		
.4M6.8ZS	6.8					.4M43ZS	43		"10" SUFFIX		
.4M7.5ZS	7.5					.4M47ZS	47	1.35	.90	.85	.76
.4M8.2ZS	8.2					.4M51ZS	51		"5" SUFFIX		
.4M9.1ZS	9.1					.4M56ZS	56		"10" SUFFIX		
.4M10ZS	10					.4M62ZS	62		"5" SUFFIX		
.4M11ZS	11	1.40	.95	.87	.78	.4M68ZS	68		"10" SUFFIX		
.4M12ZS	12					.4M75ZS	75	1.60	1.05	1.00	.90
.4M13ZS	13					.4M82ZS	82		"5" SUFFIX		
.4M15ZS	15					.4M91ZS	91		"10" SUFFIX		
.4M16ZS	16					.4M100ZS	100		"5" SUFFIX		
.4M18ZS	18								"10" SUFFIX		

CASE 59—1 WATT "SURMETIC" ZENER DIODES

Type numbers without suffix are ±10% tolerance. Also available on special order with ±5% tolerance (add suffix "A").

Type	Vz	1-99	100-Mix	100-999
1N4728	3.3			
1N4729	3.6			
1N4730	3.9			
1N4731	4.3			
1N4732	4.7			
1N4733	5.1			
1N4734	5.6	1.26	1.09	.95
1N4735	6.2			
1N4736	6.8			
1N4737	7.5			
1N4738	8.2			
1N4739	9.1			
1N4740	10			
1N4741	11	1.93	1.66	1.45
1N4742	12			
1N4743	13			
1N4744	15			
1N4745	16			
1N4746	18			
1N4747	20			
1N4748	22			
1N4749	24			
1N4750	27			
1N4751	30			
1N4752	33	1.26	1.09	.95
1N4753	36			
1N4754	39			
1N4755	43			
1N4756	47			
1N4757	51			
1N4758	56			
1N4759	62			
1N4760	68	1.93	1.66	1.45
1N4761	75			
1N4762	82			
1N4763	91			
1N4764	100			

CASE 52—1 WATT DIFFUSED ZENER DIODES

No suffix on type no. indicates ±20%; "A" suffix—±10%; "B" suffix—±5% tolerance. (†10 per type). Standard polarity cathode to case. Meg-A-Life II devices available on three levels for high-reliability requirements call ±5% tolerance. Reverse polarities available at same price.

Type	Vz	1-99	100-Mix	100-999
1N3016	6.8			
1N3016B	6.8	2.85	2.45	2.15
1N3017	7.5			
1N3017B	7.5	3.20	2.75	2.40
1N3018	8.2			
1N3018B	8.2	3.70	3.20	2.80
1N3019	9.1			
1N3019B	9.1	4.05	3.60	3.05
1N3020A	10			
1N3020B	10	4.05	3.60	3.05
1N3021B	11			
1N3022	12			
1N3023	13			
1N3024B	15	5.70	5.10	4.30
1N3024A	15			
1N3025	16			
1N3026	18	6.00	5.40	4.50

Continued in next column

1-Watt Diffused Zener Diodes (Cont'd.)

Type	Vz	1-99	100-Mix	100-999
1N3026B	18			
1N3027	20			
1N3027B	20	2.85	2.45	2.15
1N3028A	22			
1N3028B	22			
1N3029	24	3.20	2.75	2.40
1N3029B	24			
1N3030B	27			
1N3031B	30			
1N3032B	33	3.70	3.20	2.80
1N3033B	36			
1N3034B	39			
1N3035B	43			
1N3036B	47	4.05	3.60	3.05
1N3037B	51			
1N3037A	51			
1N3038B	56			
1N3039B	62	5.70	5.10	4.30
1N3040B	68			
1N3041B	75			
1N3042B	82			
1N3043B	91	6.00	5.40	4.50
1N3044B	100			
1N3045B	110			
1N3046B	120	2.95	2.55	2.20
1N3047B	130			
1N3048B	150			
1N3050B	180	4.65	4.05	3.50
1N3051B	200			

CASE 52—1 WATT LOW VOLTAGE ZENER DIODES

No suffix (±10% tol.); "A" suffix (±5% tol.). Std. Pol. cathode to case.

Type	Vz	1-99	100-Mix	100-999
1N3821	3.3			
1N3822	3.6			
1N3823	3.9			
1N3824	4.3	2.10	1.85	1.60
1N3825	4.7			
1N3826	5.1			
1N3827	5.6			
1N3828	6.2	2.65	2.30	2.00
1N3829	6.8			
1N3830	7.5			

CASE 55—IND. 1.5 W ZENER DIFFUSED DIODES

No suffix on type no.—±20% tol.; "B" suffix—±5%; "A" suffix—±10% (per type). Standard polarity cathode to case. Reverse polarities available at slightly higher prices.

Type	Vz	1-99	100-Mix	100-999
1N3785	6.8			
1N3786	4.5			
1N3787	8.2			
1N3788	9.1			
1N3789	10.	3.75	3.20	2.80
1N3790	11			
1N3791	12			
1N3792	12			
1N3793	15			
1N3794	16	5.30	4.60	4.00
1.5M17Z5	17			
1N3795	18			
1N3796	20			
1N3797	22			
1N3798	24	6.95	6.00	5.25
1N3799	25			
1.5M25Z5	27			
1N3800	30			

Continued in next column

1.5-Watt Zener Diffused Diodes (Cont'd.)

Type	Vz	1-99	100-Mix	100-999
1N3800B	30	3.75	3.20	2.80
1N3801B	33			
1N3802	36			
1N3807	56	5.30	4.60	4.00
1N3803B	62			
1N3810	75			
1N3810B	75			
1N3811	82	6.95	6.00	5.25
1N3813B	100			

DO-4—10 WATT DIF. ZENER DIODES

No suffix — ±20%; "A" suffix — ±10%. Standard pol. is anode to case, reverse polarity available. Meg-A-Life II devices available on three levels.

Type	Vz	1-99	Mix 100-up	100-up	500-999
1N2970	6.8				
1N2972B	8.2				
1N2973B	9.1				
1N2974B	10	5.45	4.70	4.10	2.40
1N2975	11				
1N2976B	12				
1N2977B	13				
1N2978	14				
1N2979	15				
1N2981	17	5.85	5.05	4.40	2.65
1N2982A	18				
1N2982B	18				
1N2983	19				
1N2984	20				
1N2984B	20	7.30	6.30	5.50	3.30
1N2985	22				
1N2986	24				
1N2987B	25				
1N2988	27				
1N2988B	27				
1N2989	30	7.65	6.75	5.75	3.50
1N2989B	30				
1N2990B	33				
1N2991	36				
1N2991B	36				
1N2992	39	9.95	8.75	7.50	4.50
1N2993B	43				
1N2995	47				
1N2996B	50				
1N2998	52				
1N3000B	62				
1N3001B	68				
1N3002B	75	10.45	9.15	7.85	4.75
1N3003B	82				
1N3005	100				
1N3005B	100				
1N3006B	105				
1N3007B	110				
1N3008B	120	12.65	11.05	9.50	5.75
1N3009B	130				
1N3010B	140				
1N3011	150				
1N3011B	150				
1N3012	160	6.00	5.15	4.50	2.70
1N3013	175				
1N3014	180				
1N3015	200	13.75	11.90	10.35	6.20



Motorola Diodes



DO-4—10 WATT LOW VOLTAGE ZENER DIODES

No suffix indicates $\pm 10\%$; "A" suffix indicates $\pm 5\%$. Standard polarity cathode to case.

Type	Vz	1-99	100-Mix	100-up	Type	Vz	1-99	100-Mix	100-up	Type	Vz	1-99	100-up	100 Mix	
IN3993A	3.9	NO SUFFIX			IN3996A	5.1	NO SUFFIX			IN3998A	6.2	NO SUFFIX			
IN3994	4.3	5.65	4.90	4.25	IN3997	5.6	5.65	4.90	4.25	IN3999A	6.8	5.65	4.90	4.25	
IN3995A	4.7	"A" SUFFIX			IN3997A	5.6	"A" SUFFIX			IN3999A	6.8	"A" SUFFIX			
IN3996	5.1	7.70	6.65	5.80	IN3998	6.2	7.70	6.65	5.80	IN4000	7.5	7.70	6.65	5.80	

Fig. TO-3—50 WATT ZENER DIODES

No suffix means $\pm 20\%$ tolerance; "A" suffix, $\pm 10\%$; "B" suffix, $\pm 5\%$. Std. polarity is anode to case, reverse polarity available on request at same prices. Also available stud mounted. Meg-A-Life devices available on 3 levels; add appropriate "ML" suffix.

IN2804	6.8	NO SUFFIX			IN2818	20	NO SUFFIX			IN2831B	51	NO SUFFIX		
IN2804B	6.8	NO SUFFIX			IN2818B	20	NO SUFFIX			IN2832	56	NO SUFFIX		
IN2805B	7.5	5.65	4.90	4.25	IN2820	24	5.65	4.90	4.25	IN2833	62	5.65	4.90	4.25
IN2808	10	"A" SUFFIX			IN2820B	24	"A" SUFFIX			IN2833B	62	"A" SUFFIX		
IN2808B	10	7.65	6.60	5.75	IN2822B	27	7.65	6.60	5.75	IN2835	75	7.65	6.60	5.75
IN2810	12	"B" SUFFIX			IN2823	30	"B" SUFFIX			IN2836	82	"B" SUFFIX		
IN2810B	12	10.65	9.20	8.00	IN2823B	30	10.65	9.20	8.00	IN2838	100	10.65	9.20	8.00
IN2811	13	"ML1" SUFFIX			IN2824	33	"ML1" SUFFIX			IN2839	105	"ML1" SUFFIX		
IN2811B	13	10.95	9.50	8.25	IN2825B	36	10.95	9.50	8.25	IN2841B	120	10.95	9.50	8.25
IN2812B	14	"ML2" SUFFIX			IN2826	39	"ML2" SUFFIX			IN2842B	130	"ML2" SUFFIX		
IN2813	15	13.30	11.50	10.00	IN2827	43	13.30	11.50	10.00	IN2843B	150	13.30	11.50	10.00
IN2813B	15	"ML3" SUFFIX			IN2828	45	"ML3" SUFFIX			IN2845	180	"ML3" SUFFIX		
IN2814	16	17.30	14.95	13.00	IN2829	47	17.30	14.95	13.00	IN2846	200	17.30	14.95	13.00
										IN2844	160			

CASE 58—50 WATT ZENER DIODES

No suffix indicates $\pm 20\%$ tolerance; "A" suffix $\pm 10\%$ tol.; "B" suffix $\pm 5\%$ tol. Reverse polarities available upon request at same prices.

IN3305	6.8	NO SUFFIX			IN3320	22	NO SUFFIX			IN3335	62	NO SUFFIX		
IN3306	7.5	NO SUFFIX			IN3321	24	NO SUFFIX			IN3336	68	NO SUFFIX		
IN3307	8.2	NO SUFFIX			IN3322	25	NO SUFFIX			IN3337	75	5.65	4.90	4.25
IN3308	9.1	NO SUFFIX			IN3323	27	NO SUFFIX			IN3338	82	"A" SUFFIX		
IN3309	10	NO SUFFIX			IN3324	30	NO SUFFIX			IN3339	91	7.65	6.60	5.75
IN3310	11	5.65	4.90	4.25	IN3325	33	5.65	4.90	4.25	IN3340	100	"B" SUFFIX		
IN3311	12	"A" SUFFIX			IN3326	36	"A" SUFFIX			IN3341	105	"B" SUFFIX		
IN3312	13	7.65	6.60	5.75	IN3327	39	7.65	6.60	5.75	IN3342	110	"B" SUFFIX		
IN3313	14	"B" SUFFIX			IN3328	43	"B" SUFFIX			IN3343	120	NO SUFFIX		
IN3314	15	10.65	9.20	8.00	IN3329	45	10.65	9.20	8.00	IN3344	130	6.80	5.85	5.10
IN3315	16	NO SUFFIX			IN3330	47	NO SUFFIX			IN3345	140	"A" SUFFIX		
IN3316	17	NO SUFFIX			IN3331	50	NO SUFFIX			IN3346	150	"A" SUFFIX		
IN3317	18	NO SUFFIX			IN3332	51	NO SUFFIX			IN3347	160	11.30	9.75	8.50
IN3318	19	NO SUFFIX			IN3333	52	NO SUFFIX			IN3348	175	"B" SUFFIX		
IN3319	20	NO SUFFIX			IN3334	56	NO SUFFIX			IN3349	180	17.95	15.50	13.50
										IN3350	200			

MICROWAVE PRODUCTS

SILICON STEP-RECOVERY VARACTOR DIODES

Type	Case	Minimum Efficiency				1-99	100-999	Type	Case	Minimum Efficiency				1-99	100-999
		%	Pin (W)	f _{in} (mc)	f _{out} (mc)					%	Pin (W)	f _{in} (mc)	f _{out} (mc)		
IN4387	49	50	30	150	450	42.00	28.00	IN5151	48	60	12	1000	2000	42.00	28.00
IN4388	49	55	20	500	1000	42.00	28.00	IN5152	46	60	12	1000	2000	42.00	28.00
IN5149	47	55	20	500	1000	27.00	18.00	IN5153	47	60	12	1000	2000	42.00	28.00
IN5150	47	65	37	500	1000	42.00	28.00	IN5154	48	40	5	2000	6000	42.00	28.00
								IN5155	46	40	5	2000	6000	42.00	28.00

DO-7—EPICAP VOLTAGE VARIABLE CAPACITANCE DIODES

BV=60 V min @ 10μA; IR=20 nA max. @ 55 V. No suffix $\pm 10\%$ tolerance; "A" suffix $\pm 5\%$ tolerance.

Type	CT Typ. @ 4V pf	Tuning Ratio (Min) CT4V	Q _{min} @ 4v 50 mc	1-99		Type	CT Typ. @ 4V pf	Tuning Ratio (Min) CT4V	Q _{min} @ 4V 50 mc	1-99		100-999	
				NO SUFFIX	NO SUFFIX					"A" SUFFIX	"A" SUFFIX	1-99	100-999
IN5139	6.8	2.7	350	NO SUFFIX		IN5144	22	3.2	200	NO SUFFIX		NO SUFFIX	
IN5140	10	2.8	300	5.85	3.90	IN5145	27	3.2	200	5.85	3.90	NO SUFFIX	
IN5141	12	2.8	300	NO SUFFIX		IN5146	33	3.2	200	NO SUFFIX			
IN5142	15	2.8	250	"A" SUFFIX		IN5147	39	3.2	200	"A" SUFFIX			
IN5143	18	2.8	250	6.45	4.30	IN5148	47	3.2	200	6.45	4.30	NO SUFFIX	

DO-7—VOLTAGE VARIABLE CAPACITANCE DIODES

BV=30V min. @ 10μA; IR=0.2 μA max. @ 25V

MV890	15	1.8	30	1.35	.90	MV835	39	1.9	20	1.35	.90
MV831	18	1.8	25	1.35	.90	MV836	47	1.9	15	1.35	.90
MV832	22	1.8	25	1.35	.90	MV837	56	1.9	15	1.35	.90
MV833	27	1.8	25	1.35	.90	MV838	68	2.0	15	1.35	.90
MV834	33	1.9	20	1.35	.90	MV839	82	2.0	10	1.35	.90
						MV840	100	2.0	10	1.35	.90

DO-7—RF SWITCHING DIODES

Type No.	BVZ V (Min)	CT max @ 100V (pf)	R _f max (Ohms)	1-99	100-999
MV1892	700	2.5	0.62	42.00	28.00

Motorola Transistors



MOTOROLA TWIN RESISTORS

DIFFERENTIAL AMPLIFIERS

Type	Fig.	Struc.	Amb. Power Diss.		hFE @ Ic=100mA	1-99	100-999	Type	Case	Struc.	Amb. Power Diss.		Ic 100uAdc hfe/Ic Min/Max	1-99	100-999
			1 side	Both Sides							1 side	Both Sides			
2N2060	32A	NPN	500	600	30/90	27.00	18.00	MD708A	32	NPN	0.3	0.4	35/-	4.35	2.40
2N2060A	32A	NPN	500	600	30/90	36.00	24.00	MD708AF	33	NPN	0.25	0.35	35/-	8.85	5.40
2N2223	32A	NPN	500	600	25/150	10.05	6.70	MD918A	32	NPN	0.3	0.4	501-*	8.25	5.50
2N2223A	32A	NPN	500	600	25/150	15.00	10.00	MD918AF	33	NPN	0.25	0.35	501-*	12.75	8.50
2N2480	32A	NPN	500	600	20/-	12.75	8.50	MD1120	32	NPN	0.5	0.6	30/120	19.10	12.75
2N2480A	32A	NPN	500	600	35/-	15.35	10.25	MD1121	32	NPN	0.5	0.6	30/120	24.80	16.55
2N2915	32	NPN	300	600	100/-	27.75	18.50	MD1122	32	NPN	0.5	0.6	30/120	37.00	24.65
2N2916	32	NPN	300	600	225/-	30.75	20.50	MD1123	32	PNP	0.5	0.6	30/120	27.60	18.40
2N2917	32	NPN	300	600	100/-	22.50	15.00	MD1124	32	PNP	0.5	0.6	30/120	36.00	24.00
2N2918	32	NPN	300	600	225/-	22.50	17.00	MD1125	32	PNP	0.5	0.6	30/120	53.60	35.75
2N2919	32	NPN	300	600	100/-	29.25	19.50	MD1129	32	NPN	0.5	0.6	100/300	51.75	34.50
2N2920	32	NPN	300	600	225/-	32.25	21.50	MD1130	32	PNP	0.5	0.6	100/300	58.20	38.80
2N2974	35	NPN	250	300	100/-	27.75	18.50	MD1132	32	NPN	0.3	0.4	50/-*	38.25	25.50
2N2975	35	NPN	250	300	225/-	30.75	20.50	MD1120F	33	NPN	.....	.....	.....	42.95	28.65
2N2976	35	NPN	250	300	100/-	22.50	15.00	MD1121F	33	NPN	.....	.....	.....	55.80	37.20
2N2977	35	NPN	250	300	225/-	25.50	17.00	MD1122F	33	NPN	.....	.....	.....	83.15	55.45
2N2978	35	NPN	250	300	100/-	20.25	19.50	MD1123F	33	PNP	.....	.....	.....	49.70	33.15
2N2979	35	NPN	250	300	225/-	32.25	21.50	MD1124F	33	PNP	.....	.....	.....	64.80	43.20
2N3802	35	PNP	500	600	150/500	21.00	14.00	MD1125F	33	PNP	.....	.....	.....	83.15	55.45
2N3803	35	PNP	500	600	300/500	22.50	15.00	MD1129F	33	NPN	.....	.....	.....	93.15	62.10
2N3804	35	PNP	500	600	150/500	26.25	17.50	MD1130F	33	PNP	.....	.....	.....	104.75	69.85
2N3805	35	PNP	500	600	300/500	27.25	18.50	MD1132F	33	NPN	.....	.....	.....	48.50	33.00
2N3409	32	NPN	0.6	0.5	30/120	13.50	9.00	MD3250A	32	PNP	500	600	50/1.0	19.50	13.00
2N3410	32	NPN	0.6	0.5	30/120	15.00	10.00	MD3250AF	33	PNP	500	600	50/1.0	29.25	19.50
2N3411	32	NPN	0.6	0.5	30/120	18.00	12.00	MD3251A	32	PNP	500	600	100/1.0	22.25	15.50
								MD3251AF	33	PNP	500	600	100/1.0	30.75	20.50

*Ic=1.0mA

*Trademark of Motorola Inc.

DUAL TRANSISTORS

2N2913	32	NPN	300	600	60/.01	9.75	6.50	MD2219F	32	NPN	500	600	100/150	12.45	8.30
2N2914	32	NPN	300	600	150/.01	12.45	8.30	MD2904	32	PNP	500	600	40/150	11.55	7.90
2N2972	35	NPN	250	300	80/.01	11.60	7.75	MD2904AF	32	PNP	500	600	40/150	18.00	12.00
2N2973	35	NPN	250	300	150.01	14.55	9.70	MD2904F	32	PNP	500	600	40/150	22.50	15.00
2N3800	35	PNP	500	600	150/150	14.25	9.50	MD2905	32	PNP	500	600	40/150	16.05	10.70
2N3801	35	PNP	500	600	300/500	15.75	10.50	MD2905F	32	PNP	500	600	100/150	14.40	9.60
MD2218A	32	NPN	500	600	40/150	6.75	4.50	MD2905A	32	PNP	500	600	100/150	21.00	14.00
MD2218AF	33	NPN	500	600	40/150	11.40	7.60	MD2905AF	32	PNP	500	600	100/150	25.50	17.00
MD2218F	33	NPN	500	600	40/150	15.90	10.60	MD2905F	32	PNP	500	600	100/150	18.90	12.60
MD2219	32	NPN	500	600	100/150	11.25	7.50	MD3250	32	PNP	500	600	50/1.0	9.75	6.50
MD2219A	32	NPN	500	600	100/150	7.95	5.30	MD3250F	32/33	PNP	500	600	50/1.0	17.25	11.50
MD2219AF	33	NPN	500	600	100/150	13.20	8.80	MD3251	32/33	PNP	500	600	100/1.0	11.60	7.75
								MD3251F	32/33	PNP	500	600	100/1.0	19.10	12.75

COMPLEMENTARY PAIRS

MD6001	32	NPN-PNP	500	600	40/150	10.80	7.20	MD6002	32	NPN-PNP	500	600	100/150	13.58	9.00
MD6001F	33	NPN-PNP	500	600	40/150	15.30	10.20	MD6002F	33	NPN-PNP	500	600	100/150	18.00	12.00

DARLINGTON AMPLIFIERS

2N998	TO-72	NPN	500	2,000	13.50	9.00	2N998	TO-72	NPN	500	17,000/70,000*	14.85	8.90
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@ 125°C. with negligible power dissipation.

*Ic=100Ma

THYRISTORS

1.6 AMP THYRISTORS

Type	Vfom, Vrom Volts	Case	1-99	100-999	Type	Volts	Case	1-99	100-999
2N1595	50	TO-5	3.05	2.05	2N1597	200	TO-5	9.45	6.30
2N1598	100	TO-5	4.95	3.30	2N1598	300	TO-5	14.45	9.85
					2N1599	400	TO-5	19.35	12.90

8 AMP ECONOMY THYRISTORS

Type	Vfom, Vrom Volts	Case	1-99	100-999	Type	Volts	Case	1-99	100-999
2N4151/MCR2304-1	25	85	1.45	1.05	2N4175/MCR2305L-1	25	86	1.64	1.24
2N4152/MCR2304-2	50	85	1.80	1.10	2N4176/MCR2305L-2	50	86	1.79	1.29
2N4153/MCR2304-3	100	85	1.75	1.25	2N4177/MCR2305L-3	100	86	1.94	1.44
2N4154/MCR2304-4	200	85	1.95	1.35	2N4178/MCR2305L-4	200	86	2.14	1.54
2N4155/MCR2304-5	300	85	2.40	1.80	2N4179/MCR2305L-5	300	86	2.59	1.79
2N4156/MCR2304-6	400	85	2.80	1.85	2N4180/MCR2305L-6	400	86	2.99	2.04
2N4157/MCR2304-7	500	85	5.00	3.35	2N4181/MCR2305L-7	500	86	5.19	3.54
2N4158/MCR2304-8	600	85	6.75	4.50	2N4182/MCR2305L-8	600	86	6.94	4.69
2N4159/MCR2304L-1	25	85	1.49	1.09	2N4183/MCR2604L-1	25	87	1.59	1.19
2N4160/MCR2304L-2	50	85	1.84	1.14	2N4184/MCR2604L-2	50	87	1.74	1.24
2N4161/MCR2304L-3	100	85	1.79	1.29	2N4185/MCR2604L-3	100	87	1.89	1.39
2N4162/MCR2304L-4	200	85	1.99	1.39	2N4186/MCR2604L-4	200	87	2.09	1.49
2N4163/MCR2304L-5	300	85	2.44	1.64	2N4187/MCR2604L-5	300	87	2.54	1.74
2N4164/MCR2304L-6	400	85	2.84	1.89	2N4188/MCR2604L-6	400	87	2.94	1.99
2N4165/MCR2304L-7	500	85	5.04	3.39	2N4189/MCR2604L-7	500	87	5.14	3.49
2N4166/MCR2304L-8	600	85	6.79	4.54	2N4190/MCR2604L-8	600	87	6.89	4.64
2N4167/MCR2305-1	25	86	1.60	1.20	2N4191/MCR2605L-1	25	88	1.59	1.19
2N4168/MCR2305-2	50	86	1.75	1.25	2N4192/MCR2605L-2	50	88	1.74	1.24
2N4169/MCR2305-3	100	86	1.90	1.40	2N4193/MCR2605L-3	100	88	1.89	1.39
2N4170/MCR2305-4	200	86	2.10	1.50	2N4194/MCR2605L-4	200	88	2.09	1.49
2N4171/MCR2305-5	300	86	2.55	1.75	2N4195/MCR2605L-5	300	88	2.54	1.74
2N4172/MCR2305-6	400	86	2.95	2.00	2N4196/MCR2605L-6	400	88	2.94	1.99
2N4173/MCR2305-7	500	86	5.15	3.50	2N4197/MCR2605L-7	500	88	5.14	3.43
2N4173/MCR2305-8	600	86	6.90	4.65	2N4198/MCR2605L-8	600	88	6.89	4.64



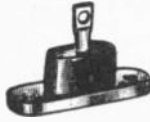
Motorola Rectifiers



Case 68



Case 64 TO-48



Flange Mount Solid Suffix FL



Stud Lug Suffix SL



Flange Braid



Stud Braid



Flange Lug Suffix FL

16-AMP THYRISTORS

@ 100°C with negligible power dissipation, Forward On Voltage 1.8 Volts max.

Type	Vfom, Vrom Volts	Case	1-99	100-999
2N1842	25	64	4.35	2.90
2N1843	50	64	4.80	3.20
2N1844	100	64	5.45	3.65
2N1845	150	64	6.75	4.50
2N1846	200	64	8.00	5.35
2N1847	250	64	11.40	7.60
2N1848	300	64	13.40	8.95
2N1849	400	64	17.10	11.40
2N1850	500	64	19.50	13.00

@ 125°C with negligible power dissipation, Forward On Voltage 1.6 Volts max.

2N1842A	25	64	5.60	3.75
2N1843A	50	64	6.20	4.15
2N1844A	100	64	6.50	4.35
2N1845A	150	64	8.25	5.50
2N1846A	200	64	9.30	6.20
2N1847A	250	64	13.40	8.95
2N1848A	300	64	16.20	10.80
2N1849A	400	64	21.30	14.20
2N1850A	500	64	28.10	18.75

18-AMP "PRESSFIT" THYRISTORS

@ 100°C with negligible power dissipation.

MCR808-4	200	62	4.50	3.66
MCR808-5	300	62	6.75	5.40

18-AMP STUD MOUNTED SILICON CONTROLLED RECTIFIERS*

@ 100°C with negligible power dissipation.

MCR1308-1	25	68	3.05	2.50
MCR1308-2	50	68	3.35	2.75
MCR1308-3	100	68	4.05	3.30
MCR1308-4	200	68	4.75	3.85
MCR1308-5	300	68	7.00	5.65
MCR1308-6	400	68	10.05	8.15

* Reverse polarity types available on special order at slightly higher prices, use suffix "R".

25-AMP THYRISTORS

@ 125°C with negligible power dissipation.

2N683	100	64	6.95	4.65
2N688	400	64	23.60	15.75
2N689	500	64	28.70	19.15
2N2574	50	61	7.55	5.50
2N2575	100	61	8.45	5.65
2N2577	300	61	16.85	11.25

25 AMP FAST TURN-ON, TURN-OFF THYRISTORS

@ 125°C with negligible power dissipation. ton=0.5 μsec typ, toff=12 μsec max.

MCR1907-1	25	64	9.00	6.00
MCR1907-2	50	64	9.75	6.50
MCR1907-3	100	64	11.50	7.50
MCR1907-4	200	64	16.20	10.80
MCR1907-5	300	64	24.45	16.30
MCR1907-6	400	64	29.25	19.50

RADAR MODULATOR SILICON CONTROLLED RECTIFIERS

@ 105°C with negligible power dissipation, ton=200 nsec typ. (30 amp pulse), 100 amps max. pulse current (PW=10 usec) 5 ma min holding current.

Type	Vfom, Vrom Volts	Case	1-99	100-999
MCR729-8	600	63	45.00	30.00

@ 125°C with negligible power dissipation, di.dt=1000 (A/usec.) 1000 amps pulse current (PW=10 usec.), 5 ma min. holding curr.

MCR1718-5	300	64	25.50	17.00
MCR1718-6	400	64	30.00	20.00
MCR1718-7	500	64	37.50	25.00
MCR1718-8	600	64	45.00	30.00

PREMIUM PULSE MODULATOR THYRISTORS

Delay time—200 n sec max; Rise time—100 to 200 n sec max; Forward pulse current—30 Amps; Reverse current 5 Amps min.; Ultra—high di/dt—5000 Amps/μS; Repetitive pulse current—tc 100 Amps (Pw=10μS).

Type	Vfom, Vrom Volts	Fig.	1-99	100-999
2N4199	300	63	21.25	15.00
2N4200	400	63	28.75	20.00
2N4201	500	63	32.50	22.50
2N4202	600	63	47.50	32.50
2N4203	700	63	77.50	52.50
2N4204	800	63	107.50	72.50

SILICON RECTIFIERS

HIGH VOLTAGE RECTIFIERS—"MOLDED ASSEMBLIES"

Type	PIV (V)	Io(A) @ 25°C	Iurge (A)	1-99	100-999
IN1731	1500	0.2	2.5	5.30	4.00
IN1733	3000	0.15	2.5	6.90	5.20
IN1734	5000	0.10	2.5	10.30	7.75

Case 43—GENERAL PURPOSE INDUSTRIAL RECTIFIERS

Type	Vrm (rep)	Av. Half Wave Rect. Amps.	Max. 1-Cyc. Surge I	1-99	100-999	1000-up
IN3491R	50	25 A @ 25°C	300A	.67	.45	.40
IN3492R	100			.76	.51	.46
IN3493R	200			1.11	.74	.67
IN3494R	300			1.27	.85	.76
IN3495R	400			1.48	.99	.89
MR327R	500			2.40	1.60	1.45
MR328R	600			3.35	2.25	2.00
MR330R	800			6.75	4.50	4.05
MR331R	1000			9.75	6.50	5.85
IN3659R	50			30 A @ 25°C	400A	.90	.60	.....
IN3660R	100	.99	.66			.....
IN3661R	200	1.33	.89			.....
IN3662R	300	1.48	.99			.....
IN3663R	400	1.70	1.14			.....

Case 52—FLANGELESS TYPES

Type No.	Vrm (rep)	Av. Half Wave Rect. Amps.	Max 1/2 Cycle Surge I	1-99	100-999
MR1337-1	50	1.0A	30A	3.35	2.25
MR1337-2	100	1.0A	30A	4.95	3.30
MR1337-3	200	1.0A	30A	6.75	4.50
MR1337-4	300	1.0A	30A	9.00	6.00
MR1337-5	400	1.0A	30A	12.00	8.00

Case 55—SINGLE-ENDED RECTIFIERS

IN1563	100	1.0 @ 25°C	70A	1.35	.90
IN1564	200			1.50	1.00
IN1565	300			1.85	1.10
IN1566	400			1.80	1.20
IN1563A	100			1.65	1.10
IN1564A	200	1.5 @ 25°C	70A	1.87	1.25
IN1566A	400			2.40	1.60
IN1567A	500	1.5 @ 25°C	70	2.85	1.90
IN1568A	600			4.40	2.95

DO-7—SUBMINIATURE RECTIFIERS

Type	Vrm (rep)	Av. Half Wave Rect. Amps.	Max. 1-Cycle Surge I	1-99	100-999
IN3282	1000	100 ma @ 25°C	50A	2.25	1.50
IN3283	1500			2.90	1.95
IN3284	2000			7.95	5.30
IN3285	2500			10.05	6.70

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Electrical Components



SILICON RECTIFIERS (Continued)

SURMETIC® RECTIFIER

Type	V _{rm} (rep)	Av. Half Wave Rect. Fwd. I	Peak Fwd. I @ 25°C	1-99	100-999
IN4001	50	1 Amp @ 100°C	30A	.45	.30
IN4002	100			.49	.33
IN4003	200			.60	.40
IN4004	400			.67	.45
IN4005	600			.81	.54
IN4006	800			1.12	.75
IN4007	1000			1.80	1.20
MR990	1000	.250 A @ 100°C	15A	1.42	.95
MR991	1500			2.10	1.40
MR992	2000			4.95	3.30
MR993	2500			6.60	4.40
MR994	3000			7.85	5.25

CASE 42—1 1/16" STUD-MOUNTED RECTIFIERS

Cathode connected to case. Suffix "R" indicates reverse polarity.

Type	V _{rm} (rep)	Av. Half Wave Rect. Amps	Max.-cyc Surge I	1-99	100-999
IN248B	50	20 @ 150°C	350A	1.35	.90
IN249B	100	20 @ 150°C	350A	1.72	1.15
IN250B	200	20 @ 150°C	350A	2.45	1.65
IN1183	50	35 @ 140°C	400A	1.95	1.30
IN1184	100	35 @ 140°C	400A	2.40	1.60
IN1186	200	35 @ 140°C	400A	3.45	2.30
IN1187	300	35 @ 140°C	400A	5.10	3.40
IN1188	400	35 @ 140°C	400A	5.85	3.90
IN1190	600	35 @ 140°C	400A	6.90	4.60
IN1191	50	20 @ 150°C	350A	1.35	.90
IN1192	100	20 @ 150°C	350A	1.72	1.15
IN1195	300	20 @ 150°C	350A	4.05	2.70
IN1196	300	20 @ 150°C	350A	4.95	3.30
IN1197	500	20 @ 150°C	350A	6.15	4.10
IN1198	600	20 @ 150°C	350A	7.50	5.00
IN1198A	600	20 @ 150°C	350A	7.80	5.20
IN3208	50	20 @ 150°C	350A	1.15	.79
IN3208R	50	20 @ 150°C	350A	1.30	.89
IN3209R	100	20 @ 150°C	350A	1.75	1.19
IN3210	200	20 @ 150°C	350A	1.75	1.19
IN3210R	200	20 @ 150°C	350A	1.75	1.19
IN3211	300	20 @ 150°C	350A	2.40	1.60
IN3211R	300	20 @ 150°C	350A	2.40	1.60
IN3212	400	20 @ 150°C	350A	2.90	1.93
IN3212R	400	20 @ 150°C	350A	2.90	1.93
IN3213	†R500	20 @ 150°C	350A	5.40	3.80
IN3214	600	20 @ 150°C	350A	6.75	4.50

DO-4—CASE 50—7/16" STUD-MOUNTED RECTIFIERS

Type	V _{rm} (rep)	Av. Half Wave Rect. Amps	Max 1/2 Cycle Surge I	1-99	100-999
IN3879	50	6A @ 100°C	75A	5.25	3.50
IN3880	100	6A @ 100°C	75A	5.75	3.85
IN3881	200	6A @ 100°C	75A	8.25	5.50
IN3882	300	6A @ 100°C	75A	12.75	8.50
IN3883	400	6A @ 100°C	75A	14.70	9.80
IN3889	50	12A @ 100°C	150A	6.30	4.20
IN3890	100	12A @ 100°C	150A	6.75	4.50
IN3891	200	12A @ 100°C	150A	9.75	6.50
IN3892	300	12A @ 100°C	150A	14.60	9.75
IN3893	400	12A @ 100°C	150A	17.60	11.75

CASE 50—DO-4—STUD-MOUNTED RECTIFIERS

MR1120	50	12A @ 100°C	300A	1.97	.85
MR1121	100	12A @ 100°C	300A	1.05	.70
MR1122	200	12A @ 100°C	300A	1.18	.79
MR1123	300	12A @ 100°C	300A	1.33	.89
MR1124	400	12A @ 100°C	300A	1.50	1.00
MR1125	500	12A @ 100°C	300A	1.85	1.25
MR1126	600	12A @ 100°C	300A	2.45	1.65
MR1128	800	12A @ 100°C	300A	5.60	3.75
MR1130	1000	12A @ 100°C	300A	7.85	5.25

CASE 66A—HIGH CONDUCTANCE RECTIFIERS

Type	Case	Type	Can	PIV	I _o @75°C	I _{avr} /A	1-99	100-999
IN4719	60	IN4997	G	50	3A	300	.55	.37
IN4720	60	IN4998	G	100	3A	300	.60	.40
IN4721	60	IN4999	G	200	3A	300	.67	.45
MR1033A	60	MR1033B	G	300	3A	300	.76	.51
IN4722	60	IN5000	G	400	3A	300	.97	.65
MR1035A	60	MR1035B	G	500	3A	300	1.08	.72
IN4723	60	IN5001	G	500	3A	300	1.33	.89
IN4724	60	IN5002	G	800	3A	300	4.10	2.75
IN4725	60	IN5003	G	1000	3A	300	6.35	4.25

HIGH CURRENT MULTIPLE CELL RECTIFIERS

50 AMP FLANGE MOUNTED, SOLID LUG TERMINAL

Type	PIV	1-24	25-99	100-999
MR1200 FL	50	2.55	2.30	1.90
MR1201 FL	100	3.45	3.10	2.60
MR1202 FL	150	4.80	4.30	3.60
MR1204 FL	250	5.60	5.05	4.20
MR1205 FL	300	5.80	5.05	4.20
MR1207 FL	400	6.65	6.00	5.00
MR1208 FL	500	8.00	7.20	6.00
MR1209 FL	600	9.65	8.70	7.25

80 AMP STUD-MOUNTED, FLEX. BRAIDED TERMINAL

10-32 STUD THREAD

MR1210 SB	50	3.40	3.05	2.55
MR1214 SB	250	6.80	6.10	5.10
MR1218 SB	350	9.05	8.15	6.80
MR1218 SB	500	9.95	9.00	7.50
MR1219 SB	600	11.75	10.60	8.85

80 AMP STUD-MOUNTED, SOLID LUG TERMINAL

MR1211 SL	100	4.10	3.70	3.10
MR1212 SL	150	5.45	4.90	4.10
MR1213 SL	200	5.45	4.90	4.10
MR1214 SL	250	6.65	6.00	5.00
MR1216 SL	350	8.90	8.05	6.70
MR1217 SL	400	8.90	8.05	6.70
MR1218 SL	500	9.85	8.90	7.40
MR1219 SL	600	11.65	10.50	8.75

80 AMP STUD-MOUNTED, FLEX. BRAIDED TERMINAL

3/8-24 STUD THREAD

MR1810 SB	50	4.05	3.65	3.05
MR1811 SB	100	4.90	4.45	3.70
MR1812 SB	150	6.25	5.65	4.70
MR1813 SB	200	6.25	5.65	4.70
MR1814 SB	250	7.45	6.70	5.60
MR1815 SB	300	7.45	6.70	5.60
MR1816 SB	350	9.70	8.75	7.30
MR1817 SB	400	9.70	8.75	7.30
MR1818 SB	500	10.65	9.60	8.00
MR1819 SB	600	12.45	11.20	9.35

80 AMP STUD-MOUNTED, FLEX. BRAIDED TERMINAL

MR1810 SL	50	3.90	3.55	2.95
MR1811 SL	100	4.80	4.30	3.60
MR1812 SL	150	6.10	5.50	4.60
MR1813 SL	200	6.10	5.50	4.60
MR1814 SL	250	7.30	6.60	5.50
MR1815 SL	300	7.30	6.60	5.50
MR1816 SL	350	9.55	8.65	7.20
MR1817 SL	400	9.55	8.65	7.20
MR1818 SL	500	10.50	9.50	7.90
MR1819 SL	600	12.30	11.10	9.25

160 AMP STUD-MOUNTED, FLEX. BRAIDED TERMINAL

MR1222 SB	150	11.95	10.80	9.80
MR1224 SB	250	13.95	12.60	10.50
MR1225 SB	300	13.95	12.60	10.50
MR1226 SB	350	15.95	14.40	12.00
MR1227 SB	400	15.95	14.40	12.00
MR1228 SB	500	17.95	16.20	13.50
MR1229 SB	600	21.30	19.20	16.00

160 AMP STUD-MOUNTED, SOLID LUG TERMINAL

MR1282 SL	150	11.65	10.50	8.75
MR1224 SL	250	13.65	12.30	10.25
MR1225 SL	300	13.65	12.30	10.25
MR1227 SL	400	15.95	14.40	12.00
MR1288 SL	500	17.60	15.90	13.25
MR1229 SL	600	20.95	18.90	15.75

160 AMP STUD-MOUNTED, FLEX. BRAIDED TERMINAL

MR1222 FB	150	11.95	10.80	9.80
MR1224 FB	250	13.95	12.60	10.50
MR1225 FB	300	13.95	12.60	10.50
MR1227 FB	400	15.95	14.40	12.00
MR1228 FB	500	17.95	16.20	13.50
MR1229 FB	600	21.30	19.20	16.00

160 AMP STUD-MOUNTED, SOLID LUG TERMINAL

MR1222 FL	150	11.65	10.50	8.75
MR1224 FL	250	13.65	12.30	10.25
MR1225 FL	300	13.65	12.30	10.25
MR1226 FL	350	15.65	14.10	11.75
MR1228 FL	500	17.60	15.90	13.25
MR1229 FL	600	20.95	18.90	15.75

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Motorola Rectifiers and Transistors



Case 42



Case 60



Case 1, 3, 11
TO-3



Case 80
TO-66



Case 31
TO-5



Case 78
TO-53



Case 8
TO-61

HIGH CURRENT MULTI-CELL RECTIFIERS (Cont'd)

240 Amp Stud Mtd., Flex. Braided Terminal

Type	PIV	1-24	25-99	100-999
MR12348B	250	17.55	15.85	13.20
MR12358B	300	17.55	15.85	13.20
MR12368B	500	25.95	23.40	19.50

240 Amp Stud Mtd. Solid Lug Terminal

Type	PIV	1-24	25-99	100-999
MR1232SL	150	15.10	13.60	11.35
MR1234SL	250	17.20	15.55	12.95
MR1235SL	300	17.20	15.55	12.95
MR1236SL	350	22.30	20.10	16.75
MR1238SL	500	25.60	23.10	19.25

240 Amp Flange Mtd. Flex Braided Terminal

Type	PIV	1-24	25-99	100-999
MR1232FB	150	15.25	13.75	11.45
MR1234FB	250	17.35	15.65	13.05
MR1235FB	300	17.35	15.65	13.05
MR1236FB	350	22.30	20.10	16.75
MR1238FB	500	25.95	23.40	19.50

240 Amp Flange Mtd., Solid Lug Terminal

Type	PIV	1-24	25-99	100-999
MR1232FL	150	14.75	13.30	11.10
MR1234FL	250	16.90	15.25	12.70
MR1235FL	300	16.90	15.25	12.70
MR1236FL	350	21.60	19.50	16.25
MR1238FL	500	25.60	23.10	19.25

400 Amp Stud Mtd., Flex. Braided Terminal

Type	PIV	1-24	25-99	100-999
MR1242SB	150	20.00	18.05	15.05
MR1244SB	250	24.25	21.90	18.25
MR1245SB	300	24.25	21.90	18.25
MR1246SB	350	27.25	24.60	20.50
MR1248SB	500	45.20	40.80	34.00

400 Amp Stud Mtd., Solid Lug Terminal

Type	PIV	1-24	25-99	100-999
MR1242SL	150	19.50	17.60	14.65
MR1244SL	250	23.75	21.40	17.85
MR1245SL	300	23.75	21.40	17.85
MR1246SL	350	27.25	24.60	20.50
MR1248SL	500	42.55	38.40	32.00

400 Amp Flange Mtd., Flex. Braided Terminal

Type	PIV	1-24	25-99	100-999
MR1242FB	150	19.35	17.45	14.55
MR1244FB	250	23.60	21.30	17.75
MR1245FB	300	23.60	21.30	17.75
MR1246FB	350	26.60	24.00	20.00
MR1248FB	500	42.55	38.40	32.00

400 Amp Flange Mtd., Solid Lug Terminal

Type	PIV	1-24	25-99	100-999
MR1242FL	150	18.70	16.85	14.05
MR1244FL	250	22.95	20.70	17.25
MR1245FL	300	22.95	20.70	17.25
MR1246FL	350	25.95	23.40	19.50
MR1248FL	500	39.90	36.00	30.00
MR1249FL	600	61.20	55.20	46.00

650 Amp Flange Mtd., Solid Lug Terminal

Type	PIV	1-24	25-99	100-999
MR1262FL	150	55.20	49.80	41.50
MR1264FL	250	61.20	55.20	46.00
MR1265FL	300	61.20	55.20	46.00
MR1266FL	350	67.85	61.20	51.00
MR1268FL	500	82.45	74.40	62.00
MR1269FL	600	99.75	90.00	75.00

POWER TRANSISTORS

0.5 Amp Silicon NPN Power Transistors

Type	Case	Pc W	BVCBO	hFE @ IC	1-99	100-999
2N3738	TO-63	20	250	40-120 @ 0.1A	2.25	1.50
2N3739	TO-63	20	325	40-200 @ 0.1A	2.45	1.65
MJ2251	TO-63	10	300	25-200 @ .05A	1.87	1.25
MJ2252	TO-63	10	300	25-200 @ .05A	2.02	1.35

1 Amp Silicon PNP Power Transistors

Type	Case	Pc W	BVCBO	hFE @ IC	1-99	100-999
2N3740	TO-66	25	60	30-100 @ 0.25A	2.90	1.95
2N3741	TO-66	25	80	30-100 @ 0.25A	3.15	2.10
2N4234	TO-5	5	.....	30-150 @ 0.25A	3.00	2.00
2N4235	TO-5	5	.....	30-150 @ 0.25A	3.60	2.39
2N4236	TO-5	5	.....	30-150 @ 0.25A	4.00	2.66
MJ2253	TO-66	25	50	20-100 @ 0.25A	2.65	1.76
MJ2254	TO-66	25	70	20-100 @ 0.25A	2.90	1.95
MJ3701	TO-66	25	90	20-100 @ 0.25A	2.40	1.60

1-Amp NPN Silicon Power Transistors

Type	Case	Pc W	BVCBO	hFE @ IC	1-99	100-999
2N3766	TO-66	20	80	40-160 @ 0.5A	2.10	1.40
2N3767	TO-66	20	100	40-160 @ 0.5A	2.30	1.55
2N4237	TO-5	5	.....	40-160 @ 0.5A	2.25	1.50
2N4238	TO-5	5	.....	40-160 @ 0.5A	2.75	1.85
2N4239	TO-5	5	.....	40-160 @ 0.5A	3.05	2.05
MJ2249	TO-66	17.5	60	25-120 @ 0.5A	2.02	1.35
MJ2250	TO-66	17.5	80	25-120 @ 0.5A	2.15	1.45

3-AMP INDUSTRIAL PNP POWER TRANSISTORS

Type	Case	Pc W	BVCBO	hFE @ IC	1-99	100-999
2N297A	TO-3	90	80	40-100 @ .5A	1.60	1.17
2N375	TO-3	90	80	35- 90 @ 1A	2.20	1.65
2N618	TO-3	90	80	60-140 @ 1A	2.45	1.82
2N1360	TO-3	90	50	60-140 @ 1A	1.70	1.25
2N1362	TO-3	90	100	35- 90 @ 1A	2.85	2.20
2N1365	TO-3	90	120	60-140 @ 1A	5.00	3.70
†2N2137	TO-3	62.5	30	30- 60 @ .5A	1.80	1.20
†2N2138	TO-3	62.5	45	30- 60 @ .5A	2.10	1.40
†2N2139	TO-3	62.5	60	30- 60 @ .5A	2.25	1.50
†2N2140	TO-3	62.5	75	30- 60 @ .5A	3.90	2.60
†2N2142	TO-3	62.5	30	50-100 @ .5A	2.30	1.55
†2N2143	TO-3	62.5	45	50-100 @ .5A	2.45	1.65
†2N2144	TO-3	62.5	60	50-100 @ .5A	3.75	2.50
2N3720**	TO-3	6	60	25-180 @ 1A	13.40	8.95

5 AMP GERMANIUM PNP POWER TRANSISTORS

Type	Case	Pc W	BVCBO	hFE @ IC	1-99	100-999
2N242	TO-3	106	45	30-120 @ 3A	1.65	1.10
2N307	TO-3	106	35	20-120 @ 3A	1.12	.75
2N307A	TO-3	106	35	30-120 @ 3A	1.87	1.25
2N378	TO-3	106	20	40- 80 @ 3A	1.80	1.20
2N380	TO-3	106	30	30- 70 @ 3A	1.70	1.26
2N459	TO-3	106	.....	20- 70 @ 3A	4.35	2.90
2N459A	TO-3	106	105	40- 70 @ 3A	4.65	3.10
2N1011	TO-3	60	80	30- 75 @ 3A	1.95	1.45
2N1021	TO-3	85	100	30- 90 @ 3A	3.10	2.05
2N1022	TO-3	85	120	30- 90 @ 3A	3.60	2.40
†2N1529	TO-3	90	40	20- 40 @ 3A	1.45	1.08
†2N1530	TO-3	90	60	20- 40 @ 3A	1.60	1.15
†2N1531	TO-3	90	80	20- 40 @ 3A	2.30	1.70
†2N1532	TO-3	90	100	20- 40 @ 3A	3.00	2.24
†2N1533	TO-3	90	120	20- 40 @ 3A	4.35	3.25
†2N1534	TO-3	90	40	35- 70 @ 3A	1.40	1.05
†2N1535	TO-3	90	60	35- 70 @ 3A	1.50	1.14
†2N1535A*	TO-3	90	60	35- 70 @ 3A	2.10	1.55
†2N1536	TO-3	90	80	35- 70 @ 3A	1.70	1.25
†2N1536A*	TO-3	90	80	35- 70 @ 3A	2.20	1.65
†2N1537	TO-3	90	100	35- 70 @ 3A	3.90	2.90
†2N1537A*	TO-3	90	100	35- 70 @ 3A	4.45	3.30
†2N1539	TO-3	90	40	50-100 @ 3A	1.50	1.12
†2N1539A*	TO-3	90	40	50-100 @ 3A	2.05	1.52
†2N1540	TO-3	90	60	50-100 @ 3A	1.58	1.18
†2N1540A*	TO-3	90	60	50-100 @ 3A	2.10	1.62
†2N1541	TO-3	90	80	50-100 @ 3A	1.85	1.38
†2N1542	TO-3	90	100	50-100 @ 3A	2.35	1.75
†2N1544	TO-3	90	40	75-150 @ 3A	1.65	1.24
†2N1544A*	TO-3	90	40	75-150 @ 3A	2.22	1.64
†2N1545	TO-3	90	60	75-150 @ 3A	1.85	1.35
†2N1545A*	TO-3	90	60	75-150 @ 3A	2.35	1.70
†2N1546	TO-3	90	80	75-150 @ 3A	2.90	1.70
†2N1546A*	TO-3	90	80	75-150 @ 3A	2.95	2.20
†2N1547A	TO-3	90	100	75-150 @ 3A	3.45	2.55
†2N1548	TO-3	90	120	75-150 @ 3A	4.00	2.95

* Meg-A-Lite transistor.

** Silicon # Solid base TO-5.

† For solid lugs, prefix "MP", i.e. MP2137 same prices as 2N series.

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POWER TRANSISTORS (Cont'd)

5-AMP GERMANIUM PNP POWER TRANSISTORS (Cont'd)

Type	Case	Pc W	BVCBO	hFE@Ic	1-99	100-up
2N3311	TO-36	170	30	60-120@ 3A	2.70	1.80
2N3312	TO-36	170	45	60-120@ 3A	3.30	2.20
2N3313	TO-36	170	60	60-120@ 3A	4.20	2.80
2N3314	TO-36	170	30	100-200@ 3A	3.15	2.10
2N3315	TO-36	170	45	100-200@ 3A	3.90	2.60
2N3316	TO-36	170	60	100-200@ 3A	5.25	3.50

5-AMP SILICON NPN POWER TRANSISTORS

Type	Case	Pc W	BVCBO	hFE@Ic	1-99	100-up
2N1724	TO-61	117	120	20- 90@ 2A	55.50	37.00
2N1725	TO-61	117	120	20- 90@ 2A	57.00	38.00

7-AMP GERMANIUM PNP POWER TRANSISTORS

Type	Case	Pc W	BVCBO	hFE@Ic	1-99	100-up
2N5611	TO-3	85	40	35- 70@ 3A	1.15	.78
2N3612	TO-3	85	60	35- 70@ 3A	1.30	.88
2N3613	TO-3	85	40	60-120@ 3A	1.25	.85
2N3614	TO-3	85	60	60-120@ 3A	1.40	.94
2N3615	TO-3	85	80	30- 60@ 3A	1.65	1.10
2N3616	TO-3	85	100	30- 60@ 3A	2.10	1.39
2N3617	TO-3	85	80	45- 90@ 3A	1.88	1.25
2N3618	TO-3	85	100	45- 90@ 3A	2.37	1.58
MP2060	TO-3	85	40	30-200@ 3A	1.05	.75
MP2061	TO-3	85	60	30-200@ 3A	1.15	.85
MP2062	TO-3	85	75	30-200@ 3A	1.35	1.00
MP2063	TO-3	85	90	30-200@ 3A	1.85	1.25
2N456A	TO-3	50	40‡	30- 90@ 3A	1.80	1.20
2N457A	TO-3	50	60‡	30- 90@ 3A	2.20	1.45
2N258A	TO-3	50	80‡	30- 90@ 3A	2.65	1.75

7.5-AMP SILICON NPN POWER TRANSISTORS

Type	Case	Pc W	BVCBO	hFE@Ic	1-99	100-up
2N3445	TO-3	117	80	20- 60@ 3A	12.00	8.00
2N3446	TO-3	117	100	20- 60@ 3A	18.00	12.00
2N3447	TO-3	117	80	40-120@ 5A	19.50	13.00
2N3448	TO-3	117	100	40-120@ 5A	29.95	19.50
2N3487	TO-61	117	80	20- 60@ 3A	42.00	28.00
2N3488	TO-61	117	100	20- 60@ 3A	57.00	38.00
2N3489	TO-61	117	120	15- 45@ 3A	69.00	46.00
2N3490	TO-61	117	80	40-120@ 3A	48.00	32.00
2N3491	TO-61	117	100	40-120@ 3A	63.00	42.00
2N3492	TO-61	117	120	30- 90@ 5A	75.00	50.00

8-AMP SILICON PNP POWER TRANSISTORS

Type	Case	Pc W	BVCBO	hFE@Ic	1-99	100-up
MJ2255	TO-3	120	40‡	15- @ 5A	2.70	1.80
MJ2256	TO-3	120	60	15- @ 5A	3.05	2.05
MJ2257	TO-3	120	80	15- @ 5A	4.40	2.95

10-AMP GERMANIUM PNP TRANSISTORS

Type	Case	Pc W	BVCBO	hFE@Ic	1-99	100-up
2N1073	TO-41	85	40	20- 60@ 5A	2.40	1.78
2N1073A	TO-41	85	80	20- 60@ 5A	3.60	2.67
2N1073B	TO-41	85	120	20- 60@ 5A	4.50	3.30
2N2526	TO-3	85	80	20- 50@ 3A	7.10	4.75
2N2527	TO-3	85	120	20- 50@ 3A	9.30	6.20
2N2528	TO-3	85	160	20- 50@ 3A	14.85	9.90

10-AMP GERMANIUM PNP POWER TRANSISTORS

Type	Case	Pc W	BVCBO	hFE@Ic	1-99	100-up
2N627	TO-3	90	40	10- 30@ 10A	2.85	1.90
2N628	TO-3	90	60	10- 30@ 10A	3.35	2.25
2N629	TO-3	90	80	10- 30@ 10A	5.30	3.55
2N630	TO-3	90	100	10- 30@ 10A	6.05	4.05

10-AMP SILICON PNP POWER TRANSISTORS

Type	Case	Pc W	BVCBO	hFE@Ic	1-99	100-up
2N3789	TO-3	150	60	25- 90@ 1A	8.90	5.95
2N3790	TO-3	150	80	25- 90@ 1A	10.65	7.10
2N3791	TO-3	150	60	50-150@ 1A	12.35	8.25
2N3792	TO-3	150	80	50-150@ 1A	14.85	9.90

Add Prefix "MP", i.e. MP3789 for lugs, priced slightly higher.

10-AMP SILICON NPN POWER TRANSISTORS

Type	Case	Pc W	BVCBO	hFE@Ic	1-99	100-up
2N3232	TO-3	117	60	15- 75@ 3A	3.75	2.50
2N3235	TO-3	117	55	20- 70@ 4A	3.75	2.50
2N3713	TO-3	150	80	25- 90@ 1A	4.40	2.95
2N3714	TO-3	150	100	25- 90@ 1A	4.70	3.15
2N3715	TO-3	150	80	50-150@ 1A	4.85	3.25
2N3716	TO-3	150	100	50-150@ 1A	6.75	4.50

Add prefix "MP", priced slightly higher.

15 AMP POWER GERMANIUM PNP TRANSISTORS

*Meg-A-Life transistor. For solid lugs, add prefix "MP".

Type	Case	PdW	BVCBO	hFE@IC	1-99	100-999
2N1773	TO-36	150	60	35- 70@ 5A	3.40	2.50
2N1774	TO-36	150	80	35- 70@ 5A	3.60	2.67
2N1774A*	TO-36	150	80	35- 70@ 5A	3.80	2.79
2N2777	TO-36	150	40	35- 70@ 5A	2.25	1.66
2N2778	TO-36	150	50	35- 70@ 5A	2.80	2.07
2N441	TO-36	150	40	35- 70@ 5A	1.85	1.25
2N442	TO-36	150	50	20- 40@ 5A	1.95	1.30
2N443	TO-36	150	80	20- 40@ 5A	1.90	1.39
2N1100	TO-36	150	100	25- 50@ 5A	4.50	3.34
2N1358	TO-36	150	80	25- 50@ 5A	4.15	3.08
‡2N1552A*	TO-3	90	100	10- 30@ 10A	6.30	4.20
‡2N1553	TO-3	90	40	30- 60@ 10A	1.85	1.35
‡2N1554	TO-3	90	60	30- 60@ 10A	2.30	1.70
‡2N1554A*	TO-3	90	60	30- 60@ 10A	2.85	2.10
‡2N1955	TO-3	90	80	30- 60@ 10A	2.75	2.05
‡2N1555A*	TO-3	90	80	30- 60@ 10A	3.45	2.55
‡2N1556	TO-3	90	100	30- 60@ 10A	4.00	2.95
‡2N1556A*	TO-3	90	100	30- 60@ 10A	4.65	3.45
‡2N1557	TO-3	90	40	50-100@ 10A	2.15	1.58
‡2N1557A*	TO-3	90	40	50-100@ 10A	2.70	2.00
‡2N1558	TO-3	90	60	50-100@ 10A	2.80	2.06
‡2N1559	TO-3	90	80	50-100@ 10A	3.25	2.40
‡2N1559	TO-3	90	100	50-100@ 10A	4.45	3.30
‡2N1560	TO-3	90	100	50-100@ 10A	5.00	3.70
‡2N1560A*	TO-3	90	100	17- 40@ 5	2.35	1.73
2N1970	TO-36	170	100	50-100@ 5	4.50	3.00
2N1980	TO-36	170	50	50-100@ 5	5.50	3.70
2N1981	TO-36	170	70	50-100@ 5	5.50	3.70
2N1982	TO-36	170	90	50-100@ 5	7.80	5.20
2N2075	TO-36	170	80	20- 40@ 5A	5.20	3.84
2N2076	TO-36	170	70	20- 40@ 5A	3.60	2.67
2N2076A*	TO-36	170	70	20- 40@ 5A	4.75	3.17
2N2077	TO-36	170	5C	20- 40@ 5A	2.85	2.12
2N2078	TO-36	170	40	20- 40@ 5A	1.90	1.39
2N2079	TO-36	170	80	35- 70@ 5A	7.20	5.34
2N2080	TO-36	170	70	35- 70@ 5A	5.10	3.78
2N2081	TO-36	170	50	35- 70@ 5A	3.15	2.32
2N2082	TO-36	170	40	35- 70@ 5A	2.40	1.78
2N2490	TO-36	170	70	20- 40@ 5A	1.88	1.39
2N2491	TO-36	170	60	35- 70@ 5A	2.63	1.95
2N2492	TO-36	170	80	25- 50@ 5A	3.38	2.50
2N2493	TO-36	170	100	25- 50@ 5A	6.00	4.45

20 AMP GERMANIUM PNP POWER SWITCH

*DC Power Dissipation limit.

Type	Case	PdW	BVCBO	hFE@IC	1-99	100-999
2N2833	TO-3	85*	120	25-100@ 10A	13.00	8.70
2N2834	TO-3	85*	140	25-100@ 10A	22.50	15.00

25-AMP GERMANIUM PNP POWER TRANSISTORS

Type	Case	PdW	BVCBO	hFE@IC	1-99	100-999
2N1162	TO-3	90	50	15- 65@ 25A	4.45	3.30
2N1163	TO-41	90	50	15- 65@ 25A	4.45	3.30
2N1163A*	TO-41	90	50	15- 65@ 25A	5.08	3.75
2N1165	TO-41	90	80	15- 65@ 25A	6.35	4.70
2N1167	TO-41	90	100	15- 65@ 25A	7.55	5.60
2N2912	8	75	15	75/ @ 10A	8.10	5.40

30-AMP GERMANIUM PNP POWER TRANSISTORS

Type	Case	PdW	BVCBO	hFE@IC	1-99	100-999
2N2152	TO-36	170	45	50-100@ 5A	3.60	2.40
2N2152A*	TO-36	170	45	50-100@ 5A	4.35	2.90
2N2153	TO-36	170	60	50-100@ 5A	5.55	3.70
2N2153A*	TO-36	170	60	50-100@ 5A	6.30	4.20
2N2154	TO-36	170	75	50-100@ 5A	10.10	6.75
2N2156	TO-36	170	45	80-160@ 5A	4.10	2.75
2N2156A*	TO-36	170	45	80-160@ 5A	4.85	3.25
2N2157	TO-36	170	60	80-160@ 5A	6.35	4.25
2N2158	TO-36	170	75	80-160@ 5A	10.85	7.25

50-AMP GERMANIUM PNP POWER TRANSISTOR

Type	Case	PdW	BVCBO	hFE@IC	1-99	100-999
2N2728	TO-36	170	15	40-130@ 5A	11.25	7.50

60-AMP GERMANIUM PNP POWER TRANSISTORS

Type</



Motorola Semiconductors



CASE 80
(TO-66)



TO-17



TO-18



TO-5



CASE 25



TO-23



TO-46

MILLIWATT TRANSISTORS

GENERAL PURPOSE AUDIO TRANSISTORS

* Meg-A-Life transistor †hfb

Type	Case	Pc.mW	BV cbo	IcmA	hFE	1-99	100-999
2N320	TO-5	225	.....	500	34-65	.59	.39
2N321	TO-5	225	.....	500	53-121	.65	.43
2N322	TO-5	225	.....	500	34-65	.42	.28
2N323	TO-5	225	.....	500	53-121	.59	.39
2N324	TO-5	225	.....	500	72-198	.63	.42
2N331	TO-5	200	30	200	30-70	1.50	1.00
2N381	TO-5	225	50	400	35-65	.82	.55
2N382	TO-5	225	50	400	60-95	1.12	.75
2N383	TO-5	225	50	400	75-120	1.42	.95
2N398	TO-5	50	105	100	20	1.30	.87
2N398A	TO-5	150	105	200	20	1.30	.87
2N460	TO-5	225	45	400	0.94†0.972	1.50	1.00
2N461	TO-5	200	45	100	.968-985†	1.52	1.01
2N465	TO-5	200	45	100	27	1.50	1.00
2N466	TO-5	200	35	100	56	1.65	1.10
2N467	TO-5	200	35	100	112	2.10	1.40
2N508	TO-5	225	.....	500	99-198	.69	.46
2N524	TO-5	225	.....	500	25-42	1.02	.68
2N524A*	TO-5	225	.....	500	25-42	1.32	.88
2N525	TO-5	225	.....	500	34-65	1.02	.68
2N525A*	TO-5	225	.....	500	34-64	1.32	.88
2N526	TO-5	225	.....	500	53-90	1.04	.69
2N527	TO-5	225	.....	500	72-121	1.23	.82
2N650	TO-5	200	45	500	30-70	1.65	1.10
2N651	TO-5	200	45	500	50-120	1.65	1.10
2N651A*	TO-5	200	45	500	50-120	2.02	1.35
2N652	TO-5	200	45	500	100-225	2.17	1.45
2N652A*	TO-5	200	45	500	100-225	2.25	1.50
2N652A*	TO-5	200	45	500	100-225	2.55	1.70
2N654	TO-5	200	30	250	50-125	1.80	1.20
2N655	TO-5	200	30	250	100-250	1.95	1.30
2N1008	TO-5	200	20	300	40-150	.75	.50
2N1008A	TO-5	200	40	300	40-150	.83	.55
2N1008B	TO-5	200	60	300	40-150	.92	.61
2N1175	TO-5	225	.....	500	70-140	.87	.58
2N1187	TO-5	200	60	500	50-120	2.60	1.75
2N1188	TO-5	200	60	500	100-225	3.15	2.10
2N1189	TO-5	200	45	500	60	1.50	1.00
2N1191	TO-5	200	40	200	30-70	1.12	.75
2N1192	TO-5	200	40	200	50-125	1.12	.75
2N1193	TO-5	150	40	200	100-250	1.50	1.00
2N1194	TO-5	200	40	200	190-500	1.65	1.10
2N1408	TO-5	200	50	200	10	.83	.55
2N1413	TO-5	225	35	500	23-65	.73	.49
2N1414	TO-5	200	.....	500	34-65	.78	.52
2N1415	TO-5	225	.....	500	53-90	.92	.61
2N1924	TO-5	225	.....	500	34-65	1.57	1.04
2N1925	TO-5	225	.....	500	53-90	1.77	1.18
2N1926	TO-5	225	.....	500	72-121	2.08	1.39
2N2042	TO-5	225	105	200	20-80	1.85	1.25
2N2042A	TO-5	200	55	200	20-50	2.25	1.50
2N2043	TO-5	200	105	200	45-180	2.25	1.50
2N2171	TO-5	225	50	400	110-250	1.27	.85
2N3427	TO-5	200	45	500	100-350	1.34	.89
2N3428	TO-5	200	45	500	150-400	1.50	1.00
MA100	TO-5	200	60	500	30	1.00	.67
MA200	TO-5	150	105	200	20	.58	.39
MA201	TO-5	150	105	200	20	.67	.45
MA202	TO-5	150	105	200	40	.67	.45
MA203	TO-5	150	105	200	20	.75	.50
MA204	TO-5	150	90	200	20	.58	.39
MA205	TO-5	150	75	200	20	.50	.33
MA206	TO-5	150	60	200	20	.42	.28
MA881	TO-5	200	60	500	30	.72	.48
MA882	TO-5	200	60	500	40	.80	.52
MA883	TO-5	200	60	500	75	.89	.59
MA884	TO-5	200	60	500	125	.98	.65
MA885	TO-5	200	50	500	154/70	.50	.33
MA886	TO-5	200	50	500	304/70	.59	.39
MA887	TO-5	200	50	500	504/120	.68	.45
MA888	TO-5	200	50	500	1004/225	.75	.50
MA889	TO-5	200	50	500	1904/400	.84	.56
MA1703	TO-5	200	25	500	100/350	1.17	.78
MA1704	TO-5	200	25	500	150/400	1.34	.89
MA1706	TO-5	200	15	500	100/350	1.00	.67
MA1707	TO-5	200	15	500	150/400	1.17	.78

HIGH FREQUENCY TRANSISTORS

MESA TRANSISTORS (GERMANIUM)

* Epitaxial transistor. †Stud-mounted.

Type	Case	Pd.mW	Vcb (Coil Base)	mA	1-99	100-999
2N700	TO-17	75	25	50	7.35	4.90
2N700A	TO-17	75	25	50	11.85	8.70
2N705	TO-18	150	15	50	1.80	1.20
2N711	TO-18	150	12	50	1.12	.75
2N711A	TO-18	150	15	.....	1.35	.90
2N711B	TO-18	150	18	.....	1.42	.95
2N741	TO-18	150	15	100	2.18	1.45
2N741A	TO-18	150	15	100	3.30	2.20
2N827	TO-18	150	20	.....	2.50	1.65
2N828*	TO-18	300	15	200	3.30	2.20
2N861*	TO-18	150	20	100	1.21	.81
2N862*	TO-18	150	20	100	1.18	.79
2N863*	TO-18	150	12	.....	1.08	.72
2N864*	TO-18	150	25	100	1.57	1.04
2N864A*	TO-18	150	15	.....	5.25	3.50
2N865*	TO-18	150	20	100	1.44	.96
2N866*	TO-18	150	20	100	1.40	.93
2N867*	TO-18	150	12	.....	1.25	.83
2N868	TO-18	150	15	100	1.53	1.02
2N970	TO-18	150	12	100	.89	.59
2N971	TO-18	150	7	100	.84	.56
2N972	TO-18	150	15	100	1.60	1.07
2N974	TO-18	150	12	100	.94	.63
2N985	TO-18	150	15	200	2.88	1.92
2N1141*	TO-5	300	35	.....	4.83	3.22
2N1142*	TO-5	300	30	.....	4.20	2.80
2N1143*	TO-5	300	25	.....	3.50	2.33
2N1195*	TO-5	250	30	.....	3.95	2.63
2N1204*	TO-5	250	20	.....	1.65	1.10
2N1204A	TO-5	300	20	500	1.65	1.10
2N1494A†	25	500	20	500	2.17	1.45
2N1495	31	250	40	500	3.30	2.20
2N1496†	25	300	40	500	3.80	2.55
2N2096†	25	500	25	500	1.65	1.10
2N2097†	25	500	40	500	3.30	2.20
2N2099	TO-5	300	25	500	2.17	1.45
2N2100	TO-5	300	40	500	3.80	2.55
2N2258*	TO-18	150	7	.....	1.12	.75
2N2259*	TO-18	150	7	.....	1.27	.85
2N2273	TO-18	150	25	.....	2.45	1.65
2N2381	TO-5	300	30	500	4.65	3.10
2N2382	TO-5	300*	45	500	5.15	3.45
2N2415	TO-17	75	15	20	6.00	4.00
2N2416	TO-17	75	15	20	3.35	2.25
2N2630	TO-18	300	18	100	3.22	2.15
2N2635	TO-18	150	30	.....	1.75	1.15
2N2929	TO-5	300	25	100	6.75	4.50
2N2955*	TO-18	150	40	.....	2.48	1.65
2N2956*	TO-18	150	40	.....	2.63	1.75
2N2957*	TO-18	150	40	.....	3.37	2.25
2N3279	TO-18	100	30	.....	4.50	3.00
2N3280	TO-18	100	30	.....	4.10	2.75
2N3282	TO-18	100	30	.....	2.15	1.45
2N3283	TO-18	100	25	.....	1.50	1.00
2N3284	TO-18	100	25	.....	1.42	.95
2N3285	TO-18	100	20	.....	1.12	.75
2N3286	TO-18	100	20	.....	.97	.65
2N3323	TO-18	150	35	.....	.90	.60
2N3324	TO-18	150	35	.....	.82	.55
2N3325	TO-18	150	35	.....	.75	.50
2N3783	TO-18	150	30	20	30.00	20.00
2N3785	TO-18	150	15	20	6.75	4.50
2N3883	TO-5	750	30	200	1.95	.90
MM2503	TO-18	75	30	20	26.25	17.50
MM2550	TO-18	150	20	100	9.00	6.00
MM2552	TO-5	300	20	100	9.00	6.00
MM2554	TO-5	300	20	200	9.00	6.00

NEWARK can supply all Motorola Semiconductors.

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HIGH FREQUENCY TRANSISTORS (CONT'D)

SILICON EPITAXIAL PNP

SILICON EPITAXIAL PNP (CONT'D)

Type	Case	Po mW	Vcb (V)	mA	1-99	100-999
2N722	TO-18	400	50		5.60	3.75
2N869	TO-18	360	25		5.85	3.90
2N995	TO-18	360	20		5.85	3.90
2N1131	TO-5	600	50		5.60	3.75
2N1132	TO-5	600	50		5.60	3.75
2N1132B	TO-5	600	70	600	16.70	11.15
2N1991	TO-5	600	30		3.95	2.96
2N2303	TO-5	600	50	500	8.25	5.50
2N2800	TO-5	800	50	600	6.75	4.50
2N2801	TO-5	800	50	800	7.10	4.75
2N2838	TO-31	500	50	800	7.10	4.75
2N2904	TO-5	800	60	800	7.50	5.00
2N2904 ML1	TO-5	800	60	800	7.65	5.10
2N2904 ML2	TO-5	800	60	800	8.25	5.50
2N2904 ML3	TO-5	800	60	800	9.00	6.00
2N2904A	TO-5	800	60	800	10.50	7.00
2N2904A ML1	TO-5	800	60	800	10.50	7.10
2N2904A ML2	TO-5	800	60	800	10.65	7.50
2N2904A ML3	TO-5	800	60	800	12.00	8.00
2N2905	TO-5	800	60	800	9.00	6.00
2N2905 ML1	TO-5	800	60	800	9.15	6.10
2N2905 ML2	TO-5	800	60	800	9.75	6.50
2N2905 ML3	TO-5	800	60	800	10.50	7.00
2N2905A	TO-5	800	60	800	12.00	8.00
2N2905A ML1	TO-5	800	60	800	12.15	8.10
2N2905A ML2	TO-5	800	60	800	12.75	8.50
2N2905A ML3	TO-5	800	60	800	13.50	9.00
2N2906 ML1	TO-18	500	60	800	7.35	4.90
2N2906 ML2	TO-18	500	60	800	7.95	5.30
2N2906 ML3	TO-18	500	60	800	8.70	5.80
2N2906A ML1	TO-18	500	60	800	10.20	6.80
2N2906A ML2	TO-18	500	60	800	10.80	7.20
2N2906A ML3	TO-18	500	60	800	11.55	7.70
2N2907	TO-18	500	60	800	8.70	5.80
2N2907 ML1	TO-18	500	60	800	8.85	5.90
2N2907 ML2	TO-18	500	60	800	9.45	6.30
2N2907 ML3	TO-18	500	60	800	10.20	6.80
2N2907A ML1	TO-18	500	60	800	11.70	7.80
2N2907A ML2	TO-18	500	60	800	12.30	8.20
2N2907A ML3	TO-18	500	60	800	13.05	8.70
2N3133	TO-5	600	50		4.95	3.30
2N3134	TO-5	600	50		5.85	3.90
2N3135	TO-18	400	50		4.95	3.30
2N3136	TO-18	400	50		5.85	3.90
2N3137	TO-5	600	40	150	11.10	7.40
2N3244	TO-5	800	40		15.75	10.50
2N3245	TO-5	800	50		15.75	10.50
2N3248	TO-18	360	12		3.90	2.60
2N3249	TO-18	360	12		4.65	3.10
2N3250	TO-18	360	50		3.90	2.60
2N3250 ML1	TO-18	360	50		4.05	2.70
2N3250 ML2	TO-18	360	50		4.65	3.10
2N3250 ML3	TO-18	360	50		5.40	3.60
2N3250A	TO-18	360	60	200	4.50	3.00
2N3250A ML1	TO-18	360	60	200	4.65	3.10
2N3250A ML2	TO-18	360	60	200	5.25	3.50
2N3250A ML3	TO-18	360	60	200	6.00	4.00
2N3251	TO-18	360	50		4.65	3.10
2N3251 ML1	TO-18	360	50		4.80	3.20
2N3251 ML2	TO-18	360	50		5.40	3.60
2N3251 ML3	TO-18	360	50		6.15	4.10
2N3251A	TO-18	360	60	200	5.25	3.50
2N3251A ML1	TO-18	360	60	200	5.40	3.60
2N3251A ML2	TO-18	360	60	200	6.00	4.00
2N3251A ML3	TO-18	360	60	200	6.75	4.50
2N3307	TO-18	200	40		10.50	7.00
2N3467	TO-5	1000	40	1000	9.75	6.50
2N3485	TO-46	400	60	600	8.70	5.80
2N3486	TO-46	400	60	600	10.20	6.80
2N3494	TO-5	600	80	100	9.75	6.50
2N3495	TO-5	600	120	100	12.75	8.50
2N3496	TO-18	400	80	100	9.75	6.50
2N3497	TO-18	400	120	100	12.75	8.50
2N3546	TO-18	360	15		5.25	3.50
2N3634	TO-5	1000	140	1000	13.20	8.80
2N3635	TO-5	1000	140	1000	14.40	9.60
2N3636	TO-5	1000	175	1000	19.40	12.95
2N3637	TO-5	1000	175	1000	21.30	14.20
2N3743	TO-5	1000	300	50	29.25	19.50
2N3762	TO-5	1000	40	1000	7.50	5.00
2N3763	TO-5	1000	60	1000	7.50	5.00
2N3764	TO-46	1000	40	1000	8.25	5.50
2N3765	TO-46	1000	60	1000	8.25	5.50
2N3798	TO-18	360	60	50	6.15	4.10
2N3799	TO-18	360	60	50	6.75	4.50
2N3905	29	310	40	10	.75	.50

Type	Case	Po (mW)	Vcb (V)	mA	1-99	100-999	1K-up
2N3906	29	310	40	10	.82	.55	.41
2N4125	29	310	30	2	.52	.35	.26
2N4126	29	310	25	2	.60	.40	.30
2N4260	TO-18	200	15	10	12.35	8.25	
2N4261	TO-18	200	15	10	14.60	9.75	
MF3304	TO-18	200	18		6.75	4.50	
MPS3638	F	310	25		.46	.31	.28
MPS3639	29	200	6	80	.54	.36	.27
MPS3640	29	200	12	80	.57	.38	.28

NPN EPITAXIAL PASSIVATED TRANSISTORS (SILICON)

Type	Case	PdmW	BVCBO	1-99	100-up
2N697	TO-5	60	60	.93	.62
2N706	TO-18	300	25	.98	.65
2N706A	TO-18	300	25	1.18	.79
2N706B	TO-18	300	25	1.48	.99
2N707	TO-18	300	56	6.30	4.20
2N708	TO-18	360	40	1.28	.85
2N718	TO-18	400	60	1.29	.86
2N718A	TO-18	500	75	1.51	1.01
2N744	TO-18	300	20	2.90	1.95
2N834	TO-18	300	40	2.00	1.35
2N914	TO-18	360	40	1.26	.84
2N915	TO-18	360	70	4.95	3.30
2N916	TO-18	360	45	4.35	2.90
2N918	TO-18	200	30	5.25	3.50
2N929	TO-18	300	45	3.60	2.40
2N930	TO-18	300	45	4.35	2.90
2N956	TO-18	500	75	2.16	1.44
2N1613	TO-5	800	75	1.50	1.00
2N1711	TO-5	800	75	1.75	1.17
2N1893	TO-5	800	120	2.45	1.65
2N2192	TO-5	800	60	4.20	2.80
2N2192A	TO-5	800	60	4.40	2.95
2N2192B	TO-5	800	60	12.45	8.30
2N2193	TO-5	800	80	2.90	1.95
2N2193A	TO-5	800	80	3.15	2.10
2N2193B	TO-5	800	80	10.80	7.20
2N2194	TO-5	800	60	2.18	1.45
2N2194A	TO-5	800	60	2.40	1.60
2N2194B	TO-5	800	60	8.25	5.50
2N2195	TO-5	600	45	1.65	1.10
2N2195A	TO-5	600	45	1.80	1.20
2N2195B	TO-5	600	45	2.40	1.60
2N2217	TO-5	800	60	3.35	2.25
2N2218	TO-5	800	60	3.35	2.25
2N2218 ML1	TO-5	800	60	3.50	2.35
2N2218 ML2	TO-5	800	60	4.10	2.75
2N2218 ML3	TO-5	800	60	4.85	3.25
2N2218A ML1	TO-5	800	75	5.40	3.60
2N2218A ML2	TO-5	800	75	6.00	4.00
2N2218A ML3	TO-5	800	75	6.75	4.50
2N2219	TO-5	800	60	3.35	2.25
2N2219 ML1	TO-5	800	60	3.50	2.35
2N2219 ML2	TO-5	800	60	4.10	2.75
2N2219 ML3	TO-5	800	60	4.85	3.25
2N2219A	TO-5	500	75	6.00	4.00
2N2219A ML1	TO-5	500	75	6.15	4.10
2N2219A ML2	TO-5	500	75	6.75	4.50
2N2219A ML3	TO-5	500	75	7.50	5.00
2N2221 ML1	TO-18	500	60	3.50	2.35
2N2221 ML2	TO-18	500	60	4.10	2.75
2N2221 ML3	TO-18	500	60	4.85	3.25
2N2221A	TO-18	500	75	6.00	4.00
2N2222 ML1	TO-18	500	60	3.50	2.35
2N2222 ML2	TO-18	500	60	4.10	2.75
2N2222 ML3	TO-18	500	60	4.85	3.25
2N2222A	TO-18	500	75	6.00	4.00
2N2222A ML1	TO-18	500	75	6.15	4.10
2N2222A ML2	TO-18	500	75	6.75	4.50
2N2222A ML3	TO-18	500	75	7.50	5.00
2N2257	TO-18	300	7	1.27	.85
2N2368	TO-18	1200	40	2.30	1.54
2N2369	TO-18	360	40	2.40	1.60
2N2481 ML1	TO-18	360	40	2.75	1.85
2N2481 ML2	TO-18	360	40	3.35	2.25
2N2481 ML3	TO-18	360	40	4.10	2.75
2N2538	TO-5	800	60	5.85	3.90
2N2540	TO-18	500	60	5.85	3.90
2N2948	TO-3	25W	40	20.25	13.50

DEPEND ON NEWARK FOR EVERYTHING IN INDUSTRIAL ELECTRONICS



Motorola Transistors



Plastic



Ceramic



TO-3



Case 24



TO-60



TO-52



TO-39

HIGH FREQUENCY TRANSISTORS (CONT'D)

NPN EPITAXIAL PASSIVATED TRANSISTORS (SILICON) CONT.

Type	Case	PdmW	BVCBO	1-99	100-up
2N2849	23	500	60	10.50	7.00
2N2950	24	700	60	11.25	7.50
2N2951	TO-5	800	60	4.50	3.00
2N2952	TO-18	500	60	4.95	3.30
2N2958	TO-5	600	60	2.25	1.50
2N2959	TO-5	600	60	2.70	1.80
2N3114	TO-18	800	60	6.00	4.00
2N3115	TO-18	400	60	1.95	1.30
2N3116	TO-18	400	60	2.40	1.60
2N3137	TO-5	800	40	11.10	7.40
2N3227	TO-18	360	40	2.40	1.60
2N3252	TO-5	1000	60	9.75	6.50
2N3253	TO-5	1000	75	9.75	6.50
2N3287	TO-18	200	40	7.50	5.00
2N3291	TO-18	200	25	2.25	1.50
2N3292	TO-18	200	25	2.10	1.40
2N3293	TO-18	200	20	1.80	1.20
2N3294	TO-18	200	20	1.65	1.10
2N3298	TO-18	300	25	2.40	1.60
2N3309	TO-39	1 W	50	5.25	3.50
2N3375	TO-60	11.6W	65	23.90	15.95
2N3444	TO-5	1 W	80	12.00	8.00
2N3493	TO-18	150	12	14.25	9.50
2N3498	TO-5	1 W	100	6.60	4.40
2N3499	TO-5	1 W	100	7.40	4.95
2N3500	TO-5	1 W	150	11.25	7.50
2N3501	TO-5	1 W	150	12.60	8.40
2N3506	TO-5	1 W	60	11.55	7.70
2N3507	TO-5	1 W	80	13.20	8.80
2N3509	TO-46	400	40	5.40	3.60
2N3510	TO-52	360	40	1.42	.95
2N3511	TO-52	360	40	1.80	1.20
2N3544	TO-18	300	25	7.50	5.00
2N3553	TO-39	7 W	65	5.15	3.42
2N3632	TO-60	23 W	65	34.20	22.80
2N3647	TO-46	400	40	2.25	1.50
2N3648	TO-46	400	40	2.70	1.80
2N3664	24	1 W	60	8.60	5.75
2N3712	TO-5	500	150	2.25	1.50
2N3734	TO-5	1 W	50	6.00	4.00
2N3735	TO-5	1 W	50	6.00	4.00
2N3736	TO-46	500	75	6.60	4.40
2N3737	TO-46	500	75	6.60	4.40
2N3742	TO-5	1 W	300	12.60	8.40
2N3818	TO-60	25 W	60	45.00	30.00
2N3866	TO-39	.....	55	5.15	3.42
2N3903	29	310	60	.75	.50
2N3904	29	310	60	.82	.55
2N3924	TO-39	7 W	36	5.15	3.42
2N3925	24	10 W	36	14.70	9.80
2N3926	TO-60	11.6W	36	23.90	15.95
2N3927	TO-60	23 W	36	34.20	22.80
2N3946	TO-18	360	60	2.40	1.60
2N3947	TO-18	360	60	2.75	1.85
2N3959	TO-18	750	20	10.50	7.00
2N3980	TO-18	750	20	13.10	8.75
2N3981	.....	10 W	65	14.70	9.80
2N4123	29	310	40	.52	.35
2N4124	29	310	30	.60	.40
2N4264	29	310	15	.60	.40
2N4265	29	310	12	.67	.45
MM1803	29	2 W	50	11.70	7.80
MM1941	29	600	30	1.95	1.30
MM1943	29	600	40	3.00	2.00
MM2483	TO-18	360	60	4.50	3.00
MM2484	TO-18	360	60	5.25	3.50
MPS706	29	300	25	.45	.30
MPS834	29	300	40	.52	.35
MPS918	29	200	30	1.30	.87
MPS2711	29	310	18	.40	.27
MPS2712	29	310	18	.43	.29
MPS2713	29	310	18	.48	.32
MPS2714	29	310	18	.51	.34
MPS2715	29	310	18	.57	.38
MPS2716	29	310	18	.60	.40
MPS2923	29	310	25	.43	.29
MPS2924	29	310	25	.51	.34
MPS2925	29	310	25	.60	.40
MPS3392	29	310	25	.51	.34
MPS3393	29	310	25	.40	.27
MPS3394	29	310	25	.39	.26
MPS3395	29	310	25	.58	.39
MPS3396	29	310	25	.54	.36

(CONT'D IN NEXT COLUMN)

NPN EPITAXIAL PASSIVATED TRANSISTORS (SILICON) CONT.

Type	Case	PdmW	BVCBO	1-99	100-up
MPS3397	29	310	25	.48	.32
MPS3398	29	310	25	.57	.38
MPS3563	29	310	30	.57	.38
MPS3638	29	310	25	.46	.31
MPS3638A	29	310	25	.76	.51
MPS3646	29	310	40	.69	.46
MPS3707	29	310	30	.60	.40
MPS3708	29	310	30	.48	.32
MPS3709	29	310	30	.45	.30
MPS3710	29	310	30	.49	.33
MPS3711	29	310	30	.54	.36
MPS6512	29	310	40	.54	.36
MPS6513	29	310	40	.57	.38
MPS6514	29	310	40	.60	.40
MPS6515	29	310	40	.64	.43
MPS6520	29	310	40	.82	.55
MPS6521	29	310	40	.90	.60

Tc = 25°C

AUDIO 2-WATT

Type	Case	P. Watts	BVCBO hFE	Typical hFE	1-99	100-up
2N176	TO-3	90	45	45	1.20	.87
2N554	TO-3	40	50	50	.60	.40
2N555	TO-3	40	50	50	.75	.50
2N669	TO-3	90	90	90	1.42	.95

AUDIO 4-WATT

2N350A	TO-3	40	30	30	1.65	1.10
2N351A	TO-3	40	45	45	1.70	1.15
2N376A	TO-3	40	60	60	1.85	1.25

FIELD EFFECT TRANSISTORS

N-CHANNEL JUNCTION FIELD EFFECT TRANSISTORS

Type	Case	rds(on) Ohms	Yfs min/max umhos	V(BR) GSS Min(V)	mA Idss min/max	1-99	100-999
2N3821	TO-18	.....	1500/4500	50	0.5/2.5	22.40	14.95
2N3822	TO-18	.....	3000/6500	50	2/10	21.65	14.45
2N3824	TO-18	250*	.....	50	.....	14.15	9.45
2N4220	TO-18	500	1000/4000	30	0.5/3	2.85	1.90
2N4221	TO-18	400	2000/5000	30	2/6	2.85	1.90
2N4222	TO-18	300	2500/6000	30	5/15	2.85	1.90
2N4223	TO-18	.....	3000/7000	30	3/18	5.85	3.90
2N4224	TO-18	.....	2000/7500	30	2/20	3.65	2.45
3N124	TO-18	1000	500/2000	50	0.2/2.0	4.35	2.90
3N125	TO-18	750	800/2400	50	1.5/4.5	4.35	2.90
3N126	TO-18	500	1200/3600	50	3.0/9.0	4.35	2.90
MFE2093	TO-18	2500	250/500	50	0.1/0.7	2.85	1.90
MFE2094	TO-18	1600	350/700	50	0.4/1.4	2.85	1.90
MFE2095	TO-18	1300	400/800	50	1.0/3.0	2.85	1.90

INSULATED GATE FIELD EFFECT TRANSISTORS

Type	Case	rds (Ω)	Yfs min/max	Chan- nel	nA	1-99	100-999
2N3796	TO-18	.....	900/1300	N	0.5/0.3	13.50	9.00
2N3797	TO-18	1500/2100	P	2.0/6.0	16.50	11.00
2N4351	TO-18	300*	1000/—	N	10	6.75	4.50
2N4352	TO-18	600*	1000/—	N	5	6.75	4.50

* Maximum.

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84 popular, first-quality rectifiers and molded bridges in ratings you need most for lab and benchwork requirements—0.25 to 35 amps, 200 to 3,000 volts.



Nom. Volt.	Unit Cost ±5% tolerance	Quantity in Kit	Actual Value 100-up	
3.3	1.45 (100-up)	4	5.80	
3.6		4	5.80	
3.9		2	2.90	
4.3		2	2.90	
4.7		3	4.35	
5.1		4	5.80	
5.6		4	5.80	
6.2		4	5.80	
6.8		4	5.80	
7.5		3	4.35	
8.2		5	7.25	
9.1		3	4.35	
10		5	7.25	
11		1	1.45	
12		4	5.80	
13		2	2.90	
15		5	7.25	
16		2	2.90	
18		5	7.25	
20		4	5.80	
22		2	2.90	
24		3	4.35	
27		1.45 (100-up)	2	2.90
30			3	4.35
33	2		2.90	
36	2		2.90	
39	1		1.45	
43	1		1.45	
47	1		1.45	
51	2		2.90	
56	2		2.90	
62	1		1.45	
68	2		2.90	
75	2		2.90	
82	1		1.45	
91	1		1.45	
100	2		2.90	
Total			100	145.00

9 3/4 x 7 1/2 x 6 1/2 Styre. Cab. 3.00

TOTAL **148.00**

MZK-100 YOUR COST **79.00**
You save **69.00**

Type No.	Ratings		Quantity in Kit	Cost (1-99)
	Amperes	Volts		
RECTIFIERS				
MR994	0.25	3000	4	31.80
IN4003	1.0	200	8	4.80
IN4004	1.0	400	12	8.05
IN4007	1.0	1000	4	7.20
IN4721	3.0	200	4	2.68
IN4722	3.0	400	8	7.75
IN4725	3.0	1000	4	25.40
MR1122	12.00	200	4	4.72
MR1124	12.00	400	8	12.00
MR1128	12.00	800	4	22.40
IN1186	35.0	200	4	13.80
IN1188	35.0	400	4	23.40
IN1190	35.0	600	4	27.60

BRIDGES				
MDA920-4	1.0	200	2	4.50
MDA920-6	1.0	400	2	4.80
MDA942-3	1.5	700	2	5.30
MDA942-5	1.5	400	2	6.20
MDA952-3	6.0	200	1	4.45
MDA952-5	6.0	400	1	6.00
MDA962-3	10.0	200	1	4.85
MDA962-5	10.0	400	1	6.40
Total			84	234.10

Value of Styrene Cabinet 3.00

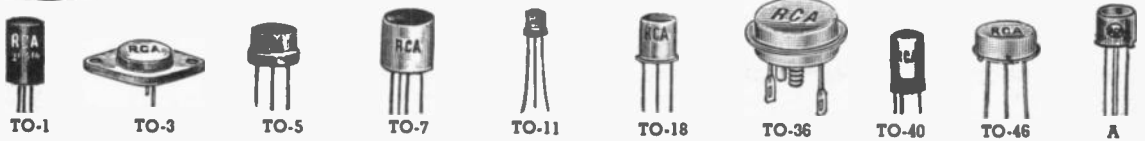
TOTAL VALUE **237.10**

MRK-200. YOUR COST **94.50**
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TRANSISTORS FOR AF APPLICATIONS SMALL SIGNAL TYPES

GERMANIUM PNP

Pt: to 150 mw.

Type	Pkg.	Pt. @ 25°C mw	VCB Volts	ICBO (max.) μa	ft (typ.) Mc/s	1-99	100- 999
2N175	TO-40	20	10	12	0.85	1.64	1.13
2N220	TO-1	20	10	12	0.85	1.52	1.05
2N591	TO-1	50	32	7	0.7	.48	.34
2N2613	TO-1	100	30	5	10	.55	.38
2N2614	TO-1	100	40	5	10	.50	.35
40263	TO-1	120	20	.....	10	.42	.29
2N104	TO-40	150	30	10	0.7	1.65	1.14
2N215	TO-1	150	30	10	0.7	1.73	1.20
2N405	TO-40	150	20	14	0.65	.37	.25
2N406	TO-1	150	20	14	0.65	.33	.23

SILICON NPN

Pt: to 5 watts

Type	Pkg.	Pt. @ 25°C Watts	VCB Volts	ICBO μa (max.)	ft (typ.) Mc/s	1-99	100- 999
40231	A	500	18	0.5	60	.47	.32
40232	A	500	18	0.5	60	.53	.37
40233	A	500	18	0.25	60	.60	.42
40234	A	500	18	0.25	60	.42	.29
2N718A	TO-18	1800	75	0.01	100	1.08	.72
2N720A	TO-18	1800	120	0.01	100	1.32	.88
2N2895	TO-18	1800	120	0.002	120*	1.41	.97
2N2896	TO-18	1800	140	0.01	120*	2.06	1.43
2N2897	TO-18	1800	60	0.05	100*	1.16	.80
2N2900	TO-46	1800	60	0.05	100*	1.90	1.31
40084	TO-18	1800	60	0.25	100*	.99	.69
2N2102	TO-5	5000	120	0.002	60*	1.41	.97
2N2270	TO-5	5000	60	0.1	100*	1.16	.80
2N2405	TO-5	5000	120	0.01	120*	2.06	1.43
2N3053/							
40053	TO-5	5000	60	0.25	100*	.99	.69
40400	B	500	18	0.5	90	.50	.35
40397	B	500	25	0.1	90	.66	.46
40398	B	500	25	0.1	90	.60	.42
2N4074	B	500	40	0.01	.....	.73	.51

GERMANIUM NPN

Type	Pkg.	Pt. @ 25°C mw	VCB Volts	ICBO (max.) μa	ft (typ.) Mc/s	1-99	100- 999
2N1010	TO-1	20	10	10	2½	2.89	2.00

GERMANIUM PNP

Pt: to 150 watts

Type	Pkg.	Pt. @ 25°C Watts	VCB Volts	ICBO (max.) μa	ft (typ.) Mc/s	1-99	100- 999
2N407	TO-40	0.15	20	14	.....	.42	.29
2N408	TO-1	0.15	20	14	.....	.38	.27
2N109	TO-40	0.165	35	14	1.0½	.60	.41
2N217	TO-1	0.165	35	14	1.0½	.52	.36
40329	TO-1	0.25	.....	14	1.5	.38	.27
40395	TO-1	0.22	.....	14	1	.38	.27
2N270	TO-7	0.25	25	16	1	.70	.48
2N2953	TO-1	0.30	30	5	1	.50	.35
40253	TO-1	0.65	25	14	1	.53	.37
2N1183	TO-8	7.5	45	30	0.5*½	1.82	1.25
2N1183A	TO-8	7.5	60	30	0.5*½	2.31	1.60
2N1183B	TO-8	7.5	80	30	0.5*½	2.89	2.00
2N1184	TO-8	7.5	45	30	0.5*½	2.48	1.71
2N1184A	TO-8	7.5	60	30	0.5*½	2.81	1.94
2N1184B	TO-8	7.5	80	30	0.5*½	4.13	2.85
2N176	TO-3	10	40	3 ma	.....	1.31	.79
2N351	TO-3	10	40	3 ma	.....	1.73	1.20
2N301						1.52	1.05
2N301A						3.15	2.18
2N2147	TO-3	12.5	75	1 ma	4.0	2.06	1.43
2N2148	TO-3	12.5	60	100	3.0	1.24	.86
40022	TO-3	12.5	32	500	0.3	.83	.57
40050	TO-3	12.5	40	500	0.5	1.13	.78
40051	TO-3	12.5	50	1 ma	0.5	1.29	.89
40254	TO-3	12.5	32	3 ma	0.3	.78	.54
2N2869/							
2N301	TO-3	30	60	500	0.45	1.52	1.05
2N2870/							
2N301A	TO-3	30	80	500	0.45	3.15	2.18
2N1905	TO-3	50	60	500	7.5	4.13	2.85
2N1906	TO-3	50	100	500	7.5	6.60	4.56
2N173	TO-36	150	60	100†	.....	3.75	2.59
2N174	TO-36	150	80	100†	.....	4.01	2.77
2N277	TO-36	150	40	100†	.....	2.72	1.88
2N278	TO-36	150	50	100†	.....	3.10	2.14
2N441	TO-36	150	40	100†	.....	2.23	1.54
2N442	TO-36	150	50	100#	.....	2.31	1.60
2N443	TO-36	150	60	100#	.....	2.39	1.65
2N1099	TO-36	150	80	100#	.....	4.31	2.98
2N1100	TO-36	150	100	100#	.....	5.02	3.47
2N1358	TO-36	150	80	200	.....	4.59	3.17
2N1412	TO-36	150	100	100#	.....	5.76	3.98

* I_{ceo}
** free-air temperature
† ft/hb

† ft: min
I_{cb0}: typ
†† @ 50 C.

LARGE SIGNAL TYPES

SILICON NPN

PT: to 50 watts

Type	Pkg.	Pt. @ 25°C Watts	VCB Volts	ICBO μa (max.)	ft (typ.) Mc/s	1-99	100- 999
2N699	TO-5	2	120	2	50	1.57	1.09
2N1711	TO-5	3	75	0.01	70†	1.16	.80
2N1479	TO-5	5	60	10	.....	2.15	1.48
2N1480	TO-5	5	100	10	.....	2.31	1.60
2N1481	TO-5	5	60	10	.....	2.48	1.71
2N1482	TO-5	5	100	10	.....	3.30	2.28
2N1700	TO-5	5	60	75	.....	1.90	1.31
2N3585	TO-66	5	500	5 ma	10†	13.20	9.10
40309	TO-5	5	18*	0.25	100	.70	.48
40311	TO-5	5	30*	0.25	100	.73	.51
40314	TO-5	5	40*	0.25	100	.78	.54
40315	TO-5	5	35*	0.25	100	.75	.52
40317	TO-5	5	40*	0.25	100	.78	.54
40320	TO-5	5	40*	0.25	100	.78	.54
40321	TO-5	5	300*	100	.....	1.24	.86
40322	TO-5	5	18*	0.25	100	.70	.48
40326	TO-5	5	40*	0.25	100	.78	.54
40327	TO-5	5	300*	5	.....	1.24	.86
40407	TO-5	1	.....	.....	100	.81	.56
40408	TO-5	1	.....	.....	100	1.08	.75
40409	TO-5	1	.....	.....	100	1.14	.79
40360	TO-5	5	.....	.....	100	1.03	.71
40361	TO-5	5	.....	.....	100	1.04	.72
40347	TO-5	5	60	1*	.....	.80	.55
40348	TO-5	5	90	1*	.....	1.06	.73
40349	TO-5	5	160	10*	.....	1.56	1.08
40250V1	N	5.8**	50	1*	.....	1.65	1.14
40364	TO-66	35	.....	.....	15	4.46	3.08
2N3584	TO-66	7.5	375	5 ma	10†	6.60	4.56
2N3583	TO-66	15	250	10 ma	10†	3.30	2.28
2N1483	TO-8	25	60	15	.....	2.89	2.00
2N1484	TO-8	25	100	15	.....	3.63	2.51
2N1485	TO-8	25	60	15	.....	4.46	3.08
2N1486	TO-8	25	100	15	.....	6.77	4.67
2N1701	TO-8	25	60	100	.....	2.31	1.60
2N3054	TO-66	25	90	.....	1.0	2.06	1.43
40250	TO-66	29	40*	1 ma	1	1.57	1.09
40310	TO-66	29	35*	10	0.75	1.21	.84
40312	TO-66	29	60	10	0.75	1.26	.87
40316	TO-66	29	40	10	0.75	1.21	.84
40324	TO-66	29	35	10	0.75	1.21	.84
40313	TO-66	35	300	5 ma	.....	2.23	1.54
40318	TO-66	35	300	.....	.....	2.10	1.45
40322	TO-66	35	300	.....	.....	2.15	1.48
40328	TO-66	35	300	.....	.....	2.19	1.52

SILICON PNP

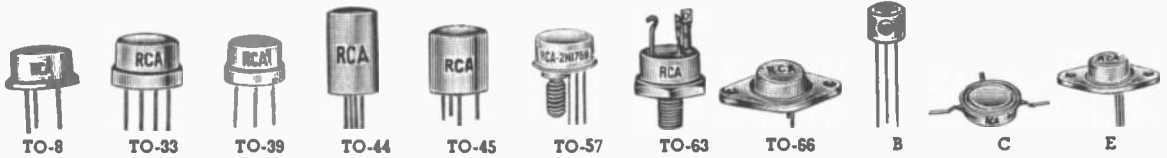
PT: to 50 watts

Type	Pkg.	Pt. @ 25°C Watts	VCB Volts	ICBO μa (max.)	ft (typ.) Mc/s	1-99	100- 999
40319	TO-5	5	40	0.25	0.75	1.32	.92
40406	TO-5	1	100	1.36	.94
40410	TO-5	3††	100	1.64	1.13
40362	TO-5	5	100	1.46	1.01

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TRANSISTORS FOR AF APPLICATIONS (Cont.)

LARGE SIGNAL TYPES (Cont.)
SILICON NPN Pt: 50 to 150 watts

Type	Pkg.	Pt. @ 25° w	VCB Volts	ICBO (max.) μ A	fT (typ.) Mc/s	1-99	100-999
2N1487	TO-3	75	40	25	.....	4.54	3.14
2N1488	TO-3	75	55	25	.....	4.95	3.42
2N1489	TO-3	75	40	25	.....	7.43	5.13
2N1490	TO-3	75	55	25	.....	8.25	5.70
2N1702	TO-3	75	40	200	.....	4.54	3.14
2N3263	C	75	90	4ma	20 Min	99.00	68.40
2N3264	C	75	60	10ma	20 Min	66.00	45.60
2N3055	TO-3	115	60	.....	0.5	2.89	2.00
2N3442	TO-3	117	140	5ma	.....	4.95	3.42
40251	TO-3	117	40**	5ma	0.5	2.89	2.00
40325	TO-3	117	35	5ma	0.7	2.48	1.71

Type	Pkg.	Pt. @ 25° w	VCB Volts	ICBO (max.) μ A	fT (typ.) Mc/s	1-99	100-999
40363	TO-3	115	.....	.....	0.7	2.48	1.71
40411	TO-3	150	.....	.....	.....	5.61	3.88
2N3265	TO-63	125	90	4ma	20 Min	99.00	68.40
2N3266	TO-63	125	60	10ma	20 Min	66.00	45.60
2N2015	TO-36	150	50	50	.....	9.08	6.25
2N2016	TO-36	150	65	50	.....	9.90	6.85
2N2338	TO-36	150	40	200	.....	6.80	4.56

GERMANIUM NPN

2N647	TO-1	0.1	25	.....	.....	1.08	.75
2N649	TO-1	0.1	20	.....	.....	.86	.60
40396	TO-1	0.22	.....	0.01	1	.83	.57

TRANSISTORS FOR RF APPLICATIONS

UHF & VHF SMALL-SIGNAL TYPES
SILICON NPN fT: to 1000 Mc

Type	Pkg.	f _{hfb} (Typ.) Mc/s	hFE (Typ.) @ I _c		VCB (max.) volts	1-99	100-999
			hFE	ma			
2N3478	TO-72	900*	9.0	2	30	1.90	1.31
2N2857	TO-72	1000*†	50†	2	30	16.50	11.40
40294	Like 2N2857, but for use in critical military applications.					33.40	23.10
40296	Like 2N2857, but for use in critical military applications.					48.70	.....
2N2708	TO-72	700*†	30†	2	35	4.95	3.42
40295	Like 2N2708 but for critical military applications.					14.85	10.25
2N3600	TO-72	850*†	8.5*†	5	30	5.78	3.99

Type	Pkg.	f _{hfb} (Typ.) Mc/s	hFE (Typ.) @ I _c		VCB (max.) volts	1-99	100-999
			hFE	ma			
2N918	TO-72	600*†	.....	.....	30	5.78	3.85
2N917	TO-72	500*†	.....	.....	30	4.95	3.30
2N3933	TO-72	750*†	7.5	2	40	2.31	1.60
2N3932	TO-72	750*†	7.5	2	30	2.06	1.43
40238	A	900*†	For TV IF		35	.73	.51
40239	A	900*†	For TV IF		35	.71	.50
40240	A	900*†	For TV IF		35	.70	.48
40235	A	1200*	For TV Tuner		35	.88	.61
40242	A	.....	For FMRF stages		35	.83	.57

GERMANIUM PNP

2N1178	TO-45	140	48	1	30	.81	.56
2N1179	TO-45	140	80	1	30	.81	.56
2N1177	TO-45	140	100	1	30	.83	.57
2N1023	TO-44	120	60	1.5	40	2.72	1.88
2N1066	TO-33	30	60	1.5	40	1.98	1.37
2N1397	TO-33	120	90	1.5	40	2.15	1.48

2N384	TO-44	100	60	1.5	40	1.65	1.14
40005	TO-44 version of 2N1396					1.82	1.25
40006	TO-44 version of 2N1397					3.30	2.28
2N1225	TO-33	100	60	1.5	40	1.41	.97
2N1396	TO-33	100	90	1.5	40	1.65	1.14

IF, RF, AND VIDEO AMPLIFIER TYPES

GERMANIUM PNP

f_T: to 30 Mc

Type	Pkg.	f _{hfb} (Typ.) Mc/s	hFE (Typ.) @ I _c		VCB (max.) volts	1-99	100-999
			hFE	ma			
2N370	TO-7	30	100	1	24	.81	.56
2N1226	TO-33	30	60	1.5	60	1.49	1.03
2N274	TO-44	30	60	1.5	40	1.24	.86
2N1224	TO-33	30	60	1.5	40	1.24	.86
2N1395	TO-33	30	90	1.5	40	1.49	1.03
2N1285	TO-33	.....	30	1.5	40	1.72	1.19
40004	TO-44	Version of 2N1395			.....	1.65	1.14
2N1180	TO-45	100	80	1.5	30	.68	.47
2N1631	TO-40	45	80	1.0	34	.53	.37
2N1632	TO-1	45	80	1	34	.49	.34
2N1637	TO-1	45	80	1	34	.52	.36
40262	TO-1	30	150	1	50	.40	.28
2N139	TO-40	4.7	48	1	16	1.16	.80
2N218	TO-1	4.7	48	1	16	1.16	.80
2N410	TO-1	6.7	48	1	13	.40	.28
2N1524	TO-1	33	60	1	24	.40	.28
2N1525	TO-40	33	60	1	24	.43	.30
2N1638	TO-1	40	75	1	34	.45	.31

SILICON NPN

Type	Pkg.	f _{hfb} (Typ.) Mc/s	hFE (Typ.) @ I _c		VCB (max.) volts	1-99	100-999
			hFE	ma			
40080	TO-5	For CB Transmitters			.....	1.08	.75
40081	TO-5	For CB Transmitters			.....	1.65	1.14
40082	TO-39	For CB Transmitters			.....	5.69	3.93
40245	A	For FM IF Amplifier Stages			35	.71	.50
40246	A	For FM IF Amplifier Stages			35	.70	.48

* f_T
**V_{ceo} (sus)
† minimum

TELEVISION DEFLECTION TYPES

GERMANIUM PNP GRADED BASE

Type	Pkg.	PT @ 55°C Watts	VCB Volts	ICBO (max.) μ A	T (max.) °C	1-99	100-999
2N3730	TO-3	10	-200	-200	85	1.24	.86
2N3731	TO-3	5	-320	-200	85	1.62	1.12
2N3732	TO-3	3	-100	-200	85	1.08	.75

TELEVISION VIDEO OUTPUT TYPES

Type	Pkg.	PT @ 25°C Watts	VCE Volts	ICBO (max.) μ A	T (max.) °C	1-99	100-999
40354	B	0.5	150	0.2	175	1.18	.81
40355	B	1	150	0.2	175	1.24	.86

CONVERTER, OSCILLATOR & MIXER TYPES

GERMANIUM PNP

f_T: to 120 Mc

Type	Pkg.	f _{hfb} (Typ.) Mc/s	hFE (Typ.) @ I _c		VCB (max.) volts	1-99	100-999
			hFE	ma			
2N1178	TO-45	140	40	1	30	.81	.56
2N1179	TO-45	140	80	1	30	.81	.56
2N372	TO-7	30	80	1	24	.80	.55
40261	TO-1	40	80	1	50	.41	.28
2N1526	TO-1	33	130	1	24	.41	.28
2N1527	TO-40	33	130	1	24	.47	.32
2N1639	TO-1	45	75	1	34	.48	.34
2N140	TO-40	10	75	0.6	16	1.24	.86
2N219	TO-1	10	75	0.6	16	1.24	.86
2N411	TO-40	10	75	0.6	13	.47	.32
2N412	TO-1	10	75	0.6	13	.43	.30

NEWARK CARRIES THE COMPLETE LINE OF RCA SEMICONDUCTORS



Semiconductors



TO-1



TO-3



TO-5



TO-8



TO-11



TO-18



TO-36



TO-39



TO-45

TRANSISTORS FOR RF APPLICATIONS

CONVERTER, OSCILLATOR, & MIXER TYPES

SILICON NPN

Type	Pkg.	hfb (Typ.) Mc/s	hFE (Typ.) @ Ic mA	VCB (max.) volts	1-99		100-999	
					1-99	100-999	1-99	100-999
40236	A		For TV Tuner	35	.80	.55		
40237	A		For TV Tuner	35	.66	.46		
40243	A		For FM Mixer Stages	35		.53		
40244	A		For FM Oscillator Stages	35	.66	.46		

GERANIUM COMPENSATING DIODE

Type	VR (max.)	IF (max.)	EFWD @25 C	1-99	100-999
1N2328	1.0 V	100mA	135mV	.50	.35

UHF & VHF LARGE-SIGNAL (POWER) TYPES

SILICON NPN

fT: to 550 Mc

Type	Pkg.	fT (Typ.) Mc/s	VCBO (Max.) watts	PT watts	1-99	100-999
2N3733	TO-60	400	65	23	49.50	34.20
2N3375	TO-60	500	65	11.6	33.10	15.95
40279	Ultra-High Reliability Version of 2N3375					
2N3632	TO-60	400	65	23	33.00	22.80
2N3553	TO-39	500	65	7	4.95	3.42
40282	TO-60	350	36	23.2	33.00	22.80
40281	TO-60	400	36	11.6	23.10	15.95
40280	TO-39	550	36	7	4.62	3.19
40292	TO-60	300	.....	23.2	33.00	22.80
40290	TO-39	500	.....	7	4.79	3.31
40291	TO-60	500	.....	11.6	14.85	10.25
2N1493	TO-39	180*	100	3	7.01	4.85
2N1491	TO-39	180*	30	3	1.82	1.25
2N3229	TO-60	200	105	17.5	46.20	31.90
2N2876	TO-60	200	80	17.5	21.10	14.60
2N2831	TP-39	200	80	8.75	7.10	4.90
2N3118	TO-5	250	.....	4	4.95	3.42
2N699	TO-5	50*	120	2	1.57	1.05
40341	TO-60	.....	80	70	33.00	22.80
40340	TO-60	.....	60	70	33.00	22.80
2N3886	TO-39	900	55	5	4.92	3.42

TRANSISTORS FOR POWER SWITCHING APPLICATIONS

MEDIUM POWER TYPES

GERMANIUM PNP

Pt: to 50 watts

Type	Pkg.	Pt (max) @ 25°C watts	hFE (min) @ Ic		VCE (sat) (max.) @ IC		1-99	100-999
			hFE	amp	v.	amp		
2N1183	TO-8	7.5	20	0.4	0.5	0.4	1.82	1.25
2N1184	TO-8	7.5	40	0.4	0.5	0.4	2.48	1.71
2N1183A	TO-8	7.5	20	0.4	0.5	0.4	2.31	1.60
2N1184A	TO-8	7.5	40	0.4	0.5	0.4	2.81	1.94
2N1183B	TO-8	7.5	20	0.4	0.5	0.4	2.89	2.00
2N1184B	TO-8	7.5	40	0.4	0.5	0.4	4.13	2.85
2N2869/2N301	TO-3	30	50	1	0.75	10	1.52	1.05
2N2870/2N301A	TO-3	30	50	1	0.75	10	3.15	2.18
2N1905	TO-3	50	50	1	1	1	4.13	2.85
2N1906	TO-3	50	75	5	1	5	6.60	4.56

SILICON NPN

Pt: to 25 watts

Type	Pkg.	Pt (max) @ 25°C watts	hFE (min) @ Ic		VCE (sat) (max.) @ IC		1-99	100-999
			hFE	amp	v.	amp		
2N3262	TO-39	8.75	40	0.5	0.6	1	9.90	6.85
40255	D	10	40	0.02	0.5	0.05	4.79	3.31
40256	D	10	40	0.02	0.5	0.05	2.72	1.88
2N3231*	F	20	2000	2.0	2	2	99.00	68.40
2N1483	TO-8	25	20	0.75	2	0.75	2.89	2.00
2N1485	TO-8	25	35	0.75	0.75	0.75	4.48	3.08
2N1701	TO-8	25	20	0.3	1.5	0.3	2.31	1.60
2N3054	TO-66	25	20	0.5	1.0	0.5	2.06	1.43
40250V1	N	5.8	25	1.5	1.5	1.5	1.65	1.14
40092	TO-5	7	50	0.15	1.4	0.15	1.08	.75

TRANSISTORS FOR POWER SWITCHING APPLICATIONS

MEDIUM POWER TYPES (Continued)

SILICON NPN

Pt: to 5 watts

Type	Pkg.	Pt (max) @ 25°C watts	hFE (min) @ Ic		VCE (sat) (max.) @ IC		1-99	100-999
			hFE	amp	v.	amp		
2N718A	TO-18	1.8	40	0.15	1.2	0.05	1.08	.72
2N720A	TO-18	1.8	40	0.15	1.5	0.15	1.32	.88
2N697	TO-5	2	40	0.15	1.5	0.15	.81	.54
2N1613	TO-5	3	35	0.01	1.5†	0.15	1.08	.72
2N1893	TO-5	3	40	0.15	1.2†	0.05	1.32	.88
2N3119	TO-5	4	40	0.01	0.5†	0.1	5.36	3.71
40082	TO-39	5	.....	.....	.....	.....	5.69	3.93
2N3053/40053	TO-5	5	50	0.15	1.4†	0.15	.99	.69
2N1479	TO-5	5	20	0.2	1.4†	0.2	2.15	1.48
2N1481	TO-5	5	35	0.2	1.4†	0.2	2.48	1.71
2N1700	TO-5	5	20	0.1	1.0†	0.1	1.90	1.31
2N2270	TO-5	5	35	0.001	0.9†	0.15	1.16	.80
2N2405	TO-5	5	60	0.15	0.2†	0.05	2.06	1.43
2N1480	TO-5	5	20	0.2	1.4†	0.2	2.31	1.60
2N1482	TO-5	5	35	0.2	1.4†	0.2	3.30	2.28
2N2102	TO-5	5	35	0.01	0.5†	0.15	1.41	.97
2N3439	TO-5	5	40	0.02	0.5†	0.02	4.13	2.85
2N3440	TO-5	5	40	0.02	0.5†	0.02	2.06	1.43
40389	TO-5	3.5	50	0.15	1.4	0.15	1.08	.75
40390	TO-5	3.9	40	0.02	0.5	0.02	2.15	1.48
40347	TO-5	5	20	0.45	1	0.45	.80	.55
40360	TO-5	5	40	0.01	1.4	0.15	1.03	.71
40361	TO-5	5	70	0.05	1.4	0.15	1.04	.72
40348	TO-5	5	30	0.3	0.75	0.3	1.06	.73
40349	TO-5	5	24	0.15	0.5	0.15	1.56	1.08

SILICON NPN

Pt: to 50 watts

Type	Pkg.	Pt (max) @ 25°C watts	hFE (min) @ Ic		VCE (sat) (max.) @ IC		1-99	100-999
			hFE	amp	v.	amp		
40375	TO-66	5.8*	50	0.5	2	4	4.62	3.19
40372	TO-66	29	20	0.5	1	0.5	2.15	1.48
40373	TO-66	29	20	0.5	1.0	0.5	2.97	2.05
40374	TO-66	35	10	1	.....	.....	3.38	2.34
2N3879	TO-66	35	40	0.5	1.2	4	5.36	3.71
2N3878	TO-66	35	50	0.5	2	4	4.54	3.14
2N1484	TO-8	25	20	0.75	2	0.75	3.63	2.51
2N1486	TO-8	25	35	0.75	0.75	0.75	6.77	4.67
2N3230*	F	25	2000	2	2	2	66.00	45.60
2N3441	TO-66	25	20	0.5	1	0.5	2.89	2.00
40250	TO-66	29	25	1.5	1	1.5	5.17	3.59
2N3583	TO-66	35	10	1	.....	.....	3.30	2.28
2N3584	TO-66	35	25	1	0.75	1	6.60	4.56
2N3585	TO-66	35	25	1	0.75	1	13.20	9.10

SILICON PNP

Type	Pkg.	Pt (max) @ 25°C watts	hFE (min) @ Ic	VCE (sat) (max.) @ IC	1-99	100-999
40391	TO-5	3.5	.....	-1.4	-0.15	1.39
2N4036	TO-5	7	.....	-0.65	-0.15	1.62
2N4037	TO-5	7	.....	-1.4	-1.4	1.31
40394	TO-5	7	.....	-1.4	-0.15	1.39

HIGH POWER TYPES

GERMANIUM PNP

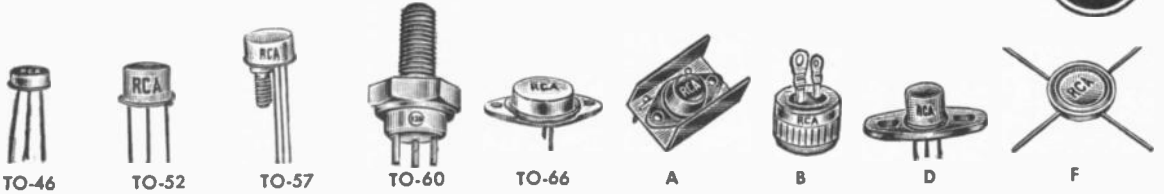
Pt: to 150 watts

Type	Pkg.	Pt (max) @ 25°C watts	hFE (min) @ Ic		VCE (sat) (max.) @ IC		1-99	100-999
			hFE	amp	v.	amp		
2N277	TO-36	150	35	5	0.7	12	2.72	1.88
2N441	TO-36	150	20	5	0.7	12	2.23	1.54
2N278	TO-36	150	35	5	0.7	12	3.10	2.14
2N442	TO-36	150	20	5	0.7	12	2.31	1.60
2N173	TO-36	150	35	5	0.7	12	3.75	2.59
2N174	TO-36	150	25	5	0.7	12	4.01	2.77
2N443	TO-36	150	20	5	0.7	12	2.39	1.65
2N1099	TO-36	150	35	5	0.3	12	4.31	2.98
2N1100	TO-36	150	25	5	0.3	12	5.02	3.47
2N1358	TO-36	150	25	0.5	0.7	12	4.59	3.17
2N1412	TO-36	150	25	0.5	0.7	12	5.76	3.98

* minimum hfb

† VCEV

‡ Two transistors and a diode internally connected to form a Darlington circuit. Diode connected across the output tran.



TRANSISTORS FOR POWER SWITCHING

HIGH-POWER TYPES

SILICON NPN Pt: to 150 watts

Type	Case	Pt (max) @ 25°C watts	hFE (min) @ Ic		VCE (set) (max) @ Ic		1-99	100- 999
			hFE	amp	v.	amp		
2N1487	TO-3	75	15	1.5	3	1.5	4.54	3.14
2N1489	TO-3	75	25	1.5	3	1.5	7.43	5.13
2N1702	TO-3	75	15	0.8	3.2	0.8	4.54	3.14
2N1703	TO-36	75	15	0.8	3.2	0.8	5.78	3.99
2N1488	TO-3	75	15	1.5	3	1.5	4.95	3.42
2N1490	TO-3	75	25	1.5	1	1.5	8.25	5.70
2N3263	C	84	25	15	0.75	15	99.00	68.40
2N3264	C	84	20	15	1.2	15	66.00	45.60
2N3055	TO-3	115	20	4.0	1.1	4	2.89	2.00
2N3442	TO-3	117	.....	.....	1.0	0.3	4.95	3.42
40251	TO-3	117	15	8.0	1.5	8	2.89	2.00
2N3265	TO-63	125	25	15	0.75	15	99.00	68.40
2N3266	TO-63	125	20	15	1.2	15	66.00	45.60
2N3238	TO-36	150	15	3.0	1.5	3	6.60	4.56
2N2015	TO-36	150	15	5.0	1.25	5	9.08	6.25
2N2016	TO-36	150	15	5.0	1.25	5	9.90	6.85
2N3771	TO-3	150	15	8	2*	15	5.78	3.99
2N3772	TO-3	150	15	10	1.4*	10	5.78	3.99
2N3773	TO-3	150	15	15	1.4*	8	7.84	5.42

*Pulsed

DIFFERENTIAL & OPERATIONAL AMPLIFIER TYPES

SILICON NPN fT: to 600 Mc

Type	Case	Pt (max) @ 25°C watts	hFE (min) @ Ic		VCE (set) (max) @ Ic		1-99	100- 999
			hFE	amp	v.	amp		
2N1613	TO-5	3	35	0.01	1.5	0.15	1.08	.72
2N2270	TO-5	5	35	0.001	0.9	0.15	1.16	.80
2N2102	TO-5	5	35	9.01	0.5	0.15	1.41	.97
2N3439	TO-5	5	40	0.02	0.5	0.02	4.13	2.85
2N3440	TO-5	5	40	0.02	0.5	0.02	2.08	1.43
40225	D	10	40	0.02	0.5	0.02	4.79	3.31
	D	10	40	0.02	0.5	0.02	2.72	1.88
40346	TO-5	5	25	0.01	0.5	0.01	1.14	.79

TRANSISTORS FOR COMPUTER SWITCHING

HIGH-VOLTAGE TYPES

GERMANIUM PNP VCB to 105 volts

Type	Case	hFE (min) @ Ic		Cob (max) pf	PT mw	VCB volts	1-99	100- 999
		hFE	Ma					
2N398	TO-5	20	5	.....	50	105	.99	.69
2N398A	TO-5	20	5	.....	150	105	1.08	.75
2N398B	TO-5	20	5	.....	250	105	1.24	.86
2N586	TO-7	30	250	.....	250	45	1.73	1.20

MEDIUM SPEED TYPES

GERMANIUM PNP fT: to 50 Mc/s

Type	Case	hFE (min) @ Ic		Cob (max) pf	PT mw	VCB volts	1-99	100- 999
		hFE	Ma					
2N395	TO-5	20	10	20	150	30	.50	.33
2N1303	TO-5	20	10	20	150	30	.53	.36
2N404	TO-5	24	24	20	150	25	.42	.28
2N404A	TO-5	24	24	20	150	40	.58	.39
2N581	TO-5	20	20	20	150	18	.50	.35
2N396	TO-5	30	10	20	150	30	.61	.41
2N1305	TO-5	40	10	20	150	30	.53	.36
2N414	TO-5	80	1	11	150	30	.42	.28
2N397	TO-5	40	10	20	150	30	1.11	.74
2N1307	TO-5	60	10	20	150	30	.75	.50
2N582	TO-5	40	24	20	150	25	.91	.63

TRANSISTORS FOR COMPUTER SWITCHING Cont.

MEDIUM SPEED TYPES

GERMANIUM NPN

Type	Case	hFE (min) @ Ic		Cob (max) pf	PT mw	VCB volts	1-99	100- 999
		hFE	Ma					
2N1309	TO-5	80	10	20	150	30	1.08	.75
2N1384	TO-11	20	200	.....	240	30	2.06	1.43
2N1300	TO-5	30	10	12	150	13	.91	.63
2N1301	TO-5	30	10	12	150	13	1.08	.72
2N1683	TO-5	50	10	12	150	13	1.65	1.14
2N585	TO-5	20	20	25	120	25	.99	.69
2N1302	TO-5	20	10	20	150	25	.45	.31
2N1605A	TO-5	24	24	20	200	40	1.26	.87
2N1090	TO-5	30	20	25	120	25	1.11	.77
2N388	TO-5	30	200	20	150	25	.50	.35
2N388A	TO-5	30	200	20	150	40	1.04	.72
2N1304	TO-5	40	10	20	150	25	.53	.37
2N1091	TO-5	40	20	25	120	25	1.41	.97
2N1306	TO-5	60	10	20	120	25	.75	.52
2N1308	TO-5	80	10	20	150	25	1.08	.75

HIGH SPEED TYPES

SILICON NPN

fT: to 600 Mc/s

Type	Case	IP amp	tol. %	Min. Ip/Iv	Max. C (pf)	1-99	100- 999	
								2N706	TO-18	20	10	6	300	25	.99	.66
40217	2N706 but in TO-52 pkg.						.99	.69
2N706A	TO-18	20	10	.....	300	25	1.19	.82
40218	2N706A but in TO-52 pkg.						1.19	.82
40222	2N2205 but in TO-52 pkg.						1.24	.86
2N2476	TO-5	20	150	10	600	60	2.89	2.00
2N2477	TO-5	40	150	10	600	60	3.30	2.28
2N914	TO-18	30	10	6	360	40	1.57	1.05
40221	2N914 but in TO-52 pkg.						1.57	1.09
2N708	TO-18	30	10	6	360	40	1.32	.89
40219	2N708 but in TO-52 pkg.						1.32	.92
2N834	TO-18	25	10	4	300	30	3.05	2.04
	VCES						3.05	2.11
40220	2N834 but in TO-52 pkg.						3.05	2.11
2N3512	TO-5	10	500	10	800	60	3.71	2.57
40283	TO-46	10	500	10	400	60	3.71	2.57
2N709	TO-18	15	30	3	300	15	1.65	1.14
2N2475	TO-18	20	50	3	300	15	2.56	1.71
2N2938	TO-52	25	10	4	300	25	2.15	1.48
2N3261	TO-52	40	10	3.5	300	40	3.30	2.28
2N3011	TO-18	30	10	4	360	30	2.06	1.63
2N2369A	TO-18	40	10	4	360	25	2.89	2.00

TUNNEL DIODES

For switching and microwave applications. Ip: 0.001 to 200 ma.

Type	IP amp	tol. %	Min. Ip/Iv	Max. C (pf)	1-99	100- 999
IN3129	0.02	5	8:1	20	7.59	5.24
IN3859	0.02	5	8:1	10	8.17	5.64
IN3858	0.01	5	8:1	8	6.52	4.50
IN3847	0.005	10	6:1	25	4.95	3.42

TUNNEL RECTIFIERS

For coupling uses. Ip: 0.5 and 1.0 Milliamperes. *IR=30ma.

Type	Max. Ip ma	Max VR mv		Min. VF (Volts) IF = 1ma	Max. C pf	1-99	100- 999
		IR=5ma	IR=10ma				
IN3863	0.5	300*	150	435	4	9.41	6.50
IN3861	1.0	300*	170	400	6	6.19	4.28
IN3862	1.0	300*	150	420	4	7.67	5.30

**Depend on NEWARK For All Semiconductors at OEM Prices
To Serve You Better — Seven Stocking Warehouses From Coast-to-Coast**



Semiconductors



TO-1



TO-3



TO-8



TO-48



TO-64



DO-1

SILICON CONTROLLED-RECTIFIERS (THYRISTORS)

TYPES FOR MILITARY AND INDUSTRIAL APPLICATIONS

IFRMS: 2 TO 35 AMPERES.

Type	Case	IFRMS @ TC		VRM (volts) max.		1-99	100-999
		amp	°C	non-rep	rep		
2N3528	TO-8	2	25*	330	200	1.63	1.12
2N3529	TO-8	2	25*	660	400	2.31	1.60
2N3228	TO-66	5	75	330	200	1.62	1.12
2N3525	TO-66	5	75	660	400	2.31	1.60
2N3870	K	35	65	150	100	4.70	3.25
2N3871	K	35	65	330	200	5.12	3.53
2N3872	K	35	65	660	400	7.18	4.96

Type	Case	IFRMS @ TC		VRM (volts) max.		1-99	100-999
		amp	°C	non-rep	rep		
2N3668	TO-3	12.5	80	150	100	2.89	2.00
2N3873	K	35	65	700	600	10.50	7.25
2N3896	L	35	65	150	100	4.95	3.42
2N3897	L	35	65	330	200	5.36	3.71
2N3898	L	35	65	600	400	7.43	5.13
2N3899	L	35	65	700	600	10.75	7.40

VRM (NON-REP): 35 TO 720 VOLTS

2N3669	TO-3	12.5	80	330	200	3.27	2.26
2N3670	TO-3	12.5	80	660	400	4.92	3.40
2N1845A	TO-48	16	80	225	150	5.94	3.96
2N1846A	TO-48	16	80	300	200	6.19	4.13
2N1848A	TO-48	16	80	400	300	7.01	4.68
2N1849A	TO-48	16	80	500	400	8.25	5.50
2N1850A	TO-48	16	80	600	500	9.90	6.60

2N685	TO-48	25	65	300	200	6.60	4.40
2N687	TO-48	25	65	400	300	7.43	4.95
2N688	TO-48	25	65	500	400	8.65	5.80
2N689	TO-48	25	65	600	500	10.30	6.90
2N690	TO-48	25	65	720	600	11.95	8.00

* IFRMS @ T_{ta}. † Pulsed.

BIDIRECTIONAL TYPES FOR INDUSTRIAL APPLICATIONS

Type	Case	IFRMS @ TC		VRM (volts) max.		1-99	100-999
		amp	°C	non-rep	rep		
40378	M	7	60	330	200	1.62	1.12

Type	Case	IFRMS @ TC		VRM (volts) max.		1-99	100-999
		amp	°C	non-rep	rep		
40379	M	7	60	660	400	2.31	1.60

SILICON (DIFFUSED-JUNCTION) RECTIFIERS

PRV: TO 1000 VOLTS AXIAL-LEAD TYPES FOR INDUSTRIAL AND CONSUMER-PRODUCT APPLICATIONS

Type	Case	PRV volts	IF avg. (Res or Ind) @ TFA=°C		Max. EFWD volts	1-99	100-999	
			amp	T				
1N2858A	DO-1	50	1	75	35	.37	.43	
1N2859A	DO-1	100	1	75	70	.38	.46	
1N3193	TO-1	200	0.75	75	1.2	.35	.57	
1N3253	Insulated version of 1N3193						.40	.46
1N2860A	DO-1	200	1	75	140	.40	.48	
1N2861A	DO-1	300	1	75	210	.43	.63	
1N3194	TO-1	400	0.75	75	1.2	.38	.65	
1N3254	Insulated version of 1N3194						.45	1.14

Type	Case	PRV volts	IF avg. (Res or Ind) @ TFA=°C		Max. EFWD volts	1-99	100-999	
			amp	T				
1N2862A	DO-1	400	1	75	280	.61	.43	
1N2863A	DO-1	500	1	75	350	.66	.46	
1N2864A	DO-1	600	1	75	420	.83	.57	
1N3195	TO-1	600	0.75	75	1.2	.66	.46	
1N3255	Insulated version of 1N3195						.70	.48
1N3196	TO-1	800	0.5	75	1.2	.91	.63	
1N3256	Insulated version of 1N3196						.94	.65
1N3563	TO-1	1000	0.4	75	1.2	1.65	1.14	

AXIAL-LEAD TYPES FOR TV AND RADIO RECEIVER APPLICATIONS

PVR: TO 500 VOLTS

Type	Case	If avg. @ TFA=°C (Res. or Ind.)		PRV volts	1-99	100-999
		amp	T			
1N1763A	DO-1	1	75	400	.42	.29
1N1764A	DO-1	1	75	500	.58	.40

Type	Case	If avg. @ TFA=°C (Res. or Ind.)		PRV volts	1-99	100-999
		amp	T			
40266	DO-1	2 w/cap load 105		100	.29	.20
40267	DO-1	2 w/cap load 105		200	.33	.23

SILICON (DIFFUSED-JUNCTION) RECTIFIERS — AXIAL-LEAD TYPES FOR MILITARY AND INDUSTRIAL APPLICATION

Type	Case	If avg. @ TFA=°C (Res. or Ind.)		PRV volts	1-99	100-999
		amp	T			
1N445B	DO-1	0.65	50	600	1.42	.95
1N536	DO-1	0.65	50	50	.45	.30
1N537	DO-1	0.75	50	100	.50	.33
1N538	DO-1	0.75	50	200	.53	.36
1N539	DO-1	0.75	50	300	.60	.40
1N443B	DO-1	0.75	50	400	.98	.65
1N540	DO-1	0.75	50	400	.68	.46
1N1095	DO-1	0.75	50	500	.88	.59
1N547	DO-1	0.75	50	600	.96	.64

TV DAMPER SERVICE

Type	Case	PRV volts	IF avg. (Res or Ind) @ TFA=°C		Max. EFDW volts	1-99	100-999
			amp	T			
1N4785	TO-3	320	7	85	.....	1.08	.75

TUBULAR SINGLE-ENDED TYPES FOR CONSUMER-PRODUCT APPLICATIONS

PRV: TO 400 VOLTS

1N3754	TO-1	100	0.125	65	1	.36	.22
1N3755	TO-1	200	0.125	65	1	.32	.22
1N3756	TO-1	400	0.125	65	1	.35	.24
40265	TO-1	400	0.125	65	1	.35	.24

WRITE — WIRE — OR PHONE FOR INFORMATION AND PRICES ON RCA SEMICONDUCTORS



DO-4



DO-5



CR-101



CR-201

SILICON (DIFFUSED-JUNCTION) RECTIFIERS (Cont.)

STUD-MOUNTED TYPES FOR MILITARY AND INDUSTRIAL APPLICATIONS

IF (AVG.): TO 40 AMPERES

Type	JEDEC Pkg.	PRV volts	IF avg. @TC=°C		Max. EFDW volts	1-99	100-999
			amp	°C			
1N1612	DO-4	50	5	135	1.5	1.07	.72
1N1612R	DO-4	50	5	135	1.5	1.07	.72
1N1613	DO-4	100	5	135	1.5	1.24	.83
1N1613R	DO-4	100	5	135	1.5	1.24	.83
1N1614	DO-4	200	5	135	1.5	1.90	1.27
1N1614R	DO-4	200	5	135	1.5	1.90	1.27
1N1615	DO-4	400	5	135	1.5	3.71	2.48
1N1615R	DO-4	400	5	135	1.5	3.71	2.48
1N1616	DO-4	600	5	135	1.5	5.36	3.58
1N1616R	DO-4	600	5	135	1.5	5.36	3.58
1N1341B	DO-4	50	6	150	0.65	1.16	.77
1N1341RB	DO-4	50	6	150	0.65	1.16	.77
1N1342B	DO-4	100	6	150	0.65	1.32	.88
1N1342RB	DO-4	100	6	150	0.65	1.32	.88
1N1344B	DO-4	200	6	150	0.65	2.15	1.43
1N1344RB	DO-4	200	6	150	0.65	2.15	1.43
1N1345B	DO-4	300	6	150	0.65	3.05	2.04
1N1345RB	DO-4	300	6	150	0.65	3.05	2.04
1N1346B	DO-4	400	6	150	0.65	3.96	2.64
1N1346RB	DO-4	400	6	150	0.65	3.96	2.64
40108	DO-4	50	10	150	0.60	.99	.69
40109	DO-4	100	10	150	0.60	1.16	.80
40110	DO-4	200	10	150	0.60	1.57	1.09
40112	DO-4	400	10	150	0.60	2.48	1.71
40114	DO-4	600	10	150	0.60	3.71	2.57
1N1199A	DO-4	50	12	150	0.55	1.24	.83
1N1199RA	DO-4	50	12	150	0.55	1.24	.83
40214	DO-5	600	18	150	0.65	4.21	2.91
1N250C	DO-5	220	20	150	0.6	2.72	1.82
1N250RC	DO-5	220	20	150	0.6	2.72	1.82
1N1195RA	DO-5	300	20	150	0.6	3.88	2.59
1N1196A	DO-5	400	20	150	0.6	4.95	3.30
1N1196RA	DO-5	400	20	150	0.6	4.95	3.30
1N1197RA	DO-5	500	20	150	0.6	5.94	3.96
1N1198A	DO-5	600	20	150	0.6	7.01	4.68
1N1198RA	DO-5	600	20	150	0.6	7.01	4.68
1N1183A	DO-5	50	40	150	0.65	2.15	1.43

Type	JEDEC Pkg.	PRV volts	IF avg. @TC=°C		Max. EFDW volts	1-99	100-999
			amp	°C			
1N1184A	DO-5	100	40	150	0.65	2.48	1.65
1N1186A	DO-5	200	40	150	0.65	3.55	2.37
1N1186RA	DO-5	200	40	150	0.65	3.55	2.37
1N1187A	DO-5	300	40	150	0.65	4.95	3.30
1N1187RA	DO-5	300	40	150	0.65	4.95	3.30
1N1188RA	DO-5	400	40	150	0.65	6.19	4.13
1N1189A	DO-5	500	40	150	0.65	7.43	4.95
1N1189RA	DO-5	500	40	150	0.65	7.43	4.95
1N1190A	DO-5	600	40	150	0.65	8.65	5.80
1N1190RA	DO-5	600	40	150	0.65	8.65	5.80
1N1347B	DO-4	500	6	150	0.65	4.79	3.19
1N1347RB	DO-4	500	6	150	0.65	4.79	3.19
1N348RB	DO-4	600	6	150	0.65	5.78	3.85
40108R	DO-4	50	10	150	0.60	.99	.69
40109R	DO-4	100	10	150	0.60	1.16	.80
40110R	DO-4	200	10	150	0.60	1.57	1.09
40111R	DO-4	300	10	150	0.60	2.15	1.48
40112R	DO-4	400	10	150	0.60	2.48	1.71
40113	DO-4	400	10	150	0.60	3.14	2.17
40113R	DO-4	500	10	150	0.60	3.14	2.17
40114R	DO-4	600	10	150	0.60	3.71	2.57
40115R	DO-4	800	10	150	0.60	6.60	4.56
1N1200A	DO-4	100	12	150	0.55	1.41	.94
1N1202A	DO-4	200	12	150	0.55	2.48	1.65
1N202RA	DO-4	200	12	150	0.55	2.48	1.65
1N1204A	DO-4	400	12	150	0.55	4.46	2.97
1N1205A	DO-4	500	12	150	0.55	6.36	3.58
1N1206A	DO-4	600	12	150	0.55	6.19	4.13
1N1206RA	DO-4	600	12	150	0.55	6.19	4.13
40208R	DO-5	50	18	150	0.65	1.19	.83
40209R	DO-5	100	18	150	0.65	1.32	.92
40210R	DO-5	200	18	150	0.65	1.78	1.23
40211R	DO-5	300	18	150	0.65	2.39	1.65
40212R	DO-5	400	18	150	0.65	2.89	2.00
40213	DO-5	500	18	150	0.65	3.63	2.51
40213R	DO-5	500	18	150	0.65	3.63	2.51
40214R	DO-5	600	18	150	0.65	4.21	2.91

RCA SILICON RECTIFIER STACKS

HIGH VOLTAGE TYPES — PVR: 1200 TO 12000 VOLTS

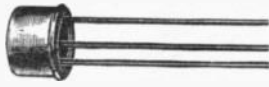
Type	PVR (Rep) volts	PVR (Non-rep) volts	IFAV @ TFA=°C		1-29	30-up
			amp	°C		
CR101	1200	1440	0.85	60	5.75	5.47
CR201	1500	1800	0.3	60	3.10	2.96
CR102	2000	2400	0.825	60	7.20	6.85
CR301	2400	2880	5	50	28.00	28.55
CR311	2400	2880	9	50	30.00	28.50
CR321	2400	2880	12	50	35.00	33.25
CR331	2400	2880	17	50	37.00	35.15
CR341	2400	2880	23	50	44.00	41.80
CR351	2400	2880	35	50	46.00	43.70
CR103	3000	3600	0.725	60	8.15	7.75
CR203	3000	3600	0.3	60	4.80	4.56
CR312	3600	4320	9	50	42.00	39.90
CR322	3600	4320	12	50	49.00	46.55
CR332	3600	4320	17	50	52.00	49.40
CR342	3600	4320	23	50	61.00	57.95
CR352	3600	4320	35	50	64.00	60.80
CR104	4000	4800	0.625	60	9.60	9.10
CR204	4500	5400	0.3	60	5.75	5.47
CR303	4800	5760	5	50	51.00	48.45
CR313	4800	5760	9	50	53.00	50.35
CR323	4800	5760	12	50	62.00	58.99
CR333	4800	5760	17	50	65.00	61.75
CR343	4800	5760	23	50	78.00	74.10

Type	PVR (Rep) volts	PVR (Non-rep) volts	IFAV @ TFA=°C		1-29	30-up
			amp	°C		
CR353	4800	5760	35	50	82.00	72.90
CR105	5000	6000	0.625	60	10.55	10.05
CR106	6000	7200	0.575	60	12.00	11.40
CR206	6000	7200	0.3	60	6.95	6.60
CR304	6000	7200	5	50	62.00	58.90
CR314	6000	7200	9	50	64.00	60.75
CR324	6000	7200	12	50	76.00	72.20
CR334	6000	7200	17	50	79.00	75.05
CR344	6000	7200	23	50	94.00	89.30
CR305	7200	8640	5	50	73.00	69.35
CR315	7200	8640	9	50	75.00	71.25
CR325	7200	8640	12	50	90.00	85.50
CR335	7200	8640	17	50	93.00	88.35
CR108	8000	9600	0.550	60	13.90	13.20
CR208	8000	9600	0.3	60	8.40	8.00
CR306	8400	10080	5	50	83.00	78.85
CR316	8400	10080	9	50	85.00	80.75
CR307	9600	11520	5	50	93.00	88.35
CR317	9600	11520	9	50	95.00	90.25
CR110	10000	12000	0.550	60	16.30	15.50
CR210	10000	12000	0.3	60	10.10	9.60
CR212	12000	14400	0.3	60	12.00	11.40
CR354	6000	7200	50	50	98.00	93.10

NEWARK CARRIES THE COMPLETE LINE OF RCA SEMICONDUCTORS IN ITS SEVEN STOCKING WAREHOUSES FROM COAST-TO-COAST. WRITE—PHONE—OR WIRE FOR INFORMATION OR PRICES.



Semiconductors



TO-5



TO-18

NPN SILICON PLANAR PASSIVATED AMPLIFIERS — TO-18

Type	Min.		Max. SAT		hFE	1-99	100-999
	V _{ceo}	Vebo	V _{be}	V _{ce}			
2N910	60	7	0.9	1.2	75 Min.	2.37	1.58
2N760	45	8	.....	1.0	76-333	1.80	1.20
2N760A	60	8	.....	1.0	76-333	1.83	1.22
2N915	50	5	0.9	1.0	40-160	5.08	3.39
2N916	25	5	0.9	0.5	50-200	3.65	2.90
2N929	45	5	1.0	1.0	40-120	3.67	2.44
2N930	45	5	1.0	1.0	100-300	4.00	2.67
2N2387	Same as 2N929 but TO-50 pkg.					11.55	7.70
2N2388	Same as 2N930 but TO-50 pkg.					14.40	9.65
2N2483	60	6	.....	0.35	40-120	3.67	2.44
2N2484	60	6	.....	0.35	100-500	4.00	2.67

NPN SILICON (PEP) ULTRA-HIGH FREQUENCY AMPLIFIERS — TO-18

Type	V _{ceo}	Vebo	V _{be}	V _{ce}	20 Min.	4.95	3.30
2N917	15	3	.87	0.5	20 Min.	5.25	3.50
2N918	15	3	1.0	0.4	20 Min.	5.25	3.50

SILICON PLANAR EPITAXIAL PASSIVATED (PEP) — TO-5

*TO-46 Case.

Type	V _{ceo}	Vebo	V _{be}	V _{ce}	100-300	4.20	2.80
2N2192	40	5	1.3	0.35	100-300	4.20	2.80
2N2192A	40	5	1.3	0.25	100-300	4.45	2.95
2N2193	50	8	1.3	0.35	40-120	2.95	1.95
2N2193A	50	8	1.3	0.25	40-120	3.15	2.10
2N2195	25	5	1.3	0.35	20 min.	1.38	.92
2N2868	40	5	1.3	0.25	40-120	1.68	1.12
2N2351	Same as 2N2193, but TO-46 Case					3.55	2.35
2N2351A	Same as 2N2193A, but TO-46 Case					3.75	2.50
2N2364	Same as 2N2243 but TO-46 Case					5.40	3.60
2N2364A*	80	7	1.3	0.25	40-120	5.70	3.80

MICROTAB TRANSISTORS

The new microtab transistor series are extremely small in size (.070x.070x.085") and perform the same as their larger counterparts. They are ideal where microminiature transistors are required such as instrumentation or hybrid circuits.



Type	hFE		Nearest Equiv.	1-99	100-999
	Min.	Max.			
D26E-1	100/300	@10 u.a.	2N930	3.60	2.40
D26E-2	40/90	@100 u.a.	.....	2.30	1.20
D26E-3	70/145	@100 u.a.	2N929	2.20	1.45
D26E-4	115/220	@100 u.a.	2N2483	2.25	1.50
D26E-5	180/330	@100 u.a.	2N2484	2.95	1.95
D26E-6	40/330	@100 u.a.	.....	1.55	1.05
D26G-1	6	@100 mc.	2N918	3.25	2.17

ECONOMY SILICON PLANAR PASSIVATED NPN TRANSISTORS — TO-98 & Fig. J

Type	hFE	hfe @ 1Kc	V _{ceo}	Mc ft	COB Pt	1-99	100-999
2N2711	30-90	.....	18	120	7	.45	.30
2N2712	75-125	.....	18	120	7	.48	.32
2N2713	30-90	.....	18	120	7	.51	.34
2N2714	75-225	.....	18	120	7	.53	.35
2N2923	115 typ	90-180	25	120	9	.48	.32
2N2924	155 typ	150-300	25	120	9	.53	.35
2N2925	215 typ	235-470	25	120	9	.60	.40
2N2926	.....	35-470	18	120	9	.45	.30
2N3391	250-500	.....	25	160	7	.72	.48
2N3391A	250-500	.....	25	160	7	.80	.53
2N3392	150-300	.....	25	140	7	.53	.35
2N3393	90-180	.....	25	140	7	.45	.30
2N3394	55-110	.....	25	140	7	.43	.29
2N3395	150-500	.....	25	140	7	.59	.39
2N3396	90-500	.....	25	140	7	.54	.36
2N3397	55-500	.....	25	140	7	.42	.28
2N3398	55-800	.....	25	140	7	.59	.39
2N3402	75-225	180	25	160	8	.75	.50
2N3403	180-540	330	25	160	8	.80	.53
2N3404	75-225	150	50	160	8	.80	.53
2N3405	180-540	300	50	160	8	.86	.58
2N3414	75-225	180	25	160	8	.59	.39
2N3415	180-540	330	25	160	8	.85	.43
2N3416	75-225	150	50	160	8	.85	.43
2N3417	180-540	300	50	160	8	.89	.46
2N3605	30 Min.	.....	14	350	4	.60	.40
2N3606	30 Min.	.....	14	350	4	.54	.36
2N3607	30 Min.	.....	14	350	4	.51	.34
2N3662	20 Min.	7-21	12	1100	1.3	.75	.50
2N3721	.....	60-660	18	120	7	.41	.27
2N3843A	20-40	.....	30	60 Min.	3	.59	.39
2N3844A	35-70	.....	30	90 Min.	3	.62	.42
2N3845A	60-120	.....	30	120 Min.	3	.67	.45
2N3854	35-70	.....	18	300	2.5	.51	.34
2N3854A	35-70	.....	30	300	2.5	.54	.36

NPN SILICON (PEP) HIGH SPEED SWITCHES — TO-18

Type	Min.		Max. SAT		hFE	1-99	100-999
	V _{ceo}	Vebo	V _{be}	V _{ce}			
2N706	15	3	0.9	0.6	20 min.	.90	.60
2N706A	15	3	0.9	0.6	20-60	.97	.64
2N706B	15	5	0.9	0.4	20-60	1.49	.99
2N708	15	5	0.8	0.4	30-120	1.08	.72
2N709	6	4	0.85	0.3	20-120	2.50	1.65
2N709A	6	4	0.85	0.3	30-90	4.87	3.25
2N753	15	5	0.9	0.6	40-120	5.17	3.44
2N834	.....	5	0.9	0.25	25 min.	2.58	1.72
2N914	15	5	0.8	0.25	30-120	1.40	.93
2N2368	15	4.5	0.85	0.35	20-60	2.31	1.54
2N2369	15	4.5	0.85	0.35	40-120	2.40	1.60
2N2784	6	4	0.85	0.26	40-120	11.25	7.50
2N3010	6	4	1.3	0.380	25-125	1.90	1.27

NPN SILICON (PEP) AMP/DRIVER/SWITCH — *TO-5, †TO-18

Type	V _{ceo}	Vebo	V _{be}	V _{ce}	20-60	3.02	2.01
2N2217*	30	5	.....	0.4	40-120	3.35	2.25
2N2218*	30	5	.....	0.3	40-120	5.26	3.51
2N2218A*	40	6	.....	0.4	100-300	3.56	2.37
2N2219*	30	5	.....	0.3	100-300	6.07	4.05
2N2219A*	40	6	.....	0.4	20-60	3.02	2.01
2N2220†	30	5	.....	0.4	40-120	4.10	2.75
2N2221†	30	5	.....	0.3	40-120	5.26	3.51
2N2221A†	40	6	.....	0.4	100-300	3.95	2.65
2N2222†	30	5	.....	0.3	100-300	6.07	4.05
2N2537*	30	5	1.3	0.45	50-150	4.95	3.30
2N2538*	30	5	1.3	0.45	100-300	5.85	3.90
2N2539	30	5	1.3	0.45	50-150	4.95	3.30
2N2540†	30	5	1.3	0.45	100-300	5.85	3.90
2N2845†	30	5	1.2	0.4	30-120	4.95	3.30
2N2846*	30	5	1.2	0.4	30-120	4.95	3.30

NPN SILICON (PEP) HIGH VOLT/HIGH SPEED DRIVES — TO-5

Type	V _{ceo}	Vebo	V _{be}	V _{ce}	40-150	10.50	7.00
2N3722	60	6	0.85	0.25	40-150	12.97	8.65
2N3723	80	6	0.85	0.28	40-150	12.97	8.65

NPN SILICON PLANAR PASSIVATED TRANSISTORS — TO-18

Type	V _{ceo}	Vebo	V _{be}	V _{ce}	40-120	1.30	.86
2N718	.....	5	1.3	1.5	40-120	2.48	1.65
2N720A	80	7	1.3	5.0	40-120	6.65	4.45
2N743A	15	5	0.85	0.35	40-120	3.40	2.25
2N744A	15	5	0.85	0.35	40-120	2.17	1.44
2N956	.....	7	1.3	1.5	100-300	2.17	1.44

NPN SILICON PLANAR PASSIVATED TRANSISTORS — TO-5

Type	Max. Watts 25°C.	Max. V _{ce} (SAT)	Max. V _{be} (SAT)	Min. V _{ce} Volts	HFE	hfe	1-99	100-999
2N696	0.6	1.5	1.3	40	20-60	.....	.93	.62
2N697	0.6	1.5	1.3	40	40-120	.....	.93	.62
2N699	0.6	5.0	1.3	80	40-120	35-100	1.68	1.12
2N1613	0.8	1.5	1.3	50	40-120	30-100	1.50	1.00
2N1711	0.8	1.5	1.3	50	100-300	50-200	1.75	1.17
2N1893	0.8	5.0	1.3	100	40-120	30-100	2.10	1.60

Type	hFE	hfe @ 1Kc	V _{ceo}	ft Mc	COB Pt	1-99	100-999
2N3855	60-120	.....	18	350	2.5	.53	.35
2N3855A	60-120	.....	30	350	2.5	.57	.38
2N3856	100-200	.....	18	350	2.5	.57	.38
2N3856A	100-200	.....	30	350	2.5	.62	.42
2N3858	60-120	.....	30	125	2.7	.48	.32
2N3859	100-200	.....	30	140	2.7	.49	.33
2N3860	150-300	.....	30	170	2.7	.54	.36
2N3663/16G2	20 Min.	.....	12	900	1.2	.80	.53
2N3843	20-40	.....	30	135	2.8	.54	.36
2N3844	35-70	.....	30	135	2.8	.57	.38
2N3845	60-120	.....	30	135	2.8	.62	.42
2N3858A	60-120	.....	60	135	2.5	.59	.39
2N3859A	100-200	.....	60	135	2.5	.60	.40
2N3877	20 Min.	.....	70	135	2.5	.56	.38
2N3877A	20 Min.	.....	85	135	2.5	.63	.42
2N3900	250-500	.....	18	120	7.0	.67	.45
2N3900A	250-500	.....	18	120	7.0	.75	.50
2N3973	35-100	.....	30	350	5.2	.89	.59
2N3974	55-200	.....	30	350	5.2	.94	.62
2N3975	35-100	.....	30	350	5.2	.79	.53
2N3976	55-200	.....	30	350	5.2	.82	.54
2N4054/	.....	.....	.....	.....	.....	.....	.....
D20D1	30-90	.....	300	28	6.0	1.56	1.04
2N4055/	.....	.....	.....	.....	.....	.....	.....
D20D3	30-90	.....	250	28	6.0	1.44	.96
2N4056/	.....	.....	.....	.....	.....	.....	.....
D20D5	30-90	.....	200	28	6.0	1.20	.80
2N4057/	.....	.....	.....	.....	.....	.....	.....
D20D7	30-90	.....	150	28	6.0	1.08	.72
2N4256	100-500	.....	30	200	2.7	.69	.46
D16K1	60 Typ.	.....	30	650	1.4	.94	.62
D16K2	60 Typ.	.....	30	650	1.4	.98	.66
D16K3	60 Typ.	.....	30	650			



SILICON GROWN DIFFUSED NPN TRANSISTORS — TO-5

(†) Pulsed measurement. (#) Typical.

Type	Max. Diss. mw	Min. BVCBO	hFE	hfe	1-99	100-999
2N333	150	45	27	19-44	4.65	3.10
2N335	150	45	45	37-90	4.95	3.30
2N335A	500	45	45	37-90	5.25	3.50
2N335B	500	60	45	37-90	8.90	5.95
2N336	150	45	75	76-333	6.00	4.00
2N336A	500	45	75	76-333	6.30	4.20
2N337	125	45	35	55#	4.85	3.20
2N338	125	45	75	99#	5.50	3.65
2N478	200	15	.....	40-100	3.60	2.40
2N1417	150	15	.....	30-200	.90	.60
2N1418	150	30	.....	30-200	.98	.75

SILICON TRIPLE-DIFFUSED NPN PASSIVATED HIGH POWER TRANSISTORS — TO-61

Stud. Mtd. *VCE=15V; Ic=2 amp. † VCE=5V; Ic=500 Ma. #Max. Pt. @ 25°C case.

Type	hFE Min. Max.	Vceo V	Max. Pt @ 100°C case (watts)	Max. Pt @ 25°C air (watts)	1-99	100-999
2N1616	15 Min.*	60	60#	3	26.00	17.50
2N1617	15-75*	80	60#	3	30.00	20.00
2N1618	15-75*	100	60#	3	35.00	23.50

SILICON UNIJUNCTION TRANSISTORS — TO-5

† Tj=25°C *TO-18 pkg.

Type	Min. Rev. Volts	Max. IP μA	Max. IEO μA	Rbbo Ohms	1-99	100-999
2N489	60	12	20	4.7- 6.8	7.10	4.75
2N490	60	12	20	6.2- 9.1	7.80	5.20
2N491	60	12	20	4.7- 6.8	8.40	5.60
2N491A	60	12	20	4.7- 6.8	8.90	5.95
2N491B	60	6	5	4.7- 6.8	10.40	6.95
2N492	60	12	20	6.2- 9.1	9.90	6.60
2N492B	60	6	5	6.2- 9.1	11.90	7.95
2N493	60	12	20	4.7- 6.8	10.75	7.20
2N494	60	12	20	6.2- 9.1	10.90	7.30
2N494C	60	2	.02	6.2- 9.1	14.95	7.95
2N1671	30	25	12†	4.7- 9.1	2.95	1.97
2N1671A	30	25	12†	4.7- 9.1	3.20	2.13
2N1671B	30	6	5	4.7- 9.1	3.55	2.36
2N1671C	30	2	.02	4.7- 9.1	8.25	5.50
2N2160	30	25	12†	4.0-12.0	1.49	.99
2N2417A*	.....	.....	.....	.....	7.65	5.10
2N2417B*	.....	.....	.....	.....	9.15	6.10
2N2418B*	.....	.....	.....	.....	9.85	6.55
2N2419*	.....	.....	.....	.....	8.40	5.60
2N2422B*	.....	.....	.....	.....	12.90	8.80
2N2646*	30	25	12	4.7- 9.1	1.05	.70
2N2647*	30	2	0.2	4.7- 9.1	3.00	2.00
2N2840*	30	10	1.0	4.7- 9.1	6.35	4.25
D5E35*	30	.....	12	4.7- 9.1	1.35	.90
D5E36*	30	.....	1.0	4.7- 9.1	2.67	1.78

Fig. H—GERMANIUM RATE GROWN NPN TRANSISTORS

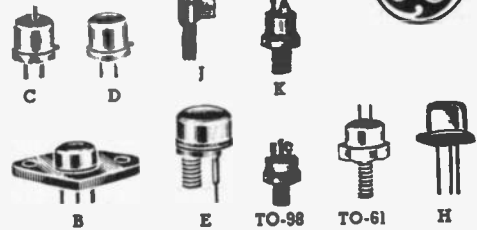
(#) Conversion gain at 1600 Kc. (#) Vcer @ R=10K.

Type	Max. Dissip. Mw	Min. Vceo Volts	Power Gain at 455 kc. db	hFE	1-99	100-999
2N78	65	15	26.0-31.0	45-135	2.49	1.66
2N78A	65	20	26.0-31.0	45-135	2.75	1.83
2N167A	65	30	.....	17-90	5.16	3.44
2N169	65	15#	24.0-31.0	34-200	1.59	1.06
2N169A	65	25#	27.0-31.0	34-200	2.42	1.61
2N232	65	15#	21.0-26.0	8-51	.83	.55
2N1098	65	9#	23.0-29.0†	17-200	1.11	.74
2N1510	75	70#	.....	8-90	2.42	1.61
2N1694	75	20	.....	15-45	.99	.66

UNIVERSAL REPLACEMENT TRANSISTORS

Highly dependable low cost transistors which are designed as general replacements for most types of transistors used in radio and Hi-Fi sets. Av. Wt., 2 oz.

Type	Use	Application	NET
GE-1	PNP	Mixer/oscillator converter.RF and IF amplifier	1.20
GE-2	PNP	AF Amplifier	1.02
GE-3	PNP	AF power amplifier	2.34
GE-4	PNP	AF high power amplifier	4.44
GE-5	NPN	Mixer/oscillator converter.RF and IF amplifier	1.68
GE-6	NPN	Mixer/oscillator converter.RF amplifier	1.83
GE-7	NPN	IF amplifier	1.77
GE-8	NPN	AF amplifier	1.29
GE-9	PNP	Mixer/oscillator converter.RF and IF amplifier	1.26
GE-10	NPN	AM Amplifier, Driver Output	1.20
GE-11	NPN	TV, FM, IF amplifier & UHF oscillator	1.63



SILICON MESA PASSIVATED NPN POWER TRANSISTORS

Typical ft, 15 mc. (†) @ 25°C Case temp. (#) Vcer.

Type	Fig.	Min. Vceo	Max. Vcex	Max. Watts 25°C	Watts Dissip. @ 100°C Case	hFE	1-99	100-999
2N856	TO-5	60	.....	0.8	4†	30-90	2.03	1.35
2N857	TO-5	100	.....	0.8	4†	30-90	2.20	1.47
2N1657A	TO-5	100	.....	1.0	5†	30-90	2.92	1.94
2N2106	TO-5	60#	.....	1.0	.....	12-56	1.97	1.32
2N2107	TO-5	60#	.....	1.0	.....	30-90	2.09	1.39
2N2108	TO-5	60#	.....	1.0	.....	75-200	2.10	1.40
2N2196	B	60#	80	2.0	10	30-90	4.50	3.00
2N2197	B	60#	80	2.0	10	75-200	4.62	3.25
2N2201	B	100	120	2.0	10	30-90	6.90	4.60
2N2726	TO-5	200#	.....	1.0	5†	30-90	2.10	1.40
2N2727	TO-5	200#	.....	1.0	5†	75-150	4.27	2.85
7A30	TO-5	40	.....	1.0	5†	12-38	1.01	.67
7A31	TO-5	30	.....	1.0	5†	30-90	1.08	.72
7A32	TO-5	30	.....	1.0	5†	75-200	2.25	1.50



GERMANIUM ALLOY PNP TRANSISTORS

(*) VRT (**) BVCEO † hfe min.

Type	Fig.	Max. Dissip. Mw	Min. Vcver	hFE	Typ. Ibib Mc	1-99	100-999
2N43A	C	240	30	34- 65	1.3	4.13	2.75
2N44A	C	240	30	18- 43	1.0	4.67	3.11
2N123	C	150	15	30-150	8.0	3.65	2.45
2N187A	C	200	25	25- 42	1.2	1.50	1.00
2N188A	C	200	25	34- 65	1.2	1.64	1.09
2N189	C	200	25	25- 42	0.8	.78	.52
2N190	C	200	25	34- 65	1.0	.83	.55
2N191	C	200	25	53-121	1.2	.90	.60
2N241A	C	200	25	50-125	1.3	.98	.65
2N319	TO-5	225	20	25- 42	2.0	.44	.29
2N320	TO-5	225	20	34- 65	2.5	.59	.39
2N321	TO-5	225	20	53-121	3.0	.65	.43
2N322	TO-5	200	18	34- 65	3.0	.42	.28
2N323	TO-5	200	18	53-121	3.5	.59	.39
2N324	TO-5	200	18	72-198	4.0	.72	.48
2N396A	TO-5	200	20**	30-150	8.0	.62	.41
2N404	TO-5	150	24*	.....	8.0	.47	.31
2N404A	TO-5	150	35*	.....	8.0	.66	.44
2N414	TO-5	150	15**	30-120	7.0	.42	.29
2N461	TO-5	200	35	32†	4.0	1.52	1.01
2N508	TO-5	200	16	100-200	4.5	.69	.46
2N508A	TO-5	200	25	100-200	4.5	.81	.54
2N524	TO-5	225	30	25- 42	2.5	1.02	.68
2N525	TO-5	225	30	34- 65	3.0	1.02	.68
2N526	TO-5	225	30	53- 90	3.5	1.10	.73
2N527	TO-5	225	30	72-121	4.0	1.23	.82
2N1087	TO-5	200	16	34- 90	3.0	.57	.38
2N1175	TO-5	200	25	70-140	4.0	.93	.62
2N1175A	TO-5	200	25	70-140	4.0	1.35	.90
2N1303	TO-5	150	25*	20 min.	7.0	.49	.33
2N1305	TO-5	150	20*	40-200	8.0	.52	.35
2N1307	TO-5	150	15*	60-300	12.0	.66	.44
2N1414	TO-5	200	25	34- 65	3.6	.81	.54
2N1415	TO-5	200	25	53- 90	4.0	.93	.62
2N1924	TO-5	225	40	34- 65	3.0	1.57	1.04
2N1925	TO-5	225	40	53- 90	3.5	1.77	1.18
2N1926	TO-5	225	40	72-121	4.0	2.08	1.39

REFERENCE AMPLIFIER TRANSISTORS TO-12 CASE

Type	VCEO	Max. Temp. Coeff. K†	Ref. Vol. Vref. (V)	HFE	1-99	100-999
RA1	45	.02%	7.0 ± 10%	10-120	4.50	3.00
RA1A	45	.005%	7.0 ± 10%	10-120	7.95	5.30
RA1B	45	.002%	7.0 ± 10%	10-120	14.10	9.40
RA2	45	.02%	7.0 ± 5%	40-120	7.95	5.30
RA3	60	.02%	7.0 ± 5%	40-90	8.25	5.50



Semiconductors

SILICON NPN DIFFERENTIAL AMPLIFIERS

Six-terminal TO-5 package containing two isolated pellets.
*TO-18 pkg.

Type	Min. V _{ceo}	hFE	hFE1/hFE2	Max. Icbo@V _{cb}		1-99	100-999
				na	Volts		
2N2480	40	30-350	0.8-1.0	50	60	13.50	9.00
2N2639	45	65 Min	0.9-1.0	10	45	27.00	18.00
2N2640	45	65 Min.	0.8-1.0	10	45	20.25	13.50
2N2641	45	65 Min.	.....	10	45	9.90	5.50
2N2642	45	65 Min.	0.9-1.0	10	45	38.00	25.25
2N2643	45	65 Min.	0.8-1.0	10	45	30.00	20.00
2N2644	45	65 Min.	.....	10	45	18.37	8.25
2N2910	25	80 Min.	0.8-1.0	.....	.....	12.75	9.35
2N2913	45	150 Min	.....	10	45	10.00	6.70
2N2914	45	300 Min	.....	10	45	15.00	10.00
2N2915	45	150 Min.	0.9-1.0	10	45	27.00	18.00
2N2919	60	150 Min.	0.9-1.0	2	45	29.25	19.50
2N2920	60	300 Min.	0.9-1.0	2	45	32.25	21.50
2N3513*	40	50-200	0.8-1.0	20	60	19.65	13.10
2N3516*	60	50-200	0.9-1.0	2	50	24.15	16.10
2N3521	45	155-500	0.8-1.0	10	50	32.60	21.70
2N3522*	45	155-500	0.8-1.0	10	50	35.10	23.40
D12A8	30	30 Min	0.9-1.0	25	30	5.65	3.75

SILICON NPN DARLINGTON CIRCUITS

Four-terminal TO-18 package containing two pellets connected in Darlington Configuration.

Type	Min. V _{ceo}	hFE		Min. hFE Ic=1ma	1-99	100-999
		Ic=100ma	Ic=10ma			
2N997	40	7000-70000	4000 Min.	.....	14.90	9.95

SILICON NPN LOW CURRENT SWITCHES—TO-12

Max. anode blocking v. = 40; except 13A8 = 20; Max. I_f @ 100°C. = 100 ma.

*Current design only. For new designs use 3N81-3N86.

Type	Anode Ratings		Max. Gate Ratings I _{ga} μa	I _{ga} ya	I _{ga} Ma.	1-99	100-999
	V _i max	I _h max					
3N58*	1.5	1.5	20	.....	.....	3.40	2.25
3N59*	1.5	1.5	20 (150°C)	.....	1.5	3.75	2.50
3N60*	1.5	1.5	20 (25°C)	0.2	1.5	4.15	2.75

PNP PLANAR PASSIVATED CONTROLLED SWITCHES

TO-18 4 lead pkg. *Measured @ Vac=40V; RL=800 ohms; R_{gc}=10K. †Measured @ Vac=40V; RL=800 ohms.

Type No.	Anode Blk'g Voltage (V)	I _f @ 25°C ma	V _{g1a} * (V)	Max.† I _{g1c} (μa)	V _{g1c} * (V)	EACH	
						1-99	100-999
3N81	65	200	.4 to .8	1.0	4 to 65	3.40	2.25
3N82	100	200	.4 to .8	1.0	4 to 65	4.95	3.30
3N83	70	50	.....	150	.4 to .80	2.13	1.42
3N84	40	175	.....	10	4 to 65	1.98	1.32
3N85	100	175	.....	10	4 to 65	3.30	2.20
3N86	65	200	.4 to .8	1.0	4 to 65	6.00	4.00

SILICON UNILATERAL SWITCH (SUS)

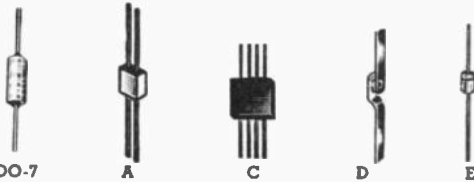
TO-18. 3 lead pkg. Temp. coefficient of switching ±0.05% C.

Type	V _{acr} May Rev. Voltage	IF (Cont.) Max Fwd Current ma	V _s Switching Voltage		I _s Switching Current	1-99	100-999
			Min.	Max.			
D13D1	30	200	6	10	500	1.50	1.00

SILICON BILATERAL SWITCH (SBS)

TO-18. 3 lead pkg. Temp. coefficient of switching ±0.05% C.

D13E1	200	6	10	500	1.65	1.10
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SELECTED SILICON SIGNAL DIODES

Rev. recov. with I_f at 10 ma, V_r @ -5 volts and load resistance at 100 ohms, 2 nanosec. (#) Millivolts. * Matched pair.

Type	Fig.	Max Fwd. V @ Cur., Ma	Max. Rev. V	1-99	100-999
1N3604	DO-7	1.0 at 50	50	.83	.56
1N3605	DO-7	880# at 20	30	.72	.48
1N3606	DO-7	880# at 20	50	1.00	.67
1N4009	DO-7	1.0 at 30	25	.42	.28
1N4306/MP-1	A	.81 at 10	50	8.25	5.50
1N4726	DO-7	850# at 10	20	.42	.28
1N4307/MQ-1	C	.81 at 10	50	16.50	11.00

SILICON STRAIN SENSORS

Type	Δ R/R (long.)	Δ R/R (trans.)	Ohms	1-24		25-99	
				1-24	25-99	1-24	25-99
N101R350	+120	-60	350 ± 5	26.34	21.06	26.34	21.06
N102R350	+100	-100	350 ± 5	26.34	21.06	26.34	21.06
N301R1000	+120	-60	1000 ± 5%	31.59	25.26	31.59	25.26
N301S1000	+120	-60	1000 ± 20%	6.67	5.33	6.67	5.33
N302R1000	+100	-100	1000 ± 5%	31.59	25.26	31.59	25.26
N302S1000	+100	-100	1000 ± 20%	6.67	5.33	6.67	5.33
N303R1000	+100	0	1000 ± 5%	31.59	25.26	31.59	25.26
N303S1000	+100	0	1000 ± 20%	6.67	5.33	6.67	5.33
N304R1000	+120	-60	1000 ± 5%	52.68	42.13	52.68	42.13
N304S1000	+120	-60	1000 ± 20%	13.34	10.67	13.34	10.67
N305R1000	+100	-100	1000 ± 5%	52.68	42.13	52.68	42.13
N305S1000	+100	-100	1000 ± 20%	13.34	10.67	13.34	10.67
N306R1000	+100	0	1000 ± 5%	52.68	42.13	52.68	42.13
N306S1000	+100	0	1000 ± 20%	13.34	10.67	13.34	10.67

* ΔR/R as a function of lengthwise strain.

† ΔR/R as a function of transverse strain.

(*) @ 25°C. DO-7 — SILICON SIGNAL DIODES

Type	Min. Sat. Volts	Max. Rev. Cur., μa at Volts*	Max. Fwd. Cur. Ma at Volts	Max. Rev. Recovery, Nanosec	1-99	100-999
1N903	40	0.1 at -40	10 at 1.0	4	1.02	.68
1N903A	40	0.1 at -40	20 at 1.0	4	1.17	.78
1N904	30	0.1 at -30	10 at 1.0	4	.99	.66
1N914	100	0.025 at -20	10 at 1.0	4	.45	.30
1N914A	100	0.025 at -20	20 at 1.0	4	.50	.33
1N914B	100	0.025 at -20	100 at 1.0	4	.81	.54
1N916	100	0.025 at -20	10 at 1.0	4	.67	.44
1N3064	75	0.1 at -50	10 at 1.0	4	.67	.44
1N3065	75	0.1 at -50	20 at 1.0	4	1.35	.90

SELECTED GERMANIUM SIGNAL DIODES — DO-7

(*) point contact

Type	PRV Volts	I _f max. ma	Application	1-99	100-999
1N34*	75	50	Gen Pur.	.35	.23
1N34A*	75	50	Gen Pur.	.35	.23
1N60	30	50	Video Det.	.35	.23
1N63*	125	40	High Volt.	.42	.28
1N64	25	50	Video Det.	.35	.23
1N69*	75	40	Gen. Pur.	.35	.23
1N87A	30	50	Video Det.	.24	.16
1N90*	75	30	Gen. Pur.	.33	.22
1N116*	75	30	Low Leak	.54	.36
1N191*	90	30	Computer	.42	.28
1N279	39	80	High Cond.	.33	.22
1N281	75	75	High Cond.	.36	.24
1N295A	40	35	Video Det.	.41	.27
1N541	45	10	A.M. Det.	.30	.20
1N542	Matched pair of 1N541	.....	F.M. Det.	.62	.41

SILICON SIGNAL-DOUBLE HEATSINK DIODES—(DHD)

Fig. E—Recommended for new designs (+) Stabistor.

Type No.	Max. Vbr. Volts	Max. Fwd. Cur., Ma @ Volts	Max. Rev. Recovery, Nanosec	1-9	100-999
1N4148	DHD version of 1N914	.....	.....	.45	.30
1N4149	DHD version of 1N916	.....	.....	.67	.44
1N4150	DHD version of 1N3600	.....	.....	3.75	2.50
1N4151	DHD version of 1N3604	.....	.....	.83	.56
1N4152	DHD version of 1N3605	.....	.....	.72	.48
1N4153	DHD version of 1N3606	.....	.....	1.00	.67
1N4154	DHD version of 1N400†	.....	.....	.42	.28
1N4156+	30	10 @ 1.58v	.....	.75	.50
1N4157+	30	10 @ 2.32v	.....	1.04	.69
1N4305	DHD version of 1N3063	.....	.....	1.34	.88
1N1444	70	10 @ .82v	7.0	1.56	1.04
1N4446	DHD version of 1N914A	.....	.....	.50	.33
1N4447	DHD version of 1N916A	.....	.....	.75	.50
1N4448	DHD version of 1N914B	.....	.....	1.35	.90
1N4449	DHD version of 1N916B	.....	.....	.92	.61
1N4450	40	10 @ .76v	4	1.48	.97
1N4451	40	10 @ .72v	10	1.54	1.03
1N4452	40	10 @ .83v	20	1.95	1.30
1N4453+	30	10 @ .80v	.....	.54	.36
1N4454	DHD version of 1N3064	.....	.....	.67	.43
1N4606	85	200 @ 1.0v	6	1.32	.88
1N4607	85	350 @ 1.0v	15	1.42	.95
1N4608	85	450 @ 1.0v	15	1.49	.99
1N4726	30	10 @ 0.85v	Qs-40pC	.42	.28
1N4727	30	10 @ 0.83v	.....	.42	.28
2N2453A	30	10 @ 1.61v	.....	50.00	35.00
1N4830+	30	10 @ 2.35v	.....	.93	.62
1N4863	70	10 @ 0.82v	7	.96	.64
1N4864	125	10 @ 0.82v	9	1.35	.90

SILICON SIGNAL MILLI-HEATSINK DIODES—(MHD)

Type No.	Description	1-99	100-999
1N4531	MHD version of 1N914	.59	.39
1N4532	MHD version of 1N3064	.78	.52
1N4533	MHD version of 1N3065	.96	.63
1N4534	MHD version of 1N3606	1.20	.80
1N4536	MHD version of 1N4009	.59	.39



Semiconductors

MEDIUM CURRENT SCR'S—Similar to Fig. K (Cont.)

Type	Vbo Volts	A.	At °C. Stud	Gate Signal			1-99	100-999
				V.	Ma	Tj		
C40G	Same as 2N684, but			guar. 12 μsec			14.50	9.65
C40B	Same as 2N685, but			or less turn off time			17.40	11.60
C141F	500	25	40	Designed specifically for fast turn-off of 10 μsec. For inverter applic.			10.35	6.90
C141A	100	25	40				11.25	7.50
C141B	200	25	40				16.10	10.70
C141C	300	25	40				24.20	16.10
C141D	400	25	40				29.25	19.50
C30U	25	25	70	1.5	25	25°C	3.75	2.50
C31U	25	25	70	1.5	9	25°C	4.00	2.75
C30F	50	25	70	1.5	25	25°C	4.10	2.75
C31F	50	25	70	1.5	9	25°C	4.50	3.00
C30A	100	25	70	1.5	25	25°C	4.95	3.30
C30B	200	25	70	1.5	25	25°C	5.75	3.85
C31B	200	25	70	1.5	9	25°C	6.45	4.30
C30C	300	25	70	1.5	25	25°C	7.40	4.95
C31C	300	25	70	1.5	9	25°C	8.10	5.40
C30D	400	25	70	1.5	25	25°C	9.35	6.25
C31D	400	25	70	1.5	9	25°C	10.25	6.85
C32U*	25	25	70	1.5	25	25°C	3.35	2.25
C33U*	25	25	70	1.5	9	25°C	3.75	2.50
C32F*	50	25	70	1.5	25	25°C	3.75	2.50
C33F*	50	25	70	1.5	9	25°C	4.10	2.75
C32A*	100	25	70	1.5	25	25°C	4.55	3.05
C32B*	200	25	70	1.5	25	25°C	5.40	3.60
C33B*	200	25	70	1.5	9	25°C	5.90	3.95
C32C*	300	25	70	1.5	25	25°C	7.05	4.70
C33C*	300	25	70	1.5	9	25°C	7.70	5.75
C32D*	400	25	70	1.5	25	25°C	9.00	6.00
C33D*	400	25	70	1.5	9	25°C	9.90	6.60
C135F	50	35	40	3	100	25°C	9.40	6.25
C135B	200	35	40	3	100	25°C	14.25	9.50
C135C	300	35	40	3	100	25°C	21.00	14.00
C135D	400	35	40	3	100	25°C	25.50	17.00
C135M	600	35	40	3	100	25°C	37.50	25.00
C135N	800	35	40	3	100	25°C	48.00	32.00

HIGH CURRENT SCR'S

Type	PRV Vbo Volts	Max. Irms.		Max. Req'd Gate Signal			1-24	25 up to 50
		A.	Stud	V.	Ma	Tj		
C45E*	500	55	84	3	75	25°C	80.25	47.15
C45B*	200	55	84	3	75	25°C	28.50	22.30
C45T*	900	55	84	3	75	25°C	126.50	95.50
C45U*	25	55	84	3	75	25°C	14.95	11.70
C46A	100	55	84	3	75	25°C	21.50	16.80
C46B	200	55	84	3	75	25°C	28.50	22.30
C46C	300	55	84	3	75	25°C	38.00	29.70
C46D	400	55	84	3	75	25°C	50.15	39.25
C46E	500	55	84	3	75	25°C	60.25	47.15
C46H	250	55	84	3	75	25°C	32.00	25.00
C46T	900	55	84	3	75	25°C	126.50	99.00
C46U	25	55	84	3	75	25°C	14.95	11.70
C50N	800	110	59	3	40	125°C	145.00	112.00
C50T	900	110	59	3	40	125°C	172.00	133.00
C55M	Same as C5M but 20 μsec						117.00	91.80
C56A	C56 Series same as C55 series, except C56 constructed with solid Flap type top terminals			100°C	34.50	27.00		
C56B				200°C	45.50	35.60		
C56G				150°C	40.00	31.30		
C56M				600°C	117.00	91.80		
C60E	500	110	87	3	30	150°C	92.50	72.50
C180A	100	235	80	3	150	150°C	82.50	72.50
C180B	200	235	80	3	150	150°C	99.00	84.00
C180C	300	235	80	3	150	150°C	120.00	108.00
C180D	400	235	80	3	150	150°C	145.00	123.00
C180M	500	235	80	3	150	150°C	197.00	167.00
C180PC	1300	235	80	3	150	150°C	535.00	455.00
2N1909 (C50U)	25	110	59	3	40	125°C	19.50	15.10
2N1913 (C50B)	200	110	59	3	40	125°C	38.00	29.40
							1-99	100
C145A	100	55	90	3	125	25°C	17.00	12.75
C145B	200	55	90	3	125	25°C	22.00	16.50
C145C	300	55	90	3	125	25°C	29.00	21.80
C145M	600	55	90	3	125	25°C	54.00	40.50
C145N	800	55	90	3	125	25°C	75.50	56.60
C145P	1000	55	90	3	125	25°C	106.00	79.50

TRIAC — BI DIRECTIONAL TRIODE SWITCHES

For gate control of AC power—Fig. P (Page 75)

GE Type No.	VBV (V)	Max. RMS Load Current @ Temp.	Max. Req'd Gate Signal @ 25°C Tj	1-99	100-999
SC40B	±200	6A @ 75°C Case	±3V, ±50 ma	3.81	2.54
SC41B	±200	6A @ 75°C Case	±3V, ±50 ma	3.36	2.24
SC45B	±200	10A @ 75°C Case	±3V, ±50 ma	4.32	2.88
SC46B	±200	10A @ 75°C Case	±3V, ±50 ma	3.87	2.58
SC40D	±400	6A @ 75°C Case	±3V, ±50 ma	5.85	3.90
SC41D	±400	6A @ 75°C Case	±3V, ±50 ma	5.40	3.60
SC45D	±400	10A @ 75°C Case	±3V, ±50 ma	6.85	4.57
SC46D	±400	10A @ 75°C Case	±3V, ±50 ma	6.40	4.27

DIAC — BI-DIRECTIONAL TRIGGER DIODE

For gate trigger of TRIAC's or SCR's .10 μsec. duration, 120 cps rep. rate. Similar to Fig. E (Page 75)

GE Type No.	VBV (V)	IBR μa	Peak Current @ 50°C amb	1-99	100-999
ST2	±28 ±36	±200 Max.	±2A Max.*	1.02	.68

SOLID STATE THYRATONS

*May replace thyatron tubes in many applications

Type	Peak Anode V	Max. Cathode Current, Idc	May Replace*	1-9	10-99
S26	200V	.9A @ 25°C amb	2D21	9.95	8.30
S27	200V	1.0A @ 30°C amb	2050	11.30	9.45

LASERS AND LIGHT EMITTING DIODES

Type	Temp.	Power (Typ.)	NET
H1D1 (Pulsed)	Room	5 watts	95.00

Type	Light	Power	NET
LED 7	Red	15	135.00
LED 8	Green	15	135.00
LED 9	1 R	2.5	12.00
LED 10	1 R	15	45.00
LED 11	1 R	30	45.00

LIGHT ACTIVATED SCR'S — Fig E (Page 77)

Max. required gate signal to fire from direct electrical supply is 0.8V 220 μa @ 25°C. Tj. Approx. TO15 size.

Type	PRV & Vbo (V)	Max. Idc @ °C	1-99	100-999
L8U	25	.44A @ 25°C amb	4.50	3.00
L8F	50	.44A @ 25°C amb	4.90	3.25
L8A	100	.44A @ 25°C amb	7.00	4.65
L9U	25	.44A @ 25°C amb	4.95	3.30
L9F	50	.44A @ 25°C amb	5.40	3.60

LIGHT ACTIVATED SILICON CONTROLLED SWITCH (L230 x .225")

Type	PRV (v)	Ifwd (ma)	1-99	100-999
LIV	40	170	3.15	2.10

PHOTO TRANSISTOR LIGHT DETECTOR

Type	Vceo-Vcbo (v)	1-99	100-999
145A502	45	15.00	10.00

GERMANIUM LOW CURRENT RECTIFIERS—Fig. A

Max. peak 1-cy. surge, 25 amps. aver.

Type	PRV Volts	Max. Idc @ 55°C	Max. Rev. Cur., Ma	Max. Drop Volts @ Full Load	Max. Oper. Temp.	1-99	100-999
1N91	100	150	1.35	.22	95°C	1.90	.60
1N92	200	100	0.95	.19	95°C	1.95	1.30
1N93	300	75	0.6	.18	95°C	2.70	1.80
1N368	200	100	.03†	.48	85°C	2.55	1.70

SILICON AVALANCHE ZENER DIODES — Fig. B (Page 77)

Axial lead package rated 1 watt. Test current, IZT, 100 ma. 4JZX5. 1B thru 1N1769, 50 ma. all others. Specifications at 25°C., unless otherwise noted. Tolerance ±10% of voltage listed; for ±5%, order same type with suffix A (e.g. 1N1776A).

Type	Nom. Vzt @ Izt	Max. Dyn. Imped., Ohms (Zzt) @ Izt	Typ. Temp. Coef., % Voltage Reg., °C	1-99	100-999
Z4X5.1B	5.1	7.0	0.013	2.40	1.60
1N1765	5.6	1.2	.021	2.40	1.60
1N1766	6.2	1.5	.030	2.40	1.60
1N1767	6.8	1.7	.037	2.40	1.60
1N1768	7.5	2.1	.044	2.40	1.60
1N1769	8.2	2.4	.050	3.00	2.00
1N1770	9.1	3.0	.056	3.00	2.00
1N1771	10.0	3.5	.062	3.00	2.00
1N1775	15.0	7.6	.080	3.00	2.00
1N1776	16.0	8.6	.082	3.00	2.00

LOW COST 1 WATT SILICON ZENER DIODES—Fig. B (Page 77)

Axial lead all welded package. Test current, IZT 20 ma. Specs. at 25°C. Tolerance ±20% of voltage listed, for ±10%, order same type with suffix B (e.g. Z4XL6-2B).

Type	Vzt @ Izt	Max. Dyn. Imp. Zzt. @ Izt.	Temp. Coef. % °C Typ.	Max. Izm ma @ 50°C Amb.	1-99	100-999
Z4XL6.2	6.2	9 ohm	.030	123	.75	.50
Z4XL7.5	7.5	12 ohm	.044	101	.75	.50
Z4XL9.1	9.1	15 ohm	.056	83	.75	.50
Z4XL12	12.0	24 ohm	.071	63	.75	.50
Z4XL14	14.0	30 ohm	.077	54	.75	.50
Z4XL16	16.0	40 ohm	.082	47	.75	.50
Z4XL18	18.0	50 ohm	.085	43	.75	.50
Z4XL20	20.0	60 ohm	.088	38	.75	.50
Z4XL22	22.0	72 ohm	.090	34	.75	.50



SILICON SUBMINIATURE GLASS RECTIFIERS

Meet military requirements. Max. full load drop lv. at 25°C. Max. oper. temp. 175°C for IN645 series, 200° for IN3544 series.
* Full cycle ave. † @ 150°C ‡ @ 175°C.

Type	PRV Volts		Max. Idc Ma. at 25°C	Max. Rev. Cur., μ a at 100°C*	1-99	100-999
	Repetitive	Transient				
IN645	225	275	400	15	1.40	.93
IN645A	225	275	400	15	1.65	1.10
IN646	300	360	400	15	1.65	1.10
IN647	400	480	400	20	1.80	1.20
IN648	500	600	400	20	1.95	1.30
IN649	600	720	400	25	2.50	1.65
IN676	100	120	200	.2 mat	.93	.62
IN677	100	120	400	.2 mat	1.05	.70
IN678	200	240	200	.2 mat	1.23	.82
IN679	200	240	400	.2 mat	1.35	.90
IN681	300	360	200	.2 mat	1.53	1.02
IN3544	100	120	600	75‡	2.25	1.50
IN3545	200	240	600	75‡	2.78	1.85
IN3549	600	720	600	75‡	6.45	4.30

SILICON LOW CURRENT RECTIFIERS—DO-3

Type	PRV Volts	Max. Idc		Max. Full Load Drop		Max. Oper. Temp. °C	1-99	100-999
		Ma	Amb. °C	V.	At °C			
IN440	100	300	50	1.5	25	150	.66	.44
IN440B	100	300	50	1.5	25	165	.66	.44
IN441	200	300	50	1.5	25	150	.69	.46
IN441B	200	300	50	1.5	25	165	.69	.46
IN442B	300	300	50	1.5	25	165	.79	.53
IN443	400	300	50	1.5	25	150	.98	.65
IN443B	400	300	50	1.5	25	165	.98	.65
IN444	500	300	50	1.5	25	150	1.05	.70
IN444B	500	300	50	1.5	25	150	1.05	.70
IN445	600	300	50	1.5	25	150	1.43	.95
IN445B	600	300	50	1.5	25	150	1.43	.95
IN536	50	750	50	1.1	25	165	.45	.30
IN537	100	750	50	1.1	25	165	.50	.33
IN538	200	750	50	1.1	25	165	.53	.35
IN539	300	750	50	1.1	25	165	.60	.40
IN540	400	750	25	1.1	25	165	.68	.45
IN547	600	750	25	1.1	25	165	.96	.64
IN560	800	600	25	1.1	25	150	1.80	1.20
IN599	50	600	25	1.5	200 ma	150	.47	.31
IN600	100	600	25	1.5	200 ma	150	.49	.33
IN600A	100	600	25	1.5	200 ma	150	.63	.42
IN602A	200	600	25	1.5	200 ma	150	.66	.44
IN603	300	600	30	1.5	200 ma	150	.60	.40
IN605	500	600	30	1.5	200 ma	150	.76	.51
IN606	600	600	50	1.5	200 ma	150	.96	.64
IN1095	500	750	50	1.1	25	150	.77	.51
IN1096	600	750	50	1.1	25	150	.96	.64
IN1487	100	750	25	1.2	25	140	.53	.35
IN1489	300	750	25	1.2	25	140	.66	.44
IN1490	400	750	25	1.2	25	140	.81	.54
IN1491	500	750	25	1.2	25	125	.90	.60
IN1492	600	750	25	1.2	25	120	1.19	.79
IN1692	100	600	50	1.2	25	115	.45	.30
IN1693	200	600	50	1.2	25	115	.48	.32
IN1694	300	600	50	1.2	25	115	.56	.37
IN1895	400	600	50	1.2	25	115	.66	.44
IN1696	500	600	50	1.2	25	115	.72	.48
A10A	100	1.5A	25	.5	150	165	.53	.34
A10B	200	1.5A	25	.5	150	165	.53	.35
A10C	300	1.5A	25	.5	150	165	.86	.44
A10D	400	1.5A	25	.5	150	165	.77	.51
A10E	500	1.5A	25	.5	150	165	.87	.58
A10M	600	1.5A	25	.5	150	165	1.04	.69
A10N	800	1.5A	25	.5	150	165	1.80	1.20
A10P	1000	1.5A	25	.5	150	165	4.10	2.75

SILICON LOW CURRENT FLANGELESS RECTIFIERS—Fig. B

Type	PRV Volts	Max. Idc		Max. Full Load Drop		Max. Oper. Temp. °C	1-99	100-999
		Ma	Amb. °C	V.	At °C			
IN2610	100	850	25	.5	150	175	1.02	.68
IN2611	200	850	25	.5	150	175	1.14	.76
IN2612	300	850	25	.5	150	175	1.52	1.01
IN2613	400	850	25	.5	150	175	1.71	1.14
IN2614	500	850	25	.5	150	175	1.92	1.28
IN2615	600	850	25	.5	150	175	2.30	1.53
IN3189	200	1.0A	100*	1.0	25	175	2.70	1.80
IN3190	400	1.0A	100*	1.0	25	175	3.75	2.50
IN3639	200	750	25	.6	100	100	.57	.38
IN3640	400	750	25	.6	100	100	.72	.48
IN3641	600	750	25	.6	100	100	1.05	.70
IN3642	800	500	25	.6	100	100	1.46	.97

*Low thermal tie point impedance

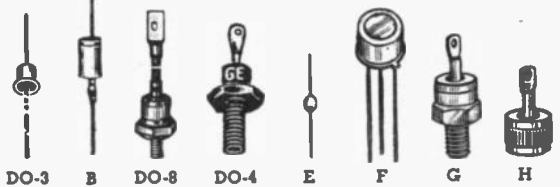
GE-504A UNIVERSAL RECTIFIER—DO-3

A silicon rectifier with a 60 amp surge rating. PRV is 600 volts; max. Idc, 1 amp. Shpg. wt., 2 oz.
Type GE504. NET.....

STUD-MOUNTED SILICON LOW CURRENT RECTIFIERS—DO-4

Max. temp. 150°C. (*) 170°C. (†) 155°C. (§) Amb. (§) at 25°C.

Type	PRV V.	Max. Idc Cur.	Case °C	Max. Full Load Drop		1-99	100-999
				V.	At		
IN253*	95	1 amp	135	135° C	1.05	.70	
IN255*	380	800 ma	135	135° C	1.58	1.05	



STUD-MOUNTED SILICON LOW CURRENT RECTIFIERS (Cont.)

Type	PRV V.	Max. Idc Cur.	Case °C	Max. Full Load Drop		1-99	100-999
				V.	At		
IN1115*	100	1.5 a.	85	.65	150° C	1.05	.70
IN1116*	200	1.5 a.	85	.65	150° C	1.12	.75
IN1117*	300	1.5 a.	85	.65	150° C	1.43	.95
IN1118*	400	1.5 a.	85	.65	150° C	1.73	1.15
IN1119†	500	1.3 a.	85	.65	150° C	1.80	1.20
IN1120†	600	1.3 a.	85	.65	150° C	2.40	1.60
IN1125	300	3.0 a.	50‡	1.1	1 amp§	2.27	1.51
IN1127	500	3.0 a.	50‡	1.1	1 amp§	4.43	2.95

1.5 AMP GLASS PACKAGE SILICON RECTIFIER—Fig. E

All diffused structure; storage temp., -65° to +175°C.

Type No.	PRV Volts	Fwd. Cur. Io	Max. 1/2 Cy. Surge	Max. V Drop @ 25°C	Max. Ir. μ a. @ 25°C	1-99	100-999
A13A2	100	1.0A	30A	1.0V	10	.42	.28
A13B2	200	1.0A	30A	1.0V	10	.46	.31
A13C2	300	1.0A	30A	1.0V	10	.54	.36
A13D2	400	1.0A	30A	1.0V	10	.56	.37
A13E2	500	1.0A	30A	1.0V	10	.68	.45
A13M2	600	1.0A	30A	1.0V	10	.75	.50
A13N2	800	1.0A	30A	1.0V	10	1.12	.75

SILICON MEDIUM CURRENT RECTIFIERS

Similar to Fig. D, except IN3208 series, A40 series (Fig. G) and A445 series (Fig. H). Ins. kit supplied with all A40 and A44 series. Max. oper. temp.: 200°C except (†) 175°C. Ratings at single phase @ 150°C. stud. (†) at 25 amps, 25°C, junction. (§) at 50 amps, 25°C. (#) @ 145°C. Stud. (*) at 20A, (**) at 140°C. case, (††) press-fit type, (***) @ 25°C.

Type	PRV Volts		Max. Idc Amps	Max. 1-cy. Surge Amps	Max. Drop V.	1-99	100-999
	Repetitive	Transient					
IN248§	50	.....	10	200	1.5†	1.65	1.10
IN248A§	50	.....	20	350	1.5†	1.65	1.10
IN248B§	55	.....	20	350	1.5†	1.65	1.10
IN248C§	55	.....	20	350	.6*	1.65	1.10
IN249§	100	.....	10	200	1.5†	1.73	1.15
IN249C§	110	.....	20	350	.6*	2.03	1.35
IN250§	200	.....	10	200	1.5†	2.48	1.65
IN250A§	200	.....	20	350	1.5†	2.48	1.65
IN250B§	220	.....	20	350	1.5†	2.48	1.65
IN250C§	220	.....	20	350	.6*	2.78	1.85
IN1184	100	.....	35**	500	.65	2.40	1.60
IN1185	150	.....	35**	500	.65	2.93	1.95
IN1186	200	.....	35**	500	.65	3.45	2.30
IN1187	300	.....	35**	500	.65	5.13	3.42
IN1188	400	.....	35**	500	.65	5.85	3.90
IN1189	500	.....	35**	500	.65	6.45	4.30
IN1190	600	.....	35**	500	.65	6.90	4.60
IN1196A§	400	.....	20	350	.6*	4.95	3.30
IN1199A	50	100	12	240	.55	1.25	.83
IN1200A	100	200	12	240	.55	1.41	.94
IN1201A	150	300	12	240	.55	1.82	1.21
IN1202A	200	350	12	240	.55	2.63	1.75
IN1203A	300	450	12	240	.55	3.60	2.40
IN1206A	600	800	12	240	.55	6.38	4.25
IN1341A	50	100	6	150	.64	1.13	.75
IN1342A	100	200	6	150	.64	1.28	.85
IN1344A	200	350	6	150	.64	2.22	1.48
IN1345A	300	450	6	150	.64	3.17	2.11
IN1346A	400	600	6	150	.64	4.11	2.74
IN1348A	600	800	6	150	.64	5.93	3.95
IN1612	50	100	5	150	.64	1.08	.72
IN1613	100	200	5	150	.64	1.25	.83
IN1614	200	350	5	150	.64	1.91	1.27
IN1615	400	600	5	150	.64	3.75	2.50

Continued on following page.



Semiconductors & Rectifiers

SILICON MEDIUM CURRENT RECTIFIERS

(Cont. from Preceding Page)

Type	PRV Volts		Max. Idc Amps	Max. Peak 1-cy. Surge Amps	Max. Drop Full Load V.	1-99	100-999
	Repetitive	Transient					
IN2154	50	100	25#	400	.6#	2.39	1.59
IN2155	100	200	25#	400	.6#	3.00	2.00
IN2156	200	350	25#	400	.6#	4.38	2.92
IN2157	300	450	25#	400	.6#	5.25	3.50
IN2158	400	600	25#	400	.6#	5.92	3.95
IN2159	400	700	25#	400	.6#	6.15	4.10
IN2160	500	800	25#	400	.6#	6.30	4.20
IN3208§	50	.....	15	250	1.5***	1.73	1.15
IN3209§	100	.....	15	250	1.5***	1.77	1.18
IN3210§	200	.....	15	250	1.5***	1.82	1.21
IN3211§	300	.....	15	250	1.5***	2.40	1.60
IN3212§	400	.....	15	250	1.5***	2.90	1.93
IN3213§	500	.....	15	250	1.5***	3.53	2.35
IN3569§	100	150	1.25	35	.5	1.34	.89
IN3570§	200	275	1.25	35	.5	1.62	1.08
IN3571§	300	400	1.25	35	.5	2.10	1.40
IN3572§	400	525	1.25	35	.5	2.55	1.70
A40F§	50	.....	15	300	.75	1.73	1.15
A40B§	200	.....	15	300	.75	1.82	1.21
A40M§	600	.....	15	300	.75	4.20	2.80
A44F††§	50	.....	15	300	.75	1.05	.70
A44A††§	100	.....	15	300	.75	1.10	.73
A44B††§	200	.....	15	300	.75	1.16	.77
A44C††§	300	.....	15	300	.75	1.28	.85

SILICON MEDIUM CURRENT CELLS-FAST RECOVERY—DO-4

††3 microseconds max. recovery time; 150°C Stud.
 †200 Nanoseconds max. recovery time; 100°C case
 §100 Nanoseconds max. recovery time; 135°C case; @ 25°C

Type	PRV Volts		Max. Idc Amps	Max. Peak 1-cy. Surge Amps	Max. Drop Full Load V.	1-99	100-999
	Repetitive	Transient					
IN3879R†	50	.....	6	75	1.4§	5.25	3.50
IN3880†	100	.....	6	75	1.4§	5.77	3.85
IN3881†	200	.....	6	75	1.4§	8.25	5.50
IN3882†	300	.....	6	75	1.4§	12.38	8.25
IN3889†	50	.....	12	150	1.4§	6.30	4.20
IN3891†	200	.....	12	150	1.4§	9.75	6.50
IN3892†	300	.....	12	150	1.4§	14.65	9.75
IN3893†	400	.....	12	150	1.4§	17.60	11.75

SILICON HIGH CURRENT RECTIFIERS—DO-8

Max. Idc, 100 amps at 130°C, stud, single phase. Max. 1-cy. surge, 1600 amps. Max. operating temp., 200°C.

Type	PRV Volts		Max. Fwd. Drop at 100A, ave. 1-ph. 130°C	1-99	100-499
	Repetitive	Transient			
A70A	100	200	0.6 volt	11.35	9.05
IN3289	200	300	0.6 volt	12.95	10.15
IN3290	300	400	0.6 volt	14.15	10.80
IN3291	400	525	0.6 volt	15.40	11.90
IN3296	1200	1500	0.6 volt	34.50	26.40

SILICON CONTROLLED AVALANCHE RECTIFIERS

Self-protection against voltage transients. Can dissipate considerable power in reverse direction. Can be series operated at high voltage often without equalizing resistors. DO-4 except A7. Sim. to 1N645 pkg.

Type	PRV	Min. Aval. V @ 25°C	Max. Idc.	1-99	100-999
A7B	200	300	500ma*	1.95	1.30
A7D	400	500	500ma*	1.95	1.30
A7E	500	600	500ma*	1.95	1.30
IN4507	400	500	12A**	6.90	4.60
IN4525	200	250	35A‡	6.45	4.30
IN4526	400	500	35A‡	8.78	5.85
IN4527	600	750	35A‡	10.70	6.90
IN4528	800	1000	35A‡	12.30	8.20
IN4529	1000	1250	35A‡	13.50	9.00
IN4530	1200	1500	35A‡	17.25	11.50

*310 W, peak transient reverse surge, +1140W, **3900W, ‡12Kw.

CONTROLLED AVALANCHE HALF-WAVE RECTIFIERS—POTTED ASSEMBLIES

Type	PRV	Max. Io @ 25°C	Max. DC Fwd V drop*	Max. BVr‡	1-9	10-29
IN1731	1500	200 ma.	5	2550	6.30	5.18
IN1732	2000	200 ma.	9	3400	8.12	6.67

Axial lead potted cartridge. * @ 100 ma. ‡ @ 500 μ amps.

RECTIFIER STACKS

TYPE 4JA211

GERMANIUM LOW CURRENT STACKS



Small and lightweight, with excellent regulation. May be arranged in stacks of up to 12 fins for more than 160 various circuit configurations. Outputs up to 6 amps at 55° C ambient. Up to 630 PRV.

TYPE 4JA411, 4JA1011

SILICON LOW CURRENT STACKS



High temperature operation, up to 150° C. Ratings up to 18 amps at 23° C ambient; up to 3360 PRV. Offer high efficiency plus excellent regulation. Hundreds of stack combinations for a variety of circuit conditions. 4JA1011 35 amp. one cycle surge rating.

SCR COMBINATION STACKS

Packaged building blocks include silicon controlled rectifiers, compatible rectifiers, heat sinks, interconnections and all hardware. Installation requires only mounting bolts and connections.

SERIES C3512 and 13, C4012 and 13, C1012 and 13, C1112 and 13, C1212 and 13

Rated up to 13.65 amps per fin free convection cooled, up to 23.5 amps per fin forced cooled at 25° C ambient. In two fin sizes, 3"x3" and 5"x5", and five SCR types.

SERIES C5014, C5514, C6014, C8015



Provide up to 102 amps per fin free convection cooled at 30° C ambient. Specially designed aluminum extrusion for maximum heat dissipation when used with C50, C55, C60 or C80 SCR. Available in hundreds of circuit configurations.

TYPE 4JA3512

SILICON MEDIUM CURRENT STACKS WITH 5" FIN



Square fin assembly for optimum use of 1N2154 series, 25 amp cell. Provides wide range of power applications with DC outputs up to 108 amps at 55° C ambient, up to 1800 PRV.

TYPES 4JA2011, 4JA2511, 4JA3511

SILICON MEDIUM CURRENT STACKS

For wide range of power applications. Type 4JA2011 provides up to 32 amps at 55° C ambient, up to 1800 PRV. Type 4JA2511 gives up to 50 amps at 55° C ambient, up to 1800 PRV. Type 4JA3511 gives up to 65 amps at 55° C ambient, up to 1800 PRV.

SILICON HIGH CURRENT STACKS

TYPES 4JA7012, 4JA9013



Lightweight stacks provide up to 165 amps DC at 40° C ambient, up to 1000 PRV. Type 4JA7012 uses 5"x5"x1/8" flat copper fin heat sink. Type 4JA9013 has 7"x7"x3/8" flat aluminum fin.

TYPES 4JA7014, 4JA9015

Designed for free convection cooled applications which require a maximum amount of current in a relatively small space. Fin is anodized aluminum, 4" x 4" x 5".

TYPE 4JA9013

DC outputs up to 420 amps at 40° C ambient, up to 1000 PRV. Free convection cooled with 7" x 7" x 3/8".

For Ordering Information Concerning

G.E. Rectifier Stacks see page 103

THYRECTOR DIODES, TRANSIENT VOLTAGE SUPPRESSORS

Type	Max. RMS Input V.	Pk. Amps 0.1 ms	L. In.	1-49	50-999
6RS20SP1B1	30	20	1 3/16	.69	.52
6RS20SP2B2	60	20	1 3/16	.80	.60
6RS20SP3B3	90	20	1 3/16	.91	.69
6RS20SP4B4	120	20	1 3/16	1.03	.78
6RS20SP5B5	150	20	1 3/16	1.15	.87
6RS20SP6B6	180	20	1 3/16	1.26	.95
6RS20SP7B7	210	20	1 3/16	1.38	1.04
6RS20SP8B8	240	20	1 3/16	1.50	1.13
6RS20SP9B9	270	20	1 3/16	1.62	1.22
6RS20SP10B10	300	20	1 3/16	1.73	1.31
6RS21SA1D1	25	30	1/4	1.87	1.33
6RS21SA2D2	50	30	1 3/16	2.00	1.45
6RS21SA3D3	75	30	1 3/16	2.20	1.63
6RS21SA4D4	100	30	1 3/16	2.38	1.70
6RS21SA5D5	125	30	1 3/16	6.00	4.00
6RS21SA6D6	150	30	1 3/16	2.31	1.54
6RS21SA7D7	175	30	1 3/16	2.90	2.10
6RS21SA8D8	200	30	1 3/16	3.10	2.25
6RS21SA9D9	225	30	1 3/16	3.30	2.40
6RS21SA10D10	250	30	1 3/16	3.47	2.55
6RS21SA11D11	275	30	2 1/8	3.65	2.70
6RS21SA12D12	300	30	2 1/8	3.85	2.88
6RS21SA20D20	500	30	2 3/4	5.25	4.30

Rectifiers & Diodes

GE RECTIFIERS (Continued)

TYPES 4JA421, 4JA422 POTTED RECTIFIER CIRCUITS

Rectangular design with solder lug. Available in wide variety of circuit configurations. Use Types INS36-540, IN1095 silicon cells.



Type	Current up to	Ambient Temp.	PRV. up to
4JA421	0.65 amp	25° C	10,000
4JA422	1.50 amps	25° C	2,000

TYPES A723 AND A725 HIGH VOLT SERIES

A7 Controlled Avalanche Rectifiers available in convenient pre-assembled, potted assemblies with wire lead terminals. Available up to 10,000 PRV. Up to 820 ma at 50°C ambient. Self-protected

against normal voltage transients. Available in many circuit configurations. Type A723 is rectangular block series. A725 is axial lead cartridge series.

Ordering rectifier stacks: order by series type number e.g. 4JA1D11; and include required current, voltage, transient voltage, max. ambient temp., phases, circuit configurations, and load. SCR series specify connection and/or supply circuit diagram.

SEMICONDUCTOR MANUALS

G.E. Controlled Rectifier Manual—Third edition; detailed data. 52F674. Each.....2.00

G.E. Transistor Manual—Seventh edition; full of information. 52F675. Each.....2.00

EXPERIMENTAL/HOBBYIST ELECTRONIC COMPONENTS

Featuring electronic components for the experimenter, with schematic diagrams for building battery charger, tachometer, SCR ignition system, flashers, stereo amplifier, all-band receiver, plug-in speed control for tool or appliances, light dimmer, and other items. Most of these projects are described in the new Electronic Components Hobby Manual listed below.



Type	DESCRIPTION	Net
GE-X1	SILICON CONTROLLED RECTIFIER. 117-volt solid state switch. Controls up to 4.7 amps.	5.00
GE-X2A	LIGHT ACTIVATED POWER SWITCH. It will conduct up to 1/4 ampere. up to 25 volts.	2.80
GE-X3	HIGH CURRENT SILICON CONTROLLED RECTIFIER. For up to 13 amps @ 50 PIV.	4.80
GE-X4	CONVENTIONAL HIGH CURRENT SILICON RECTIFIER. 2C amp rating. For up to 200 PIV.	1.60
GE-X5	HIGH SENSITIVITY SILICON CONTROLLED RECTIFIER. For special circuits up to 1.6 amps and 50 volts. Activated by extremely low signal power (a momentary signal power of 200 micro watts or less).	3.55
GE-X6	PHOTO CONDUCTIVE CELL. Cadmium sulfide end-illuminated. Up to 250V peak AC/DC.	1.40
GE-X7	REED SWITCH. Carries from 15 volt-amperes to micro-amps. External magnetic actuation.	.80
GE-X8	MED. SPEED. NPN TRANSISTOR. Germanium. For low level switching and amp.	.70

Type	DESCRIPTION	Net
GE-X9	MED. SPEED, PNP TRANSISTOR. Germanium alloy. For medium power amplification and switching at low frequency.	.85
GE-X10	UNIUNCTION TRANSISTOR. Three-terminal semiconductor. Has low value of firing current, stable negative resistance, stable firing current, high pulse current capability.	4.95
GE-X11	ZENER DIODE. Rated 8.2 volts at 1 watt.	2.25
GE-X12	TRIAC—With schematic for building remote control for appliances.	5.30
GE-X13	DIAC—With schematic for building lamp dimmer or AC motor control.	1.60
GE-X14	THYRECTOR—With schematic for building dual voltage power supply.	1.15
GE-X15	THERMISTOR—With schematic for building adj. temp. alarm.	
GE-X16	SILICON CONTROLLED RECTIFIER — With schematic for building battery-operated fluorescent light.	3.45
2N107	AUDIO PNP TRANSISTOR. Alloy junction.	.55
	AUDIO PNP TRANSISTOR. Low voltage, high frequency transistor.	.75
2N170	UNIUNCTION TRANSISTOR.	1.49
GE-M100	GERMANIUM MESA TRANSISTOR.	1.50

New Electronic Components Hobby Manual. 199 pages, covers fundamentals, electrical theory, troubleshooting, device symbols and 35 projects for your car, entertainment, home and workshops. 52F678. NET1.50

Write, Wire, or Phone NEWARK For

Information on General Electric

Semiconductors, Rectifiers, and Diodes.

ACCESSORIES FOR ABOVE

Type	Description	Net
20SP484	Thyrector	1.40
C1-	Coil for GE-X7	
	7000 T #38 wire-440Ω	1.60
	10,000 T #39 wire-825Ω	1.60
C-2	Thermistor	2.20
2R174	Thermistor	1.60
1D363	Thermistor	1.60

SARKES TARZIAN

SINGLE PHASE BRIDGE RECTIFIERS

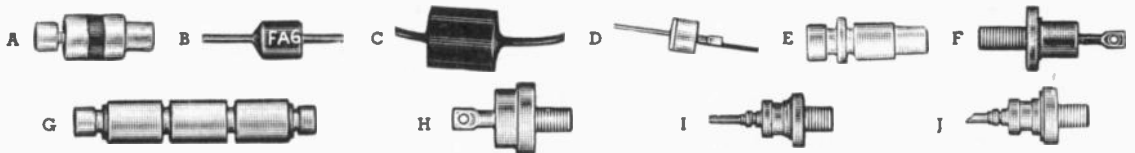
Extruded heat sinks and fans incorporated into assemblies where required, feature Tarzian Silicon Bridge Rectifiers rated from 2 to 400 amp. and 30 to 480 V on single phase bridges and from 15 to 500 amp and 35 to 560 V on three phase bridges. Avalanche silicon rectifiers are used throughout.

Type	DC Output V	Max. RMS V	1-24	25-90	100-Up
S-6211	120	140	2.35	2.62	1.88
S-6211-1	240	280	2.49	2.13	1.98
S-6211-2	360	420	2.64	2.26	2.10
S-6211-3	480	560	3.11	2.75	2.55
S-5959	120	140	1.45	1.24	1.18
S-5959-1	240	280	1.67	1.43	1.33
S-5959-2	360	420	1.84	1.57	1.46
S-5959-3	480	560	2.34	2.00	1.88
S-6121	60	70	3.05	2.62	2.45
S-6121-1	120	140	3.35	2.96	2.65
S-6121-2	180	210	4.20	3.80	3.35
S-6121-3	240	280	4.65	3.98	3.70
S-6121-4	300	350	5.85	4.83	4.50
S-6121-5	360	420	6.65	5.69	5.30

1 WATT ECONOMY LINE ZENER DIODES

Type	Vz	Toler.	1-24	25-99	100-Up
VR6	6	±10%			
VR7	7	±10%			
VR8.5	8.5	±10%			
VR10	10	±10%			
VR12	12	±10%			
VR14	14	±10%			
VR18	18	±10%			
VR20	20	±10%			
VR24	24	±10%			
VR28	28	±10%			
VR33	33	±10%			
VR39	39	±10%			
VR47	47	±10%			
VR56	56	±10%	.95	.80	.75
VR67	67	±10%			
VR80	80	±10%			
VR90	90	±10%			
VR105	105	±10%			
VR110	110	±10%			
VR120	120	±10%			
VR130	130	±10%			
VR150	150	±10%			
VR160	160	±10%			
VR180	180	±10%			
VR200	200	±10%			

Sarkes Tarzian Avalanche Regulators & Rectifiers



Silicon rectifiers for high temperature applications. All are now avalanche type. They provide "built in" protection against reverse transient overvoltage spikes. Use of avalanche type rec-

tifiers eliminates need for protective components and circuitry normally used to protect standard rectifiers. Elimination of such crutch type components, reduces costs, saves space.

LOW CURRENT SILICON RECTIFIERS

Type No.	Mfr.	JEDEC	Fig.	Piv	Max. Dc/Amp.	1-24	25-99	100-up
10M	1N1081	A	100	1.0 Amp	.60	.55	.51	
20M	1N1082	A	200		.65	.57	.53	
30M	1N1083	A	300		.70	.61	.57	
Dual Clip	For M500				.24	.22	.19	
Single Clip	For M150				.12	.11	.10	
M 500	1N1084	A	400	1.0 amp @ 55°C ambient	.75	.63	.59	
60M		A	600		.85	.70	.66	
F2	1N2482	B	200	1.0 amp @ 55°C ambient	.35	.32	.29	
F4	1N2483	B	400		.40	.36	.33	
F6	1N2484	B	600		.45	.40	.37	
F8		B	800		.60	.49	.46	

M500 KIT

This kit consists of 2 M500/1N1084 rectifiers, 1 dual mounting clip and insulating back plate.

M500 Kit. 1-24.....1.70 25-99.....1.60 100 UP.....1.45

Type No.	Mfr.	JEDEC	Fig.	Piv	Max. Dc/Amp.	1-24	25-99	100-up
10C	1N2610	D	100	1.0 amp @ 55°C ambient	.35	.33	.31	
20C	1N2611	D	200		.40	.36	.33	
40C	1N2613	D	400		.45	.40	.37	
60C	1N2615	D	600		.55	.45	.42	
20LA	1N1086A	E	200	2.0 amp @ 55°C ambient	4.00	3.43	3.20	
30LA	1N1087A	E	300		4.67	4.00	3.73	
40LA	1N1088A	E	400		5.35	4.67	4.27	
60LA	.....	E	600		6.45	5.52	5.15
10LA	1N1085A	E	100		3.24	2.88	2.66	
3AF1	.....	C	100	3.0 amp @ 55°C ambient	.60	.53	.49
3AF2	.....	C	200		.65	.57	.53
3AF4	.....	C	400		.85	.72	.67
3AF6	.....	C	600		1.25	1.07	1.00
80SM	1N1108	G	800	.45 amp 425 amp	3.15	2.71	2.54	
120SM	1N1109	G	1200		4.00	3.43	3.20	
160SM	1N1110	G	1600	4 amp @ 100°C	4.75	4.15	3.86	
200SM	1N1111	G	2000	.375 amp ambient	5.65	4.86	4.53	
240SM	1N1112	G	2400	.35 amp	6.50	5.57	5.20	
280SM	1N1113	G	2800	.325 amp	7.35	6.30	5.87	

MEDIUM CURRENT SILICON RECTIFIERS

Type	JEDEC	Fig.	PIV	DC Max.	1-24	25-99	100-up
10H3P	1N1342	F	100	6	1.20	1.03	.96
20H3P	1N1344	F	200	6	1.25	1.07	1.00
40H3P	1N1346	F	400	6	1.95	1.67	1.56
60H3P	1N1348	F	600	6	2.70	2.32	2.16
ST210P	1N1200	F	100	12	1.45	1.26	1.17
ST220P	1N1202	F	200	12	1.55	1.32	1.23
ST240P	1N1204	F	400	12	2.35	2.00	1.97
ST260P	1N1206	F	600	12	3.30	2.83	2.64
ST3A10P	.....	H	100	25	2.20	1.90	1.73
ST3A20P	.....	H	200	25	2.45	2.10	1.96
ST3A40P	.....	H	400	25	3.15	2.70	2.52
ST3A60P	.....	H	600	25	3.80	3.28	3.06
ST420P	1N1186	H	200	35	3.10	2.66	2.48
ST440P	1N1188	H	400	35	4.45	3.82	3.56
ST460P	1N1190	H	600	35	6.40	5.50	5.14
10J2	1N1621	.....	100	10	2.24	1.92	1.80
20J2	1N1622	.....	200	10	2.80	2.40	2.24
30J2	1N1623	.....	300	10	3.45	2.93	2.67
40J2	1N1624	.....	400	10	4.21	3.62	3.40

Type	PIV	DC Amps	1-24	25-99	100-up
40J3N*	400	12	4.48	3.84	3.60

Description	PIV	DCMA	1-9	10-49	50-99
40J3P†	400	12	4.48	3.84	3.60
F8	800	750	.60	.49	.46

Type No.	PIV	DCMA	1-24	25-99	100-up
1N1084/M500	400	500	.75	.63	.59

*Neg. Base. †Pos. Base.

HIGH VOLTAGE CARTRIDGE-TYPE SILICON RECTIFIERS

All units are encapsulated in epoxy sealed phenolic tubes, 3/8" diameter. Gold-plated leads 2" long, .032" diameter

Type No.	Max. P.I.V.	Max. DCMA	Length	1-24	25-99	100-499	500-999
HVC180	1800	250	8 1/16"	3.35	2.86	2.66	2.39
HVC240	2400	250	1 1/16"	3.60	3.08	2.87	2.59
HVC300	3000	200	3/4"	3.85	3.28	3.07	2.76
HVC400	4000	200	7/8"	4.00	3.44	3.20	2.88
HVC500	5000	200	1"	4.15	3.67	3.34	3.01
HVC600	6000	150	1 1/16"	4.55	3.92	3.66	3.29
HVC650	6500	150	1 3/16"	5.00	4.29	4.00	3.60
HVC750	7500	150	1 5/16"	5.40	4.64	4.34	3.91
HVC840	8400	100	1 3/8"	5.85	5.00	4.66	4.19
HVC960	9600	100	1 1/2"	6.65	5.72	5.34	4.81
HVC1000	10000	100	1 3/4"	7.10	6.07	5.66	5.07
HVC1200	12000	.75	1 13/16"	8.35	7.15	6.66	5.99
HVC1500	15000	.75	2 3/16"	10.40	8.94	8.34	7.51
HVC1800	18000	.75	2 5/8"	12.50	10.70	10.00	9.00
HVC2100	21000	.50	3"	14.60	12.50	11.67	10.50
HVC2500	25000	.50	3 1/2"	17.50	15.00	14.00	13.60
HVC3000	30000	.50	4 1/8"	20.80	17.90	16.70	15.03

SILICON TUBE REPLACEMENT RECTIFIERS

Type	PIV	Replaces	1-24	25-99	100-up
SS017	1600	2A, 5X4, 5Y4, 6AX5, 6X5	12.00	10.30	9.60
SS018	1600	5AU4, 5AW4, 5A24, 5T4, 5U4, 5Y3	12.00	10.30	9.60
SS019	2800	886, 886A, 3B28, 6AU4, 6AX4, 6BL4, 6W4, 12AX4, 25W4	18.10	15.50	14.45
SS033	4,500	5A4	18.10	15.50	14.45
SS130	10,400	5A4	22.50	19.30	18.00
SS251	1600	5U4, 5AU4, 5AW4, 5A24, 5T4, 5Y3	6.10	5.23	4.87
SS343	7000	816, 836, 3B28	18.10	15.50	14.50
SS347	1600	12BW4, 6EW4	8.65	7.40	6.90
SS991	1600	5AU4, 4AW4, 5A24, 5T4, 5U4, 5Y3	3.50	3.00	2.80

"CENTRE-KOOLED" SELENIUM RECTIFIERS

Featuring center cooling by means of spacers. Each spacer acts as an individual spring to guarantee constant assembly pressure. Higher leakage resistance assured by protective end plates of bakelite. Color-coded for polarity identification. All rated at 130 volts. Av. wt., 6 oz.



Type	DC mA	Net
75	75	.81
100	100	1.02
150	150	1.02
200	200	1.26
250	250	1.29
300	300	1.32
400	400	1.68
500	500	1.74
10	10	.54
50	50	.70
65	65	.75

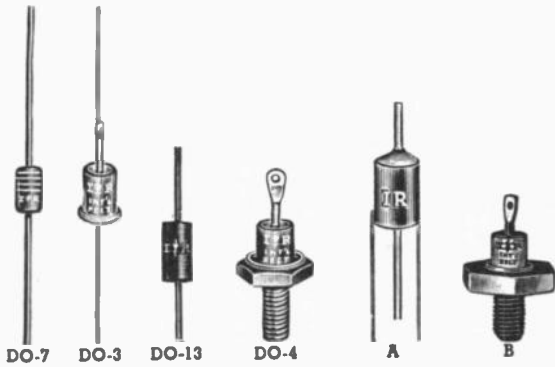
KLIPVOLT SUPPRESSORS

Designed to help reduce transient voltages to as low a value as possible without changing circuit characteristics or adding excessive cost. It is recommended that these non-polarized suppressors are selected to circuit requirements, not matched to the silicon rectifiers they are intended to protect. Available in polarized* and non-polarized one phase or three phase applications. * S-594 has mounting stud on each end and others have single stud. Peak discharge current for all units is 2.5 amps.



Mfg. Type	Max. Clamping Voltage	Rated RMS Volts	Klipvolt Overall Length*	1-9	10-99	100-up
S-487	85	35	1 3/16"	.87	.78	.70
S-488	170	70	1 1/8"	1.19	1.07	.95
S-489	255	105	1 1/2"	1.51	1.36	1.21
S-490	340	140	1 3/8"	1.83	1.65	1.46
S-491	425	175	1 1/2"	2.15	1.94	1.72
S-492	510	210	1 11/16"	2.47	2.22	1.98
S-593	595	240	1 13/16"	2.79	2.51	2.23
S-493	680	280	2"	3.11	2.80	2.49
S-495	1020	420	2 1/16"	4.39	3.95	3.51
S-594	1190	490	3 1/16"	5.03	4.53	4.02

International Rectifier Semiconductors



SUBMINIATURE GLASS SILICON ZENER VOLTAGE REGULATORS 250-400 Mw Type

DO-7—250mw—1N702—1N725 SERIES

These devices have $\pm 10\%$ tolerance. Add "A" to type number for $\pm 5\%$ tolerance.

Type	Ex Zener Volt @ Izt. Nom. volt	I _t test current Ma.	1-99	100-999	1000-Up	100 Mix
1N702	2.6	5	1.50	1.25	.95	1.38
1N703	3.4	5				
1N704	4.1	5				
1N705	4.8	5				
1N706	5.8	5				
1N707	8.0	5				
1N708	5.6	25				
1N709	6.2	25				
1N710	6.8	25				
1N711	7.5	25				
1N712	8.2	25				
1N713	9.1	12				
1N714	10.0	12				
1N715	11	12				
1N716	12.0	12				
1N717	13.0	12				
1N718	15.0	12				
1N719	16.0	12				
1N720	18.0	12				
1N721	20.0	4				
1N722	22.0	4				
1N724	27.0	4				
1N725	30.0	4				

DO-7—250 Mw—1N767—1N769 SERIES

These devices have $\pm 10\%$ tolerance. Add "A" to type number for $\pm 5\%$ tolerance.

Type	Ex Zener Volt @ Izt. Nom. volt	I _t test current Ma.	1-99	100-999	1000-Up	100 Mix
1N767	15.7	5	1.55	1.30	.99	1.43
1N768	19.0	5				
1N769	23.5	5	1.80	1.55	1.18	1.68

DO-7—400 MW SILICON GLASS ZENER DIODES

Body size: 0.265x0.110" dia. These devices have $\pm 10\%$ tolerance. Add "A" to type number for $\pm 5\%$ tolerance.

Type	V _a @ I _z Nom. V.	I _z ma	1-99	100-999	1000-Up	100 Mix
1N746	3.3	20	1.50	1.25	.95	1.38
1N747	3.6	20				
1N748	3.9	20				
1N749	4.3	20				
1N750	4.7	20				
1N751	5.1	20				
1N752	5.6	20				
1N753	6.2	20				
1N754	6.8	20				
1N755	7.5	20				
1N756	8.2	20				
1N757	9.1	20				
1N758	10.0	20				
1N759	12.0	20				

DO-7—400mw—1N957—1N973 SERIES

These devices have $\pm 20\%$ tolerance. Add "A" to type number for $\pm 10\%$ tolerance. Add "B" to type number for $\pm 5\%$ tolerance.

Type	V _a @ I _z Nom. V.	I _z ma	1-99	100-999	1000-up	100 Mix
1N957	6.8	18.5	1.40	1.15	.87	1.28
1N960	9.1	14.0				
1N961	10	12.5				
1N962	11	11.5				
1N963	12	10.5				
1N964	13	9.5				
1N965	15	8.5	1.50	1.25	.95	1.38
1N966	16	7.8				
1N968	20	6.2				
1N969	22	5.6				
1N970	24	5.2				
1N971	27	4.6				
1N972	30	4.2	1.75	1.50	1.14	1.63
1N973	33	3.8				

DO-7—400 Mw GLASS 1N3510-1N3530 SERIES

These devices have $\pm 5\%$ tolerance.

Type	V _z @ I _z	V _z @ I _z Max. Ohms	I _z Ma	1-99	100-999	100 Asst.
1N3510	4.7	16	20	3.30	2.85	3.05
1N3511	5.1	14	20			
1N3512	5.6	8	20			
1N3513	6.2	3	20			
1N3514	6.8	3	20			
1N3515	7.5	4	10			
1N3516	8.2	5	10			
1N3517	9.1	6	10			
1N3518	10	7	10			
1N3519	11	8	10			
1N3520	12	10	10			
1N3521	13	12	5			
1N3522	15	14	5			
1N3523	16	16	5			
1N3524	18	18	5			
1N3525	20	20	5			
1N3526	22	35	5			
1N3527	24	38	5			
1N3528	27	40	4			
1N3529	30	48	4			
1N3530	33	50	3			

DO-3—750 MW SILICON ZENER DIODES

These devices have $\pm 10\%$ tolerance. Add "A" to type number for $\pm 5\%$ tolerance.

Type	V _z @ I _z	V _z @ I _z Max. Ohms	I _z Ma	1-99	100-999	100 Mix
1N1508	4.7	13	30	2.75	2.10	2.45
1N1509	5.6	11	26			
1N1510	6.8	3	22			
1N1511	8.2	3	18			
1N1512	10	3.2	15			
1N1513	12	6.5	12			
1N1514	15	10.5	10			
1N1515	18	16	8			
1N1516	22	40	6			
1N1517	27	82	5			

DO-3—1-WATT SILICON ZENER DIODES

These devices have $\pm 10\%$ tolerance. Add "A" to type number for $\pm 5\%$ tolerance.

Type	V _z @ I _z	V _z @ I _z Max. Ohms	I _z Ma	1-99	100-999	100 Mix
1N1518	3.9	10	50	2.95	2.30	2.63
1N1519	4.7	13	40			
1N1520	5.6	10.2	35			
1N1521	6.8	4.2	30			
1N1523	10	4.0	20			
1N1524	12	6.0	15			
1N1525	15	13	13			
1N1526	18	25	10			
1N1527	22	32	9			
1N1528	27	45	7			

DO-4—3.5-WATT SILICON ZENER DIODES

Size: 1.160" overall L. $\frac{1}{16}$ " across hex flats. 10-32 stud mounting. These devices have $\pm 10\%$ tolerance. Add "A" to type number for $\pm 5\%$ tolerance.

Type	V _z @ I _z	V _z @ I _z Max. Ohms	I _z Ma	1-99	100-999	100 Mix
1N1588	3.9	4.5	150	3.75	3.00	3.30
1N1589	4.7	4.0	125			
1N1590	5.6	3.0	110			
1N1591	6.8	0.9	100			
1N1592	8.2	1.5	80			
1N1593	10	2.5	70			
1N1594	12	3.0	50			
1N1595	15	5.5	40			
1N1597	22	14	30			
1N1598	27	24	25			

Semiconductor guide is current as of August 15, 1966. Prices for quantities shown are competitive with the manufacturer OEM prices.

IR International Rectifier Semiconductors

1 WATT FLANGELESS—HERMETICALLY SEALED ZENERS—Fig. A

For applications where cost, space, sharp knees and low zener impedance are important. .200 OD. To designate the desired tolerance when ordering, simply add the suffix T5, T10, or T20 to the type number.

Type	Vz @ Ist	Zzt @ Ist	Ist Ma.	1-99	100-999
1ZM3.3	3.3	10	76		
1ZM3.6	3.6	10	69	5% TOL.	
1ZM3.9	3.9	9	64	1.50	1.10
1ZM4.3	4.3	9	58	10% TOL.	
1ZM4.7	4.7	8	53	1.20	.90
1ZM5.1	5.1	7	49	20% TOL.	
1ZM5.6	5.6	5	45	.90	.70
1ZM6.2	6.2	2	41		
1ZM6.8	6.8	3.5	37	5% TOL.	
1ZM7.5	7.5	4.0	34	1.20	.90
1ZM8.2	8.2	4.5	31		
1ZM9.1	9.1	5	28	10% TOL.	
1ZM10	10	7	25	.90	.70
1ZM11	11	8	23		
1ZM12	12	9	21	20% TOL.	
1ZM13	13	10	19	.80	.60
1ZM15	15	14	17		

1 WATT ZENER VOLTAGE REGULATORS (FLANGELESS)—DO-13

These zener regulators are designed primarily for continuous feeding in automated assembly processes. All of the units are process-selected so that they may assure extremely sharp zener "knees" and excellent voltage regulation over the entire operating temperature range. These devices have $\pm 20\%$ tolerance. Add "A" to type number for $\pm 10\%$ tolerance.

Type	Vz @ Ist	Ist mA	Zzt @ Ist	1-99	100-999
1N3821	3.3	76	10	No Suffix	
1N3822	3.6	69	10	2.00	1.60
1N3823	3.9	64	9		
1N3824	4.3	58	9		
1N3825	4.7	53	8	Suffix A	
1N3826	5.1	49	7	2.50	2.00
1N3827	5.6	45	5		
1N3828	6.2	41	2		
1N3829	6.8	37	1.5		

10 WATT ZENER VOLTAGE REGULATORS—DO-4

These devices have $\pm 20\%$ tolerance. Add "A" for $\pm 10\%$ tolerance. Add "B" for $\pm 5\%$ tolerance.

For reverse polarity add "R" to type number; same prices apply for types 1N2970 thru 1N3015.

Type	Vz @ Is Nom. Volts	Zz @ Is Max. Ohms	Is mA	1-99	100-999	100 Mix
1N2970	6.8	1.2	370			
1N2971	7.5	1.3	335			
1N2972	8.2	1.5	305			
1N2973	9.1	2.0	275			
1N2974	10	3	250			
1N2975	11	3	230			
1N2976	12	3	210			
1N2977	13	3	190	No Suffix		
1N2978	14	3	180			
1N2979	15	3	170	5.15	3.85	4.50
1N2980	16	4	155			
1N2981	17	4	145			
1N2982	18	4	140			
1N2984	20	4	125			
1N2986	24	5	105	Suffix A		
1N2987	25	6	100			
1N2988	27	7	95	5.20	3.90	4.55
1N2989	30	8	85			
1N2991	36	10	70			
1N2992	39	11	65			
1N2993	43	12	60			
1N2994	45	13	55	Suffix B		
1N2999	56	16	45			
1N3001	68	18	37	5.30	3.97	4.62
1N3002	75	22	33			
1N3003	82	25	30			
1N3004	91	35	28			
1N3005	100	40	25			
1N3007	110	55	23			
1N3009	130	100	19			
1N3010	140	125	18			
1N3011	150	175	17			
1N3012	160	16	200	No Suffix		
1N3013	175	14	250	5.35	4.15	4.75
1N3014	180	14	260	Suffix A		
1N3015	200	12	300	5.70	4.20	4.95
				Suffix B		
				6.50	4.75	5.35
1N3993*	3.9	2.0	640			
1N3994*	4.3	1.5	580	No Suffix		
1N3995*	4.7	1.2	530	5.60	4.00	
1N3996*	5.1	1.1	490			
1N3997*	5.6	1.0	445			
1N3998*	6.2	1.1	405	Suffix A		
1N3999*	5.8	1.2	370	7.60	5.40	
1N4000*	7.5	1.3	335			

*All these devices have $\pm 10\%$ tolerance. Add "A" to type number for $\pm 5\%$ tol. 1N3993 thru 1N4000 have reverse polarity.

1 WATT FLANGELESS TYPE—DO-13

2.6 to 200 volt Silicon diffused Junction Zener voltage regulators. These devices have $\pm 20\%$ tolerance. Add "A" to type number for $\pm 10\%$ tolerance. Add "B" to type number for $\pm 5\%$ tolerance.

Type	Zener Voltage @ Ist (Vz) Volts	Test Current (Ist) mA	Max. Zener Impedance		1-99	100-999	100 Mix
			Zzt @ Ist Ohms	Zzk @ Ist Ohms			
1N3016	6.8	37	3.5	700			
1N3017	7.5	34	4.0	700			
1N3018	8.2	31	4.5	700			
1N3019	9.1	28	5.0	700			
1N3020	10	25	7	700			
1N3021	11	23	8	700			
1N3022	12	21	9	700	No Suffix		
1N3023	13	19	10	700	2.60	2.05	2.33
1N3024	15	17	14	700			
1N3025	16	15.5	16	700			
1N3026	18	14	20	750			
1N3027	20	12.5	22	750			
1N3028	22	11.5	23	750			
1N3029	24	10.5	25	750	Suffix A		
1N3030	27	9.5	35	750			
1N3031	30	8.5	40	1,000	2.90	2.25	2.57
1N3032	33	7.5	45	1,000			
1N3033	36	7.0	50	1,000			
1N3034	39	6.5	60	1,000			
1N3035	43	6.0	70	1,500			
1N3036	47	5.5	80	1,500			
1N3037	51	5.0	95	1,500	Suffix B		
1N3038	56	4.5	110	2,000			
1N3039	62	4.0	125	2,000	3.40	2.70	3.05
1N3040	68	3.7	150	2,000			
1N3041	75	3.3	175	2,000			
1N3042	82	3.0	200	3,000			
1N3043	91	2.8	250	3,000			
1N3044	100	2.5	350	3,000			
1N3045	110	2.3	450	4,000			
1N3046	120	2.0	550	4,500	No Suffix		
1N3047	130	1.9	700	5,000	2.70	2.20	2.35
1N3048	150	1.7	1,000	6,000	Suffix A		
1N3049	160	1.6	1,100	6,500	3.05	2.30	2.65
1N3050	180	1.4	1,200	7,000	Suffix B		
1N3051	200	1.4	1,500	8,000	4.20	3.35	3.75

10 WATT SILICON ZENER DIODES—DO-4

Size: 1.160" overall L. x $\frac{1}{16}$ " across hex flats. 10-32 stud mounting with washer and nut. All these devices $\pm 10\%$ tolerance. Add "A" to type number for $\pm 5\%$ tolerance.

Mfr's Type	Vz @ Is	Zz @ Is Ma	Is Ma	1-99	100-999	100 Mix
1N1599	3.9	1.5	500	5.50	No Suffix	5.00
1N1600	4.7	0.9	400	7.25	Suffix A	6.75
1N1601	5.6	0.6	350			
1N1602	6.8	0.4	300		No Suffix	
1N1603	8.2	0.6	250			
1N1604	10	1.0	200	5.00	3.70	4.35
1N1605	12	2.0	170			
1N1606	15	2.9	140		Suffix A	
1N1607	18	4.0	110			
1N1608	22	6.0	90	5.50	4.07	4.80
1N1609	27	10.0	70			

Semiconductor guide is current as of August 15, 1966. Prices for quantities shown are competitive with the manufacturer OEM prices. Orders will be billed at prices in effect at the time of shipment. NEWARK will stock all new semiconductors as released.

International Rectifier Semiconductors

SUBMINIATURE GLASS SILICON ZENER VOLTAGE REGULATORS 50 WATT STUD MOUNTED TYPES—Fig. A

These devices have $\pm 20\%$ tolerance. Add "A" to type number for $\pm 10\%$ tolerance. Add "B" to type number for $\pm 5\%$ tolerance. These devices available with reverse polarity. Add "R" to type number. Same prices apply for 1N3305 thru 1N33401.

Type	Nom. Zener Voltage	Zener Current Ma	Max. I		1-99	100-999	100 Mix			
			Zz ohms	Zz 1 Ma ohms						
IN3305	6.8	1850	0.2	500	No Suffix					
IN3306	7.5	1700	0.3	250						
IN3307	8.2	1500	0.4	250						
IN3308	9.1	1370	0.5	250						
IN3309	10	1200	0.6	250						
IN3310	11	1100	0.8	250						
IN3311	12	1000	1.0	250						
IN3312	13	960	1.1	250						
IN3313	14	890	1.2	250						
IN3314	15	830	1.4	250						
IN3315	16	780	1.6	250	5.50	4.25	4.87			
IN3316	17	740	1.8	250						
IN3317	18	700	2.0	250						
IN3318	19	660	2.2	250						
IN3319	20	630	2.4	250						
IN3320	22	570	2.5	250				Suffix A		
IN3321	24	520	2.6	250						
IN3322	25	500	2.7	250						
IN3323	27	460	2.8	250						
IN3324	30	420	3.0	300						
IN3325	33	380	3.2	300	7.25	5.75	6.50			
IN3326	36	350	3.5	300						
IN3327	39	320	4.0	300						
IN3328	43	290	4.5	400						
IN3329	45	280	4.5	400						
IN3330	47	270	5.0	400				Suffix B		
IN3331	50	250	5.0	500						
IN3332	51	245	5.2	500						
IN3333	52	240	5.5	500						
IN3334	56	220	6	500						
IN3335	62	200	7	600	9.90	8.00	8.95			
IN3336	68	180	8	600						
IN3337	75	170	9	600						
IN3338	82	150	11	700						
IN3339	91	140	15	800						
IN3340	100	120	20	900						

SILICON ZENER VOLTAGE REFERENCE ELEMENTS—DO-7

Highly stable and rugged reference elements designed to meet the exacting requirements of elements and standards over a wide temperature range.

Type	Vz @ Ist	Zzt @ Ist	1-99
IN935	9.0	20	1.60
IN935A	9.0	20	1.80
IN935B	9.0	20	2.45
IN936	9.0	20	1.90
IN936A	9.0	20	2.45
IN936B	9.0	20	2.90
IN937	9.0	20	3.70
IN937A	9.0	20	4.25
IN937B	9.0	20	4.90
IN938	9.0	20	4.80
IN938A	9.0	20	5.20
IN938B	9.0	20	6.90
IN939	9.0	20	12.40
IN939A	9.0	20	17.50
IN939B	9.0	20	18.85

IN935 thru IN939: Δz @ 0°, +25°, +75°C. IN935B thru IN939B: ΔVz @ -55°, +25°, +100°, +150°C. IN935A thru IN939A ΔVz @ -550, +25°, +100°C.

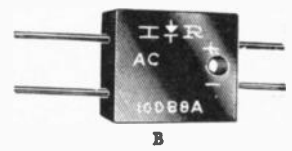
Type	Vz @ Ist	Zzt @ Ist	1-99	100-999	100 Mix
IN429	6.2	20	5.00	4.10	.....
IN821	6.2	15	3.45	2.30	2.85
IN821A	6.2	10	4.35	2.90	3.80
IN823	6.2	15	4.60	3.05	3.80
IN825	6.2	15	6.10	4.05	5.05
IN3496	6.2	15	3.70	2.50	.....
IN3497	6.2	15	5.75	4.50	.....
IN3498	6.2	15	9.00	7.00	.....
IN3499	6.2	15	19.00	15.50	.....

* Ist = 7.5 ma (bias current). DO-7 case.

Type	Vz @ Ist	Zzt @ Ist	1-99	100-999	100 Mix
IN430*	8.4	11.0	15.50	12.40	.....
IN1530**	8.4	15.0	15.60	12.40	.....
IN1530A**	8.4	15.0	23.40	18.65	.....

Ist = 10 ma (bias current). * IN430 Fig. D. ** IN1530 Fig. E.

GENERAL PURPOSE SILICON RECTIFIERS



1.8 AMP MOLDED BRIDGES—Fig. B

Type	PVR Max. Volts		RMS Inpt. Volts	DC Output Res. Load Volts	1-99	100-999
	Rep.	Trans.				
10DB2A	200	350	100	85	2.50	2.25
10DB3A	300	450	150	130	2.60	2.35
10DB4A	400	600	200	175	2.75	2.48
10DB5A	500	700	250	220	2.90	2.60
10DB6A	600	800	300	265	3.05	2.75
10DB7A	700	900	350	310	3.35	3.00
10DB8A	800	1000	400	355	3.60	3.24
10DB10A	1000	1250	500	445	5.40	4.85

10 AMP MOLDED BRIDGES—Fig. A

Type	Max. PVR Volts	RMS Inpt. Volts	DC Output		1-99	100-999
			Res. Load Volts	Cap. Load Volts		
2AFB05AP	50	18	15	18	4.05	3.25
2AFB1AP	100	35	30	35	4.30	3.45
2AFB2AP	200	70	60	70	5.15	4.15
2AFB3AP	300	105	90	105	5.55	4.50
2AFB4AP	400	140	120	140	6.50	5.30
2AFB5AP	500	175	150	175	8.00	6.40

AXIAL LEAD TOP HAT SILICON RECTIFIERS—DO-3

Oper. Temp. Range: -65 to 150°C. Max. DC output (FCA) (@ 50°C). Reverse current rating (DC) (@ 25°C). Fig. B on following page. -65°C to +165°C for 1N443B. Reverse current @ 55°C. for 1N443B.

Type	100	.300	0.30	.66	.44
IN440	100	.300	0.30	.66	.44
IN443B	400	.750	1.50	1.10	.73

AXIAL LEAD TOP HAT SILICON RECTIFIERS—DO-3

Oper. Temp. Range: -65 to 115°C. Max. DC output (@ 50°C) and reverse current rating (@ 100°C) are full cycle average values. (Fig. B on following page.)

Type	PRV	Maximum		1-99	100-999
		Amps DC	1. ma		
IN1692	100	.600	0.5	.45	.30
IN1693	200	.600	0.5	.48	.32
IN1694	300	.600	0.5	.56	.37
IN1695	400	.600	0.5	.66	.44

TOP HAT

Hermetically sealed. Rated at 50°C. Fig. B on following page.

Type	100	.600	400	.53	.35
SD91	100	.600	400	.53	.35
SD93	300	.600	400	.73	.52
SD94	400	.600	400	.89	.60
SD95	500	.600	400	.99	.67
SD91A	100	.750	600	.58	.39
SD92A	200	.750	600	.68	.46
SD93A	300	.750	600	.86	.57
SD94A	400	.750	600	.96	.64
SD95A	500	.750	600	1.06	.71

AXIAL LEAD TOP HAT SILICON RECTIFIERS—DO-3

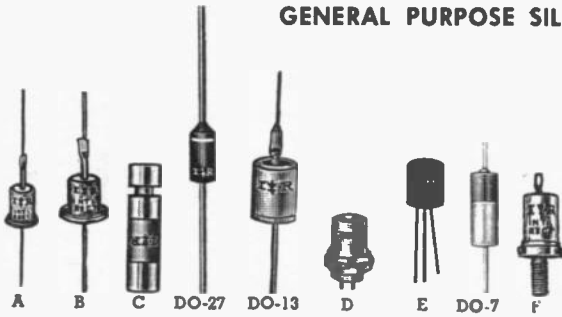
Oper. Temp. Range: -65 to +165°C Max. DC output (@ 50°C) and reverse current (max.) rating (@ 25°C) are full cycle average values.

Type	100	1.3A	0.01	.50	.37
10B1	100	1.3A	0.01	.55	.40
10B2	200	1.3A	0.01	.80	.64
10B4	400	1.3A	0.01	2.05	1.64
10B10	1000	1.3A	0.01	2.05	1.64

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GENERAL PURPOSE SILICON RECTIFIERS Continued



10C SERIES SILICON RECTIFIERS—DO-13

High reliability series of inexpensive silicon rectifiers will meet or exceed the electrical specifications of over 340 popular JEDEC and mfr. numbered types. Flangeless low leakage hermetically sealed, 1.3 amp. (1300 mA) type. Peak reverse voltage ratings to 1000 volts. Rated at 50°C.

Type	Peak Reverse Voltage Rating (V)	1-99	100-999
10C1	100	.32	.29
10C2	200	.35	.32
10C3	300	.38	.36
10C4	400	.42	.38
10C5	500	.47	.43
10C6	600	.52	.46
10C8	800	.75	.65
10C10	1000	1.70	1.20

MINIATURE SILICON RECTIFIERS—OO-27

Oper. Temp. Range: -65° to 150°C. Max. DC output (@ 75°C) and reverse current rating (@ 100°C) are full cycle average values. Case dimensions are 0.375"x0.200" dia. approx.

1 AMP. TYPE

Type	PRV	Maximum		1-99	100-999
		Amps DC	I. mA		
5A2	200	1.0	0.20	.50	.33
5A3	300	1.0	0.10	.55	.40
5A4	400	1.0	0.05	.68	.45
5A5	500	1.0	0.05	.78	.52
5A6	600	1.0	0.05	.87	.58
5A8	800	1.0	0.05	2.00	1.18
5A10	1000	1.0	0.05	2.45	1.43

MINIATURE ENCAPSULATED 10D SERIES

Incorporate new diffusion and encapsulation techniques to provide higher current ratings for their size than any device in the field. Assure high efficient current operation. .150x.140".

DC OUTPUT

Type No.	PRV	IMA	I MA	1-99	100-999
10D3	300	1000	.1	.55	.40
10D4	400	1000	.05	.68	.45
10D6	600	1000	.05	.87	.58
10D8	800	1000	.05	2.00	1.18
10D10	1000	1000	.05	2.45	1.43

INDUSTRIAL TYPE SILICON RECTIFIERS AND DIODES

Miniature, hermetically sealed types, case size: 0.250" Diam. x 0.275" long. All ratings for 50°C.

Type	Fig.	PRV	Max. DC. MA Resist.	MA Cap.	1-99	100-999
IN1701	A	50	300	200	.75	.50
IN1702	A	100	300	200	.87	.58
IN1703	A	200	300	200	1.01	.68
IN1705	A	400	300	200	1.57	1.05

HI VOLTAGE SILICON RECTIFIERS

Hermetically sealed, pigtail construction. High efficiency ratings and excellent reliability at -55 to 150°C ambient. Ratings are 75°C into resistive load.

Type	Fig.	P.I.V.	RMS	D.C. Output MA	1-99	100-999
IN1130*	F	1500	1050	300	6.22	4.15

*High temperature, stud mounted miniature type. Reverse leakage 0.1 MA. Max. forw. voltage drop 4.5V. For type IN1130 stud is cathode.

PLUG-IN SILICON RECTIFIERS

Oper. Temp. Range: -60° to +170°C. Max. DC output (@ 75°C) and reverse current rating (@ 100°C) are full cycle average values. Case dimensions are 1"x0.250" dia. approx. These units are plug-in replacements for JEDEC types IN446-IN449.

Type	Fig.	PRV	Maximum		1-99	100-999
			DC Amps	I. ma		
IN1082	C	200	0.5	0.2	.75	.60
IN1083	C	300	0.5	0.2	.85	.67
5MA6	C	600	1.0	0.2	1.70	1.35
5MA8	C	800	1.0	0.2	2.70	1.95
5MA10	C	1000	1.0	0.2	3.40	2.40
43-1803	Snap-In Holder, single				.12	.10
43-1804	Snap-In Holder, dual				.25	.20
43-1805	Snap-In Holder, quad				.90	.75

BATTERY CHARGING RECTIFIERS

Single plate rectifiers for replacement of low current trickle chargers and for constant current models. By using single plates any current rating and circuit configuration may be assembled.

DC output 6 and 12 Volts. Maximum AC input 16.5 (33) Volts

Type	DCA Out.	Size	1-9	10-99
JD116K	2	3x3x1/2"	1.75	1.49

DC output 0-14 V. Maximum AC input 36 Volts.

Type	DCA Out.	Size	1-9	10-99
J14C04	0.4	1 1/2x1x1 1/2"	1.04	.80
J14C1	1.5	1 7/8x1 1/2x1 3/16"	1.52	1.29
J14C5	4.8	3 3/4x3x1 3/4"	3.90	3.30

HIGH TEMPERATURE SILICON DIODES

Hermetically sealed; operating range -65° to +165°C. Very low voltage drop and leakage. Rating shown is for 50°C. At 150°C output is 250/175 mA.

Type	Fig.	PRV	Max. DC. MA Resist.	MA Cap.	1-99	100-999
IN536	B	50	750	550	.45	.30
IN538	B	200	750	550	.53	.35
IN540	B	400	750	550	.68	.45
IN547	B	600	750	550	.96	.64
IN1085	B	500	750	550	.78	.51
IN1086	B	600	750	550	.96	.64

TV-RADIO-AUDIO SILICON RECTIFIERS

Hermetically sealed "Top Hat," rated at 750 @ 50°C. Kits come with adapters to convert to snap-in holders. 400V PIV.

Type	Fig.	1-9	10-99	100-999
SD500-91	B	1.05	.68	.57

SILICON POWER RECTIFIERS

3 AMP. STUD-MOUNTED SILICON RECTIFIERS

Operating temperature: -65°C to +175°C. Max. DC output (@ 140°C) and reverse current rating (peak @ 25°C) are full cyc. aver. values.

Type	PRV	Max. DC Output A.	Max. Rev. I. ma	1-99	100-999
3F10	100	3.0	0.1	1.20	.79
3F20	200	3.0	0.1	2.20	1.45
3F30	300	3.0	0.1	2.75	1.82
3F80	800	3.0	0.1	9.05	5.87
3F100	1000	3.0	0.1	11.75	7.76

6 AMPERE SILICON RECTIFIERS—DO-4

Oper. Temp. Range: -65°C to +200°C. Max. DC output (@ up to 150°C) and reverse current (@ 150°C base temp.) are full cycles average values. Types listed will replace IN1341-1348 Series.

Type	PRV	Maximum		1-99	100-999
		DC Amps	I. ma		
IN1341A	50	6.0	1.4	1.13	.75
IN1342A	100	6.0	1.4	1.25	.85
IN1343A	150	6.0	1.4	1.60	1.10
IN1344A	200	6.0	1.4	2.20	1.46
IN1345A	300	6.0	1.4	3.15	2.08
IN1346A	400	6.0	1.4	4.10	2.70
IN1347A	500	6.0	1.4	4.70	3.10

Semiconductor guide is current as of August 15, 1966.

NEWARK will stock all new semiconductors as released.

SILICON POWER RECTIFIERS

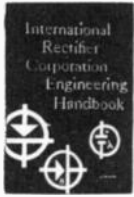
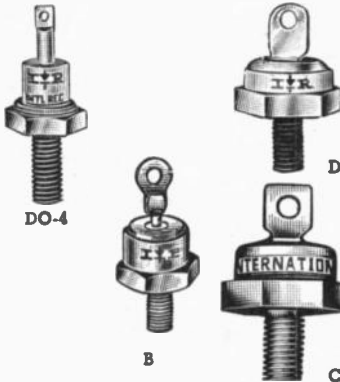
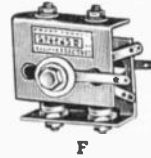


Fig. A—RECTIFIER ENGINEERING HANDBOOK

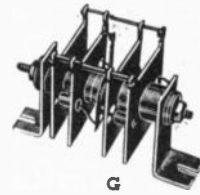
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E



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G



H

Fig. H—SILICON POWER RECTIFIERS

Hermetically sealed, extremely reliable, shock and vibration resistant devices. Oper. range: -65° to 200° C. 45 to 150 Amps. Size: 5.47L x 1" dia.

Type	PRV	Max. DC Amps	Max. I ma	NET
45L5	50	150 amps	25	7.00
1N3085	100	@ Tc =	25	8.00
1N3086	200	150°C	17	14.00

Fig. H—70 to 250 Amps. Oper. Temp.: -85 to $+200^{\circ}$ C.

Type	Max. Rep PRV	Max. DC Amps.	NET
1N2057	200	250 amps @ Tc = 135°C.	18.90
1N2061	400		23.95
1N2064	600		36.00
1N2066	800		49.50
1N2068	1000		61.00

SILICON BRIDGE RECTIFIER ASSEMBLIES

Pre-engineered and completely assembled single phase bridge rectifier stacks. The 1/2 and 1.2 amp series are sub-miniature assemblies of diodes on glass melamine board. All others are tin mounted assemblies. All diodes and rectifiers used are hermetically sealed to withstand extremes of temperature and humidity. Dual amp. ratings on B12 and B25 types are without and with fan cooling.

*Into resistive or inductive load. Add 10-30% for capacitive load.

Type	Fig.	Input RMS Volt	Output (DC)		1-99	100-999
			Volt*	Amps @ 50°C		
5SMB5L	E	35	30	1/2	3.50	3.10
5SMB20L	E	140	125	1/2	4.54	3.85
12MB10L	E	70	62	1/2	3.18	.....
12MB20L	E	140	125	1.2	3.94	.....
1N2725	G	70	62	2.5	6.01	.....
1N2728	G	140	125	2.5	6.01	.....
1N2731	G	210	188	2.5	7.31	.....
B12F10	F	25	20	14/30	8.75	7.95
B12F20	F	60	43	14/30	13.11	11.40
B12F40	F	120	87	14/30	20.62	17.20
B25H40	F	120	87	18/42	40.40	32.32

SILICON CONTROLLED RECTIFIERS



Fig. C—25 TO 60 AMP. COMMERCIAL TYPES

These 25 to 60 amp rectifiers are capable of extremely stable operation at temperatures up to 175° C base temp. Very low reverse leakage (10ma, full cycle). "Quad-sealed", a 4-layer process assures high resist. to humidity, shock, and vibration. May be mounted in any position. 1.219L x .625" dia.

Type	Mfg. Type	Rated PIV	RMS Max.	1-99
1N2128	25HB5	50	35	2.40
1N2129	25HB10	100	70	3.05
1N2130	25HB15	150	105	3.80
1N2131	25HB20	200	140	4.50
1N2133	25HB30	300	210	6.35
1N2135	25HB40	400	280	6.70

Fig. D—25 TO 60 AMP. INDUSTRIAL TYPES

Hermetically sealed. Designed to meet the most rigid military specifications. Will provide added stability in environmental extremes of temp. (-65° C to 200° C), humidity, shock and vibration. 1.262L x .625" dia.

Type	Mfg. Type	PIV	RMS Max.	1-99	100-999
1N2128A	25H5	50	35	2.30	1.90
1N2130A	25H15	150	105	3.10	2.30
1N2131A	25H20	200	140	3.65	2.60
1N2133A	25H30	300	210	4.45	3.10

Choose from the broad International Rectifier Silicon Controlled Rectifier line for your precision switching circuit needs. Covering the current range from 3 to 350 amperes, over a voltage PRV range of 25 to 1200 volts. International Rectifier JEDEC "A" series in 5 and 10 amp types provide a wider temperature range as well as more sensitive switching characteristics. The Fast Turn Off Types are available in 5, 16, and 70 amp series. They are designed for inverters and other DC switching applications.

3 AMP JEDEC 2N1600-1604 TYPES

3-junction, hermetically sealed devices. **Gate excitation values shown are required to assure firing of all units. Notes: *JEDEC registered values. Oper. Temp. -65° C to $+125^{\circ}$ C.

Type	PRV	Max. Avg. Forward Current, Amps	Gate Excitation Requirements Max. @ 25°C		1-99	100-999
			Volts	ma**		
2N1600	50*	3*	3*	10*	5.10	3.40
2N1601	100*	3*	3*	10*	5.70	3.95
2N1602	200*	3*	3*	10*	8.45	6.30
2N1603	300*	3*	3*	10*	13.50	9.00
2N1604	400*	3*	3*	10*	16.80	10.80

IR International Rectifier Semiconductors

SILICON POWER RECTIFIERS (Continued)

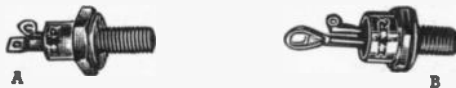


Fig. A—5 AMP JEDEC 2N1770-1778 TYPES
3-junction hermetically sealed devices. **Gate excitation values shown are required to assure firing of all units. Notes: *JEDEC registered values. Oper. Temp. -65°C to +125°C.

Type	PRV	Max. Avg. Forward Current, Amps	Gate Excitation Requirements Max. @ 25°C		1-99	100-999
			Volts	ma**		
2N1770	25*	4.7*	1.35	15	5.00	3.30
2N1771	50*	4.7*	1.35	15	5.40	3.60
2N1772	100*	4.7*	1.35	15	6.55	4.00
2N1773	150*	4.7*	1.35	15	8.75	4.85
2N1774	200*	4.7*	1.35	15	9.35	5.60

Fig. A—5 AMP 2N1770A-1777A JEDEC TYPES

3-junction, hermetically sealed devices. **Gate excitation values shown are required to assure firing of all units. Notes: *JEDEC registered values. Oper. Temp. -65°C to +125°C.

Type	PRV	Max. Avg. Forward Current, Amps	Gate Excitation Requirements Max. @ 25°C		1-99	100-999
			Volts	ma**		
2N1770A	25*	4.7*	1.35	15	5.50	3.63
2N1771A	50*	4.7*	1.35	15	8.30	3.97
2N1772A	100*	4.7*	1.35	15	8.10	4.40
2N1773A	150*	4.7*	1.35	15	10.00	5.35
2N1774A	200*	4.7*	1.35	15	12.10	6.15
2N1775A	250*	4.7*	1.35	15	14.20	6.87
2N1776A	300*	4.7*	1.35	15	16.50	8.25
2N1777A	400*	4.7*	1.35	15	21.25	9.20

Fig. B—10 AMP. 2N1842A-1850A JEDEC TYPES

3-junction, hermetically sealed devices. **Gate excitation values shown are required to assure firing of all units. Notes: *JEDEC registered values. Oper. Temp. -65°C to +125°C.

Type	PRV	Max. Avg. Forward Current, Amps	Gate Excitation Requirements Max. @ 25°C (Volts)	Gate Excitation Requirements Max. @ 25°C (ma**)	1-99	100-999
2N1844A	100*	10*	2.5	75	8.30	4.62
2N1846A	200*	10*	2.5	75	11.70	6.49
2N1849A	400*	10*	2.5	75	19.60	10.70

Fig. F—16 AMP. JEDEC 2N681-689 TYPES

3-junction hermetically sealed devices. **Gate excitation values shown are required to assure firing of all units. Notes: *JEDEC registered values. Oper. Temp. -65°C to +125°C.

Type	PRV	Max. Avg. Forward Current, Amps	Gate Excitation Requirements Max. @ 25°C (Volts)	Gate Excitation Requirements Max. @ 25°C (ma**)	1-99	100-999
2N683	100*	16*	2.0	40	9.20	5.45
2N685	200*	16*	2.0	40	12.80	7.48
2N686	250*	16*	2.0	40	16.28	8.35
2N688	400*	16*	2.0	40	23.00	11.45
2N689	500*	16*	2.0	40	28.70	13.95
2N690	600*	16*	2.0	40	33.70	15.50
2N691	700*	16*	2.0	40	38.50	21.75
2N692	800*	16*	2.0	40	44.00	24.00

COLOR TV RECTIFIERS

61-8968 is used as a voltage booster rectifier, and the 61-8969 is used as a focus rectifier normally replacing the 1V2.

Type	Description	1-9	10-99	100-999
61-8968	800 PRV	1.15	.93	.84
61-8969	6,500 PRV	2.95	2.35	1.95
K-896	1 ea. of above, plus 5A6-D	4.30	3.65	3.00

SELENIUM BRIDGE RECTIFIERS

DC output 0-29 Volts. Maximum AC input 36 Volts.

Type	DCA Out.	Size	1-9	10-99
J28B04	0.4	1 3/8 x 1 x 1 3/4"	1.70	1.44
J28B1	1.5	1 7/8 x 1 1/2 x 1 13/16"	2.48	2.10
J28B5	4.8	3 3/4 x 3 x 3 1/4"	7.02	5.94
J28B8	8.4	4 9/4 x 4 x 2 3/8"	10.25	8.25
J28B17	17.0	6 9/4 x 5 x 3 1/2"	15.35	12.99

DC output 0-58 Volts. Maximum AC input 72 Volts.

Type	DCA Out.	Size	1-9	10-99
J58B04	0.4	1 3/8 x 1 x 2 1/8"	3.41	2.88
J58B1	1.5	1 7/8 x 1 1/2 x 2 9/16"	4.90	4.15
J58B5	4.8	3 3/4 x 3 x 4 13/16"	13.98	11.83
J58B8	8.4	4 9/4 x 4 x 5 1/8"	19.38	16.40

DC output 0-116 Volts. Maximum AC input 144 Volts (122 Volts).

Type	DCA Out.	Size	1-9	10-99
J116B04	0.4	1 3/8 x 1 x 4 1/8"	6.08	5.15
J116B1	1.5	1 7/8 x 1 1/2 x 4 1/8"	8.91	7.54
J116B5	4.8	3 3/4 x 3 x 7 13/16"	26.48	22.41
J116B8	8.4	4 9/4 x 4 x 7 5/8"	37.13	31.42

SELENIUM HIGH VOLTAGE CARTRIDGE RECTIFIERS

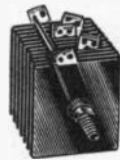


Halt Wave selenium cartridges of high efficiency. Conservatively rated. Temp. range: -65°C to +100°C. O.D. of ferrule: 3/16" to fit 30 amp fuse clips. Length 2 3/16" (V50-HF) to 6" (V175HF).

SELENIUM BRIDGE RECTIFIERS (Continued)



Series KY
Series KZ
Series KA
Series KL



Series J

DC output 0-135 Volts. Maximum input 180 Volts.

Type	DCA Out.	Size	1-9	10-99
J135B04	0.4	1 3/8 x 1 x 4 1/8"	7.70	6.26
J135B1	1.5	1 7/8 x 1 1/2 x 4 7/8"	10.86	9.19

IR-KLIP-SEL SURGE PROTECTORS PREFERRED NON-POLARIZED STACK TYPES .25 Amp Peak I

Type	Max. RMS	V. Cl.	1-9	10-99	100-999
KY2DPF	52	125	1.02	.90	.78
KY5DPF	130	310	1.27	1.12	.97
KY6DPF	156	375	1.36	1.20	1.04
KY10DPF	260	625	1.74	1.53	1.33

1 Amp Peak I

Type	Max. RMS	V. Cl.	1-9	10-99	100-999
KZ1DPF	26	63	.98	.86	.75
KZ2DPF	52	125	1.15	1.01	.88
KZ5DPF	130	310	1.53	1.35	1.17
KZ6DPF	156	375	1.74	1.53	1.33
KZ9DPF	234	565	2.00	1.76	1.53
KZ10DPF	260	625	2.08	1.84	1.59
KZ14DPF	364	890	2.49	2.20	1.90

PREFERRED NON-POLARIZED CARTRIDGE TYPES 3 Amp Peak I

Type	Max. RMS	V. Cl.	1-9	10-99	100-999
KA1DAF	26	63	1.04	.91	.79
KA2DAF	52	125	1.24	1.09	.95
KA5DAF	130	310	1.84	1.62	1.40
KA6DBF	166	375	2.04	1.80	1.56
KA9DBF	234	565	2.64	2.33	2.02
KA14DBF	364	890	3.87	3.41	2.96

15 Amp Peak I

Type	Max. RMS	V. Cl.	1-9	10-99	100-999
KL1DAF	26	63	2.97	2.62	2.27
KL2DAF	52	125	3.57	3.15	2.76
KL5DAF	130	310	5.95	5.25	4.55
KL6DBF	156	375	6.71	5.92	5.13

MINIATURE SELENIUM RECTIFIERS



Stable voltage for bias supplies, solenoid and relay supplies, small battery chargers. Conservatively rated and easy to install.

Single Plate Half Wave Rectifiers

Type	Max. DC MA	Max. RMS Volts	Dimensions			1-9	10-99	100-999
			H	W	Max. Depth			
Q1H	65	25	.67"	.67"	3/16"	.38	.29	.23
A1H	100	25	1"	1"	3/16"	.43	.43	.30
B1H	150	25	1.2"	1.2"	3/16"	.40	.40	.28
C1H	250	25	1.5"	1.5"	3/16"	.42	.42	.29

Full Wave Bridge Rectifiers

Type	Max. DC MA	Max. RMS Volts	H	W	Max. Depth	1-9	10-99	100-999
Q1B	100	25	.67"	.67"	3/16"	.55	.41	.33
Q4B	100	130	.67"	.67"	1 1/8"	1.56	1.56	.94
A1B	180	25	1"	1"	3/16"	1.22	1.22	.82
B1B	300	25	1.2"	1.2"	3/16"	1.28	1.28	.86
C1B	600	25	1.5"	1.5"	3/16"	1.46	1.46	1.00
M1B	1200	25	2"	2"	3/16"	1.72	1.72	1.03

International Rectifier Semiconductors



Silicon Photocells Selenium Photocells

CADMIUM SULPHIDE PHOTO CONDUCTIVE CELLS

These cells do not generate electricity, but are "light-sensitive resistors." Used for operating relays, counting devices, door openers, turning on street lights, etc. Type CS-020-G8 is sealed in glass. Types CS-120U6 and U16 are unmounted and will operate directly on 117 volt AC or DC. The type CS-120 cell is enclosed in a plastic case.

Type	Approx. Size	Max. Appl. V.	1-99	100-999
CS-020-G8	1/2x1x1/8"	20	4.50	.....
CS-120-U6	1/2x3/4x1/16"	120	1.95	.....
CS-120	1 1/8x1 1/8x3/16"	120	2.35	1.57
CS-120-U6	2x1x1/16"	120	3.50	.....

CONTROLLED RECTIFIER HANDBOOK

This controlled rectifier handbook contains 110 pages and is full of pertinent illustrations. The book stresses the importance of the physical properties of silicon controlled rectifiers and their effect in application. The handbook contains chapters on the structures of controlled rectifiers, operation, static, dynamic and gate characteristics and cooling and test methods.

53F091. NET. **2.50**

SILICON PLUG-IN TUBE REPLACEMENTS

Solid state rectifiers replace medium and high voltage tubes. Rugged construction, long life, no warm-up time, no filament supply required, low operating temperature. *High altitude types.

Type	Max.		Replaces Tube Types	1-9	10-99
	L."	D."			
ST-2*	2.65	1.25	5Y3, 5AU4, 5AW4, 5AZ4	5.50	4.95
			5T4, 5U4, 5V4, 5W4, 5Z4		
			5931, 6087, 6106		
			5R4		
ST-2A	2.65	1.25	5AU4, 5AW4, 5AZ4, 5T4	7.95	7.10
			5U4, 5V4, 5W4, 5Y3, 5Z4			4.20	3.75
ST-14*	1.50	1.25			

*ST-2 is rated at 750 MA. ST-14 is rated at 600 MA.

INDUSTRIAL TYPE SELENIUM PHOTOCELLS

Selt generating cells. Ideal for optical, photographic and industrial control applications. *In microamps @ 100 fc into 100 ohm load. †In molded case.

Type	Description	Output	1-99	100-999
ASM	†1 1/2" diam.; 0.3" thick	220	6.65	4.55
A15M	†2 1/2" diam.; 0.3" thick	700	10.40	7.15
B10PL	Unmounted, 1.69x0.88"	380	2.90	2.12
B10M	†2.2" x 1.1" x 0.4"	320	6.65	4.55

INDUSTRIAL TYPE SILICON SOLAR CELLS

High-output satellite type cells for direct conversion of sunlight into electricity. Used for powering electronic devices and battery charging

Type	Output		Size	1-99	100-999
	Volts	MA			
S1020GE4-PL	0.40	18	0.4x0.8	1.95	1.50
S1020GE5-PL	0.40	27	0.4x0.8	2.50	1.75
S1020GE8-PL	0.40	36	0.4x0.8	3.85	2.20
SSM102GE6	1.85	29	5E6 cells in series 2 1/2 x 7/8"	12.55	11.29

PHOTOCELLS AND SUN BATTERIES—FIG. B

Selenium cells are used extensively in light meters and other photographic and optical devices. Silicon cells have higher light conversion efficiency particularly in sunlight. All types listed are supplied with flexible leads and provisions for mounting. Case dimensions: 1 1/8x1 1/8x3/16".

Type B2M. 1/2x3/4". NET. 1-99.....1.50 100-999.....1.35
Type B3M. In plastic case. NET.....1.99.....1.75 100-999.....1.55

SILICON CELLS—FIG. B

Type	Description	1-9	10-99
S1M	In molded plastic case	2.25	2.00
S3M	Contains 2 elements in series	3.95	3.51
S4M	Same as S1M but twice the current	3.95	3.51
SSM	High efficiency type	4.95	4.40

TRANSISTOR SOLAR RADIO PACK

I.R.'s Transistor Radio Solar Pack is available in voltage ratings of 4.5V. It feeds a constant charge to the batteries while the Solar Packs are supplying the radio with its power. Housed in a handsome plastic case which protects the solar cell from damage. The Transistor Solar Pack is supplied with unique mounting pads which attach easily to any radio case or cover. No soldering necessary because the 6" leads are supplied with battery terminals.



Fig. A

Type	Size (Inches)	Net
SP5G26C	3x1 3/4x3/8"	9.95

CADMIUM SULPHIDE PHOTO CELL—FIG. B

Type CS-120 "Light Sensitive" resistors for activating relays. For door-openers, burglar alarms, traffic and industrial counters, turning on lights, etc. Maximum voltage 120 AC or DC; 0.2 Watt. Shpg. wt., 1/4 lb. Size: 1 1/8x1 1/8x3/16".

Type CS-120. NET. 1-9.....2.35
10-99.....2.35 100-999.....1.57

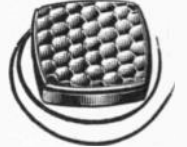


Fig. B

PHOTO CELL KIT

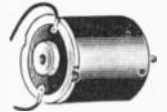
DD-190. Special Value package contains four selenium photo cells with outputs from one-third to one-half volt and 0.5 to 3 milliamps in bright sunlight. Free 24 page manual included.

Type DD-190. NET. 1-9......99 10-99......89

TYPE EP50 EXPERIMENTAL MOTOR

Experimental Motor has anti-friction bearings for operating directly from S4M or two SIM solar cells. The working voltage is from 0.35 to 1.50 volts.

Type	1-9	10-up
EP50	3.95	2.40



Semiconductor listings are current as of August 15, 1966. Prices for quantities shown are competitive with the manufacturer OEM prices. Orders will be billed at prices in effect at the time of shipment. NEWARK will Stock All New Semiconductors as released. To Serve You Better — Seven Stocking Warehouses from Coast-to-Coast.



Sylvania Transistors



TO-5



TO-18



TO-22



TO-46

NPN SILICON EPITAXIAL PLANAR TRANSISTORS—

SMALL SIGNAL—TO-18

"Purple plaque" free, passivated construction, extremely fast switching. Pt TO-18 300 mw, TO-46 400 mw, TO-51 300 mw, Tj +200°C.

Type	Case	VBC	ft (MCS)	1-99	100-999
2N706	TO-18	25	320	.81	.54
2N706/51	TO-51	25	320	3.30	2.20
2N706B/46	TO-46	25	320	1.65	1.10
2N708/46	TO-46	40	400	1.87	1.25
2N708	TO-18	15	600	1.15	.77
2N709/46	TO-46	15	600	1.65	1.10
2N743	TO-18	20	350	6.20	4.15
2N743/46	TO-46	20	350	7.35	4.90
2N744	TO-18	20	350	2.90	1.95
2N2475	TO-18	15	800	5.25	3.50
2N2784	TO-18	15	1000	1.65	1.10
2N2784/46	TO-46	15	1000	2.48	1.64
2N2784/51	TO-51	15	1000	5.95	3.90

NPN GE IF; RF TRANSISTORS—TO-22

Used primarily in AM radio as RF and IF amp. oscillators, mixers and converter. Feature closely controlled feed-back parameters to simplify neutralization. Pt 150 mw, Ic 100 ma, Tj +85°C.

Type	Application	Vcb	Vce	1-99	100-999
2N94	IF Amp.	20	20	1.08	.72
2N293	Gen. Purp.	10	10	.50	.33

LARGE SIGNAL NPN SILICON EPITAXIAL PLANAR TRANSISTORS

"Purple plaque" free, passivated construction, fast switching combined with high power dissipation. Tj +200°C.

Type	Case	VBC	ft. (Mc)	1-99	100-999
2N1958	TO-5	60	140	3.95	2.65
2N2218	TO-5	60	250	3.35	2.25
2N2218	TO-5	60	250	3.35	2.37
2N2221	TO-18	60	250	3.35	2.25
2N2297	TO-5	80	120	13.25	9.50

NPN GE POWER AND AUDIO TRANSISTORS—TO-5

Ideal for high current switching and amplifier applications. * Indicates stud heat sink. † Indicates hexagonal heat sink. Ic 3 amps; Pt 20 watts.

Type	VBC-v	hFE	1-99	100-999
2N1038	-40	33-200 @ 50 ma	2.80	1.90
2N1039	-60	33-200 @ 50 ma	3.75	2.50
2N1040	-80	33-200 @ 50 ma	5.70	3.80
2N1042-2	-40	20-60 @ 3 amps	4.25	3.00
2N1044-2	-80	20-60 @ 3 amps	8.55	5.70
2N2552*	-40	33-200 @ 50 ma	3.00	2.00
2N2553*	-60	33-200 @ 50 ma	3.90	2.60
2N2554*	-80	33-200 @ 50 ma	5.85	3.90
2N2555*	-100	33-200 @ 50 ma	7.65	5.10
2N2556†	-40	33-200 @ 50 ma	3.05	2.00
2N2557†	-60	33-200 @ 50 ma	3.95	2.65
2N2558†	-80	33-200 @ 50 ma	5.90	3.95
2N2559†	-100	33-200 @ 50 ma	7.75	5.15
2N2560*	-40	20-60 @ 3 amps	4.45	2.95
2N2561*	-60	20-60 @ 3 amps	5.80	3.85
2N2562*	-80	20-60 @ 3 amps	8.70	5.80
2N2563*	-100	20-60 @ 3 amps	11.40	7.60
2N2565	-80	20-60 @ 3 amps	5.65	3.75

NPN GE EPITAXIAL MESA AMPLIFIERS/SWITCHES

Epitaxial design provides excellent service in VHF and UHF amplifier applications T; +100°C.

Type	Case	Vcb	Pt mW	ft Mc	1-99	100-999
2N741	TO-18	-15	150	360	2.15	1.45
2N741A	TO-18	-20	150	360	3.30	2.20
2N1142	TO-5	-30	300	1000	4.20	2.80
2N1143	TO-5	-35	300	800	3.50	2.33

PNP SILICON EPITAXIAL PLANAR LARGE SIGNAL TRANSISTOR

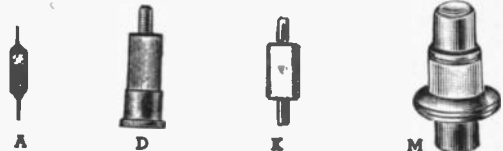
"Purple plaque" free, passivated construction, channeling guard. Tj +200°C.

Type	Case	VBC (v)	FT (Mc)	1-99	100-999
2N1131	TO-5	50	100	5.04	3.36
2N1131A	TO-5	60	120	7.80	5.20
2N1132	TO-5	50	120	5.60	3.75
2N1132A	TO-5	60	120	6.00	4.00
2N1132B	TO-5	70	120	9.00	6.00
2N1132B/51	TO-51	70	120	21.00	14.00
2N2900	TO-5	50	120	6.75	4.50
2N2801	TO-5	50	120	7.10	4.75
2N2906	TO-18	60	200	6.48	4.32
2N2907	TO-18	60	200	7.83	5.22
2N3081	TO-51	70	150	22.50	15.00

NPN GERMANIUM AUDIO & POWER TRANSISTORS—TO-22

Pt 180 mw, Tj 85°C, Ic -100 ma, Ic 2N647, 2N649 150 Ma.

Type	Description	Pt mw	VBC V	Ic ma	1-99	100-999
2N35	Gen. Purp. Audio	180	+40	100	.91	.61
2N213	Audio Driver	180	+40	100	.91	.61
2N228	Audio Output	180	+40	100	1.59	1.05
2N229	Gen. Purpose	180	+10	100	.50	.33
2N1059	Output	180	+20	100	1.00	.67
2N1101	Push-Pull Aud	180	+20	100	.58	.39
2N1102	Push-Pull Aud	180	+40	100	.84	.43
2N1251	Hi Gain Audio	180	+20	100	.75	.50



MICROWAVE MIXER DIODES

* Indicates MIL, approval, + indicates comparative DB Noise figure where if amp. noise equals 1.5 —indicates Hi temp. for package —02.

Type No.	Fig.	Free Band	+Noise (DB)	1-9	10-99	100-999
1N21B	A	S	10.3	.67	.58	.53
1N21C	A	S	8.3	1.02	.88	.81
1N21D	A	S	7.3	2.45	2.10	1.93
1N21F	A	S	6.0	8.10	6.90	6.35
1N21G	A	S	5.5	12.60	10.80	9.90
1N21WE*	A	S	7.0	5.25	4.50	4.15
1N25B	A	X	11.5	.67	.58	.54
1N23C	A	X	9.5	1.02	.88	.81
1N23D	A	X	7.8	2.45	2.10	1.93
1N23E	A	X	7.5	4.20	3.60	3.30
1N23F	A	X	7.0	8.10	6.90	6.35
1N23G	A	X	6.5	12.60	10.80	9.90
1N23WE*	A	X	7.5	5.25	4.50	4.15
1N25*	A	L	12.6	3.53	3.03	2.74
1N26*	B	K	13.1	6.50	5.60	5.10
1N26B	B	K	10.0	27.25	23.70	.....
1N26C	B	K	9.5	31.15	27.80	.....
1N53	B	KA	13.1	23.20	19.80	.....
1N78A	B	KU	9.8	5.00	4.28	3.93
1N78B*	B	KU	8.8	7.00	6.00	5.00
1N78E	B	KU	8.0	31.50	27.00	.....
1N78F	B	KU	7.5	56.00	48.00	.....
1N415G	A	X	6.5	12.60	10.80	9.90
1N416G	A	S	5.5	12.60	10.80	9.90
1N831	C	S	8.3	6.85	5.87	5.40
1N831A	C	S	7.0	10.90	9.35	8.60
1N832	E	X	9.3	6.85	5.87	5.40
1N832A	E	X	7.5	10.90	9.35	8.60
1N1132	B	X	9.5	20.00	17.20	.....
1N2510	C	X	9.5	18.20	15.60	.....

HI SPEED SILICON EPITAXIAL PLANAR DIODES—DO-7

Rec. time fu secs. except 1N251 & 1N252-150n secs. 1N3731-3n secs.

Type	DIV (V)	Avg. IFWD (ma)	1-99	100-999	1000-up
1N251	40	40	.85	.43	.18
1N252	40	40	.85	.43	.18
1N903A	40	50	1.02	.68	.31
1N905A	20	50	1.55	1.09	.98
1N906	20	50	.90	.60	.30
1N906A	20	50	1.13	.75	.39
1N908A	40	50	1.02	.68	.30
1N914	100	75	.45	.30	.18
1N914B	100	75	1.35	.90	.22
1N916A	100	75	.75	.50	.32
1N916B	100	75	.92	.61	.55
1N3064	75	75	.67	.44	.23
1N3604	75	75	.80	.56	.32
1N3605	40	50	.72	.48	.28

SILICON UHF MIXER DIODES

Type	Fig.	Piv	IFWD		($\mu\text{a max}$) I _r	1-99	100-999	1000-up
			Min.	@ 1V Max.				
1N82	E	5	10	20	3000@-3V	.70	.55	.44
1N82A	E	5	10	20	3000@-3V	.91	.71	.57
1N82AG	DO-7	5	10	20	3000@-3V	.91	.71	.61

GERMANIUM BONDED DIODES—DO-7

For general purposes and computer applications; (*) indicates MIL approval.

Type	Piv (volts)	I _{fw} d (mA)	1-99	100-999	1000-up
1N98	100	60	.31	.24	.12
1N99	100	60	.50	.39	.16
1N100	100	60	.32	.27	.12
1N118	75	60	.23	.20	.13
1N270*	100	90	.32	.25	.11
1N276*	100	40	.31	.24	.12
1N277*	125	75	.34	.26	.14
1N279	35	80	.29	.22	.17
1N281	75	75	.31	.24	.14
1N283	25	100	.51	.40	.15
1N497	30	80	.39	.30	.14
1N498	60	80	.44	.35	.15
1N500	80	100	.53	.41	.15
1N631	90	60	.80	.63	.50
1N633	90	60	.83	.65	.35
1N695	20	100	.30	.24	.14
1N770	30	40	.48	.38	.16
1N895	15	30	.60	.45	.18
1N3125	50	100	.51	.40	.32

GENERAL PURPOSE & FAST SWITCH SILICON JUNCTION DIODES

Low leakage, excellent stability; DO-7 package. Ratings at 25°C. * Indicates MIL approval.

Type	Fig.	Piv	I _{fw} d (mA) @ 1 volt Min	Reverse Current $\mu\text{a max.}$	1-99	100-999	1000-up
1N456	G	30	40	.025@-25V	.42	.28	.18
1N456A	G	30	100	.025@-25V	.42	.28	.18
1N457*	G	70	20	.025@-60V	.45	.30	.19
1N457A	G	70	100	.025@-60V	.45	.30	.19
1N458*	G	150	7	.025@-125V	.48	.32	.21
1N458A	G	150	100	.025@-125V	.48	.32	.21
1N459*	G	200	3	.025@-175V	.51	.34	.21
1N459A	G	200	100	.025@-175V	.42	.28	.18
1N461	G	30	15	.5@-25V	.42	.28	.18
1N461A	G	30	100	.5@-25V	.42	.28	.18
1N462	G	70	5	.5@-60V	.44	.29	.19
1N462A	G	70	100	.5@-60V	.44	.29	.19
1N463	G	200	1	.5@-175V	.54	.36	.22
1N463A	G	200	100	.5@-175V	.54	.36	.22
1N464	G	150	3	.5@-125V	.53	.35	.21
1N464A	G	150	100	.5@-125V	.53	.35	.21
1N482	G	40	100 @ 1.1V	.25@-30V	.66	.44	.19
1N482A	G	40	100	.025@-30V	.69	.46	.19
1N482B	G	40	100	.025@-30V	.69	.46	.19
1N483	G	80	100 @ 1.1V	.025@-60V	.70	.47	.19
1N483B	G	80	100	.025@-60V	.70	.47	.19
1N484	G	150	100 @ 1.1V	.25@-125V	.70	.47	.22
1N484A	G	150	100	.025@-125V	.70	.47	.22
1N484B	G	150	100	.025@-125V	.70	.47	.22
1N485	G	200	100	.025@-175V	.90	.60	.24
1N485A	G	200	100	.025@-175V	.90	.60	.24
1N485B	G	200	100 @ 1V	.025@-175V	.90	.60	.24
1N486A	G	250	200	.05@-225V	.90	.60	.26
1N486B	G	250	200	.05@-225V	.90	.60	.26
1N487	G	330	100 @ 1.1V	.25@-300V	1.05	.70	.35
1N487A	G	330	100	.1@-300V	1.41	.94	.38
1N488	G	420	100 @ 1.1V	.25@-380V	1.17	.78	.45
1N488A	G	420	100	.1@-380V	1.78	1.19	.49
1N625	G	.....	4 @ 1.5V	1.0@-30V	.43	.29	.18
1N626	G	.....	4 @ 1.5V	1.0@-35V	.45	.30	.19
1N627	G	.....	4 @ 1.5V	1.0@-75V	.60	.39	.21
1N628	G	.....	4 @ 1.5V	1.0@-125V	.72	.47	.22
1N629	G	.....	4 @ 1.5V	1.0@-175V	.81	.54	.24
1N643A	G	200	100	1.0@-100V	1.50	1.00	.22
1N658	G	120	100	.05@-50V	1.76	1.20	.27
1N659	G	.....	6	.05@-60V	.58	.39	.17
1N662*	G	80	10	1.0@-10V	.92	.44	.24
1N663*	G	80	100	5.0@-75V	1.20	.80	.26
1N816	G	6	100	.1@-6V	.52	.35	.18
1N816W*	G	6	100	.1@-6V	.52	.35	.18
D6623	G	70	100	.005@-60V	.48	.32	.21
D6623A	G	70	100	.001@-125V	.52	.35	.22
D6624A	G	150	100	.001@-125V	.56	.38	.23
D6625	G	200	100	.005@-175V	.57	.38	.23
D6625A	G	200	100	.001@-175V	.60	.40	.24

NEWARK Maintains Seven Giant Warehouses to Insure Fastest Delivery from Stock. Make NEWARK Your One Point Source.

SILICON DIFFUSED EPOXY BULLET RECTIFIERS

Hi temperature; Hi conductance for general purpose. Ratings at 25°C.

Type	PRV (V)	Fig.	Max. DC output mA at 25°C	1-99	100-999	1000-up
1N2069	200	G	750	.65	.43	.29
1N2069A	200	G	750	.67	.45	.30
1N2070	400	G	750	.71	.47	.31
1N2070A	400	G	750	.72	.47	.31
1N2071	600	G	750	.87	.50	.33
1N2071A	600	G	750	.92	.59	.39
1N2482	200	G	750	.65	.43	.29
1N2483	400	G	750	.69	.46	.31
1N2484	600	G	750	.71	.47	.31
SR200B	300	G	200	.65	.42	.27
SR500B	400	G	500	.68	.45	.29
SR1692	100	G	600	.61	.41	.27

CONTROLLED AVALANCHE SILICON DIFFUSED EPOXY RECTIFIERS—RATINGS 25°C.

Type	PRV	Fig.	RMS Input Voltage	Max. DC FWD Volt. Drop At 1000 mA	1-99	100-999	1000-up
SR6587	200	G	140	1.0	1.20	.80	.40
SR6588	400	G	280	1.0	1.29	.86	.43
SR6589	600	G	420	1.0	1.38	.92	.46
SR6590	800	G	560	1.0	2.07	1.38	.69
SR6591	1000	G	710	1.0	3.30	2.20	1.10

MICROWAVE VIDEO DETECTORS

Type	Freq. Band	1-9	10-99	100-249
1N358A	L-X	19.25	16.50	15.15
1N630R	L-X	53.50	45.80	42.00
1N830A	1000Mc	3.85	3.30	3.00
1N833A	X	13.95	11.95	10.95
1N1611	X	4.30	3.68	3.40
1N3143	X	5.60	4.80	4.40

GERMANIUM POINT CONTACT DIODES—DO-7

For use in Audio, IF, RF & UHF range. * Indicates matched pair.

Type	PRV	IFWD (mA)	1-99	100-999	1000-up
1N34A	75	50	.30	.23	.14
1N35*	75	225	1.58	1.21	.99
1N38A	120	50	.49	.38	.16
1N48	85	50	.30	.20	.14
1N54A	75	50	.42	.32	.17
1N55A	170	50	.40	.31	.14
1N58A	120	50	.55	.41	.23
1N60	30	50	.30	.23	.18
1N63	125	50	.36	.28	.22
1N64	25	50	.30	.23	.18
1N65	85	50	.48	.35	.30
1N67A	100	30	.28	.21	.14
1N69A	75	40	.30	.23	.18
1N81A	55	30	.48	.36	.30
1N90	75	30	.33	.22	.14
1N115	70	25	.64	.50	.40
1N116	75	45	.49	.36	.13
1N120	70	25	.46	.36	.29
1N126A	75	30	.30	.24	.11
1N127A	125	30	.42	.28	.16
1N128	50	30	.32	.25	.12
1N191	90	30	.35	.26	.15
1N192	70	45	.34	.26	.14
1N196	100	30	.35	.28	.15
1N198A	100	30	.35	.28	.15
1N198B	100	30	1.03	.78	.64
1N294	70	50	.34	.26	.15
1N295	50	30	.35	.27	.15
1N297	100	35	.31	.28	.14
1N298	85	50	.45	.30	.27
1N805	50	35	.29	.20	.16

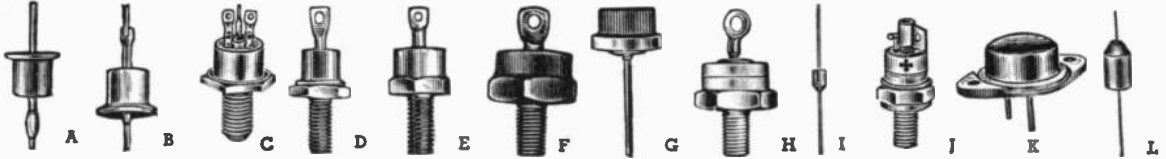
PNP GERMANIUM EPITAXIAL MESA SWITCHING TRANSISTORS

High FT and fast switching pt 150 mW T_j 100°C.

Type	Case	V _{cb}	ft mc	1-99	100-999
2N501/18	TO-18	-15	250	3.52	2.35
2N711	TO-18	-12	300	.89	.59
2N711A	TO-18	-15	300	.89	.59
2N711B	TO-18	-18	330	.94	.63
2N961	TO-18	-12	400	.91	.61
2N963	TO-18	-12	350	.83	.55
2N965	TO-18	-12	420	.94	.63
2N967	TO-18	-12	350	.87	.58
2N2860	TO-18	.....	.....	2.25	1.50



Westinghouse Semiconductors



SILICON RECTIFIERS, LOW POWER

Type	Fig.	PRV	Max. IDC Resistive Load	1-99	100-999
IN1217B	B	50	1.6A @ 140°C Case	.40	.25
IN1218B	B	100		.45	.30
IN1220B	B	200		.50	.33
IN1222B	B	400		.75	.50
IN1224B	B	600		.95	.65
IN1226B	B	800		1.39	.95
IN536	A	50	750 MA. @ 50°C Ambient	.40	.29
IN537	A	100		.45	.30
IN538	A	200		.50	.33
IN539	A	300		.60	.45
IN540	A	400		.75	.50
IN547	A	600		.95	.65
IN560	A	800	600 MA. @ 30°C Ambient	1.39	.95
IN561	A	1000		3.32	2.21
IN1095	A	500	750 MA. @ 35°C Ambient	.76	.51
IN1096	A	600	750 MA. @ 30°C Ambient	.93	.63
IN4816	I	50	1.5 Amp. @ 40°C Case	.28	.22
IN4817	I	100		.32	.26

Type	Fig.	PRV	Max. IDC Resistive Load	1-99	100-999
IN4818	I	200	1.5 Amp @ 40°C Case	.38	.30
IN4819	I	300		.42	.34
IN4820	I	400		.46	.37
IN4821	I	500		.50	.40
IN4822	I	600		.58	.46
IN2610	.....	100		1.10	.75
IN5052	L	700	1.5 Amp @ 40°C Ambient	.80	.64
IN5053	L	800		.96	.77
IN5054	L	1000		1.30	1.04
386-1AY	Y	50	1.0 Amp @ 50°C Ambient	1.35	.90
IN5004	Y	100		1.65	1.08
386-1CY	Y	150		1.74	1.20
IN5005	Y	200		1.85	1.26
386-1FY	Y	300		2.40	1.62
IN5006	Y	400		2.60	1.81
386-K	Y	500		3.00	2.05
IN5007	Y	600		3.55	2.40

SILICON RECTIFIERS, MEDIUM POWER

Type	Fig.	PRV	Max. IDC Resistive Load	1-99	100-999	
IN1612	D	50	10 Amp @ 150°C Case	1.13	.77	
IN1613	D	100		1.30	.88	
IN1614	D	200		1.96	1.32	
IN1615	D	400		4.18	2.80	
IN1616	D	600		6.08	4.07	
IN1341A	D	50		6 Amp @ 150°C Case	1.13	.75
IN1341AR	D	50	1.13		.75	
IN1342A	D	100	1.28		.85	
IN1342AR	D	100	1.28		.85	
IN1343A	D	150	1.64		1.09	
IN1343AR	D	150	1.64		1.09	
IN1344A	D	200	2.22		1.45	
IN1344AR	D	200	2.22		1.45	
IN1345A	D	300	3.17		2.11	
IN1345AR	D	300	3.17		2.11	
IN1316A	D	400	4.11		2.74	
IN1346AR	D	400	4.11		2.74	
IN1347A	D	500	4.97		3.31	
IN1347AR	D	500	4.97		3.31	
IN1348A	D	600	5.93		3.95	
IN1348AR	D	600	5.93		3.95	
IN1199A	D	50	12 Amp @ 150°C Case	1.25	.83	
IN1199AR	D	50		1.25	.83	
IN1200A	D	100		1.41	.94	
IN1200AR	D	100		1.41	.94	
IN1201A	D	150		1.82	1.21	
IN1201AR	D	150		1.82	1.21	
IN1202A	D	200		2.63	1.75	
IN1202AR	D	200		2.63	1.75	
IN1203A	D	300		3.60	2.40	
IN1203AR	D	300		3.60	2.40	
IN1204A	D	400		4.58	3.05	
IN1204AR	D	400		4.58	3.05	
IN1205A	D	500		5.33	3.55	
IN1205AR	D	500		5.33	3.55	
IN1206A	D	600		6.30	4.25	
IN1206AR	D	600		6.30	4.25	
703A	G	50		15 Amp @ 150°C Case	.47	.40
703-AR	G	50			.47	.40
703-B	G	100			.54	.45

Type	Fig.	PRV	Max. IDC Resistive Load	1-99	100-999
703-BR	G	100	20 Amp @ 150°C Case	.54	.45
703-D	G	200		.78	.65
703-DR	G	200		.78	.65
IN1191.R	F	50	18 Amp @ 140°C Case	1.65	1.10
IN1192.R	F	100		1.72	1.15
IN1193.R	F	150		2.10	1.40
IN1194.R	F	200		2.45	2.10
IN1195.R	F	300		3.98	3.00
IN1196.R	F	400		5.00	3.30
IN1197.R	F	500		5.85	4.10
IN1198.R	F	600		6.50	4.40
703-F	DD	300	15.0 Amp @ 150°C Case	.89	.75
703-FR	DD	300		.89	.75
IN248	F	50	15 Amp @ 150°C Case	2.00	1.33
IN248A	F	50		2.00	1.33
IN248B	F	50		2.00	1.33
IN249	F	100		2.45	1.69
IN219A	F	100		2.45	1.69
IN249B	F	110		2.45	1.69
IN250B	F	220		3.63	2.42
IN1183	F	50		35 Amp @ 140°C Case	1.95	1.30
IN1184	F	100	2.40		1.60
IN1185	F	150	2.90		1.95
IN1186	F	200	3.45		2.30
IN1187	F	300	5.13		3.42
IN1188	F	400	5.85		3.90
IN1189	F	500	6.05		4.30
IN1190	F	600	6.60		4.60
IN1183A	F	50	40 Amp @ 150°C Case		2.40	2.10
IN1183AR	F	50		2.40	2.10
IN1183.R	F	50		1.95	1.30
IN1184.R	F	100		2.40	1.60
IN1185.R	F	150		2.90	1.95
IN1186.R	F	200		3.45	2.30
IN1187.R	F	300		5.13	3.42
IN1188.R	F	400		5.85	3.90
IN1189.R	F	500		6.05	4.30
IN1190A.R	F	600		7.60	5.10
IN1190AR	F	800		7.60	5.10
IN1190.R	F	600		6.60	4.60

RECTIFIERS—OEM LINE

Type	Fig.	PRV	Max. IDC Resistive Load	1-99	100-999
368-A	E	50	15 Amp @ 125°C Case	.73	.61
368-B	E	100		.78	.64
368-C	E	150		.86	.66
368-D	E	200		1.03	.69

Type	Fig.	PRV	Max. IDC Resistive Load	1-99	100-999
368-F	E	300	15 Amp @ 125°C Case	1.22	.80
368-H	E	400		1.43	.90
368-K	E	500		1.68	1.05
368-M	E	600		1.97	1.22

FAST RECOVERY RECTIFIERS

Type	Fig.	PRV	Max. IDC Resistive Load	1-99	100-999
IN3879	E	50	6 Amp.	5.25	3.50
IN3880	EF	100		5.77	3.85
IN3881	EF	200		8.25	5.50
IN3882	E	300		12.38	8.25
IN3883	E	400		14.50	9.40
IN3889	E	50		12 Amp.	6.30	4.20
IN3890	E	100	6.75		4.50
IN3891	E	200	9.75		6.50
IN3892	E	300	14.65		9.75
IN3893	E	400	17.60		11.75

Type	Fig.	PRV	Max. IDC Resistive Load	1-99	100-999
IN3899	F	50	20 Amp.	15.00	12.80
IN3900	F	100		18.00	14.95
IN3901	F	200		26.00	18.60
IN3902	F	300		31.90	21.25
IN3903	F	400		36.00	24.00
IN3909	F	50	35 Amp.	29.30	19.50
IN3910	F	100		39.00	25.95
IN3911	F	200		47.50	31.60
IN3912	F	300		53.80	35.90
IN3913	F	400		60.00	40.00

Westinghouse Semiconductors



SILICON—RECTIFIERS, HIGH POWER

Type	Fig.	PRV	Max. IDC Res. Load	1-24	25-99
416A	BB	50	70 Amps. @ 100°C Cases	2.80	2.16
416B	BB	100		3.90	2.69
416C	BB	150		4.60	3.30
IN4136	BB	200		5.50	3.95
416F	BB	300		6.50	4.52
IN4137	BB	400		7.50	5.16
416K	BB	500		8.50	5.69
IN4138	BB	600		9.10	6.12
416P	BB	700		11.00	9.65
416S	BB	800		12.50	10.32
416V	BB	900	13.75	10.85	
416Z	BB	1000	15.00	11.40	
IN1396	M	50	70 Amp @ 150°C Case	5.50	4.65
IN1397	M	100		6.80	5.75
IN1398	M	150		8.90	7.40
IN1399	M	200		11.15	8.90
IN1400	M	300		12.65	10.35
IN1401	M	400	13.70	11.35	
IN1402	M	500	125 Amp.	15.25	12.65
IN1403	M	600		17.95	14.85
IN3288A	M	100		6.90	5.85
IN3289A	M	200		11.25	9.00
IN3290A	M	300		12.75	10.45
IN3291A	M	400		13.85	11.45
IN3292A	M	500		15.40	12.75
IN3293A	M	600		18.10	15.00
IN3294A	M	800		22.85	18.70
IN3295A	M	1000		27.20	22.40
IN3260	N	50	160 Amp @ 125°C Case	7.50	6.35
IN3261	N	100		8.55	7.25
IN3262	N	150		11.30	9.83
IN3263	N	200		14.85	12.60
IN3264	N	250		17.10	14.10
IN3265	N	300		17.95	14.70
IN3266	N	350		18.75	15.45
IN3267	N	400		19.55	16.20
IN3268	N	500		21.75	17.95
IN3269	N	600		25.60	21.00
IN3270	N	700	28.90	23.80	
IN3271	N	800	32.05	26.45	
IN3272	N	900	35.30	28.90	
IN3273	N	1000	38.55	32.00	
IN3274	N	1200	42.00	35.20	
IN3275	N	1400	46.20	38.85	
IN3276	N	1600	50.95	43.05	
IN3174A	P	1000	171.35	142.60	
IN4055	P	900	72.00	57.50	
IN4056	P	1000	79.50	63.00	
IN4587	M	100	150 Amps @ 110°C	8.10	6.90
IN4588	M	200		13.35	11.35
IN4589	M	300		15.25	12.50
IN4590	M	400		16.60	13.80
IN4591	M	500		18.50	15.25
IN4592	M	600		21.80	17.85
IN4593	M	800		27.20	22.50
IN4594	M	1000		32.80	27.20
IN4595	M	1200		55.00	40.00
IN4596	M	1400		75.00	50.00
IN3161.R	N	50	240 Amp @ 125 C Case	18.75	15.70
IN3162.R	N	100		22.45	18.85
IN3163.R	N	150		26.45	22.55
IN3164.R	N	200		31.30	26.35
IN3165.R	N	250		35.65	30.00
IN3166.R	N	300		40.70	34.25
IN3167.R	N	350		52.05	43.80
IN3168.R	N	400		59.70	50.15
IN3169.R	N	500		72.20	60.70
IN3170.R	N	600		88.55	74.20
IN3171A.AR	N	700	102.95	87.40	
IN3172A.AR	N	800	121.90	102.35	
IN3173A.AR	N	900	144.90	121.90	
IN3174A.AR	N	1000	171.35	142.60	
IN4044.R	N	50	275 Amp @ 120 C Case	13.00	11.25
IN4045.R	N	100		20.00	15.75
IN4046.R	N	150		23.40	18.50
IN4047.R	N	200		28.00	21.40
IN4048.R	N	250		30.00	23.00
IN4049.R	N	300		32.40	24.75
IN4050.R	N	400		35.50	27.00
IN4051.R	N	500		44.00	34.00
IN4052.R	N	600		52.25	40.25
IN4053.R	N	700		58.50	45.00
IN4045.R	N	800	20.00	15.75	
760ZD.R	N	1200	96.00	81.00	
760ZH.R	N	1400	109.00	104.00	
760ZM.R	N	1600	125.00	120.00	

SILICON POWER TRANSISTORS—OEM LINE

Type	Fig.	Vce	Ic Max.	DC I Gain	1-99	100-999		
151-04	R	40	6A	11 Min. Vce=4V Ic=1.5A	5.55	4.35		
151-06	R	60			8.40	6.55		
151-08	R	80			11.30	8.70		
151-10	R	100			14.30	11.10		
152-04	R	40			6A	18 Min. Vce=4V Ic=1.5A	6.45	5.00
152-06	R	60	9.50	7.40				
152-08	R	80	12.60	9.80				
152-10	R	100	15.75	12.25				
153-12	N	120	7.5A	Vce=4V Ic=1.5A			16.15	12.40
153-14	N	140			18.20	14.00		
153-18	N	180			22.10	17.80		
153-20	N	200			26.10	20.00		
154-08	N	80			7.5A	25 Min. Vce=4V Ic=1.5A	12.60	9.80
154-10	N	100	15.75	12.25				
154-12	N	120	18.60	14.30				
154-14	N	140	20.90	16.10				
154-16	N	160	23.60	18.20				
154-18	N	180	26.60	20.25				
2N3429	C	50	7.5A	10 Min. Ic=5A			29.00	21.60
2N3430	C	100					38.00	28.30
2N3431	C	150					51.00	37.70
2N3432	C	200					67.00	50.00
2N3433	C	250			89.00	66.50		
2N3470	....	50	10A	100 Min. Ic=10A	44.00	29.00	
2N3471	....	100			61.00	41.00	
2N3472	....	150			83.00	55.00	
2N3473	....	200			112.00	75.00	
2N3474	50			10A	400 Min. Ic=10A	73.00	48.00
2N3475	....	100	99.00	66.00			
2N3476	....	150	132.00	88.00			
2N3477	....	200	183.00	122.00			
2N2775	50	30A	10 Min. Ic=25A			77.00	64.90
2N2776	....	100			99.00	83.60	
2N2777	....	150			128.50	107.80	
2N2778	....	200			161.70	136.40	
153-04	C	40			7.5A	15 Min. Ic=1.5A	5.55	4.35
153-06	C	60	8.40	6.55				
153-08	C	80	11.30	8.70				
153-10	C	100	14.30	11.10				
153-12	C	120	17.30	13.30				
153-14	C	140	20.50	15.70				
153-16	C	160	23.50	18.20				
153-18	C	180	26.50	20.70				
153-20	C	200	29.50	23.20				
153-22	C	220	34.10	25.75				
153-24	C	240	38.80	29.30				
153-26	C	260	44.00	33.40				
153-28	C	280	49.00	37.40				
154-04	C	40	7.5A	25 Min. Ic=1.5A	6.45	5.00		
154-06	C	60			9.50	7.40		
154-20	C	200			28.80	22.00		
154-22	C	220			32.60	24.80		
154-24	C	240			37.10	28.30		
154-26	C	260			42.25	32.20		
154-28	C	280			48.10	36.70		
2N3055*	K	60			15A 7.5A 7.5A	Pd @ 25 C *115W 117W	2.89	2.00
2N3232	K	60					3.75	2.50
2N3233	K	100					4.50	3.25
2N3234	K	160	5.75	4.35				
2N3235	K	55	3.75	2.50				
2N3442	K	140	10A	4.95	3.42			
2N3236	K	90	30A	Pd @ 25 C *200W 150W	8.65	5.77		
2N3237*	K	75			13.65	9.10		
2N3238	K	80			8.40	5.60		
2N3239	K	80			11.76	6.50		
2N3240	K	160			16.07	10.71		
2N3771	K	40			5.78	3.99		
2N3772	K	60			5.78	3.99		
2N3773	K	140			7.84	5.42		
163-04	CC	40			20A	15 Min. Vce=4V Ic=5A	14.50	11.25
163-06	CC	60					18.50	13.30
163-08	CC	80	20.50	14.75				
163-10	CC	100	22.50	16.20				
163-12	CC	120	25.50	18.35				
163-14	CC	140	28.50	20.50				
163-16	CC	160	31.50	22.65				
163-18	CC	180	34.50	24.80				
163-20	CC	200	37.50	27.00				
164-04	CC	40	20A	25 Min. Vce=4V Ic=5A			19.40	14.05
164-06	CC	60			21.50	15.50		
164-08	CC	80			23.50	16.90		
164-10	CC	100			25.50	18.35		
164-12	CC	120			28.50	20.50		
164-14	CC	140			31.50	22.65		
164-16	CC	160			34.50	24.80		

Depend on NEWARK for Complete Stocks — Best Service



Westinghouse Semiconductors

SILICON POWER TRANSISTORS (Cont'd)



Type	Fig.	V _{ce}	I _c Max.	DC I Gain	1-99	100-999
164-18	CC	180	20A	25 Min. I _c =5A	37.50	27.00
164-20	CC	200			40.50	29.20
2N1015	○	30	7.5A	10 Min. V _{ce} =4V I _c =2A	19.00	14.00
2N1015A	○	60			25.00	18.60
2N1015B	○	100			34.00	25.20
2N1015C	○	150			44.00	33.00
2N1015D	○	200			58.00	43.00
2N1015E	○	250	77.00	57.30		
2N1016	○	30	7.5A	10 Min. V _{ce} =4V I _c =5A	21.00	16.00
2N1016A	○	60			29.00	21.60
2N1016B	○	100			38.00	28.30
2N1016C	○	150			51.00	37.70
2N1016D	○	200			67.00	50.00
2N1016E	○	250			89.00	66.50
2N2226	○	50	10A	100 Min. V _{ce} =6V	44.00	29.00
2N2227	○	100			61.00	41.00
2N2228	○	150			83.00	55.00
2N2229	○	200			112.00	75.00
2N2230	○	50	10A	400 Min. V _{ce} =6V I _c =10A	73.00	48.00
2N2231	○	100			99.00	66.00
2N2232	○	150			132.00	88.00
2N2233	○	200			183.00	122.00
2N2742	○	200	20A	10 Min. V _{ce} =4V I _c =10A	122.00	102.00
2N2748	○	200	20A	10 Min. V _{ce} =4V I _c =15A	134.00	112.00
2N2754	○	200	20A	10 Min. V _{ce} =4V I _c =20A	147.00	124.00
2N2757	Z	50	30A	10 Min. V _{ce} =4V I _c =10A	57.00	48.00
2N2758	Z	100			74.00	62.00
2N2759	Z	150			95.00	80.00
2N2760	Z	200			122.00	102.00
2N2761	Z	250			158.00	130.00
2N2763	Z	50	30A	10 Min. V _{ce} =4V I _c =15A	63.00	52.00
2N2764	Z	100			82.00	68.00
2N2765	Z	150			105.00	87.00
2N2766	Z	200			134.00	112.00
2N2769	Z	50	30A	10 Min. V _{ce} =4V I _c =20A	70.00	59.00
2N2770	Z	100			90.00	76.00
2N2771	Z	150			115.00	98.00
2N2772	Z	200			147.00	124.00

SILICON CONTROLLED RECTIFIERS

Fig. AA—10 AMPERE HALF WAVE—16 AMPERE RMS

Type	V _{fb}	1 surge Pk. 1/2 Cyc. Surge	1-99	100-999
2N1847	250	125 Amp	9.75	6.50
2N1848	300		11.65	7.75
2N1849	400		13.85	9.25
202M	600		18.00	12.00
2N1842A	25		5.55	3.75
2N1843A	50		6.15	4.10
2N1844A	100		6.90	4.60
2N1845A	150		8.10	5.40
2N1846A	200		9.50	6.35
2N1847A	250		10.65	7.10
2N1848A	300		12.70	8.45
2N1849A	400		15.60	10.40
203M	600		22.00	16.10

Fig. AA—16 AMPERE HALF WAVE—25 AMPERE RMS

Type	V _{fb}	1 surge Pk. 1/2 Cyc. Surge	1-99	100-999
2N691	25	150 Amp	6.50	4.35
2N692	50		7.30	4.85
2N693	100		8.05	5.35
2N694	150		9.40	6.25
2N695	200		11.10	7.40
2N696	250		12.45	8.30
2N697	300		14.60	9.75
2N690	25		23.25	15.50

Fig. CC—35 AMPERE HALF WAVE—55 AMPERE RMS

Type	V _{fb}	1 surge Pk. 1/2 Cyc. Surge	1-99	100-999
*211A	50	700 Amp	18.60	14.60
*211B	100		21.50	16.80
*211C	150		25.10	19.60
*211D	200		28.50	22.30
*211F	300		38.00	29.70

SILICON CONTROLLED RECTIFIERS

Type	V _{fb}	1 surge Pk. 1/2 Cyc. Surge	1-99	100-999
*211H	400	700 Amp	50.15	39.25
211M	600		73.15	57.25
211S	800		108.00	85.05
211Z	1000		148.75	117.50

Fig. CC—35 AMPERE HALF WAVE—55 AMPERE RMS (Cont.)

Type	V _{fb}	1 surge Pk. 1/2 Cyc. Surge	1-24	25-99
219A	50	1100 Amp	19.50	15.50
219B	100		22.50	18.00
219C	150		26.50	20.50
219D	200		30.00	23.50
219F	300		40.00	31.50
219H	400		52.50	41.00
219K	500		63.50	49.50
219M	600		76.50	60.00
219P	700		94.00	74.00
219S	800		113.50	89.50
219V	900		132.00	104.50
219Z	1000		156.00	123.50
219ZB	1100		182.50	137.00
219ZD	1200		205.50	154.50

70 AMPERE HALF WAVE—110 AMPERE RMS

Type	V _{fb}	1 surge Pk. 1/2 Cyc. Surge	1-24	25-99
2N1911*	100	1000 Amp	28.80	22.30
2N1912*	150		33.40	25.80
2N1913*	200		38.00	29.40
2N1915*	300		50.50	39.20
2N1916*	400		66.50	51.50
2N1805*	500	1000 Amp	80.50	62.50
809P*	700		89.20	70.20
809V*	900		172.00	133.00
809ZB*	1100		248.00	190.00
809ZD*	1200	286.00	215.00	
254A†	50	1600 Amp	29.50	22.90
2N4371†	100		33.50	26.00
2N4372†	200		48.00	35.70
254F†	300	1600 Amp	58.50	45.50
2N4373†	400		76.00	59.00
254K†	500		96.60	75.00
2N4374†	600		117.00	91.80
2N4375†	800	1600 Amp	174.00	136.00
254V†	900		207.00	162.00
2N4376†	1000		244.00	191.00
254ZB†	1100		213.75	196.24
2N4377†	1200		331.00	258.00
254Z†	1300		373.00	292.00
2N4378†	1400		424.00	329.00

*Fig. W, also available with flag leads (Fig. J).

†Fig. J, also available with flex leads (Fig. W.)

Fig. U—125 AMPERE HALF WAVE—200 AMPERE RMS

Type	V _{fb}	1 surge Pk. 1/2 Cyc. Surge	1-99	100-999
218B	100	3500 Amp	67.00	56.00
218C	150		70.00	59.00
218D	200		73.00	62.00
218F	300		85.00	74.00
218H	400		109.00	93.00
218K	500		134.00	113.00
218M	600		156.00	134.00
218P	700		205.00	162.00
218S	800		238.00	197.00
218V	900		277.00	237.00
218Z	1000		315.00	269.00
218ZB	1100		351.00	296.00
218ZD	1200		408.00	332.00

Fig. X—300 AMPERE HALF WAVE—470 AMPERE RMS

Type	V _{fb}	1 surge Pk. 1/2 Cyc. Surge	1-99	100-999
223A	50	5000 Amp	124.00	108.00
223B	100		132.00	115.00
223C	150		138.00	120.00
223D	200		144.00	125.00
223F	300		166.00	145.00
223H	400		210.00	183.00
223K	500		260.00	226.00
223M	600		315.00	274.00
223P	700		370.00	322.00
223S	800		425.00	370.00
223V	900		485.00	422.00
223Z	1000		540.00	470.00
223ZB	1100		600.00	525.00
223ZD	1200		675.00	590.00

GATE CONTROLLED SILICON RECTIFIER SWITCH

Type	V _{fb}	Turn-off Time	1-99	100-999
2422B	100	1 amp reverse gate pulse will turn off 8 amps peak forward current in 5 u sec.	15.75	14.30
2422D	200		22.85	19.25
2422H	400		37.50	32.20
2422M	600		51.50	44.25

WESTINGHOUSE

SILICON CONTROLLED RECTIFIERS HIGH POWER

Type	VBO	1 surge Pk. 1/2 Cyc.	1-24	25-99
2N1808	600	1000 Amp.	97.50	75.50
809S	800		145.00	112.00
809Z	1000		210.00	155.00

SILICON CONTROLLED RECTIFIERS — 35 AMPERE

Type	VBO	1 surge Pk. 1/2 Cyc.	1-24	25-99
213A	50	500 Amp.	22.40	17.90
213B	100		27.00	20.35
213D	200		33.00	28.30
213F	300		42.80	34.00
213H	400		57.50	45.00
213K	500		68.00	53.75
213M	600		82.25	64.75
213S	800		132.00	105.50
213V	900		141.00	113.00
213Z	1000		165.00	132.00

SILICON CONTROLLED RECTIFIERS — 70 AMPERE

Type	VBO	1 surge Pk. 1/2 Cyc.	1-24	25-99
212A	50	750 Amp.	32.80	25.00
212B	100		37.00	28.50
212D	200		47.20	37.00
212F	300		61.60	48.40
212H	400		84.00	63.00
212K	500		97.50	76.00
212M	600		117.00	91.20
212S	800		259.00	149.50
212V	900		305.00	175.00
212Z	1000		360.00	206.00

MOLDED RECTIFIER ASSEMBLIES

Type	PRV/Diode	Amp	1-24	25-99
509C916H14	200	2	3.52	2.80
509C916H16	400	2	3.80	2.88
509C916H18	600	2	5.00	3.80
509C916H22	1000	2	8.00	7.00
509C916H74	200	4	4.25	3.60
509C916H76	400	4	5.80	4.90
509C916H78	600	4	8.05	7.20

AMPEREX SEMICONDUCTORS

GERMANIUM DIODES—GENERAL PURPOSE

Type	IF (ma)	VR (Volts)	IR (ma)	1-99	100-999
1N34	50	60	5	.23	.15
1N38	35	120	4	.75	.55
1N617	50	115	7	.27	.18

DETECTORS, GERMANIUM

Type	IF (ma)	VR (V)	IF at VF (ma)	IR (μa)	1-99	100-999
1N541	35	30	10	1.5	.21	.14
1N542	Matched pair 1N541			4.5	.45	.30
1N87A	8	30	10	1	.20	.13

SILICON DIODES

POWER RECTIFIERS, High Voltage, Medium Current

Type	IF (Amps)	VR (Volts)	IFM (Amps)	VRM (Volts)	1-99	100-999
BY100S	0.45	800	5.0	1250	.89	.46
S100	0.45	700	5.0	1150	.78	.45

VOLTAGE VARIABLE CAPACITANCE DIODES

Type	VR (V)	PO (mw)	CO at -4V (pf)	Q at 50 Mc	Cap. Change Ratio (f=0.5 Mc.)	1-99	100-999
1N3182	20	163	33	65	0.7 (VR=10V) (VR=4V)	.68	.45

GENERAL PURPOSE NPN

Type	Diss. 25°C Case (Watts)	VCB (V)	ICBO Max. (at 30V) (na)	hFE Min. (at 150 ma)	1-99	100-999
2N696	2	60	1.0	20	.93	.62
2N697	2	60	1.0	40	1.01	.67

RF LARGE SIGNAL AND POWER, PNP

Type	Vcb (V)	Ic (ma)	Pc (25°C Amb.) (Watts)	fT (Mc)	Gain (db)	1-99	100-999
2N2512	70	50	0.28	175	.....	1.34	.89

UHF-SMALL SIGNAL, GERMANIUM, PNP

Type	VCBO (V)	VEBO (V)	IC (ma)	Power Tamb = 25°C (mw)	NF 800 Mc (db)	GA 800 Mc (db)	1-99	100-999
2N3399	20	0.3	7	25	7.5	11.5	2.55	1.78

LOW COST 1 WATT AMPLIFIER

PCA-2-14. Low cost circuit provides one watt output with the least number of components. It uses TO-18 output transistors which are mounted with a heat sink clip. Provided with 12 or 16 ohm speakers.

NET. 1-994.55 100 UP4.00

2 WATT COMPLEMENTARY AMPLIFIER

PCA-1-14. Low cost circuit provides two watts output when driven from a crystal cartridge. It features very high stability and reliability along with a low operating temperature and compact size.

Everything in Electronics from One Complete Source

LOW LEVEL LOW NOISE AF AMPLIFIERS SILICON, NPN

Type	VCE V	hFE at IC	fT mc	Diss at 25°C Amb mw	1-99	100-999
A321	30	80	10	60	300	.94
A322	30	300	10	60	300	1.06
A323	60	20	1.0	60	300	1.20
A324	60	45	1.0	60	300	1.62
A1567	25	300	SMA	40	300	.62

HF-VHF SMALL SIGNAL, SILICON, NPN

Type	Diss. 25°C Amb mw	VCE V	hFE	fT mc	Cre pf	Gpe at f mc	1-99	100-999
A415	165	50	150	200	.55	19	100	.75
A466	150	40	60	400	.015	17	200	.92
A467	150	40	60	350	.015	38	45	.92
A473	230	40	150	550	.023	40	45	.92

GERMANIUM TRANSISTORS

AF SMALL SIGNAL, PNP AND NPN (*NPN)

Type	Vce (V)	Ic (ma)	Pc (mw)	hfe (1 kc)	IT (Mc)	1-99	100-999
2N2207	70	50	260	200	175	1.42	.96
2N2428	32	100	500	130	1.7	.56	.37
2N2429	32	100	500	220	2.3	.57	.38

AF POWER, PNP

Type	VCB (Volts)	PC (mw)	hFE at IE (ma)	fbf (kc)	1-99	100-999
2N2430	32	360	63	20	15	.57
2N2431	32	1W	90	300	10	.62
2N2708	32	500	135	20	17	.57
2N4077	32	7.5W	35	2A	.....	1.27
2N4078	32	8W	45	2A	.....	1.20

MF-HF SMALL SIGNAL, GERMANIUM, PNP

Type	VCB (V)	Ic (ma)	Pc (mw)	hfe at 1 kc	fbf (Mc)	1-99	100-999
2N2672	32	10	100	150	75*	.67	.45

* fT at Mc

HF-VHF SMALL SIGNAL, GERMANIUM, PNP

Type	VCB (V)	Ic (ma)	Pc (mw)	hfe at 1 kc	fbf (Mc)	1-99	100-999
2N990	32	10	67	150	75	.68	.45
2N2084	40	10	125	100	100	1.34	.90
2N2495	35	10	100	70	180	2.10	1.40
2N2654	32	10	100	50	250	1.42	.96
2N2671	32	10	100	150	100	.84	.56
2N2496	35	10	75	70	.....	1.35	.89
2N3588	25	10	100	50	.....	.84	.56

1 WATT COMPLEMENTARY AMPLIFIER

PCA-1-9. Circuit provides 1 watt output from a 9 volt battery or power supply. It features low battery drain along with a highly reliable and compact circuit without using any transformers.

NET. 1-996.00 100 UP4.00

4 WATT COMPLEMENTARY AMPLIFIER

PCA-3B-18. Amplifier provides 4 watts output per channel from a crystal cartridge. It has bass and treble controls as well as loudness and balance controls. The amplifier is temperature stabilized by a thermistor and contains a low noise input transistor.

NET. 1-9915.00 100 UP10.00

DO-7

GENERAL PURPOSE DIODES—DO-7

Silicon Rectifiers

Type	Bv volts	Max. F.C. @ 25 C Ma	Max. Rev. at 25 C		1-99	100-999
			IR μ a	VR volts		
IN456	35	40	.025	25	.36	.28
IN456A	30	100	.025	25	.36	.28
IN457	70	20	.025	60	.44	.35
IN457A	70	100	.025	60	.44	.35
IN458	150	7.0	.025	125	.50	.38
IN458A	150	100	.025	125	.50	.38
IN459	200	3.0	.025	175	.66	.51
IN459A	200	100	.025	175	.66	.51
IN461	35	15	.50	25	.35	.26
IN461A	30	100	.50	25	.35	.26
IN462	80	5.0	.50	60	.38	.28
IN462A	70	100	.025	60	.38	.28
IN463A	200	1.0	.50	175	.46	.36
IN482	36	100	.25	30	.58	.44
IN482A	36	100	.025	30	.59	.46
IN482B	36	100	.025	30	.59	.46
IN483	70	100	.25	60	.61	.47
IN483B	80	100	.025	60	.61	.47
IN484	130	100	.25	125	.71	.55
IN485B	200	100	.025	175	.90	.60
IN486A	225	100	.05	225	1.25	.98
IN697	120	.....	2.0	.....	4.20	2.95

NEW SILICON REFERENCE DIODES

Type	Zener Voltage	Current mA	Impedance Ohms	1-99	100-999
IN705	5.4	5	35.0	1.40	1.20
IN706	6.4	5	20.0		
IN707	8.0	5	10.0		
IN708	5.6	25	3.6		
IN709	6.2	25	4.1		
IN710	6.8	25	4.7		
IN711	7.5	25	5.3		
IN712	8.2	25	6.0		
IN713	9.1	12	7.0		
IN714	10.0	12	8.0		
IN715	11.0	12	9.0		
IN716	12.0	12	10.0		
IN717	13.0	12	11.0		
IN718	15.0	12	13.0		
IN719	16.0	12	15.0		
IN720	18.0	12	17.0		

SILICON PLANEX NPN SWITCHING TRANSISTOR

Type	Max. Storage Time N Sec.	Max. Coll. Diss. MW	hFE	CASE	1-99	100-999
2N706B	75	300	40	TO-18	1.49	0.99
2N708	75	360	30	TO-18	1.20	0.80
2N2218	68	300	40	TO-5	3.00	2.00
2N2218A	225	800	40	TO-5	4.75	3.50
2N2219	68	800	100	TO-5	3.95	2.65
2N2219A	225	800	100	TO-5	6.75	4.50
2N2220	68	500	20	TO-18	3.35	2.25
2N2221	68	500	40	TO-18	3.35	2.25
2N2221A	225	400	40	TO-18	5.85	3.95
2N2222	68	500	100	TO-18	3.97	2.65
2N2222A	225	500	100	TO-18	5.04	4.05
2N368	15	360	40	TO-18	2.30	1.54
2N369	18	360	80	TO-18	2.40	1.60
2N369A	13	360	80	TO-18	3.45	2.30
2N2481	20	360	40	TO-18	2.63	1.75
2N3011	13	360	120	TO-18	1.48	1.19
2N3252	40	1000	30	TO-5	9.75	6.50
2N3253	40	1000	25	TO-5	9.75	6.50
RT3333	5	800	100	TO-5	10.00	6.70
RT3333A	3	800	100	TO-5	12.50	9.00

SILICON PLANEX NPN HIGH FREQUENCY

Type	BV _{ceo}	COB PF	FT MHZ	Case	1-99	100-999
2N915	50	3.5	400	TO-18	4.50	3.04
2N916	25	6	480	TO-18	3.65	2.90
2N917	15	1.7	800	TO-18	4.95	3.30
2N918	15	1.7	960	TO-18	5.25	3.50
2N929	45	8	30	TO-18	3.60	2.40
2N929A	45	4.0	100	TO-18	4.50	3.00
2N930	45	8	30	TO-18	3.87	2.65
2N2481	15	5	300	TO-18	2.63	1.75
2N2708	20	1.5	700	TO-18	4.38	3.30
2N2809	15	.7	1000	TO-18	12.50	8.50
2N2809A	15	.7	1300	TO-18	15.50	10.40
2N2810	10	.7	1000	TO-18	11.20	7.50
2N2810A	10	.7	1300	TO-18	13.70	9.15
2N2843	60	6	60	TO-18	7.50	5.00
2N2484	60	6	60	TO-18	5.25	3.50

SWITCHING DIODES—DO-7

Type	Bv volts	Recovery time tRR max. n sec.	Max. rev. cur.		1-99	100-999
			IR μ a	IR Ma		
IN625	30	1000	1.0	.03	.54	.33
IN627	100	1000	1.0	.03	.67	.39
IN628	150	1000	1.0	.03	.81	.47
IN658	120	300	.05	.03	1.80	1.20
IN659	60	300	5.0	.03	.78	.44
IN660	120	300	5.0	.05	.98	.46
IN661	240	300	10	.10	1.95	1.32
IN662	100	500	1.0	.10	.92	.44
IN690	30	800	.25	.05	2.86	1.92
IN691	80	800	.25	.05	3.38	2.25
IN693	130	5.0	.015	.02	7.72	6.02
IN697	120	.....	2.0	2.01	4.20	2.95
IN789	30	10	20	1.0	.65	.51
IN903	40	10	40	5.0	1.50	1.00
IN904	30	10	30	.10	1.35	.90
IN914	100	4.0	.025	.10	1.25	.65
IN914A	100	4.0	.025	.05	1.50	.90
IN916	100	4.0	.025	.05	1.40	.85
IN916A	100	300	.25	.05	1.49	.92
IN921	80	300	.25	.05	5.28	4.12
IN923	130	150	1.0	.02	9.03	6.96
IN999	100	2.0	.10	.10	4.15	3.15
IN3062	75	4.0	.10	.10	5.75	3.85
IN3064	75	2.0	.10	.10	2.00	1.20
IN3065	75	2.0	.10	.10	6.00	4.35
IN3066	75	4.0	.10	.10	5.75	3.85
IN3069	50	50	.10	.10	1.20	.80
IN3298	40	.....	.001	.003	3.50	2.65
IN3729/ RD500	600	500	.10	.005	4.45	3.48
IN3730/ RD750	60	15	.10	.01	3.50	2.65

SILICON PLANEX PNP SWITCHING TRANSISTORS

Type	Storage Time N Sec	COB pf	hFE	Case Size	1-99	100-999
2N2801	225	25	225	TO-5	7.10	4.75
2N2837	225	25	90	TO-18	6.75	4.50
2N2838	225	25	225	TO-18	7.10	4.75
2N2904A	80	8	120	TO-5	10.50	7.00
2N2905	80	8	300	TO-5	9.00	6.00
2N2905A	80	8	300	TO-5	12.00	8.00
2N2906	80	8	120	TO-18	7.20	4.80
2N2906A	80	8	120	TO-18	10.05	6.70
2N2907	80	8	300	TO-18	8.75	5.80
2N2907A	80	8	300	TO-18	11.55	7.70
2N3010	12	3	25	TO-18	6.16	4.95
2N3133	150	10	120	TO-5	4.95	3.30
2N3134	150	10	300	TO-5	5.85	3.90
2N3135	150	10	120	TO-18	4.95	3.30
2N3136	150	10	300	TO-18	5.85	3.90
2N3248	60	8	50	TO-18	3.90	2.60
2N3249	60	8	100	TO-18	4.65	3.10
2N3250	175	6	150	TO-18	3.90	2.60
2N3250A	175	6	150	TO-18	4.50	3.00
2N3251	600	6	300	TO-18	4.65	3.10
2N3251A	200	6	300	TO-18	5.25	3.50
2N3485	80	8	120	TO-46	8.70	5.80
2N3485A	80	8	120	TO-46	12.00	8.00
2N3486	80	8	300	TO-46	10.40	6.80
2N3486A	80	8	300	TO-46	13.50	9.00
2N3671	80	8	220	TO-5	9.00	6.00
2N3672	80	8	220	TO-18	9.00	6.00

SILICON CONTROLLED RECTIFIERS

Type	Piv Volts	Max. Amp. Current	Gate Fire Max. V	Case	1-99	100-999
2N1595	50	1.6	3.0	TO-5	3.00	2.00
2N1596	100	1.6	3.0	TO-5	4.60	3.05
2N1597	200	1.6	3.0	TO-5	9.35	6.25

FIELD EFFECT TRANSISTORS

Type	Gate-Source Voltage	Transconductance or Threshold Voltage	Channel ohms	1-99
RN1030A	6	3 volts	330	5.70
RN1030	6	3 volts	330	4.80
RN1020	6	1000 micro Mhos	.....	5.25
RN3020	6	1000 micro Mhos	.....	4.80
RN3030	6	3 volts	330	3.95
RM5008	Quad 1030	3 volts	330	26.00
RM5008D	Quad 1030	3 volts	330	35.00
RM8007	Dual Pair 1030	3 volts	330	22.00
RM8007D	Dual Pair 1030	3 volts	330	31.00
RIV3036	Mho Amp	1 mho	.....	100.00

SILICON PNP PLANEX TRANSISTORS

Type	V _{CEO} Volts	V _{BE0} Volts	hFE	COB PF	Case	1-99	100- 999
2N327A	40	20	9	110	TO-5	3.65	2.80
2N327B	40	20	9	110	TO-5	3.85	2.80
2N328A	35	20	18	110	TO-5	5.75	4.31
2N328B	35	20	18	110	TO-5	8.35	4.85
2N329A	30	20	36	110	TO-5	9.00	6.50
2N329B	30	20	36	10	TO-5	9.90	7.20
2N721	35	5	20	45	TO-18	5.01	3.75
2N722	35	5	30	45	TO-18	5.04	3.75
2N858	40	25	10	12	TO-18	3.70	2.50
2N859	40	25	25	9	TO-18	5.75	4.00
2N860	25	20	10	9	TO-18	2.00	1.80
2N861	25	20	25	9	TO-18	3.00	2.00
2N862	15	10	12	9	TO-18	2.20	1.60
2N863	15	10	25	9	TO-18	2.40	1.80
2N935	40	20	9	.....	TO-18	2.40	1.80
2N936	35	20	18	.....	TO-18	5.75	4.00
2N937	30	20	36	.....	TO-18	9.00	6.50
2N938	35	40	9	.....	TO-18	3.65	2.80
2N939	35	40	18	.....	TO-18	6.00	4.50
2N940	35	40	36	.....	TO-18	10.50	8.20
2N941	8	25	25	14	TO-18	9.75	7.50
2N1024	15	18	9	10	TO-5	3.50	2.70
2N1025	35	40	9	10	TO-5	3.90	3.00
2N1026	35	40	22	10	TO-5	6.50	5.00
2N1027	15	18	18	10	TO-5	3.90	3.00
2N1028	10	12	9	10	TO-5	3.90	3.00
2N1034	40	20	9	110	TO-5	3.55	2.70
2N1035	35	20	18	110	TO-5	6.10	4.64
2N1036	30	20	34	110	TO-5	6.95	5.35
2N1037	35	20	9	110	TO-5	6.30	3.75
2N118A	25	10	15	12	TO-5	9.55	7.10
2N1131	35	5	20	45	TO-5	5.80	3.75
2N1132	35	5	30	45	TO-5	5.60	3.75
2N1132A	35	5	40	30	TO-5	7.50	5.00
2N1132B	45	6	60	25	TO-5	9.00	6.00
2N1228	15	15	14	100	TO-5	4.55	3.50
2N1229	15	15	28	100	TO-5	6.50	5.00
2N1230	35	35	14	100	TO-5	8.45	6.50
2N1231	35	35	28	100	TO-5	10.40	8.00
2N1232	60	60	14	100	TO-5	15.60	12.00
2N1233	60	60	28	100	TO-5	17.00	13.75
2N1623	20	20	9	70	TO-5	2.16	1.65
2N2303	35	5	75	45	TO-5	8.25	5.50
2N2604	45	6	60	4	TO-46	6.00	4.00
2N2605	45	6	150	4	TO-46	6.60	4.40
2N2944	10	15	200	10	TO-46	9.00	6.00
2N2945	20	25	100	10	TO-46	7.50	5.00
2N2946	35	40	70	10	TO-46	9.60	6.40
2N3217	10	15	30	14	TO-46	5.40	4.32
2N3218	20	25	30	14	TO-46	5.60	4.48
2N3219	35	40	20	14	TO-46	5.60	4.48
2N3910	50	50	40	8	TO-46	7.50	5.25
2N3911	40	40	60	8	TO-46	7.75	5.40
2N3912	30	30	90	8	TO-46	8.00	5.70
2N3913	50	50	40	8	TO-18	12.40	10.00
2N3914	40	40	60	8	TO-18	6.75	4.50
2N3915	30	30	90	8	TO-18	7.75	5.50
RT4318	50	50	40	8	TO-5	5.20	4.00
RT4319	40	40	60	8	TO-5	6.75	4.50
RT4320	30	30	90	8	TO-5	7.75	5.50
2N4080	15	3	20	1.7	TO-18	6.80	4.50

NPN PLANEX GENERAL PURPOSE TRANSISTORS

Type	V _{CEO} Volt	COB Pf	hFE	Case Size	1-99	100- 999
2N497	60	14	12	TO-5	1.89	1.76
2N657	100	14	30	TO-5	2.20	1.47
2N696	40	35	40	TO-5	0.93	0.62
2N697	40	35	75	TO-5	1.10	0.75
2N698	80	35	15	TO-5	1.57	1.05
2N699	80	35	40	TO-5	1.57	1.05
2N699A	80	20	8	TO-5	19.35	12.75
2N718A	50	25	40	TO-18	1.50	1.00
2N760A	60	35	70	TO-18	2.70	1.80
2N871	80	15	100	TO-18	5.25	3.20
2N1613	50	25	40	TO-5	1.50	1.00
2N1711	50	25	100	TO-5	1.65	1.10
2N1893	80	15	60	TO-5	2.45	1.65
2N1983	25	45	70	TO-5	1.87	1.50
2N1987	25	45	20	TO-5	4.15	3.20
2N1987	45	45	20	TO-5	3.60	2.60
2N1990	45	25	60	TO-5	9.45	6.30
2N2049	65	20	40	TO-5	9.45	6.30
2N2102A	65	20	40	TO-5	2.40	1.60
2N2194A	40	20	40	TO-5	7.75	5.50
2N2194B	40	20	40	TO-5	1.38	0.92
2N2195	25	20	20	TO-5	1.53	1.02
2N2195A	25	20	20	TO-5	2.40	1.60
2N2195B	25	20	20	TO-5	4.80	3.20
2N2243	80	20	80	TO-5	5.10	3.40
2N2243A	45	15	50	TO-5	0.88	0.70
2N2309	30	25	25	TO-5	16.00	10.65
2N2350	40	20	150	TO-46	3.58	2.88
2N2350A	40	20	150	TO-46	3.75	3.00
2N2351	50	20	80	TO-46	2.60	2.10
2N2351A	50	20	80	TO-46	2.80	2.25
2N2352	40	20	40	TO-46	2.10	1.68
2N2352A	40	20	40	TO-46	2.40	1.92
2N2353	25	20	20	TO-46	1.48	1.18
2N2353A	25	20	20	TO-46	1.59	1.28
2N2384	80	15	40	TO-46	4.05	3.25
2N2384A	80	15	40	TO-46	3.81	3.05
2N2405	90	15	60	TO-5	4.10	2.75
2N3019	80	12	100	.....	6.00	4.00
2N3020	80	12	40	.....	5.70	3.80
2N3056	60	12	40	.....	7.95	5.30
2N3057	60	12	100	.....	8.40	5.60
2N3700	80	12	100	.....	6.00	4.00
2N3701	80	12	40	.....	5.70	3.80

PHOTO DARLINGTON PHOTO SENSITIVE PLANEX TRANSISTOR

Type	Light Sensitivity	Current Gain	1-99	100- 999
RM3002	25 micro A/Ft. Candle	5000	25.70	16.40

INTERCHANGEABILITY TABLE FOR PNP-MEXA CHOPPERS

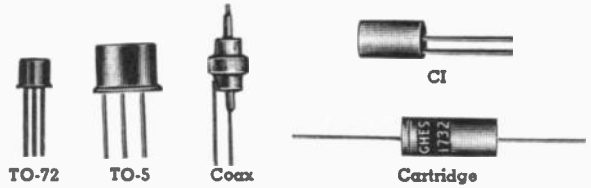
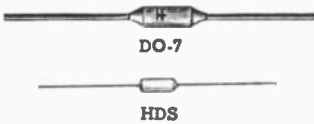
TO-5			TO-18		
RT4318	RT4319	RT4320	2N3913	2N3914	2N3915
2N1921	2N1919	2N1917	2N944	2N943	2N941
2N2002	2N1920	2N1918	2N945	2N2372	2N942
2N2003	2N3343	2N2175	2N2185	2N2373	2N2176
2N2004	2N3344	2N2177	2N2186*	2N2278	2N2178
2N2005	2N2370		2N2187*	2N2279*	2N2280
2N3345	2N2371		2N2332		2N2281*
2N3346			2N2333		
			2N2334		
			2N2335		
			2N2336		
			2N2337		
			2N2274		
			2N2275*		
			2N3218		
			2N3219		
			2N2276*		
			2N3840		

*Matched pair of preceding number.

PLANEX DUAL AND DARLINGTON AMPLIFIERS

Type	V _{CEO} Volts	V _{BE} VBE2mV	hFE	Case	1-99	100- 999
2N997	40	.....	4000	TO-18	13.50	9.10
2N998	60	.....	1600	TO-18	10.90	8.80
2N999	60	.....	4000	TO-18	14.50	9.70
2N2223	80	15.0	150	RO-52	11.00	9.00
2N223A	60	15.0	60	RO-52	17.00	14.30
2N2453	30	3.0	80	RO-52	30.00	20.00
2N2480A	40	5.0	100	RO-52	12.90	10.35
2N2639	45	5.0	55	RO-52	20.16	16.20
2N2640	45	10.0	55	RO-52	15.12	12.15
2N2642	45	5.0	110	RO-52	30.00	20.00
2N2643	45	10.0	110	RO-52	22.40	18.00
2N2652	60	3.0	35	RO-52	14.00	11.25
2N2652A	60	3.0	100	RO-52	18.25	13.05
2N2903A	30	5.0	60	RO-52	25.50	17.00
2N2913	45	.....	100	RO-52	10.00	6.70
2N2914	45	.....	225	RO-52	15.00	10.00
2N2915	45	3.0	100	RO-52	27.00	18.00
2N2916	45	3.0	225	RO-52	30.00	20.00
2N2917	45	5.0	100	RO-52	21.00	14.00
2N2918	45	5.0	225	RO-52	27.00	18.00
2N2919	60	3.0	100	RO-52	30.00	20.00
2N2920	60	3.0	225	RO-52	32.25	22.00
2N2936	55	5.0	110	RO-52	38.00	24.00
2N2937	55	.....	110	RO-52	33.00	22.00
2N2972	45	.....	100	TO-18	12.00	8.00
2N2972	45	.....	225	TO-18	18.50	11.00
2N2973	45	.....	225	TO-18	27.75	18.50
2N2974	45	3.0	100	TO-18	30.75	20.50
2N2975	45	3.0	225	TO-18	21.00	14.00
2N2976	45	5.0	100	TO-18	24.00	16.00
2N2977	45	5.0	225	TO-18	29.25	19.50
2N2978	60	3.0	100	TO-18	32.25	21.50
2N2979	60	3.0	300	TO-18	32.25	21.50

Hughes Aircraft Semiconductors



CARTRIDGE RECTIFIERS

Rated at 25° C. Cont. rating same as PIV. Oper. temp. range: -55 to +150° C amb. (*) rated at 100 ma. Higher V available.

Type	PIV	Rect. DC Out. ma	Max. DC fwd. -V.*	1-24	25-99	100-999
IN597	800	150	3	5.60	5.60	4.87
IN1730	1000	200	5.0	2.80	2.40	2.10
IN1731	1500	200	5.0	4.00	3.50	3.00
IN1733	3000	150	12	6.00	5.25	4.50
IN3052	12000	100	70	23.20	20.50	17.40
IN3053	14000	100	75	26.10	22.90	19.60

CASE DO-7—SILICON CAPACITORS—DO-7

Type	Cap. uuf	Max. Volts	Cap. Range	Min. Q @ 50 Mc	1-99	100-999
IN950	35	130	6-88	7	12.00	9.00
IN951	50	80	12-120	7	12.00	9.00
IN952	70	60	20-170	7	6.00	4.50
IN953	100	25	46-240	7	4.50	3.25
IN954	35	25	14-88	7	3.00	2.25
IN955	50	25	22-120	7	3.00	2.25
IN956	70	25	32-170	7	3.50	2.50

NEW SILICON PLANAR EPITAXIAL DIODES

Double heat sink construction. Dumet leads. (300Mw Diss.)

Type	PIV	If (ma)	Irev (μA)	@V	1-99	100-999
HDS-10	100	250	.050	50	1.20	.90
HDS-11	100	150	.050	50	.85	.64
HDS-12	100	75	.050	50	.65	.49

SILICON ULTRA FAST COMPUTER DIODES—DO-7

Rated at 25° C. Max. Rev. Recovery time to 1 mA in 0.5 Nano Sec Min. fwd. I @ IVDC (mAdc): 2, except (*) 5.

Type	Max. Rev. Cur. @ -5VDC μA		Min. BV @ 100 VDC (Adc)	1-99	100-999
	@ 25° C	100° C			
*HD-5000	0.2	2	20	2.85	2.14
*HD-5001	1	10	20	2.55	1.91
HD-5004	1	20	15	.90	.68

SIL. PLANAR EPITAXIAL DIODES, MATCHED

Type	BV	I. fwd	Description	1-99	100-999
IN4306	50	12	Pair	7.00	5.25
IN4307	50	10	Quad.	14.00	10.50

SILICON PLANAR EPITAXIAL DIODES — PELLET

Glass ambient construction. (500Mw Diss., microglass).

Type	PIV	If (ma)	μA Irev	@-V	1-99	100-999
HMG9001	100	100	.025	20	2.10	1.58
HMG9002	100	30	.025	20	1.91	1.54
HMG9003	75@5	200	.05	50	2.42	1.82
HMG9004	75@5	100	.05	50	2.06	1.54
HMG9005	75@5	20	.05	50	1.72	1.29
HMG9006	50@5	300	.1	40	3.36	2.52
HMG9007	50@5	300	.1	40	2.08	1.56
HMG9008	50@5	100	.1	40	1.72	1.29
HMG9009	50@5	20	.1	40	1.37	1.03
HMG9010	30@5	10	.1	20	1.08	.82

GLASS AMBIENT SILICON PLANAR EPITAXIAL DIODES

Flip-Chips, Single, .020" Square

Type	BV (V)	Ifwd (ma)	Cap. @ 0V (pf)	1-99	100-999
GAD-2000-1	50	100	2.5	2.50	1.87
GAD-2001-1	50	50	3.0	2.00	1.50
GAD-2002-1	30	50	3.0	1.50	1.13
GAD-2003-1	30	30	4.0	1.00	.75

Flip-Chips, Dual, .020 x .030"

Type	BV (V)	Ifwd (ma)	Cap. @ 0V (pf)	1-99	100-999
GAD-3000-1	50	100	2.5	3.20	2.40
GAD-3001-1	50	50	3.0	2.50	1.87
GAD-3002-1	30	50	3.0	2.00	1.50
GAD-3003-1	30	30	4.0	1.50	1.13

GLASS AMBIENT SILICON PLANAR EPITAXIAL DIODES

2 nanosecond recovery. Available in microglass package also. Ratings @ 25° C.

Type	BV (V) @ 100 μA	Min FD. Current @ IV (ma)	Max. Reverse Current		1-99	100-999
			μA @ V	@ V		
IN625	30	4 @ 1.5	.10	20	.54	.33
IN626	50	4 @ 1.5	1.0	35	.70	.53
IN627	100	4 @ 1.5	1.0	75	1.26	.95
IN659	60	6	5.0	50	.91	.68
IN662A	100	100	1.0	10	1.96	1.47
IN811	20	1	1.0	10	.70	.53
IN814	40	2	0.1	20	1.47	1.10
IN815	15	100 @ 1.5	.5	5	.91	.68
IN891	60	50	.1	50	1.89	1.42
IN903	40	10	.1	40	1.40	1.05
IN903A	40	20	.1	40	1.47	1.10
IN904A	30	20	.1	20	1.40	1.05
IN905A	20	20	.1	30	1.33	1.00
IN906	20	10	.1	20	.98	.74
IN908A	40	20	.1	40	1.19	.89
IN914	100	10	.025	20	1.89	1.42
IN915	65	50	.025	20	2.17	1.63
IN916	100	10	.025	50	1.54	1.16
IN917	40	10	.05	20	1.92	1.44
IN929	25	100	0.1	20	1.26	.95
IN933	15	100 @ 1.2	1.0	6	1.33	1.00
IN3062	75 @ 5	20	0.1	50	2.66	2.00
IN3064	75 @ 5	10	0.1	50	2.24	1.68
IN3605	40 @ 5	20 @ .88	.05	30	2.59	1.94
IN4009	35 @ 5	30	.1	25	1.68	1.26
IN4389	5	2	100	5	1.05	.80
IN4390	20	5	.2	5	2.85	2.15
IN4391	20	2	.2	5	2.15	1.60
IN4392	15	2	1	5	1.55	1.20

GERMANIUM DIODES—DO-7

Ratings for table below are 25° C. IFWD @ +IV.

Type	Min. PIV (V)	Min. Fwd. I (mA) @ ±1 V	Max. Rev. I (R) @ V (R)		1-99	100-999
			(μA)	(V)		
IN69A	75	5-25	500	50	.38	.29
IN90	75	5	500	50	.33	.22
IN95	75	10	800	50	.50	.33
IN99	100	10	50	50	.50	.39
IN116	75	5	100	50	.53	.40
IN126	75	5	850	50	.30	.24
IN127	125	3	300	50	.89	.68
IN191	90	5	50	50	.35	.27
IN198	100	4	50	50	.35	.27

CASE DO-7 GERMANIUM GOLD BONDED DIODES

Type	Min. PIV (V)	Min. Fwd. I @ +IV (mA)	Max. Rev. μA IR @ VR		1-99	100-999
			(μA)	(V)		
IN96	75	20	800	50	.59	.44
IN96A	75	40	500	50	.59	.44
IN98	100	20	100	50	.48	.38
IN98A	100	40	100	50	.48	.38
IN100	100	20	50	50	.50	.39
IN100A	100	40	50	50	.50	.39
IN118	75	20	100	50	.60	.46
IN140	85	40	300	50	.38	.29
IN270	80	200	100	50	.32	.25
IN273	100	30	20	20	.68	.51
IN276	60	40	100	50	.31	.24
IN277	100	100	250	50	.34	.26
IN279	100	30	200	20	.29	.22
IN281	60	100	500	50	.31	.24
IN283	20	20	20	10	.51	.40
IN292	75	100	200	50	.60	.45
IN298	70	30@2	250	40	.68	.53
IN448	120	25	100	100	1.00	.75
IN450	120	50	100	100	1.02	.77
IN497	30	120@0.8	5	20	.45	.34
IN498	60	120@0.8	5	40	.50	.39
IN771B	100	400	500	100	1.28	.96
IN773	75	100	100	50	.66	.50
IN773A	75	200	100	50	.72	.54
IN776	30	50	500	30	.32	.24
IN3125	55	5@0.4	10	40	.80	.60
IN3769	90	25@0.5	20	65	.95	.71

Hughes Aircraft Semiconductors



GLASS AMBIENT SILICON PLANAR - EPITAXIAL TRANSISTORS

Flip-Chips, .025" square, NPN
Power diss. = 200 Mw; IT 400 Mc, Vce (sat) = .25 V

Type	hFE	BV EBO	BV CBO	1-99	100-999
GAT-1000-1	40-120	4.5V	30V	3.20	2.40
GAT-1001-1	20	4.5V	30V	2.00	1.50
GAT-1002-1	20	4.5V	20V	1.00	.75
GAT-1003-1	100-300	4.5V	20V	3.20	2.40

DO-7—SILICON VOLTAGE REGULATOR DIODES

250mW types. Rated at 25°C unless otherwise stated.

Type	Zener Breakdown Voltage (Vz or Ez)			D.C. Test Current (Iz) (mA)	1-99	100-999
	Min.	Nom.	Max.			
1N702	2.0	2.6	3.2	5	1.80	1.35
1N703	3.0	3.45	3.9	5	1.80	1.35
1N705A	4.6	4.85	5.1	5	2.30	1.70
1N706	5.2	5.8	6.4	5	1.80	1.35
1N706A	5.51	5.8	6.09	5	2.30	1.70
1N707	6.2	7.1	8.0	5	1.80	1.35
1N708	5.04	5.6	6.16	5	2.30	1.70
1N709	5.58	6.2	6.82	25	1.80	1.35
1N710	6.12	6.8	7.48	25	1.80	1.35
1N711A	7.12	7.5	7.88	25	2.30	1.70
1N712	7.38	8.2	9.02	25	1.80	1.35
1N712A	7.79	8.2	8.61	25	2.30	1.70
1N713A	8.64	9.1	9.56	25	2.30	1.70
1N714	9.0	10	11.0	12	1.80	1.35
1N714A	9.5	10	10.5	12	2.30	1.70
1N715	9.9	11	12.1	12	1.80	1.35
1N716	10.8	12	13.2	12	1.80	1.35
1N716A	11.4	12	12.6	12	2.30	1.70
1N717A	12.35	13	13.65	12	2.30	1.70
1N718	13.5	15	16.5	12	2.10	1.58
1N718A	14.25	15	15.75	12	2.53	1.90
1N719A	15.2	16	16.8	12	2.53	1.90
1N720	16.2	18	19.8	12	2.10	1.58
1N720A	17.1	18	18.9	12	3.21	2.41
1N721	18.0	20	22.0	4	1.98	1.49
1N721A	19.0	20	21.0	4	2.53	1.90
1N722A	20.9	22	23.1	4	2.53	1.90

SILICON VOLTAGE REGULATOR DIODES—CASE C-1

250mW types. 0.5w and 1 watt types also available.

Type	Zener Breakdown Voltage (Vz or Ez)			D.C. Test Current (Iz) (mA)	1-99	100-999
	Min.	Nom.	Max.			
1N465	2.0	.....	3.2	5	3.00	2.25
1N465A	2.47	.....	2.73	5	3.50	2.60
1N467A	3.89	.....	4.31	5	3.50	2.60
1N468	4.3	.....	5.4	5	3.00	2.25
1N469	5.2	.....	6.4	5	3.00	2.25
1N469A	5.51	.....	6.09	5	3.50	2.60
1N470	6.2	.....	8.0	5	3.00	2.25
1N470A	6.74	.....	7.46	5	3.50	2.60
1N1313	7.5	.....	10.0	0.2	3.00	2.25
1N1313A	8.31	.....	9.19	0.2	3.50	2.60
1N1314	9.0	.....	12.0	0.2	3.00	2.25
1N1316	13.5	.....	18.0	0.2	3.00	2.25
1N1317	17.0	.....	21.0	0.2	3.00	2.25
1N1317A	18.05	.....	19.95	0.2	3.50	2.60
1N1319	25.0	.....	32.0	0.2	3.00	2.25
1N1319A	27.07	.....	29.93	0.2	3.50	2.60

DO-7—SILICON VOLTAGE REGULATOR DIODES

Rated at 400mW

Type	Brk. Voltage (Vz)			Current (Iz) (mAdc)	1-99	100-499
	Min.	Nom.	Max.			
1N752	5.04	5.6	6.16	20	1.80	1.35
1N755	6.75	7.5	8.25	20	1.80	1.35
1N758	7.38	8.2	9.02	20	1.80	1.35
1N758A	7.79	8.2	8.61	20	2.30	1.70
1N757A	8.645	9.1	9.555	20	2.30	1.70
1N758	9.00	10.0	11.00	20	1.80	1.35
1N758A	9.50	10.0	10.50	20	2.30	1.70

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DO-7—GERMANIUM ULTRA FAST SWITCHING, HIGH CONDUCTANCE DIODES COMPUTER TYPE

Type	Piv (v) @ 100 μ A	Min. Fd. current CIV (Ma)	R.E. %	Trr (Ns)	1-99	100-999
1N695	20	100	.....	.....	.77	.58
1N695A	25	100	.....	6	.98	.74
1N995	15	10@.5	.....	.....	.60	.45
1N3287	6	100	.....	.....	.36	.27
1N3468	15	20@.5	.....	2	.70	.53
1N3666	80	200	.....	30	.70	.53
HD1811	30	100@.75	60	9	.77	.58
HD1812	10	100	60	9	.39	.29
HD1840	30	100@.7	65	6	.98	.74
HD1841	20	100@.7	65	6	.88	.66
HD1842	6	100	60	6	.49	.37
HD1870	15	100@.7	75	3.5	.98	.74
HD1872	6	100	75	3.5	.63	.47
HD2236	30@500	.....	50	.....	.48	.36

PNP SILICON ALLOY JUNCTION TRANSISTORS

Temperature: -65°C. to +60°C. Typ. fab (mc) 0.8, except (6) 0.6
TO-5 Case Except (†) Coax.

Type	Diss. (mW)	BVcbo @ -100 μ A	BVcbo @ -1mA	BVcbo @ -10mA	1-99	100-999
2N327A	385	-50	-20	-40	2.45	1.84
2N329A	385	-50	-20	-35	5.75	4.31
2N328A	385	-50	-20	-30	10.95	8.21
2N122A	400	-15	-15	-15	3.10	2.33
2N1229	400	-15	-15	-15	3.10	2.33
2N1230	400	-35	-35	-35	8.65	6.50
2N1231	400	-35	-35	-35	10.65	8.00
2N1232	400	-60	-60	-60	15.50	11.63
2N1233	400	-60	-60	-60	17.50	13.13
2N1234	400	-110	-110	-110	20.50	15.38
2N1244†	1V	-110	-110	-110	27.65	20.75
2N1275	400	-100	-80	-60	6.50	4.88
2N1623	400	-50	-20	-20	2.16	1.62
2N2551	400	-150	-150	-150	29.75	22.31

PNP SILICON TRANSISTORS—GENERAL PURPOSE ALLOY LOW SATURATION RESISTANCE, HIGH BREAKDOWN VOLTAGE, -65°C to 180°C (TO-5)

Type	Diss. (mw)	BV CBO (V)	BV EBO (V)	hfc		1-99	100-999
				min	max		
2N1034	275	50	20	9	22	4.35	3.25
2N1035	275	50	20	18	42	6.25	4.69
2N1036	275	50	20	34	88	10.23	7.67
2N1037	275	50	20	9	42	6.65	5.00

• NEW — HUGHES "MOXET" — "P" CHANNEL
ENHANCEMENT MODE, INSULATED GATE FET
TO-72 CASE (4 LEADS). Vbg = 80V

Type	Application	Vgst Min.	gm	1-99	100-999
HA2000	Digital Switch	4	1000-2000	17.05	12.80
HA2001	GP AC AMPL.	4	1000-2000	16.00	12.00
HA2010	Analogue Switch	5	1000-2000	15.00	11.25
HA2020	Low Drift DC AMPL.	4	1000-2000	15.55	11.65

• NEW — DIODES, COMMON ANODE OR CATHODE
"FORK" MODULE

Type No.	Description	Application	1-99	100-999
SA7405A	4 HMG 9004	Gate, etc.	9.68	7.26
SA7406A	4 HMG 9005	Gate, etc.	8.12	6.09
SA7407A	4 HMG 9008	Gate, etc.	7.08	5.31
SA7408A	4 HMG 9009	Low V Gate	6.64	4.98

Note: Types shown are common anode; Substitute suffix "C" for "A" for common cathode.

• NEW — DIODES, COMMON ANODE OR CATHODE,
"COMB" MODULE

Type No.	Description	Application	1-99	100-999
SA7409A	8 HMG 9004	Digital Circ.	19.36	14.52
SA7410A	8 HMG 9005	Digital Circ.	16.24	13.68
SA7411A	8 HMG 9008	Digital Circ.	14.16	10.62
SA7412A	8 HMG 9009	Digital Circ.	13.28	9.96

Note: "A" Suffix on type No. indicates common anode; substitute "C" Suffix for common cathode.

• NEW — GLASS AMBIENT SILICON
PLANAR EPITAXIAL DIODES
CHIP-TRIPLE — APPROXIMATE SIZE .025" SQUARE

Type No.	BV (V)	Ifwd (ma)	Cap (Pf)	Trr (Ns)	1-99	100-999
GAD4010-1	6	1	5	6	3.20	2.40
GAD4110-1	5	1	5	6	3.20	2.40

Bendix Semiconductors

HIGH FREQUENCY-HIGH POWER SILICON NPN TRANSISTORS

Type No.	Case Type	V _{ceo} V	I _c A	P _c W	Cur. Gain		1-99	100-999
					hFE	I _c in mA		
2N2657	TO-5	60	5.0	4.0	40-120	1000	28.75	19.17
2N2658	TO-5	80	5.0	4.0	40-120	1000	36.00	24.00
2N3016	TO-5	50	2.5	5.0	60-150	1000	22.50	15.00
2N3017	MT-27	50	5.0	10.0	30 min	5000	22.50	15.00
2N3018	MT-10A	50	10.0	25.0	40 min	5000	52.50	35.00
2N3619	TO-5	40	2.5	7.5	40 min	1000	9.75	6.00
2N3620	MT-27	40	5.0	7.5	30 min	5000	9.75	6.50
2N3621	TO-61	40	10.0	15.0	40 min	5000	18.00	12.00
2N3622	TO-61	40	10.0	15.0	40 min	5000	13.50	9.00
2N3623	TO-5	40	2.5	7.5	40 min	1000	15.00	10.00
2N3624	MT-27	40	5.0	7.5	30 min	5000	15.75	10.50
2N3625	TO-61	40	10.0	15	40 min	5000	30.00	20.00
2N3636	TO-61	40	10.0	15	40 min	5000	24.00	16.00
2N3627	TO-5	50	2.5	7.5	40 min	1000	20.25	13.50
2N3628	MT-27	50	5.0	7.5	30 min	5000	21.00	14.00
2N3629	TO-61	50	10.0	20	40 min	5000	49.50	33.00
2N3630	TO-61	50	10.0	20	40 min	5000	37.50	25.00

PNP ALLOY POWER TRANSISTORS

(a) V_{cer} @ RBE = 30 ohms; (b) Power gain in db. *V_{ces}

2N176	TO-3	3	25	25-90	0.5	1.20	.87
2N234A	TO-3	25(a)	3	25 25(b)	0.42	1.13	.75
2N235A	TO-3	35(a)	3	25 30-40(b)	0.76	1.58	1.05
2N235B	TO-3	35(a)	3	25 34-40(b)	0.42	1.80	1.20
2N255	TO-3	14(a)	3	25 19(b)	0.5	1.13	.75
2N256	TO-3	26*	3	25 22(b)	0.5	1.13	.75
2N285A	TO-3	35(a)	3	25 38(b)	0.42	3.45	2.30
2N297A	TO-3	28*	3	25 40-100	0.5	1.60	1.17
2N301	TO-3	32*	3	25 30(b)	0.5	1.60	.84
2N301A	TO-3	32*	3	25 30(b)	0.5	2.82	2.10
2N456	TO-3	40*	5	50 10 min	5	1.80	1.20
2N456A	TO-3	20	7	50 30-90	5	1.80	1.20
2N458	TO-3	80*	5	50 10 min	5	2.63	1.75
2N458A	TO-3	40	7	50 30-90	5	2.63	1.75
2N457	TO-3	60*	5	50 10 min	5	2.18	1.45
2N457A	TO-3	30	7	50 30-90	5	2.18	1.45
2N553	TO-3	40	4	25 40 min	0.5	3.35	2.23
2N554	TO-3	30(a)	3	25 25(b)	0.42	1.13	.75
2N555	TO-3	30*	3	65 20 min	0.5	1.13	.75
2N618	TO-3	60*	3	90 60-140	1	4.50	3.00
2N1011	TO-3	40	5	35 30-90	3	1.95	1.45
2N1021	TO-3	50	7	50 30-90	3	3.10	2.05
2N1021A	TO-3	50	7	150 30-90	5	3.10	2.05
2N1022	TO-3	50	7	50 30-90	5	3.60	2.40
2N1022A	TO-3	55	7	150 20-60	5	3.60	2.40
2N1038	TO-5	30	3	20 20-60	1	2.85	1.90
2N1038-1	MT-27	30	3	20 20-60	1	3.00	2.00
2N1038-2	MT-5	30	3	20 20-60	1	3.05	2.05
2N1039	TO-5	40	3	20 20-60	1	3.75	2.50
2N1041-1	MT-27	60	3	20 20-60	1	7.65	5.10
2N1041-2	MT-6	60	3	20 20-60	1	7.75	5.15
2N1042	MT-6	30	3.5	20 20-60	3	4.25	3.00
2N1042-1	MT-27	30	3.5	20 20-60	3	4.45	3.00
2N1042-2	TO-5	30	3.5	20 20-60	3	4.30	2.85
2N1043	MT-6	40	3.5	20 20-60	3	5.85	3.90
2N1043-1	MT-27	40	3.5	20 20-60	3	5.80	3.85
2N1043-2	TO-5	40	3.5	20 20-60	3	5.65	3.75
2N1044	MT-6	50	3.5	20 20-60	3	8.80	5.85
2N1044-1	MT-27	50	3.5	20 20-60	3	8.70	5.80
2N1044-2	TO-5	50	3.5	20 20-60	3	8.55	5.70
2N1045	MT-6	60	3.5	20 20-60	3	11.45	7.65
2N1045-1	MT-27	60	3.5	20 20-60	3	11.40	7.60
2N1045-2	TO-5	60	3.5	20 20-60	3	11.25	7.50
2N1136	TO-3	30	5	90 50-100	3	2.48	1.65
2N1136A	TO-3	55	5	90 50-100	3	3.23	2.15
2N1136B	TO-3	65	5	90 75-150	3	4.58	3.05
2N1137	TO-3	30	5	90 75-150	3	2.85	1.90
2N1137A	TO-3	55	5	90 75-150	3	3.98	2.65
2N1137B	TO-3	65	5	90 100-200	3	5.70	3.80
2N1138	TO-3	30	5	90 100-200	3	3.23	2.15
2N1138A	TO-3	55	5	90 100-200	3	4.73	3.15
2N1138B	TO-3	65	5	90 20-40	3	6.45	4.30
2N1529	TO-3	20	5	90 20-40	3	1.45	1.08
2N1529A	TO-3	20	5	90 20-40	3	1.80	1.35
2N1533	TO-3	60	5	90 35-70	3	4.35	3.25
2N1534A	TO-3	20	5	90 35-70	3	1.95	1.45
2N1535	TO-3	30	5	90 35-70	3	1.55	1.14
2N1536	TO-3	40	5	90 35-70	3	1.70	1.25
2N1536A	TO-3	40	5	90 35-70	3	2.20	1.85
2N1537	TO-3	50	5	90 35-70	3	3.90	2.90
2N1541	TO-3	20	3	90 75-150	3	1.65	1.24
2N1544A	TO-3	20	3	90 75-150	3	2.22	1.64

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PNP ALLOY POWER TRANSISTORS (Continued)

Type	Case Type	V _{ceo} V	I _c A	P _c W	Current Gain		1-99	100-999
					hFE	I _c in mA		
2N1545A	TO-3	30	3	90	75-150	3	2.95	1.75
2N1546	TO-3	40	3	90	75-150	3	2.90	1.70
2N1546A	TO-3	40	3	90	75-150	3	2.95	2.20
2N1547	TO-3	50	3	90	75-150	3	2.75	2.05
2N1547A	TO-3	50	3	90	75-150	3	3.45	2.55
2N1548	TO-3	60	3	90	20-60	1	4.00	2.95
2N2552	MT-27	30	3	20	20-60	1	3.00	2.00
2N2553	MT-27	40	3	20	20-60	1	3.90	2.60
2N2554	MT-27	50	3	20	20-60	1	5.85	3.90
2N2555	MT-27	50	3	20	20-60	1	7.65	5.10
2N2556	MT-6	30	3	20	20-60	1	3.05	2.05
2N3611	TO-3	25	7	85	35-70	3	1.15	.78
2N3612	TO-3	35	7	85	35-70	3	1.30	.88
2N3613	TO-3	25	7	85	60-120	3	1.25	.85
2N3614	TO-3	35	7	85	60-120	3	1.40	.94
2N3615	TO-3	50	7	85	30-60	3	1.85	1.10
2N3616	TO-3	60	7	85	30-60	3	1.95	1.30
2N3617	TO-3	50	7	85	45-90	3	1.87	1.25
2N3618	TO-3	60	7	85	45-90	3	2.37	1.58
2N2561	MT-27	40	3.5	20	20-60	3	5.80	3.85
2N2562	MT-27	50	3.5	20	20-60	3	8.70	5.80
2N2563	MT-27	60	3.5	20	20-60	3	11.40	7.60
2N2564	TO-5	30	3.5	20	20-60	3	4.90	2.85
2N2565	TO-5	40	3.5	20	20-60	3	5.65	3.75
2N2566	TO-5	50	3.5	20	20-60	3	8.55	5.70
2N2567	TO-5	60	3.5	20	20-60	3	11.25	7.50

PNP ALLOY HIGH POWER TRANSISTORS AND INVERTERS

2N511	TO-41	30	25	150	20-60	10	4.05	2.70
2N511A	TO-41	40	25	150	10-30	10	4.75	3.15
2N511B	TO-41	45	25	150	10-30	10	5.20	3.45
2N512	TO-41	30	25	150	10-30	15	4.75	3.15
2N513	TO-41	30	25	150	10-30	20	6.00	4.00
2N514	TO-41	30	25	150	30-60	25	8.25	5.50
2N677	TO-3	20	15	90	30-60	10	3.00	2.00
2N677A	TO-3	30	15	90	30-60	10	3.60	2.40
2N677B	TO-3	60	15	90	30-60	10	7.13	4.75
2N677C	TO-3	70	15	90	30-60	10	13.13	8.75
2N1165	TO-41	60*	25	50	50-100	25	6.35	4.70
2N1165A	TO-41	60*	25	50	50-100	25	6.95	5.15
2N1553	TO-3	20	15	90	20-60	10	1.85	1.35
2N1553A	TO-3	20	15	90	20-60	10	2.35	1.75
2N1554	TO-3	30	15	90	20-60	10	2.30	1.70
2N1555	TO-3	40	15	90	20-60	10	2.75	2.05
2N1556	TO-3	50	15	90	20-60	10	4.00	2.95
2N1556A	TO-3	50	15	90	20-60	10	4.65	3.45
2N1558	TO-3	30	15	90	15-65	10	2.80	2.06
2N1559A	TO-3	40	15	90	15-65	10	3.90	2.90
2N1560	TO-3	50	15	90	15-65	10	4.45	3.30
2N1560A	TO-3	50	15	90	10-30	10	5.00	3.78

SILICON DIFFUSED MESA NPN POWER TRANSISTORS

Type No.	Case Type	V _{ceo} V	I _c A	P _c W	Current Gain		1-99	100-999
					hFE	I _c in A		
2N389	TO-53	60	2.0	85	12-60	1	21.06	14.00
2N424	TO-53	80	2.0	85	12-60	1	18.50	11.00
2N1015	MT-1	30	7.5	150	10 min	1	19.00	14.00
2N1015A	MT-1	60	7.5	150	10 min	2	25.00	18.60
2N1015B	MT-1	100	7.5	150	10 min	2	34.00	25.20
2N1015C	MT-1	150	7.5	150	10 min	2	44.00	33.00
2N1016	MT-1	30	7.5	150	10 min	2	21.00	16.00
2N1016A	MT-1	60	7.5	150	10 min	5	29.00	21.60
2N1016B	MT-1	100	7.5	150	10 min	5	38.00	28.30
2N1016C	MT-1	150	7.5	150	10 min	5	51.00	37.70
2N1069	TO-3	45	4.0	50	10-50	1.5	8.15	5.40
2N1070	TO-3	45	4.0	50	10-50	1.5	11.95	7.95
2N1487	TO-3	40	6.0	75	15-45	1.5	4.54	3.03
2N1488	TO-3	55	6.0	75	15-45	1.5	4.95	3.30
2N1489	TO-3	40	6.0	75	25-75	1.5	7.43	4.95
2N1490	TO-3	55	6.0	75	25-75	1.5	8.25	5.50

DIFFUSED ALLOY POWER DAP® TRANSISTORS



TO-3



B-5000

ENCAPSULATED NPN SILICON POWER TRANSISTORS

The Bendix B-5000 plastic Encapsulated Silicon Power Transistor is a new concept in solid state power handlings. This reliable, low-cost device is taking over many new applications where silicon power formerly could not be considered.

Type	Case Type	V _{ceo} V	I _C A	P _c W	Current Gain hFE	I _c in A	1-99	100-999
B-5000	B-5000	35	3	25	30-250	0.5	.99	.75

MOUNTING HARDWARE

Type	For Case Type	1-99	100-999	1000-up
210-6500	TO-3 Copper	.50	.25	.20
210-6518	TO-3 Steel	.40	.20	.16

SILICON NPN REGULATOR TRANSISTORS

Type No.	Case Type	V _{ceo} V	I _C A	P _c W	Current Gain hFE	I _c in A	1-99	100-999
B-170009	TO-3	40	6	60	30 min.	1	2.40	1.60
B-170010	TO-3	40	10	90	20 min.	3	2.55	1.70
B-170011	TO-3	40	15	120	12 min.	5	2.63	1.75
B-170012	TO-3	70	6	60	30 min.	1	2.55	1.70
B-170013	TO-3	70	10	90	20 min.	3	2.63	1.75
B-170014	TO-3	70	15	120	12 min.	5	2.77	1.85
B-170015	TO-3	100	6	60	30 min.	1	3.08	2.05
B-170016	TO-3	100	10	90	20 min.	3	3.25	2.15
B-170017	TO-3	100	15	120	12 min.	5	3.83	2.55

SILICON NPN TRANSISTORS

Type No.	Case Type	V _{ceo} V	I _C A	P _c W	Current Gain hFE	I _c in A	1-99	100-999
B-170018	TO-3	40	6	60	30 min.	1	2.48	1.65
B-170019	TO-3	40	10	90	20 min.	3	2.63	1.75
B-170020	TO-3	40	15	120	12 min.	5	2.70	1.80
B-170021	TO-3	70	6	60	30 min.	1	2.63	1.75
B-170022	TO-3	70	10	90	20 min.	3	2.70	1.80
B-170023	TO-3	70	15	120	12 min.	5	2.85	1.90
B-170024	TO-3	100	6	60	30 min.	1	3.15	2.10
B-170025	TO-3	100	10	90	20 min.	3	3.30	2.20
B-170026	TO-3	100	15	120	12 min.	5	3.83	2.55

Type No.	Case Type	V _{ceo} V	I _C A	P _c W	Current Gain hFE	I _c in A	1-99	100-999
2N1073	TO-41	40	10	60	20-60	5	2.40	1.78
2N1073A	TO-41	80	10	60	20-60	5	3.80	2.67
2N1073B	TO-41	120	10	60	20-60	5	4.50	3.30
2N1430	TO-41	80	10	50	30-100	5	10.35	6.90
2N1651	TO-41	60	25	100	20 min	25	5.25	3.50
2N1652	TO-41	100	25	100	20 min	25	12.00	8.00
2N1653	TO-41	120	25	100	20 min	25	23.25	15.50
2N1751	TO-3	80	25	90	30-90	20	30.00	20.00
2N2212	TO-37	120	10	60	50-120	5	12.00	8.00
2N2282	TO-37	60	3	5	30-90	0.5	6.00	4.00
2N2283	TO-37	100	3	5	30-90	0.5	7.50	5.00
2N2284	TO-37	200	3	5	30-90	0.5	11.25	7.50
2N2285	TO-3	60	25	100	20 min	25	5.25	3.50
2N2286	TO-3	100	25	100	20 min	25	12.00	8.00
2N2287	TO-3	120	25	100	20 min	25	23.25	15.50
2N2288	TO-3	40	10	60	20-60	5	2.65	1.78
2N2289	TO-3	80	10	60	20-60	5	4.00	2.67
2N2290	TO-3	120	10	60	20-60	5	4.95	3.30
2N2291	TO-3	40	10	60	50-120	5	2.78	1.85
2N2292	TO-3	80	10	60	50-120	5	6.00	4.00
2N2293	TO-3	120	10	60	50-120	5	11.85	7.90
2N2294	TO-41	40	10	60	50-120	5	2.78	1.85
2N2295	TO-41	80	10	60	50-120	5	6.00	4.00
2N2296	TO-41	120	10	60	50-120	5	11.85	7.90
2N2357	TO-41	60	50	170	15 min	50	11.25	7.50
2N2358	TO-41	100	50	170	15 min	50	21.00	14.00
2N2359	TO-41	120	50	170	15 min	50	37.50	25.00
2N2467	TO-5	60	3	5	30-90	0.5	6.00	4.00
2N2468	TO-5	100	3	5	30-90	0.5	7.50	5.00
2N2469	TO-5	200	3	5	30-90	0.5	11.25	7.50
2N2636	TO-41	100	25	100	20 min	25	29.25	19.50
2N2637	TO-41	100	25	100	20 min	25	33.75	22.50
2N2638	TO-41	100	25	100	20 min	25	38.25	25.50

SILICON NPN AMPLIFIER TRANSISTORS

Type No.	Case Type	V _{ceo} V	I _C A	P _c W	Current Gain hFE	I _c in A	1-99	100-999
B-170000	TO-3	40	6	60	30 min.	1	2.55	1.70
B-170001	TO-3	40	10	90	20 min.	3	2.70	1.80
B-170002	TO-3	40	15	120	12 min.	5	2.77	1.85
B-170003	TO-3	70	6	60	30 min.	1	2.70	1.80
B-170004	TO-3	70	10	90	20 min.	3	2.77	1.85
B-170005	TO-3	70	15	120	12 min.	5	2.93	1.95
B-170006	TO-3	100	6	60	30 min.	1	3.25	2.15
B-170007	TO-3	100	10	90	20 min.	3	3.38	2.25
B-170008	TO-3	100	15	120	12 min.	5	3.98	2.65

ERIE RECTIFIERS

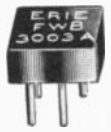


Fig. A
• Full Wave Bridge Rectifier Circuit



Fig. B
• Full Wave Voltage Doubler Circuit



Fig. C

FULL WAVE RECTIFIER ASSEMBLIES

A miniature series of bridge and doubler modules designed for printed circuit applications. Double seal assures moisture resistance to environmental specs of MIL-STD-750A, FWB types

(bridge rectifiers) measure 1/2x1/2x1/4", with pin leads 1/4" long; FWD types (doublers) measure .50x.40x.20" with 5/8" pin leads.

FULL WAVE BRIDGE RECTIFIERS—Fig. A

Type	PIV Wkng. Volt.	Rms Volts	Max. Fwd. Cur., 25°C.	1-99	100-999
FWB3001A	100	70	1.5A	1.80	1.45
FWB3002A	200	140	1.5A	1.80	1.50
FWB3003A	300	210	1.5A	1.90	1.60
FWB3004A	400	280	1.5A	2.00	1.75
FWB3005A	500	350	1.5A	2.25	1.80
FWB3006A	600	420	1.5A	2.50	1.90
FWB3007A	700	490	1.5A	2.60	2.10
FWB3008A	800	560	1.5A	2.75	2.30
FWB3009A	900	630	1.5A	2.85	2.40
FWB3010A	1000	700	1.5A	3.00	2.50

FULL WAVE DOUBLER RECTIFIERS—Fig. B

Type	PIV Wkng. Volt.	Rms Volts	Max. Fwd. Cur., 25°C.	1-99	100-999	1000-5000
FWDA3001A	100	35	.750A	.97	.69	.58
FWDA3002A	200	70	.750A	.98	.70	.60
FWDA3003A	300	105	.750A	.99	.71	.61
FWDA3004A	400	140	.750A	1.00	.72	.62
FWDA3005A	500	175	.750A	1.01	.73	.63
FWDA3006A	600	210	.750A	1.09	.78	.67
FWDA3007A	700	240	.750A	1.12	.81	.70
FWDA3008A	800	280	.750A	1.18	.84	.73
FWDA3009A	900	315	.750A	1.27	.91	.78
FWDA3010A	1000	350	.750A	1.57	1.12	.88

MINIATURE SILICON DIFFUSED RECTIFIERS — Fig. C

General-purpose diffused silicon rectifiers featuring high forward conductance, low leakage currents, and reliable performance. Unique methods of encapsulating the rectifier assure permanent resistance to parameter degradation due to moisture diffusion.

Meet or exceed environmental testing per MIL-STD-750A. Surge current rating: 25A. Operating temperature range: -55 to +100°C. Body size: .250x.095"; 1.110" leads.

.75 AMP MAX. FWD. CURRENT

Type	PIV	Max. Ir @ 25°C. ua.	1-99	100-999	1000-5000
ED3001A	100	10	.45	.30	.21
ED3002A/1N2069	200	10	.50	.33	.22
ED3003A	300	10	.58	.39	.23
ED3004A/1N2070	400	10	.61	.45	.27
ED3005A	500	10	.64	.49	.28

Type	PIV	Max. Ir @ 25°C. ua.	1-99	100-999	1000-5000
ED3006A/1N2071	600	10	.66	.51	.29
ED3007A	700	10	.69	.54	.34
ED3008A	800	10	.72	.57	.415
ED3009A	900	10	.74	.59	.455
ED3010A	1000	10	.76	.61	.435



General Instrument Semiconductors



DO-4



DO-13



TO-5



TO-18

"GLASS AMP" SILICON RECTIFIERS

Lead mounted. Insulated case, hermetically sealed, 1 amp @ 100°C, 50 amp surge. Diffused junction, low leakage.

Type	Max. Avg. Fwd. I @ 100°C.	PIV	1-99	100-999
G100B	1.0	100	.47	.33
1N4383/G100D	1.0	200	.48	.38
1N4384/G100G	1.0	400	.58	.41
1N4385/G100J	1.0	600	.78	.54
1N4585/G110K	0.6	800	1.20	.80
1N4586/G100M	0.6	1000	2.70	1.80

SILICON RECTIFIERS—PLASTIC CASED

Type	PIV.	Max. DCA	1-99	100-999
1N2069	200	.750	.49	.32
1N2070	400	.750	.67	.44
1N2071	600	.750	.86	.57
PA340	400	.450	.63	.42

SILICON RECTIFIER—CASE DO-2—(TOP HAT)

Type	PIV.	Max. DCA	1-99	100-999
1N538	200	.750	.58	.35
1N540	400	.750	.68	.45
1N1692	100	.600	.45	.30
1N1693	200	.600	.52	.35
1N1694	300	.600	.60	.40
1N1695	500	.600	.83	.55
PT5	400	.500	.76	.51
PT520	200	.750	.52	.34
PT530	300	.750	.62	.41
PT505	50	.750	.45	.30
1N4458	600	.750	1.60	1.07

SILICON RECTIFIER—CASE DO-13 (FLANGELESS)

Type	PIV.	Max. DCA	1-99	100-999
1N3189	200	1.0	3.08	2.00

SILICON RECTIFIER—CASE DO-4 (3/16 HEX., STUD)

Type	PIV.	Max. DCA	1-99	100-999
1N1124*	200	3	2.10	1.40
1N1126*	400	3	3.90	2.60
1N1127*	500	3	5.25	3.50

EPOXY ENCAPSULATED TRANSISTORS—TO-18

Type	V _{CEO} V	h _{FE}	1-99	100-999	1000-4999	5000-9999
2N2711	18	30-90	.45	.30	.20	.19
2N2712	18	75-125	.48	.32	.22	.20
2N2713	18	30-90	.51	.34	.24	.22
2N2714	18	75-225	.53	.35	.25	.23
2N2923	25	90-180	.48	.32	.22	.20
2N2924	25	150-300	.53	.35	.25	.23
2N2925	25	235-470	.60	.40	.30	.28
2N2926	18	35-470	.45	.30	.20	.19
2N3391	25	250-500	.72	.48	.36	.33
2N3391A	25	250-500	.80	.53	.40	.37
2N3392	25	150-300	.53	.35	.25	.23
2N3393	25	90-180	.45	.30	.20	.19
2N3394	25	55-110	.43	.29	.19	.18
2N3395	25	150-500	.59	.39	.29	.27
2N3396	25	90-500	.54	.36	.26	.24
2N3397	25	55-500	.51	.34	.24	.22
2N3398	25	55-800	.59	.39	.29	.27
2N3414	25	75-225	.59	.39	.29	.27
2N3416	50	75-225	.65	.43	.32	.30
2N3563	12	20-200	.75	.50	.35	.29
2N3564	15	20-500	.85	.58	.40	.34
2N3565	25	150-600	.62	.43	.28	.24
2N3566	30	150-600	.60	.41	.26	.22
2N3605	14	30	.60	.40	.30	.28
2N3606	14	30	.54	.36	.26	.24
2N3607	14	30	.51	.34	.24	.22
2N3638	25*	30	.46	.31	.28	.27
2N3638A	50*	30-180	.70	.54	.43	.37
2N3641	30	40-120	.79	.57	.41	.35
2N3642	30	100-300	.84	.60	.43	.37
2N3643	30	100-300	.75	.50	.43	.39
2N3644	45*	100-300	.96	.64	.55	.50
2N3645	60*	100-300	.75	.50	.37	.34
2N3662	12	20	.75	.50	.37	.34

All types NPN except * PNP

EPOXY ENCAPSULATED TRANSISTORS—TO-18 (CONT'D)

Type	V _{CEO} V	h _{FE}	1-99	100-999	1000-4999	5000-9999
2N3663	12	20	.80	.53	.40	.37
2N3691	20	40-160	.62	.43	.26	.24
2N3692	20	100-400	.68	.47	.32	.27
2N3702	25*	60-300	.45	.30	.27	.26
2N3703	30*	30-150	.50	.33	.30	.29
2N3704	30	100-300	.62	.41	.37	.35
2N3705	30	50-150	.50	.37	.34	.33
2N3706	30	30-600	.53	.35	.31	.30
2N3707	30	100-400	.60	.40	.36	.35
2N3708	30	45-660	.46	.32	.29	.28
2N3709	30	45-165	.45	.30	.27	.26
2N3710	30	90-330	.50	.33	.29	.28
2N3711	30	180-600	.54	.36	.33	.32
2N3721	18	60-660	.43	.29	.19	.18
2N3843A	30	20-40	.59	.39	.29	.27
2N3844A	30	35-70	.62	.42	.31	.29
2N3845A	30	60-120	.67	.45	.34	.31
2N3858	30	60-120	.48	.32	.22	.20
2N3859	30	100-200	.49	.33	.23	.21
2N3860	30	150-300	.54	.36	.26	.24
2N3900	18	250-500	.67	.45	.34	.31
2N3900A	18	250-500	.75	.50	.37	.34
2N3903	40	50-150	.75	.50	.37	.35
2N3904	40	100-300	.83	.55	.41	.38
2N3905	40*	50-150	.75	.50	.37	.35
2N3906	40*	100-300	.83	.55	.41	.38
2N4140	30	40-120	.90	.60	.54	.52
2N4141	30	100-300	1.20	.80	.72	.70
2N4142	40*	40-120	.90	.60	.54	.52
2N4143	40*	100-300	1.20	.80	.72	.72
2N4227	30	75-150	1.01	.67	.60	.58
2N4228	40*	75-150	1.01	.67	.60	.58

All types NPN except * PNP

MOS SILICON P-CHANNEL ENHANCEMENT MODE FIELD EFFECT TRANSISTORS

High input impedance, normally ciff with zero gate voltage, square law transfer characteristics. Designed for series and shunt choppers, AF and RF amplifiers, multiplex and commutating applications. Operating temperatures -55°C. to +85°C.

Type	Case	BVDSS V	r _{ds} (on)	1-99	100-999
MEM 511	TO-72	-30	250	10.00	6.70
MEM 517	TO-5	-30	45	28.45	18.90
MEM 517A	TO-5	-30	45	29.10	19.20
MEM 520	TO-72	-30	250	11.00	7.40
MEM 550	TO-5	-30	500	17.50	11.30
MEM 551	*	-30	500	17.75	11.55

* 6 lead flat-pack

SILICON NPN TRANSISTORS

Planar passivated, linear amplifier. *Mil version available.

Type	Case	Pw. Dis.	1-99	100-999
*2N696	TO-5	0.6W	.93	.62
*2N697	TO-5	0.6W	.84	.56
2N718	TO-18	0.4W	.84	.56
2N718A	TO-18	0.5W	1.52	1.01
2N720A	TO-18	0.5W	3.30	2.20
2N1420	TO-5	0.6W	1.25	.83
*2N1613	TO-5	0.8W	1.73	1.16
2N1990	TO-5	0.6W	3.90	2.60

SILICON NPN TRANSISTORS

Epitaxial, planar passivated, low sat. res., high I Sw., *MIL versions available.

Type	Case	25°C A Diss. Watts.	Min. V _{CB0}	1-99	100-999
*2N2218	TO-5	0.800	60	3.35	2.25
*2N2219	TO-5	0.800	60	3.35	2.25
*2N2221	TO-18	0.500	60	3.25	2.25
*2N2222	TO-18	0.500	60	3.25	2.25
2N2782	TO-5	0.800	75	6.40	4.30

SWITCHING HIGH SPEED NPN TRANSISTORS

Planar, Epitaxial, passivated. *MIL versions available.

Type	Case	Pw. Dis MW	V _{CB0}	1-99	100-999
*2N703	TO-18	300	25	6.75	4.50
2N706	TO-18	360	25	.81	.54
2N706A	TO-18	360	25	.97	.64
2N706B	TO-18	360	25	1.49	.99
2N706C	TO-18	360	25	6.00	4.00
2N835	TO-18	360	25	2.70	1.80

GENERAL INSTRUMENT

DIFFERENTIAL AMPLIFIERS—MATCHED PAIR—SILICON

Type	Case	1-99	100-999
2N2223	RO-52	15.00	10.00

SILICON MICRO-DIODES

Type	1-99	100-999
IN3594	3.37	2.25

GERMANIUM DIODES, GOLD BOND

—DO-7 CASE —25°C RATINGS

Type	PIV	IF Min. @ IV	Max. IR @ VR	1-99	100-999
IN34	75	5	50@10	.30	.23
IN34A	75	5	30@10	.30	.23
IN38	120	3	625@100	.49	.38
IN38A	120	4	5@3	.49	.38
IN50	75	5	80@20	.30	.22
IN51	50	2.5	167@50	.30	.22
IN52	85	4	150@50	.38	.24
IN54	75	5	10@10	.42	.32
IN54A	75	5	7@10	.42	.32
IN55	170	5	300@100	.55	.41
IN55B	190	5	500@150	1.07	.82
IN56	50	15	300@30	.39	.31
IN56A	50	15	300@30	.44	.36
IN58	120	4	800@100	.55	.41
IN60	30	Detct	600@100	.30	.23
IN63	125	4	67@50	.36	.28
IN64	25	50	100@10	.30	.23
IN64A	30	Detct	.....	.49	.40
IN66	60	5	50@10	.39	.30
IN66A	70	5	50@10	.39	.30
IN67	100	4	5@5	.49	.40
IN67A	100	4	5@5	.49	.40
IN68	120	3	625@100	.70	.55
IN68A	125	3	625@100	.70	.55
IN69	75	5	850@50	.38	.29
IN68	110	2.5	100@50	.51	.38
IN89	100	3.5	8@5	.60	.45
IN90	75	5	500@50	.33	.22
IN95	75	10	500@50	.51	.34
IN96A	75	40	500@50	.57	.38
IN97A	100	20	100@50	.68	.44

GERMANIUM DIODES, GOLD BOND (Cont.)

Type	PIV	IF Min. @ IV	Max. IR @ VR	1-99	100-999
IN100	100	20	5@5	.51	.40
IN102	125	15	3@25	2.25	1.50
IN116A	75	10	100@50	.49	.36
IN118A	75	40	100@50	.50	.41
IN191	90	5	25@10	.35	.28
IN270	100	200	100@50	.32	.25
IN276	100	40	100@50	.31	.24
IN277	125	100	75@10		
			@75°C	.34	.26
IN279	39	100	200@20	.29	.22
IN281	75	100	30@10	.31	.24
IN287	60	20	1500@50	.43	.28
IN288	85	40	350@50	.53	.40
IN289	85	20	50@50	.66	.50
IN291	120	40	100@100	.84	.63
IN295	50	.....	200@10	.35	.27
IN298A	85	.....	250@40		
			@50°C	.45	.30
IN304	70	2 @ 1.5	2@10	1.98	1.32
IN309	40	100	100@20	.85	.72
IN480	90	5	50@20		
			@60°C	1.80	1.20
IN490	90	5	100@20		
			@60°C	.89	.79
IN497	30	120 @ .8	5@20	.45	.34
IN499	75	120 @ .8	10@50	.93	.62
IN500	80	120 @ .8	10@50	.53	.41
IN501	100	100 @ .8	20@80	1.25	.90
IN770	25	15 @ .5	40@10		
			@40°C	.48	.38
IN771A	100	200	25@50	1.40	1.00
IN771B	100	400	25@50	1.50	1.10
IN772	80	100	50@50	.75	.50
IN774	70	100	15@10	.44	.29
IN774A	70	200	15@10	.80	.54
IN775	70	100	20@10	.70	.40
IN776	30	50	200@10	.32	.21
IN777	70	100	25@10		
			@55°C	.87	.72
DR303	60	400	50@20	1.12	.90
DR351	50	200	1500@30		
			@50°C	.75	.60
DR352	50	10 @ .35	300@30		
			@50°C	1.19	.95
DR482	60	100	20@40	.90	.64
DR488	20	10 @ .37	10@10	1.45	1.09

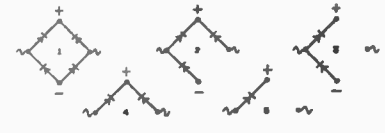
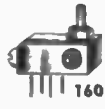
CONANT COLOR-CODED INSTRUMENT RECTIFIERS

General replacement rectifiers for all types of meters and relays. Color-coding makes it easy to select correct replacement. Maximum AC input of all units 5 volts. Aver. shpg. wt., 3 oz.

Series 500. Designed for use in apparatus drawing up to 30 milliamps. Reverse voltage, 2.25 DC. Disc diameter, .500". Active area, .15 square inches.

Series 160 and 160-C. Designed for applications requiring better than average frequency response. Recommended for conventional circuits using meter movements drawing up to 5 milliamps. Disc dia., .166". Active area, .019 square inches.

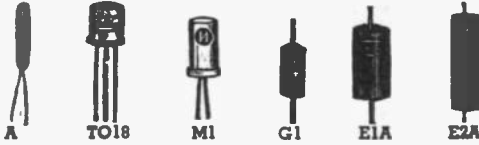
21F109. Conant Instrument Rectifier Book. NET15



Mfrs. Type	Series	Body Color	Internal Circuit	No. of Term	Forward DC MA	Average Output DC MA	NET
M	500	Yellow	1	4	60	30	2.06
HS	500	Black	3	3	60	30	1.50
T	500	Red	4	3	60	30	1.50
H	500	Green	5	2	60	30	1.18
B	160	Yellow	1	4	10	10	2.06
BHS	160	Black	3	3	10	5	1.50
BT	160	Red	4	3	10	5	1.50
BH	160	Green	5	2	10	5	1.18
B-C	160-C	Yellow	1	4	10	5	2.06

THIS SEMICONDUCTOR LISTING IS COMPLETE TO THE DATE OF PRINTING, AUGUST 15, 1966, BUT NEW ITEMS ARE CONTINUALLY BEING DEVELOPED AND ARE ADDED TO THE NEWARK STOCK. CHECK WITH THE NEWARK INDUSTRIAL DEPARTMENT FOR ANY NEW SEMICONDUCTORS NOT LISTED. ORDERS WILL BE BILLED TO YOU AT THOSE PRICES IN EFFECT AT TIME OF SHIPMENT.

Hoffman Semiconductors



ZENER LOW VOLTAGE DIODES

Temp.: -55 to +175°C. Ratings at 25°C. Er tol.: ±5%.

Type	Case	Er @ 20 ma (Volts)	Max. Ib (µA @ V)	Power (W)	1-99	100- 999
HS-6	G1	.74	20@ .35	.5	1.30	.85
HS-7	E1A	1.40	20@ .7	1	3.50	2.10
HS-8	E1A	1.55	20@ .7	1	3.50	2.10
HS-10	E2A	2.10	20@ 1	1.4	5.00	3.10
HS-14	E2A	3.10	20@ 1.4	1.75	6.00	3.70

200 MW ZENER "DOUBLE ANODE" DIODES—M-1 CASE

Rated at 25°C. Temp.: -65 to +150°C. Available in ±5% tol.

Type	Es @ 5 ma Min.	Es Max.	Ib Max. µA	Eb	1-99	100 Mixed 10/Type	100- 999
1N471	3.0	3.9	50	1	5.20	4.70	3.90
1N472	3.7	4.5	5	1			
1N473	3.3	5.4	5	1.5			
1N474	5.2	6.4	5	1.5			
1N475	6.2	8.0	5	3.5			

150 MW GENERAL PURPOSE ZENER DIODES—M1 CASE

Rated @ 25°C. Ez, 5V min., 7V max. Temp.: -55 to +100°C.

Type No.	Description	Max. Zx Ohms	1-99	100- 999
RS-6	Single Anode	15	1.80	1.35
RT-6	Double Anode	20	1.80	1.35

GENERAL PURPOSE 150 MW SILICON DIODES—M1 CASE

Max. power rating: 150 mw @ 25°C. Derate 1 mw/°C over 25°C. Oper. range: -85 to +150°C, except * -55 to +100°C. **Vi @ 0.015 ma. is 0.5V ±10%.

Type	Eb Max. V.	Ez Min. V.	Ii Min. ma	1-99	100 Mixed 10/Type	100- 999
1N137A	36	40	3	2.75	2.50	2.06
1N138A	18	20	5	2.75	2.50	2.06
1N200	6.8	7.5	50	3.25	2.95	2.44
1N210	47	52	3.5	3.25	2.95	2.44
1N212	68	75	2.0	3.25	2.95	2.44
1N214	100	110	1.2	3.25	2.95	2.44
1N216	150	170	0.7	3.25	2.95	2.44
1N222	470	520	1.5	3.25	2.95	2.44
HB1*	6.8	7.5	17	.44	.....	.44
HB2*	18	20	5	.44	.....	.44
HB3*	36	40	2.7	.44	.....	.44

150 MW ZENER SINGLE ANODE DIODES—M1 CASE

Rated @ 25°C. Temp.: -65 to +150°C. Available in ±5% tol., except †.

Type	Es @ 2 ma Min.	Es Max.	Max. Rev. µA @ 25°C	µA @ 100°C	Eb	1-99	100 Mixed 10/Type	100- 999
1N1313	7.5	10	0.5	5	6.8	3.10	2.70	2.35
1N1314	9	12	0.5	5	8.2	3.10	2.70	2.35
1N1315	11	14.5	0.5	5	10	3.10	2.70	2.35
1N1316	13.5	18	0.5	5	12	3.10	2.70	2.35
1N1317	17	21	0.5	5	15	3.10	2.70	2.35
1N1321	37	45	0.1	10	33	3.10	2.70	2.35
1N1322	43	54	0.1	10	39	3.10	2.70	2.35
1N1323	52	64	0.1	10	47	3.10	2.70	2.35
1N1326†	90	120	1	50	82	3.10	2.70	2.35

150 MW ZENER "DOUBLE ANODE" DIODES—M1 CASE

Rated @ 25°C. Temp.: -65 to +150°C. Available in ±5% tol.

Type	Es @ 2 ma Min.	Es Max.	Max. Rev. µA @ 25°C	µA @ 100°C	Eb	1-99	100 Mixed 10/Type	100- 999
1N225	7.5	10	0.5	5	6.8	5.75	5.20	4.31
1N226	9	12	0.5	5	8.2	5.75	5.20	4.31
1N227	11	14.5	0.5	5	10	5.75	5.20	4.31
1N228	13.5	18	0.5	5	12	5.75	5.20	4.31
1N230	20	27	0.1	10	18	6.25	5.65	4.69
1N231	25	32	0.1	10	22	6.25	5.65	4.69
1N232	30	39	0.1	10	27	6.25	5.65	4.69

250 MW ZENER LOW VOLTAGE SILICON DIODES—M1 CASE

Rated @ 25°C. Temp.: -65 to +200°C. AVA. ±5% and ±1%.

Type	Es @ 5mA Min.	Es Max.	Ib Max. µA	Eb	1-99	100 Mixed 10/Type	100- 999
1N465	2.0	3.2	75	1	3.75	3.40	2.81
1N466	3.0	3.9	50	1			
1N467	3.7	4.5	5	1			
1N468	4.3	5.4	5	1.5			
1N469	5.2	6.4	5	1.5			
1N470	6.2	8.0	5	3.5			

250 MW GLASS ZENER DIODES—G1 CASE

Rated @ 25°C. These devices have ±5% tolerance. Delete suffix "A" from type number for ±10% tolerance.

Type No.	Es @ Iz Volts	Iz ma	1-99	100 Mixed 10/Type	100- 999
1N708A	5.6	25	2.60	2.34	1.95
1N709A	6.2	25			
1N710A	6.8	25			
1N711A	7.5	25			
1N712A	8.2	25			
1N713A	9.1	12			
1N714A	10	12			
1N715A	11	12			
1N716A	12	12			
1N717A	13	12			
1N718A	15	12			
1N719A	16	12			
1N720A	18	12			
1N721A	20	4			
1N724A	27	4			
1N725A	30	4			
1N727A	36	4			
1N733A	62	2	1.85	1.65	1.38
1N735A	75	2			
1N736A	82	2			
1N737A	91	1			
1N738A	100	1			
1N740A	120	1			
1N742A	150	1			
1N745A	200	1			

SILICON TUNNEL DIODES

Hermetically sealed TO-18 package, with weldable gold plated Kovar leads. Used for many small signal applications.

Type	I @ 25°C (mA)	1-99	100-999
1N2927	0.50	15.00	11.25
1N2927A	0.50	19.00	13.35
1N2928	2.50	12.50	9.40
1N2928A	2.50	17.50	13.10
1N2929	5.0	11.10	8.30
1N2929A	5.0	17.50	13.10
1N2930	15.0	11.10	8.30
1N2930A	15.0	17.50	13.10
1N2931	25.0	11.10	8.30
1N2931A	25.0	17.50	13.10

NPN PHOTO DUO-DIODE—TYPE 1N2175

The 1N2175 is a sub-miniature, symmetrically diffused silicon photo readout device. The two junctions are symmetrical so that either diode terminal can be biased either positively or negatively. Due to this unique design, AC or DC bias voltage can be used. The small size and high light sensitivity of this unit makes it particularly useful in high speed readout of punched cards and tapes.

Type 1N2175. NET 1-99 11.50 100-999 8.00

- **NEWARK SERVICE** is the fastest, most efficient in the industry. It cuts your lead time to the absolute minimum.
- **YOUR ORDER** is filled the same day it is received.
- **EMERGENCY REQUIREMENTS** are sped to you within minutes.
- **PHONE, WRITE, WIRE** for the electronics equipment you need.

250 MW ZENER GLASS DIODES—G1 CASE

Rated @25°C. Temp. range: -65° to +175°C. Tolerance: ±5%. Delete suffix "A" for 10% tolerance.

Type	Ez@5mA		Max. Z _z @ 10 mA (Ohms)	1-99	100 Mixed 10/Type	100-999
	Min.	Max.				
1N702A	2.0	3.2	60	2.60	2.34	1.95
1N706A	5.2	6.4	20			
1N707A	6.2	8.0	10			
1N762A	5.2	6.4	20	1.85	1.65	1.38
1N763A	6.2	8.0	8			
1N764A	7.5	10	15			
1N765A	9	12	50			
1N766A	11	14.5	70			
1N767A	17	18	120	2.60	2.34	1.95
1N768A	13.5	21	200			
1N769A	20	27	300			

400 MW GLASS ZENER DIODES—G1 CASE

Rated @25°C. Temp. range: -65° to +175°C. ±5% Ez tolerance. Also available in ±10% tolerance.

Type	Ez@Iz (V)	Iz (ma)	Max. Z _z @ Iz	Ohms Z _z	1-99	100-299 Mix	100-200
1N958B	7.5	16.5	5.5	700			
1N959B	8.2	15	6.5	700			
1N961B	10	12.5	8.5	700			
1N963B	12	10.5	11.5	700			
1N965B	15	8.5	16.0	700			
1N968B	20	6.2	25	750	2.96	2.65	2.22
1N969B	22	5.6	29	750			
1N971B	27	4.6	41	750			
1N972B	30	4.2	49	1000			
1N976B	43	3.0	93	1500			
1N984B	91	1.4	400	3000	3.45	3.15	2.75
1N985B	100	1.3	500	3000			
1N986B	110	1.1	750	4000			
1N992B	200	0.65	2500	8000			

400 MW GLASS ZENER DIODES—G1 CASE

Rated @25°C. Tol.: ±5%. Temp. range: -65° to +175°C. Delete suffix "A" from type number for ±10% tolerance.

Type	Ez@Iz=20mA V.	Ib @ Eb= @25°C (uA)	-IV @ 150°C (uA)	1-99	100-299 Mix	100-299
1N749A	4.3	2.0	30			
1N750A	4.7	2.0	30			
1N751A	5.1	1.0	20			
1N752A	5.6	1.0	20			
1N753A	6.2	0.1	20	10%	1.90	1.70
1N754A	6.8	0.1	20			
1N756A	8.2	0.1	20			
1N757A	9.1	0.1	20	1.90	1.70	1.42
1N758A	10.0	0.1	20			
1N759A	12.0	0.1	20			

1.5 WATT MICROMINIATURE SILICON ZENER REGULATORS

Electrical specifications @ 25° Air Ambient. All are ±5% Tol. Operating temp.: -65°C to +175°C. Power dissipation: -1.5 Watts @ 30°C Air Ambient, leads heat sinked 3/8" from the body of the diode. Power derating: -10.4mW/°C above 30°C. Available in voltages to 200 volts on special order.

JEDEC Type	Vz@Ist Volts	Ist mA	Ir@Vr uA	Vr Volts	1-99	100-999
1N4461	6.8	37.0	5.0	4.08	4.80	3.60
1N4464	9.1	28.0	.3	5.46		
1N4467	12	21.0	.2	9.6		
1N4469	15	17.0	.05	12.0		
1N4471	18	14.0	.05	14.4		
1N4472	20	12.5	.05	16.0		
1N4474	24	10.5	.05	19.2		
1N4475	27	9.5	.05	21.6		
1N4477	33	7.5	.05	28.4		

400 mW LOW VOLTAGE ZENER REGULATORS-G1-CASE

Max power dissipation: 400mW @ 50°C ambient (derate 3.2 mW/C above 50°C ambient.) Operating and storage temp.: -65°C to 175°C. Standard types ± 10% tol.; A, ±5% tol.

Type	Nominal Zener Voltage Vz@20mA (volts)	1-99	100-999
1N4370A	2.4	2.60	1.95
1N4371	2.7	1.90	1.40
1N4371A	2.7	2.60	1.95
1N4372	3.0	1.90	1.40
1N4372A	3.0	2.60	1.95

400MW ZENER REGULATORS—G1 CASE

Rated @ 25°C.

Type	Ez @ Iz (V)	Iz (ma)	Ohms @ Iz	1-99	100 mixed 10/Type	100-299
1N961A	10	12.5	8.5	2.37	2.15	1.78
1N968A	16	7.8	17.0			
1N969A	22	5.6	29			

TEMPERATURE COMPENSATED ZENER REFERENCE DIODES

Electrical characteristics at 7.5 ma except ‡ at 10 ma. *Symmetrical types, meet specifications in both polarities.

Type	Case	Nom. Volt ±5%	Temp. Range °C	Max. Dyn. Z Ohms	1-99	100 Mixed 10/Type	100-999
1N429	M1	6.2	-55-100	20	5.70	5.15	4.35
1N821	G1	6.2	-55-100	15	3.30	3.00	2.50
1N822*	G1	6.2	-55-100	15	7.85	7.10	5.90
1N823	G1	6.2	-55-100	15	4.05	3.65	3.05
1N824*	G1	6.2	-55-100	15	10.60	6.55	5.50
1N935	G1	9.0	0-75	20	2.35	2.10	1.75
1N936	G1	9.0	0-75	20	2.80	2.55	2.10
1N936B	G1	9.0	-55-150	20	4.25	3.85	3.20
1N938	G1	9.0	0-75	20	7.10	6.40	5.30
1N938A	G1	9.0	-55-100	20	7.70	6.95	5.80
1N938B	G1	9.0	-55-150	20	11.30	10.15	8.50
1N1737	E3A	18.6	-55-100	60	13.00	11.70	9.80
1N430†	M3	8.4	-55-100	15	16.00	14.40	12.45
1N430A†	M3	8.4	-55-100	15	24.00	21.60	18.70
1N1530†	P1	8.4	-55-100	15	16.00	14.40	12.45
1N1530A†	P1	8.4	-55-100	15	24.00	21.60	18.70

TUNNEL DIODE TRIGGER AND SILICON CONTROLLED RECTIFIER SWITCHING SYSTEM

Type	Fwd. & Rev. block voltage ratings	1-99	100-999
K-1038	50 volts	6.30	4.75

UNI-TUNNEL DIODES-TO-18-CASE

Meets environmental exposures of MIL-S-19500 and MIL-STD-750. Excellent temperature stability from -65°C to +150°C.

Type	Ir (max) @ 25°C (mA)		1-99	100-999
	Max. Rev. Cur.	Max. Fwd. Cur.		
1N3539	1.25	1.0	12.50	9.40
1N3539A	1.25	1.0	19.00	13.35
1N3540	2.50	2.0	7.50	5.70
1N3540A	2.50	2.0	9.00	6.75
1N3541	6.25	2.5	7.50	5.70
1N3541A	6.25	2.5	9.00	6.75
1N3542	12.5	3.0	7.50	5.70
1N3542A	12.5	3.0	9.00	6.75
1N3543	25.0	5.0	7.50	5.70
1N3543A	25.0	5.0	9.00	6.75

MICROMINIATURE SILICON TUNNEL DIODES

Designed for switching applications where space limitations are a major factor. Hermetically sealed DO-17 axial leaded package. Contaminant free construction. No epoxy paste or varnishes. Meets MIL-S-19500 and MIL-STD-750 requirement. Max. operating range: -65°C to +150°C.

Type	Max. Fwd. current If (max.) @ 25°C (mA)	Max. Rev. current Ir (max.) @ 25°C (mA)	1-99	100-999
1N4393	.25	.50	11.85	8.88
1N4394	.50	1.0	9.60	7.20
1N4395	1.0	2.0	8.15	6.10
1N4396	2.0	4.0	8.15	6.10
1N4397	4.5	9.0	8.15	6.10
1N4398	10.0	20.0	8.15	6.10
1N4399	15.0	30.0	8.15	6.10

SILICON UNI-TUNNEL DIODES—TO-18 CASE

Electrical characteristics @ 25°C. Typ. temp. coeff. 0.1 mv/°C @ If min. and 1.3 mv/°C @ Ir max. Typ. Ls 4 μH with 1/2" leads. Typ. Vr 0.8 @ 1 mg. Temp.: -85 to +200°C.

Type	Min. If @ .25V (ma)	Max. Ratings			1-99	100-999
		Diss. (mw)	If (mA)	Ir (ma)		
HU-5	0.5	.9	2.5	1	7.50	5.70
HU-5A	0.5	.9	2.5	1	9.00	6.75
HU-10	1.0	1.8	5.0	2	7.50	5.70
HU-25A	2.5	4.5	12.5	5	9.00	6.75
HU-50	5.0	9.0	25.0	10	7.50	5.70
HU-100	10.0	18.0	50.0	20	7.50	5.70

Hoffman Semiconductors



ONE WATT ZENER REGULATORS—M1A CASE

Units with suffix "B" rated at 30°C, no suffix, 25°C. Temp. range: -65 to +175°C. Suffix "B" indicates ±5% tol., no suffix, ±10%. All units available in ±10% or ±5% on special order.

Type	Ex @ I _z	I _z mA	1-99	100 Mixed 10/Type	100-999
1N1766	6.2	100	2.88	2.52	2.10
1N1766A	6.2	100	3.20	2.88	2.40
1N1767	6.8	100	2.80	2.52	2.10
1N1767A	6.8	100	3.20	2.88	2.40
1N1768	7.5	100	2.80	2.52	2.10
1N1769	8.2	100	2.80	2.52	2.10
1N1770	9.1	50	2.80	2.52	2.10
1N1770A	9.1	50	3.20	2.88	2.40
1N1771	10	50	2.80	2.52	2.10
1N1771A	10	50	3.20	2.88	2.40
1N1772	11	50	2.80	2.52	2.10
1N1773	12	50	2.80	2.52	2.10
1N1773A	12	50	3.20	2.88	2.40
1N1775	15	50	2.80	2.52	2.10
1N1775A	15	50	3.20	2.88	2.40
1N1776	18	50	2.80	2.52	2.10
1N1777	18	50	2.80	2.52	2.10
1N1777A	18	50	3.20	2.88	2.40
1N1778	20	15	2.80	2.52	2.10
1N1778A	20	15	3.20	2.88	2.40
1N1779	22	15	2.80	2.52	2.10
1N1780	24	15	2.80	2.52	2.10
1N1781	27	15	2.80	2.52	2.10
1N1782	30	15	3.10	2.79	2.35
1N1783	33	15	3.10	2.79	2.35
1N1783B	33	15	3.10	2.79	2.35
1N1785	100	5	3.25	2.95	2.40

Type	Ex @ I _z	I _z mA	1-99	100 Mixed 10/Type	100-999
1N3016B	6.8	37	2.90	2.60	2.16
1N3020B	10	25			
1N3022B	12	21			
1N3023B	13	19			
1N3024B	15	17			
1N3027B	20	12.5			
1N3029B	24	10.5			
1N3031B	30	8.5			
1N3032B	33	7.5			
1N3033B	36	7.0			
1N3051B	200	1.2	4.35	3.92	2.80

10 WATT ZENER REGULATORS—DO-4 CASE

*@ 75°C. Other specifications @ 25°C. Temp. range: -65° to +175°C. ±10% Ez tolerance. Except "A & B" suffix which indicates 5% tol. Top terminal positive with respect to stud, reverse polarity and other Ez tolerance, available on special order.

Type	Ex @ I _z	I _z mA	1-99	100 Mixed 10/Type	100-999
1N1804	6.2	1000	6.75	5.85	5.10
1N1807	8.2	1000			
1N1357	18	150			
1N1358	20	150			
1N1360	24	150			
1N1363	33	150			
1N1366	43	150			
1N1368	51	150			
1N1369	56	150			
1N1370	62	50			
1N1372	75	50			
1N1812	150	50	6.80	5.85	5.10
1N1817	15	500			

Type	Ex @ I _z	I _z mA	1-99	100 Mixed 10/Type	100-999
1N2970B	6.8	370	5.30	4.75	3.97
1N2976B	12	210			
1N2985B	22	115			
1N2992B	39	65	5.15	4.55	3.85
1N2997B	51	50	5.30	4.75	3.97
1N3005B	100	25			
1N3015B	200	14			

10 WATT ZENER REGULATOR—DO-4 CASE

Terminal negative with respect to stud. Also available in 5% Ez tolerance.

Type	(V) ± 10%	I _z mA	1-99	100 Mixed 10/Type	100-999
1N2045	9.0-12.0	500	6.88	5.95	4.95

1 WATT MICROMINIATURE ZENER REGULATORS

These devices have ±20% tolerance. Add suffix "A" for ±10% tolerance. Add suffix "B" for ±5% tolerance.

Type	Elect. Equiv. JEDEC Type	Nominal V	I _{zt} (mA)	1-99	100-999
HW6.8	1N3016	6.8	37	1.65	1.25
HW8.2	1N3018	8.2	31		
HW9.1	1N3019	9.1	28		
HW10	1N3020	10	25		
HW11	1N3021	11	23	1.40	1.05
HW12	1N3022	12	21		
HW15	1N3024	15	17		
HW18	1N3026	18	14		
HW20	1N3027	20	12.5	1.25	.95
HW22	1N3028	22	11.5		
HW24	1N3029	24	10.5		
HW27	1N3030	27	9.5		

50 WATT ZENER REGULATORS—TO-3 CASE

Anode connected to base. ±5% Ez tolerance. Also available in ±10% or ±20% tolerance and in reverse polarity.

Type	Ex @ I _z ±5%	I _z mA	Max. Ex @ I _z (Ohms)	1-99	100 Mixed 10/Type	100-999
1N2809B	11	1100	0.8	10.60	9.54	8.46
1N2820B	24	520	2.6			
1N2823B	30	420	3.0			
1N2838B	100	120	20.0	10.60	9.54	8.46

1 AMP SILICON CONTROLLED RECTIFIERS

Hermetically sealed devices in TO-5 package. All diffused silicon planar construction. Operating temp. range: -65°C to +150°C. Max. peak pulse current: 15 amps one cycle.

Type	Frwd. Breakover V. and Reverse Wkg. Voltage	1-99	100-999
2N2345	50 volts	10.00	6.70

PNPN SILICON CONTROLLED RECTIFIERS—TO-5 CASE

Absolute maximum ratings (@80°): avg. FWD. current 1 amp; peak recurrent forward current, 3.3 amp; surge current, 1 cycle @ 60 cps, 15 amp; Temp. range -65 to +125°C. Specs. (@ 25°C.) min. BV_f, BV_r, 120% rated voltage (-65 to +125°C.); max. I_f (off), I_r, 25 ma; max. V_f @ I_f=1 amp, 2V; max. I_{gt}, 10 ma; max. V_{gt}, 3V; max. I_h, 25 ma. All ratings below for case temp. -65 to +125°C

Type	V _f (off)	V _r	Peak Gate Current	1-99	100-Up	100-999
2N1585	50	50	100 ma	2.67	2.35	2.00
2N1586	100	100	100 ma	4.08	3.59	3.05
2N1587	200	200	100 ma	8.40	7.39	6.30

200mA SILICON CONTROLLED RECTIFIERS

Sensitivity miniature units ideally suited for use in critical logic and control circuits where space is limited. All diffused silicon planar construction. Hermetically sealed TO-18 package. Operating temp.: -65°C to +150°C.

Type	Frwd. Breakover V. and Reverse Wkg. Voltage	1-99	100-999
2N877	30 volts	6.80	5.10
2N878	60 volts	7.95	5.95
2N884	15 volts	7.50	5.60
2N885	30 volts	8.70	6.50
2N886	60 volts	9.80	7.35
2N887	100 volts	11.90	8.95

1.6 AMP SILICON CONTROLLED RECTIFIERS

Hermetically sealed devices in TO-5 package. All diffused silicon planar construction. Operating temp. range: -65°C to +150°C.

Type	Frwd. Breaker V. and Reverse Wkg. Voltage	1-99	100-Mix	100-999
2N2323	50	3.07	2.70	2.30
2N2326	280	9.34	8.20	7.00
2N2327	250	9.34	8.20	7.00

WHETHER ORDERING IN QUANTITY FOR PRODUCTION OR IN SMALL LOTS FOR SPECIALIZED USES, MAKE NEWARK YOUR ONE POINT FOR EVERYTHING IN INDUSTRIAL ELECTRONICS TO SERVE YOU BETTER — SEVEN WAREHOUSES FROM COAST-TO-COAST.

Clairex Photocells



CL500



CL600



CL700



CL5M



CL900

NEW TYPE 3 CdSe

A photoconductive cell with peak spectral response of 7350 angstroms, fast response and very high light to dark resistance ratio. Can be used for high speed switching or counting. Sensitive to near infra red. For use with incandescent or neon lamps. Temp. range: -50°C to $+75^{\circ}\text{C}$. (*) With and without heat sinks.

Stk. No.	Type	Dia. x Length	Res. @ 2 fc	Max. Voltage	Power Dissip. @ 25°C mw	1-99	100-up
63F926	CL503	.5 x .5	7.2K	250	500-250*	1.50	1.15
63F927	CL5M3	.5 x .18	7.2K	250	2000-500*	1.50	1.25
63F900	CL603	.25x.5	133K	300	75	1.75	1.50
63F901	CL603A	.25x.5	75K	300	75	1.75	1.50
63F902	CL603AL	.25x.5	3.5K	170	75	1.75	1.50
63F928	CL703	.36x.18	133K	300	125	1.50	1.25
63F929	CL703A	.36x.18	67K	300	125	1.50	1.25
63F930	CL703L	.36x.18	2.7K	170	125	1.50	1.25
63F931	CL903	.21x.15	133K	250	50	1.50	1.25
63F932	CL903A	.21x.15	67K	250	50	1.50	1.25
63F933	CL903L	.21x.15	5.9K	100	50	1.50	1.25

NEW TYPE 4 CdSe

Photoconductive cell has peak spectral response of 6900 angstroms, lowest resistance photocells available. Can be used for "on-off" applications when low resistance is desired. For use with incandescent or neon lamps. Temp. range: -50°C to $+70^{\circ}\text{C}$. (*) With and without heat sinks.

Stk. No.	Type	Dia. x Length	Res. @ 2 fc	Max. Voltage	Power Dissip. @ 25°C mw	1-99	100-up
63F909	CL504	.5 x .5	1.5K	250	500-250*	1.50	1.25
63F934	CL5M4	.55x.18	1.5K	250	2000-500*	1.50	1.25
63F910	CL504L	.5 x .5	0.25K	170	500-250*	1.50	1.25
63F935	CL5M4L	.55x.18	0.25K	170	2000-500*	1.50	1.25
63F903	CL604	.25x.5	30K	300	75	1.75	1.50
63F904	CL604L	.25x.5	1.5K	170	75	1.75	1.50
63F921	CL704	.36x.18	30K	300	125	1.50	1.25
63F922	CL704L	.36x.18	0.6K	170	125	1.50	1.25
63F936	CL904	.21x.15	30K	250	50	1.50	1.25
63F937	CL904L	.21x.15	2K	100	50	1.50	1.25

NEW TYPE 5 CdS

Photoconductive cell has a peak spectral response of 5500 angstroms (closely matches the human eye), most stable, lowest memory photocell available. Can be used in light measuring applications and precision low speed switching. For use with incandescent, fluorescent or neon lamps. Temp. range: -50°C to $+75^{\circ}\text{C}$. (*) With and without heat sinks.

Stk. No.	Type	Dia. x Length	Res. @ 2 fc	Max. Voltage	Power Dissip. @ 25°C mw	1-99	100-up
63F911	CL505	.5 x .5	9K	250	500-250*	1.50	1.15
63F938	CL5M5	.55x.18	9K	300	2000-500*	1.50	1.15
63F912	CL505L	.5 x .5	1.5K	170	500-250*	1.50	1.15
63F939	CL5M5L	.55x.18	1.5K	170	2000-500*	1.50	1.15
63F905	CL605	.25x.5	166K	300	75	1.50	1.15
63F906	CL605L	.25x.5	1.5K	170	75	1.50	1.15
63F940	CL705	.36x.18	166K	300	125	1.50	1.15
63F941	CL705L	.36x.18	3.3K	170	125	1.50	1.15
63F942	CL905	.21x.15	166K	250	50	1.50	1.15
63F943	CL905L	.21x.15	10K	100	50	1.50	1.15

NEW PHOTOCCELL-LAMP MODULE

A photocell-lamp module in a rugged, hermetically sealed, potted package. Last 3 digits of type no. indicate lamp voltage. Dia. .375x.3.125. Oper. temp. range: -50° to $+75^{\circ}\text{C}$.



Stk. No.	Type	Max. On Ohms	Min. Ohms	Max. Rise Sec.	Max. Lamp Volts	1-29	30-99
63F944	CLM3006	250	100 meg	.080	6	3.25	2.90
63F945	CLM4006	50	1 meg	.080	6	3.25	2.90
63F946	CLM5006	800	1 meg	.080	6	3.25	2.90
63F947	CLM3012	125	100 meg	.065	12	3.25	2.90
63F948	CLM4012	50	1 meg	.065	12	3.25	2.90
63F949	CLM5012	400	1 meg	.065	12	3.25	2.90
63F950	CLM3024	140	100 meg	.080	24	3.25	2.90
63F951	CLM4024	40	1 meg	.080	24	3.25	2.90
63F952	CLM5024	600	1 meg	.080	24	3.25	2.90
63F953	CLM3120*	700	100 meg	.005	120	3.25	2.90
63F954	CLM4120*	200	1 meg	.008	120	3.25	2.90

Max. Lamp Current 40 ma, except *3ma.

NEW TYPE 2 CdS

Photoconductive cell with peak spectral response at 5150 angstroms. High stability, lowest temperature error. Can be used in applications requiring sharp differentiation in the blue green spectrum. For use with either fluorescent or incandescent lamps.

Stk. No.	Type	Dia. x Length	Res. @ 2 fc	Max. Volt	Power Dissip. @ 25°C mw	1-99	100-up
63F955	CL5M2	.55 x .18	55K	300	2000-500*	1.50	1.15
63F908	CL602	.25 x .5	1 meg	300	75	1.50	1.15
63F956	CL702	.36 x .18	1 meg	300	125	1.50	1.15
63F957	CL902	.21 x .15	1 meg	250	50	1.50	1.15

NEW TYPE 5H CdS

Photoconductive cell with a peak spectral response of 5500 angstroms. (Closely matches the human eye.) Combines high speed stability, linearity, and uniform color temperature response. Can be used for high speed switching or high stability measuring applications. For use with incandescent, fluorescent or neon lamps.

Stk. No.	Type	Dia. x Length	Res. @ 2 fc	Max. Volt	Power Dissip. @ 25°C mw	1-99	100-up
63F923	CL705HL	.36 x .18	28K	170	125	1.50	1.35
63F958	CL905HL	.21 x .15	100K	100	50	1.50	1.35
63F959	CL905HN	.21 x .15	700K	100	50	1.50	1.35

NEW TYPE 7 CdS

Photoconductive cell with a peak spectral response of 6150 angstroms. Has moderate speed and ratio. Can be used in general beam breaking applications. For use with incandescent, neon or fluorescent lamps. (*) With and without heat sink.

Stk. No.	Type	Dia. x Length	Res. @ 2 fc	Max. Volt	Power Dissip. @ 25°C mw	1-99	100-up
63F960	CL507	.5 x .5	7.2K	250	2000-500*	1.50	1.15
63F961	CL5M7	.55 x .18	7.2K	300	500-250*	1.50	1.15
63F907	CL607	.25 x .5	133K	300	75	1.50	1.15
63F962	CL707	.36 x .18	133K	300	125	1.50	1.15
63F924	CL707L	.36 x .18	2.7K	170	125	1.50	1.15
63F963	CL907	.21 x .15	133K	250	50	1.50	1.15
63F964	CL907N	.21 x .15	66K	100	50	1.50	1.15

NEW DUAL ELEMENT

Dual element photoconductive cells are photocells which contain two separate elements with two separate leads and one common lead. Maximum Power: 125 mw. @ 25°C. Resistance tolerance at 2 ft-c: $\pm 33\frac{1}{2}\%$. Temperature range: -50°C to $+75^{\circ}\text{C}$. 7 Photoconductive materials. Dia. x length .36x.18".

Stk. No.	Model	Type	Dia. x Length	Res. @ 2 fc	Ohms Max.	Max. Volts	1-99	100-up
63F985	CL703/2	Type 3 CdSe	.36x.18	50K	300	1.80	1.55	
63F966	CL703L/2	Type 3 CdSe	.36x.18	6.5K	170	1.80	1.55	
63F967	CL704/2	Type 4 CdSe	.36x.18	17K	300	1.80	1.55	
63F968	CL704L/2	Type 4 CdSe	.36x.18	1.5K	170	1.80	1.55	
63F969	CL705/2	Type 5 CdSe	.36x.18	166K	300	1.80	1.45	
63F970	CL705L/2	Type 5 CdS	.36x.18	7.5K	170	1.80	1.45	

NEW TYPE 7H CdS

Photoconductive cell has a peak spectral response of 6150 angstroms. Has very fast decay time coupled with low resistance and high linearity. Ideal for beam breaking applications.

Stk. No.	Type	Dia. x Length	Res. @ 2 fc	Max. Volt	Power Dissip. @ 25°C mw	1-99	100-up
63F971	CL707H	.36x.18	500K	300	125	1.50	1.35
63F972	CL707HM	.36x.18	100K	250	125	1.50	1.35
63F973	CL707HL	.36x.18	10K	170	125	1.50	1.35
63F974	CL907H	.21x.15	600K	250	50	1.50	1.35
63F975	CL907HN	.21x.15	300K	100	50	1.50	1.35
63F976	CL907HL	.21x.15	24K	100	50	1.50	1.35

NEW SERIES CL-5D

Photocell is hermetically sealed. Maximum power-air: .6 watt. Maximum power-heat sink: 10 watts. Resistance tolerance at 2 ft-c: $\pm 33\frac{1}{2}\%$. 3 photoconductive materials.



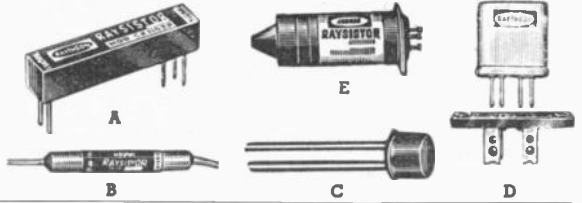
Stk. No.	Type	Sensitive Material	Ohms	Max. Volts	Meas. Volts	1-99	100-up
63F977	CL5D4	4 CdSe	1.5K	250	10	1.60	1.35
63F978	CL5D4L	4 CdSe	.25K	170	1.35	1.60	1.35
63F979	CL5D5	5CdS	9K	250	12	1.60	1.35
63F980	CL5D5L	5CdS	1.5K	170	10	1.60	1.35
63F981	CL5D7	7CdS	7.2K	250	12	1.60	1.35

Raysistors & Photoconductive Cells

RAYTHEON RAYSISTORS

• Ideal replacement for Switches — Relays — Potentiometers

Four terminal optoelectronic device which performs a variety of control functions, providing noise-free control of AC or DC signals over a wide dynamic range without transients or contact (or wiper) chatter. Since there are no moving parts, the Raysistor is exceptionally rugged and has inherently long life in typical applications as variable resistors, solid state switches, relays and voltage or signal isolators. Unit operates on the principle of controlled light acting on a photoresistive element. No electrical or mechanical connection exists between the control and signal circuit. * With Socket.



Model	Fig.	CONTROL LAMP		SIGNAL — PHOTOCELL								1-4	5-18
		Voltage	Current (MA)	Resistance in Ohms				Volt (Max.)	Max Power (MW)	Typical Switching Time (Seconds)			
				On		Off				On	Off		
				Typ.	Max.	Typ.	Min.						
CK1101 CK1101P	B A	1200 ²	1-3 ³	600	1000	5 x 10 ⁷	10 ⁷	60	75	.0012	.060	11.00	10.40
CK1102 CK1102P	B A	0-1	0-50	550	700	10 ⁷	10 ⁶	60	50	.020	.300	11.00	10.40
CK1103 CK1103P	B A	0-5	0-175	55	150	10 ⁷	10 ⁶	60	50	.020	.800	11.00	10.40
CK1104 CK1104P	B A	0-25	0-37	55	150	10 ⁷	10 ⁶	60	50	.010	.450	11.00	10.40
CK1105 CK1108	E E	120 0-6.0	3.0 0-200	4.0K 140	10K 250	10 ⁹ 10 ⁹	10 ⁶ 10 ⁶	300 300	250 250	.030 .030	2 1.0	24.50	23.15
CK1111 CK1111P	B A	120 ³	1-3 ³	14K	30K	7 x 10 ⁸	2.5 x 10 ⁷	300	75	.002	.105	11.00	10.40
CK1112 CK1112P	B A	0-10	0-17	340	700	10 ⁷	10 ⁶	60	50	.030	.400	11.00	10.40
CK1114 CK1115 CK1116	D D D	0-1 0-4 0-4	0-15 0-53 0-12	450 100 200	850 200 350	3 x 10 ⁸ 10 ⁸ 10 ⁸	10 ⁶ 10 ⁷ 10 ⁷	60 200 200	50 100 100	.018 .020 .010	.060 .300 .300	8.75	8.27
CK1121* CK1122* CK1123* CK1124*	C C C C	0-5 0-10 0-25 150 ³	0-55 0-17 0-36 .1-1.5	100 650 100 2500	150 1000 150 3000	10 ⁸ 10 ⁸ 10 ⁸ 10 ⁸	10 ⁷ 10 ⁷ 10 ⁷ 10 ⁷	200 200 200 200	100 100 100 100	.004 .030 .010 .005	.250 .225 .300 .100	4.00	3.78

THE RAYSISTOR — APPLICATIONS. Complete twenty-seven page book fully covering Raytheon Raysistors—applications, technical specifications, advantages. Generous use of charts and schematics. Size: 8½ x 11". Shpg. wt., 4 oz. **.35**

Hermetically-sealed solid-state light dependent resistor using a cadmium selenide (EM1502), cadmium sulphide (EM1505) photosensitive material designed for use in optoelectronic control circuitry. Fast switching speed suitable for chopper and other control and switching applications requiring

RAYTHEON PHOTOCELL

operation up to one kilocycle. Coupled with a high voltage capability, provides a very low noise variable resistor which is ohmic over a wide range of voltage and illumination. The T0-5 package permits use of standard mounting hardware.



Type	Resistance in Ohms				Volt. Max.	Max. Pwr. (MW)	Response Time at 100 ft. cdles.				1-4	5-18	19-49	50-99
	On at 100 ft. Cdles.		Off at 100 V				Off to 10K		On to 10 mg.					
	Typ.	Max.	Typ.	Min.			Typ.	Max.	Typ.	Max.				
EM1502	750	1250	10 ⁹	10 ⁴	200	100	0.5ms	1.5ms	15ms	50ms	2.20	2.08	1.98	1.87
EM1505	50000	2500	10 ⁸	10 ⁷	200	100	1.5ms	2.5ms	125ms	250ms	2.20	2.08	1.98	1.87

GENERAL ELECTRIC PHOTOCONDUCTIVE CELLS

Hermetically sealed after evacuation and back filled with dry air to reduce the moisture content to approx. .015%. Cells come in three basic sizes, four power ratings, and multiple resistance ratings. Wide range enables the designer to select a maximum power dissipation of 75, 250, 300 or 600 mw. By using cells to operate many devices directly, amplifying stages can be eliminated and overall circuits greatly simplified. Cells have very high sensitivity and spectral response peaks in the visible light

range. Near maximum response obtained over large portion of the spectral region. All are in glass-metal packages. Have flexible leads and small size to dissipation ratio. No external shields required. May be used for annunciators, anemometers, camera aperture control. * Dia. excludes flange.



Type	Wave Light. Spec. Res.	Max. pwr. dis. mw	Max. Appl. Volts	Resistance		Amb. Temp. Rng. C.	Max. dia*	1-249	250-up
				@2(-°C)	@100(-°C)				
A-33	5500 ± 700Ang.	75	30	6300Ω	360Ω	-40° to +65°	.330"	1.34	.96
A33P1	5500 Ang.	50	30	6300Ω	360Ω	-40° to +65°	.330"	.75	.54
A-35	5500 ± 700Ang	75	50	12000Ω	900Ω	-40° to +65°	.330"	1.34	.96
A-36M1	5500 ± 700Ang	75	60	30000Ω	1000Ω	-40° to +65°	.330"	1.67	1.20
B-46	6100 ± 600Ang.	250	60	1250Ω	100Ω	-40° to +65°	.510"	1.42	1.02
B-425	6100 ± 600Ang.	250	250	9100Ω	400Ω	-40° to +65°	.510"	1.42	1.02
+C-425P1	7300 ± 600Ang.	50	250	15000Ω	600Ω	-40° to +65°	.470"	.75	.54
B425P1	6100Ang.	200	250	9100Ω	400Ω	-40° to +65°	.510"	.75	.54
B430	6100 ± 500Ang	250	300	15000Ω	600Ω	-40° to +65°	.470"	1.42	1.02
B-1035	6100Ang.	300	350	6500Ω	400Ω	-40° to +65°	1.120"	1.47	1.14
B1035M1	6100Ang.	600	350	12000Ω	500Ω	-40° to +65°	1.120"	1.47	1.06
B1035M2	6100Ang.	600	350	5500Ω	300Ω	-40° to +65°	1.120"	1.59	1.06
B-1035M3	6100 ± 500Ang.	600	350	2750Ω	200Ω	-40° to +65°	1.120"	1.47	1.06

† Plastic encapsulated (not hermetically sealed), cadmium-selenide device.

PHOTOCONDUCTIVE CELL-LAMP COMBINATION

Photoconductor-lamp combination includes cadmium-sulfide (PL5C1 is cadmium-selenide) photoconductive cell and a variable illumination source enclosed in a light-tight package. Photoconduction is controlled by varying the voltage to the light source. Intended to be used for circuit isolation as a potentiometer free of moving-contact noise, and for low-level switching.

Stk. No.	Type	Lamp Volts Current	Max. Resistance	Temp.	1-249	250-up
22F1707	PL5B1	5V-60Ma.	250 40 Kr	200 r	-40° - +65°	4.18 3.00
22F1708	PL5C1	5V-60Ma.	250 120 Kr	220 r	-40° - +65°	4.18 3.00

Solar Cells & Semiconductor Cooling Units

HOFFMAN SILICON CELLS

HIGH EFFICIENCY SOLAR CELLS

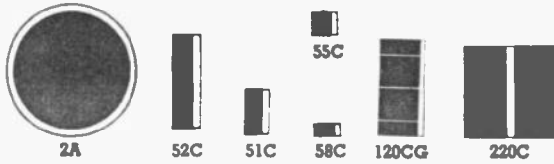
Speed of response 10 microseconds or less, depending on load resistance. Light source: a solar simulator with spectral distribution of space sunlight as determined by F.S. Johnson of NLR with intensity equiv. to 140 mw/cm² earth orbit sunlight. Size: 0.4 x 0.8"; active area, 0.28 sq. in.

Type	Output		Power (mw)	1-9	100-999
	Volt (mv)	Current (ma)			
N120CG-8L	430	45.5	19.6	3.85	3.25
N120CG-9L	430	51.5	22	4.35	3.65
N120CG-10L	430	56.9	24.5	5.05	4.25
N120CG-11L	430	62.7	27	7.45	6.25
N120CG-12L	430	68.2	29.4	14.65	12.25
N220CG-10L	430	118.7	51	8.65	7.25

STANDARD SOLAR CELLS

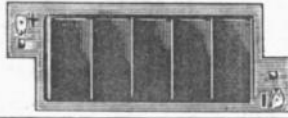
Operating and storage temp. range -65°C to +175°C. Speed of response 10 microseconds or less depending on load resistance. Spectral response 0.4 to 1.15 microns, peak at 0.85 microns. Measured at tungsten light source with a color temp. of 2800° K @ a light level which corresponds to 100 mw/cm² of sunlight as correlated by means of a standard solar cell. Cell test temp. is 28°C.

Type No.	Nominal Dim. (inches)	Active Area (sq. in.)	Load Ma Output	1-99	100-999
2A	1.125 dia.	.79	95	7.50	6.00
52C	0.2x0.8	.12	16	3.60	2.80
51C	0.2x0.4	.06	7.8	2.50	2.00
55C	0.2x0.2	.03	3.8	1.50	1.20
58C	0.2x0.1	.014	1.8	1.00	.80
110C	0.4x0.4	.14	17.8	1.90	1.50
58C-L	0.2x0.1	.014	1.8	1.25	1.05
110C-L	0.4x0.4	.14	17.8	2.15	1.75



SILICON SOLAR MODULES

Output measured with tungsten source with a color temp. of 2800°K at a light level corresponding to 100-mw/cm² of sunlight. Cell temperature is at 28°C.



Type No.	Max. Dim. (inches)	Current @ 2V (ma)	1-99	100-999
HSSP-2-40	2.5x1	42	5.50	4.10

ENCAPSULATED READOUT CELLS

Output—1250 ft.-candles color temp. 2800°K, 55°C into 1000 ohm load resist. Dark reverse current—IV, 55°C, 1 ft.-candle max. Size: .5x.08". Active area: 13x.05". Oper. Temp.: -65°C to +150°C. 2" leads.



Type	Output		Dark Rev. µa max.	1-99	100-999
	mv min.	µa min.			
EA7E1	300	300	5	6.75	5.10
EA7E2	300	300	10	6.00	4.50
EA7E3	250	250	10	5.10	3.80

WAKEFIELD SEMICONDUCTOR COOLING UNITS

NEW SNAP-ON CIRCUIT BOARD HEAT SINKS



Series 140 supplements the Series 200 Featherweight Heat Sinks. Types 140, 141, and 142 fit popular press fit diodes and SCRs as plus JEDECTO-8. Case dia. ranges from .480 to .505. Provides thermal resistance as low as 10°C/w. Material: highest thermally conductive aluminum. Finish: black anodize is standard.

Stock No.	Type	Size	1-499	500-999	1000-2499	2500-4999
58F376	140	1.035 x .520 x .930	.14	.12	.105	.095
58F377	141	1.035 x .520 x 1.415	.155	.135	.12	.11
58F378	142	1.035 x .520 x 3.00	.185	.175	.165	.158

NEW CIRCUIT BOARD COOLER FOR TO-5 TRANSISTORS



Type 150. Ideal for use where space is limited. Requires only 0.375 in.² area. In applications permitting 1 3/8" height above the circuit board, this lightweight, economical Cooler has good performance characteristics with TO-5 cases: case rise 40°C @ 1 w with bright aluminum natural finish.

Stock No.	Type	Size	1-499	500-999	1000-2499	2500-4999
58F379	150	1.375 x 1.00 x .375	.061	.051	.041	.036

NEW THERMAL CLAMP FOR TO-1 CASES



Type 255. For push/pull driver or low power output applications. Gives retention of cases to chassis or heat sink. 2 cases can be mounted. 3°C/w per TO-1 transistor or 1 1/2°C/w for both. Mtg. ctr.: .687, tol. ±.001 or ±.005. Material: 1100 aluminum alloy. Finish: none.

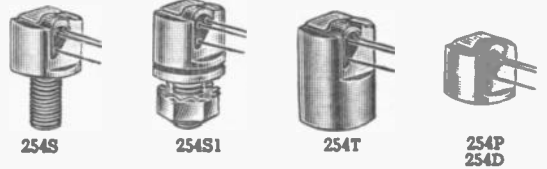
Stock No.	Type	Size	1-499	500-999	1000-2499	2500-4999
58F380	255	1.726 x .375 x .476	.063	.053	.043	.038

NEW SHELF REGULATING COMPONENT OVENS



Statitemp Series. Provides a stable thermal environment. Temperature gain (defined as ratio of change in ambient temp. to change in control temp. at constant voltage and component dissipation, as measured by the temp. dependent characteristic of the component) is 30:1 for 115°C. types, 15:1 for 80° models. Low power drain; unaffected by component current. Operate from 24VDC. Aver. wt. approx. 5 gms.

NEW THERMAL RETAINERS FOR TO-5 CASES



The TO-5 case style, including the Kovar header type, is best heat sunked at the bottom face of the flange, and all Series TR-254 Heat Sinks provide this preferred method. All five types intended as thermal links from transistor case to a cooler or chassis member acting as the heat sink. Type 254-S1 has built-in electrical insulation. Material: Type 254-S1; 6061-T6 aluminum with gold irridite finish.

Stock No.	Types	1-99	100-499	500-999	1000-2499	2500-4999
58F381	254-S	.18	.15	.135	.12	.11
58F382	254-S1	.25	.21	.19	.17	.155
58F383	254-T	.20	.17	.15	.135	.125
58F384	254-P	.13	.115	.105	.095	.085
58F385	254-D	.21	.18	.16	.145	.135

NEW DELTA BOND 152 THERMALLY CONDUCTIVE ADHESIVE



Type 152. High conductivity adhesive used: As general adhesive, for bonding semi-conductors to chassis heat sinks, fabricating heat sinks or thermal links, for permanent bonding of all materials with highly thermal conductive interface. Porous and nonporous surfaces. Excellent dielectric strength. Bond shear strength, 1" overlap psi, 30 immersion in water unaffected. Temp. range -70°F to +300°F.

Stock No.	Type	1-9	10-24	25-49	50-99
58F386	152	5.00	4.75	4.50	4.25

Stock No.	Type	Fits	Oper. Temp.	Watts	1-4	5-9	10-24	25-99
59F1085	3ST1-1	DO-7	115°	3.4	6.45	4.52	3.53	3.19
59F1086	3ST1-2	DO-7	80°	3.4	6.45	4.52	3.53	3.19
59F1087	4ST1-1	TO-5	115°	6.5	7.20	5.05	3.94	3.55
59F1088	4ST1-2	TO-5	80°	6.5	7.20	5.05	3.94	3.55
59F1089	5ST1-1	TO-18	115°	6.5	6.45	4.52	3.53	3.19
59F1090	5ST1-2	TO-18	80°	6.5	6.45	4.52	3.53	3.19



Wakefield Semiconductor Cooling Units

200 Series

Fig. 1
Fig. 2
Fig. 3
Fig. 4

MODEL NF-201, 200, 222 & 224

300 Series

Fig. 5

3/4 DIA FLAT
200
62
150
375
D50
c'

400 Series

Fig. 7

500 Series

Fig. 8
Fig. 9
Fig. 10

MODEL FC501

600 Series

Fig. 11
Fig. 12

MODEL S NC 621 & 623

CONVECTION CHARACTERISTICS

NATURAL CONVECTION CHARACTERISTICS

100
80
60
40
20
0
SURFACE TEMPERATURE RISE ABOVE AMBIENT AIR (°C)

0 5 10 15 20 25
POWER DISSIPATION (WATTS)

NATURAL CONVECTION CHARACTERISTICS

100
80
60
40
20
0
SURFACE TEMPERATURE RISE ABOVE AMBIENT AIR (°C)

0 20 40 60 80 100
POWER DISSIPATION (WATTS)

FORCED CONVECTION CHARACTERISTICS

100
80
60
40
20
0
THERMAL RESISTANCE (°C/WATT)

0 10 20 30 40
AIR FLOW (CFM)

0.5 1.0 2.0 4.0 8.0 16.0
VELOCITY (FEET PER MIN)

NATURAL CONVECTION CHARACTERISTICS

100
80
60
40
20
0
SURFACE TEMPERATURE RISE ABOVE AMBIENT AIR (°C)

0 5 10 15 20 25
POWER DISSIPATION (WATTS)

200 SERIES FEATHERWEIGHT COOLERS

Flexfin design. Spring action provides contact of large area to assure repeatable thermal performance. Beryllium copper.

Stk. No.	Type	Fig.	Dia.	L	Fits Case Dia.	1-49	50-499	500-999	1000-4999
58F527	NF201	1	.64	.19	.161/.195	.27	.21	.16	.11
58F388	NF202	1	.49	.20	.161/.195	.25	.20	.15	.10
58F528	NF203	2	.64	.38	.161/.195	.29	.22	.17	.12
58F387	NF204	1	.55	.20	.275/.335	.25	.20	.15	.10
58F529	NF205	1	.72	.19	.275/.335	.27	.21	.16	.11
58F530	NF207	2	.72	.38	.275/.335	.29	.22	.17	.12
58F531	NF209	3	1.26	.44	.275/.335	.34	.29	.23	.18
58F441	NF211	1	.82	.19	.444/.524	.27	.21	.15	.10
58F442	NF213	2	.82	.38	.444/.524	.29	.22	.17	.12
58F443	NF215	3	1.38	.44	.444/.524	.34	.29	.23	.18
58F499	NF222	4	.64	.38	.161/.195	.38	.30	.24	.19
58F498	NF224	4	.72	.44	.275/.335	.38	.30	.24	.19

58F532. 160 Installation tool for Models 201, 3, 4, 5, 7, 9.....1.00

58F389. 161 Installation tool for Models 211, 213, 215.....1.00

300 SERIES RADIAL RECTIFIER COOLERS

Radial fin coolers for rectifier or stud mounting transistor applications. Adaptable to stack arrangements. Uses standard teflon insulating washers. Accommodates press-fitted and stud-mounted rectifiers and transistors up to 1/16" hex case. Semiconductor mounting surface and one mounting foot unanodized.

Stk. No.	Type	Fig.	H	W	D	1-49	50-99	100-249	250-499
58F497	NC301L	5	.75	2.00	2.00	1.55	1.30	1.05	.90
58F496	NC301M	5	.75	2.00	2.00	1.55	1.30	1.05	.90
58F495	NC301N	5	.75	2.00	2.00	1.55	1.30	1.05	.90
58F494	NC301R	5	.75	2.00	2.00	1.55	1.30	1.05	.90
58F444	NC301RR	5	.75	2.00	2.00	1.55	1.30	1.05	.90
58F533	NC301K	5	.75	2.00	2.00	1.25	1.05	.85	.70
58F493	NC302M	5	1.50	2.00	2.00	1.65	1.40	1.15	1.00
58F492	NC302N	5	1.50	2.00	2.00	1.65	1.40	1.15	1.00
58F491	NC302R	5	1.50	2.00	2.00	1.65	1.40	1.15	1.00
58F534	NC302K	5	1.50	2.00	2.00	1.35	1.15	.95	.80
58F489	NC302NN	5	1.50	2.00	2.00	1.95	1.65	1.35	1.20
58F488	NC302RR	5	1.50	2.00	2.00	1.95	1.65	1.35	1.20
58F487	NC303N	5	3.00	2.00	2.00	1.90	1.60	1.30	1.15
58F486	NC303R	5	3.00	2.00	2.00	1.90	1.60	1.30	1.15
58F535	NC303K	5	3.00	2.00	2.00	1.60	1.35	1.10	.95
58F485	NC303NN	5	3.00	2.00	2.00	2.20	1.85	1.50	1.35
58F484	NC303RR	5	3.00	2.00	2.00	2.20	1.85	1.50	1.35

400 SERIES NATURAL CONVECTION COOLERS

Optimum fin design provides many semiconductor applications. Model NC441 with cooling area of 400 sq. in. provides thermal resistance of .54° c/w @ 100 watts. Shpg. wt., 32 oz.

Stk. No.	Type	Fig.	H	W	D	1-49	50-99	100-249	250-499
58F500	NC401A	6	1.50	4.81	1.25	1.55	1.27	1.07	.92
58F501	NC401B	6	1.50	4.81	1.25	1.55	1.27	1.07	.92
58F449	NC401E	6	1.50	4.81	1.25	1.78	1.45	1.22	1.06
58F502	NC401K	6	1.50	4.81	1.25	1.29	1.06	.88	.76
58F503	NC403A	6	3.00	4.81	1.25	1.78	1.45	1.23	1.07
58F504	NC403B	6	3.00	4.81	1.25	1.78	1.45	1.23	1.07
58F451	NC403C	6	3.00	4.81	1.25	1.78	1.45	1.23	1.07
58F505	NC403K	6	3.00	4.81	1.25	1.52	1.24	1.05	.90
58F506	NC421A	6	3.00	4.81	2.63	2.51	2.05	1.73	1.49
58F507	NC421B	6	3.00	4.81	2.63	2.51	2.05	1.73	1.49
58F508	NC421C	6	3.00	4.81	2.63	2.51	2.05	1.73	1.49
58F509	NC421K	6	3.00	4.81	2.63	2.24	1.84	1.54	1.32
58F509	NC423A	6	5.50	4.81	2.63	3.66	2.98	2.52	2.17
58F510	NC423B	6	5.50	4.81	2.63	3.66	2.98	2.52	2.17
58F511	NC423K	6	5.50	4.81	2.63	3.40	2.77	2.33	2.00
58F461	NC441J	7	5.50	4.75	4.50	6.41	5.24	4.37	3.77
58F462	NC441W	7	5.50	4.75	4.50	6.41	5.24	4.37	3.77
58F521	NC441K	7	5.50	4.75	4.50	5.92	4.84	4.03	3.48

500 SERIES COPPERCOOL

For maximum performance under medium air pressure conditions. Semiconductor of any mounting style may be used.

Stk. No.	Type	Fig.	H	W	D	1-49	50-99	100-249
58F512	FC501A	8	1.75	1.75	2.25	5.61	5.01	4.68
58F513	FC501B	8	1.75	1.75	2.25	5.45	4.84	4.51
58F514	FC501K	8	1.75	1.75	2.25	5.08	4.51	4.24
58F515	FC502A	10	1.75	3.50	1.75	8.03	7.21	6.77
58F516	FC502B	10	1.75	3.50	1.75	7.87	7.04	6.60
58F517	FC502K	10	1.75	3.50	1.75	7.48	6.71	6.38
58F463	FC503A	10	1.75	3.50	3.50	13.42	12.05	11.28
58F464	FC503B	10	1.75	3.50	3.50	13.26	11.88	11.11
58F522	FC503K	10	1.75	3.50	3.50	12.87	11.55	10.84
58F523	FC504K	9	1.75	1.75	1.75	4.62	4.18	3.85
58F524	FC505K	9	1.75	1.75	2.00	6.71	5.89	5.50

Depend on NEWARK for the Latest Top-Quality Equipment. Complete On-the-Shelf-Stocks — Lowest Prices — Fast Service.

Wakefield Semiconductor Cooling Units



600 SERIES CIRCUIT BOARD COOLERS

Low profile, flat surface coolers ideal for printed circuit and externally mounted applications. Models 601 and 603 especially designed to accommodate the TO-8. Models 621, 623 and 641 accept all standard transistor case styles and case sizes up to 1 1/4". Shpg. wt., 16 oz.

Stk. No.	Type	Fig.	H	W	D	1-49	50-99	100-249	250-499
58F536	NC601K	11	1.25	2.24	.56	1.10	.90	.70	.55
58F466	NC603T	11	2.00	2.24	.56	1.50	1.20	.95	.80
58F537	NC603K	11	2.00	2.24	.56	1.20	.95	.75	.60
58F482	NC621A	12	1.50	4.81	.46	1.65	1.35	1.10	.95

Stk. No.	Type	Fig.	H	W	D	1-49	50-99	100-249	250-499
58F481	NC621B	12	1.50	4.81	.46	1.65	1.35	1.10	.85
58F538	NC621K	12	1.50	4.81	.46	1.35	1.10	.90	.75
58F480	NC623A	12	3.00	4.81	.46	1.80	1.50	1.20	1.05
58F479	NC623B	12	3.00	4.81	.46	1.80	1.50	1.20	1.05
58F539	NC623K	12	3.00	4.81	.46	1.50	1.25	1.00	.85
58F467	NC641A	11	3.00	4.12	1.00	1.95	1.60	1.30	1.10
58F468	NC641B	11	3.00	4.12	1.00	1.95	1.60	1.30	1.10
58F540	NC641K	11	3.00	4.12	1.00	1.65	1.35	1.10	.90

Fig. A—TO-3

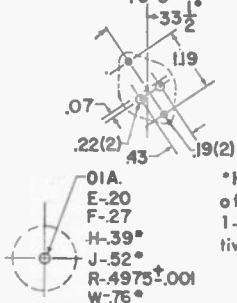
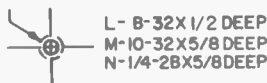


Fig. B—TO-6 & 36

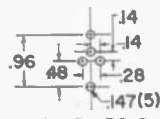


Fig. C—2N1015 ETC.



MOUNTING DIMENSIONS AND SPECIFICATIONS

- Type Number Suffix Denotes Mounting
- Double Suffix Denotes 2 Mountings

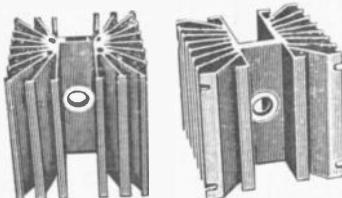


EXTRUSION 3-FT. LENGTHS ± 1/4"

Stk. No.	Type	For Cooler Type	W.	Dpth.	1-4	5-9	10-24
58F429	300	NC-301-303	2.00	2.00	6.00	5.00	4.50
58F430	400	NC-401-403	4.81	1.25	7.75	6.50	5.75
58F431	420	NC-421-423	4.81	2.63	12.75	11.00	9.50
58F432	440	NC-441	4.75	4.50	20.50	17.50	15.50
58F433	600	NC-601-603	2.24	.56	3.25	2.75	2.50
58F434	620	NC-621-623	4.81	.46	5.75	5.00	4.25
58F435	640	NC-641	4.12	1.00	7.50	6.50	5.75
58F436	1157	GN-1157-5	4.12	4.12	25.50	22.00	19.25
58F437	1251	GN-1251-5.5	5.00	5.00	32.25	27.75	24.50
58F438	1244	WN-1244-5	4.00	4.00	25.50	22.00	19.25
58F439	1245	WN-1245-6	5.00	5.00	32.50	28.00	24.50
58F440	1541	WN-1541-6 & 9	6.25	6.25	51.00	43.75	38.75
58F411	2131	MN-2131	6.75	9.25	63.00	54.00	47.75
58F410	2159	MN-2159 Insert	3.44	3.38	12.75	11.00	9.50

GN and WN EXTRUSIONS

Hex Mounting: 1157 accepts 1 1/8" rectifiers, 1251 accepts 1 1/4" rectifiers, 1244 accepts 1 1/2" rectifiers, 1245 accepts 1 1/2" rectifiers, 1541 accepts 1 3/4" rectifiers, 1541 accepts 1 3/4" tapped mountings.



Stk. No.	Type	H.	W.	D.	1-24	25-49	50-99	100-199
58F413	GN-1157-5-H	5.00	4.125	4.125	5.55	4.75	4.20	3.75
58F414	GN-1157-5-J	5.00	4.125	4.125	5.55	4.75	4.20	3.75
58F415	GN-1157-5-K	5.00	4.125	4.125	5.20	4.45	3.95	3.55
48F416	GN-1251-5.5-W	5.50	5.00	5.00	7.00	6.00	5.30	4.75
58F417	GN-1251-5.5-K	5.50	5.00	5.00	6.65	5.70	5.00	4.55
58F418	WN-1244-5-H	5.00	4.00	4.00	4.85	4.15	3.70	3.30
58F419	WN-1244-5-J	5.00	4.00	4.00	4.85	4.15	3.70	3.30
58F420	WN-1244-5-K	5.00	4.00	4.00	4.50	3.85	3.40	3.10
58F421	WN-1245-6-W	6.00	5.00	5.00	6.15	5.25	4.65	4.15
58F422	WN-1245-6-K	6.00	5.00	5.00	5.80	4.95	4.40	3.95
58F423	WN-1541-6-Z	6.00	6.25	6.25	9.55	8.20	7.25	6.50
58F424	WN-1541-6-Y	6.00	6.25	6.25	9.55	8.20	7.25	6.50
58F425	WN-1541-6-K	6.00	6.25	6.25	9.00	7.75	6.85	6.15
58F426	WN-1541-9-Z	9.00	6.25	6.25	13.40	11.50	10.20	9.20
58F427	WN-1541-9-Y	9.00	6.25	6.25	13.40	11.50	10.20	9.20
58F428	WN-1541-9-K	9.00	6.25	6.25	13.10	11.25	9.90	8.90

SERIES MN KING SIZE HEAT SINKS AND INSERTS

Designed to mount and cool multiceil 240/650 amp rectifiers as large as 3 1/2"x3 1/2" square plate types. MN-2159 inserts for added heat dissipation.

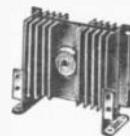
Stk. No.	Type	Dimensions (in.)	1-9	10-24	25-49	50-99
58F409	MN2131-3.5K	3.5x9.25x6.75	7.70	6.60	5.85	5.25
58F408	MN2131-6K	6.0x9.25x6.75	11.95	10.30	9.10	8.20
58F407	MN2131-12K	12.0x9.25x6.75	21.80	18.70	16.50	14.85
58F406	MN2159-3.5K	3.5x3.37x3.43	1.95	1.70	1.50	1.35
58F405	MN2159-6K	6.0x3.37x3.43	3.15	2.70	2.40	2.15
58F404	MN2159-12K	12.0x3.37x3.43	5.50	4.75	4.20	3.75

58F403 109 1.5x7.5x1.5 Fiberglass Mtg. bkt. 1.95 ea

VERTICAL MTG. BRACKETS

Meet vibration of Mil 202B. For NC401 & 403 use #111, for NC421 & 423 use #113. Two bkts. reqd. per sink. To insulate use teflon insulator #103. Shpg. wt., 10 oz.

Stk. No.	Type	1-99	100-499
58F525	111	.15	.12
58F526	113	.18	.15



THERMAL COMPOUND

For use between semiconductor and heat sink. Also used for thermoelectric modules.

Stk. No.	Type	Quam.	NET
58F470	122	2 oz.	1.95
58F471	128	8 oz.	5.10
58F402	1280	5 lb.	30.00



TEFLON INSULATORS

Insulate heat sinks from chassis, eliminating mica insulators between sink and semiconductor.

Stk. No.	Type	For Heat Sink Type	No. Reqd.	NET
58F519	101	501	3 pr.	.09 pr.
58F518	103	502, 503, 504, 505	4 pr.	.09 pr.
		401	3	.05 ea.
		402, 403, 421, 423	4	.05 ea.
		621, *623, 641	4	.20 ea.
58F469	105	441	4	.20 ea.
58F412	107	301	2	.20 ea.
		302, 303	4	.20 ea.
		401	3	.20 ea.
		403, 421, 423	4	.20 ea.
		621, 623, 641	4	.20 ea.

SERIES 680 CIRCUIT BOARD COOLERS

Provides optimum natural convection cooling per unit volume occupied above the circuit board. Mounting in any position is possible since it permits free air flow in any direction. All have 1.81" sq. base with 1.50" bwtm. mtg. holes.



Stk. No.	Type	Hght. (in.)	1-24	25-49	50-99	100-499
58F401	NC680-.5A	.50	.91	.85	.80	.75
58F400	NC680-.5B					
58F399	NC680-.5K					
58F398	NC680-.75A	.75	.91	.85	.80	.75
58F397	NC680-.75B					
58F396	NC680-.75K					
58F395	NC680-1.0A	1.00	.91	.85	.80	.75
58F394	NC680-1.0B					
58F393	NC680-1.0K					
58F392	NC680-1.25A	1.25	.91	.85	.80	.75
58F391	NC680-1.25B					
58F390	NC680-1.25K					

Receiving Tubes



RCA — GE — SYLVANIA

Receiving Tubes May Be Assorted for Quantity Prices

Tube Type	Assorted				Not Assort. 100-up	Tube Type	Assorted				Not Assort. 100-up	Tube Type	Assorted				Not Assort. 100-up
	1-5	6-49	50-up	100-up			1-5	6-49	50-up	100-up			1-5	6-49	50-up	100-up	
OZ4	1.20	1.08	.96	.86		3GS8	1.77	1.60	1.42	1.28		5U4G	1.05	.91	.84	.76	
OZ4C	1.22	1.10	.98	.88		3HA5	1.92	1.73	1.54	1.39		5U4GB	1.05	.94	.84	.76	
1A3	3.07	2.77	2.46	2.21		3HM5/3HA5	3.00	2.70	2.40	1.39		5U8	1.55	1.39	1.24	1.12	
1A5GT	2.00	1.80	1.60	1.44		3HQ5	1.92	1.73	1.54	1.39		5V3A	1.75	1.57	1.40	1.26	
1A7GT	2.70	2.43	2.16	1.94		3LF4	3.00	2.70	2.40	2.16		5V4GA	1.77	1.60	1.42	1.28	
1AD2	1.42	1.28	1.14	1.03		3Q4	1.67	1.51	1.34	1.21		5V6GT	1.70	1.53	1.36	1.22	
1AGT	2.00	1.80	1.60	1.44		3Q5GT	2.92	2.63	2.34	2.11		5X4G	1.57	1.42	1.26	1.13	
1AX2	1.45	1.30	1.16	1.04		3S4	1.70	1.53	1.36	1.22		5X8	1.87	1.69	1.50	1.35	
1AY2	1.30	1.17	1.04	.94		3V4	1.30	1.17	1.04	.94		5Y3GT	.87	.79	.70	.63	
1B3GT						4AU6	1.35	1.21	1.08	.97		5Y4GA	1.22	1.10	.98	.88	
1BC2	1.45	1.30	1.16	1.04		4AV6	1.12	1.01	.90	.81		5Y4GT	1.70	1.53	1.36	1.22	
1DN5	1.72	1.55	1.38	1.24		4BC5	1.10	.99	.88	.79		5Z3	1.97	1.78	1.58	1.42	
1G3GT/ 1B3GT	1.37	1.24	1.10	.99		4BC8	1.92	1.73	1.54	1.39		5Z4					
1H5GT	1.95	1.75	1.56	1.40		4BL8	1.20	1.08	.96	.86		6A7	4.00	3.60	3.20	2.88	
1J3	1.37	1.24	1.10	.99		4BN6	1.92	1.73	1.54	1.39		6A8	3.22	2.90	2.58	2.32	
1K3/1J3	1.37	1.24	1.10	.99		4BQ7A	2.07	1.87	1.66	1.49		6A8A	1.22	1.10	.98	.88	
1L6	6.27	5.64	5.02	4.52		4BS8	2.12	1.91	1.70	1.53		6AC5GT	2.92	2.63	2.34	2.11	
1L6A	2.92	2.63	2.34	2.11		4BU8	1.85	1.66	1.48	1.33		6AC7	2.75	2.47	2.20	1.98	
1LH4	3.80	3.42	3.04	2.74		4BU8/4GS8	1.85	1.66	1.48	1.33		6AC10	1.85	1.66	1.48	1.33	
1N5GT	2.45	2.20	1.96	1.76		4BZ6	1.05	.94	.84	.76		6AD10	3.45	3.10	2.76	2.48	
1R5	1.62	1.46	1.30	1.17		4BZ7	1.92	1.73	1.54	1.39		6AF3	1.55	1.39	1.24	1.12	
1S2A	1.45	1.30	1.16	1.04		4CB6	1.10	.99	.88	.79		6AF4A	1.87	1.69	1.50	1.35	
1S4	2.05	1.84	1.64	1.48		4CS6	1.45	1.30	1.16	1.04		6AF6G	3.15	2.83	2.52	2.27	
1S5	1.52	1.37	1.22	1.10		4CY5	1.35	1.21	1.08	.97		6AF11	2.37	2.14	1.90	1.71	
1T4	1.52	1.37	1.22	1.10		4DE6	1.25	1.12	1.00	.90		6AG5	1.42	1.28	1.41	1.03	
1U4	1.52	1.37	1.22	1.10		4DK6	1.27	1.15	1.02	.92		6AG7	3.10	2.79	2.48	2.23	
1U5	1.32	1.19	1.06	.95		4DT6A	1.05	.94	.84	.76		6AG11	2.07	1.87	1.66	1.49	
1V2	1.10	.99	.88	.79		4EH7	1.77	1.60	1.42	1.28		6AH4GT	1.62	1.46	1.30	1.17	
1X2A	1.45	1.30	1.16	1.04		4EJ7	1.77	1.60	1.42	1.28		6AH6	2.20	1.98	1.76	1.58	
1X2A/1X2B	1.45	1.30	1.16	1.04		4ES8	2.02	1.82	1.62	1.46		6AK5	2.25	2.02	1.80	1.62	
1X2B	1.45	1.30	1.16	1.04		4EW6	1.45	1.30	1.16	1.04		6AL3	1.45	1.30	1.16	1.04	
2A3	4.95	4.45	3.96	3.56		4GK5	1.95	1.75	1.56	1.40		6AL5	.87	.79	.70	.63	
2AF4B	1.90	1.71	1.52	1.37		4GM6	1.10	.99	.88	.79		6AL7GT	3.47	3.13	2.78	2.50	
2AH2	1.70	1.53	1.36	1.22		4GS8	1.85	1.66	1.48	1.33		6AL11	2.07	1.87	1.66	1.49	
2AS2	1.50	1.35	1.20	1.08		4GS8/4BU8	1.85	1.66	1.48	1.33		6AM4	2.77	2.50	2.22	2.00	
2AV2	1.10	.99	.88	.79		4GX7	1.80	1.62	1.44	1.30		6AM8A	1.62	1.46	1.30	1.17	
2AX2	1.10	.99	.88	.79		4GZ5	1.17	1.06	.94	.85		6AN4	3.07	2.77	2.46	2.21	
2B2	1.20	1.08	.96	.86		4HA5	1.47	1.33	1.18	1.06		6AN8A	1.87	1.69	1.50	1.35	
2BN4A	1.37	1.24	1.10	.99		4HA7	1.52	1.37	1.22	1.10		6AQ5A	1.12	1.01	.90	.81	
2CW4	2.30	2.07	1.84	1.66		4HC7	1.52	1.37	1.22	1.10		6AQ6	1.35	1.21	1.08	.97	
2CY5	1.65	1.48	1.32	1.19		4HM6	1.42	1.28	1.14	1.03		6AQ7GT	2.05	1.84	1.64	1.48	
2D34	2.30	2.07	1.84	1.66		4HS8	1.67	1.51	1.34	1.21		6AQ8	1.50	1.35	1.20	1.08	
2DV4	3.22	2.90	2.58	2.32		4HT6	1.27	1.15	1.02	.92		6AR5	1.22	1.10	.98	.88	
2DZ4	1.92	1.73	1.54	1.39		4JC6	1.80	1.62	1.44	1.30		6AR8	2.42	2.18	1.94	1.75	
2EN5	1.60	1.44	1.28	1.15		4JD6	1.80	1.62	1.44	1.30		6AR11	2.05	1.84	1.64	1.48	
2ER5	1.65	1.48	1.32	1.19		5AM8	2.02	1.82	1.62	1.46		6AS5	1.37	1.24	1.10	.99	
2FH5	1.57	1.42	1.26	1.13		5AN8	2.22	2.00	1.78	1.60		6AS8	2.00	1.80	1.60	1.44	
2FQ5						5AQ5	1.20	1.08	.96	.86		6AS11	2.55	2.29	2.02	1.84	
2FSS	2.42	2.18	1.94	1.75		5AR4	2.12	1.91	1.70	1.53		6AT6	1.02	.92	.82	.74	
2GK5	1.92	1.73	1.54	1.39		5AR4/GZ34	2.12	1.91	1.70	1.53		6AT8A	2.00	1.80	1.60	1.44	
2GU5	2.25	2.02	1.80	1.62		5AS4A	1.72	1.55	1.38	1.24		6AU4GTA	1.70	1.53	1.36	1.22	
2HA5	1.92	1.73	1.54	1.39		5AS8	2.20	1.98	1.76	1.58		6AU5GT	2.32	2.09	1.86	1.67	
2HQ5	1.92	1.73	1.54	1.39		5AT8	1.90	1.71	1.52	1.37		6AU6A	.97	.88	.78	.70	
3A2	2.75	2.47	2.20	1.98		5AU4	1.82	1.64	1.46	1.31		6AU8A	2.20	1.98	1.76	1.58	
3A3/3B2	1.60	1.44	1.28	1.15		5AV8	1.92	1.73	1.54	1.39		6AV5GA	2.35	2.11	1.88	1.69	
3AF4A	1.90	1.71	1.52	1.37		5AZ4	2.65	2.38	2.12	1.91		6AV6	.80	.72	.64	.58	
3AL5	.97	.88	.78	.70		5B8	2.75	2.47	2.20	1.98		6AV11	2.20	1.98	1.76	1.58	
3AT2	1.52	1.37	1.22	1.10		5BC3	1.57	1.42	1.26	1.13		6AW8A	1.80	1.62	1.44	1.30	
3AV6	1.10	.99	.88	.79		5BE8	1.55	1.39	1.24	1.12		6AX3	1.30	1.17	1.04	.94	
3AU6	1.10	.99	.88	.79		5BE7A	1.87	1.69	1.50	1.35		6AX4GTB	1.25	1.12	1.00	.90	
3AW3	1.60	1.44	1.28	1.15		5BQ7A	2.00	1.80	1.60	1.44		6AX5GT	1.62	1.46	1.30	1.17	
3B2/3A3	1.60	1.44	1.28	1.15		5B8B	2.10	1.89	1.68	1.51		6AX8	1.75	1.57	1.40	1.26	
3BA6	1.17	1.06	.94	.85		5BT8	1.55	1.39	1.24	1.12		6AY3B	1.45	1.30	1.16	1.04	
3BC5	1.22	1.10	.98	.88		5BW8	1.60	1.44	1.28	1.15		6AY11	2.05	1.84	1.64	1.48	
3BC5/3CE5	1.22	1.10	.98	.88		5CG8	1.57	1.42	1.26	1.13		6AZ8	2.75	2.47	2.20	1.98	
3BE6	1.35	1.21	1.08	.97		5CL8A	1.92	1.73	1.54	1.39		6B8	3.42	3.08	2.74	2.47	
3BN4A	1.52	1.37	1.22	1.10		5CM8	1.77	1.60	1.42	1.28		6B10	1.67	1.51	1.34	1.21	
3BN6	1.80	1.62	1.44	1.30		5CP8	2.05	1.84	1.64	1.48		6BA3	1.52	1.37	1.22	1.10	
3BU8	1.77	1.60	1.42	1.28		5CZ5	2.22	2.00	1.78	1.60		6BA6	.95	.85	.76	.68	
3BY6	1.37	1.24	1.10	.99		5DH8	2.75	2.47	2.20	1.98		6BA7	2.92	2.63	2.34	2.11	
3BZ6	1.07	.97	.86	.77		5DJ4	1.67	1.51	1.34	1.21		6BA8A	2.00	1.80	1.60	1.44	
3CA3	1.60	1.44	1.28	1.15		5EA8	1.60	1.44	1.28	1.15		6BA11	2.05	1.84	1.64	1.48	
3CB6	1.07	.97	.86	.77		5EU8	1.72	1.55	1.38	1.24		6BC4	2.75	2.47	2.20	1.98	
3CE5						5EW6	1.52	1.37	1.22	1.10		6BC5	1.12	1.01	.90	.81	
3CF8	1.27	1.15	1.02	.92		5FG7	1.30	1.17	1.04	.94		6BC7	1.80	1.62	1.44	1.30	
3C86	1.37	1.24	1.10	.99		5FV8	1.50	1.35	1.20	1.08		6BC8	1.87	1.69	1.50	1.35	
3CY5	1.67	1.69	1.50	1.35		5GH6	2.05	1.84	1.64	1.48		6BD6	1.17	1.06	.94	.85	
3DG4	2.05	1.84	1.64	1.48		5GM6	1.40	1.26	1.12	1.01		6BD11	2.52	2.27	2.02	1.82	
3DK6	1.15	1.03															

Receiving Tubes

RCA — GE — SYLVANIA

Receiving Tubes May Be Assorted for Quantity Prices.



Tube Type	Assorted			Not Ass. 100-up	Tube Type	Assorted			Not Ass. 100-up	Tube Type	Assorted			Not Ass. 100-up
	1-5	6-49	50-up			1-5	6-49	50-up			1-5	6-49	50-up	
6BJ3	1.40	1.26	1.12	1.01	6DG6GT	1.77	1.60	1.42	1.28	6GX5	1.92	1.73	1.54	1.39
6BJ6	1.37	1.24	1.10	.99	6DJ8	2.00	1.80	1.60	1.44	6GX6	1.50	1.35	1.20	1.08
6BJ6A	1.37	1.24	1.10	.99	6DL6	1.12	1.01	.90	.81	6GL7	2.75	2.47	2.20	1.98
6BJ7	1.47	1.33	1.18	1.06	6DL5	1.47	1.33	1.18	1.06	6GM5	1.52	1.37	1.22	1.10
6BJ8	1.80	1.62	1.44	1.30	6DMAA	1.52	1.37	1.22	1.10	6GM6	1.37	1.24	1.10	.99
6BK4B	3.77	3.40	3.02	2.72	6DN6	3.50	3.15	2.80	2.52	6GN8	2.05	1.84	1.64	1.48
6BK5	1.75	1.57	1.40	1.26	6DN7	1.67	1.51	1.34	1.21	6GQ7	1.87	1.69	1.50	1.35
6BK7B	1.77	1.60	1.42	1.28	6DQ4	1.22	1.10	.98	.88	6GT5A	2.70	2.43	2.16	1.94
6BL7GTA	2.20	1.98	1.76	1.58	6DQ5	3.92	3.53	3.14	2.83	6GU5	2.05	1.84	1.64	1.48
6BL8	1.87	1.69	1.50	1.35	6DQ6B	2.10	1.89	1.68	1.51	6GU7	1.60	1.44	1.28	1.15
6BM8/ ECL82	1.45	1.30	1.16	1.04	6DQ6B/ 6GW6	2.10	1.89	1.68	1.51	6GV5	2.07	1.87	1.66	1.49
6BN4A	1.70	1.53	1.36	1.22	6DR7	2.05	1.84	1.64	1.48	6GV8	1.55	1.39	1.24	1.12
6BN6	1.50	1.35	1.20	1.08	6DS4	2.30	2.07	1.84	1.66	6GW6	1.95	1.75	1.56	1.40
6BN8	1.57	1.42	1.26	1.13	6DS5	1.65	1.48	1.32	1.19	6GW6/ 6DQ6B	2.10	1.89	1.56	1.51
6BQ5	1.32	1.19	1.06	.95	6DT5	1.77	1.60	1.42	1.28	6GW8/ ECL86	1.52	1.37	1.22	1.10
6BQ6GA/ 6CU6	2.05	1.84	1.64	1.48	6DT6A	1.02	.92	.82	.74	6GX6	1.30	1.17	1.04	.94
6BQ6GTA	2.05	1.84	1.64	1.48	6DT8	1.77	1.60	1.42	1.28	6GX7	1.80	1.62	1.44	1.30
6BQ6GTB/ 6CU6	2.05	1.84	1.64	1.48	6DV4	3.22	2.90	2.58	2.32	6GY5	2.30	2.07	1.84	1.66
6BQ7A	1.87	1.69	1.50	1.35	6DW4B	1.75	1.57	1.40	1.26	6GY6	1.30	1.17	1.04	.94
6BR8A	1.92	1.73	1.54	1.39	6DW5	1.92	1.73	1.54	1.39	6GY8	1.77	1.60	1.42	1.28
6BS3A	1.65	1.48	1.32	1.19	6DX8	1.45	1.30	1.16	1.04	6GZ5	1.35	1.21	1.08	.97
6BS8	1.87	1.69	1.50	1.35	6DZ4	1.87	1.69	1.50	1.35	6H6	2.15	1.93	1.72	1.55
6BU8	1.70	1.53	1.36	1.22	6DZ7	4.35	3.91	3.48	3.13	6HA5	U ₅₀ 1.73	U ₅₀ 1.54	U ₅₀ 1.39	1.39
6BV8	1.50	1.35	1.20	1.08	6EA4	3.65	3.28	2.92	2.63	6HA6	U ₅₀ 1.89	U ₅₀ 1.68	U ₅₀ 1.51	1.51
6BW4	1.37	1.24	1.10	.99	6E5	2.82	2.54	2.26	2.03	6HB5	2.10	1.89	1.68	1.60
6BW8	1.67	1.51	1.34	1.21	6EA5	U ₅₀ 2.60	U ₅₀ 2.34	U ₅₀ 2.08	1.87	6HB6	2.22	2.00	1.78	1.60
6BX7GT	2.80	2.52	2.24	2.02	6EA7	2.60	2.34	2.08	1.87	6HB7	1.67	1.51	1.34	1.21
6BY5GA	2.40	2.16	1.92	1.73	6EA8	1.50	1.35	1.20	1.08	6HE5	1.85	1.66	1.48	1.33
6BY6	1.37	1.24	1.10	.99	6EB8	2.20	1.98	1.76	1.58	6HF5	3.65	3.28	2.92	2.63
6BY8	1.35	1.21	1.08	.97	6EH5	1.45	1.30	1.16	1.04	6HF8	2.00	1.80	1.60	1.44
6BZ6	1.05	.94	.84	.76	6EH7	1.92	1.73	1.54	1.39	6HG5	1.35	1.21	1.08	.97
6BZ7	1.87	1.69	1.50	1.35	6EH8	1.50	1.35	1.20	1.08	6HG8	2.05	1.84	1.64	1.48
6BZ8	2.10	1.89	1.68	1.51	6EJ7	1.77	1.60	1.42	1.28	6HJ5	2.90	2.61	2.32	2.09
6C4	.87	.79	.70	.63	6EM5	1.60	1.44	1.28	1.15	6HJ8	1.55	1.39	1.24	1.12
6C5	2.67	2.41	2.14	1.93	6EM7	2.40	2.16	1.92	1.73	6HK5	1.95	1.75	1.56	1.40
6C6	3.92	3.53	3.14	2.83	6EQ7	1.37	1.24	1.10	.99	6HL8	1.52	1.37	1.22	1.10
6C9	2.75	2.47	2.20	1.98	6ER5	1.77	1.60	1.42	1.28	6HM5	1.92	1.73	1.54	1.39
6C10	1.85	1.66	1.48	1.33	6ES5	1.42	1.28	1.14	1.03	6HM5/6HAS	1.92	1.73	1.54	1.39
6CA4	1.15	1.03	.92	.83	6ES8	2.72	2.45	2.18	1.96	6HM6	1.35	1.21	1.08	.97
6CA5	1.50	1.35	1.20	1.08	6ET7	2.00	1.80	1.60	1.44	6HQ5	2.25	2.02	1.80	1.62
6CA7	2.67	2.41	2.14	1.93	6EU7	1.35	1.21	1.08	.97	6HR5	1.27	1.15	1.02	.92
6CBSA	4.67	4.21	3.74	3.37	6EU8	1.67	1.51	1.34	1.21	6HR6	1.37	1.24	1.10	.99
6CB8A	1.05	.94	.84	.76	6EV5	1.42	1.28	1.14	1.03	6HS6	1.37	1.24	1.10	.99
6CDB6GA	2.75	2.47	2.20	1.98	6EV7	1.37	1.24	1.10	.99	6HS8	1.77	1.60	1.42	1.28
6CE5	1.10	.99	.88	.79	6EW6	1.17	1.06	.94	.85	6HZ6	1.37	1.24	1.10	.99
6CF8	1.37	1.24	1.10	.99	6EW7	2.75	2.47	2.20	1.98	6HZ8	2.75	2.47	2.20	1.98
6CG7	U ₅₀ 1.17	U ₅₀ 1.06	U ₅₀ .94	U ₅₀ .85	6EX6	3.75	3.37	3.00	2.70	6J5	1.85	1.66	1.48	1.33
6CG7/6FQ7	1.17	1.06	.94	.85	6EY6	1.80	1.62	1.44	1.30	6J5GT	1.85	1.66	1.48	1.33
6CG8A	1.55	1.39	1.24	1.12	6EZ5	2.82	1.82	1.62	1.46	6JA	1.32	1.19	1.06	.95
6CH8	2.80	2.52	2.24	2.02	6EZ8	1.77	1.60	1.42	1.28	6J7	2.50	2.25	2.00	1.80
6CK3	1.30	1.17	1.04	.94	6F5	2.75	2.47	2.20	1.98	6J10	2.50	2.25	2.00	1.80
6CK4	1.77	1.60	1.42	1.28	6F6	2.90	2.61	2.32	2.09	6J11	2.40	2.16	1.92	1.73
6CL6	1.90	1.71	1.52	1.37	6F6G	2.90	2.61	2.32	2.09	6JB6A	2.92	2.63	2.34	2.11
6CL8A	1.87	1.69	1.50	1.35	6F6GT	2.90	2.61	2.32	2.09	6JC6	1.87	1.69	1.50	1.35
6CM6	1.67	1.51	1.34	1.21	6F8G	4.22	3.80	3.38	3.04	6JC8	1.52	1.37	1.22	1.10
6CM7	1.37	1.24	1.10	.99	6FA7	1.47	1.33	1.18	1.06	6JD6	1.65	1.48	1.32	1.19
6CN8	2.02	1.82	1.62	1.46	6FD7	2.52	2.27	2.02	1.82	6JEA	4.25	3.82	3.40	3.06
6CN7	2.00	1.80	1.60	1.44	6FE5	1.70	1.53	1.36	1.22	6JE2	1.85	1.66	1.48	1.33
6CQ4	1.77	1.60	1.42	1.28	6FG5	2.67	2.41	2.14	1.93	6JF6	3.05	2.74	2.44	2.20
6CQ8	1.65	1.48	1.32	1.19	6FG6/EM84	U ₅₀ 1.77	U ₅₀ 1.60	U ₅₀ 1.42	U ₅₀ 1.28	6JG6A	3.00	2.70	2.40	2.16
6CR6	1.47	1.33	1.18	1.06	6FG7	1.77	1.60	1.42	1.28	6JH6	1.22	1.10	.98	.88
6CS6	1.22	1.10	.98	.88	6FH5	1.57	1.42	1.26	1.13	6JH8	2.05	1.84	1.64	1.48
6CS7	1.40	1.26	1.12	1.01	6FH8	2.02	1.82	1.62	1.46	6JK8	2.02	1.82	1.62	1.46
6CU5	1.35	1.21	1.08	.97	6FJ7	1.87	1.69	1.50	1.35	6JM6	2.07	1.87	1.66	1.49
6CU8	U ₅₀ 1.35	U ₅₀ 1.21	U ₅₀ 1.08	U ₅₀ .97	6FM7	1.62	1.46	1.30	1.17	6JN6	1.92	1.73	1.54	1.39
6CU8/ 6CQ6GA	2.05	1.84	1.64	1.48	6FM8	1.42	1.28	1.14	1.03	6JN8	1.82	1.64	1.46	1.31
6CU6/ 6BQ6GTB	2.05	1.84	1.64	1.48	6FQSA	1.92	1.73	1.54	1.39	6JS6	3.65	3.28	2.92	2.63
6CU8	2.20	1.98	1.76	1.58	6FQ7	1.07	.97	.86	.77	6JTB6A	2.47	2.23	1.98	1.78
6CW4	2.30	2.07	1.84	1.66	6FQ7/6CG7	1.17	1.06	.94	.85	6JT8	2.00	1.80	1.60	1.44
6CW5	1.55	1.39	1.24	1.12	6F85	2.05	1.84	1.64	1.48	6JU8A	1.67	1.51	1.34	1.21
6CX8	2.12	1.91	1.70	1.53	6FV6	2.00	1.80	1.60	1.44	6JV8	2.00	1.80	1.60	1.44
6CY5	1.72	1.55	1.38	1.24	6FV8A	1.65	1.48	1.32	1.19	6JW8	1.55	1.39	1.24	1.12
6CY7	1.52	1.37	1.22	1.10	6FW5	1.92	1.73	1.54	1.39	6JZ8	1.77	1.60	1.42	1.28
6CZ5	2.85	1.84	1.64	1.48	6FY5/EC97	1.52	1.37	1.22	1.10	6K6GT	1.22	1.10	.98	.88
6D6	3.67	3.31	2.94	2.65	6F77	1.60	1.44	1.28	1.15	6K7	2.50	2.25	2.00	1.80
6D10	1.92	1.73	1.54	1.39	6G11	2.20	1.98	1.76	1.58	6K8	3.52	3.17	2.82	2.54
6DA4	1.52	1.37	1.22	1.10	6GC5	2.00	1.80	1.60	1.44	6K11/6Q11	1.82	1.64	1.46	1.31
6DB5	2.50	2.25	2.00	1.80	6GES	1.92	1.73	1.54	1.39	6KA8	2.12	1.91	1.70	1.53
6DC6	1.77	1.60	1.42	1.28	6GE7	2.42	2.18	1.94	1.75	6KD6	3.85	3.46	3.08	2.77
6DC8	1.52	1.37	1.22	1.10	6GF5	1.75	1.57	1.40	1.26	6KD8	1.40	1.26	1.12	1.01
6DE4	1.52	1.37	1.22	1.10	6GF7A	1.75	1.57	1.40	1.26	6KE8	2.67	2.41	2.14	1.93
6DE8	1.20	1.08	.96	.86	6GG6	3.40	3.06	2.72	2.45	6KL8	1.30	1.17	1.04	.94

Receiving Tubes



RCA — GE — SYLVANIA

Receiving Tubes May Be Assorted For Quantity Prices

Tube Type	Assorted			Not Assort. 100-up.	Tube Type	Assorted			Not Assort. 100-up.	Tube Type	Assorted			Not Assort. 100-up.
	1-5	6-49	50-up			1-5	6-49	50-up			1-5	6-49	50-up	
6KT8	2.12	1.91	1.70	1.53	7N7	3.55	3.19	2.84	2.56	12AX3	1.50	1.35	1.20	1.08
6KU8	2.40	2.16	1.92	1.73	7Q7	2.92	2.63	2.34	2.11	12AX4GTB	1.27	1.15	1.02	.92
6KV8	2.92	2.63	2.34	2.11	7V7	2.32	2.09	1.86	1.67	12AX7A	1.20	1.08	.96	.86
6KY8A	3.62	3.26	2.90	2.61	7X7	3.82	3.44	3.06	2.75	12AY3	1.32	1.19	1.06	.95
6KZ8	1.70	1.53	1.36	1.22	7Y4	3.35	3.01	2.68	2.41	12AY7	2.42	2.18	1.94	1.75
6L6	4.40	3.96	3.52	3.17	8AR11	2.17	1.96	1.74	1.57	12AZ7A	1.42	1.28	1.14	1.03
6L6GC	2.27	2.05	1.82	1.64	8AU8	1.92	1.73	1.54	1.39	12BA4	1.52	1.37	1.22	1.10
6L7	3.47	3.13	2.78	2.50	8AW8A	1.82	1.64	1.46	1.31	12BA6	.80	.72	.64	.58
6L8	2.35	2.11	1.88	1.69	8B10	1.67	1.51	1.34	1.21	12BA7	2.80	2.52	2.24	2.02
6LC8	1.92	1.73	1.54	1.39	8BA8A	1.72	1.55	1.38	1.24	12BD6	1.17	1.06	.94	.85
6LE8	2.77	2.50	2.22	2.00	8BH8	1.67	1.51	1.34	1.21	12BE3	1.52	1.37	1.22	1.10
6LF8	1.75	1.57	1.40	1.26	8BM11	1.95	1.75	1.56	1.40	12BE6	.97	.88	.78	.70
6LJ8	2.05	1.84	1.64	1.48	8BN8	1.52	1.37	1.22	1.10	12BF6	1.05	.94	.84	.76
6LM8	2.07	1.87	1.66	1.49	8BQ5	1.37	1.24	1.10	.99	12BF11	2.17	1.96	1.74	1.57
6LN8	1.20	1.08	.96	.86	8BQ11	2.15	1.93	1.72	1.55	12BH7A	1.45	1.30	1.16	1.04
6LQ8	2.52	2.27	2.02	1.82	8BU11	2.05	1.84	1.64	1.48	12BK5	1.87	1.69	1.50	1.35
6LU8	2.37	2.14	1.90	1.71	8CG7					12BL6	1.47	1.33	1.18	1.06
6LX8/					8CG7/8FQ7	1.17	1.06	.94	.85	12BQ6CA/				
LCF802	1.30	1.17	1.04	.94	8CM7	1.35	1.21	1.08	.97	12CU6	2.05	1.84	1.64	1.48
6LY8	1.77	1.60	1.42	1.28	8CN7	1.52	1.37	1.22	1.10	12BQ6GA	1.51	1.89	1.68	1.51
6M11	2.27	2.05	1.82	1.64	8CS7	1.52	1.37	1.22	1.10	12BQ6GTB/				
6MD8	2.42	2.18	1.94	1.75	8CW5A	1.27	1.15	1.02	.92	12CU6	2.10	1.89	1.68	1.51
6N7	2.52	2.27	2.02	1.82	8CK8	2.20	1.98	1.76	1.58	12BR7	1.52	1.37	1.22	1.10
6N7GT	2.60	2.34	2.08	1.87	8EB8	2.05	1.84	1.64	1.48	12BS3A	1.67	1.51	1.34	1.21
6Q7	2.75	2.47	2.20	1.98	8EM5	1.70	1.53	1.36	1.22	12BT3	1.42	1.28	1.14	1.03
6Q11/6K11	1.82	1.64	1.46	1.31	8ET7	2.07	1.87	1.66	1.49	12BV7	1.65	1.48	1.32	1.19
6SA4	1.17	1.06	.94	.85	8FQ7	1.30	1.17	1.04	.94	12BW4	1.37	1.24	1.10	.99
6S8GT	2.07	1.87	1.66	1.49	8FQ7/8CG7	1.17	1.06	.94	.85	12BY7A	1.52	1.37	1.22	1.10
6SA7	2.20	1.98	1.76	1.58	8GJ7	1.62	1.46	1.30	1.17	12BZ6	1.05	.94	.84	.76
6SA7GT	2.20	1.98	1.76	1.58	8GN8	1.85	1.66	1.48	1.33	12BZ7	2.07	1.87	1.66	1.49
6SB7Y	2.97	2.68	2.38	2.14	8JV8	1.82	1.64	1.46	1.31	12C5/12CU5				
6SC7	2.20	1.98	1.76	1.58	8KA8	1.92	1.73	1.54	1.39	12CA5	1.42	1.28	1.14	1.03
6SF5	1.85	1.66	1.48	1.33	8LC8	1.92	1.73	1.54	1.39	12CN5	1.62	1.46	1.30	1.17
6SF7	3.15	2.83	2.52	2.27	8LT8	1.35	1.21	1.08	.97	12CR6	1.47	1.33	1.18	1.06
6SG7	2.35	2.11	1.88	1.69	9A8	1.70	1.53	1.36	1.22	12CT8	2.47	2.23	1.98	1.78
6SH7	2.67	2.41	2.14	1.93	9AU7	1.32	1.19	1.06	.95	12CU5/12C5	1.37	1.24	1.10	.99
6S7	2.07	1.87	1.66	1.49	9B11	2.40	2.16	1.92	1.73	12CU6				
6S7GT	1.95	1.75	1.56	1.40	9BL7	1.57	1.42	1.26	1.13	Use 12BQ6GTB/12CU6				
6SK7	2.12	1.91	1.70	1.53	9CL8	1.47	1.33	1.18	1.06	Use 12BQ6GTB/12CU6				
6SK7GT	2.75	2.47	2.20	1.98	9EA8	1.52	1.37	1.22	1.10	12CX6	1.37	1.24	1.10	.99
6SL7GT	1.67	1.51	1.34	1.21	9GV8	1.70	1.53	1.36	1.22	12D4	1.37	1.24	1.10	.99
6SN7GT	1.35	1.21	1.08	.97	9KC6	2.17	1.96	1.74	1.57	12DB5	1.30	1.17	1.04	.94
6SQ7	1.92	1.73	1.54	1.39	9KZ8	1.47	1.33	1.18	1.06	12DE8	1.55	1.39	1.24	1.12
6SQ7GT	1.77	1.60	1.42	1.28	9U8A	1.55	1.39	1.24	1.12	12DK6	1.15	1.03	.92	.83
6SR7	2.12	1.91	1.70	1.53	10AL11	2.27	2.05	1.82	1.64	12DK7	1.37	1.24	1.10	.99
6T4	2.57	2.32	2.06	1.85	10C8	2.57	2.32	2.06	1.85	12DL8	2.92	2.63	2.34	2.11
6T8A	1.67	1.51	1.34	1.21	10CW5	1.70	1.53	1.36	1.22	12DQ6B/	2.12	1.91	1.70	1.53
6T9	1.85	1.66	1.48	1.33	10DE7	1.75	1.57	1.40	1.26	12DQ6W/				
6T10	2.12	1.91	1.70	1.53	10DR7	2.05	1.84	1.64	1.48	12G6B/	1.97	1.78	1.58	1.42
6U5	3.70	3.33	2.96	2.66	10DX8	1.37	1.24	1.10	.99	12DQ7	2.62	2.46	2.30	2.17
6U8A	1.55	1.39	1.24	1.12	10EG7	2.17	1.96	1.74	1.57	12DS7	2.02	1.82	1.62	1.46
6U9/					10EM7	2.22	2.00	1.78	1.60	12DT5	1.55	1.39	1.24	1.12
ECF201	1.45	1.30	1.16	1.04	10GN8	1.77	1.60	1.42	1.28	12DT8	1.77	1.60	1.42	1.28
6U10	1.82	1.64	1.46	1.31	10HF8	2.32	2.09	1.86	1.67	12DU7	2.20	1.98	1.58	1.58
6V3A	2.27	2.05	1.82	1.64	10JA8	1.87	1.69	1.50	1.35	12DV8	1.97	1.78	1.58	1.42
6V4/EZ80	.75	.67	.60	.52	10JT8	2.02	1.82	1.62	1.46	12DW7	1.52	1.37	1.22	1.10
6V6	3.17	2.86	2.54	2.29	10JY8	1.82	1.64	1.46	1.31	12DY8	3.97	3.58	3.18	2.86
6V6GTA	1.20	1.08	.96	.86	10KR8	2.12	1.91	1.70	1.53	12DZ6	1.80	1.62	1.44	1.30
6W4GT	1.15	1.03	.92	.83	10KU8	2.42	2.18	1.94	1.75	12EA6	1.22	1.10	.98	.88
6W6GT	1.47	1.33	1.18	1.06	10LE8	2.95	2.65	2.36	2.12	12EC8	1.70	1.53	1.36	1.22
6X4	.80	.72	.64	.58	10LW8	2.12	1.91	1.70	1.53	12ED5	1.35	1.21	1.08	.97
6X5GT	1.05	.94	.84	.76	10LZ8	1.47	1.33	1.18	1.06	12EG6	1.72	1.55	1.38	1.24
6X8	1.50	1.35	1.20	1.08	11AR11	2.05	1.84	1.64	1.48	12EK6	1.55	1.39	1.24	1.12
6X9/					11BQ11	2.05	1.84	1.64	1.48	12EL6	.95	.85	.76	.68
ECF200	1.45	1.30	1.16	1.04	11CY7	1.80	1.62	1.44	1.30	12EN6	1.45	1.30	1.16	1.04
6Y6GA/					11JE8	1.32	1.17	1.04	.93	12EQ7	1.37	1.24	1.10	.99
6Y6G	2.02	1.82	1.62	1.46	11KV8	2.95	2.65	2.36	2.12	12F8	1.45	1.30	1.16	1.04
6Y6GT	1.77	1.60	1.42	1.28	11LQ8	2.95	2.65	2.36	2.12	12FK6	1.10	.99	.88	.79
6Y9	1.55	1.39	1.24	1.12	11Y9	1.55	1.39	1.24	1.12	12FM6	1.30	1.17	1.04	.94
6Z4		Use 84/6Z4			12AB5	1.65	1.48	1.32	1.19	12FQ8	2.07	1.87	1.66	1.49
6Z4/84	1.70	1.53	1.36	1.22	12AC6	1.05	.94	.84	.76	12FR8	3.45	3.10	2.76	2.48
6Z10/6J10	2.50	2.25	2.00	1.80	12AD6	1.30	1.17	1.04	.94	12FV7	1.70	1.53	1.36	1.22
7A4	3.52	3.17	2.82	2.54	12AE6A	1.37	1.24	1.10	.99	12FX5	1.22	1.10	.98	.88
7A5	2.82	2.54	2.26	2.03	12AF3	1.92	1.73	1.54	1.39	12FX8A	1.92	1.73	1.54	1.39
7A7	3.57	3.22	2.86	2.57	12AF6	1.42	1.28	1.14	1.03	12GA6	1.35	1.21	1.08	.97
7A8	3.90	3.51	3.12	2.81	12AJ6	1.20	1.08	.96	.86	12GC6	1.97	1.78	1.58	1.42
7AG7	3.95	3.55	3.16	2.84	12AL5	1.05	.94	.84	.76	12GE5	2.05	1.84	1.64	1.48
7AU7	1.22	1.10	.98	.88	12AL8	3.07	2.77	2.46	2.21	12GJ5A	2.45	2.20	1.96	1.76
7B4	3.40	3.06	2.72	2.45	12AL11	2.10	1.89	1.68	1.51	12GN7A	1.95	1.75	1.56	1.40
7B7	3.82	3.44	3.06	2.75	12AQ5	1.22	1.10	.98	.88	12GT5	2.67	2.41	2.14	1.93
7B8	2.80	2.52	2.24	2.02	12AT6	.87	.79	.70	.63	12GW6/				
7C5	1.67	1.51	1.34	1.21	12AT7	1.42	1.28	1.14	1.03	12DQ6B	2.12	1.91	1.70	1.53
7C6	3.65	3.28	2.92	2.63	12AU6	1.00	.90	.80	.72	12H6	2.00	1.80	1.60	1.44
7C7	1.70	1.53	1.36	1.22	12AU7A	1.17	1.06	.94	.85	12HG7	1.95	1.75	1.56	1.40
7EY6	1.67	1.51	1.34	1.21	12AV5GA	2.25	2.02	1.80	1.62	12HE7	3.40	3.06	2.72	2.45
7F7	3.75	3.37	3.00	2.70	12AV6	.80	.72	.64	.58	12J5	2.05	1.84	1.64	1.48
7F8	4.12	3.71	3.30	2.97	12AV7	1.70	1.53	1.36	1.22	12J5GT	2.40	2.16	1.92	1.73
7HG8/PCF86	1.47	1.33	1.18	1.06	12AW6	1.55	1.39	1.24	1.12	12J8	2.17	1.96	1.74	1

Receiving Tubes

RCA — GE — SYLVANIA

Receiving Tubes May Be Assorted for Quantity Prices



Tube Type	Assorted			Not Asst. 100-up	Tube Type	Assorted			Not Asst. 100-up	Tube Type	Assorted			Not Asst. 100-up
	1-5	6-49	50-up			1-5	6-49	50-up			1-5	6-49	50-up	
12JB6A	2.82	2.54	2.26	2.03	17GE5	2.17	1.96	1.74	1.57	33JV6	2.10	1.89	1.68	1.51
12JG8	1.55	1.39	1.24	1.12	17GJ5	2.75	2.47	2.20	1.98	34GD5A	1.10	.99	.88	.79
12JN6	1.95	1.75	1.56	1.40	17GT5	2.22	2.00	1.78	1.60	GZ34/SAR4	2.12	1.91	1.70	1.53
12JN8	1.85	1.66	1.48	1.33	17GV5	2.10	1.89	1.68	1.51	35A5	2.82	2.54	2.26	2.03
12JT6A	2.47	2.23	1.98	1.78	17GW6/17DQ6B	2.12	1.91	1.70	1.53	35B5	1.60	1.44	1.28	1.15
12K5	1.72	1.55	1.38	1.24	17H3	1.37	1.24	1.10	.99	35C5	1.05	.94	.84	.76
12K7GT	3.30	2.97	2.64	2.38	17JB6A	2.75	2.47	2.20	1.98	35DZ8	2.00	1.80	1.60	1.44
12KL8	1.22	1.10	.98	.88	17JG6A	2.87	2.59	2.30	2.07	35EH5	1.37	1.24	1.10	.99
12L6GT	1.77	1.60	1.42	1.28	17JM6	2.10	1.89	1.68	1.51	35GL6	1.45	1.30	1.16	1.04
12R5	1.67	1.51	1.34	1.21	17JN6	1.95	1.75	1.56	1.40	35L6GT	1.37	1.24	1.10	.99
12SA7	2.20	1.98	1.76	1.58	17JT6A	2.47	2.23	1.98	1.78	35W4	.62	.56	.50	.45
12SA7GT	2.20	1.98	1.76	1.58	17JZ8	1.77	1.60	1.42	1.28	35Y4	2.25	2.02	1.80	1.62
12SC7	2.60	2.34	2.08	1.87	17L8	Use 15KY8A				35Z3	2.35	2.11	1.88	1.69
12SF5	1.92	1.73	1.54	1.39	17LX10	2.25	2.02	1.80	1.62	35Z4GT	1.27	1.15	1.02	.92
12SF7	3.10	2.79	2.48	2.23	18A5	1.95	1.75	1.56	1.40	35Z5GT	1.10	.99	.88	.79
12SG7	2.35	2.11	1.88	1.69	18FW6A	1.22	1.10	.98	.88	36AM3B	.77	.70	.62	.56
12SH7	2.70	2.43	2.16	1.94	18FX6A	1.20	1.08	.96	.86	38HE7	3.32	2.99	2.66	2.39
12SJ7	2.15	1.93	1.72	1.55	18FY6A	1.10	.99	.88	.79	38HK7	3.27	2.95	2.62	2.36
12SK7	2.00	1.80	1.60	1.44	18GD6A	1.00	.90	.80	.72	42	2.42	2.18	1.94	1.75
12SK7GT	2.00	1.80	1.60	1.44	19AU4GTA	1.77	1.60	1.42	1.28	43	3.60	3.24	2.88	2.59
12SL7GT	1.77	1.60	1.42	1.28	19BGG6A	3.32	2.99	2.66	2.39	50A1	3.40	3.06	2.72	2.45
12SN7GTA	1.40	1.26	1.12	1.01	19C18A	1.85	1.66	1.48	1.33	50A5	2.92	2.63	2.34	2.11
12SQ7	1.87	1.69	1.50	1.35	19EAB	1.92	1.73	1.54	1.39	50B5	1.30	1.17	1.04	.94
12SQ7GT	1.87	1.69	1.50	1.35	19E28	2.25	2.02	1.80	1.62	50C5	1.10	.99	.88	.79
12U7	1.25	1.12	1.00	.90	19GQ7	1.90	1.71	1.52	1.37	50DC4	.97	.88	.78	.70
12V6GT	1.87	1.69	1.50	1.35	19HR6	1.22	1.10	.98	.88	50EH5	1.15	1.03	.92	.83
12V6GT	1.87	1.69	1.50	1.35	19HS6	1.20	1.08	.96	.86	50FE5	2.05	1.84	1.64	1.48
12X4	.97	.88	.78	.70	19HV8	1.77	1.60	1.42	1.28	50FK5	1.10	.99	.88	.79
13CW4	2.52	2.27	2.02	1.82	19J6	1.85	1.66	1.48	1.33	50HC6	1.20	1.08	.96	.86
13DE7	1.75	1.57	1.40	1.26	19JN8	1.52	1.37	1.22	1.10	50HK6	1.07	.97	.86	.77
13DR7	1.92	1.73	1.54	1.39	19Q9	1.52	1.37	1.22	1.10	50L6GT	1.42	1.28	1.14	1.03
13EM7	2.42	2.18	1.94	1.75	19T8	2.02	1.82	1.62	1.46	50X6	2.92	2.63	2.34	2.11
13FD7	2.27	2.05	1.82	1.62	19X8	2.05	1.84	1.64	1.48	50Y6GT	2.17	1.96	1.74	1.57
13FM7	1.50	1.35	1.20	1.08	20E27	1.70	1.53	1.36	1.22	50Y7GT	2.12	1.91	1.70	1.53
13GB5	1.90	1.71	1.52	1.37	21GY5	2.32	2.09	1.86	1.67	60FX5	1.30	1.17	1.04	.94
13GF7	2.35	2.11	1.88	1.69	21H55	2.17	1.96	1.74	1.57	65AU8A	1.52	1.37	1.22	1.10
13J10	2.52	2.27	2.02	1.82	21HJ5	2.92	2.63	2.34	2.11	80	3.20	2.88	2.56	2.30
13V10	2.05	1.84	1.64	1.48	21JV6	2.10	1.89	1.68	1.51	80Z	2.40	2.16	1.92	1.73
14A7	2.77	2.50	2.22	2.00	21JZ6	2.20	1.98	1.76	1.58	EZ80/6V4	.75	.67	.60	.54
14B6	2.65	2.38	2.12	1.91	21ER8	3.00	2.70	2.40	2.12	UABC80	1.73	1.63	1.56	1.47
14BL11	2.55	2.29	2.04	1.84	22BH3A	1.55	1.39	1.24	1.10	UM80	2.20	2.08	1.98	1.87
14BR11	2.40	2.16	1.92	1.73	22BW3	1.52	1.37	1.22	1.10	ECL82/6BM8	1.45	1.30	1.16	1.04
14GT8	1.72	1.55	1.38	1.24	22DE4	1.70	1.53	1.36	1.22	84/6Z4	1.70	1.53	1.36	1.22
14Q7	2.92	2.63	2.34	2.11	22JF6	3.42	3.08	2.74	2.47	EM84/6FG6	1.67	1.51	1.34	1.21
15AF11	2.37	2.14	1.90	1.71	22JG6A	2.95	2.65	2.36	2.12	UY85	1.28	1.21	1.15	1.09
15BD11	2.42	2.18	1.94	1.75	22JU6	2.87	2.59	2.30	2.07	EC186/6GW8	1.52	1.37	1.22	1.10
15CW5	1.32	1.19	1.06	.95	23Z9	2.35	2.11	1.88	1.69	PCF86/THG8	1.47	1.33	1.18	1.06
15DQ8	1.47	1.33	1.18	1.06	25AV5GA	2.40	2.16	1.92	1.73	HL94	1.45	1.37	1.31	1.23
15EW6	1.72	1.55	1.38	1.24	25AX4GT	1.52	1.37	1.22	1.10	EC97/6FY5	1.37	1.24	1.10	.99
15FM7	1.70	1.53	1.36	1.22	25BK5	1.70	1.53	1.36	1.22	117L/M7HT	4.77	4.30	3.82	3.44
15FY7	1.77	1.60	1.42	1.28	25BQ6GA/25CU6	2.17	1.96	1.74	1.57	117N7GT	6.42	5.79	5.14	4.63
15HB6	1.92	1.73	1.54	1.39	25BQ6GTB	2.17	1.96	1.74	1.57	117P7GT	6.42	5.79	5.14	4.63
15KY8A	2.37	2.14	1.90	1.71	25BQ6GTB/25CU6	2.20	1.98	1.76	1.58	117Z3	2.25	2.02	1.80	1.62
15LE8	3.82	3.44	3.06	2.75	25C5	1.10	.99	.88	.79	117Z6GT	3.35	3.01	2.68	2.41
16A8	1.47	1.33	1.18	1.06	25CA5	1.80	1.62	1.44	1.30	PL500/27GB5	1.85	1.66	1.48	1.33
16AQ3/XY88	1.35	1.21	1.08	.97	25CD6GB	2.87	2.59	2.30	2.07	5879	1.92	1.73	1.54	1.39
16GK6	1.52	1.37	1.22	1.10	25CU6/25GQ6GA	2.17	1.96	1.74	1.57	6973	2.12	1.91	1.70	1.53
16GY5	2.42	2.18	1.94	1.75	25CU6/25BQ6GTB	2.20	1.98	1.76	1.58	7025	1.40	1.26	1.12	1.01
17AX3	1.30	1.17	1.04	.94	25DN6	2.97	2.68	2.38	2.14	7027A	3.37	3.04	2.70	2.43
17AX4GTA	1.52	1.37	1.22	1.10	25EC6	3.07	2.77	2.46	2.21	7189	1.42	1.28	1.14	1.03
17AY3A	1.32	1.19	1.06	.95	25EH5	1.45	1.30	1.16	1.04	7199	2.22	2.00	1.78	1.60
17BE3	1.45	1.30	1.16	1.04	25F5A	1.92	1.73	1.54	1.39	7247	1.60	1.44	1.28	1.15
17BF11	2.27	2.05	1.82	1.64	25L6GT	1.47	1.33	1.18	1.06	7355	1.55	1.39	1.24	1.12
17BH3	1.42	1.28	1.14	1.03	25W4GT	1.27	1.15	1.02	.92	7408	1.67	1.51	1.34	1.21
17BQ6GTB	2.60	2.34	2.08	1.87	25ZGT/27GB5/PL500	1.62	1.46	1.30	1.17	7543	1.45	1.30	1.16	1.04
17BS3A	1.67	1.51	1.34	1.21	27J85A	3.65	3.28	2.92	2.63	7581A	2.27	2.05	1.82	1.64
17BZ3	1.45	1.30	1.16	1.04	32ETS7	1.20	1.08	.96	.86	7591A	1.40	1.26	1.12	1.01
17CS	1.10	.99	.88	.79	33GT7	3.47	3.13	2.78	2.50	7685A	2.20	1.98	1.76	1.58
17C9	3.57	3.22	2.86	2.57	33GY7	3.02	2.72	2.42	2.18	7734/6GE8	2.72	1.15	1.02	.92
17CK3	1.30	1.17	1.04	.94						7868	1.92	1.73	1.54	1.39
17CU5	1.17	1.06	.94	.85						8136	1.27	1.15	1.02	.92
17DA	1.52	1.37	1.22	1.10						8084	1.97	1.78	1.58	1.42
17DE4	1.80	1.44	1.28	1.15						8417	2.82	2.54	2.21	2.03
17DM4A	1.52	1.37	1.22	1.10										
17DQ6B	Use 17GW6/17DQ6B													
17EW8	1.37	1.24	1.10	.99										

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Stk. No.	Type	Width	NET	Stk. No.	Type	Width	NET
28F977	CF-100	17 ¹ / ₂ "	5.35	28F936	CF-600*	2 1/4"	8.60
28F934	CF-200*	13 ¹ / ₆ "	6.20	28F937	CF-700	1 7/8"	5.80
28F978	CF-300	31 ¹ / ₂ "	5.80	28F938	CF-800	2 3/8"	5.80
28F935	CF-400*	11 ¹ / ₂ "	7.70	28F939	CF-900	3 3/4"	5.35
28F979	CF-500	1 3/8"	6.20				

HEAT DISSIPATING CONNECTORS

Size indicates conductor diameter.

Stk. No.	Type	Size	NET	Stk. No.	Type	Size	NET
28F980	HR-1	.055	1.10	28F983	HR-6	.370	1.20
28F981	HR-2	.065	1.20	28F984	HR-7	.130	1.85
28F982	HR-3	.075	1.20	28F003	HR-8	.578	1.85
28F000	HR-4	.105	1.20	28F004	HR-9	.572	2.80
28F001	HR-5	.130	1.20	28F005	HR-10	.514	1.85

CHIMNEYS FOR AIR SYSTEM SOCKETS

Stk. No.	Type	NET	Stk. No.	Type	NET
38F997	SK-406 FOR 4-400A-4-250A	6.50	38F991	SK-806 FOR 4CX1000A	8.50
	4-125A-4006			SK-906 FOR 4X500A	
38F998	SK-506 FOR 4-100A-4006	12.00			
38F999	SK-606 FOR 4X150A/4006 4X150A&D 4X250B 4X250F-4CX250B	.75			

VACUUM SWITCHES AND COILS

Stk. No.	Type	NET	Stk. No.	Type	NET
38F261	VS-2	28.50	38F263	24V coil	10.25
38F262	12V coil	10.25			

AIR SYSTEM SOCKETS

Stk. No.	Type	NET	Stk. No.	Type	NET
38F992	SK-300, FOR 4CX5000A	103.00	38F248	SK-710 FOR 4CX300A	36.40
38F993	SK-400, FOR 4-400A		38F249	SK-740, FOR 4CN15A 4CX300A	
38F994	SK-500, FOR 4-1000-A-4001	24.30	38F250	SK-760 FOR 4CN15A-4CX300A	10.70
38F995	SK-600, FOR 4X250F- 4X150A/400 4X150D-4X250B 4CX250B- 4W300B	11.50	38F251	SK-770, FOR 4CN-15A, 4CX300A Screen pin grounded	10.70
38F996	SK-610, FOR 4X150D- 4X150A/4011 4CX250B-4X250B 4X250F-4W300B		38F990	SK-800B FOR 4CX1000A	
	SK-700 4CX300A	12.00	38F252	SK-810B FOR 4CX1000A	54.00
38F247		36.40	38F253	SK900 FOR 4X500A	56.00
					68.50

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3 1/2", 4 1/2" & 5 1/2" models with air-delivery from 50 to 300 CFM. Universal 4 1/8" mounting on all 4 1/2" models. Conforms to applicable portions of Mil Specs and U/L standards. One year warranty against defects in workmanship and material.

3 1/2" INDUCTION TYPES (58-65 CFM) SPECIFICATIONS

Stk. No.	Mod.	Cap.	V.	Cy.	CFM	RPM	W.	Weight	1-9	10-24	25-49
57F1000	3000	4 mfd	115	50/60	58/65	2800/3200	14/15	1 lb. 2 oz.	24.95	23.95	22.45
57F1002	3050	1 mfd	220	50/60	58/65	2800/3200	14/15	1 lb. 2 oz.	24.95	23.95	22.45

4 1/2" INDUCTION TYPES (50-125 CFM) SPECIFICATIONS

Stk. No.	Mod.	Cap.	V.	Cy.	CFM	RPM	W.	Weight	1-9	10-24	25-49
57F1004	100A	6 mfd	115	50/60	100/125	2900/3400	25	2 lb. 10 oz.	29.95	26.95	19.95
57F1006	1100	.75 mfd	115	400	100	3200	33	2 lb. 10 oz.	39.95	35.95	19.95
57F1007	1200	4 mfd	115	50/60	50/60	1450/1700	20	2 lb. 10 oz.	29.95	26.95	25.49
57F1008	1200	6 mfd	115	50/60	50/60	1450/1700	20	2 lb. 10 oz.	29.95	26.95	23.95
57F1009	1300	2 mfd	220	50/60	110/125	2900/3400	25	2 lb. 10 oz.	29.95	26.95	31.95
57F1011	2000	4 mfd	115	50/60	110/130	2900/3500	25	2 lb. 1 oz.	29.95	26.95	23.95
57F1013	2050	2 mfd	220	50/60	116/134	2900/3500	26	2 lb. 1 oz.	29.95	26.95	23.95

4 1/2" SHADED-POLE TYPES (90-105 CFM) SPECIFICATIONS

Stock No.	Mod.	V.	Cy.	CFM	RPM	W.	Weight	1-9	10-24	25-49	50-99	100-499
57F1015	1500	115	50/60	90/105	2850/3400	27/25	2 lb. 10 oz.	13.70	12.30	10.95	9.60	8.90
57F1017	1550	220	50/60	90/105	2850/3400	27/25	2 lb. 10 oz.	13.70	12.30	10.95	9.60	8.90
57F1019	2500	115	50/60	95/115	2850/3400	27/25	2 lb. 1 oz.	13.70	12.30	10.95	9.60	8.90
57F1021	2550	220	50/60	95/115	2850/3400	27/25	2 lb. 1 oz.	13.70	12.30	10.95	9.60	8.90

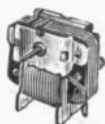
5 1/2" SHADED-POLE TYPES (1260-300 CFM) SPECIFICATIONS

Stock No.	Mod.	V.	Cy.	CFM	RPM	W.	Weight	1-9	10-24	25-49	50-99	100-499
57F1023	6500	115	60	300	3000	54	2 lb. 7 oz.	29.95	26.95	23.95	20.95	19.45
57F1024	6550	50	50	260	2700	45	2 lb. 7 oz.	29.95	26.95	23.95	20.95	19.45

BARBER-COLMAN

TUBE COOLING FAN

Model DYAB617-2. High speed motor and fan for cooling power tubes and boosting current ratings of vacuum capacitors. Shaded Pole motor is not radio-interfering. Size: 2 1/4" x 2 3/8" x 1 1/8". Shaft 1/8" dia. For 110v. 50-60 cycles AC. Wt. 1 lb.

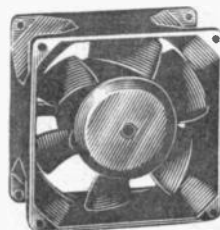


Stock No.	Model	1-9	10-24	25-49
28F908	DYAB617-3	6.08	5.25	5.01

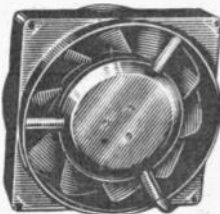
5 1/2" Models
6500, 6550



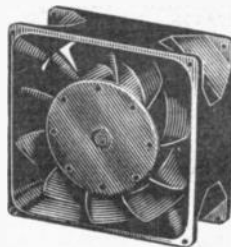
3 1/2" Models
3000, 3050



4 1/2" Models
1000A, 1100,
1200, 1300



4 1/2" Models
2000, 2050



IMC Magnetics Corp. Fans & Motors



THE "BOXER" — LOW-BUDGET, TOP QUALITY FAN

Aerodynamically designed impeller delivers 115 cfm free air from any operating position, 15% more than any other comparable fan! Only 4 1/16" square and 1 1/2" deep with rugged, all metal frame for greater heat dissipation and longer fan life. Has heavy-duty terminals, easily accessible, can be re-soldered as often as desired. Positive, shock and vibration proof mounting. Extra large diameter bearing lubricated for life. Reversible air-flow, just flip fan for change of direction. Two models for every application: Boxer Standard and Boxer Ball Bearing for longer life. Up to 5 years at +70°F for standard, and 25,000 hours at 175°F for ball bearing. Lightweight 1 lb., 8 oz. Shpg. wt. 2 lbs.



The "Boxer"

Stock No.	Type	1-9	10-24	25-49	50-99	100-249
60F1600	Standard Fan WS2107F	14.60	13.20	11.85	10.50	9.80
60F1601	Screen Model	16.00	14.60	13.25	11.80	11.10
60F1602	Filter Model	17.20	15.80	14.45	13.00	12.30
60F1603	Ball Bearing Fan BS2107F	21.50	20.40	18.70	16.40	15.80
60F1604	Screen Model	22.90	21.80	20.10	17.70	17.10
60F1605	Filter Model	24.10	23.00	21.30	18.90	18.30

ACCESSORIES FOR ALL MODELS

60F1623 Plug & Cord Net.....	.60	60F1606 Filter Kit	3.15
60F1624 Finger Guard Net.....	.75	60F1607 Screen Kit	1.65
60F1637 Slim Line Filter.....	1.50	60F1638 Slim Line Screen	1.50

LO SPEED BOXER

For many industrial and commercial applications where low noise operation is essential, such as audio equipment. Free air delivery 66 cfm. Rated for 115 VAC, 1 phase, 50/60 cps. Other specifications same as above.

Stk. No.	Type	1-9	10-24	25-49	50-99	100-249
60F1625	Standard Fan WS2107F-2	15.00	14.10	12.75	11.30	10.55
60F1626	Screen Model	16.40	15.50	14.15	12.60	11.85
60F1627	Filter Model	17.60	16.70	15.35	13.80	13.05
60F1628	Ball Bearing Fan BS2107F-2	21.90	21.30	19.80	17.20	16.55
60F1629	Screen Model	23.30	22.70	21.00	18.50	17.85
60F1630	Filter Model	24.50	23.90	22.20	19.70	19.05

"BOXER" — AIR BEARING FANS

Air bearing fan offers unparalleled life and reliability! The rotor operates on a cushion of air so that there is no metal-to-metal contact. Since there are no oils or greases acting as lubricants, high and low temperatures have no effect upon the fan's performance. Gives long-life performance at all temperature levels between -60°F and 175°F. Though designed primarily for use in air, the Boxer-air bearing operates equally well in most gases over a wide range of pressures. Lo Speed model is also available for use where quiet operation is essential and extremely long life a must. Free air capacity is 115 cfm. Input is 115 vac. Operation is 50/60 cps, single phase, 0.2 amps current. Lo Speed has free air delivery of 66 cfm. Current at 60 cps. is 0.1 amp. 4 1/16" x 4 1/16" x 1 1/2". Shpg. wt. 2 lbs.

Stock No.	Type	1-9	10-24	25-49	50-99	100-249
60F1631	Basic Fan GS 2107F	22.45	21.75	20.55	18.75	17.95
60F1632	Screen Model	23.85	23.15	21.95	20.05	19.25
60F1633	Filter Model	25.05	24.35	23.15	21.25	20.45
60F1634	Basic Lo Speed Fan GS2107F-2	22.85	22.65	21.45	19.55	18.70
60F1635	Screen Model	24.25	24.05	22.85	20.85	20.00
60F1636	Filter Model	25.45	25.25	24.05	22.05	21.20

3 1/4" IMCool 300 THIN PROFILE TUBEXIAL FANS

Thin tub-axial fans for use where high cooling capacity, lightweight and space considerations are critical. For mounting airmovers on panels of enclosures with minimum projection into the working area. 3 1/4" Dia. with only 1 1/4" depth. Can be mounted in any position for continuous duty. Stainless steel shafts and die cast aluminum housing, weighs only 8 oz. Input 115 volts. Cap. required: 220 VAC. 400 cycles except #60 cycles *200 volts. Shpg. wt. 1 lb.

Stock No.	Type	cfm	Phase	Cap. Required	1-4	5-9	10-24	25-49	50-99
60F1608	BC1305F-3	70	1	0.15 mfd.	58.00	52.00	49.50	44.25	42.00
60F1609	BC1305F-4	54	1	0.15 mfd.	58.00	52.00	49.50	44.25	42.00
60F1610	BC1305F-5	108	1	0.5 mfd.	58.00	52.00	49.50	44.25	42.00
60F1611	BT1305F-5	108*	3	None	58.00	52.00	49.50	44.25	42.00
60F1612	BC1305F-7	18†	1	1 mfd.	61.00	55.00	52.50	47.25	45.00

IMCair PROPELLER FANS

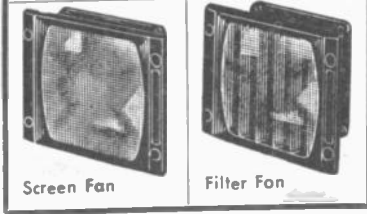
For applications where high air flow and low noise operation is required. Precision-built shaded pole motor. Flush mounting with shaft in any operating position. All single phase. Size: Model FE6, F18, 10" dia. x 2 1/2" deep—5 3/16" with motor clearance. Models FE6, F16, 1/8" dia. x 2" deep—4 1/2" with motor clearance. For operation from 115 volt, 50-60 cycles. Shpg. wt. Models FE6 and F16: 3 lbs. Models FE8 and F18: 5 1/2 lbs.

Stock No.	Type	cfm	Amps	1-4	5-9	10-24	25-49	50-99
60F1613	FE6 Exhaust	205	6	15.25	13.75	12.95	12.25	11.45
60F1614	F16 Intake	225	6	15.25	13.75	12.95	12.25	11.45
60F1615	FE8 Exhaust	485	1	26.35	24.75	23.75	21.05	19.75
60F1616	F18 Intake	485	1	26.35	24.75	23.75	21.05	19.75

IMCair CENTRIFUGAL BLOWERS — Models B2 and B3

Designed for applications where low air flows are required at relatively high pressures. Compactly designed, metal housings will not distort under heat as do their plastic counterpart. Continuous duty operation, single phase shaded pole motor with bearing life of 10,000 hours at 125° F. Size: B2, 3 3/8" h. x 4 3/4" w. x 3 1/2" d. B3, 5 5/8" h. x 5 7/8" w. x 5" d. For operation from 115 volts, 50-60 cycles. Shpg. wt.: B2, 2 1/2 lbs.; B3, 3 1/2 lbs.

Stock No.	Blower Type	cfm	Amps	1-4	5-9	10-24	25-49	50-99
60F1617	B2	24	0.45	13.75	12.75	11.90	11.40	10.90
60F1618	B3	87	0.5	26.35	24.75	23.75	22.75	21.80

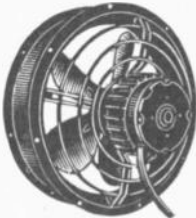


Screen Fan

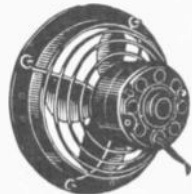
Filter Fan



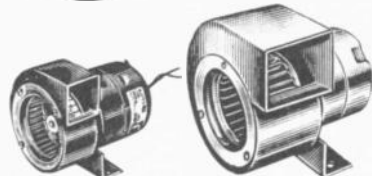
IMCool 300



FE8
F18



FE6
F16



B2 Blower

B3 Blower

HI FI BOXER

Type WS 2107-9. Very low noise level for hi-fi equipment. Free air delivery 50 cfm; will exhaust avg. enclosure 10-30 times per minute. Metal housing resists breakage and acts as efficient heat sink, adding life to motor and bearing. Impeller aerodynamically efficient 5-blade design. 115 VAC, 1 phase, 60 cycles. Other specs. same as model above. Supplied with mounting kit, instructions for universal mounting system. Fits any cabinet.

60F1639. NET	14.85
60F1640. Screen Model	16.50
60F1641. Filter Model	18.00

Industrial & Special Purpose Tubes

Abbreviation	Manufacturer	Abbreviation	Manufacturer	Abbreviation	Manufacturer	Abbreviation	Manufacturer
AME	Amperex	GL	Genalex Gold Lion	PEN	Penta-Labs	THE	Thermosen
COS	Cossor	MUL	Mullard	RAY	Raytheon	VIC	Victoreen
DUM	Dumont	10M	Mullard "10M"	RCA	Radio Corpora-	WES	Westinghouse
EIM	Eimac	NE	National Electr.	SYL	sylvania		
GE	General Electric	NU	National Union				

Tube Type	Mfr.	1-4	5-18	19-49	50-99
PL-R1	RAY	33.00	.....	.....	.....
OA2	AME	1.32	1.25	1.19	1.12
OA2	GE	1.32	1.25	1.19	1.12
OA2	RAY	1.32	1.25	1.19	1.12
OA2	RCA	1.32	1.25	1.19	1.12
OA2	SYL	1.32	1.25	1.19	1.12
OA2	WES	1.32	1.25	1.19	1.12
OA2WA	RAY	3.35	3.20	3.00	2.86
OA2WA	RCA	3.35	3.20	3.00	2.86
OA2WA	WES	3.35	3.20	3.00	2.86
OA2WA	SYL	3.35	3.20	3.00	2.86
OA3	GE	1.54	1.46	1.38	1.30
OA3	RCA	1.54	1.46	1.38	1.30
OA3	SYL	1.54	1.46	1.38	1.30
OA3/VR75	WES	1.54	1.46	1.38	1.30
OA3A	RCA	1.54	1.46	1.38	1.30
OA3A/OA3	RAY	1.54	1.46	1.38	1.30
OA4G	GE	1.86	1.76	1.67	1.58
OA4G	RCA	1.86	1.76	1.67	1.58
OA5	SYL	6.96	.....	.....	.....
OB2	AME	1.37	1.30	1.24	1.16
OB2	GE	1.37	1.30	1.24	1.16
OB2	RAY	1.37	1.30	1.24	1.16
OB2	RCA	1.37	1.30	1.24	1.16
OB2	SYL	1.37	1.30	1.24	1.16
OB2	WES	1.37	1.30	1.24	1.16
OB2WA	RAY	2.40	2.28	2.16	2.04
OB2WA	RCA	2.40	2.28	2.16	2.04
OB2WA	SYL	2.40	2.28	2.16	2.04
OB2WA	WES	2.40	2.28	2.16	2.04
OB3	GE	2.35	2.23	2.12	2.00
OB3	SYL	2.35	2.23	2.12	2.00
OB3/VR90	WES	2.35	2.23	2.12	2.00
OB3A/OB3	RAY	2.35	2.23	2.12	2.00
OC2	RAY	1.50	1.42	1.35	1.28
OC2	RCA	1.50	1.42	1.35	1.28
OC3	GE	1.50	1.42	1.35	1.28
OC3	RCA	1.50	1.42	1.35	1.28
OC3	SYL	1.50	1.42	1.35	1.28
OC3/VR105	WES	1.50	1.42	1.35	1.28
OC3A	RCA	1.50	1.42	1.35	1.28
OC3A/OC3	RAY	1.50	1.42	1.35	1.28
OC3W	TUN	6.65	6.28	5.98	5.65
OD3	GE	1.44	1.37	1.30	1.22
OD3	RCA	1.44	1.37	1.30	1.22
OD3	SYL	1.44	1.37	1.30	1.22
OD3/VR150	WES	1.44	1.37	1.30	1.22
OD3A	RCA	1.44	1.37	1.30	1.22
OD3A/OD3	RAY	1.12	1.06	1.01	.95
OD3W	TUN	6.65	6.28	5.98	5.65
OE3	AME	7.25	6.85	6.52	5.80
OE3/85A1	AME	7.25	6.85	6.52	5.80
OG3	AME	2.30	2.19	2.07	1.95
1AD4	RAY	2.80	2.66	2.52	.....
1A2A	RAY	4.50	4.25	4.05	3.82
1AG4	RAY	7.30	6.90	6.57	6.20
1AG5	RAY	2.05	1.94	1.84	1.74
1AH4	TUN	1.41	1.33	1.27	1.20
1AK4	RAY	7.30	6.90	6.57	6.20
1B85	VIC	12.13	.....	.....	.....
1C21	RCA	4.15	3.94	3.74	3.52
1CP1	COS	.....	(Use COS	1CP31)	.....
1CP31	COS	29.25	27.25	25.50	.....
1DP1	NAT	20.00	.....	.....	.....
1DP11	NAT	21.00	.....	.....	.....
1D21/SN4	SYL	7.30	7.10	6.90	.....
1EP1	RCA	25.75	24.46	23.18	21.89
1EP11	RCA	28.10	26.55	25.29	23.88
1L4	RCA	1.50	1.43	1.35	1.28
1P21	RCA	54.35	51.36	48.92	46.20
1P22	RCA	15.80	15.01	.....	.....
1P23	RAY	3.32	3.14	2.99	2.82
1P28	RCA	21.50	20.32	19.39	.....
1P28A	RCA	27.90	26.37	.....	.....
1P29	RCA	7.65	7.23	6.89	.....
1P30	RAY	7.08	6.69	6.37	6.02
1P37	RCA	6.50	6.14	5.85	5.53
1P39	SYL	2.50	2.38	2.25	2.13
1P39	RCA	3.15	2.98	2.84	.....
1P40	GE	4.10	3.87	3.69	3.49
1P40	RCA	4.90	4.54	4.32	4.08
1P41	RCA	6.00	5.67	5.40	5.10
1P42	RCA	17.95	16.96	16.16	15.26
1Z2	TUN	8.00	7.56	7.20	6.80
VG1A/1	DUM	29.40	27.78	26.46	24.99
VG1A/2	DUM	26.25	24.81	23.62	22.31

Tube Type	Mfr.	1-4	5-18	19-49	50-99
VG1A/3	DUM	26.25	24.81	23.62	22.31
VG1A/4	DUM	26.25	24.81	23.62	22.31
2-01C	EIM	18.00	17.10	.....	.....
2-25A	EIM	27.00	25.52	.....	.....
2-50A	EIM	32.00	30.24	.....	.....
2-450A	EIM	138.00	.....	.....	.....
2A1A	RCA	19.00	17.96	17.10	16.24
2AS15A	THE	10.00	9.00	8.00	7.00
2BP1	RCA	20.10	18.95	18.09	17.09
2BP1	SYL	20.10	18.95	18.09	17.09
2BP11	RCA	21.50	20.32	19.35	18.27
2C36	SYL	50.00	.....	.....	.....
2C39A	EIM	20.75	19.61	18.68	17.64
ML-2C39A	RAY	20.75	19.61	18.68	17.64
2C39A	RCA	20.75	19.61	18.68	17.64
2C39A	SYL	20.75	19.61	18.68	17.64
2C39A	WES	20.75	19.61	18.68	17.64
2C39A/V1	RCA	20.75	19.61	18.68	17.64
2C39B	GE	32.15	30.28	28.93	27.33
2C39WA	EIM	29.80	27.48	26.10	24.65
ML-2C39WA	RAY	20.75	19.61	18.68	17.64
2C39WA	RCA	29.00	27.40	26.10	24.65
2C39WA	SYL	20.75	19.61	18.68	17.64
2C40A	GE	34.00	32.30	30.60	.....
2C40	RCA	29.30	27.69	26.37	24.90
2C40	SYL	29.30	27.69	26.37	24.90
2C40A	RCA	34.00	32.30	30.60	.....
2C43	GE	26.95	25.60	.....	.....
2C43	RCA	26.95	25.60	.....	.....
2C51	TUN	3.65	3.45	3.28	3.10
2C53	N.U.	9.15	8.85	8.40	.....
2D21	AME	1.29	1.23	1.16	1.10
2D21	GE	1.29	1.23	1.16	1.10
2D21	RAY	1.29	1.23	1.16	1.10
2D21	RCA	1.29	1.23	1.16	1.10
2D21	SYL	1.29	1.23	1.16	1.10
2D21	WES	1.29	1.23	1.16	1.10
2D21W	RCA	2.90	2.76	2.61	2.47
2E24	RCA	6.15	.....	.....	.....
2E26	RCA	3.75	3.56	3.38	3.19
2E26	SYL	3.75	3.56	3.38	3.19
2E26	WES	3.75	3.56	3.38	3.19
2E31	RAY	7.30	6.90	6.57	6.20
2E32	RAY	7.30	6.90	6.57	6.20
2F21	RCA	300.00	.....	.....	.....
2GK5	AME	1.93	1.82	1.74	1.64
2J42	SYL	120.00	.....	.....	.....
RK2155	RAY	306.00	.....	.....	.....
2K25	RAY	38.50	.....	.....	.....
2K26	RCA	65.00	.....	.....	.....
2K28	RAY	88.25	.....	.....	.....
2K48	RAY	105.50	.....	.....	.....
2SM15A	THE	12.00	11.00	9.60	8.40
TBL2/400	AME	250.00	.....	.....	.....
TBL2/500	AME	270.00	.....	.....	.....
2X2A	GE	3.85	3.64	3.47	3.27
2X2A	RCA	3.85	3.64	3.47	3.27
2X2A	SYL	3.85	3.64	3.47	3.27
3-400Z/8163	EIM	34.00	.....	.....	.....
3-1000Z/8184	EIM	78.00	.....	.....	.....
3A4	RCA	1.25	1.19	1.13	1.06
3A5	RAY	2.03	1.93	1.83	1.73
3A5	RCA	2.03	1.93	1.83	1.73
3ACP1A	DUM	43.40	41.01	39.06	36.89
3ACP1A	SYL	43.40	41.01	39.06	36.89
3ADP1	SYL	61.60	58.21	55.44	52.36
3A1A	RCA	27.20	25.70	24.48	23.12
3AQ1	RCA	24.20	22.86	20.79	19.64
3AS1	SYL	40.85	38.60	36.77	34.72
3AYP1/3XP1	DUM	63.00	.....	.....	.....
3B4	RAY	3.80	3.54	3.42	3.23
3B4WA	RAY	5.85	5.53	5.26	4.97
3BWA	RCA	5.85	5.53	5.26	4.97
3B22/1C	WES	10.85	10.25	9.76	9.22
3B24W	GE	11.25	10.69	.....	.....
RK3B24W	RAY	10.55	9.97	9.76	.....
3B24WA	RAY	10.95	10.40	9.87	.....
3B25	RCA	9.15	8.59	8.24	7.78
3B28	RCA	7.00	6.62	6.30	5.95
3B28	WES	6.60	6.23	5.94	5.61
3BGP1	SYL	51.65	48.80	46.48	43.90
3BMP1	SYL	55.95	52.87	50.35	47.56
3BP1A	RCA	24.70	23.34	22.23	21.00
3BP1A	SYL	33.05	31.23	29.75	28.09
3C23	GE	11.98	11.38	10.78	10.18

Industrial & Special Purpose Tubes

Abbreviation	Manufacturer	Abbreviation	Manufacturer	Abbreviation	Manufacturer	Abbreviation	Manufacturer
AME	Amperelex	GL	Genelux Gold Lion	PEN	Penta-Labs	THE	Thermosen
COS	Cossar	MUL	Mullard	RAY	Raytheon	TUN	Tung-Sol
DUM	Dumont	10M	Mullard "10M"	RCA	Radio Corporation of America	VIC	Victoreen
EIM	Eimac	NE	National Electr.	SYL	Sylvania	WES	Westinghouse
GE	General Electric	NU	National Union				

Tube Type	Mfr.	1-4	5-18	19-49	50-99	Tube Type	Mfr.	1-4	5-18	19-49	50-99
NL-3C23	RCA	11.98	11.38	10.78	10.18	4CX1000K/8352	EIM	193.00	.....	.....	.....
3C23	RCA	11.98	11.38	10.78	10.18	4CX3000A/8169	EIM	420.00	.....	.....	.....
3C23	WES	11.98	11.38	10.78	10.18	4CX5000A/8170	EIM	495.00	.....	.....	.....
3C33	RCA	35.75	33.78	32.18	30.39	4CX5000A/8170	RCA	495.00	.....	.....	.....
3CPN10A5/7815	EIM	30.75	29.06	27.67	26.14	4CX5000A/8170	SYL	495.00	.....	.....	.....
3CPN10A5	RAY	30.75	29.06	27.67	26.14	ML-4CX5000A	RAY	495.00	.....	.....	.....
3CPN10A5/7815	SYL	30.75	29.06	27.67	26.14	ML-4CX5000R	RAY	705.00	.....	.....	.....
3CX100A5/7289	EIM	26.50	25.27	.....	.....	4CX10000D/8171	EIM	550.00	.....	.....	.....
3CX100A5	RAY	30.75	29.06	.....	.....	4CX10000D/8171	RCA	550.00	.....	.....	.....
3CX2500A3	EIM	200.00	.....	.....	.....	ML-4CX10000D	RAY	550.00	.....	.....	.....
3CX2500F3	EIM	205.00	.....	.....	.....	ML-4CX15000A	RAY	695.00	.....	.....	.....
3CX3000A1	EIM	210.00	.....	.....	.....	4CX15000A/8281	RCA	695.00	.....	.....	.....
3CX300F1	EIM	220.00	.....	.....	.....	PL-4D21A	PEN	39.00	36.85	.....	.....
3D22A	RCA	34.30	32.41	.....	.....	PL-4E27A	PEN	45.00	42.75	.....	.....
3E29	RCA	21.50	20.32	19.35	.....	4E27A/5-125B	EIM	45.00	42.75	.....	.....
3ER5	AME	1.65	1.56	1.48	1.40	4E27A/5-125B	RCA	45.00	42.75	.....	.....
3FP7A	SYL	34.30	32.41	30.87	29.15	4EH7	AME	1.78	1.68	1.60	1.51
3GX5	AME	1.93	1.82	1.74	1.64	4EJ7	AME	1.78	1.68	1.60	1.51
NL-C3J/AL-No	NE	18.40	17.39	16.56	15.64	4GK5	AME	1.95	1.84	1.75	1.66
NL-C3J/L	NE	14.20	13.42	12.78	12.07	4PR60B/8252	EIM	107.00	.....	.....	.....
C3JL	RCA	14.20	13.42	12.78	12.07	4PR60B/8252	SYL	107.00	.....	.....	.....
3IP1	DUM	42.70	40.35	.....	.....	4PR65A/8187	EIM	43.00	40.64	.....	.....
3IP1	RCA	25.75	24.33	23.18	21.89	4W300B/8249	EIM	57.00	53.87	.....	.....
3IP1	SYL	30.75	29.06	27.67	.....	4W2000A/8173	EIM	2030.00	.....	.....	.....
3IP1A	DUM	42.70	40.35	.....	.....	4W2000A/8173	SYL	2030.00	.....	.....	.....
3KP1	DUM	36.40	34.40	.....	.....	4X150A/7034	AME	23.15	21.99	.....	.....
3KP1	RCA	27.90	26.51	25.11	.....	4X150A/7034	EIM	23.15	21.99	.....	.....
3KP1	SYL	31.60	29.86	28.44	.....	4X150A/7034	RCA	25.00	23.75	.....	.....
3RP1	DUM	35.70	33.74	.....	.....	4X150D/7035	AME	27.90	26.37	.....	.....
3RP1	RCA	17.95	16.96	16.16	15.26	4X150D/7035	EIM	29.00	27.41	.....	.....
3RP1	SYL	27.05	25.56	24.35	22.99	4X150D/7035	RCA	27.90	26.37	.....	.....
3RP1A	DUM	35.70	33.74	.....	.....	4X250B	EIM	35.60	33.64	32.04	30.21
3RP1A	RCA	27.65	26.13	.....	.....	4X250B	AME	33.50	31.66	30.16	28.48
3RP1A	SYL	32.00	30.24	.....	.....	4X250F	AME	35.65	33.69	32.08	30.30
3SP1	SYL	34.45	32.56	.....	.....	4X500A	AME	128.50	.....	.....	.....
3WP1	DUM	35.00	33.06	31.50	29.75	4X500A	RCA	128.50	.....	.....	.....
3WP1	RCA	30.05	28.40	.....	.....	4X500A	SYL	127.50	.....	.....	.....
3WP1	SYL	34.55	32.65	.....	.....	4X500A	EIM	127.50	.....	.....	.....
3WP2	DUM	35.00	33.08	31.50	29.75	4X500A	PEN	125.00	.....	.....	.....
3WP2	SYL	34.55	32.65	.....	.....	PL-4X500A	RAY	6.65	6.28	5.98	5.65
3WP2	SYL	34.55	32.65	.....	.....	5A6	.....	.....	.....	.....	.....
3X2500A3/8161	SYL	200.00	.....	.....	.....	5ABP1	RCA	35.75	.....	.....	.....
3X2500F3/8251	SYL	205.00	.....	.....	.....	5ABP1	SYL	39.55	.....	.....	.....
3X3000A1/8238	SYL	210.00	.....	.....	.....	5ABP1	DUM	42.00	39.69	.....	.....
3X3000F1/8239	RCA	215.00	.....	.....	.....	5ABP1AM	DUM	42.00	39.69	.....	.....
3X3000F1/8239	SYL	220.00	.....	.....	.....	5ADP1	DUM	42.00	39.69	.....	.....
4-65A/8165	AME	27.00	25.65	.....	.....	5ADP1	RCA	35.00	33.08	.....	.....
4-65A	EIM	27.00	25.65	.....	.....	5ADP1AM	DUM	47.60	44.98	.....	.....
4-65A/8165	RCA	27.00	25.65	.....	.....	5ADP2	DUM	42.00	39.69	.....	.....
PL-4-65A	RAY	27.00	25.65	.....	.....	5ADP2	SYL	39.55	37.37	35.60	33.62
4-125A	AME	36.00	34.20	32.40	30.60	5ADP7	DUM	42.00	39.69	.....	.....
4-125A	EIM	36.00	34.20	32.40	30.60	5ADP7	RAY	47.20	.....	.....	.....
4-125A/4D21	RCA	36.00	34.20	32.40	30.60	5ADP7	SYL	42.00	39.78	.....	.....
4-250A	AME	46.50	44.18	41.85	39.53	5ADP7A	SYL	45.30	42.81	40.77	38.51
4-250A	EIM	46.50	44.18	41.85	39.53	5ADP7AM	DUM	42.00	39.69	.....	.....
4-250A	RAY	46.50	44.18	41.85	39.53	5ADP7AM	DUM	42.00	39.69	.....	.....
4-250A/5D22	RCA	46.50	44.18	41.85	39.53	5ADP11	DUM	42.00	39.69	.....	.....
4-400A	AME	48.00	45.60	.....	.....	5ADP11AM	DUM	42.00	39.69	.....	.....
4-400A/8438	EIM	48.00	45.60	.....	.....	5AHP7	SYL	39.90	37.14	.....	.....
4-400A/8438	RCA	48.00	45.60	.....	.....	5AMPI	DUM	60.90	57.55	.....	.....
PL-4-400A/8438	PEN	48.00	45.60	.....	.....	5AMPIAM	DUM	60.90	57.55	.....	.....
4-1000A/8166	EIM	131.50	.....	.....	.....	5AQPIA	SYL	47.50	44.89	.....	.....
4-1000A/8166	RCA	131.50	.....	.....	.....	5AQPIA	DUM	55.30	52.26	.....	.....
PL-4-1000A/8166	PEN	131.50	.....	.....	.....	5AQPIAM	DUM	55.30	52.26	.....	.....
4B24/3C	WES	11.80	11.15	10.62	10.03	5AQP2	DUM	55.30	52.26	.....	.....
4B32	AME	13.50	12.76	12.15	11.48	5AQP2AM	DUM	55.30	52.26	.....	.....
4B32	TUN	12.60	11.91	11.34	10.71	5AQP7	DUM	55.30	52.26	.....	.....
4CN15A	EIM	58.50	55.28	52.65	49.73	5AQP7M	SYL	47.70	45.08	.....	.....
4CX250B/7203	AME	35.60	33.82	.....	.....	5AUP24	RCA	150.00	.....	.....	.....
4CX250B/7203	EIM	35.60	33.82	.....	.....	5AZP4	RCA	127.00	.....	.....	.....
4CX250B/7203	RCA	35.60	33.82	.....	.....	5BGp2	SYL	75.00	70.98	67.50	63.75
4CX250B/7203	RCA	35.60	33.82	.....	.....	5BGp2AM	DUM	80.50	76.07	72.45	.....
4CX250B/7203	SYL	35.60	33.82	.....	.....	5BHP2A	SYL	92.50	87.41	83.25	78.63
4CX250F/7204	AME	39.35	37.19	.....	.....	5BHP7A	SYL	92.50	87.41	83.25	78.63
4CX250F/7204	RCA	39.35	37.19	.....	.....	5BHP7AM	DUM	80.50	76.07	72.45	.....
4CX250F/7204	SYL	39.35	37.19	.....	.....	5BP1A	RCA	34.90	32.98	31.41	29.67
4CX250K/8245	EIM	64.00	60.80	.....	.....	5BP1A	DUM	41.30	39.03	.....	.....
4CX250K/8245	SYL	64.00	60.80	.....	.....	5BP1A	SYL	34.90	32.98	31.41	29.67
4CX250R/7580W	AME	44.50	42.52	.....	.....	5CBP2	DUM	63.70	60.20	57.33	.....
4CX250R/7580W	EIM	44.50	42.50	.....	.....	5CPIA	RCA	37.90	.....	.....	.....
4CX300A/8167	EIM	54.00	51.30	.....	.....	5CPIA	SYL	37.90	.....	.....	.....
4CX300A/8167	RCA	58.50	55.28	.....	.....	5CP7A	DUM	51.10	.....	.....	.....
4CX300A/8167	SYL	58.50	55.28	.....	.....	5DBp2AM	DUM	64.40	.....	.....	.....
4CX350A/8321	EIM	48.50	46.08	.....	.....	5FP4A	RCA	31.45	.....	.....	.....
4CX350F/8322	EIM	51.50	48.67	.....	.....	5FP4A	SYL	35.00	33.08	31.50	29.75
4CX1000A/8168	EIM	181.00	.....	.....	.....	5FP7A	RCA	31.45	.....	.....	.....
4CX1000A/8168	RCA	181.00	.....	.....	.....	5LIPIAM	DUM	51.10	.....	.....	.....
4CX1000A/8168	SYL	181.00	.....	.....	.....	5R4GYB	RAY	2.03	1.93	1.83	1.73

Industrial & Special Purpose Tubes

Abbreviation	Manufacturer	Abbreviation	Manufacturer	Abbreviation	Manufacturer	Abbreviation	Manufacturer
AME	Amperex	GL	Genelex	PEN	Penta-Labs	THE	Thermosen
COS	Coscar	MUL	Mullard	RAY	Raytheon	TUN	Tung-Sol
DUM	Dumont	10M	Mullard "10M"	RCA	Radio Corporation of America	VIC	Victoreen
EIM	Eimcc	NE	National Electr.	SYL	Sylvania	WES	Westinghouse
GE	General Electric	NU	National Union				

Tube Type	Mfr.	1-4	5-18	19-49	50-99
5R4GYB	RCA	2.03	1.93	1.83	1.73
5R4GYB	SYL	2.03	1.93	1.83	1.73
5R4GYB	WES	2.03	1.93	1.83	1.73
5R4WGA	RAY	8.75	8.31	7.88	7.44
5R4WGA	TUN	8.75	8.27	7.88	7.44
5R4WGB	RAY	13.00	12.35	11.70	11.05
5R4WGB	TUN	2.03	1.93	1.83	1.73
SUP1	RCA	17.95	.....	.....	.....
SUP1	SYL	31.65	29.91	28.49	26.90
SUP7	RCA	28.25	24.81	.....	.....
5WP11	RCA	99.40	93.93	.....	.....
5Y3WGTA	SYL	4.05	3.83	3.64	.....
5ZP16	RCA	92.25	87.18	.....	.....
6AC7W	RCA	5.45	5.15	4.90	4.63
6AD4	SYL	3.40	3.21	3.06	2.89
6H6GWA	RAY	7.56	7.14	.....	.....
6AJ5	SYL	3.85	3.64	3.46	3.27
6AJ5	RAY	3.85	3.64	3.46	3.27
6AJ8	10M	2.65	2.50	2.39	2.25
6AK5WB	TUN	5.45	5.15	4.90	4.63
6AK6	RCA	1.40	1.32	1.26	1.19
6AN5	GE	4.20	3.97	.....	.....
6AN5	RAY	4.20	3.97	.....	.....
6AN5WA	RAY	10.80	10.21	.....	.....
6AQ5A	10M	2.15	2.03	1.93	1.83
6AR6	RAY	5.75	5.46	.....	.....
6AR6	TUN	5.75	5.46	.....	.....
6AS6	RAY	3.43	3.26	3.09	2.92
6AS6	RCA	3.43	3.26	3.09	2.92
6AS6	SYL	3.43	3.26	3.09	2.92
6AS6	WES	3.43	3.26	3.09	2.92
6AS7G	RCA	4.93	4.68	4.44	4.19
6AS7GA	GE	4.93	4.68	4.44	4.19
6AU6A	10M	2.05	1.94	1.84	1.74
6AU6WA	SYL	2.70	2.57	2.43	2.30
6AU6B	RCA	2.70	2.57	2.43	2.30
6AU6WB	SYL	2.70	2.57	2.43	2.30
6AV6A	10M	2.05	1.94	1.85	1.74
6BFLW	RAY	75.00	.....	.....	.....
6B16	RAY	75.00	.....	.....	.....
6BM6	RAY	75.00	.....	.....	.....
6BQ5A	10M	2.15	2.03	1.93	1.83
6C4W	RAY	2.52	2.38	2.27	2.14
6C21	EIM	99.00	93.56	89.10	79.05
6D4	GE	2.85	2.69	2.56	2.42
6D4	SYL	2.85	2.69	2.56	2.42
6D18	GE	1.80	1.70	1.62	1.53
6D18	RCA	1.80	1.70	1.62	1.53
6EU7	10M	2.25	2.22	2.11	2.00
6F4	RCA	14.40	13.61	12.96	12.24
6GK5	10M	2.40	2.27	2.16	2.04
6CH-1	WES	29.10	27.50	26.19	24.74
6H6WGT	TUN	8.20	7.75	7.38	6.97
6J4	RCA	4.02	3.82	3.60	3.42
6J4WA	RCA	5.60	5.29	5.04	4.76
6J4WA	SYL	5.60	5.29	5.04	4.76
6J6	10M	2.55	2.41	2.25	2.17
6J6A	10M	2.55	2.41	2.29	2.17
6J6WA	RCA	5.35	5.08	4.82	4.55
6J/SC21	RCA	28.10	26.70	.....	.....
NL-C6J/K-NE	NE	32.50	30.71	29.25	27.63
NL-C6J/KP	NE	29.45	27.83	26.50	25.03
6L4	RCA	8.40	7.94	7.56	7.14
6L6W	TUN	5.75	5.43	5.17	4.89
6Q5G	DUM	10.50	.....	.....	.....
6SJ7WGT	SYL	2.70	2.55	2.43	2.30
6SJ7Y	RCA	2.15	2.03	1.93	1.83
6SL7WGT	SYL	3.15	2.99	.....	.....
6SN7WGT	TUN	4.90	4.63	4.41	4.17
6SN7WGT	SYL	2.35	2.22	2.11	2.00
6SU7GYT	TUN	4.90	4.63	4.41	4.17
6T8A	10M	2.80	2.65	2.52	2.38
6V6GTY	SYL	1.45	1.37	1.30	1.23
6X4W	RAY	1.60	1.52	.....	.....
6X4W	RCA	1.60	1.52	.....	.....
6X4WA	SYL	2.85	.....	.....	.....
6K5WGT	SYL	1.55	1.46	1.39	1.32
7A1K7	SYL	8.15	7.70	7.33	6.93
7CP4	RCA	74.35	70.96	66.92	63.20
7BD4AM	DUM	58.70	53.58	51.03	.....
GL-7D21	GE	790.00	.....	.....	.....
7MP7	SYL	45.40	.....	.....	.....
7NP4	RCA	1085.00	.....	.....	.....
7TP4	RCA	75.80	71.63	.....	.....
7UP7	SYL	47.50	44.89	42.75	40.38
7VP1	RCA	31.45	.....	.....	.....

Tube Type	Mfr.	1-4	5-18	19-49	50-99
B8.780.67	AME	1.25	1.18	1.13	.85
B8.700.86	AME	.35	.33	.32	.25
8D21	RCA	2165.00	.....	.....	.....
8HP4	RCA	48.30	45.64	43.47	41.06
8KP4	SYL	34.90	32.98	31.41	29.67
9C21	RCA	1865.00	.....	.....	.....
9C25	RCA	1735.00	.....	.....	.....
10KP7	RAY	45.80	.....	.....	.....
10SP4	RCA	85.00	80.75	.....	.....
10SP4	SYL	69.15	65.35	62.24	58.78
12A6	RCA	3.36	3.19	3.02	2.86
12AV8	10M	1.85	1.84	1.76	1.66
12AT7WA	RAY	2.53	2.40	.....	.....
12AT7WA	RCA	2.53	2.40	.....	.....
12AT7WA	SYL	2.53	2.40	.....	.....
12A07A	10M	2.20	2.08	1.98	1.87
12AX7A	10M	2.20	2.08	1.98	1.87
12DW7	10M	2.55	2.41	2.29	2.17
12DW7	MUL	1.53	1.45	1.37	1.29
12SW7	RCA	1.49	1.41	1.34	1.27
12SX7GT	RCA	2.53	2.39	2.28	2.15
12SY7	RCA	2.67	2.52	2.40	2.27
1320	SYL	185.00	.....	.....	.....
14BAP4	RCA	36.25	34.26	32.62	30.81
17DWP4	RCA	25.65	24.24	23.08	21.80
17DWP4	SYL	29.90	28.26	26.91	25.42
KY21A	EIM	33.80	31.94	30.42	.....
NL-KY21A	NE	26.75	25.41	24.08	.....
RX21A	EIM	32.80	31.00	.....	.....
NL-RX21A	NE	25.75	24.46	.....	.....
25F	EIM	37.00	34.97	.....	.....
25T	SYL	28.50	27.08	.....	.....
26A6	RCA	3.70	3.50	3.33	3.15
26A7GT	RCA	7.70	7.28	6.93	6.55
26C6	RCA	3.05	2.88	2.74	2.59
26D6	RCA	3.05	2.88	2.74	2.59
ECC33	MUL	2.45	2.32	2.21	2.08
EL33/6AG6	MUL	2.00	1.89	1.80	1.70
EL34/6CA7	AME	2.60	2.47	2.34	.....
EL34/6CA7	MUL	2.60	2.47	2.34	.....
EL34/6CA7MP	AME	5.45	5.15	4.90	4.63
EL34/6CA7MP	MUL	5.45	5.15	4.90	4.63
EM34/6CD7	AME	1.95	1.84	1.75	1.66
G234/SAR4	AME	2.12	2.00	1.91	1.80
G234/SAR4	MUL	2.12	2.00	1.91	1.81
35T	EIM	41.00	38.75	.....	.....
EL37	AME	3.35	3.17	.....	.....
EL37	MUL	3.35	3.17	.....	.....
EL37MP	AME	6.90	6.52	6.21	5.87
EL37MP	MUL	6.90	6.52	6.21	5.87
EF50	MUL	3.08	2.91	2.77	2.62
54AVP	AME	160.00	.....	.....	.....
54UVP	AME	1600.00	.....	.....	.....
E55L/8233	AME	13.25	12.52	11.92	11.26
VX55	VIC	30.59	.....	.....	.....
56AVP	AME	320.00	.....	.....	.....
56CVP	AME	350.00	.....	.....	.....
56UVP	AME	550.00	.....	.....	.....
57AVP	AME	550.00	.....	.....	.....
58AVP	AME	495.00	.....	.....	.....
58UVP	AME	1980.00	.....	.....	.....
60AVP	AME	1600.00	.....	.....	.....
KT66	MUL	3.88	3.67	3.49	3.30
KT66-MP	MUL	8.43	7.97	7.59	7.17
DM70/1M3	AME	1.13	1.07	1.02	.96
Z70W/7709	AME	3.30	3.12	2.97	2.30
Z70U/7710	AME	1.95	1.84	1.76	1.35
Z71U/7711	AME	2.85	2.69	2.57	2.00
CEM75K	DUM	41.65	.....	.....	.....
CEM75N	DUM	38.08	.....	.....	.....
CEM75P	DUM	38.08	.....	.....	.....
75TH	EIM	43.00	40.64	38.70	36.55
75TL	EIM	43.00	40.64	38.70	36.55
EABC80	AME	1.80	.....	.....	.....
EABC80/6AK8	10M	2.80	2.65	2.52	2.38
EABC80/6AK8	MUL	1.88	.....	.....	.....
EC80/6Q4	AME	4.90	4.63	4.41	4.17
ECF80/6BL8	10M	3.05	2.88	2.74	2.59
ECF80/6BL8	AME	1.87	1.78	1.68	1.59
ECF80/6BL8	MUL	1.87	1.78	1.68	1.59
ECL80/6AB8	10M	2.75	2.60	2.47	2.34
ECL80/6AB8	MUL	1.63	1.54	1.47	1.39
EF80/6BX8	AME	1.53	1.45	1.38	1.30
EM80/6BR5	AME	1.50	1.42	1.35	1.28
EZ80/6V4	AME	.75	.71	.67	.64
EZ80/6V4	MUL	.75	.71	.67	.64

Industrial & Special Purpose Tubes

Abbreviation	Manufacturer	Abbreviation	Manufacturer	Abbreviation	Manufacturer	Abbreviation	Manufacturer
AME	Amperex	GL	Genelux Gold Lion	PEN	Penta-Labs	THE	Thermosen
COS	Cossor	MUL	Mullard	RAY	Raytheon	TUN	Tung-Sol
DUM	Dumont	10M	Mullard "10M"	RCA	Radio Corporation of America	VIC	Victoreen
EIM	Eimac	NE	National Electr.	SYL	Sylvania	WES	Westinghouse
GE	General Electric	NU	National Union				

Tube Type	Mfr.	1-4	5-18	19-49	50-99	Tube Type	Mfr.	1-4	5-18	19-49	50-99
PCF80/9A8	10M	3.25	3.07	2.92	2.76	90NB4/900V	AME	27.00	23.00	19.50	15.00
PCF80/9A8	AME	1.88	1.79	1.69	1.60	90C1	AME	2.25	2.13	2.02	.....
PCF80/9A8	MUL	1.88	1.79	1.69	1.60	DA90/1A3	AME	3.07	2.90	2.76	2.61
XCF80/4B18	AME	1.20	1.13	1.08	1.02	DCC90/3A5	AME	2.10	1.98	1.89	1.79
EC81/6R4	AME	3.95	3.73	3.55	3.36	EBC90/6AT6	AME	.90	.85	.81	.77
EC81/6R4	MUL	3.95	3.73	3.55	3.36	EBC90/6AT6	10M	2.00	1.89	1.80	1.70
ECC81/12AT7	10M	2.55	2.41	2.29	2.17	EBC90/6AT6	MUL	.90	.85	.81	.77
ECC81/12AT7	AME	1.43	1.35	1.29	1.22	EC90/6C4	10M	2.85	2.69	2.56	2.42
ECC81/12AT7	MUL	1.43	1.35	1.29	1.22	EC90/6C4	MUL	.88	.83	.79	.75
ECH81/6A18	AME	1.35	1.28	1.21	1.15	EH90/6CS6	AME	1.22	1.15	1.10	1.04
ECH81/6A18	MUL	1.35	1.28	1.21	1.15	EH90/6CS6	MUL	1.22	1.15	1.10	1.04
EM81/6DA5	AME	1.40	1.32	1.26	1.19	EK90/6BE6	10M	2.10	1.98	1.89	1.79
EY81/6R3	AME	1.25	1.18	1.12	1.06	EK90/6BE6	MUL	1.05	.99	.94	.89
EZ81/6CA4	AME	.98	.93	.88	.83	EK90/6BE6	AME	1.05	.99	.94	.89
EZ81/6CA4	MUL	.98	.93	.88	.83	EL90/6AQ5	10M	2.15	2.03	1.93	1.83
FG-81A	GE		Use GL5728			EL90/6AQ5	AME	1.00	.95	.90	.85
ECC82/12AU7	10M	2.20	2.08	1.98	1.87	EL90/6AQ5	MUL	1.00	.95	.90	.85
ECC82/12AU7	AME	1.15	1.09	1.03	.97	EL90/6AQ5MP	AME	2.35	2.22	2.12	2.00
ECC82/12AU7	MUL	1.15	1.09	1.03	.97	EZ90/6X4	AME	.80	.76	.72	.68
ECL82/6BM8	AME	1.45	1.38	1.30	1.23	EZ90/6X4	MUL	.80	.76	.72	.68
ECL82/6BM8	MUL	1.45	1.38	1.30	1.23	HBC90/12AT6	AME	.87	.82	.78	.74
ECL82MP/6BM8MP	MUL	3.40	3.21	3.06	2.89	HBC90/12AT6	MUL	.87	.82	.78	.74
PCF82/9U8	AME	1.55	1.46	1.39	1.32	HZ90/12X4	AME	.97	.92	.87	.83
UCL82/50BM8	AME	1.43	1.35	1.28	1.21	DAF91/1S5	AME	1.37	1.30	1.23	1.17
UCL82/50BM8MP	AME	3.20	3.02	2.88	2.72	DF91/1T4	AME	1.37	1.30	1.23	1.17
83	RCA	1.89	1.80	1.70	1.61	DK91/1R5	AME	1.45	1.37	1.31	1.23
ECC83/12AX7	10M	2.20	2.08	1.98	1.87	EAA91/6AL5	AME	.88	.83	.79	.75
ECC83/12AX7	AME	1.20	1.14	1.08	1.02	EB91/6AL5	10M	1.95	1.84	1.75	1.66
ECC83/12AX7	MUL	1.20	1.14	1.08	1.02	EBC91/6AV6	10M	1.95	1.84	1.75	1.66
ECH84/6JX8	AME	1.28	1.21	1.15	1.08	HBC91/12AV6	10M	1.95	1.84	1.75	1.66
ECL84/6DX8	10M	2.85	2.69	2.56	2.42	ECC91/6S6	10M	2.55	2.41	2.29	2.17
ECL84/6DX8	AME	1.45	1.37	1.30	1.23	DAF92/1U5	AME	1.22	1.15	1.10	1.04
EL84/6BQ5	10M	2.15	2.03	1.93	1.83	DF92/1L4	AME	1.60	1.51	1.44	1.36
EL84/6BQ5	AME	1.13	1.07	1.02	.96	DL92/3S4	AME	1.52	1.44	1.37	1.29
EL84/6BQ5	MUL	1.13	1.07	1.02	.96	DL93/3A4	AME	.87	.82	.78	.74
EL84/6BQ5MP	AME	2.53	2.39	2.28	2.15	EF93/6BA6	10M	2.00	1.89	1.80	1.78
EL84MP/6BQ5MP	MUL	2.53	2.39	2.28	2.15	EF93/6BA6	AME	.95	.90	.85	.81
EM84/6FG6	AME	1.50	1.42	1.35	1.28	EF93/6BA6	MUL	.95	.90	.85	.81
EY84/6374	MUL	2.65	2.50	2.38	2.25	EL94/3V4	AME	1.17	1.11	1.05	1.00
LCL84/10DX8	AME	1.45	1.37	1.30	1.23	EF94/6AU6	10M	2.05	1.94	1.84	1.75
PL84/15CW5	10M	2.50	2.36	2.25	2.13	EF94/6AU6	AME	.98	.93	.88	.83
PL84/15CW5	AME	1.33	1.26	1.20	1.13	EF94/12AU6	MUL	.98	.93	.88	.83
UL84/45B5	AME	1.28	1.21	1.15	1.09	HF94/12AU6	AME	1.00	.95	.90	.85
UL84/45B5MP	AME	2.95	2.79	2.65	2.51	DL95/3Q4	AME	1.67	1.58	1.50	1.42
XL84/8BQ5	AME	1.38	1.30	1.24	1.17	EC95/6ER5	10M	2.40	2.27	2.16	2.04
85A1/0E3	AME	7.25	6.85	.....	.....	EC95/6ER5	AME	1.78	1.68	1.60	1.51
85A2/0G3	AME	2.30	2.19	2.07	1.95	EC95/6ER5	MUL	1.78	1.68	1.60	1.51
ECC85/6AQ8	10M	2.40	2.27	2.15	2.04	EF95/6AK5	10M	3.25	3.07	2.92	2.76
ECC85/6AQ8	AME	1.50	1.42	1.35	1.28	EF95/6AK5	AME	2.20	2.08	1.98	1.87
ECC85/6AQ8	MUL	1.50	1.42	1.35	1.28	EF95/6AK5	MUL	2.20	2.08	1.98	1.87
ECL85/6GV8	AME	1.55	1.46	1.39	1.32	EL95/6DL5	10M	2.55	2.41	2.29	2.17
HCC85/17EW8	AME	1.30	1.23	1.17	1.11	EL95/6DL5	AME	1.48	1.40	1.33	1.26
PCC85/9AQ8	AME	1.43	1.35	1.29	1.22	EL95/6DL5	MUL	1.48	1.40	1.33	1.26
XCL85/9GV8	AME	1.87	1.77	1.68	1.59	XC95/2ER5	AME	1.65	1.56	1.48	1.40
EC86/6CM4	AME	2.60	2.46	2.34	2.21	DL96/3C4	AME	1.22	1.15	1.10	1.04
ECC86/6GM8	AME	2.18	2.06	1.96	1.85	EC97/6FY5	10M	2.35	2.22	2.11	2.00
ECF86/6HG8	10M	3.10	2.93	2.79	2.64	EC97/6FY5	AME	1.38	1.30	1.24	1.17
ECF86/6HG8	AME	2.05	1.94	1.84	1.74	EC97/6FY5	MUL	1.38	1.30	1.24	1.17
ECL86/6GW8	AME	1.53	1.46	1.38	1.31	FG-97	GE	62.00	58.59	55.80	52.70
ECL86/6GW8	MUL	1.53	1.46	1.38	1.31	XC97/2FY5	AME	1.28	1.21	1.15	1.09
EF86/6267	10M	2.50	2.36	2.25	2.13	FG-98A	GE	77.00	72.77	69.30	65.45
EF86/6267	AME	1.30	1.23	1.17	1.10	100LB	AME	54.30	.....	.....	.....
EF86/6267	MUL	1.30	1.23	1.17	1.10	100TH	EIM	26.00	24.57	.....	.....
EL86/6CW5	AME	1.70	1.61	1.53	1.45	100TL	EIM	26.00	24.57	.....	.....
LCF86/6HG8	AME	1.85	1.75	1.67	1.57	ML-102A	RAY	174.00	.....	.....	.....
PCF86/7HG8	10M	2.65	2.50	2.38	2.25	FG-105	GE	59.00	55.76	.....	.....
PCF86/7HG8	AME	1.40	1.32	1.26	1.19	NL-FG-105	NE	59.00	55.76	.....	.....
XL86/8CW5	AME	1.32	1.25	1.19	1.12	105	RCA	59.00	55.76	.....	.....
DY87/1S2A	AME	1.45	1.37	1.30	1.23	AX105/FG105	AME	53.33	50.40	48.00	.....
EM87/6HU6	AME	1.60	1.51	1.44	1.36	150AVP	AME	65.00	.....	.....	.....
ECC88/6D14	AME	2.60	2.46	2.34	2.21	150B2/6354	AME	2.55	2.41	2.29	2.17
ECC88/6D18	10M	3.10	2.93	2.79	2.64	150C1	AME	3.20	.....	.....	.....
ECC88/6D18	AME	2.13	2.01	1.92	1.81	150CVP	AME	90.00	.....	.....	.....
ECC88/6D18	MUL	2.13	2.01	1.91	1.81	150UVP	AME	225.00	.....	.....	.....
EY88/6AL3	AME	1.38	1.30	1.24	1.17	FG-154	GE	108.00	.....	.....	.....
KT88	MUL	5.90	5.58	5.31	5.02	EC157/8108	AME	155.30	.....	.....	.....
KT88-MP	MUL	12.48	11.79	11.23	10.61	EC158/8436	AME	335.00	.....	.....	.....
XY88/16AQ3	AME	1.35	1.28	1.21	1.15	PL-169A	RAY	40.00	.....	.....	.....
EBF89/6DC8	10M	2.65	2.50	2.38	2.25	FG-172	GE	129.00	.....	.....	.....
EBF89/6DC8	AME	1.53	1.45	1.38	1.30	172	RCA	129.00	.....	.....	.....
EBF89/6DC8	MUL	1.53	1.45	1.38	1.30	PL175A	PEN	52.00	49.14	.....	.....
EBF89/6DA6	10M	2.65	2.50	2.39	2.25	PL177A	PEN	31.00	29.30	.....	.....
EF89/6DA6	AME	1.40	1.32	1.26	1.19	PL177WA	PEN	35.50	33.55	.....	.....
EF89/6DA6	MUL	1.40	1.32	1.26	1.19	EF183/6EH7	10M	2.60	2.46	2.34	2.21
EF89/6DA6	AME	1.40	1.32	1.26	1.19	EF183/6EH7	AME	1.93	1.83	1.72	1.62
EF89/6DA6	10M	2.55	2.41	2.29	2.17	EF183/6EH7	MUL	1.93	1.83	1.72	1.62

Industrial & Special Purpose Tubes

Abbreviation	Manufacturer	Abbreviation	Manufacturer	Abbreviation	Manufacturer	Abbreviation	Manufacturer
AME	Amperex	GL	Genelex	PEN	Penta-Labs	THE	Thermosen
COS	Cossar	MUL	Mullard	RAY	Raytheon	TUN	Tung-Sol
DUM	Dumont	10M	Mullard	RCA	Radio Corpora-	VIC	Victoreen
EIM	Eimac	NE	National Electr.		tion of America	WES	Westinghouse
GE	General Electric	NU	National Union	SYL	Sylvania		

Tube Type	Mfr.	1-4	5-18	19-49	50-99	Tube Type	Mfr.	1-4	5-18	19-49	50-99
PL-183	RAY	32.00				NL-606L	NE	23.50	22.33		
XF183/3EH7	AME	1.78	1.68	1.60	1.51	606/7016	WES	21.40	20.33		
EF184/6EJ7	10M	2.60	2.46	2.34	2.21	NL-615	NE	10.05	9.55	9.05	8.54
EF184/6EJ7	AME	1.93	1.83	1.72	1.62	615/7018	RCA	10.05	9.55	9.05	8.54
EF184/6EJ7	MUL	1.93	1.83	1.72	1.62	615/7018	WES	10.05	9.55	9.05	8.54
XF184/3EJ7	AME	1.78	1.68	1.60	1.51	NL-616	NE	11.90			
PL186	RAY	38.00				NL-616L	NE	14.30			
PL187	RAY	58.00				NL-617	NE	15.00			
ECC189/6ES8	10M	3.50	3.31	3.15	2.98	NL-619	NE	10.00			
ECC189/6ES8	AME	2.73	2.58	2.46	2.32	NL-623	NE	13.35	12.68	12.02	11.34
ECC189/6ES8	MUL	2.73	2.58	2.46	2.32	624	WES	79.00	74.66	71.10	67.15
XCC189/4ES8	AME	2.18	2.06	1.96	1.85	627	RCA	27.50			
PL190	RAY	58.00				627	WES	27.50			
PL-191	RAY	28.00				629	RCA	18.25	17.34		
PL195	PEN	395.00				629	WES	18.25	17.34		
PL-203B	RAY	55.00				NL-632B	NE	33.00	31.35	29.70	28.05
207	RCA	400.00				632B	RCA	33.00	31.35	29.70	28.05
PL210	PEN	480.00				632B	WES	33.00	31.35	29.70	28.05
SK-220A-G	SYL	140.00				NL-635/7019	NE	13.00	12.35		
SK-221A	SYL	160.00				635/7019	RCA	13.00	12.35		
SK-221B-G	SYL	145.00				635/7019	WES	13.00	12.35		
SK-222A-G	SYL	145.00				NL-635L/7020	NE	13.50	12.83		
250R	EIM	42.00				NL-635P/6930	NE	14.15	13.44		
250TH	EIM	45.00				NL-649/5834	NE	11.15	10.54		
250TL	EIM	45.00				NL-660	NE	13.00	12.29		
254W	PEN	28.00	26.40			NL-660L/7786	NE	13.50	12.83		
AX260	AME	150.00				NL-664L	NE	27.50	25.99		
CR273/8008	RCA	79.75	75.36			672A	GE	39.85	37.86		
CR274/872A	RCA	79.75	75.36			672A	RCA	39.85	37.86		
CR275/866A/3B28	RCA	29.75	28.11			672A	SYL	39.85	37.86		
ML-298A	RAY	2165.00				672A	WES	39.85	37.86		
300PC	AME	150.00				NL-673	NE	20.15	19.14		
Z303C	AME	11.00	10.40	9.90	9.15	673	RCA	20.15	19.14		
304TH	SYL	75.00	70.88	67.50	63.75	673	WES	20.15	19.14		
304TL	SYL	75.00	70.88	67.50	63.75	676	RCA	63.80			
SA309	SYL	20.40				677	RCA	63.80			
310PC	AME	150.00				NL-677	NE	63.80			
ML-342A	RAY	855.00				678	GE	49.00	46.31	45.68	44.10
ML-342AA	RAY	1220.00				NL-678	NE	49.00	46.31	45.68	44.10
ML-356-5771	RAY	700.00				678	WES	49.00	46.31	45.68	44.10
ML-357B	RAY	278.00				710/6011	GE	12.70	12.06		
393A	GE	13.25	12.59			NL-710/6011	NE	12.70	12.06	11.43	
NL-393A	NE	13.25	12.59			710/6011	RAY	12.00	11.34	10.80	
400PC	AME	36.00				710/6011	RCA	12.00	11.34	10.80	
407A	RCA	5.90	5.61	5.31	5.01	710/6011	SYL	12.00	11.34	10.80	
407A	SYL	5.90	5.61	5.31	5.01	710L/7518	GE	14.00	13.49	12.78	
408A	SYL	4.95	4.70	4.45	4.21	NL-710L/7518	NE	14.00	13.49	12.78	
408A	RCA	4.95	4.70	4.45	4.21	710/7509A	WES	14.20	13.49	12.78	
GL-414	SYL	280.00				NL-714	NE	10.00	9.50		
414	WES	280.00				714/7021	RCA	10.00	9.50		
450TH	EIM	85.00				NL-716	NE	12.50	11.88		
450TL	EIM	85.00				716/6855	RCA	12.50	11.88		
QKH456/7040	RAY	577.00				SYK-720A-G	SYL	145.00			
481B	WES	10.90	10.30	9.81	9.27	SYK-722A-G	SYL	150.00			
EL-500/6GB5	AME	1.85	1.75	1.67	1.57	NL-732	NE	120.00			
PL500/27GB5	AME	1.82	1.72	1.64	1.55	NL-734/5544	NE	22.50	21.26	20.25	19.13
XL500/13GB5	AME	1.85				NL-740/6856	NE	21.70	20.51		
501R	AME	283.00				NL-740L/7022	NE	22.30	21.09		
502A	GE	2.30	2.17	2.07	1.96	750TL	EIM	224.00			
502A	RCA	2.28	2.17	2.05	1.94	760/6858	GE	28.10			
502A	WES	2.28	2.17	2.05	1.94	NL-760	NE	28.10	26.70		
Z502S	AME	13.65	12.90	12.29	10.50	760	RAY	28.10	26.70		
CK512AX	RAY	3.90	3.69			760/6858	RCA	28.10	26.70		
CK526AX	RAY	7.30	6.90			NL-760P	NE	29.40	27.93		
QKK531	RAY	68.00				760P/6859	GE	29.40	27.93		
QKK532	RAY	68.00				NL-770L	NE	45.25	42.99		
CK533AX	RAY	3.85	3.64			NL-770P	NE	47.25	44.65		
CK534AX	RAY	3.85	3.64			ECCLL800/CHK8	ITT	6.50			
QKK549	RAY	68.00				801A	RCA	14.25	13.47	12.28	
Z550M/8453	AME	14.50	13.70	13.05	12.00	ECF801/6GJ7	AME	1.70	1.61	1.53	1.45
575A	GE	28.15	19.14			LCF801/5GJ7	AME	1.45	1.37	1.35	1.23
575A	EIM	20.15	19.14			PCF801/8GJ7	AME	1.62	1.54	1.46	1.38
NL-575A	NE	20.15	19.14			802	RCA				
575A	RCA	20.15	19.14			NL-803	NE	8.00			
575A	WES	20.15	19.14			Z803U/6779	AME	5.75	5.43	5.18	4.00
579B	RCA	20.50	19.48	18.45		Z805U/7714	AME	7.50	7.09	6.75	5.45
579B	SYL	20.50	19.48	18.45		807	AME	3.15	2.98	2.83	2.68
579B	WES	20.50	19.48	18.45		807	RCA	3.15	2.98	2.83	2.68
CK587	RAY	14.60	13.80			807	SYL	3.15	2.98	2.83	2.68
592/3-200A3	EIM	55.00	51.98			807	WES	3.15	2.98	2.83	2.68
592/3-200A3	SYL	46.00	43.70			809	RCA	9.65	9.12	8.69	8.20
NL-604	NE	11.80	11.21			NL-809	NE	17.35			
604	RAY	11.80	11.21			810	RCA	28.60	27.03		
604/7014	RCA	11.80	11.21			811A	RCA	7.00	6.62	6.30	5.95
NL-604L	NE	13.00	12.35			811A	GE	7.00	6.62	6.30	5.95
NL-606	NE	21.40	20.33			811A	WES	7.00	6.62	6.30	5.95

Industrial & Special Purpose Tubes

Abbreviation	Manufacturer	Abbreviation	Manufacturer	Abbreviation	Manufacturer	Abbreviation	Manufacturer
AME	Amperex	GL	Genelex Gold Lion	PEN	Penta-Labs	THE	Thermosen
COS	Cossar	MUL	Mullard	RAY	Raytheon	TUN	Tung-Sol
DUM	Dumont	10M	Mullard "10M"	RCA	Radio Corporation of America	VIC	Victoreen
EIM	Eimac	NE	National Electr.	SYL	Sylvania	WES	Westinghouse
GE	General Electric	NU	National Union				

Tube Type	Mfr.	1-4	5-18	19-49	50-99
812A	GE	7.45	7.04	6.71	6.33
812A	RCA	7.45	7.04	6.71	6.33
813	RCA	24.25	23.15	22.05	
813	WES	24.30	23.09	21.37	
814	RCA	Recommended sub 828			
815	RCA	35.75	33.78	32.17	30.28
816	GE	3.60	3.40	3.24	3.06
816	RCA	3.60	3.40	3.24	3.06
816	SYL	3.60	3.40	3.24	3.06
816	WES	3.25	3.09	2.93	
827R	RCA	470.00			
828	RCA	34.50	32.60	31.05	29.32
829B	GE	19.85	18.75	17.87	16.87
829B	RCA	19.85	18.75	17.87	16.87
829B	WES	19.85	18.75	17.87	16.87
830B	RCA	21.45	20.27	19.30	
832A	RCA	16.65	15.74	14.99	14.15
832A	WES	16.65	15.74	14.99	14.15
833A	AME	61.20	57.83	54.99	52.02
833A	RCA	61.20	57.83	54.99	52.02
833A	WES	58.20			
866	RCA	12.65	12.02	11.38	10.75
837	RCA	13.95	13.18	12.56	11.86
845	RCA	28.40	26.84	25.56	24.14
849A	AME	231.00			
857B	AME	240.00			
GL-857B	GE	218.50			
857B	RCA	245.00			
857B	WES	218.50			
860	RCA	64.35	60.82	54.70	57.92
866A	GE	3.25	3.07	2.93	2.76
866A	RCA	3.25	3.07	2.93	2.76
866A	SYL	3.25	3.07	2.93	2.76
866A	WES	3.25	3.07	2.93	2.76
866AX	AME	3.10	2.92	2.79	
868	RCA	6.30	5.95		
GL-869B	GE	138.00			
869B	EIM	138.00			
869BL	EIM	138.00			
869B	RCA	155.00			
NL-869B	NE	138.00			
869B	AME	138.00			
869B	WES	155.00			
872A	GE	9.90	9.45	8.91	8.42
872A	RCA	10.85	10.31	9.77	9.22
872A	WES	9.90	9.45	8.91	8.42
872A	NE	9.90	9.36	8.91	8.42
NL-872A	AME	10.85	10.31	9.77	9.22
872AX	AME	10.85	10.31	9.77	9.22
ML-880	RAY	595.00			
886	RCA	760.00			
884	GE	2.28	2.17	2.05	1.94
884	RCA	2.28	2.17	2.05	1.94
884	SYL	2.28	2.17	2.05	1.94
889A	RCA	290.00			
889RA	RCA	435.00			
889RA/5667	SYL	435.00			
ML-891	RAY	275.00			
ML-891R	RAY	430.00			
891R	RCA	490.00			
892	GE	345.00			
ML-892	RAY	270.00			
892	RCA	342.00			
892	WES	345.00			
ML-892R	RAY	425.00			
892R	RCA	440.00			
EC900/8HA5	AME	1.93	1.82	1.74	1.64
LC900/3HA5	AME	1.92	1.81	1.73	1.63
PC900/4HA5	AME	1.92	1.81	1.73	1.63
Z900T/5823	AME	3.45	3.26	3.11	2.40
908A	RCA	21.45	20.27	19.30	18.23
QKK910	RAY	292.50			
917	RCA	9.30	8.79	8.37	7.91
918	RCA	6.30	5.95		
919	RCA	9.65	9.12	8.69	8.20
920	RCA	10.75	10.16	9.68	
921	RCA	5.20	4.91	4.68	4.42
922	RCA	3.80	3.59		
922	SYL	3.45	3.26		
923	RCA	4.70	4.44		
923	SYL	3.70	3.49		
925	RCA	5.00	4.73	4.50	
926	RCA	5.20	4.91	4.68	
927	RCA	6.00	5.67		
929	RCA	3.45	3.26		
930	GE	3.80	3.61	3.42	3.23

Tube Type	Mfr.	1-4	5-18	19-49	50-99
930	RCA	4.95	4.68	4.46	2.21
931A	RCA	12.30	11.62	11.00	10.46
931A	WES	12.30	11.62	11.00	10.46
931-VA	RCA	12.95	12.24		
934	RCA	5.75	5.43	5.18	4.89
935	RCA	14.20	13.47	12.78	
955	RCA	7.05	6.70		
956	RCA	10.85	10.25		
958A	RCA	12.30	11.62		
959	RCA	13.85	13.16		
QKK965	RAY	292.50			
991	RCA	1.01	.95	.91	
1000T	EIM	169.00			
1000T	SYL	169.00			
XP1000	AME	90.00			
XP1002	AME	275.00			
XP-1004	AME	350.00			
ZZ1000/8228	AME	2.90	2.68	2.44	2.15
NL-1009A	NE	155.00			
XP1010	AME	89.00			
XP1011	AME	103.00			
CK1020	RAY	12.45	11.77		
XP1020	AME	600.00			
CK1021	RAY	12.45	11.77		
NL-1022A	NE	116.00			
CK1026	RAY	4.80	4.54		
XP1030	AME	107.00			
ZM1030	AME	9.95	9.40	8.96	8.00
XP1031	AME	147.00			
XP1032	AME	1275.00			
ZM1032	AME	9.95	9.40	8.96	8.00
CK1034	RAY	9.15	8.65	8.24	7.78
CK1038	RAY	9.15	8.65	8.24	7.78
XP1040	AME	575.00			
CK1047	RAY	4.20	3.97	3.78	3.57
NL-1051A	NE	65.00			
1051A	SYL	65.00	61.43	58.50	55.25
1052A	SYL	99.00	93.56	89.10	84.15
NL-1051AP	NE	65.00			
NL-1052A	NE	99.00			
1052A	SYL	99.00	93.56	89.10	84.15
NL-1052AP	NE	99.00			
NL-1053	NE		(Order NL-5553B)		
1061	SYL	65.00	61.43	58.50	55.25
CK1061	RAY		(Use CK5787A)		
NL-1061	NE	65.00			
NL-1061P	NE	65.00			
NL-1062	NE	99.00			
NL-1062P	NE	99.00			
NL-1063	NE	284.00			
NL-1061	NE	75.00			
NL-1061P	NE	76.20			
NL-1062	NE	107.00			
NL-1062P	NE	108.30			
CK1065	RAY	11.65	10.91	10.48	9.90
NL-1091	NE	75.00			
NL-1091P	NE	76.20			
NL-1092	NE	107.00			
NL-1092P	NE	108.30			
CK-1101	RAY	11.00	10.40		
CK-1101P	RAY	10.75	10.16		
CK-1102	RAY	11.00	10.40		
CK-1102P	RAY	10.75	10.16		
CK1103	RAY	11.00	10.40		
CK-1103P	RAY	10.75	10.16		
CK1104	RAY	11.00	10.40		
CK1104P	RAY	10.75	10.16		
CK1105	RAY	24.50	23.15		
CK1108	RAY	24.50	23.15		
XP1110	AME	90.00			
CK1111	RAY	11.00	10.40		
CK1111P	RAY	10.75	10.16		
XP1111	AME	95.00			
CK1112	RAY	11.00	10.40		
CK1112P	RAY	10.75	10.16		
XP1112	AME	90.00			
XP1113	AME	78.00			
CK1114	RAY	8.75	8.27		
CK-1115	RAY	8.75	8.27		
CK-1116	RAY	9.35	8.84		
CK-1121	RAY	4.00	3.78		
CK-1122	RAY	4.00	3.78		
CK-1123	RAY	4.00	3.78		
CK-1124	RAY	4.00	3.78		
R1131C	SYL	21.00	20.41	19.44	
1219/5870	SYL	3.70			

Industrial & Special Purpose Tubes

Abbreviation	Manufacturer	Abbreviation	Manufacturer	Abbreviation	Manufacturer	Abbreviation	Manufacturer
AME	Amperex	GL	Genelex	PEN	Penta-Labs	THE	Thermosen
COS	Cossar	MUL	Mullard	RAY	Raytheon	TUN	Tung-Sol
DUM	Dumont	10M	Mullard	RCA	Radio Corporation of America	VIC	Victoreen
EIM	Eimac	NE	National Electr.	SYL	Sylvania	WES	Westinghouse
GE	General Electric	NU	National Union				

Tube Type	Mfr.	1-4	5-18	19-49	50-99
1220/5654	SYL	3.05	.....	.....	.....
1236C	THE	13.00	12.50	10.40	9.10
1252/6U8A	SYL	2.00	.....	.....	.....
1252/648A	SYL	2.00	.....	.....	.....
1258	TUN	31.80	30.05	28.62	27.03
1320	SYL	185.00	.....	.....	.....
K1328	DUM	595.00	.....	.....	.....
1500T	SIM	320.00	.....	.....	.....
EM-1502	RAY	2.20	2.08	1.98	1.87
EM-1505	RAY	2.20	2.08	1.98	1.87
1612	RCA	5.77	5.48	.....	.....
1613	RCA	3.30	3.12	2.97	2.81
1614	RCA	4.93	4.68	4.43	4.19
1616	RCA	15.10	14.27	.....	.....
1619	RCA	6.23	5.29	.....	.....
1620	RCA	7.55	7.17	6.80	6.42
1621	RCA	3.85	3.66	.....	.....
1622	RCA	5.35	5.08	4.92	4.55
1624	RCA	7.90	7.47	7.11	6.72
1625	RCA	5.50	5.20	4.95	4.68
1629	RCA	2.04	1.94	1.84	1.74
1631	RCA	3.80	3.59	3.42	3.23
1635	RCA	4.20	3.99	.....	.....
1946	RCA	13.65	12.90	12.28	11.60
1947	RCA	39.90	37.71	35.91	33.91
1949	RCA	19.95	18.85	17.95	16.96
2020	RCA	85.00	80.33	76.50	72.25
2050/2050	RAY	2.21	2.06	1.91	1.76
2050	GE	2.37	2.25	2.13	2.01
2050	WES	2.37	2.25	.....	.....
2050	RCA	2.37	2.25	2.13	2.01
2050	SYL	2.37	2.25	2.13	2.01
2050A	GE	2.03	1.92	1.83	1.73
2050A	RAY	2.03	1.92	1.83	1.73
2050A	RCA	2.03	1.92	1.83	1.73
2050W	RAY	7.50	7.09	6.75	6.38
K2060	DUM	4200.00	.....	.....	.....
2067	RCA	155.00	.....	.....	.....
K2112	DUM	1260.00	.....	.....	.....
K2190	DUM	525.00	.....	.....	.....
K2216	DUM	1295.00	.....	.....	.....
K2224/7702	DUM	2520.00	.....	.....	.....
K2225	DUM	1295.00	.....	.....	.....
2399	TUN	14.30	13.51	12.87	12.16
ZB3200	AME	475.00	.....	.....	.....
NL-4031	NE	375.00	31.19	29.70	28.05
4037A	RCA	28.15	26.60	25.33	.....
CT4251	SYL	11.10	.....	.....	.....
R4330	SYL	29.10	27.50	26.19	24.74
R4340	SYL	60.50	57.17	54.45	51.43
4401V1	RCA	1320.00	.....	.....	.....
4402	RCA	1.67	.....	.....	.....
4403	RCA	1.21	.....	.....	.....
4404	RCA	1.32	.....	.....	.....
4409	RCA	5.35	5.06	4.81	4.55
4413	RCA	2.39	.....	.....	.....
4414/7611	RCA	1620.00	.....	.....	.....
4415/S	RCA	1400.00	.....	.....	.....
4416/S	RCA	1400.00	.....	.....	.....
4423	RCA	2.10	.....	.....	.....
4424	RCA	.....	(Replaced by 4425)	.....	.....
4425	RCA	2.10	.....	.....	.....
4438	RCA	105.00	.....	.....	.....
4439	RCA	105.00	.....	.....	.....
4440	RCA	105.00	.....	.....	.....
4441	RCA	155.00	.....	.....	.....
4441A	RCA	320.00	.....	.....	.....
4448	RCA	1.32	.....	.....	.....
4449A	RCA	1750.00	.....	.....	.....
4450	RCA	1.37	.....	.....	.....
4451	RCA	1.37	.....	.....	.....
4453	RCA	1.28	.....	.....	.....
4459	RCA	490.00	.....	.....	.....
4460	RCA	205.00	.....	.....	.....
4461	RCA	260.00	.....	.....	.....
4463	RCA	310.00	.....	.....	.....
4464	RCA	340.00	.....	.....	.....
4465	RCA	420.00	.....	.....	.....
4471	RCA	17.25	16.31	15.52	14.66
4472	RCA	22.95	21.68	20.85	19.50
4473	RCA	97.25	91.90	82.66	81.52
4478	RCA	107.00	.....	.....	.....
4488	RCA	125.00	.....	.....	.....
4492	RCA	1850.00	.....	.....	.....
4493	RCA	1055.00	.....	.....	.....
4494	RCA	1055.00	.....	.....	.....

Tube Type	Mfr.	1-4	5-18	19-49	50-99
4495	RCA	1055.00	.....	.....	.....
4500	RCA	430.00	.....	.....	.....
4503	RCA	470.00	.....	.....	.....
4600A	RCA	345.00	.....	.....	.....
4604	RCA	8.75	8.27	7.88	7.44
4614	RCA	310.00	.....	.....	.....
4615	RCA	.....	.....	(Use 8596)	.....
4620	RCA	.....	.....	(Use 857B)	.....
4621	RCA	130.00	.....	.....	.....
NL-5030	RCA	10.50	.....	.....	.....
GL-5513	GE	620.00	.....	.....	.....
CK5517	RAY	3.80	3.61	.....	.....
GL-5518	GE	1400.00	.....	.....	.....
ML-5530	RAY	425.00	.....	.....	.....
ML-5531	RAY	795.00	.....	.....	.....
ML-5541	RAY	670.00	.....	.....	.....
5544	AME	44.40	.....	.....	.....
GL-5544	GE	32.50	.....	.....	.....
5545	AME	48.75	46.16	43.87	.....
GL-5549	GE	653.50	.....	.....	.....
GL-5550	GE	49.00	.....	.....	.....
NL-5550	NE	49.00	.....	.....	.....
5550	RCA	49.00	.....	.....	.....
5550/681	WES	49.00	.....	.....	.....
GL-5551A	GE	65.00	.....	.....	.....
5551A	RCA	65.00	.....	.....	.....
5551A/652	SYL	65.00	.....	.....	.....
5551A/652	WES	65.00	.....	.....	.....
GL-5552	GE	99.00	.....	.....	.....
5552A	RCA	99.00	.....	.....	.....
5552A	SYL	99.00	.....	.....	.....
5552A/651	WES	99.00	.....	.....	.....
GL-5553B	GE	245.00	.....	.....	.....
NL-5553B	NE	245.00	.....	.....	.....
5553B	RCA	245.00	.....	.....	.....
5553B	SYL	245.00	.....	.....	.....
GL-5554	GE	215.00	.....	.....	.....
GL-5555	GE	316.00	.....	.....	.....
NL-5555	NE	316.00	.....	.....	.....
5555/653B	WES	348.50	.....	.....	.....
GL-5556	GE	54.25	.....	.....	.....
5556	RCA	52.45	49.57	.....	.....
5557	GE	9.50	9.02	8.55	.....
5557	WES	9.50	9.02	8.55	.....
5557/FG17	AME	11.10	10.48	8.88	.....
NL-5557/FG17/715	NE	9.50	9.02	8.55	.....
5558	GE	17.50	16.63	.....	.....
5558	RCA	17.50	16.63	.....	.....
NL-5558/FG32	NE	17.50	16.63	.....	.....
5559	AME	23.00	21.73	.....	.....
5559	GE	23.00	21.73	.....	.....
5559	RCA	23.00	21.73	.....	.....
NL-5559/FG57	NE	23.00	21.73	.....	.....
5560	GE	33.00	31.25	29.70	.....
NL-5560 FG95	NE	33.00	31.25	29.70	.....
5560	RCA	33.00	31.25	29.70	.....
5560/FG95	SYL	33.00	31.25	29.70	.....
5561	RCA	59.00	.....	.....	.....
5563A	GE	50.00	.....	.....	.....
5563A	RCA	50.00	.....	.....	.....
NL-5563A	NE	50.00	.....	.....	.....
GL-5564	GE	850.00	.....	.....	.....
ML-5575/100	RAY	225.00	.....	.....	.....
5575/100/616	WES	225.00	.....	.....	.....
ML-5576/200	RAY	245.00	.....	.....	.....
5576/200	SYL	245.00	.....	.....	.....
5576/200	WES	245.00	.....	.....	.....
5581	RCA	4.85	4.58	4.37	4.12
5582	RCA	6.30	5.95	5.67	.....
5583	RCA	8.75	8.27	7.88	7.44
5586	AME	417.00	.....	.....	.....
5582	RCA	2775.00	.....	.....	.....
ML-5604	RAY	570.00	.....	.....	.....
5604	WES	570.00	.....	.....	.....
5608A	DUM	322.00	.....	.....	.....
ML-5606	RAY	288.00	.....	.....	.....
5606	WES	288.00	.....	.....	.....
5618	RCA	6.75	6.38	6.07	5.74
ML-5619	RAY	423.00	.....	.....	.....
GL-5630	GE	1900.00	.....	.....	.....
5632/C3J	GE	12.70	12.07	.....	.....
NL-5632/C3J	NE	12.70	12.07	.....	.....
5632/C3J	RCA	12.70	12.07	.....	.....
5632/C3J	SYL	12.70	12.07	.....	.....
5632/C3J	WES	12.70	12.07	.....	.....
5636	GE	6.10	5.76	5.49	5.19

Industrial & Special Purpose Tubes

Abbreviation	Manufacturer	Abbreviation	Manufacturer	Abbreviation	Manufacturer	Abbreviation	Manufacturer
AME	Amperex	GL	Genelux	PEN	Penta-Labs	THE	Thermosen
COS	Cossar	MUL	Gold Lion	RAY	Raytheon	TUN	Tung-Sol
DUM	Dumont	10M	Mullard	RCA	Radio Corpora-	VIC	Victoreen
EIM	Eimac	NE	National	SYL	tion of America	WES	Westinghouse
GE	General Electric	NU	National Union		Sylvania		

Tube Type	Mfr.	1-4	5-18	19-49	50-99	Tube Type	Mfr.	1-4	5-18	19-49	50-99
5636	RCA	6.10	5.76	5.49	5.19	5693	GE	6.60	6.27	5.94	5.61
5636A	SYL	6.10	5.76	5.49	5.19	5693	RCA	6.60	6.27	5.94	5.61
CK5639A	RAY	5.25	4.96	4.72	4.46	5693	WES	6.60	6.27	5.94	5.61
5639	RCA	5.25	4.96	4.72	4.46	5696A	GE	1.95	1.84	1.75	1.66
5639A	SYL	5.25	4.96	4.72	4.46	5696	RCA	1.95	1.84	1.75	1.66
5642	GE	3.53				5696	SYL	1.95	1.84	1.75	1.66
5642	RCA	3.53				CK5702	RAY	4.20	3.99		
5643	TUN	6.37	6.02	5.73	5.41	CK5702WA	RAY	6.48	6.15		
CK5643	RAY	6.37	6.02	5.73	5.41	CK5702WB	RAY	9.55	9.02		
5651	AME	1.78	1.69	1.60	1.51	CK5703	RAY	2.65	2.52		
5651	GE	1.78	1.69	1.60	1.51	CK5703WA	RAY	7.07	6.71		
CK-5651	RAY	1.78	1.69	1.60	1.51	CK5703WB	RAY	8.79	8.31		
5651	RCA	1.78	1.69	1.60	1.51	CK5704	RAY	4.65	4.39	4.19	3.95
5651A	RCA	1.78	1.69	1.60	1.51	CK5704WA	RAY	7.30	6.90	6.57	6.21
5651	SYL	1.78	1.69	1.60	1.51	5713	RCA	405.00			
5651	WES	1.78	1.69	1.60	1.51	5718	RCA	3.65	3.47		
CK-5651WA	RAY	3.75	3.54	3.38	3.19	5718A	SYL	3.65	3.47		
5651WA	RCA	6.60	6.24	5.94	5.61	5719	GE	3.15	2.98	2.83	2.68
5651WA	TUN	3.75	3.54	3.48	3.19	5719	RCA	3.15	2.98	2.83	2.68
5652	RCA	8.75	8.27	7.88	7.44	5719A	SYL	3.15	2.98	2.83	2.68
5659	RCA	5.45	5.15			GL-5720/FG-33	GE	34.75	32.84	31.27	29.54
5659	RAY	2.80	2.66			RK5721	RAY	116.00			
CK-5654	RAY	2.41	2.28	2.16	2.04	5722	SYL	8.35	7.89	7.52	7.10
5654	RCA	2.41	2.28	2.16	2.04	5725	RCA	3.15	2.98	2.83	2.68
5654	AME	2.41	2.28	2.16	2.04	5725	SYL	3.15	2.98	2.83	2.68
5654/6AK5W	SYL	2.45	2.33	2.23	2.08	5725/6AS6W	GE	3.15	2.98	2.83	2.68
5654/6AK5W	GE	2.45	2.33	2.23	2.08	CK5725/6AS6W	RAY	3.15	2.98	2.83	2.68
5654/6AK5W	RAY	2.45	2.33	2.23	2.08	5726	RCA	1.55	1.47	1.40	1.32
5654/6AK5W	RCA	2.45	2.33	2.23	2.08	5726	SYL	1.55	1.47	1.40	1.32
5654/6AK5W/6096	RCA	2.45	2.33	2.23	2.08	5726/6AL5W	AME	1.70			
5654/6AK5W	WES	2.45	2.33	2.23	2.08	5726/6AL5W	GE	1.55	1.47	1.40	1.32
CK5656	RAY	16.56	15.65	14.90	14.08	CK5726/6AL5W	RAY	1.55	1.47	1.40	1.32
5658	AME	595.00				5726/6AL5W	RCA	1.55	1.47	1.40	1.32
ML-5658	RAY	595.00				5726/6AL5W/6097	RCA	1.55	1.47	1.40	1.32
5663	GE	2.10	2.00	1.89	1.79	5726/6AL5W/6097	WES	1.55	1.47	1.40	1.32
5665/C16J	GE	52.50	49.88			5727	RCA	2.90	2.76	2.61	2.47
5665/C16J	RCA	52.50	49.88			5727	SYL	2.90	2.76	2.61	2.47
5665/C16J	WES	52.50	49.88			5727/	AME	2.50	2.36	2.65	2.13
NL-5665/C16J	NE	52.50	49.88			5727/2D21W	GE	2.90	2.76	2.61	2.47
5666	AME	280.00				5727/2D21W	RAY	2.90	2.76	2.61	2.47
ML-5666	RAY	280.00				5727/2D21W	RCA	2.90	2.76	2.61	2.47
5667	AME	370.00				5727/2D21W	SYL	2.90	2.76	2.61	2.47
ML-5667	RAY	370.00				5727/2D21W	WES	2.90	2.76	2.61	2.47
ML-5668	RAY	350.00				GL-5728	GE	74.00	69.93	66.80	62.90
5668	WES	350.00				5734	RCA	22.05	20.95	19.83	
ML-5669	RAY	515.00				5736	DUM	199.50			
5670	GE	2.45	2.33	2.21	2.08	5736	GE	205.00			
5670	RCA	2.45	2.33	2.21	2.08	5736	SYL	205.00			
CK5670	RAY	2.45	2.33	2.21	2.08	5736	WES	190.00			
5670	SYL	2.45	2.33	2.21	2.08	CK5744WA	RAY	7.05	6.66	6.34	5.99
CK5670WA	RAY	2.45	2.33	2.21	2.08	CK5744WB	RAY	8.98	8.47	8.06	7.62
5670WA	RCA	2.45	2.33	2.21	2.08	5749/6BA6W	GE	2.20	2.09	1.98	1.87
5671	RCA	1825.00				5749	RCA	2.20	2.09	1.98	1.87
CK5672	RAY	2.27	2.16			5749/6BA6W	RCA	2.20	2.09	1.98	1.87
5672	RCA	2.27	2.16			5749	SYL	2.20			
5672	TUN	2.27	2.16			5750	RCA	3.45	3.28	3.11	2.93
CK5675	RAY	16.05	15.17	14.44	13.64	5750/6BE6W	GE	3.45	3.28	3.11	2.93
5675	RCA	8.95	8.50	8.05	7.60	5750	SYL	3.45			
CK5676	RAY	3.05	2.90			5751	GE	2.55	2.42	2.30	2.17
5678	TUN	3.05	2.90			CK5751	RAY	2.55	2.42	2.30	2.17
CK5678	RAY	2.27	2.17			5751	RCA	2.55	2.42	2.30	2.17
5678	RCA	2.30	2.17	2.07	1.96	5751	SYL	2.55	2.42	2.30	2.17
5678	TUN	2.30	2.17	2.07	1.96	CK5751WA	RAY	2.55	2.42	2.30	2.17
ML-5681	RAY	2090.00				5751WA	RCA	2.55	2.42	2.30	2.17
ML-5682	RAY	2625.00				CK5755	RAY	8.45	7.99		
NL-5684-NE	NE	16.70	15.78	15.03		5755	TUN	8.05	7.61	7.25	6.84
NL-5684/C3J/A	NE	13.10	12.46	11.80		5762/7C24	GE	240.00			
5684/C3J/A	RCA	13.10	12.46	11.80		5762/7C24	RCA	240.00			
NL-5684A-NE	NE	17.90	16.92	16.11		5763	RCA	2.45	2.32	2.20	2.08
5685/C6J/A	RCA	29.00	27.41	26.10	24.65	5763	SYL	2.45	2.32	2.20	2.08
5686	GE	3.37	3.20	3.03	2.86	5768	SYL	50.00			
CK5686	RAY	3.37	3.20	3.03	2.86	5770	RCA	1465.00			
5686	RCA	3.37	3.20	3.03	2.86	5771	RCA	700.00			
5687	GE	4.00	3.80	3.60	3.40	GL-5779	GE	200.00			
CK5687	RAY	4.00	3.80	3.60	3.40	CK5783	RAY	4.19	3.96	3.77	3.56
5687	RCA	4.05	3.85	3.65	3.45	5783	RCA	4.19	3.96	3.77	3.56
5687	SYL	4.05	3.85	3.65	3.45	CK5783WA	RAY	7.07	6.68	6.36	6.01
5687WA	GE	5.70	5.42	5.14	4.85	CK5784WA	RAY	9.13	8.63	8.22	7.76
CK5687WA	RAY	5.70	5.42	5.14	4.85	CK5784WB	RAY	15.33	14.49	13.80	13.03
5691	GE	8.75	8.31	7.87	7.43	CK5785	RAY	5.85	5.53	5.26	4.97
5691	RCA	8.75	8.31	7.87	7.43	5786	RCA	265.00			
5691	WES	8.75	8.31	7.87	7.43	CK5787	RAY	5.00	4.73	4.50	4.25
5692	RCA	8.25	7.83	7.43	7.01	CK5787A	RAY	5.45	5.15	4.90	4.63
5692	GE	8.25	7.83	7.43	7.01	CK5787WA	RAY	4.91	4.64	4.42	4.17
5692	SYL	8.25	7.83	7.43	7.01	GL-5788	GE	545.00			
5692	WES	8.25	7.83	7.43	7.01	5796	SYL	17.25	16.30	15.52	14.66

Industrial & Special Purpose Tubes

Abbreviation	Manufacturer	Abbreviation	Manufacturer	Abbreviation	Manufacturer	Abbreviation	Manufacturer
AME	Amperex	GL	Genelux	PEN	Penta-Labs	THE	Thermosen
COS	Cossor	MUL	Mullard	RAY	Raytheon	TUN	Tung-Sol
DUM	Dumont	10M	"10M"	RCA	Radio Corpora-	VIC	Victoreon
EDM	Eimac	NE	National Electr.	SYL	tion of America	WES	Westinghouse
GE	General Electric	NU	National Union		Sylvania		

Tube Type	Mfr.	1-4	5-18	19-49	50-99
5800/VX-41A	VIC	34.79			
5814A	GE	2.35	2.23	2.12	2.00
CK5814WA	RAY	2.35	2.23	2.12	2.00
5814A	RCA	2.35	2.23	2.12	2.00
5814A	SYL	2.35	2.23	2.12	2.00
5814A	WES	2.35	2.23	2.12	2.00
CK5814A	RAY	2.40	2.28	2.16	2.04
5814WA	RCA	2.40	2.28	2.16	2.04
5819	RCA	64.25	61.04		
GL-5820A	GE	995.00			
5820A/L	RCA	995.00			
5824A/L	RCA	1800.00			
5820A/R	GE	995.00			
5822A	WES	116.00			
5823	RCA	1.72	1.63	1.55	1.46
5823	SYL	1.72	1.63	1.55	1.46
5823	WES	1.72	1.63	1.55	1.46
5824	RCA	3.60	3.40	3.24	2.06
5824	GE	3.60	3.40	3.24	2.06
5824	WES	3.60	3.40	3.24	2.06
5825	HCA	26.45	25.00	23.81	22.48
CK5829	RAY	4.20	3.97	3.78	3.57
CK5829WA	RAY	7.48	7.07	6.73	6.36
GL-5830	GE	540.00			
5840	GE	5.35	5.08	4.82	4.55
CK5840	RAY	5.35	5.08	4.82	4.55
5840	RCA	5.35	5.08	4.82	4.55
5840A	SYL	5.35	5.08	4.82	4.55
5841	VIC	8.86			
5842	AME	7.35	6.95	6.61	6.25
CK5842	RAY	7.35	6.95	6.61	6.25
AX5842	AME	8.70	8.22	7.83	7.39
5842/417A	RCA	7.35	6.95	6.61	6.25
CK5842WA	RAY	15.29	14.45	13.76	13.00
5844	GE	2.30	2.19	2.07	1.96
5845	SYL	9.95			
5847	AME	9.55	9.02		
5847/404A	RCA	9.55	9.02		
5855	GE	85.00	80.33	76.50	72.25
5855	SYL	85.00	80.33	76.50	72.25
5866	AME	21.40	20.22	19.26	18.19
5867A	AME	35.25			
5867A	EIM	30.60			
5868	AME	65.65			
5869	AME	28.80	27.21	25.92	
5870	AME	105.00			
CK5876	RAY	10.25	9.69	9.22	8.71
5876	RCA	8.60	8.17	7.74	7.31
5876A	RCA	7.30	6.90	6.57	6.21
5879	GE	1.95	1.85	1.76	
CK5879	RAY	1.95	1.85	1.76	
5879	SYL	1.95	1.85	1.76	
5881	GE	3.10	2.93	2.79	2.64
5881	SYL	3.10	2.93	2.79	2.64
5881	WES	3.10	2.93	2.79	2.64
CK5886	RAY	5.00	4.75		
CK5889	RAY	19.70	18.62		
5893	RCA	20.75	19.61	18.67	17.64
5894	AME	25.00	23.63	22.50	21.25
5895	AME	13.70	12.95	12.33	11.65
5896	GE	3.80	3.59	3.42	3.23
5896	RCA	3.80	3.59	3.42	3.23
5899	GE	5.55	5.27	5.00	4.72
5899	RCA	5.55	5.27	5.00	4.72
5899A	SYL	5.55	5.27	5.00	4.72
CK5902	HAY	4.80	4.56	4.32	4.08
5902	RCA	4.80	4.56	4.32	4.08
5902A	SYL	4.80	4.56	4.32	4.08
CK5902WA	RAY	8.72	8.24	7.85	7.41
5904	SYL	7.90	7.47	7.11	6.72
5915	RCA	1.62	1.54	1.46	1.38
5920	AME	3.20	3.02	2.88	2.72
5923	AME	165.00			
5924A	AME	294.75			
5931	SYL	6.80			
5932	SYL	11.30	10.69		
5933	SYL	12.35	11.73		
5933WA	SYL	16.50	15.59		
5946	RCA	125.00			
5963	GE	1.36	1.29	1.22	1.16
CK5963	RAY	1.36	1.29	1.22	1.16
5963	RCA	1.36	1.29	1.22	1.16
5963	SYL	1.36	1.29	1.22	1.16
5963	WES	1.36	1.29	1.22	1.16
5964	GE	1.55	1.47	1.40	1.32
5964	RCA	1.55	1.47	1.40	1.32

Tube Type	Mfr.	1-4	5-18	19-49	50-99
5965A	GE	1.92	1.82	1.73	1.63
5965	RCA	1.92	1.82	1.73	1.63
5965	SYL	1.92	1.82	1.73	1.63
5966	SYL	42.00	39.69	37.80	35.70
5966	WES	42.00	39.69	37.80	35.70
CK5971	RAY	7.30	6.90	6.57	6.21
RK5976	RAY	68.00			
NL-5992	NE	15.75	14.88	14.17	13.39
5998	TUN	12.95	13.24	11.65	11.01
6005	RCA	3.23	3.06	2.91	2.75
6005	SYL	3.23	3.06	2.91	2.75
6005/6AQ5W	GE	3.23	3.06	2.91	2.75
6005/6AQ5W	RCA	3.23	3.06	2.91	2.75
6005/6AQ5W/6095	RCA	3.23	3.06	2.91	2.75
6007	AME	1.72	1.63	1.55	1.46
6008	AME	2.50			
6012	GE	7.65	7.27	6.89	6.50
6012	RCA	7.65	7.27	6.89	6.50
6012	SYL	7.65	7.27	6.89	6.50
GL-6014/C1K	GE	11.80	11.15	10.62	10.03
NL-6014/C1K	NE	11.80	11.15	10.62	10.03
6014/C1K	RAY	11.80	11.15	10.62	10.03
6014/C1K	RCA	11.80	11.15	10.62	10.03
6014/5683/C1K	WES	11.80	11.15	10.62	10.03
CK6021	RAY	3.50	3.33	3.15	2.98
6021	RCA	3.50	3.33	3.15	2.98
6021	SYL	3.50	3.33	3.15	2.98
CK6021WA	RAY	8.72	8.24	7.85	7.41
CK6029	RAY	7.30	6.90	6.57	6.20
6032A	RCA	170.00			
GL-6039	GE	2070.00			
6046	GE	1.55	1.46	1.39	1.32
CK6072	RAY	3.90	3.71	3.51	3.32
6072	RCA	3.90	3.71	3.51	3.32
6072A	GE	3.90	3.71	3.51	3.32
CK6072A	RAY	3.90	3.71	3.51	3.32
6073	RCA	3.00	2.85		
6073/OA2	RCA	3.35	3.17	3.01	2.85
6074	RCA	3.45	3.28	3.11	
6074/OB2	RCA	3.70	3.50	3.33	3.15
6075	AME	250.00			
6076	AME	305.00			
6076	RCA	305.00			
6079	AME	70.00	66.15	63.00	59.50
6080	GE	5.33	5.06	4.80	4.53
CK6080	RAY	5.33	5.06	4.80	4.53
6080	RCA	5.33	5.06	4.80	4.53
6080	SYL	5.33	5.06	4.80	4.53
6080WA	TUN	10.80			
6080	WES	5.33	5.06	4.80	4.53
CK6080WA	RAY	10.80			
6080WA	RCA	10.80			
CK6080WB	RAY	29.78			
6082	RCA	5.60	5.32		
6083	AME	16.50	15.59	14.85	13.20
6084	AME	3.30	3.12	2.97	2.81
6085	AME	3.30	3.12	2.97	2.81
6087/SY4WG7B	GE	5.75	5.46	5.17	4.89
CK6088	RAY	3.05	2.88	2.75	2.59
6098/6AR6WA	TUN	13.45	12.71	12.10	11.43
6101	RCA	5.35	5.08		
6101/6J6WA	RCA	5.35	5.08		
6101	SYL	5.35			
6111	GE	3.70	3.52	3.33	3.15
CK6111	RAY	3.70	3.52	3.33	3.15
6111	RCA	3.70	3.52	3.33	3.15
6111A	SYL	3.70	3.52	3.33	3.15
CK6111WA	RAY	8.72	8.24	7.83	7.41
6112	GE	4.15	3.94	3.74	3.53
CK6112	RAY	4.15	3.94	3.74	3.53
6112	RCA	4.15	3.94	3.74	3.53
6112A	SYL	4.15	3.94	3.74	3.53
CK6112WA	RAY	6.24	5.90	5.62	5.30
6130/3C45	RCA	19.85			
6134	GE	5.70	5.39	5.13	4.85
6135	GE	2.40	2.27	2.16	2.04
6135	SYL	2.40			
6136	RCA	2.70	2.57	2.43	2.30
6136	GE	3.85			
6136	SYL	2.70	2.57	2.43	2.30
6136/6AU6WB	GE	2.70	2.57	2.43	2.30
6136	SYL	2.70	2.57	2.43	2.30
6146A	GE	4.35	4.13	3.92	3.70
CK6146	RAY	4.35	4.13	3.92	3.70
6146A	RCA	4.35	4.13	3.92	3.70
CK6146B/8298A	RAY	5.20	4.94	4.68	4.42

Industrial & Special Purpose Tubes

Abbreviation	Manufacturer	Abbreviation	Manufacturer	Abbreviation	Manufacturer	Abbreviation	Manufacturer
AME	Amperex	GL	Genalex Gold Lion	PEN	Penta-Labs	THE	Thermosen
COS	Cossar	MUL	Mullard	RAY	Raytheon	TUN	Tung-Sol
DUM	Dumont	10M	Mullard "10M"	RCA	Radio Corpora-	VIC	Victoreen
EIM	Eimac	NE	National Electr.	SYL	Sylvania	WES	Westinghouse
GE	General Electric	NU	National Union				

Tube Type	Mfr.	1-4	5-18	19-49	50-99
CK6146A	RAY	4.35	4.13	3.92	3.70
6146A	SYL	4.35	4.13	3.92	3.70
6146A	WES	4.35	4.13	3.92	3.70
6146B/8298A	WES	5.20	4.94	4.68	4.42
6146B/8298A	RCA	5.20	4.94	4.68	4.42
6146W/7212	RCA	6.75	6.41	6.08	5.74
6155	AME	36.00	34.20	.....	.....
6155	RCA	36.00	34.20	.....	.....
6156	AME	42.60	40.26	38.34	26.41
6156	RCA	42.60	40.26	38.34	26.41
6159	AME	4.80	4.56	4.32	4.08
6159	RCA	4.80	4.56	4.32	4.08
6159B	RCA	5.60	5.29	5.04	4.76
6159A	SYL	4.80	4.56	4.32	4.08
6159W/7357	RCA	6.75	6.41	6.08	5.74
6161	RCA	125.00	.....	.....	.....
6166	RCA	735.00	.....	.....	.....
6166A/7007	RCA	1005.00	.....	.....	.....
6173	RAY	13.95	.....	.....	.....
CK6174	RAY	4.60	4.35	4.14	3.91
6181	RCA	1110.00	.....	.....	.....
6186	RCA	3.85	3.66	.....	.....
6186/6AG5WA	RCA	3.85	3.66	.....	.....
6186	SYL	3.85	3.66	.....	.....
6189	RCA	3.70	3.52	3.33	3.15
6189/12AU7WA	RAY	3.70	3.52	3.33	3.15
6189/12AU7WA	RCA	3.70	3.52	3.33	3.15
6189	SYL	3.70	3.52	3.33	3.15
6189/12AU7WA	WES	3.70	3.52	3.33	3.15
6197	RCA	2.30	2.19	2.07	1.96
6199	RCA	47.20	44.60	.....	.....
6201	AME	2.95	2.80	2.66	2.51
6201	RCA	2.95	2.80	2.66	2.51
6201	SYL	2.55	2.42	2.29	2.17
6201/12AT7WB	GE	2.55	2.42	2.29	2.17
CK6201/12AT7WA	RAY	2.95	2.80	2.66	2.51
6202	RCA	2.69	2.54	2.42	2.29
6202/6X4WA	GE	4.10	3.87	3.69	3.49
6203	GE	4.10	3.87	3.69	3.49
CK6205	RAY	5.35	5.06	4.81	4.55
6205	RCA	6.40	6.05	5.76	5.44
6205A	SYL	5.90	5.58	5.31	5.02
6206	RCA	7.25	6.85	6.52	6.16
6211	AME	3.20	3.02	2.88	2.72
6211A	GE	2.15	2.04	1.94	1.83
6211	RCA	2.15	2.04	1.94	1.83
CK6213	RAY	5.67	5.36	5.10	4.82
6216	GE	4.00	3.78	3.60	3.40
6217	RCA	72.00	.....	.....	.....
6218	AME	8.65	8.17	7.78	7.35
6227	AME	3.05	2.88	2.74	2.59
GL-8228	GE	3695.25	.....	.....	.....
CK6247	RAY	11.20	10.58	10.08	9.52
CK6247WA	RAY	21.55	20.36	19.39	18.32
GL6251	GE	2790.00	.....	.....	.....
6252	AME	25.00	23.20	21.60	.....
ML-6256	RAY	318.00	.....	.....	.....
ML-6257	RAY	330.00	.....	.....	.....
6257	SYL	330.00	.....	.....	.....
ML-6258	RAY	370.00	.....	.....	.....
6263A	RCA	13.05	12.33	11.74	11.09
6264A	RCA	13.85	13.09	12.46	11.77
CK6265	RAY	4.10	3.87	3.69	3.49
6268	AME	41.00	38.74	.....	.....
6279	AME	47.75	44.93	42.79	.....
6291	DUM	63.00	59.54	.....	.....
6292	DUM	63.00	59.54	.....	.....
6293	RCA	5.95	5.65	5.36	5.06
6299	GE	56.00	.....	.....	.....
6328	RCA	515.00	.....	.....	.....
6328	RCA	13.65	12.90	12.28	11.60
CK6336A	RAY	19.04	18.08	17.14	16.18
6336A	RCA	19.04	18.08	17.14	16.18
6339	AME	33.75	31.89	30.37	28.69
6342A	RCA	57.20	.....	.....	.....
6350	RCA	1.85	1.76	1.67	1.57
6350	SYL	1.85	1.76	1.67	1.57
6360	RCA	4.90	4.68	4.45	.....
6360A	AME	4.90	4.68	4.45	.....
6362	DUM	133.00	.....	.....	.....
6363	DUM	122.50	115.76	.....	.....
6364	DUM	161.00	152.15	.....	.....
6365	DUM	64.40	60.86	57.96	.....
6366	DUM	175.00	.....	.....	.....
6370	AME	16.50	15.59	14.85	14.03
6375	AME	8.40	7.94	7.56	7.14

Tube Type	Mfr.	1-4	5-18	19-49	50-99
6381	RCA	.....	.....	.....	.....
6386	GE	7.38	7.01	6.64	6.27
6386	RCA	7.38	7.01	6.64	6.27
6397	GE	8.30	7.84	7.47	7.06
CK6397	RAY	8.30	7.84	7.47	7.06
6405/1640	RCA	9.15	8.65	8.24	7.78
CK6414	RAY	3.65	3.45	3.28	3.10
6417	RCA	3.33	3.16	.....	.....
CK6418	RAY	3.20	3.02	2.88	2.72
CK6419	RAY	7.30	6.90	6.57	6.21
ML-6420	RAY	445.00	.....	.....	.....
ML-6421	RAY	525.00	.....	.....	.....
ML-6421F	RAY	545.00	.....	.....	.....
ML-6422	RAY	450.00	.....	.....	.....
ML-6423	RAY	525.00	.....	.....	.....
ML-6423F	RAY	545.00	.....	.....	.....
ML-6424	RAY	518.00	.....	.....	.....
6425F	SYL	675.00	.....	.....	.....
ML-6426	RAY	720.00	.....	.....	.....
CK6438	RAY	9.15	8.65	8.24	7.78
6442	GE	39.00	.....	.....	.....
ML-6442	RAY	39.00	.....	.....	.....
6448	RCA	5675.00	.....	.....	.....
6463	AME	3.50	3.33	3.15	2.97
6463	GE	1.90	1.81	1.71	1.62
6467	DUM	63.00	39.54	.....	.....
6472	RCA	14.75	13.94	13.28	12.54
CK6476	RAY	13.37	.....	.....	.....
6476A	SYL	14.95	.....	.....	.....
6481	SYL	50.00	.....	.....	.....
6483	SYL	3.09	.....	.....	.....
6485	GE	2.05	.....	.....	.....
CK6485	RAY	2.05	.....	.....	.....
6499	RCA	360.00	.....	.....	.....
6508	AME	80.00	75.60	72.00	68.00
GL-6512	GE	310.00	.....	.....	.....
GL-6513	GE	420.00	.....	.....	.....
GL-6514	GE	575.00	.....	.....	.....
GL-6515	GE	1060.00	.....	.....	.....
CK6519	RAY	7.30	6.90	6.57	6.21
6521	RCA	690.00	.....	.....	.....
6524	RCA	22.10	20.88	19.89	18.79
CK6528	RAY	21.55	20.47	19.40	18.32
6528	TUN	21.55	20.47	19.40	18.32
CK6533	RAY	13.25	12.52	11.92	11.26
6544	DUM	910.00	.....	.....	.....
PL-6549	PEN	31.00	29.30	.....	.....
CK6550	RAY	4.95	4.68	4.45	4.21
6550	RCA	4.59	4.36	4.13	3.90
6550	SYL	4.59	4.36	4.13	3.90
6550	TUN	4.30	4.06	3.87	3.66
6550MP	TUN	9.25	8.74	8.32	7.86
6550V1	RCA	9.25	8.74	8.32	7.86
6562/5794A	RCA	.....	.....	.....	.....
PL6569	PEN	39.75	37.75	.....	.....
6570	RCA	10.75	10.16	9.68	.....
ML-6576	RAY	870.00	.....	.....	.....
PL-6580	PEN	48.75	46.07	.....	.....
6617	AME	470.00	.....	.....	.....
6618	AME	670.00	.....	.....	.....
CK6626/OA2WA	RAY	3.35	3.16	3.01	2.85
6626/OA2WA	RCA	3.35	3.16	3.01	2.85
CK6627/OB2WA	RAY	2.35	2.22	2.11	2.00
6655A	RCA	54.35	51.36	.....	.....
6660	GE	1.01	.95	.91	.86
CK6660/6BA6	RAY	1.01	.95	.85	.86
6660/6BA6	RCA	1.01	.95	.85	.86
6660/6BA6	WES	1.01	.95	.85	.86
6661	GE	1.34	1.27	1.21	1.14
CK6661/6BH6	RAY	1.34	1.27	1.21	1.14
6661/6BH6	RCA	1.34	1.27	1.21	1.14
6661/6BH6	WES	1.34	1.27	1.21	1.14
6662	GE	1.29	1.22	1.16	1.10
CK6662/6BJ6	RAY	1.29	1.22	1.16	1.10
6662/6BJ6	RCA	1.29	1.22	1.16	1.10
6662/6BJ6	WES	1.29	1.22	1.16	1.10
6663	GE	.92	.87	.....	.....
CK6663/6AL5	RAY	.92	.87	.....	.....
6663/6AL5	RCA	.92	.87	.....	.....
6663/6AL5	WES	.92	.87	.....	.....
6664	GE	1.12	1.06	1.01	.95
6664/6AB4	RCA	1.12	1.06	1.01	.95
6664/6AB4	WES	1.12	1.06	1.01	.95
6669	GE	1.06	1.00	.95	.90
CK6669/6AQ5	RAY	1.06	1.00	.95	.90

Industrial & Special Purpose Tubes

Abbreviation	Manufacturer	Abbreviation	Manufacturer	Abbreviation	Manufacturer	Abbreviation	Manufacturer
AME	Amperex	GL	Genelex	PEN	Penta-Labs	TUN	Thermosen
COS	Cossar	MUL	Mullard	RAY	Raytheon	TUN	Tung-Sol
DUM	Dumont	10M	Mullard	RCA	Radio Corpora-	VIC	Victoreen
EIM	Eimac	NE	National Electr.		tion of America	WES	Westinghouse
GE	General Electric	NU	National Union	SYL	Sylvania		

Tube Type	Mfr.	1-4	5-18	19-49	50-99	Tube Type	Mfr.	1-4	5-18	19-49	50-99	
6669/6AQ5A	RCA	1.06	1.00	.95	.90	6897	RCA	32.15	29.54			
6669/6AQ5A	SYL	1.06	1.00	.95	.90	6935	DUM	140.00				
6669/6AQ5	WES	1.06	1.00	.95	.90	6903	HCA	370.00				
6676	GE	1.06	1.00	.95	.90	6907	AME	25.00	23.63	22.50	21.25	
6676/6CB6A	RCA	1.06	1.00	.95	.90	6909	RAY	11.43				
6676/6CB6A	WES	1.06	1.00	.95	.90	6903	SYL	11.43				
6677	GE	1.85	1.76	1.67	1.57	CK6910	RAY	13.37				
CK6677/6CL6	RAY	1.85	1.76	1.67	1.57	6910	RAY	13.37				
6677/6CL6	RCA	1.85	1.76	1.67	1.57	6911	DUM	126.00				
6677/6CL6	SYL	1.85	1.76	1.67	1.57	6914	RCA					
								(Price On Request Only)				
6676/6CL6	WES	1.85	1.76	1.67	1.57	6914A	RCA					
6678	GE	1.62	1.54	1.46	1.38	6922	AME	4.87	4.60	4.38	4.14	
CK6678/6U8A	RAY	1.62	1.54	1.46	1.38	6922	RAY	4.87	4.60	4.38	4.14	
6678/6U8A	RCA	1.62	1.54	1.46	1.38	6922	RCA	4.87	4.60	4.38	4.14	
6678/6U8A	SYL	1.62	1.54	1.46	1.38	6922	SYL	4.87	4.60	4.38	4.14	
6678/6U8A	WES	1.62	1.54	1.46	1.38	6923	AME	11.00				
6679	GE	1.50	1.43	1.35	1.28	6935	DUM	140.00				
CK6679/12AT7	RAY	1.50	1.43	1.35	1.28	6939	AME	12.00				
6679/12AT7	RCA	1.50	1.43	1.35	1.28	CK6933	RAY	12.00	11.34	10.80	10.20	
6679/12AT7	SYL	1.50	1.43	1.35	1.28	6939	RCA	11.37	10.80	10.23	9.66	
6679/12AT7	WES	1.50	1.43	1.35	1.28	6942	GE	960.00				
6680	GE	1.22	1.16	1.10	1.04	6953	RCA	7.80	7.37	7.02		
CK6680/12AU7	RAY	1.22	1.16	1.10	1.04	6960	AME	162.50				
6680/12AU7	RCA	1.22	1.16	1.10	1.04	6961	AME	210.00				
6680/12AU7	SYL	1.22	1.16	1.10	1.04	6977	AME	2.50				
6680/12AU7	WES	1.22	1.16	1.10	1.04	6977	SYL	2.50				
6681	GE	1.26	1.19	1.13	1.07	6979	AME	42.50	40.16	38.25	36.13	
CK6681/12AX7	RAY	1.26	1.19	1.13	1.07	NL-6989-NE	NE	33.90	32.21			
6681/12AX7	SYL	1.26	1.19	1.13	1.07	NL-6989/C6J/KL	NE	29.45	27.98			
6681/12AX7	WES	1.26	1.19	1.13	1.07	7007/6166A	GE	1020.00				
6686	AME	4.10	3.87	3.69	3.49	ML-7007	RAY	1020.00				
6687	AME	2.79				7007/6166A	RCA	1005.00				
6688	AME	6.80	6.43	6.12	5.78	NL-7009	NE	19.00				
CK6688	RAY	8.75	8.27	7.87	7.44	7016	WES	21.40	19.85	17.10	16.15	
6688A	AME	6.80	6.43	6.12	5.78	7018	WES	10.05	9.01	7.97	6.93	
6688A	RCA	8.75	8.27	7.87	7.44	7019	WES	13.00	12.00	11.00	10.01	
CK6688A	RAY	8.75	8.27	7.87	7.44	7025	MUL	1.40	1.32	1.26	1.19	
6689	AME	3.85	3.64	3.46	3.27	7025	IOM	2.35	2.22	2.11	2.00	
6693	AME	27.90	26.37	25.11		7033	DUM	1295.00				
6696A	EIM	1105.00				7034/4X150A	RCA	25.00	23.63	22.50	21.25	
ML-6696	RAY	1105.00				7035/4X150D	RCA	27.90	26.37	25.11	24.32	
ML-6696A	RAY	1205.00				7038	GE	185.00				
ML-6697	RAY	1330.00				7038	RCA	185.00				
ML-6697A	RAY	1430.00				7038	SYL	185.00				
6756	AME	600.00				7043	RCA	6.75	6.38	6.08		
6759	AME	315.00				CK7044	RAY	3.18	3.01	2.86	2.70	
CK6763	RAY	4.20	3.97	3.78	3.57	7044	RCA	2.70	2.55	2.43	2.30	
ML-6771	RAY	71.90	67.95	64.71	61.12	7044	SYL	2.70	2.55	2.43	2.30	
PL-6775	PEN	51.00	48.20			7046	RCA	570.00				
CK6792	RAY	12.85	12.14	11.56	10.92	7054	RCA	1.54	1.46	1.39	1.30	
6786	AME	230.00				7055	RCA	1.00	.95			
CK6802	RAY	11.43				7056	RCA	.92	.87	.83	.78	
6802	SYL	11.43				7057	RCA	1.95	1.84	1.75	1.66	
6806	RCA	6975.00				7058	RCA	1.26	1.19	1.13	1.07	
6807	GE	32.35				7059	RCA	1.48	1.41	1.33	1.26	
6808	GE	32.00				7060	RCA	1.75	1.66	1.58	1.49	
6809	GE	35.50	33.55	31.95	30.18	7061	RCA	1.29	1.23	1.16	1.09	
6810A	RCA	195.00				7062	AME	2.39	2.26	2.15	2.03	
6814	RCA	5.90	5.58	5.31	5.02	7077	GE	39.05				
6816	RCA	52.90				7090	AME	225.00				
6829	GE	6.10	5.76	5.49	5.19	7091	AME	425.00				
CK6829	RAY	6.10	5.76	5.49	5.19	7092	AME	125.00				
6842	NU	14.30	13.51	12.87	12.16	NL-7094	NE	30.00				
NL-6844A	NE	11.00	10.40	9.90	9.35	7094	RCA	35.45	33.50	31.91	30.13	
6850	RCA	20.70	19.56	18.63	17.60	7102	RCA	110.00				
6861	RCA	955.00				7117	RCA	12.65				
6866	DUM	1400.00				7119	AME	2.95	2.48	2.30	2.03	
GL-6878	GE	3060.00				7136	AME	27.90	26.37	25.11		
6879	SYL	13.37	12.63	12.03	11.36	GL-7151	GE	750.00				
6883	AME	4.30	4.09	3.87	3.66	NL-7153	NE	14.50	13.70	13.05	12.33	
CK6883	RAY	4.30	4.09	3.87	3.66	7155	SYL	13.37	13.63	12.03	11.36	
6883	RCA	4.30	4.09	3.87	3.66	7163	RCA	1.21				
6883B/8032A/8552	RCA	5.40	4.10	4.86	4.59	7163V1	RCA	1.28				
6884	RCA	45.75				7167	RCA	1.21				
6887	RCA	1.40	1.32	1.26	1.19	7167	GE	1.41	1.33	1.27	1.20	
6893	RCA					7167	RCA	1.41	1.33	1.27	1.20	
		NEAREST TYPE 2E26 OR 6883B/8032A/8552					7167	SYL	1.45	1.37	1.31	1.23
6893	TUN	4.50	4.25	4.05	3.83	GL-7171	NE	81.50	77.02	73.35	69.28	
6893	WES	4.50	4.25	4.05	3.83	7183	RCA	1000.00				
6894	EIM	25.00	23.63			7189	AME	1.35	1.28	1.21	1.15	
NL-6894	NE	25.00	23.63			7189MP	MUL	3.47	3.28	3.12	2.95	
6894	RCA	25.70	24.29	23.13	21.85	7200	RCA	190.00				
6895	EIM	25.00	23.63	22.50	21.25	7203/4CX250B	RCA	35.75	33.96			
NL-6895	NE	25.00				7204/4CX250F	RCA	39.35				
6895	RCA	25.70	24.29	23.15	21.85	7211	EIM	88.50	83.63	79.65	75.23	
6897	GE	32.15	29.54			7213	RCA	410.00				

Industrial & Special Purpose Tubes

Abbreviation	Manufacturer	Abbreviation	Manufacturer	Abbreviation	Manufacturer	Abbreviation	Manufacturer
AME COS DUM EIM GE	Amperex Cossar Dumont Eimac General Electric	GL MUL 10M NE NU	Genalex Gold Lion Mullard Mullard "10M" National Electr. National Union	PEN RAY RCA SYL	Penta-Labs Raytheon Radio Corpora- tion of America Sylvania	THE TUN VIC WES	Thermosen Tung-Sol Victoreen Westinghouse

Tube Type	Mfr.	1-4	5-18	19-49	50-99
7214	RCA	440.00	.....	.....	.....
7226	GE	315.00	.....	.....	.....
7234	NU	15.65	15.35	.....	.....
7235	NU	10.00	9.80	9.65	.....
7237	AME	200.00	.....	.....	.....
CK7246	RAY	7.64	7.22	6.88	6.49
7247	10M	2.55	2.41	2.29	2.17
7247	MUL	1.60	1.51	1.44	1.36
7255	WES	210.00	.....	.....	.....
7258	SYL	2.75	2.60	2.48	2.34
7262A	RCA	250.00	.....	.....	.....
7263A	GE	430.00	.....	.....	.....
7263A	RCA	430.00	.....	.....	.....
7264	RCA	265.00	.....	.....	.....
7265	RCA	375.00	.....	.....	.....
7266	GE	35.44	.....	.....	.....
7268A	DUM	1610.00	.....	.....	.....
7271	RCA	30.20	28.54	27.18	25.67
7289	GE	30.75	29.06	27.67	26.14
ML-7289	RAY	30.75	29.06	27.67	26.14
7292	AME	425.00	.....	.....	.....
7298A	RCA	1150.00	.....	.....	.....
7293A/L	RCA	1800.00	.....	.....	.....
7293	GE	1050.00	.....	.....	.....
7293A/R	GE	1050.00	.....	.....	.....
7295	GE	1440.00	.....	.....	.....
7295B	RCA	1440.00	.....	.....	.....
7295B/L	RCA	1975.00	.....	.....	.....
7296	GE	49.61	47.13	.....	.....
7296B	GE	1440.00	.....	.....	.....
7306A/5684/C31A	WES	13.10	12.38	11.79	11.14
7307A/6011/710	WES	12.70	12.00	11.43	10.80
7308	AME	5.20	4.91	4.33	3.83
7308	RCA	5.20	4.91	4.68	4.42
7315	DUM	994.00	.....	.....	.....
7315	RCA	925.00	.....	.....	.....
7316	AME	1.40	1.32	.....	.....
7325	GE	185.00	.....	.....	.....
7325	SYL	185.00	.....	.....	.....
7326	RCA	410.00	.....	.....	.....
7327	RCA	12.45	.....	.....	.....
7360	RCA	3.77	3.58	3.39	.....
7377	AME	19.60	18.52	17.64	16.66
7378	AME	49.50	46.78	44.56	42.08
7389B	RCA	1440.00	.....	.....	.....
7391	GE	67.00	63.32	60.30	56.95
7404	RCA	370.00	.....	.....	.....
7412	RCA	2.06	.....	.....	.....
7448	DUM	1106.00	.....	.....	.....
7457	RCA	65.25	61.66	58.72	55.46
7459	AME	230.00	.....	.....	.....
7462	GE	39.05	36.90	35.14	33.19
7467	RCA	.....	(Replaced by SQ2516)		
ML-7479	RAY	885.00	.....	.....	.....
ML-7480	RAY	1590.00	.....	.....	.....
ML-7482	RAY	4455.00	.....	.....	.....
7486	GE	39.05	36.90	35.14	33.19
7509A/7101	WES	14.20	13.41	.....	.....
7513	RCA	1320.00	.....	.....	.....
7513/S	RCA	1400.00	.....	.....	.....
7513/S-4513/S	RCA	1400.00	.....	.....	.....
7513/V1	RCA	1400.00	.....	.....	.....
7527	AME	47.25	44.65	40.18	35.72
7534	AME	17.50	16.34	15.76	.....
7550	RCA	13.25	.....	.....	.....
7551	RCA	3.37	3.20	3.03	.....
7552	RCA	47.65	45.03	42.88	40.50
7553	RCA	57.00	53.86	51.30	48.45
7554	RCA	40.00	38.50	.....	.....
NL-7556A-NE	NE	19.60	18.52	17.64	16.66
7558	RCA	3.49	3.32	3.14	2.97
ML-7560	RAY	4455.00	.....	.....	.....
7580	AME	40.75	38.51	36.67	34.64
7580	RCA	24.30	22.96	21.87	.....
7586	RCA	3.35	3.18	3.02	2.85
7587	RCA	5.50	4.94	4.68	4.42
7588	GE	101.59	.....	.....	.....
7609	AME	29.35	.....	.....	.....
7609	RCA	27.90	.....	.....	.....
7625	GE	39.05	36.90	35.14	33.19
7629	GE	1700.00	.....	.....	.....
7629A	RCA	1700.00	.....	.....	.....
7629A/R	GE	1700.00	.....	.....	.....
7643	AME	4.95	4.68	4.45	4.21
7644	GE	65.00	.....	.....	.....
7645	AME	12.00	11.34	10.80	10.20

Tube Type	Mfr.	1-4	5-18	19-49	50-99
7649	RCA	70.00	66.15	63.00	59.50
7650	RCA	240.00	.....	.....	.....
7651	RCA	260.00	.....	.....	.....
7664	DUM	280.00	.....	.....	.....
GL-7669	GE	65.00	61.43	58.50	55.25
7669	WES	65.00	61.43	58.50	55.25
GL-7670	GE	77.20	72.95	69.48	65.62
GL-7671	GE	99.00	93.56	.....	.....
7671	WES	99.00	93.56	.....	.....
GL-7673	GE	245.00	.....	.....	.....
NL-7673	NE	245.00	.....	.....	.....
NL-7673P	NE	245.00	.....	.....	.....
GL-7681	GE	155.00	.....	.....	.....
7693	AME	3.75	3.54	3.37	3.19
7694	AME	3.75	3.54	3.37	3.19
7697	GE	185.00	.....	.....	.....
7697	RCA	185.00	.....	.....	.....
7698	EIM	88.50	83.63	79.65	75.23
ML-7698	RAY	88.50	83.63	79.65	75.23
7699	AME	13.50	12.76	12.15	11.48
GL-7703	GE	190.00	.....	.....	.....
7703	WES	190.00	.....	.....	.....
7717/6CY5	RCA	1.39	1.31	1.25	1.18
7720	GE	39.05	36.90	35.14	33.19
NL-7723-NE	NE	13.10	12.38	11.79	11.14
NL-7723/610	NE	11.40	10.77	10.26	9.69
7725	GE	13.50	12.76	12.15	11.48
7726	GE	16.30	15.40	14.67	13.86
7735A	GE	185.00	.....	.....	.....
7735A	SYL	185.00	.....	.....	.....
7735B	RCA	185.00	.....	.....	.....
7736	GE	850.00	.....	.....	.....
7737	AME	7.20	.....	.....	.....
7746	RCA	200.00	.....	.....	.....
7753	AME	152.00	.....	.....	.....
7764	RCA	125.00	.....	.....	.....
7767	RCA	120.00	.....	.....	.....
7768	GE	111.04	.....	.....	.....
NL-7786-NE	NE	15.50	14.65	13.95	13.18
7788	AME	9.75	9.21	8.77	8.29
7800	AME	760.00	.....	.....	.....
7801	RCA	120.00	.....	.....	.....
7804	AME	400.00	.....	.....	.....
7805	AME	375.00	.....	.....	.....
7806	AME	780.00	.....	.....	.....
7807	AME	640.00	.....	.....	.....
7815	GE	30.75	29.06	27.67	26.14
ML-7815	RAY	30.75	29.06	27.67	26.14
7841	GE	35.44	33.49	31.90	30.12
7842	RCA	65.25	61.66	58.72	55.46
7843	RCA	34.35	32.11	30.92	29.26
7844	RCA	52.00	49.14	46.80	44.20
7850	RCA	240.00	.....	.....	.....
7854	AME	29.25	27.64	.....	.....
ML-7855	RAY	60.00	56.70	54.00	51.00
7860	DUM	133.00	.....	.....	.....
7867	TUN	2.95	2.79	2.66	2.51
7870	RCA	120.00	.....	.....	.....
7887	SYL	6.70	6.32	.....	.....
7888	SYL	5.25	4.99	.....	.....
7895	RCA	3.35	3.18	3.02	2.85
7898	RCA	1.34	1.27	1.21	1.14
7899	AME	760.00	.....	.....	.....
7900	AME	252.00	.....	.....	.....
7905	RCA	3.85	3.68	3.47	3.27
7910	GE	82.69	.....	.....	.....
7913	GE	122.85	.....	.....	.....
NL-7977/4032	NE	33.00	31.19	29.70	.....
7983	AME	6.30	5.95	5.67	.....
7984	GE	5.35	5.06	4.82	.....
7986/5866A	AME	28.00	24.57	23.40	20.80
CK7994	RAY	15.50	14.65	13.95	13.18
CK7995	RAY	15.50	14.65	13.95	13.18
CK7996	RAY	14.00	13.23	.....	.....
8000	RCA	25.00	23.63	22.50	21.25
8005	RCA	17.75	.....	.....	.....
8008	RCA	11.80	11.15	10.62	10.03
8008	SYL	11.80	11.15	10.62	10.03
8008	WES	10.85	10.25	9.77	9.22
NL-8008	NE	9.90	9.36	8.91	8.42
8008AX	AME	10.85	10.25	9.77	9.22
8013A	RCA	18.70	18.71	17.82	16.83
8020(100R)	EIM	26.50	25.04	.....	.....
8020	RCA	16.00	15.20	.....	.....
8020AX	AME	24.00	22.68	21.60	20.40
8032	RCA	4.95	4.70	4.46	4.21

Industrial & Special Purpose Tubes

Abbreviation	Manufacturer	Abbreviation	Manufacturer	Abbreviation	Manufacturer	Abbreviation	Manufacturer
AME	Amperex	GL	Genelux Gold Lion	PEN	Penta-Labs	THE	Thermosen
COS	Cossar	MUL	Mullard	RAY	Raytheon	TUN	Tung-Sol
DUM	Dumont	10M	Mullard "10M"	RCA	Radio Corpora- tion of America	VIC	Victoreen
EIM	Eimac	NE	National Electr.	SYL	Sylvania	WES	Westinghouse
GE	General Electric	NU	Nataional Union				

Tube Type	Mfg.	1-4	5-18	19-49	50-99
8035	SYL	11.10			
NL-8037/5031	NE	15.75	14.88	14.17	13.39
8042	AME	9.00	8.51	8.10	
8051	RCA	575.00			
8053	RCA	107.25			
8054	RCA	125.00			
8055	RCA	170.00			
8056	RCA	5.00	4.75	4.50	4.25
8058	RCA	13.25	12.59	11.93	11.26
8062	DUM	133.00			
8072	RCA	20.10	18.99	18.00	17.00
8077/7054	RCA	1.50	1.43	1.35	1.28
8078	AME	69.30	65.49	62.37	
8081	GE	40.16	37.95	36.14	34.14
8082	GE	40.16	37.95	36.14	34.14
8083	GE	40.16	37.95	36.14	34.14
NL-8091	NE	22.50			
8092A	RCA	1870.00			
8092A/S	RCA	1870.00			
GL-8092A	GE	1870.00			
8092A/R	GE	1870.00			
8093A/R	RCA	1320.00			
8093A/L	RCA	1800.00			
GL-8093A	GE	1350.00			
8092A/R	GE	1350.00			
ML-8094/199	RAY	335.00			
CK8096	RAY	21.52	20.34	19.37	18.29
8100	SYL	1.40	1.23		
8106	GE	1.55	1.46	1.39	1.32
8117	AME	29.00	28.00	26.00	
8118	AME	38.50	36.38	34.65	32.73
8121	RCA	25.80			
8122	RCA	31.50			
8124	DUM	4690.00			
8134	RCA	325.00			
8134/V1	RCA	405.00			
8142	SYL	1.40	1.32	1.26	1.19
8143	SYL	1.40	1.32	1.26	1.19
8156	GE	3.90	3.69	3.51	3.22
8163	AME	39.00			
8165/4-65A	RCA	27.00	25.65		
8167/4CX300A	RCA	54.00	51.03		
8168/4CX1000A	RCA	181.00			
8170/4CX5000	RCA	495.00			
ML-8170/4CX5000A	RAY	495.00			
ML-8170W/4CX5000R	RAY	705.00			
ML-8171/4CX10000D	RAY	550.00			
8177	AME	1250.00			
8179	AME	145.00			
PL8189	PEN	156.00			
8203	RCA	3.80	3.59	3.42	3.23
8226	RCA	83.00	78.44	74.70	70.55
8228/ZZ1000	AME	2.90	2.78	2.61	2.47
8233	AME	13.25	12.52	11.92	11.26
8254	AME	17.00			
8268	AME	170.00			

Tube Type	Mfg.	1-4	5-18	19-49	50-99
8269	AME	190.00			
8270	AME	78.00			
ML-8281/4CX1500A	RAY	695.00			
PL-8295/172	PEN	157.00			
8318A	SYL	1.54	1.46	1.39	1.31
8345	SYL	1.40	1.32	1.26	1.19
8346	SYL	1.40	1.32	1.26	1.19
8347	SYL	1.40	1.32	1.26	1.19
8348	AME	7.75	7.32		
8353	SYL	11.10			
8393	RCA	3.45	3.26	3.10	2.93
ML-8403	RAY	115.00			
8408	AME	13.50	12.76	12.15	
8416	AME	4.90			
CK8421	RAY	15.75	14.88	14.18	13.39
NL-8421/5092	NE	15.75	14.88	14.17	13.39
NL-8422/59991	NE	15.75	14.88	14.17	13.39
CK8422	RAY	15.75	14.88	14.18	13.39
NL-8423/6091	NE	19.00	18.39	17.78	17.16
PL-8432	PEN	162.00			
8453/Z550M	AME	14.50	13.70	13.05	12.00
8462	RCA	29.50	27.88	26.55	25.08
8475A	SYL	1.54	1.46	1.39	1.31
8477A	SYL	1.54	1.46	1.39	1.31
8480	RCA	820.00			
8480/V1	RCA	1200.00			
8482	AME	78.00	73.71	70.20	62.40
8484	SYL	185.00			
8501	RCA	1045.00			
NL-8502/4021	NE	33.00	31.19	29.70	28.05
8507	GE	250.00			
8507	RCA	250.00			
8511	GE	315.00			
8520/587	RAY		(Double Brand Not Available Use CK587)		
8521	RCA	575.00			
8532/6J4WA	RCA	5.60	5.29	5.04	4.76
8541	GE	310.00			
8567	RCA	910.00			
8571	RCA	310.00			
8572	RCA	260.00			
8573	RCA	310.00			
8575	RCA	315.00			
PL8576	PEN	395.00			
8582A	SYL	1.54	1.46	1.39	1.31
8596	RCA	106.00			
8604	GE	310.00			
8627	RCA	14.15	13.37	12.73	12.03
8628	RCA	5.00	4.73	4.50	4.25
9001	RCA	5.38	5.11	4.84	4.57
9002	RCA	4.14	3.93	3.73	3.52
9003	RCA	5.38	5.08	4.84	4.57
9005	RCA	8.05	7.61	7.24	6.84
9006	RCA	2.70	1.96	2.43	2.30
NL-50911	NE	15.75	14.88	14.17	13.39

Newark Can Supply All Industrial and Special Purpose Tubes Whether Listed above or not . . .

- Phone, Write, Wire for Prices on Items Not Listed
- Complete Stocks — Best Service
- One Purchase Order to One Source for Everything in Electronics
- Same Day Shipment from On-the-Shelf Stocks

Westinghouse Industrial Power Tubes



THYRATRONS

Type	Cathode		Ratings			1-4	5-18	19-49	50-99
	Volts	Amps	Anode Volts	Peak Amps	Avg. Amps				
WL-2D21	6.3	0.6	1300	0.5	0.1	1.29	1.23	1.16	1.10
WL-502A	6.3	0.6	1300	1.0	0.1	2.28	2.17	2.05	1.94
WL-632B	5.0	5	1500	30	2.5	33.00	31.35	29.70	28.05
WL-772A	5.0	5	2500	40	3.2	39.85	37.86	.....	.....
WL-2050A	6.3	0.6	1300	1.0	0.1	2.03	.....	.....	.....
WL-3C23	2.5	7.0	1250	6.0	1.0	11.98	11.38	10.78	10.18
WL-C6H1	2.5	21	1700	80	6.4	29.10	27.50	26.19	27.74
WL-7269	Order 8C43					44.40	41.82	.....	.....
WL-678	5.0	7.5	15000	6.0	1.6	49.50	.....	.....	.....
WL-414	5.0	20	2000	100	12.5	254.00	.....	.....	.....
WL-624	5.0	10	2500	80	6.4	79.00	74.66	71.10	67.15
WL-5557/17	2.5	5	5000	2.0	0.5	9.50	9.02	8.55	.....
WL-7307A/710	2.5	9	1500	30	2.5	12.70	12.00	11.43	10.80
WL-7306A/5684	Order 7306/5684/C3J/A					13.10	12.38	11.79	11.14
WL-627	2.5	5	5000	2.5	0.64	27.50	.....	.....	.....
WL-673	5.0	10	15000	10.0	2.5	20.15	19.14	.....	.....
WL-5677	Order 22394/5877					19.95	.....	.....	.....
WL-829	2.5	2.6	350	0.2	.04	18.25	17.34	.....	.....
WL-5632/C3J	2.5	9	1250	30	2.5	12.70	12.07	.....	.....
WL-6014/5683/C1K	2.5	6.3	1250	8.0	1.0	11.80	11.21	10.62	10.03
WL-5665/C1E1	2.5	31	1250	160	16.0	52.50	49.88	.....	.....
WL-5727/2D21W	6.3	0.60	1300	0.5	0.1	2.90	2.76	2.61	2.47
WL-7509A/710L	2.5	9	1500	30	2.5	14.20	13.49	12.78	.....

HIGH VACUUM AMPLIFIERS

Type	Cathode		Ratings			1-4	5-18	19-49	50-99
	Volts	Amps	Anode KV	Input KW	Diss. KW				
WL-2E26	6.3	0.8	600	40	13.5	3.75	3.56	3.38	3.19
WL-807	6.3	0.9	600	60	25	3.15	.....	.....	.....
WL-829B	12.6	0.12	750	45	15	19.90	18.91	15.07	.....
WL-6146A	6.3	1.25	600	67.5	20	4.35	4.13	3.92	3.70
WL-6146B/8298A	6.75	1.165	600	90	25	5.20	4.94	4.68	4.42
WL-813	10	5	2	36	100	24.30	23.09	21.37	.....
WL-892	22	60	15	30	10	345.00	.....	.....	.....
WL-811A	6.3	4	1.5	260	65	7.15	6.79	6.43	6.08
WL-829B	6.75	1.165	600	67.5	20	19.90	18.91	15.07	.....
WL-7255	6	60	9.2	18	9	210.00	.....	.....	.....
WL-2E24	6.3	.65	600	40	13.5	6.15	.....	.....	.....
WL-833A	10	10	4	1.8	0.4	58.20	.....	.....	.....
WL-832A	12.6	.8	750	18	7.5	18.75	15.91	15.07	.....

HIGH VACUUM RECTIFIERS

Type	Cathode		Ratings			1-4	5-18	19-49	50-99
	Volts	Amps	Inverse KV	Peak MA	Avg. MA				
WL-584-GYB	5	2	3100	715	150	2.03	1.93	1.82	1.72
WL-481B	2.5	5	25	150	30	10.90	10.30	9.81	9.27
WL-579B	2.5	6	20	270	25	20.50	19.48	18.45	.....

SPECIAL PURPOSE TUBES

Type	Class	Cathode		Plate Volts	Plate MA	1-4	5-18	19-49	50-99
		Volts	Amp.						
WL-5691	2 Triode	6.3	0.6	250	2.3	8.75	8.31	7.87	7.43
WL-5692	2 Triode	6.3	0.6	250	6.5	8.25	7.83	7.43	7.01
WL-5693	Pentode	6.3	0.3	250	3	6.80	6.27	5.94	5.61
WL-5814A	2 Triode	12.6	0.175	250	10.5	2.35	2.23	2.12	2.00
WL-5804	Triode	11	176	12000	2500	570.00	.....	.....	.....
WL-5806	Triode	22	60	14000	1800	288.00	.....	.....	.....
WL-892	Triode	22	60	15000	1640	345.00	.....	.....	.....
WL-5668	Triode	22	60	14000	2000	350.00	.....	.....	.....
WL-5736	Triode	6	60	3500	1000	190.00	.....	.....	.....

GAS & MERCURY VAPOR RECTIFIERS

Type	Cathode		Ratings			1-4	5-18	19-49	50-99
	Volts	Amps	Inverse Volts	Peak Amp.	Drop Volts				
WL-575A	5.0	10	15000	6.0	10	20.15	19.14	18.13	.....
WL-866A	2.5	5	10000	1.0	15	3.10	.....	.....	.....
WL-872A	5.0	7.5	10000	5.0	15	9.90	9.45	8.91	8.42
WL-8008	5.0	7.5	10000	5.0	15	10.85	.....	.....	.....
WL-3B22/1C	2.5	6	725	4.0	8	10.85	10.25	9.76	9.22
WL-3B28	2.5	5	10000	1.0	10	6.00	5.67	5.40	5.10
WL-4B24/3C	2.5	11.5	725	10.0	8	11.80	11.15	10.62	10.03
WL-816	2.5	2	7500	0.5	15	2.95	2.79	2.65	.....
WL-869B	.....	.....	.....	.....	.....	138.00	.....	.....	.....
WL-5575/100/616	20.0	24	150000	1.0	525	225.00	.....	.....	.....
WL-5576/200	.....	.....	.....	.....	.....	.....	.....	.....	.....
WL-7016	2.5	17	900	25.6	10	21.40	.....	.....	15.25
WL-7018	2.5	7	2000	10.0	12	10.05	9.01	7.97	6.93
WL-7019	2.5	18	1000	77.0	9	13.00	12.00	11.00	10.01
WL-857B	5.0	30	22000	40.0	15	218.50	.....	.....	.....

VOLTAGE REGULATORS

Type	Regulated		Range Volts	1-4	5-18	19-49	50-99
	Volts	Ma					
WL-0A2	150	5-30	2	1.32	1.25	1.19	.94
WL-0A2WA	150	5-30	2	3.35	3.20	3.00	2.86
WL-0A3/VR75	75	5-40	5	1.54	1.46	1.38	1.10
WL-0B2	105	5-30	4	1.37	1.30	1.24	.98
WL-0B2WA	105	5-30	4	2.40	2.28	2.16	1.69
WL-0B3/VR90	90	5-30	5	2.35	2.23	2.12	2.00
WL-0C3/VR105	105	5-40	2	1.50	1.42	1.35	1.07
WL-0D3/VR150	150	5-40	4	1.44	1.37	1.29	1.03

IGNITRONS

Type	RMS Volts	Peak Amps	Avg. Amps	Avg. Sec.	1-4	5-18	19-49	50-99
WL-5551A/652	600	2800	30.2	7.5	65.00
WL-5552A/651	250	13450	140	14	99.00	.....	.....	.....
WL-5553B/655	250	27000	355	11	245.00	.....	.....	.....
WL-5555/653B	2400	1200	150	1.7	348.50	.....	.....	.....
WL-5822A	1200	420	70	.....	116.00	.....	.....	.....
WL-7703*	20**	100000	.....	.....	190.00	.....	.....	.....
WL-7669	1200	135	22.5	.....	65.00	61.43	58.50	55.25
WL-7671	250	13450	140	14	99.00	93.56	89.10	84.15

*Rep. Rate, pulse/min. $\times 2$.

**Hold-off kv.

INDUSTRIAL RECEIVING TUBES

Type	Cathode		Anode Volts	Plate MA	1-4	5-18	19-49	50-99
	Volts	Amp.						
WL-5654/6AK5W	6.3	0.175	120	7.5	2.45	2.33	2.23	2.08
WL-5726/6AL5W/6097	6.3	.300	Detect. for Service		1.55	1.47	1.40	1.32
WL-6189/12AU7WA	12.6	0.15	250	10.5	3.65	.....	.....	.....
WL-6660/6BA6	6.3	.30	250	11.0	1.01	.95	.91	.86
WL-6661/6BH6	6.3	.15	250	7.4	1.34	1.27	1.21	1.14
WL-6662/6BJ6	6.3	.15	250	9.2	1.29	1.22	1.16	1.10
WL-6663/6AL5	6.3	.30	275	60	.92	.87	.....	.....
WL-6664/6AB4	6.3	.30	125	13.0	1.15	.....	.....	.....
WL-6669/6AQ5	6.3	.45	250	45	1.06	1.00	.95	.90
WL-6676/6CB6A	6.3	.30	125	13.0	1.06	1.00	.95	.90
WL-6677/6CL6	6.3	.65	250	30	1.85	1.76	1.67	1.57
WL-6678/6UBA	6.3	.45	250	10	1.62	1.54	1.46	1.38
WL-6679/12AT7	12.6	.15	250	10	1.50	1.43	1.35	1.28
WL-6680/12AU7	12.6	.15	250	10.5	1.22	1.16	1.10	1.04
WL-6681/12AX7	12.6	.15	250	1.2	1.26	1.19	1.13	1.07

Hollow Cathode Discharge Devices

Available from NEWARK

on Special Order



Industrial & Special Purpose Tubes

INDUSTRIAL RECEIVING-TYPE PREMIUM TUBES



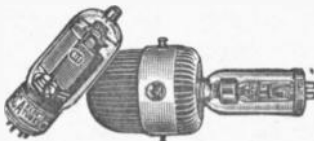
PREMIUM TUBES. For critical industrial and other equipment requiring exceptional stability of tube characteristics, long tube life, and reliable performance. RCA Premium Tubes, superior to their corresponding commercial prototypes, are subjected to special test and controls on critical characteristics, environmental test (such as shock, fatigue, vibration, altitude) and also to special life test.

Type	Description	Proto-Type	1-4	5-18	19-49	50-99
0A2WA	Voltage-Regulator with Min. 7-Pin Base	0A2	3.35	3.20	3.00	2.86
0B2WA	Voltage-Regulator with Min. 7-Pin Base	0B2	2.40	2.28	2.16	2.04
6AU6WB	For data, refer to Military specification	6AU6	2.70	2.57	2.43	2.30
12AT7WA	For data, refer to Military specification	12AT7	2.53	2.40	2.28	2.15
5654	Sharp-Cutoff Pentode with Min. 7-Pin Base	6AK5	2.41	2.28	2.16	2.04
5670	Medium-Mu Twin Triode with Min. 9-Pin Base	2051	2.45	2.33	2.21	2.08
5725	Sharp-Cutoff Pentode with Min. 7-Pin Base	6AS6	3.15	2.99	2.83	2.68

Type	Description	Proto-Type	1-4	5-18	19-49	50-99
5726	Twin Diode with Min. 7-Pin Base	6AL5	1.55	1.47	1.40	1.32
5727/2D21W	Thyratron. For data, refer to Mil. spec.	2D21	2.90	2.76	2.61	2.47
5749	Remote-Cutoff Pentode with Min. 7-Pin Base	6BA6	2.20	2.09	1.98	1.87
5751	High-Mu Twin Triode with Min. 9-Pin Base	12AX7	2.55	2.42	2.30	2.17
5814A	Medium-Mu Twin Triode with Min. 9-Pin Base	12AU7	2.35	2.23	2.12	2.00
6005	Beam Power Tube with Min. 7-Pin Base	6AQ5	3.23	3.06	2.91	2.75
6080WA	For data, refer to Mil. spec.	6AS7G	10.80	.....	.....	.....
6101/6J6WA	Medium-Mu Twin Triode with Min. 7-Pin Base	6J6	5.35	5.08	.....	.....
6136	Sharp-Cutoff Pentode with Min. 7-Pin Base	6AU6	2.70	2.57	2.43	2.30
6186/6AG5WA	Sharp-Cutoff Pentode. Refer to Mil. spec.	6AG5	3.85	3.66	.....	.....
6189/12AU7WA	Medium-Mu Triode. Refer to Mil. spec.	12AU7WA	3.70	3.52	3.33	3.15
8532/6J4WA	High-Mu Triode with Min. 7-Pin Base	.....	5.60	5.29	5.04	4.76



RCA VACUUM POWER TUBES FOR CW APPLICATIONS—TYPICAL CLASS C TELEGRAPHY SERVICE (CCS)



891R



6146A



6161



7650

Created by the Hand of Experience

Nearly forty years of experience in the research, design, and the manufacture of tubes for demanding broadcast, industrial, and military applications go into every RCA tube sold today.

Type	Description	Filament or Heater Volts/Amp	1-4	5-18	19-49	50-99
2C39A	Triode	6.3/1	20.75	19.71	18.68	17.64
2C39A/VI	Triode	6.3/1	20.75	19.71	18.68	17.64
2C40	Lighthouse Triode	6.3/0.75	29.30	27.69	26.37	24.90
2C43	Lighthouse Tri. Quick Heating	6.3/0.75	26.95	25.60	.....	.....
2E24	Beam Power Tube	6.3/0.65	6.45	6.10	5.81	5.48
2E26	Beam Power	6.3/0.8	3.75	3.56	3.38	3.19
4-125A/4D21	Beam Power	5/1/6.5	36.00	34.20	32.40	30.60
4-250A/5D22	Beam Power	5/1/4.5	46.50	44.18	41.85	39.53
4X500A	Beam Power	5/1/2.2 to 13.7	128.50	.....	.....	.....
801A	Triode	7.5/1/1.25	14.25	13.47	12.83	.....
807	Beam Power	6.3/0.9	3.40	3.21	3.06	2.89
809	Triode	6.3/2/5	9.65	9.12	8.69	8.20
810	Triode	10/1/4.5	28.60	27.03	.....	.....
811A	Triode	6.3/1/4	7.00	6.62	6.30	5.95
812A	Triode	6.3/1/4	7.45	7.04	6.71	6.33
813	Beam Power	10/1/5	24.25	23.15	22.05	.....
828	Beam Power	10/1/3.25	34.50	32.60	31.05	29.32
829B	Twin Beam Power	6.3/2/2.25	.....	.....	.....	.....
832A	Twin Beam Power	12.6/1/1.25	19.85	18.75	17.87	16.87
833A	Triode	6.3/1/1.16	16.65	15.74	14.99	14.15
845	Triode	10/1/10	61.20	57.83	54.99	52.02
891R	Triode	10/1/3.25	28.40	26.84	25.56	24.14
892	Triode	22/1/60	490.00	.....	.....	.....
892R	Triode	22/1/60	342.00	.....	.....	.....
1624	Beam Power	22/1/60	440.00	.....	.....	.....
4604	Quick Heating Beam Power	2.5/1/2	7.90	7.47	7.11	6.72
5556	Beam Power	6.3/1/0.65	8.75	8.27	7.88	7.44
5762/7C24	Triode	4.5/1/1	52.45	49.57	.....	.....
5771	Triode	12.6/1/29	240.00	216.00	.....	.....
6146A	Beam Power	7.5/1/170	780.00	.....	.....	.....
6146B/8298A	Beam Power	6.3/1/1.25	4.35	4.13	3.92	3.70
6155	Beam Power	5/1/6.5	5.20	4.94	4.68	4.42
6159	Beam Power	26.5/0.32	36.00	34.20	32.40	30.60
6159B	Beam Power	26.5/0.3	4.80	4.56	4.32	4.08
6161	Triode	26.5/0.3	5.60	5.29	5.04	4.76
6166	Beam Power	6.3/3/4	125.00	.....	.....	.....
		5/1/168	735.00	.....	.....	.....

Type	Description	Filament or Heater Volts/Amp	1-4	5-18	19-49	50-99
6166A/7007	Beam Power	5/1/174	1005.00	.....	.....	.....
6524	Twin Beam Power	6.3/1/25	22.10	.....	.....	.....
6816	Cerinox Tube	6.3/2/1	52.90	20.88	19.89	18.79
6850	Twin Beam Power	12.6/0.625	20.70	19.56	18.63	17.60
6883	Beam Power	12.6/0.625	4.30	4.09	3.87	3.66
6883B/8032A/8552	Beam Power	12.6/0.562	5.40	4.86	4.59	4.10
6884	Cerinox Tube	26.5/0.52	45.75	.....	.....	.....
6897	Lighthouse Triode	6.3/1/0.3	32.15	29.54	.....	.....
7034/4X150A	Beam Power	6/2/6	25.97	22.63	20.26	17.90
7035/4X150D	Beam Power	26.5/0.58	27.97	25.27	23.60	21.45
7094	Beam Power	6.3/2/85	35.45	33.50	31.91	30.13
7203/4CX250B	Beam Power	6/2/6	35.75	33.96	.....	.....
7204/4CX250F	Beam Power	26.5/0.58	39.35	.....	.....	.....
7271	Beam Power	13.5/1/25	30.20	28.54	27.18	25.67
7580	Beam Power	6/2/6	24.30	22.96	21.87	.....
7650	Cerinox Tube	6.3/7/5	240.00	.....	.....	.....
7842	Cerinox Tube	6.3/3/2	65.25	61.66	58.72	55.46
8000	Triode	10/1/4.5	25.00	23.63	22.50	21.25
8005	Triode	10/1/3.25	17.75	.....	.....	.....
8032	Beam Power	13.5/0.585	4.95	4.70	4.46	4.21
8072	Beam Power	13.5/1/3	20.10	18.99	18.00	17.00
8121	Beam Power	13.5/1/3	25.80	.....	.....	.....
8122	Beam Power	13.5/1/3	31.50	.....	.....	.....
8165/4-65A	Beam Power	6/3/2 to 3.8	27.00	25.65	.....	.....
8166/4-1000A	Beam Power	7.5/1/20 to 22.7	131.50	.....	.....	.....
8167/4CX300A	Beam Power	6/0/2.2 to 3.2	54.00	51.03	48.60	45.90
8168/4CX1000A	Beam Power	6/0/8.1 to 9.9	181.00	.....	.....	.....
8170/4CX5000A	Beam Power	7.5/7/3 to 78	495.00	.....	.....	.....
8171/4CX10000D	Beam Power	7.5/7/3 to 78	550.00	.....	.....	.....
8239/3X3000F1	Triode	7.5/4/9 to 54	215.00	.....	.....	.....
8281/4CX15000A	Beam Power	6.3/15/2 to 168	695.00	.....	.....	.....
8438/4-400A	Beam Power	5/1/4.5	48.00	45.60	.....	.....
8501	Cerinox Tube	4.5/1/25	1045.00	.....	.....	.....

MERCURY VAPOR TYPES — HALF-WAVE RECTIFIERS

Type	Max. Plate or Anode Rate @ 60 cps				1-4	5-18	19-49	50-99
	Condensed Mercury °C	PIV	Peak Amp.	AV. Fault Amp.†				
575A	20 to 50	15000	6	1.5	100	.....	.....	.....
	20 to 60	10000	7	1.75	100	.....	.....	.....
	20 to 50*	1500*	10*	2.5*	100*	.....	.....	.....
	20 to 60*	1000*	10*	2.5*	100*	1.00	19.85	18.90

Type	Max. Plate or Anode Rat. @ 60 cps				1-4	5-18	19-49	50-99
	Condensed Mercury °C	PIV	Peak Amp.	AV. Fault Amp.†				
615/7018	35 to 80	2000	10	2.5	250	10.05	9.55	9.05
635/7019	0 to 100	1000	77	6.4	770	13.00	12.35	.....

(*) Quadrature operation.

(†) Duration of 0.1 second maximum.

Industrial & Special Purpose Tubes



MERCURY VAPOR TYPES—HALF-WAVE RECTIFIERS (CONTINUED)

Type	Max. Plate or Anode Rat.— For Supply Freq. of 60 cps				1-4	5-18	19-49	50-99
	Temp. Range Condensed Mercury °C	Peak Inverse Volts	Peak Amp.	AV. Amp.				
673	20 to 50	15000	6	1.5	100			
	20 to 60	10000	7	1.75	100			
	20 to 50*	15000*	10*	2.5*	100*			
	20 to 60*	10000*	10*	2.5*	100*	21.00	19.84	18.90 17.85
816	20 to 60	7500	0.5	0.125	5	3.60	3.40	3.24 3.06
857B	30 to 40	22000	40	10	400			
	25 to 60	10000	40	10	400	245.00		
866A	20 to 60	10000	1	0.25	20			
	20 to 70	5000	1	0.25	20			
	20 to 80	2500	2	0.5	20	3.25	3.07	2.93 2.76
869B	30 to 40	20000	10	2.5	100			
	30 to 50	15000	10	2.5	100			
	30 to 60	10000	10	2.5	100			
	30 to 40*	20000*	10*	2.5*	100*			
	30 to 50*	15000*	20*	5*	100*			
	30 to 60*	10000*	20*	5*	100*	155.00		

Type	Max. Plate or Anode Rat.— For Supply Freq. of 60 cps				1-4	5-18	19-49	50-99
	Temp. Range Condensed Mercury °C	Peak Inverse Volts	Peak Amp.	AV. Amp.				
872A	20 to 60	10000	5	1.25	50			
	20 to 70	5000	5	1.25	50	10.85	10.31	9.77 9.22
5558	35 to 60	5000	15	2.5	200			
	35 to 80	2000	15	2.5	200	17.50	16.63	
6894	20 to 50	20000	8.3	1.8	100			
	20 to 55	15000	8.3	1.8	100			
	20 to 60	10000	8.3	1.8	100			
	20 to 50*	20000*	11.5*	2.5*	100*			
	20 to 55*	15000*	11.5*	2.5*	100*			
	20 to 60*	10000*	11.5*	2.5*	100*	25.70	24.29	23.13 21.85
8008	20 to 60	10000	5	1.25	.50			
	20 to 70	5000	5	1.25	.50	11.80	11.15	10.62 10.03

GAS TYPES— HALF WAVE TYPES

Type	Max. Plate or Anode Rat.— For Supply Freq. of 60 cps†				1-4	5-18	19-49	50-99
	Temp. Range Condensed Mercury °C	Peak Inverse Volts	Peak Amp.	AV. Amp.				
3B25	-75 to +90°a	4500	2	0.5	20	9.15	8.59	8.24 7.78
3B28	-75 to +90°a	10000	1	0.25	20			
		5000	2	0.5	20	7.00	6.62	6.30 5.95

* Quadrature operation
† Duration of 0.1 second max.
a Ambient temp.

VACUUM TYPES—HALF WAVE TYPES

Type	Anode Bearings			1-4	5-18	19-49	50-99
	Peak Inverse Volts	Peak Amp.	AV. Amp.				
2X2A	12500	0.06	0.0075	3.85	3.64	3.47	3.27
836	5000	1	0.25	12.65	12.02	11.38	10.75
1616	6000	0.8	0.13	15.10	14.27		
8013A	40000	0.15	0.02	19.80	18.71	17.82	16.83
8020	40000	1.5	0.1	16.00	15.20		

MERCURY VAPOR—FULL WAVE RECTIFIER

Type	Max. Plate or Anode Rat.— For Supply Freq. of 60 cps				1-4	5-18	19-49	50-99
	Temp. Range Condensed Mercury °C	Peak Amp.	AV. Amp.	Fault Amp. (†)				
604/7014	0 to 90	900	10	2.5	150	11.80	11.21	

† Duration of 0.1 second, max.

THYRATRONS HIGH-POWER TRIGGER TUBES

TRIODES (Mercury-Vapor Types)

Tube Type	Temp. Range	Peak Anode Volts	Peak Anode Amps.	1-4	5-18	19-49	50-99
3C23	-40 to +80α	1250	6	11.98	11.38	10.78	10.18
	-40 to +80	1500	30**	12.00	11.34	10.80	
710/ 6011	-40 to +80	1250	3	10.00	9.50		
714/ 7021	-40 to +80	1500	77**	28.10	26.70		
760/ 6858	-40 to +80	1500	77**	28.10	26.70		
5557	40 to 60	5000	1				
	40 to 80	2500	2				
	40 to 90	1250	3	9.50	9.02	8.55	
5559 5563A	40 to 80	1000	15**	23.00			
	25 to 50	20000	6.4				
	25 to 55	15000	10				
	25 to 50*	20000*	11.5*				
	25 to 55*	15000*	11.5*	50.00			

TETRODES (GAS TYPE)

Tube Type	Range Temp.	Peak Anode Volts	Peak Anode Amp.	1-4	5-18	19-49	25-99
3D22A	-75 to 90α	650	8	34.20	32.41		

α Ambient Temp.

LOW AND INTERMEDIATE-POWER TRIGGER TUBES

TRIODES

Tube Type	Heater Volts/Amp.	Peak Anode Volts	Average Cathode Amp.	1-4	5-18	19-49	50-99
884	6.3/0.6	±350	0.075	2.28	2.17	2.05	1.94

COLD-CATHODE TYPE POWER TRIGGER TUBES

Tube Type	Peak Anode Volts	Average Cathode Amp.	1-4	5-18	19-49	50-99
0A4G	±225	0.025	1.86	1.76	1.67	1.58
1C21	±225	0.025	4.15	3.94	3.74	3.52
5823	±200	0.025	1.72	1.63	1.55	1.46

TRIODES (Gas Types)

Tube Type	Range Temp.	Peak Anode Volts	Peak Anode Amps.	1-4	5-18	19-49	50-99*
629							
6130/ 3C45	-40 to +70	350	0.2	18.25	17.34		
	-50 to +90α	3000	35	19.85			
C1K/ 6014	-55 to +70α	1000	8	11.80	11.15	10.62	10.03
C3J/ 5632	-55 to +75α	900	30	12.70	12.07		
C3JA/ 5684	-55 to +75α	1000	30	13.10	12.46	11.80	
C3JL	-55 to +75α	900	30	14.20	13.42	12.78	12.07
C6J/ 5C21	-55 to +75α	750	77	28.10	26.70		
C16J/ 5665	-55 to +75α	1000	160	52.50	49.88		

TETRODES (Mercury-Vapor Types)

Tube Type	Range Temp.	Peak Anode Volts	Peak Anode Amp.	1-4	5-18	19-49	50-99
632B	40 to 80	1500	30	33.00	31.35	29.70	28.05
672A	40 to 80	2500	40**	39.85	37.86		
5560	40 to 80	1000	150**	33.00	31.25	20.70	

** Cathode
α Ambient Temp.
† Quadrature operation

TETRODES

Tube Type	Heater Volts/Amp.	Peak Anode Volts	Avg. Cathode Amp.	1-4	5-18	19-49	50-99
2D21	6.3/0.6	+650 -1300	0.1	1.29	1.23	1.16	1.10
2D21W	6.3/0.6	+650 -1300	0.1	2.90	2.76	2.61	2.47
502A	6.3/0.6	+650 -1300	0.1	2.28	2.17	2.05	1.94
2050	6.3/0.6	+650 -1300	0.1	2.37	2.25	2.13	2.01
2050A	6.3/0.6	+650 -1300	0.1	2.03	1.92	1.83	1.73
5696	6.3/0.15	±500	0.025	1.95	1.84	1.75	1.66
5727	6.3/0.6	+650 -1300	0.1	2.90	2.76	2.61	2.47
5727/ 2D21W	For Data, 6.3/2.6	refer to +650 -1300	Mil spec.	2.90	2.76	2.61	2.47
6012				0.5	7.65	7.27	6.89	6.50

Newark Can Supply All RCA Tubes
Available from Stock



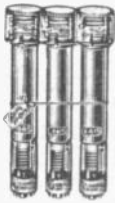
Industrial & Special Purpose Tubes

RCA INDUSTRIAL RECEIVING-TYPE NUVISTOR TUBES

- High Reliability
- Low Drain
- Low Noise
- Small Size

Type	Heater Volts/MA	Transcond. μ mhos	Max. Plate Dissip. Watts	Nuvistor Base	1-4	5-18	19-49	50-99
7586	6.3/135	11500	1	5-Pin	3.35	3.18	3.02	2.85
7587	6.3/150	10600	2.2	5-Pin	5.20	4.94	4.68	4.42
7895	6.3/135	9400	1	5-Pin	3.35	3.18	3.02	2.85
8056	6.3/135	7500	0.45	5-Pin	5.00	4.73	4.50	4.25
8058	6.3/135	12400	1.5	5-Pin	13.25	12.59	11.93	11.26
8203	6.3/160	6000	1.5	5-Pin	3.80	3.59	3.42	3.23
8393	13.5/60	11500	1	5-Pin	3.45	3.26	3.10	2.93
8627	6.3/150	13000	2.5	5-Pin	14.15	13.37	12.73	12.03
8628	6.3/150	3100	0.3	5-Pin	5.00	4.73	4.50	4.25

ORTHICONS



For Color Pickup at Black-and-White Studio Lighting Levels



Unmatched Picture Quality in Black and-White Pickup

RCA CAMERA TUBES

A broad choice of tube design features are available: field or non-field mesh design; glass, thin-film semiconductor, or special long-life targets; precision construction; anti-ghost image section design; microdamp construction; tube size; and matched sets for color pickup.

IMAGE ORTHICONS FOR LIVE BLACK-AND-WHITE TELEVISION 3" — DIAMETER TYPES

Type	Typical Face-plate Illum. Footcandles	Amplitude Response at 400 TV Lines Per Cent	Typical Signal-to-Noise Ratio Bandwidth 4.5 MHz	Net Each
4401V1	1.4x10 ⁻²	60	45:1	1320.00
5820A	2x10 ⁻²	60	45:1	995.00
5820A/L	2x10 ⁻²	60	45:1	1800.00
7293A	2x10 ⁻²	60	45:1	1150.00
7293A/L	2x10 ⁻²	60	45:1	1800.00
7513	5x10 ⁻²	55	55:1	1320.00
8092A	7x10 ⁻²	60	37:1	1870.00
8093A	4x10 ⁻²	60	50:1	1250.00
8093A/L	4x10 ⁻²	60	50:1	1800.00
4 1/2" — DIAMETER TYPES				
7295B	5x10 ⁻²	75	70:1	1440.00
7295B/L	5x10 ⁻²	75	70:1	1875.00
7389B	6x10 ⁻²	75	93:1	1440.00

IMAGE ORTHICONS FOR LIVE COLOR TELEVISION

Type	Typical Face-plate Illum. Footcandles	Amplitude Resp. at 400 TV Lines Per Cent	typ. Signal-to-Noise Ratio Bandwidth 4.5 MHz	Net Each
7513	2.5x10 ⁻²	55	55:1	1320.00
7513/L	2.5x10 ⁻²	55	55:1	1800.00

3" — DIAMETER TYPES (MATCHED TRIOS FOR COLOR)

4415/S—	1 x10 ⁻²	55	37:1	1400.00
4416/S				

3" — DIAMETER TYPES (MATCHED TRIOS FOR COLOR) Con't.

Type	Typical Face-plate Illum. Footcandles	Amplitude Resp. at 400 TV Lines Per Cent	typ. Signal-to-Noise Ratio Bandwidth 4.5 MHz	Net Each
7513/S	2.5x10 ⁻²	55	55:1	1400.00
7513/S—				1400.00
4513/S	2.5x10 ⁻²	55	55:1	1870.00
8092A/S	7 x10 ⁻²	60	37:1	

4 1/2" — DIAMETER TYPES FOR LUMINANCE CHANNEL

4492	5 x10 ⁻²	75	70:1	1850.00
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IMAGE ORTHICONS FOR MILITARY AND INDUSTRIAL SERVICE

3" — DIAMETER TYPES

Type	Typical Face-plate Illum. Footcandles	Amplitude Resp. at 400 TV Lines Per Cent	typ. Signal-to-Noise Ratio Bandwidth 4.5 MHz	Net Each
4401V1	1.4x10 ⁻²	60	45:1	1320.00

3" — DIAMETER TYPES Con't.

Type	Typical Face-plate Illum. Footcandles	Amplitude Resp. at 400 TV Lines Per Cent	typ. Signal-to-Noise Ratio Bandwidth 4.5 MHz	Net Each
7629A	4x10 ⁻³	50	32:1	1700.00
8093A	7x10 ⁻³	60	37:1	1870.00

VIDICONS

For TV film studio pickup service and closed-circuit TV applications. Available in deflection and focus methods, ruggedized

or non-ruggedized tubes, conventional or low power "dark heaters", photo-conductive surfaces, and tube size.

VIDICONS FOR BROADCAST-STUDIO FILM-PICKUP SERVICE

MAGNETIC FOCUS-AND-DEFLECTION TUBES

1" — DIAMETER TYPES

Type	Typical Face-plate Illum. Footcandles	Typical Signal-Output Current μ Amp	Limiting Resolution TV Lines	Net Each
6326	100	0.2	750	515.00
7038	100	0.3	750	185.00
8572	100	0.3	1000	280.00

1 1/2" — DIAMETER TYPE

8051	50	0.5	1500	575.00
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ELECTROSTATIC-FOCUS, MAGNETIC-DEFLECTION TUBES

1" — DIAMETER TYPE

Type	Typical Face-plate Illum. Footcandles	Typical Signal-Output Current μ Amp	Limiting Resolution TV Lines	Net Each
8134/V1	1	0.265	800	405.00

1 1/2" — DIAMETER TYPES

8480	50	0.5	1400	820.00
8480V1	50	0.5	1400	1280.00

VIDICONS FOR LIVE TELEVISION AND INDUSTRIAL SERVICE

MAGNETIC FOCUS-AND-DEFLECTION TUBES

1" — DIAMETER TYPES

Type	Typical Face-plate Illum. Footcandles	Typical Signal-Output Current μ Amp	Limiting Resolution TV Lines	Net Each
4478	1	0.265	700	107.00
4488	1	0.270	700	125.00
7262A	1	0.2	750	250.00
7897	1	0.14	750	185.00
7735B	1	0.275	750	185.00
8507	1	0.2	1000	250.00
8573	1	0.2	1000	310.00

ELECTROSTATIC-FOCUS, MAGNETIC-DEFLECTION TUBES

1" — DIAMETER TYPES

Type	Typical Face-plate Illum. Footcandles	Typical Signal-Output Current μ Amp	Limiting Resolution TV Lines	Net Each
4493	Triode for Chroma channels of color cameras		500	1055.00
4494			500	1055.00
4495			500	1055.00
8134	1	0.265	800	325.00

Industrial & Special Purpose Tubes



VIDICONS FOR SPACE, MILITARY, AND INDUSTRIAL SERVICE

MAGNETIC FOCUS-AND-DEFLECTION TUBES 1" — DIAMETER TYPE

Type	Typical Face-plate Illum. Footcandles	Typical Signal-Output Current μ Amp	Limiting Resolution TV Lines	1-4
4500	0.1	0.27	650	430.00
1 1/2" — DIAMETER TYPE				
8521	3	0.4	1500	575.00

RUGGEDIZED ELECTROSTATIC-FOCUS MAGNETIC-DEFLECTION TUBES 1" — DIAMETER TYPES

Type	Typical Face-plate Illum. Footcandles	Typical Signal-Output Current μ Amp	Limiting Resolution TV Lines	1-4
8567	1	0.2	750	910.00

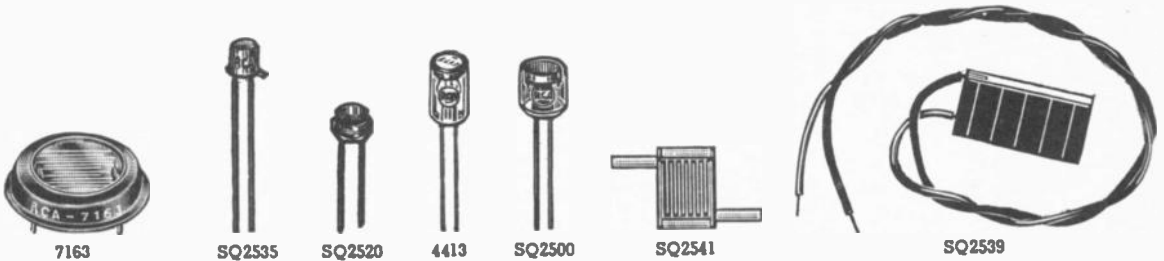
ELECTROSTATIC-FOCUS MAGNETIC-DEFLECTION TUBE 1 1/2" — DIAMETER TYPE

Type	Typical Face-plate Illum. Footcandles	Typical Signal-Output Current μ Amp	Limiting Resolution TV Lines	1-4
8480	10	0.5	1400	820.00

RUGGEDIZED MAGNETIC FOCUS-AND-DEFLECTION TUBES 1" — DIAMETER TYPES

Type	Typical Face-plate Illum. Footcandles	Typical Signal-Output Current μ Amp	Limiting Resolution TV Lines	1-4
7263A	1	0.2	750	430.00
4503	1	0.2	1000	470.00

BROAD-AREA CADMIUM-SULFIDE (CdS) PHOTOCELLS



GLASS-METAL TYPES 1" — DIAMETER TYPES

Type	Max. DCV or Peak ACV	Power Dissip. Watt Continuous Service	Resistance at 2 Footcandles Ohms	1-99	100-999
4451	600	0.75	160,000	1.37	.95
4450	600	0.75	25,000	1.37	.95
SQ2503	600	0.75	17,000	1.32	.92
7183	600	0.75	10,000	1.21	.84
4448	600	0.75	8,000	1.32	.92
4404	600	0.75	5,500	1.32	.92
4453	600	0.75	4,000	1.28	.88
4409	250	0.75	1,800	1.21	.84

1/2" — DIAMETER TYPES (Modified TO-8 Case)

Type	Max. DCV or Peak ACV	Power Dissip. Watt Continuous Service	Resistance at 2 Footcandles Ohms	1-99	100-999
SQ2525	250	0.2	14,000	1.82	1.25
SQ2521	250	0.2	8,000		
SQ2526	110	0.2	3,000		
SQ2527	110	0.2	1,600		
SQ2520	110	0.2	700		

1/4" — DIAMETER TYPES (Modified TO-5 Case)

Type	Max. DCV or Peak ACV	Power Dissip. Watt Continuous Service	Resistance at 2 Footcandles Ohms	1-99	100-999
SQ2534	150	0.03	6,750,000	1.65	1.14
SQ2529	300	0.05	800,000	1.65	1.14
SQ2508	200	0.05	60,000	1.90	1.31
SQ2519	300	0.05	9,000	1.65	1.14
SQ2536	110	0.05	3,200	1.49	1.03

1/5" — DIAMETER TYPES (Modified TO-18 Case)

Type	Max. DCV or Peak ACV	Power Dissip. Watt Continuous Service	Resistance at 2 Footcandles Ohms	1-99	100-999
SQ2535	50	0.2	25,000	2.39	1.65

ALL-GLASS TYPES 1/2" — DIAMETER TYPES

Type	Max DC or Peak ACV	Power Dissip. Watt. Cont. Service	Res. at 2 Footcandles Ohms	1-99	100-999
SQ2500	250	0.2	14,000	2.10	1.45
4423	250	0.2	8,000	2.10	1.45
SQ2523	110	0.2	3,000	2.10	1.45
SQ2524	110	0.2	1,600	2.10	1.45
4425	110	0.2	700	2.10	1.45

1/4" — DIAMETER TYPES

Type	Max DC or Peak ACV	Power Dissip. Watt. Cont. Service	Res. at 2 Footcandles Ohms	1-99	100-999
SQ2528	300	0.05	800,000	1.73	1.20
7412	200	0.05	60,000	2.06	1.43
4413	110	0.05	17,000	2.39	1.65
4402	300	0.05	9,000	1.67	1.15

PLASTIC-COATED TYPES 3/4" x 1/2" FLAT RECTANGULAR TYPES

Type	Max DC or Peak ACV	Power Dissip. Watt. Cont. Service	Res. at 2 Footcandles Ohms	1-99	100-999
SQ2541	300	0.75	3,300	.68	.47
SQ2538	300	0.75	1,670	.63	.44

BROAD-AREA CADMIUM-SULFO- SELENIDE PHOTOCELLS GLASS-METAL TYPES 1" DIAMETER TYPES

Type	Max DC or Peak ACV	Power Dissip. Watt. Cont. Service	Res. at 2 Footcandles Ohms	1-99	100-999
SQ2546	110	0.75	720	1.90	1.31

1/2" — DIAMETER TYPE (Modified TO-8 Case)

SQ2545	110	0.2	900	1.90	1.31
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1/4" — DIAMETER TYPE (Modified TO-5 Case)

SQ2544	110	0.05	2,400	1.90	1.31
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1/5" — DIAMETER TYPE (Modified TO-18 Case)

SQ2543	75	0.02	8,000	2.06	1.43
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PLASTIC-COATED TYPES 1/4" x 1/2" FLAT RECTANGULAR TYPE

Type	Max DC or Peak ACV	Power Dissip. Watt. Cont. Service	Res. at 2 Footcandles Ohms	1-99	100-999
SQ2542	250	0.5	2,000	.80	.55

DEPEND ON NEWARK FOR EVERYTHING IN INDUSTRIAL ELECTRONICS

• OEM Factory Prices

• Same Day Shipment From On-the-Shelf Stocks



Industrial & Special Purpose Tubes

RCA PHOTOMULTIPLIER TUBES



4420



927



929



901A



6342A



6810A

Tube Type	Type	No. of Stages	Spectral Resp.	Luminous Sen. (2870 K) Amp/Lumen	Max. Equiv. Anode-Dark-Current Input (25°C) Lumen	1-4	5-18	19-49	50-99
1P21	Side-On	9	S-4	80	5x10 ⁻¹⁰	54.35	51.36	48.92	46.20
1P28	Side-On	9	S-5	100	1.25x10 ⁻⁹	21.50	20.32	19.39	18.37
1P28A	Side-On	9	S-5	200	1.25x10 ⁻⁹	27.90	26.37	25.11	23.38
931A	Side-On	9	S-4	24	2.5x10 ⁻⁹	12.30	11.62	11.00	10.46
4439	Rugged Head-On	10	S-11	27	2.5x10 ⁻⁹	105.00	.....	.....	.....
4441	Rugged Head-On	10	S-11	27	2.5x10 ⁻⁹	155.00	.....	.....	.....
4471	Side-On	9	S-4	100	2.5x10 ⁻⁹	17.25	16.31	15.52	14.66
4472	Side-On	9	S-4	100	2.5x10 ⁻⁹	22.95	21.68	20.65	19.50
4473	Side-On	9	S-4	100	2.5x10 ⁻⁹	97.25	91.90	82.66	81.52
5819	Head-On	10	S-11	160	5x10 ⁻¹⁰	64.25	61.04	.....	.....
6199	Head-On	10	S-11	100	2x10 ⁻⁹	47.20	44.60	.....	.....
6342A	Head-On	10	S-11	31	2.5x10 ⁻⁹	57.20	.....	.....	.....
6855A	Head-On	10	S-11	90	2x10 ⁻⁹	54.00	51.63	.....	.....
6810A	Head-On	14	S-11	90	2x10 ⁻⁹	195.00	.....	.....	.....
7102	Head-On	10	S-1	4.5	1.5x10 ⁻⁶	110.00	.....	.....	.....
7117	Side-On	9	S-4	35	2x10 ⁻⁹	12.65	.....	.....	.....
7265	Head-On	14	S-20	3000	8x10 ⁻¹⁰	375.00	.....	.....	.....
7326	Head-On	10	S-20	22.5	1.4x10 ⁻⁹	410.00	.....	.....	.....
7767	Head-On	10	S-11	16	5x10 ⁻⁹	120.00	.....	.....	.....
8054	Head-On	10	S-11	19	7.2x10 ⁻¹⁰	125.00	.....	.....	.....
8055	Head-On	10	S-11	19	7.2x10 ⁻¹⁰	170.00	.....	.....	.....
8571	Rugged Side-On	9	S-4	75	1x10 ⁻¹⁰	310.00	.....	.....	.....
8575	Head-On	12	S-4	2800	5x10 ⁻¹² (typ)	315.00	.....	.....	.....

RCA VACUUM AND GAS PHOTODIODES

VACUUM PHOTODIODES

Type	Spectral Resp.	Luminous Sensitivity (2870°K) μAmp/Lumen	Max. Anode Dark Cur'nt at 25°C μAmp	1-4	5-18	19-49	50-99
1P39	S-4	52	0.005	3.15	2.98	2.84	.....
925	S-1	20	0.0125	5.00	4.73	4.50	.....
929	S-4	52	0.0125	3.45	3.26	.....	.....
934	S-4	30	0.005	5.75	5.43	5.18	4.89
935	S-5	35	0.005	14.20	13.42	12.78	.....
6570	S-1	30	0.013	10.75	10.16	9.68	.....

Side-On Cartridge Types

422	S-1	20	0.005	3.45	3.26	.....	.....
926	S-3	6.5	0.005	5.20	4.91	4.68

Side-On Non-Directional Types

7843	S-4	45	0.0125	6.75	6.38	6.08
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GAS PHOTODIODES

Side-On Types Except (*) Side-On Cartridge (†) Head-On

Type	Spectral Resp.	Luminous Sensitivity (2870°K) μAmp/Lumen	Max. Gas Amplification Factor	1-4	5-18	19-49	50-99
1P37	S-4	135	5.5	6.50	6.14	5.85	5.53
1P40	S-1	135	10.0	4.80	4.54	4.32	4.08
868	S-1	90	8.0	6.30	5.95	.....	.....
918	S-1	150	10.5	6.30	5.95	.....	.....
918	S-1	135	10.0	6.00	5.67	.....	.....
927	S-1	125	10.0	4.95	4.68	4.46	4.21
930	S-1	135	10.0	5.35	5.06	4.81	4.55
4409	S-4	135	5.5	4.85	4.58	4.37	4.12
5581	S-4	135	5.5	8.75	8.27	7.88	7.44
5583	S-4	200	10.0	7.80	7.37	7.02	6.68
6953	S-1	135	10.0	5.20	4.91	4.68	4.42
921	S-1*	120	5.5	6.30	5.95	5.67	.....
5582	S-4*	120	5.5	6.00	5.67	5.40	5.10
1P41	S-†	90	8.5	.....	.....	.....	.....

RCA CATHODE-RAY TUBES AND SPECIAL-PURPOSE KINESCOPIES

OSCILLOGRAPH-TYPE CATHODE-RAY TUBES

Flat-Faceplate Types

Type	Anode Volts	Deflection Factor VDC/" DJ1 & DJ2	Deflection Factor VDC/" DJ3 & DJ4	1-4	5-18	19-49	50-99
1EP1	1000	210-310	240-350	25.75	24.33	23.18	21.89
3RP1A	2000	146-198	104-140	27.65	26.13	.....	.....
3WP1	2000	83-101	57-70	30.05	28.40	.....	.....

Curved-Faceplate Types

2AP1A	1000	195-265	167-225	19.00	17.96	17.10	16.15
2BP1	1000	115-155	74-100	20.10	18.99	18.09	17.09
3AQP1	1000	73-99	26-35	24.20	22.87	21.78	20.57
3BP1A	2000	170-230	125-170	24.70	23.34	22.23	21.00
3KP1	2000	100-136	76-104	27.90	26.37	25.11	.....
3RP1	2000	146-198	104-140	17.95	16.96	16.16	15.26
5UP1	2000	56-77	46-62	17.95	.....	.....	.....
7VP1	3000	93-123	75-102	31.45	.....	.....	.....
902A	600	110-166	.....	.....	.....	.....	.....
2" Dia. P1	.....	.....	96-141	21.45	20.27	19.30	18.23

POST-DEFLECTION ACCELERATOR

Flat-Faceplate Types except (*) Curved-Faceplate

Type	Post Accel. Volts	Deflection Factor Volts dc/in. DJ1 & DJ2	Deflection Factor Volts dc/in. DJ3 & DJ4	1-4	5-18	19-49	50-99
5ABP1	4000	53-72	36-48	35.75	.....	.....	.....
5ADP1	4000	53.4-66.6	40.6-50	35.75	33.78	.....	.....
4490	.....	.....	.....	.....	.....	.....	.....
7" Dia. P31	6000	133-153	85-101	36.85	34.82	33.17	31.32
4491	.....	.....	.....	.....	.....	.....	.....
5" Dia. P7	6000	107-29	99-115	41.50	39.22	37.35	35.28
5CP1A*	4000	78-106	66-90	37.90	.....	.....	.....

SPECIAL-PURPOSE KINESCOPE TRANSCRIBER KINESCOPE

Type	Face-Plate	Anode Volts	Deflection Angle Approx.	1-4	5-18	19-49	50-99
5WP11	Flat	27000	50°	99.40	93.93

VIEW-FINDER KINESCOPE

5FP4A	Curved	6000	53°	31.45
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MONITOR KINESCOPIES

7CR4	Curved	6000	57°	74.35	70.26	66.92	63.20
7TP4	Curved	10000	50°	75.80	71.63
10SP4	Curved	14000	50°	85.00	80.33	.....	.....
14BAP4	Curved	18000	70°	36.25	34.26	32.62	30.81
17DWP4	Curved	18000	70°	25.85	24.24	23.08	21.80
21EYP4	Curved	18000	72°	31.85	30.10	28.67	27.07

FLYING-SPOT CATHODE-RAY TUBES

5AUP24	Flat	27000	40°	150.00	.....	.....	.....
5ZP16	Flat	27000	40°	92.25	87.18

PROJECTION KINESCOPIES

5AZP4	Curved	36000	50°	127.00
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NEWARK Maintains Seven Giant Warehouses to Insure Faster Delivery From Stock.

National Electronics Special Purpose Tubes

READOUT TUBES

- Non-Fading
- Best Readability
- Longest Life

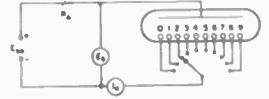
Cold cathode neon glow discharge tubes for in-line display of numbers, letters or symbols. Red-orange neon glow has best readability even under high ambient light. Simplicity, ruggedness and long life for effective display at low cost. No variation in colors or intensity, readout tubes are the only active display that will not fade with age. Manufactured under license from Burroughs Corp.



NL-7094



NL7977/4032



Tube Fundamental Circuit

MINIATURE — 0.3" NUMERAL HEIGHT

Type No.	Ionisation Voltage	Cat. Current Peak (Max.)	Supply Voltage (Ebb)	Type	Socket	Display	Oz.	1-4	5-18	19-49	50-99
NL-7977/4032	170 Vdc	2.0 ma	170V, 250V, 300V	Long Life	RTS-3	Numeral 0-9	.14	33.00	31.19	29.70	.....
NL-7009	170 Vdc	2.0 ma	170V, 250V, 300V	Sid. Life	RTS-3	Numeral 0-9	.14	19.00	17.97	17.10	16.15
NL-8502/4021	120 Vdc	2.0 ma	120V	Sid. Life - LV	RTS-3	Numeral 0-9	.14	33.00	31.19	29.70	28.05
NL-4031	170 Vdc	2.0 ma	170V, 250V, 300V	Long Life	RTS-3	Symbol ±	.14	33.00	31.19	29.70	28.05

STANDARD — 0.6" NUMERAL HEIGHT

Type No.	Ionisation Voltage	Cat. Current Peak (Max.)	Supply Voltage (Ebb)	Type	Socket	Display	Oz.	1-4	5-18	19-49	50-99
NL-809	170 Vdc	3.5 ma	170V, 250V, 300V	Long Life - Rect.	RTS-4, 10	Numeral 0-9	.3	17.35	.....	.....	.....
NL-5030	160 Vdc	4.0 ma	180V, 250V, 300V	Long Life	.....	Numeral 0-9	.5	10.50	.....	.....	.....
NL-803	170 Vdc	3.5 ma	170V, 250V, 300V	Long Life	RTS-11	Numeral 0-9	.5	8.00	.....	.....	.....
NL-840	170 Vdc	3.5 ma	170V, 250V, 300V	Long Life	RTS-11	Numeral 0-9	.5	8.00	.....	.....	.....
NL-8422/5991	170 Vdc	3.5 ma	170V, 250V, 300V	Long Life - Rect.	RTS-4, 10	Numeral 0-9	.3	15.75	14.88	14.17	13.39
NL-8037/5031	170 Vdc	3.5 ma	170V, 250V, 300V	Long Life	RTS-1, 2, 6, 8, 9	Numeral 0-9	.4	15.75	14.88	14.17	13.39
NL-8421/5092	170 Vdc	3.5 ma	170V, 250V, 300V	Long Life -W-A	RTS-1, RTS-2	Numeral 0-9	.4	15.75	14.88	14.17	13.39
NL-6844A	170 Vdc	4.0 ma	170V, 250V, 300V	Sid. Life	RTS-1, RTS-2	Numeral 0-9	.4	11.00	10.40	9.90	9.35
NL-5992	170 Vdc	3.5 ma	170V, 250V, 300V	Long Life - Rect.	RTS-4, 10	Symbol ±	.3	15.75	14.88	14.17	13.39
NL-50911	170 Vdc	3.5 ma	170V, 250V, 300V	Long Life -W-A	RTS1, RTS-2	Symbol ±	.4	15.75	14.88	14.17	13.39

SUPER — 0.8" NUMERAL HEIGHT

Type No.	Ionisation Voltage	Cat. Current Peak (Max.)	Supply Voltage (Ebb)	Type	Socket	Display	Oz.	1-4	5-18	19-49	50-99
NL-8425/6001	170 Vdc	4.5 ma	170V, 250V, 300V	Long Life WA	RTS-1, RT-2	Numeral 0-9	.6	19.00	18.39	17.78	17.16
NL-7153	250 Vdc	5.0 ma	170V, 250V, 300V	Sid. Life	RTS-1, RT-2	Numeral 0-9	.6	14.50	13.70	13.05	12.33

LARGE — 1.375" NUMERAL HEIGHT

Type No.	Ionisation Voltage	Cat. Current Peak (Max.)	Supply Voltage (Ebb)	Type	Socket	Display	Oz.	1-4	5-18	19-49	50-99
NL-8001	170 Vdc	6.5 ma	170V, 250V, 300V	Long Life WA	RTS-5	Numeral 0-9	1.7	22.50	.....	.....	.....

JUMBO — 2" NUMERAL HEIGHT

Type No.	Ionisation Voltage	Cat. Current Peak (Max.)	Supply Voltage (Ebb)	Type	Socket	Display	Oz.	1-4	5-18	19-49	50-99
NL-7094	170 Vdc	7.5 ma	200V, 250V, 300V	Long Life WA	RTS-5	Numeral 0-9	4	30.00	.....	.....	.....

SOCKETS FOR ABOVE

Stock No.	Type	NET EACH
28F688	RTS-1	.90
28F689	RTS-3	1.00

Stock No.	Type	NET EACH
28F670	RTS-4	.90
28F671	RTS-5	1.25

Stock No.	Type	NET EACH
28F672	RTS-2*	.75

*Same as RTS-1 except Comm. Grade

SPECIAL PURPOSE INDUSTRIAL TUBES



NL-1062



NL-6895



NL-760

FULL WAVE RECTIFIER

Tube Type	1-4	5-18	19-49	50-99
NL-604	11.80	11.21	.....	.....
NL-604L	13.00	12.35	.....	.....
NL-606	21.40	20.33	.....	.....
NL-606L	23.50	22.33	.....	.....
NL-672A	9.90	9.36	8.91	8.42

HIGH VOLTAGE HALF WAVE RECTIFIER

Tube Type	1-4	5-18	19-49	50-99
NL-RX21A	25.75	24.46	.....	.....
NL-575A	20.15	19.14	.....	.....
NL-673	20.15	19.14	.....	.....
NL-6894	25.00	23.75	.....	.....
NL-6895	25.00	.....	.....	.....
NL-8008	9.90	9.36	8.91	8.42

HALF WAVE RECTIFIER

Tube Type	1-4	5-18	19-49	50-99
NL-610/7723	11.40	10.77	10.26	9.69
NL-615	10.05	9.55	9.05	8.54
NL-623	13.35	12.68	12.02	11.34
NL-635/7019	13.00	12.35	.....	.....
NL-635L/7020	13.50	12.83	.....	.....
NL-635P/6930	14.15	13.44	.....	.....
NL-649/5834	11.15	10.54	.....	.....
NL-660	13.00	12.29	.....	.....
NL-660L/7706	13.50	12.83	.....	.....
NL-664L	27.50	25.99	.....	.....
NL-5358/FG32	17.50	16.12	.....	.....
NL-7723-Ne	13.10	12.38	11.79	11.14
NL-7768-Ne	15.50	14.65	13.95	13.18

IGNITRON

Tube Type	1-4	5-18	19-49	50-99
NL-1009A	155.00	.....	.....	.....
NL-1022A	116.00	.....	.....	.....
NL-1081	75.00	.....	.....	.....
NL-1081P	76.20	.....	.....	.....
NL-1082	107.00	.....	.....	.....
NL-1082P	108.30	.....	.....	.....
NL-1091	75.00	.....	.....	.....
NL-1091P	76.20	.....	.....	.....
NL-1092	107.00	.....	.....	.....
NL-1092P	108.30	.....	.....	.....
NL-5550	49.00	.....	.....	.....
NL-5555	316.00	.....	.....	.....
NL-1051A	65.00	.....	.....	.....
NL-1051AP	65.00	.....	.....	.....
NL-1081	65.00	.....	.....	.....
NL-1061P	65.00	.....	.....	.....
NL-1052A	90.00	.....	.....	.....
NL-1052AP	99.00	.....	.....	.....
NL-1082	99.00	.....	.....	.....
NL-1082P	99.00	.....	.....	.....
NL-1053A	284.00	.....	.....	.....
NL-1063	284.00	.....	.....	.....
NL-5553B	245.00	.....	.....	.....
NL-5553BP	245.00	.....	.....	.....
NL-7673	245.00	.....	.....	.....
NL-7673P	245.00	.....	.....	.....

HIGH VOLTAGE THYRATRON

Tube Type	1-4	5-18	19-49	50-99
NL-KY21A	26.75	25.41	24.08	.....
FG-105	59.00	56.05	.....	.....
NL-678	49.00	46.31	45.68	44.10
NL5563A	50.00	.....	.....	.....

THYRATRON

Tube Type	1-4	5-18	19-49	50-99
NL-C31/L	14.20	13.42	12.78	12.07
NL-C31/AL-Ne	18.40	17.39	16.56	15.64
NL-3C23	11.98	11.38	10.78	10.18
NL-C61/K-Ne	32.50	30.71	29.25	27.63
NL-C61/KP	29.45	27.83	26.50	25.03
NL-393A	13.25	.....	.....	.....
NL-632B	33.00	31.35	29.70	28.05
NL-710/6011	12.70	12.06	11.43	.....
NL-710L/7518	14.00	13.23	12.60	11.90
NL-714	10.00	9.50	.....	.....
NL-716	12.50	11.88	.....	.....
NL-677	63.80	.....	.....	.....
NL-732	120.00	.....	.....	.....
NL-734/5544	22.50	21.26	20.25	19.13
NL-740/6856	21.70	20.51	.....	.....
NL-740L/7022	22.30	21.09	.....	.....
NL-740P/6857	22.50	21.26	.....	.....
NL-760	28.10	26.70	.....	.....
NL-760L	19.40	18.20	.....	.....
NL-760P	29.40	27.93	.....	.....
NL-770L	45.25	42.99	.....	.....
NL-770P	47.25	44.65	.....	.....
NL-5557/FG17/715	9.50	9.02	8.55	.....
NL-5559/FG57	23.00	.....	.....	.....
NL-5560/FG95	33.00	31.35	29.70	.....
NL-5632/C3J	12.70	12.07	.....	.....
NL-5665/C16J	52.50	49.88	.....	.....
NL-5684/C31/A	13.10	12.46	11.80	.....
NL-5684-Ne	16.70	15.78	15.03	.....
NL-5684A-Ne	17.90	16.92	16.11	.....
NL-6014/C1K	11.80	11.15	10.62	10.03
NL-6983/C6J/KL	29.45	27.98	.....	.....
NL-6989-Ne	33.90	32.21	.....	.....
NL-7556A-Ne	19.60	18.52	17.64	16.66

HIGH VOLTAGE RECTIFIER

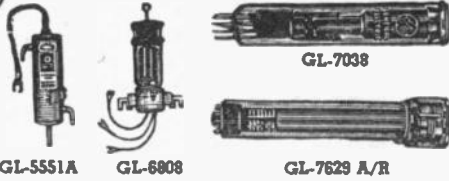
5.0 Amperes D.C.—20 Amperes Peak. Long life mercury vapor.

Tube Type	1-4	5-18	19-49	50-99
NL-669B	138.00	.....	.....	.....

You Can Depend on NEWARK
for Everything
In Industrial Electronics



Industrial & Special Purpose Tubes



GL-5551A

GL-6808

GL-7629 A/R

IGNITRONS—RESISTANCE WELDING CONTROL SERVICE

Tube Type	Size	Length	Diameter	1-4	5-18	19-49	50-99
GL-5550	A	9 1/16"	2 9/16"	49.00	.....	.....	.....
GL-5551-A	B	13 1/16"	2 3/8"	65.00	.....	.....	.....
GL-7689*	B	8 11/16"	2 3/8"	65.00	61.43	58.50	55.25
GL-5552-A	C	14"	4 1/4"	99.00	.....	.....	.....
GL-7871*	C	9 1/2"	4 1/4"	99.00	93.56	.....	.....
GL-7681**	J-C	17 1/2"	4 1/4"	155.00	.....	.....	.....
GL-5553-B	D	19 1/2"	5 5/8"	245.00	.....	.....	.....
GL-7673*	D	12 1/4"	5 5/8"	245.00	.....	.....	.....
GL-7151	E	19 3/4"	9 1/8"	750.00	.....	.....	.....
GL-5554		17"	4"	215.00	.....	.....	.....
GL-5555		17 1/8"	5 1/2"	316.00	.....	.....	.....
GL-5564		31 1/4"	9"	850.00	.....	.....	.....

*Coaxial; **Jumbo

IGNITRONS—POWER RECTIFIER SERVICE

Tube Type	Ave. I Amps	Length	Diameter	1-4	5-18	19-49	50-99
GL-5554	100	17"	4 1/8"	215.00	.....	.....	.....
GL-6512	.10	17"	4 1/8"	310.00	.....	.....	.....
GL-5555	200	17 1/16"	5 3/8"	316.00	.....	.....	.....
GL-6513	200	17 1/16"	5 3/8"	420.00	.....	.....	.....
GL-5788	200	19 1/4"	5 3/8"	545.00	.....	.....	.....
GL-6514	200	19 1/4"	5 3/8"	575.00	.....	.....	.....
GL-5564	400	31 1/4"	9 1/8"	850.00	.....	.....	.....
GL-6515	400	31 1/4"	9 1/8"	1060.00	.....	.....	.....
GL-7736	400	25 1/4"	9 1/8"	850.00	.....	.....	.....
GL-6878	675	30 1/4"	13 1/8"	3080.00	.....	.....	.....
GL-5630	50	22 3/8"	5 3/8"	1900.00	.....	.....	.....
GL-6228	150	42 3/8"	9"	3695.25	.....	.....	.....
GL-5779	10	8 1/2"	2 1/2"	200.00	.....	.....	.....

IGNITRONS—CAPACITOR DISCHARGE SERVICE

Tube Type	Length	Diameter	1-4	5-18	19-49	50-99
GL-7171	8 3/4"	2 5/8"	81.50	77.02	73.35	69.28
GL-7703	7 5/8"	2 1/4"	190.00	.....	.....	.....

VIDICONS

Tube Type	Description	1-4
GL-7038	For film pickup applications . . . monochrome or color . . . a direct replacement for the 6198A	185.00
GL-7325	High sensitivity for live pickup . . . lower lag at low light . . . ideal for industrial use	185.00
GL-7735A	Highest sensitivity, lowest lag at low light levels . . . for studio or remote pickup	185.00
GL-7687	For cameras with automatic sensitivity control . . . similar to 7735A	185.00
GL-7226	Low heater power . . . for transistorized cameras . . . good live pickup	315.00
GL-8511	Also designed for transistorized cameras . . . high-sensitivity photoconductor	315.00
GL-7262A	Low heater rating of 0.6 watt . . . excellent sensitivity and low lag at low light	250.00
GL-7263A	Specially designed to withstand severe shock, vibration and high humidity	430.00
GL-8507	Extended resolution capability . . . higher amplitude response . . . similar to GL-7735A	250.00
GL-8541	For transistorized cameras . . . similar to GL-8507 except 0.6 watt rating . . . high sensitivity, low lag	310.00
GL-8572	Broadcast film pickup Sep. field mesh of 7038	250.00
GL-8604	Similar to 8572, except low heater power.	310.00
GL-8573	Live industrial—high sensitivity, short length, low heater power. Sep. field mesh.	310.00

ANTI-MICROPHONIC IMAGE ORTHICONS

Tube Type	Description	1-4
5820A/R	Anti-Microphonic	985.00
7293A/R	Close Spacing—Anti-Microphonic	1050.00
7295	4 1/2" Tube—Anti-Microphonic	1440.00
7629A/R	Anti-Microphonic	1700.00
2786E	Anti-Microphonic—extra long life—color	1975.00
8092A/R	Anti-Microphonic	1870.00
8093A/R	Anti-Microphonic	1350.00

CERAMIC TUBES

Tube Type	1-4	5-18	19-49	50-99	Tube Type	1-4	5-18	19-49	50-99	Tube Type	1-4	5-18	19-49	50-99
8887	32.15	20.54	.....	.....	7588	101.50	96.51	.....	.....	7841	35.44	33.49	31.90	30.72
7077	39.05	.....	.....	.....	7825	39.05	36.90	35.14	33.19	7910	82.89	.....	.....	.....
7268	35.44	.....	.....	.....	7644	65.00	.....	.....	.....	7913	122.85	.....	.....	.....
7296	48.61	47.13	.....	.....	7720	39.05	36.90	35.14	33.19	8081	40.16	33.49	31.90	30.12
7482	39.05	36.90	35.14	33.19	7768	111.04	.....	.....	.....	8082	40.16	33.49	31.90	30.12
7486	39.05	36.90	35.14	33.19	7784	65.00	.....	.....	.....	8083	40.16	33.49	31.90	30.12

IMAGE ORTHICONS

Tube Type	Target	Field Mesh	Sig/Noise	1-4
5820A	Glass	NO	50:1	995.00
7293	Glass	YES	50:1	1850.00
GL-7629A	Magnesium-Oxide	NO	40:1	1700.00
GL8092A	Magnesium-Oxide	YES	40:1	1870.00
GL-8093A	Glass	YES	55:1	1350.00

PLANAR TRIODE TUBES

Type	Max. Plate Diss.-Watts w/cooling	Tested Max. Freq Mc.				
			1-4	5-18	19-49	50-99
2C90B	100	2500	32.15	30.38	28.93	27.33
2C40A	6.5	3000	34.00	32.30	30.60	.....
2C43	12	3000	28.95	25.60	.....	.....
6299	2.0	3000	56.00	.....	.....	.....
6442	8.0	5000	39.00	.....	.....	.....
7289	100	3000	30.75	29.06	27.67	26.14
7391	2.2	6000	67.00	63.32	60.30	56.95
7815	10.0	3000	30.75	29.06	27.67	26.14
3CX100A5	100	2500	32.00	.....	.....	.....
6771	6.25	4000	71.90	.....	.....	.....

THYRATRONS

Type	Peak Forward Anode Volts	Peak Inverse Anode Volts	Average Cathode Amperes				
				1-4	5-18	19-49	50-99
GL-3C23	1,250	1,250	1.5	11.98	11.38	10.78	10.18
6D4	350	350	.025	2.85	2.69	2.56	2.42
2D21	650	1,300	0.1	1.29	1.23	1.16	1.10
FG-81-A	500	500	0.5	32.50	30.71	29.25	27.63
FG-97	1,000	1,000	0.5	62.00	58.59	55.88	52.70
FG-98-A	500	500	0.5	77.00	72.77	69.39	65.45
FG-105	2,500	2,500	6.4	59.00	56.05	.....	.....
FG-154	500	500	2.5	108.00	.....	.....	.....
FG-172	2,000	2,000	6.4	129.00	.....	.....	.....
GL-393-A	1,250	1,250	1.5	13.25	12.59	.....	.....
GL-414	3,000	3,000	5.0	280.00	.....	.....	.....
502-A	650	1,300	0.1	2.28	2.17	2.05	1.94
GL-672-A	2,500	2,500	3.2	39.85	37.66	.....	.....
GL-678	10,000	15,000	1.6	49.00	46.31	44.55	44.10
894	350	350	0.075	2.28	2.17	2.05	1.94
2050	.....	.....	.....	2.37	2.25	2.13	2.01
2050-A	650	1,300	0.1	2.03	1.92	1.83	1.73
GL-5544	1,500	1,500	3.2	32.50	.....	.....	.....
GL-5557 (FG17)	2,500	5,000	0.5	9.50	9.02	8.55	.....
GL-5559 (FG57)	1,000	1,000	2.5	23.00	21.73	.....	.....
GL-5580 (FG95)	1,000	1,000	2.5	33.00	31.35	29.70	.....
GL-5583-A (C3-J)	20,000	20,000	1.6	50.00	.....	.....	.....
GL-5632 (C3-J)	9,000	1,250	2.5	12.70	12.09	.....	.....
5683	500	500	0.02	2.10	2.00	1.89	1.79
GL-5685 (C16-J)	1,000	1,250	0.02	52.50	49.88	.....	.....
GL-5720 (FG-33)	1,000	1,000	2.5	34.75	32.84	31.27	29.54
5727 (2D21-W)	650	1,300	0.1	2.90	2.76	2.61	2.47
GL-5728 (FG67)	1,000	1,000	2.5	74.00	69.93	66.60	62.90
GL-5830 (FG41)	10,000	10,000	12.5	540.00	.....	.....	.....
GL-5855	1,500	1,500	18	85.89	80.33	76.50	72.25
GL-6011/710	1,000	1,250	2.5	12.70	12.06	.....	.....
6012	650	1,300	0.5	7.65	7.27	6.89	6.50
GL-6014 (C1K)	1,000	1,250	1	11.80	11.15	10.62	10.03
GL-6807	1,500	1,500	6.4	32.25	.....	.....	.....
GL-6808	1,500	1,500	6.4	32.90	.....	.....	.....
GL-6809	1,500	1,500	6.4	35.50	33.55	31.95	30.18
GL-6858 (780)	1,500	1,500	6.4	28.10	.....	.....	.....
GL-6869 (780-P)	1,500	1,500	6.4	29.40	27.93	.....	.....
GL-7518 (710-L)	1,000	1,250	2.5	14.00	13.49	12.78	.....
GL-7725	3,500	3,500	2.5	13.50	12.76	12.15	11.48
GL-7728	3,500	3,500	2.5	16.30	15.40	14.67	13.86

Industrial & Special Purpose Tubes

G-E 5-STAR HIGH RELIABILITY TUBES

5-Star Tube Type	Replaces Tube Type	Tube Function and Application	MIL-E-1 Specification	1-4	5-18	19-49	50-99
5654	6AK5	Sharp-cutoff RF pentode	5654M/6AK5W	2.45	2.33	2.23	2.08
5670	2C51	Medium-mu twin triode; general purpose	5670	2.45	2.33	2.21	2.08
5686	.....	Beam power amplifier	5686	3.37	3.20	3.03	2.86
5725	6AS6	Dual-control pentode; gated amplifier or mixer	5725/6AS6W	3.15	2.99	2.83	2.68
5726	6AL5	Twin-diode; detector or low-current rectifier	5726/6AL5W	1.55	1.47	1.40	1.32
5727	2D21	Thyratron; grid-controlled rectifier or pulse modulator	5727/2D21W	2.90	2.76	2.61	2.47
5749	6BA6	Remove cutoff RF pentode	5749/6BA6W	2.20	2.09	1.98	1.87
5750	6BE6	Pentagrid converter	5750/6BE6W	3.45	3.28	3.11	2.93
5751	12AX7	High-mu twin triode; AF voltage amplifier	5751, 5751WA, 5751W(1)	2.55	2.42	2.30	2.17
5814-A	12AU7	Medium-mu twin triode; general purpose	5814-W, 5814WB	2.35	2.23	2.12	2.00
5840	.....	Sharp-cutoff RF pentode	5840, 6205	5.35	5.08	4.82	4.55
5844	.....	Medium-mu twin triode; computer service	5844 (Sig. C.)	2.30	2.19	2.07	1.96
5899	.....	Semi-remote-cutoff RF pentode	5899M, 6206M	5.55	5.27	5.00	4.72
5963	.....	Medium-mu twin triode; computer service	5963 (Navy)	1.36	1.29	1.22	1.16
5965A	.....	Medium-mu twin triode; computer service	.....	1.92	1.82	1.73	1.63
6005	6AQ5	Beam power amplifier	6005M/6AQ5W	3.23	3.06	2.91	2.75
6046	25LG-GT	Beam power amplifier; relay energizer	.....	1.55	1.46	1.39	1.32
6072-A	12AY7	Medium-mu twin triode; AF preamplifier	6072-A	3.90	3.71	3.51	3.32
6087	5Y3GT	Twin diode; full wave rectifier	5Y3WGTB (Navy)	5.75	5.46	5.17	4.89
6111	.....	Medium-mu twin triode; general purpose	6111	3.70	3.52	3.33	3.15
6112	.....	High-mu twin triode; AF voltage amplifier	6112	4.15	3.94	3.74	3.53
6136	6AU6	Sharp-cutoff RF pentode	6AU6WB	2.70	2.57	2.43	2.30
6201	12AT7	High-frequency twin triode; RF amplifier or oscillator	12AT7WA, 12AT7WB (Navy)	2.55	2.42	2.29	2.17
6202	6X4	Twin diode; full wave rectifier	6X4WA	4.10	3.87	3.69	3.49
6203	.....	Twin diode; full wave rectifier	6203	4.10	3.95	3.69	3.49
6211A	.....	Medium-mu twin triode; computer service	6211 (Navy)	2.15	2.04	1.94	1.83
6386	.....	Medium-mu remote-cutoff twin triode; RF amplifier or mixer	6386 (Navy)	7.38	7.01	6.64	6.27
6463	.....	Medium-mu twin triode; computer service	.....	1.90	1.81	1.71	1.62
6829	5965	Medium-mu twin triode; general purpose	6829M	6.10	5.76	5.49	5.19

COMMUNICATION TUBES

Type	Replaces Tube Type	Allowable V Variation	1-4	5-18	19-49	50.99
6660	6BA6	±20%	1.01	.95	.91	.86
6661	6BH6	±20%	1.34	1.27	1.21	1.14
6662	6B16	±20%	1.29	1.22	1.16	1.10
6663	6AL5	±20%	.82	.87	.....	.....
6664	6AB4	±20%	1.12	1.06	1.01	.95
6669	6AQ5A	±20%	1.06	1.00	.95	.90
6676	6CB6A	±20%	1.06	1.00	.95	.90
6677	6CL5	±20%	1.85	1.76	1.67	1.57
6678	6U8A	±20%	1.62	1.54	1.46	1.38
6679	12AT7	±20%	1.50	1.43	1.35	1.28
6680	12AU7	±20%	1.22	1.16	1.10	1.04
6681	12AX7	±20%	1.26	1.19	1.13	1.07

BROADCAST POWER TUBES

Transmitting Triodes and Tetrodes and Power Rectifiers

Tube Type	Description	Max Plate Input (W)	1-4
GL-7D21	Tetrode	3000	790.00
GL-5513	Triode	3600	620.00
GL-5518	Triode	12,000	1400.00
GL-5549	Triode	10,000	653.50
GL-6039	Triode	16,000	2070.00
GL-6251	Tetrode	50,000	2790.00
GL-6942	Tetrode	2500	960.00
GL-857B	Mercury Rect.	10 amp.	218.50
GL-869B	Mercury Rect.	2.5 amp.	138.00

AMGLO INDUSTRIAL FLASHTUBES



H-88-0

H-88 SERIES SIGNAL STROBOSCOPIC & PHOTOGRAPHIC FLASHTUBES

Flashtubes ideal for aircraft strobe beacons, photographic speedlight, etc. Operating volt: 450-900. Max. Input: 125 joules/flash. Max. Power: 10 watts. Output: 4500 Lumen sec at 125 joules; 10 joules—1 million lumens.



HD-2

HD SERIES REFLECTIVE BASE FLASHTUBES

Ultra high efficiency, increase in reflector working area. Neoprene mounting. Xenon filled pyrex tube with pyrex cover for up to 100,000 flashes.

Stk. No.	Type	Description	Max. Input	1-9	10-49
62F2200	H-88-0	Tube only	8.25	7.42	
62F2201	H-88-T	With Trigger Band	8.80	7.92	
62F2202	H-88-B4	With 4 Pin Plug In-Base	9.35	8.41	
62F2203	HD-1	U-shaped	50J/450V	10.45	9.40
62F2204	HD-2	1-turn Helical	150J/450V	12.10	10.89
62F2205	HD-2A	2-turn Helical	200J/500V	14.50	13.05

Flashtube Engineering Manual. Design and theory of strobolight circuits. 62F2206. 1.00



U-35-B

U-35 SERIES STROBOSCOPIC TUBES

Use electrolytic or oil capacitors usually 1 to 2 MFD for high flashing rates and 2 to 4 MFD at rates to 30 per second. Volt: 300-600 VDC. Max. joules/Flash — 50 joules. Trigger coil ST-25. Min. self-ion. V: 1500.

Stk. No.	Type	Description	1-9	10-49
62F2207	U-35-O	Tube only	7.15	6.43
62F2208	U-35-T	With Trigger Band	7.70	6.93
62F2209	U-35-B	As above, mounted in 3 pin base (78S6 Socket)	8.25	7.42
62F2210	U-35-BS	Similar to U-35-B but with silver stripe to facilitate triggering	8.80	7.92

FLAT FIELD REFLECTORS

Special aluminum construction to maintain 86% reflective efficiency. 4-pin plug-in base (78S4 socket). T in part no. denotes ST-25 trigger coil in base. Uses H-88 tube. 350-600 VDC. 150 joules max. input.

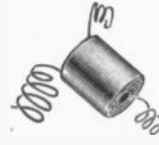
FLAT FIELD REFLECTOR ASSEMBLIES

ARA400SD-H88-P4. Assemblies utilize new flat field Semi-diffused finish for photographic or industrial use. Reflector dia: 4-7/8" depth, 3-7/8". Voltage: 350-600 VDC. Tube used: H-88.

62F2211. 1-9	19.00	10-49	17.10
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ARA-400



MT-55

FLAT FIELD REFLECTOR ASSEMBLIES Cont.

ARA-400-S-H-88-TP4. 4" Reflector with trigger coil & bright fin. for stroboscopic use where "hot spot" is desired. 20.25

62F2212. 1-9 22.50 10-49 20.25

ARA-400-S-H-88-P4. As above without trigger coil. 62F2213. 1-9 20.00 10-49 18.00

ARA300SD-88-TP4. 3" Reflector with trigger coil. Semi-diffused finish for use as a many wheel balancer type of equipment, such as Bear, etc. 62F2214. 1-9 20.75 10-49 18.67

ENERGY STORAGE CAPACITORS

CES2545C. 525 MFD. 450 Volt. 53 Joules storage. 62F2215. 1-9 12.00 10-49 10.80

CE10045C. 100 MFD at 450 VDC. 10 joules storage. 62F2216. 1-9 5.00 10-49 4.50

POWER SUPPLIES

AC-5000. 0-5000 V adjustable energy storage charging supply. Charge 800 J. in 10.5 sec. Input: 115 VAC. 229.95

62F2218. EACH 229.95

TAC-101. Trig Box. Produces 12,000 V output. Complete Trigger for flash tubes. External trig. & Scope trig. outputs. 62F2219. EACH 29.95



Special Purpose Tubes

MACHLETT



ML-7289



ML-5530



ML-6697



ML-7007



ML-102A

Type	1-4	5-18	19-49	50-99
ML2C39A	20.75	19.71	18.68	17.64
ML2C39WA	20.75	19.61	18.67	17.64
ML3CPN10AS	30.75	29.06	27.67	26.14
ML3CX100AS	30.75	29.06		
ML102A	174.00			
ML5575/100	225.00			
ML5576/200	245.00			
ML8094/199	335.00			
ML298A	2165.00			
ML342A	955.00			
ML342AA	1220.00			
ML356/5771	700.00			
ML357B	278.00			
ML880	595.00			
ML891	275.00			
ML891R	430.00			
ML892	270.00			
ML892R	425.00			
ML5530	425.00			
ML5530H	425.00			
ML5531	795.00			
ML5541	670.00			
ML5604	570.00			
ML5606	288.00			
ML5619	423.00			
ML5658	595.00			
ML5666	280.00			
ML5667	370.00			
ML5668	350.00			
ML5669	515.00			
ML5681	2090.00			
ML5682	2625.00			

Type	1-4	5-18	19-49	50-99
ML6166A/7007	1005.00			
ML6256	318.00			
ML6257	330.00			
ML6258	370.00			
ML6420	445.00			
ML6421	525.00			
ML6421F	545.00			
ML6422	450.00			
ML6423	585.00			
ML6423F	605.00			
ML6424	518.00			
ML6425	645.00			
ML6425F	675.00			
ML6426	720.00			
ML6427	840.00			
ML6442	39.00			
ML6576	870.00			
ML6696	1105.00			
ML6697	1330.00			
ML6697A	1430.00			
ML6771	71.90	67.95	64.71	61.12
ML7007	1005.00			
ML7289	30.75	29.06	27.67	26.14
ML7479	885.00			
ML7480	1590.00			
ML7482	4455.00			
ML7560	4455.00			
ML7698	88.50	83.63	79.65	75.23
ML7815/3CPN10AS	30.75	29.06	27.67	26.14
ML7855	60.00	56.70	54.00	51.00
ML8403	115.00			

Type	1-4	5-18	19-49	50-99
ML-4CX5000A	495.00			
ML-4CX5000R	705.00			
ML-4CX1000OD	550.00			
ML-4CX15000A	695.00			
ML-8170/4CX5000A	495.00			
ML-8170W/4CX5000R	705.00			
ML-8171/4CX1000OD	550.00			
ML-8281/4CX1500A	695.00			

KLYSTRONS

Tube Type	1-4	5-18	19-49	50-99
RK2K25	38.50			
RK2K28	88.25			
RK2K48	105.50			
QKK531	68.00			
QKK532	68.00			
QKK549	68.00			
QKK910	292.50			
QKK965	292.50			
RK5976	68.00			

MICROWAVE POWER TUBES

Tube Type	1-4	5-18	19-49	50-99
RK2J55	306.00			
QKH456	577.00			
CK5656	16.56			
CK5963	1.36	1.29	1.22	1.16
CK6072A	3.90	3.71	3.51	3.32

PENTA LAB



PL-175A



PL-177A



PL-8295/PL172



PL-8432



PL-195

Power tetrodes, except: † power triodes, ‡ high vacuum rectifier, † beam pentodes. Beam pentodes feature patented Penta vane-type suppressor grid—used by leading manufacturers of commercial, military, and Amateur single-sideband equipment.

PL-177A is ruggedized; PL-8295A and PL-8432 are ceramic for increased reliability, decreased cooling requirements, ability to tolerate high temperatures, severe shock and vibration. Figures: A—8295A; B—6569; C—177A; D—175A.

Tube Type	Fil. V.	Fil. Amp.	Plate Diss. Max. Watts	Plate Volts Max.	Plate Ma Max.	Screen Volts Max.	1-4	5-18
PL-4-400A/8438	5.0	14.5	400	4000	350		48.00	45.60
PL-4D21 (4-125A)	5.0	6.5	125	3000	225	600	36.00	34.02
PL-4D21A	5.0	6.5	175	3000	225	600	39.00	36.85
PL-4E27A	5.0	7.5	125	4000	200	750	45.00	42.75
PL-4-250A/5D22	5.0	14.5	250	4000	350		46.50	44.18
175A†	5.0	14.5	400	4000	350	800	52.00	49.14
177A†	6.0	3.2	75	2000	175	600	31.00	29.30
177WA†	6.0	3.2	75	2000	175	600	35.50	33.55
250R‡	5.0	10.5		60,000	250		36.00	34.02
PL195	6.0	17.0	4000	5000	2000	1000	395.00	
PL210	6.0	85.0	5000	7500	2500	1500	480.00	
254W§	5.0	7.5	100	4000	225	25µ	28.00	26.46
6549†	6.0	3.2	75	2000	175	600	31.00	29.30

Tube Type	Fil. V.	Fil. Amp.	Plate Diss. Max. Watts	Plate Volts Max.	Plate Ma Max.	Screen Volts Max.	1-4	5-18
6569§	5.0	14.5	250	4000	300	45µ	39.75	37.75
6580§	5.0	14.5	400	4000	350	45µ	48.75	46.07
6775	5.0	14.5	400	4000	350	800	51.00	48.20
PL-4-65A/8165	6.0	3.5	65	2000	150		27.00	25.65
PL-4-1000A/8166	7.5	21	1000	6000	700		131.50	
PL-8295/172	6.0	8.2	1000	3000	1000	600	157.00	
8295A†	6.0	8.2	1000	3000	1000	600	160.00	
8432†	6.0	8.2	1000	3000	1000	600	162.00	
PL8576	6.0	17.0	3000	5000	2000	1000	395.00	
PL8438	5.0	14.5	400	4000	350	800	48.00	45.60
PL8187	6.0	3.5	65	15,000	1 Apk	2000	43.00	40.64
PL8188	5.0	14.5	400	20,000	4 Apk	2500	64.00	60.48
PL8189	7.5	21.0	1000	30,000	8 Apk	2500	156.00	

VACUUM SWITCHES

Type	Volt. Max.	Current Max. Ampere AC or DC	Pulse	Coil	Net
PL-R1	21,000	6	150	Not supplied; requires 1100 ampere turns	33.00
PL-169A	21,000	30	500	Not supplied; requires 1900 ampere-turns	40.00
PL-183	21,000	6	...	Mounted enclosed coil assembly supplied	32.00
PL-186	21,000	6	...	Not supplied; requires 1000 ampere-turns	38.00

Type	Volt. Max.	Current Max. Ampere AC or DC	Pulse	Coil	Net
PL-187	21,000	30	500	Integral; 28V, 500 Ma., DC	58.00
PL-190	21,000	6	150	Integral; 28V, 250 Ma., DC	58.00
PL-191	21,000	6	...	Not supplied; requires 1000 ampere-turns	28.00
PL-203B	21,000	6	...	Mounted enclosed coil assembly supplied	55.00

Special Purpose Tubes

RAYTHEON



GENERAL PURPOSE INDUSTRIAL TUBES

Tube Type	1-4	5-18	19-49	50-99
UA2	1.32	1.25	1.19	1.12
OB2	1.37	1.30	1.24	1.16
OB2WA	2.40	2.28	2.12	2.00
OC2	1.50	1.42	1.35	1.28
2D21	1.29	1.23	1.16	1.10
6AS6	3.43	3.26	3.09	2.92
2050A/2050	2.21	2.06	1.91	1.76
CK5651	1.78	1.69	1.60	1.51
CK5654	2.41	2.28	2.16	2.04
CK5670	2.45	2.33	2.21	2.08
CK5686	3.37	3.20	3.03	2.86
CK5687	4.00	3.80	3.65	3.45
CK5751	2.55	2.42	2.30	2.17
CK5814A	2.35	2.23	2.12	2.00
CK5879	1.95	1.85	1.76	1.67
CK5902	4.80	4.56	4.32	4.08
CK6021	3.50	3.33	3.15	2.98
CK6080	5.33	5.06	4.80	4.53
CK6146	4.35	4.13	3.92	3.70
CK6146A	4.35	4.13	3.92	3.70
CK6265	4.10	3.87	3.69	3.49
CK6414	3.65	3.45	3.28	3.10
CK6660/6BA6	1.01	.95	.91	.86
CK6661/6BH6	1.34	1.27	1.21	1.14
CK6662/6BJ6	1.29	1.22	1.16	1.10
CK6663/6AL5	.92	.87	.....	.....
CK6669/6AQ5	1.06	1.00	.95	.90
CK6677/6CL6	1.85	1.76	1.67	1.57
CK6678/6U8A	1.64	1.54	1.46	1.38
CK6679/12AT7	1.50	1.43	1.35	1.28
CK6680/12AU7	1.22	1.16	1.10	1.04
CK6681/12AX7	1.26	1.19	1.13	1.07

INDUSTRIAL TUBES

Tube Type	1-4	5-18	19-49	50-99
CK6146B/8298A	5.20	4.94	4.68	4.42
0A2WA	3.35	3.20	3.00	2.86
0A3A/0A3	1.54	1.46	1.38	1.30
0B3A/0B3	2.35	2.23	2.12	2.00
0C3A/0C3	1.50	1.42	1.35	1.28
0D3A/0D3	1.12	1.06	1.01	.95
1AD4	2.00	2.66	2.52	.....
1AE4	4.50	4.25	4.05	3.82
1AG4	7.30	6.90	6.57	6.20
1AG5	2.05	1.94	1.84	1.74
1AK4	7.30	7.10	6.90	.....
1P23	3.32	3.14	2.99	2.82
1P30	7.08	6.69	6.37	6.02
2E31	7.30	6.90	6.57	6.20
2E32	7.30	6.90	6.57	6.20
3A5	2.03	.....	.....	.....
3B4	3.09	2.92	2.78	2.63
3B4WA	5.85	5.53	5.26	4.97
3K3B24W	10.55	9.97	.....	.....
3K3B24WA	10.95	10.40	9.87	.....
4-85A	28.75	27.17	.....	.....
4-250A	46.50	44.18	41.85	39.53
5A6	6.65	6.28	5.98	5.65
5ADP7	42.00	39.69	.....	.....
5R4WGB	8.75	8.31	7.88	7.44
5R4WGB	13.00	12.35	11.70	11.05

THERMOSEN

KALOTRONS

Tube Type	1-9	10-24	25-99	100-249
2AS15A	10.00	9.00	8.00	7.00
2SM15	12.00	11.00	9.60	8.40
128C	13.00	12.50	10.40	9.10

COSSAR

CATHODE RAY TUBES

Tube Type	1-4	5-18	19-49	50-99
ICP1	Use ICP31			
ICP31	29.25	29.25	20.50	20.50

INDUSTRIAL TUBES (Cont.)

Tube Type	1-4	5-18	19-49	50-99
6AH6WA	7.56	7.14	.....	.....
6A15	3.85	3.64	3.46	3.27
6AK5W	(Use CK5654/6AK5W)			
6AN5	4.20	3.97	.....	.....
6AN5WA	10.80	10.21	.....	.....
6AR6	5.75	5.46	.....	.....
6C4W	2.52	2.38	2.27	2.14
6X4W	1.80	1.52	.....	.....
10KP7	45.80	.....	.....	.....
12AT7WA	2.53	2.40	.....	.....
CK512AX	3.90	3.69	.....	.....
CK526AX	7.30	6.90	.....	.....
CK533AX	3.85	3.64	.....	.....
CK534AX	3.85	3.64	.....	.....
CK587	14.60	13.80	.....	.....
CK1005	1.10	1.04	.99	.94
CK1007	1.25	1.18	1.13	1.06
CK1020	12.45	11.77	.....	.....
CK1021	12.45	11.77	.....	.....
CK1026	4.80	4.54	.....	.....
CK1034	9.15	8.65	8.24	7.78
CK1038	9.15	8.65	8.24	7.78
CK1047	4.20	3.97	3.78	3.57
CK1081	(Use CK5878A)			
CK1085	11.65	11.01	10.49	9.90
CK5517	3.80	3.61	.....	.....
CK5638	5.25	4.96	4.72	4.46
CK5613	6.37	6.02	5.73	5.41
CK5651WA	3.80	3.61	3.42	3.23
CK5654/6AK5W	2.41	2.28	2.16	2.04
CK5670WA	2.45	2.33	2.21	2.08
CK5672	2.27	2.16	.....	.....
CK5675	16.05	15.17	14.44	13.64
CK5676	3.05	2.90	.....	.....
CK5678	2.27	2.11	.....	.....
CK5687WA	4.00	3.80	3.60	3.40
CK5702WA	6.48	6.15	.....	.....
CK5702WB	9.55	9.02	.....	.....
CK5703WA	7.07	6.71	.....	.....
CK5703WB	8.79	8.31	.....	.....
CK5704	4.65	4.39	4.19	3.95
CK5704WA	7.30	6.90	6.57	6.21
CK5725/6AS6W	3.15	2.99	2.83	2.68
CK5726/6ALS6W	1.55	1.47	1.40	1.32
CK5727/2D21W	2.90	2.76	2.61	2.47
CK5744WA	7.05	6.66	6.34	5.99
CK5744WB	8.96	8.47	8.06	7.62
CK5751WA	2.55	2.42	2.30	2.17
CK5783	4.19	3.96	3.77	3.56
CK5783WA	7.07	6.68	6.36	6.01
CK5784WA	9.13	8.63	8.22	7.76
CK5785	5.85	5.53	5.26	4.97
CK5787	5.00	4.73	4.50	4.25
CK5787A	5.45	5.15	4.90	4.63
CK5787WA	4.91	4.64	4.42	4.17
CK5814WA	2.35	2.23	2.12	2.00
CK5829	4.20	3.97	3.78	3.57
CK5829WA	7.48	7.07	6.73	6.36
CK5840	5.35	5.08	4.82	4.55
CK5842	7.35	6.95	6.61	6.25
CK5876	10.25	9.69	9.22	8.71
CK5886	5.00	4.75	.....	.....
CK5889	19.70	18.62	.....	.....

INDUSTRIAL TUBES (Cont.)

Tube Type	1-4	5-18	19-49	50-99
CK5902WA	8.72	8.24	7.85	7.41
CK5971	7.30	6.90	6.57	6.21
CK6021WA	8.72	8.24	7.85	7.41
CK6029	7.30	6.90	6.57	6.20
CK6072	3.90	3.71	3.51	3.32
CK6080WA	10.80	.....	.....	.....
CK6080WB	29.78	.....	.....	.....
CK6088	3.05	2.88	2.75	2.59
CK6111	3.70	3.52	3.33	3.15
CK6111WA	8.72	8.24	7.83	7.41
CK6112	4.15	3.94	3.74	3.53
CK6122WA	6.24	5.90	5.62	5.30
CK6174	4.60	4.35	4.14	3.91
CK6189/12AU7WA	3.70	3.52	3.33	3.15
CK6201/12AT7WA	2.95	2.80	2.66	2.51
CK6205	5.35	5.06	4.81	4.55
CK6213	5.67	5.36	5.10	4.82
CK6247	11.20	10.58	10.08	9.52
CK6247WA	21.55	20.36	19.39	18.32
CK6336A	19.04	18.08	17.14	16.18
CK6397	8.30	7.84	7.47	7.06
CK6418	3.20	3.02	2.88	2.72
CK6419	7.50	6.90	6.57	6.20
CK6437	9.15	8.65	8.24	7.78
CK6438	9.15	8.65	8.24	7.78
CK6476	13.37	.....	.....	.....
CK6485	2.05	.....	.....	.....
CK6519	7.30	6.90	6.57	6.21
CK6526	7.30	6.90	6.57	6.21
CK6528	21.55	20.47	19.40	18.32
CK6533	13.25	12.52	11.92	11.26
CK6550	4.95	4.68	4.45	4.21
CK6626	3.35	3.16	3.01	2.85
CK6627	2.35	2.22	2.11	2.00
CK6688	8.75	8.27	7.87	7.44
CK6688A	8.75	8.27	7.87	7.44
CK6763	4.00	3.78	3.60	3.40
CK6792	10.90	10.30	9.81	9.27
CK6802	11.43	.....	.....	.....
CK6829	6.10	5.76	5.49	5.19
CK6883	4.30	4.09	3.87	3.66
CK6909	11.43	.....	.....	.....
CK6910	13.37	.....	.....	.....
CK6922	4.87	4.60	4.38	4.14
CK6939	12.00	11.34	10.80	10.20
CK7044	3.18	3.01	2.86	2.70
CK7246	7.64	7.22	6.88	6.49
5R4GYB	2.03	1.93	1.83	1.73
CK7994	15.50	14.65	13.95	13.18
CK7995	15.50	14.65	13.95	13.18
CK7996	14.00	13.23	.....	.....
CK8096	21.52	20.34	19.37	18.29
CK8421	15.75	14.88	14.18	13.39
CK8422	15.75	14.88	14.18	13.39
CK8520	(Use CK587)			
CK8650	11.85	11.00	10.48	.....

INDUSTRIAL CONTROL TUBES

Tube Type	1-4	5-18	19-49	50-99
604	11.80	11.21	.....	.....
710/6011	12.70	12.06	11.43	.....
760	28.10	26.70	.....	.....
6014/C1K	11.80	11.15	10.62	10.03

NATIONAL UNION

PENTODE REGULATOR

Type	1-4	5-18	19-49	50-99
6842	14.30	13.51	12.87	12.16

TRIODE AMPLIFIER

Type	1-4	5-18	19-49	50-99
2C53	9.15	8.65	8.40	.....
7234	15.65	.....	.....	.....
7235	10.00	9.65	9.65	.....
IDP1	21.00	.....	.....	.....

Depend on NEWARK for the Latest Tubes

VICTOREEN

COUNTER TUBE—BETA/GAMMA

Tube Type	1-4	5-18	19-49	50-99
1B85	12.13	.....	.....	.....

CORONA DISCHARGE

Tube Type	1-4	5-18	19-49	50-99
5841	8.86	.....	.....	.....

ELECTROMETER TETRODE

Tube Type	1-4	5-18	19-49	50-99
5800	34.79	.....	.....	.....

Amperex Industrial & Special Purpose Tubes



TRIODE

Tube Type	1-4	5-18	19-49	50-99
833A	61.20	57.83	54.99	52.02
ZB3200	475.00			
5658	595.00			
5687	370.00			
5842	7.35	6.95	6.61	6.25
5866	21.40	20.22	19.26	18.19
5866A/7986	23.30	22.02	20.97	19.81
5867	30.00			
5867A	35.25			
5868	65.65			
5920	3.20	3.02	2.88	2.72
5923	165.00			
5924A	294.75			
6085	3.30	3.12	2.97	2.81
6201	2.95	2.80	2.66	2.51
6211	3.20	3.08	2.88	2.72
6463	3.50	3.33	3.15	2.97
6922	4.87	4.60	4.38	4.14
6977	2.50			
7062	2.39	2.26	2.15	2.03
7092	125.00			
7118	2.95	2.48	2.30	2.03
7237	200.00			
7308	5.20	4.91	4.68	4.42
7318	1.40	1.32		
7459	230.00			
7643	4.95	4.68	4.45	4.21
7753	152.00			
7800	760.00			
7804	400.00			
7805	375.00			
7806	780.00			
7807	640.00			
7899	760.00			
7900	252.00			
7986/5866A	26.00	24.57	23.40	22.10
8108/EC157	155.30			
8254	17.00			
8268	170.00			

UHF TRIODE

Tube Type	1-4	5-18	19-49	50-99
TBL2/400	250.00			
TBL2/500	270.00			
8163	39.00			
8177	1250.00			

BEAM DEFLECTION TUBE

Tube Type	1-4	5-18	19-49	50-99
6218	8.65	8.17	7.78	7.35

BEAM POWER TUBE

Tube Type	1-4	5-18	19-49	50-99
8159	4.80	4.56	4.32	4.08
8042	9.00	8.51	8.10	

INDICATOR

Tube Type	1-4	5-18	19-49	50-99
ZM1030	9.95	9.95	9.95	8.00
ZM1032	9.95	9.95	9.95	8.00

AMPLIFIER

Tube Type	1-4	5-18	19-49	50-99
6687	2.79			
7737	7.20			

PHOTOMULTIPLIER TUBES

3/4" Tube

Type	Resp.	Description	NET
XP1110	S-11	Non-ruggedized 152AVP	95.00
XP1111	S-11	Flying lead version of 152AVP	105.00
XP1113	S-13	6 stage version of XP1112	78.00

CATHODE

Tube Type	1-4	5-18	19-49	50-99
Z803U/6779	5.75	5.43	5.18	4.00
6779/Z803U	5.75	5.43	5.18	4.00
8453/Z550M	14.50	13.70	13.05	12.32

PROPORTIONAL COUNTER

Tube Type	1-4	5-18	19-49	50-99
300PC	150.00			
310PC	150.00			
400PC	36.00			

PENTODE

Tube Type	1-4	5-18	19-49	50-99
E55L/8233	13.25	12.52	11.92	11.26
5654/6AK5W	2.45	2.33	2.23	2.08
5847	9.55	9.02		
6007	1.72	1.63	1.55	1.46
6008	2.50			
6083	16.50	15.59	14.85	14.03
6084	3.30	3.12	2.97	2.81
6227	3.05	2.88	2.74	2.59
6375	8.40	7.94	7.56	7.14
6686	4.10	3.87	3.69	3.49
6688	6.80	6.43	6.12	5.78
6688A	6.80	6.43	6.12	5.78
6689	3.85	3.64	3.46	3.27
7189	1.35	1.28	1.21	1.15
7534	17.50	16.54	15.76	
7693	3.75	3.54	3.37	3.19
7694	3.75	3.54	3.37	3.19
7737	7.20			
7788	9.75	9.21	8.77	8.29
8233	13.25	12.52	11.92	11.26

TETRODE

Tube Type	1-4	5-18	19-49	50-99
4-65A	27.00		25.65	
4-125A	36.00			
4-250A	46.50	44.18	41.85	39.53
4-400A	48.00	45.36		
4CX250B/7203	35.65	33.69	32.08	30.30
4CX250R/7580W	45.00	42.52		
4X150A/7034	23.15	21.99		
4X250B	33.50	30.55	30.15	28.48
4X500A	128.50			
6155	37.50	35.44		
6156	44.85	42.38	40.36	38.13
6883	4.30	4.09	3.87	3.66
7378	49.50	46.78	44.56	42.08
7527	47.25	44.65	42.52	40.16
7609	29.35			
8179	145.50			

TWIN TETRODE

Tube Type	1-4	5-18	19-49	50-99
5894	25.00	23.63	22.50	21.25
6252	25.00	23.63	22.50	21.25
6360A	4.95	4.68	4.45	
6907	25.00	23.63	22.50	21.25
6939	12.00	11.34	10.80	10.20
7377	19.60	18.52	17.64	16.66
7699	13.50	12.76	12.15	11.48
7854	29.25	27.64		
8118	38.50	36.38	34.65	32.73

RECTIFIER

Tube Type	1-4	5-18	19-49	50-99
857B	240.00			
866AX	3.90	3.68	3.51	
869B	155.00			
869BL	155.00			
872AX	10.85	10.25	9.76	9.22
6693	27.90	26.37	25.11	
7136	27.90	26.37	25.11	
8008AX	10.85	10.25	9.77	9.22
8020AX	24.00	22.68	21.60	20.40
8270	78.00			



VOLTAGE REFERENCE TUBE

Tube Type	1-4	5-18	19-49	50-99
OE3	7.25	6.85	6.52	6.16
OE3/85A1	7.25	6.85		
OG3	2.30	2.19	2.07	1.95
OG3/85A2	2.30	2.19		
85A1/OE3	7.25	6.85		
85A2/OG3	2.30	2.19		
5851	1.78	1.69	1.60	1.51
8228/ZZ/1000	2.90	2.78	2.61	2.47

THRATRON

Tube Type	1-4	5-18	19-49	50-99
2D21	1.29	1.23	1.16	1.10
AX105/FG105	53.33	50.40	48.00	
AX260	150.00			
5544	44.40	41.96	39.96	37.74
5545	48.75	46.06	43.87	41.44
5557/FG17	11.10	10.48	8.88	
5559	23.00			
5727	2.50	2.36	2.25	2.13
5869	28.80	27.22	25.92	
5870	105.00			
6288	41.00			
6279	47.55	44.93	42.79	
6786	230.00			
8482	78.00	73.71	70.20	66.30

VOLTAGE REGULATOR

Tube Type	1-4	5-18	19-49	50-99
OA2	1.32	1.25	1.19	1.12
OB2	1.37	1.30	1.24	1.16
90C1	2.25	2.13	2.02	
150B2/6354	2.55	2.41	2.29	2.17
6354/150B2	2.55	2.41	2.29	2.17

SPECIAL INDUSTRY TUBES

Tube Type	Description	1-4	5-18	19-49	50-99
Z70U/7710	Submin. Cold Cathode	1.95	1.84	1.76	1.35
Z70W/7709	Submin. Cold Cathode	3.30	3.12	2.97	2.30
Z71U/7711	Submin. Cold Cathode	2.85	2.69	2.57	2.00
Z303C	Cold Cathode	11.00	10.40	9.90	9.15
Z502S	Dec. Counter Cold Cathode	13.65	12.90	12.29	10.50
Z550M/8453	Cold Cathode	14.50	13.10	13.05	12.00
Z803U/6779	Cold Cathode	5.75	5.43	5.18	4.00
Z805U/7714	Cold Cathode	7.50	7.09	6.75	5.45
Z900T/5823	Min. Glow Disch. Triode	3.45	3.26	3.11	2.40
ZM1030	Bi-Quin.Num. Indic. (Red)	9.95	9.40	8.96	8.00
ZM1032	Bi-Quin.Num. Indic. (Clear)	9.95	9.40	8.96	8.00
B8.700/67	Socket for Z550M	1.25	1.18	1.13	.85
B8.700.00	Socket for 6GB5, 8233, 8278, 8458	.35	.33	.32	.25

TRIGGER TUBE

Tube Type	1-4	5-18	19-49	50-99
Z70U/7710	1.95	1.84	1.76	1.35
Z70W/7709	3.30	3.12	2.97	2.30
Z71U/7711	2.85	2.69	2.57	2.00
Z805U/7714	7.50	7.09	6.75	5.45

PLUMBICON

Tube Type	1-4	5-18	19-49	50-99
55875	1475.00			
55875R	1475.00			
55875G	1475.00			
55875B	1475.00			

Industrial & Special Purpose Tubes

AMPEREX (Continued)

1.5" Tubes

Type	Resp.	Description	NET
150AVP	S-11	Intended for optical spectrometry, flying spot scanners, etc.	74.00
150UVP	S-13	Ultra violet version of 150AVP	225.00
150CVP	S-1	Infra-red version of 150AVP	90.00
XP1010	S-11	Low noise 150AVP for X-ray spectrometry	97.00
XP1011	S-11	Ruggedized 150AVP	103.00

2.0" Tubes

Type	Resp.	Description	NET
XP1000	S-11	10 stage version of 53AVP	86.00
XP1002	S-20	Tri Alkylne version of 53AVP	275.00
XP1004	S-13	Ultra violet version of XP1000	350.00

2.0" Tubes (extremely fast rise time)

Type	Resp.	Description	NET
56AVP	S-11	14 stage fast PM for cherenkov counters, etc.	295.00
56CVP	S-1	Infra-red version of 56AVP	350.00
56UVP	S-13	Ultra violet version of 56AVP	550.00
XP1020	S-11	12 stage better transit time of 56AVP	585.00

3.0" Tubes

Type	Resp.	Description	NET
XP1030	S-11	Large surface tube for scintillation counting etc.	107.00
XP1031	S-11	9% resolution version of XP1030 for gamma spectrometry	147.00
XP1032	S-13	Ultra violet version of XP1030	980.00

5.0" Tubes

Type	Resp.	Description	NET
54AVP	S-11	Intended for large surface applications	160.00
54UVP	S-13	Ultra violet version of 54AVP	1050.00
58AVP	S-11	14 stage fast PM for large surface applications	535.00
XP1040	S-11	Integral flat window version of 58AVP	595.00

9.0" Tubes

Type	Resp.	Description	NET
57AVP	S-11	Fast, extremely large surface tube	645.00
60AVP	S-11	Extremely fast version of 57AVP	1395.00



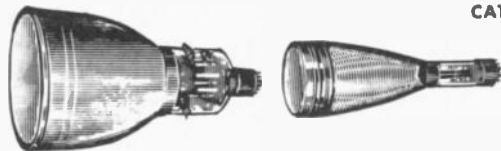
SYLVANIA

GOLD BRAND TUBE TYPES

Features exceptional stability, maximum uniformity, extreme physical ruggedness, 10,000 hour design life. For critical commercial and industrial service. These qualities are designed and built in.

Sylvania GB Replacement	Prototype	NET	Sylvania GB Replacement	Prototype	NET
GBOA2WA	OA2	3.35	GB5728	6AL5	1.55
GBOB2WA	OB2	2.40	GB5727	2D21	2.90
GB5Y3WGTA	5Y3GT	4.05	GB5749	6BA6	2.20
GB1252/648A	6U8A	2.00	GB5750	6BE6	3.45
GB6J4WA	6J4	5.60	GB5751	12AX7	2.55
GB6SL7WGT	6SL6GT	3.15	GB5814A	12AU7	2.35
GB6SN7SGT	6SN7GT	2.35	GB5931	5U4G, GB	6.80
GB6X4WA	6X4	2.85	GB5932	6L6G, GA, GB, GC	11.30
GB6X5WGT	6X5GT	1.55	GB5933	807	12.35
GB7AK7	.....	8.15	GB6005	6AQ5	3.23
GB407A	407A	5.90	GB6080	6AS7G, GA	5.33
GB408A	408A	4.95	GB6101	6J6	5.35
GB5854	6AK5	2.45	GB6135	6C4	2.40
GB1219/5670	Replacement for 2C51 & 5670 when GM at low heat er voltage is critical	3.70	GB6136	6AU6	2.70
GB1220/5654	.....	3.05	GB6186	6AG5	3.85
GB5670	2C51	2.45	GB6189	12AU7	3.70
GB5687	5687	4.00	GB6201	12AT7	2.55
GB5725	6AS6	3.15	.....	.....	12.45
.....	.....	.....	7550	.....	13.25

CATHODE RAY TUBES



Line width measured at the center face by the shrinking raster method at the current or brightness specified. Reference MIL-E-1, Par. 4.12.6.1. The brightness shown for 3" and 5" round tubes is for 2"x2"

raster size. Useful scan is limited on this axis to a value less than full screen dimension. All voltages are measured with respect to cathode.

Type	Shape	Anode (KV)	Length	1-4	5-18	19-49	50-99	Type	Shape	Anode (KV)	Length	1-4	5-18	19-49	50-99
2BP1*	Circle	2.75	7 3/8"	20.10	18.85	18.09	17.09	SADP7	Circle	2.86	16 3/4"	42.10	39.78	37.89	35.79
2BP11	Circle	2.75	7 3/8"	21.50	20.32	19.35	18.27	SADP7A	Circle	2.86	16 3/4"	45.30	42.81	40.77	38.51
3ACP1A	Circle	2.2	10"	43.40	41.01	39.06	36.89	SAHP7	Circle	11	11 1/8"	Order SAHP7A			
3ADP1	Circle	3.3	10"	61.60	58.21	55.44	52.36	SAQP1	Circle	—	16 3/4"	Order SAQP1A			
3ASP1	Rectangle	3.0	8 1/4" x 3 1/8"	40.85	38.80	36.77	34.72	SAQP7	Circle	—	16 3/4"	Order SAQP7A			
3BGP1	Rectangle	2.75	9 1/4"	51.65	48.80	46.48	43.90	SBGP2	Circle	2.2	17 1/4"	75.00	70.88	67.50	63.75
3BMP1	Circle	2.2	10"	55.95	52.87	50.35	47.56	SBHP2A	Circle	2.2	18 1/4"	92.50	87.41	83.25	78.83
3BP1A	Circle	2.2	10"	33.05	31.23	29.75	28.09	SBHP7A	Circle	2.2	18 1/4"	92.50	87.41	83.25	78.83
3FP7A	Circle	2.2	10"	34.30	32.41	30.87	29.15	SBPIA	Circle	2	16 3/4"	34.90	32.98	31.41	29.67
3FP1	Circle	2.2	10"	30.75	29.06	27.67	.....	SCPIA	Circle	2	16 3/4"	38.85	36.71	34.97	33.02
3KP1*	Circle	2.75	11 1/4"	31.60	29.86	28.44	.....	SFPA4	Circle	8.8	10 3/8"	35.00	33.08	31.50	29.75
3RP1*	Circle	2.75	9 1/4"	27.05	25.56	24.35	22.99	SUPI	Circle	2	14 3/4"	31.65	29.91	28.49	26.80
3SP1	Rectangle	3	9 1/8"	34.55	32.56	.....	.....	7UP7	Circle	—	13 1/4"	47.50	44.89	42.75	40.38
3WP1*	Circle	2.75	11 1/4"	34.55	32.56	.....	.....	8KP4	Rectangle	18	11 1/4" x 6"	34.90	32.98	31.41	29.67
3WP2*	Circle	2.75	11 1/4"	34.55	32.56	.....	.....	10SP4	Circle	22	16 3/4"	69.15	65.35	62.24	58.78
5ABP1	Circle	2.86	16 3/4"	39.55	37.37	35.80	33.62	14BP4	Rectangle	22	16 3/4"	.....	.....	.....	.....
5ADP2*	Circle	2.86	16 3/4"	39.55	37.37	35.80	33.62	17DWP4	Rectangle	22	19 1/4"	29.90	28.26	26.91	25.42
.....	.....	.....	.....	.....	.....	.....	.....	SC2854	Circle	11	11 1/8"	58.25	55.05	52.43	49.51



Industrial & Special Purpose Tubes



POWER AMPLIFIER

Tube Type	1-4	5-18	19-49	50-99
2C39A	20.75	19.71	18.68	17.64
2C39WA	20.75	19.61	18.67	17.64
2C40	29.30	27.69	26.37	24.90
2E26	3.75	3.56	3.38	3.19
3X3000A1	210.00			
4X500A	128.50			
25T	28.50	27.08		
304TH	75.00	70.88	67.50	63.75
304TL	75.00	70.88	67.50	63.75
807	3.15	2.98	2.83	2.68
5667(889RA)	435.00			
5763	2.45	2.32	2.20	2.08
5881	3.10	2.93	2.79	2.64
6146A	4.35	4.13	3.92	3.70
6159A	4.80	4.56	4.32	4.08
6257	330.00			
6550	4.59	4.36	4.13	3.90

THYRATRON

Tube Type	1-4	5-18	19-49	50-99
2D21	1.29	1.23	1.16	1.10
6D4	2.85	2.69	2.56	2.42
672A	39.85	37.86		
884	2.28	2.17	2.05	1.94
2050	2.37	2.25	2.13	2.01
5560/FG95	33.00	31.35	29.70	
5696	1.95	1.85	1.75	
5727	2.90	2.76	2.61	2.47
5727/2D21W	2.90	2.76	2.61	2.47
5796	17.25	16.30	15.52	14.66
5823	1.72	1.63	1.55	1.46
6011/710	12.00	11.34	10.80	
6012	7.65	7.27	6.89	6.50
6483	3.09			

VOLTAGE REGULATOR

Tube Type	1-4	5-18	19-49	50-99
OA2	1.32	1.25	1.19	1.12
OA3	1.54	1.46	1.38	1.30
OB2	1.37	1.30	1.24	1.16
OB2WA	2.40	2.28	2.16	2.04
OB3	2.35	2.23	2.12	2.00
OC3	1.50	1.42	1.35	1.28
OD3	1.44	1.37	1.30	1.22

STROBOTRONS

Tube Type	1-4	5-18	19-49	50-99
ID21/SN4	7.30	7.10	6.90	
SA309	20.40			

GLOW MODULATOR

Tube Type	1-4	5-18	19-49	50-99
RI131C	21.60	20.41	19.44	

CATHODE RAY TUBE

Tube Type	1-4	5-18	19-49	50-99
2BP1	20.10	18.85	18.09	17.09
3ACP1A	43.40	41.01	39.06	36.89
3ADP1	61.60	58.21	55.44	52.36
3ASP1	40.85	38.60	36.77	34.72
3BGP1	51.65	48.80	46.48	43.90
3BMP1	55.95	52.87	50.35	47.56
3BP1A	39.05	31.23	29.75	28.09
3FP7A	34.30	32.41	30.87	29.15
3JP1	30.75	29.06	27.67	
3KP1	31.60	29.86	28.44	
3RP1	27.05	25.56	24.35	22.99
3SP1	34.45	32.56		
3WP1	34.55	32.65		

GRID CONTROL RECTIFIER

Tube Type	1-4	5-18	19-49	50-99
C3J/5632	12.70	12.07		

GAS PRESSURE MEASURING TUBE

Tube Type	1-4	5-18	19-49	50-99
5966	42.00	39.69	37.80	35.70

VIDICONS

Tube Type	1-4	5-18	19-49	50-99
1320	185.00			
7038	185.00			
7325	185.00			
7735A	185.00			
8484	185.00			

DUO-TRIODE

Tube Type	1-4	5-18	19-49	50-99
6BF7W	4.20	3.97	3.78	3.57
6SL7WGT	3.15	2.99		
6SN7WGT	2.35	2.22	2.11	2.00
12ATWA	2.53	2.40	2.28	2.15
407A	5.90	5.61	5.31	5.01
5670	2.45	2.33	2.21	2.08
5687	4.05	3.85	3.65	3.45
5692	8.25	7.83	7.43	7.01
5751	2.55	2.42	2.30	2.17
5814A	2.35	2.23	2.12	2.00
6021	3.50	3.33	3.15	2.98
6080	5.33	5.06	4.80	4.53
6111A	3.70	3.52	3.33	3.15
6112A	4.15	3.94	3.74	3.53
G86201	2.55	2.42	2.29	2.17
6350	1.85	1.76	1.67	1.57
6679/12AT7	1.50	1.43	1.35	1.28
6680/12AU7	1.22	1.16	1.10	1.04
6681/12AX7	1.26	1.19	1.13	1.07
6922	4.87	4.60	4.38	4.14
6977	2.50			
7044	2.70	2.55	2.43	2.30
7887	6.70	6.32		
7888	5.25	4.99		

PENTODE

Tube Type	1-4	5-18	19-49	50-99
6AH6WA	7.60	7.16	6.84	6.46
6AJ5	3.85	3.64	3.46	3.27
6AS6	3.43	3.26	3.09	2.92
6AU6WA	2.70	2.57	2.43	2.30
5636A	6.10	5.76	5.49	5.19
5639A	5.25	4.96	4.72	4.46
5654	2.41	2.28	2.16	2.04
5725	3.15	2.99	2.83	2.68
5902A	4.80	4.56	4.32	4.08
5932	11.80	10.69		
5933	12.35	11.73		
5933WA	16.50	15.59		
6005	3.23	3.06	2.91	2.75
6661/6BH6	1.34	1.27	1.21	1.14
6669/6AQ5A	1.06	1.00	.95	.90
6677/6CL5	1.85	1.76	1.67	1.57
6678/6U8A	1.62	1.54	1.46	1.38

KLYSTRONS

Tube Type	1-4	5-18	19-49	50-99
SK-221A	160.00			
SK-221B-G	145.00			
SK-220A-G	140.00			
SYK-720A-G	145.00			
SYK-722A-G	150.00			

DUODIODE

Tube Type	1-4	5-18	19-49	50-99
5R4GYB	2.03	1.93	1.83	1.73
5Y3WGT	4.05	3.83	3.64	
5726	1.55	1.47	1.40	1.32
5963	1.36	1.29	1.22	1.16
5965	1.92	1.82	1.73	1.63

PHOTOCONDUCTORS—For Light Control Applications

T-4 Bulk-All Glass, Hermetically Sealed

Type	2 Ft. Candle Res. (Ohms)	Min. Dark Res. (Ohms)	Max. Volts DC/AC Peak	Max. Dissipation	1-4	5-18	19-49	50-99
8100	5,000	500,000	400 V	300 MW	1.40	1.32	1.26	1.19
8142	1,500	200,000	400 V	300 MW	1.40	1.32	1.26	1.19
8143	9,000	900,000	400 V	300 MW	1.40	1.32	1.26	1.19
8345	750	75,000	400 V	300 MW	1.40	1.32	1.26	1.19
8346	3,000	300,000	400 V	300 MW	1.40	1.32	1.26	1.19
8347	16,000	1.6 Megs	400 V	300 MW	1.40	1.32	1.26	1.19
8318A	32,000	10.0	300 V	75 MW	1.54	1.46	1.39	1.31
8475A	2,000	0.2	200 V	75 MW	1.54	1.46	1.39	1.31
8477A	8,000	0.8	300 V	75 MW	1.54	1.46	1.39	1.31
8582A	128,000	10.0	300 V	75 MW	1.54	1.46	1.39	1.31

PHOTO TUBES

Type	Max. Anode V.	Spec. Range A.U.	Vacuum or Gas	Cathode Resp.	Sensitivity a Lumen O Cycle	1-4	5-18	19-49	50-99
1P39	250	3000-670J	V	S4	45	2.50	2.38	2.25	2.13
922	500	4000-1200J	V	S1	20	3.45	3.28		
923	90	4000-1200J	G	S1	135	3.70	3.49		

SYLVANIA DECADE COUNTER TUBES

Type	Input Freq. (Kpps)	Base	Bulb	1-4	5-18	19-49	50-99
8035/CT4251	0-50	13 Pin*	T9	11.10			
6476A	0-4	Mod. Duo Decal**	T11	14.95			
6802	0-4	Octal.	T9	11.43			
6879	0-5	7 Pin Min.	T5½	13.37	12.63	12.03	11.36
6909	0-100	Octal.	T9	11.43			
6910	0-100	Mod. Duo Decal**	T11	13.37			
7155	0-100	7 Pin Min.	T5½	13.37	12.63	12.03	11.36
8353	0-4	13 Pin*	T9	11.10			

**Uses Sylvania 7460-0008 socket

*Uses Sylvania 70-780-1 socket

Special Purpose Tubes Mullard

MASTER 10M SERIES TUBES

- 10,000 hours of effective performance.
- Tube-to-Tube Uniformity.

A selected series of individually, laboratory-tested tubes, ideal for today's technically advanced and exacting electronic equipment. Meets more stringent requirements. Gold protected pins, individual plastic foam cushion packaging for protection during handling and shipping. Each Master 10M tube guaranteed for 10,000 hours of effective performance within two years of date of purchase. Recommended for the full range of electronic equipment. Specify 10M after type no. when ordering.



REGULAR INDUSTRIAL TUBES BEAM POWER OUTPUT

Tube Type	1-4	5-18
6DJ8/ECC88	2.22	2.10
6AL5/EB91	.88	.83
6AQ5/EL90	1.00	.95
EL90/6AQ5	1.00	.95
EB91/6AL5	.88	.83

UHF CASCODE

Tube Type	1-4	5-18
6DJ8/ECC88	2.22	2.10
6ES8/ECC189	2.73	2.58
ECC88/6DJ8	2.22	2.10
ECC189/6ES8	2.73	2.58

HEPTODE MIXER

Tube Type	1-4	5-18
6AJ8/ECH81	1.35	1.28
6BE6/EK90	1.05	.99
ECH81/6AJ8	1.35	1.28
EK90/6BE6	1.85	.89

DUAL TRIODE

Tube Type	1-4	5-18
12AT7/ECC81	1.43	1.35
12DW7/7247	1.53	1.45
ECC93	2.45	2.32
ECC81/12AT7	1.43	1.35
7247/12DW7	1.53	1.45

REMOTE CUT-OFF PENTODE

Tube Type	1-4	5-18
6BA6/EP93	.95	.90
6EH7/EP183	1.93	1.83
EBF89/6DC8	1.53	1.45
EP89/6DA6	1.40	1.32
EP93/6BA6	.95	.90
EP183/6EH7	1.93	1.83

PENTODE AMPLIFIER

Tube Type	1-4	5-18
6AK5/EP95	2.20	2.08
6AU6/EP94	.98	.93
6E17/EP184	1.19	1.83
EP86/6267	1.30	1.23
EP91/6AM6	1.60	1.52
EP94/6AU6	.98	.93
EP95/6AK5	2.20	2.08
EP184/6E17	1.93	1.83
6267/EP86	1.30	1.23

POWER PENTODE

Tube Type	1-4	5-18
6BQ5/EL84	1.13	1.07
EL34/6CA7	2.60	2.47
EL84/6BQ5	1.13	1.07
EL96/8DL5	1.48	1.40

VHF-UHF TRIODE

Tube Type	1-4	5-18
6AQ8/ECC85	1.50	1.42
6BL8/ECF80	1.87	1.78
6C4/EC90	.88	.83
6J6/ECC81	1.33	1.28
ECF80/6BL8	1.87	1.78
ECC85/6AQ8	1.50	1.42
EC90/6C4	.88	.83
ECC81/6J6	1.33	1.28

TRIODE AMPLIFIER

Tube Type	1-4	5-18
12AU7/ECC82	1.15	1.09
12AV6/HBC91	.80	.76
12AX7/ECC83	1.20	1.14
EABC80/6AK8	1.60	.....
ECL80/6AB8	1.63	1.54
ECL82/6BM8	1.40	1.32
ECL86/6GW8	1.53	1.46
ECC82/12AU7	1.15	1.09
ECC83/12AX7	1.20	1.14
7025	1.45	1.32

RECTIFIERS

Tube Type	1-4	5-18
EZ80/6V4	.75	.71
EZ81/6CA4	.98	.93
EZ90/6X4	.80	.76
GZ34/SAR4	2.13	2.01

SPECIAL PURPOSE TUBE

An extensive range of more than 700 dependable special purpose tubes for virtually every industrial application. Includes Cathode Ray Tubes, Image Converters, Photosensitive Devices, Counting and Indicating Tubes, Electrometer, Trigger and Voltage Reference Tubes, Thyrons, Power Triodes and Tetrodes, Microwave Tubes, etc. Each tube reflects traditional MULLARD quality construction and performance.

VOLTAGE REGULATOR

Tube Type	1-14	15-18
OA2/150C4	1.28	1.14
OB2/109C1	1.32	1.19
OG3/85A2	2.30	2.08
83A1/7980	5.50	4.97
85A2/OG3	2.30	2.08
90C1	2.25	2.03
108C1/QB2	1.32	1.19
150C4/OA2	1.28	1.14

CATHODE RAY TUBE

Tube Type	1-4	5-18
1CP1/1CP31/DH3-91	17.70	16.73
5BHP2/DN13-78	.....	.....
DN13-78/5BHP2	17.70	16.73
DH3-91/1CP1	17.70	16.73

TRIODE

Tube Type	1-4	5-18
5861/TD03-10/EL55	26.50	25.04
6922/E88CC	4.87	4.60
7062/E180CC	2.25	2.13
7119/E182CC	2.95	2.22
E88CC/6922	4.87	4.60
E180CC/7062	2.25	2.13
E182CC/7119	2.95	2.22
TD03-10/5861	26.50	25.04
TD03-10E	33.75	21.50

TETRODE

Tube Type	1-4	5-18
6076/QY5-3000A	305.00	.....
QY5-300A/6076	305.00	.....

ELECTROMETER

Tube Type	1-4	5-18
ME1400	6.70	4-35

PENTODE

Tube Type	1-4	5-18
6888/E180F	6.80	5.30
7788/E810F	9.75	9.21
8233/E55L	13.25	9.75
E55L/8233	13.25	9.75
E180F/6888	6.80	5.30
E810F/7788	9.75	9.21
KT66	3.80	.....
KT88	5.90	5.88

OUTPUT PENTODES IN MATCHED PAIRS

Tube Type	1-4	5-18
ECL82MP/6B48MP	3.40	5.80
EL34MP/EC34MP	5.45	5.15
6CA7MP	6.90	6.32
EL37MP	.....	.....
EL84MP	2.53	2.39
6BQ5MP	8.43	7.97
KT66MP	12.48	11.79
KT88MP	3.47	3.28

TRIODES WITH DIODES

Tube Type	Description	1-4	5-18
EABC80/6AK8	Triple diode	2.80	2.65
EBC91/6AV6	Double diode	1.85	1.84
6AT6	Double diode	2.00	1.80
6AV6	Double diode	1.85	1.75
6T8A	Triple diode	2.80	2.52

TWIN TRIODES

Tube Type	Description	1-4	5-18
ECC81/12AT7	RF	2.55	2.41
ECC82/12AU7	Low-mu	2.20	2.08
ECC83/12AX7	High-mu	2.20	2.08
ECC85/6AQ8	FM Shielded	2.40	2.27
ECC88/6DJ8	Frame Grid	3.00	2.84
ECC91/6J6	Twin Triode	2.55	2.41
6AQ8	FM Shielded	2.40	2.16
6DJ8	Frame Grid	3.10	2.84
6ES8	Frame Grid	3.50	3.31
6EU7	High-mu	2.35	2.22
6J6	Twin triode	2.55	2.41
6J8A	Twin triode	2.55	2.41
12AT7	RF	2.55	2.29
12AU7	Low-mu	2.20	1.98
12AU7A	Low-mu	2.20	2.08
12AX7	High-mu	2.20	1.98
12AX7A	High-mu	2.20	2.08
7025	High-mu	2.35	2.22
7247	AF	2.55	2.41

TRIODES

Tube Type	Description	1-4	5-18
EC90/6C4	RF	2.85	2.56
6C4	RF	2.85	2.56
6ER5	Frame Grid	2.40	2.16
6FY5	Frame Grid	2.35	2.11
6GK5	Frame Grid	2.40	2.27

OUTPUT PENTODES WITH TRIODES

Tube Type	Description	1-4	5-18
ECL80/6AB8	Triode	2.75	.....

VOLTAGE AMPLIFYING PENTODES

Tube Type	Description	1-4	5-18
EF86/6267	Low noise a.f.	2.50	2.25
EF89/6DA6	Variable-mu r.f.	2.55	2.41
EP93/6BA6	Variable-mu r.f.	2.00	1.80
EP94/6AU6	High slope r.f.	2.05	1.94
EP95/6AK5	High slope r.f.	3.25	2.92
EP183/6EH7	Frame Grid IF	.....	.....
EF184/6EJ7	Remote Cutoff	2.60	2.46
EF184/6EJ7	Frame Grid IF	.....	.....
EF184/6EJ7	Sharp Cutoff	2.60	2.46
6AK5	High Slope r.f.	3.25	2.92
6AU6	High Slope r.f.	2.05	1.84
6AU8	High Slope r.f.	2.05	1.94
6BA6	Variable-mu r.f.	2.00	1.80
6267	Low noise a.f.	2.50	2.25

DOUBLE DIODE

Tube Type	Description	1-4	5-18
EB91/6AL5	Double diode	1.95	1.75
6AL5	Double diode	1.95	1.75

OUTPUT PENTODES

Tube Type	Description	1-4	5-18
EL84/6BQ5	Power	2.15	2.03
EL90/6AQ5	Miniature	2.15	2.03
EL94/6DL5	Output	2.55	2.29
6AQ5	Miniature	2.15	2.03
6AQ5A	Miniature	2.15	2.03
6BQ5A	Power	2.15	2.03

FREQUENCY CHANGERS

Tube Type	Description	1-4	5-18
ECF80/6BL8	Triode pentode	3.05	2.74
ECF86/6HG8	Frame Grid	3.10	2.79
ECH81/6AJ8	Triode heptode	2.65	2.50
EK90/6BE6	Heptode	2.10	1.89
PCF80/9A8	Triode Pentode	3.25	2.92
6BE6	Heptode	2.10	1.89
6BL8	Triode pentode	3.05	2.74
6HG8	Frame Grid T.P	3.10	2.79
9A8	Triode Pentode	3.25	2.92



Special Purpose & Industrial Tubes

DIODES AND RECTIFIERS

Type	Description	1-4
2-01C	Diode, 5V, .3A Fil. 1kV max. peak inverse v.	18.00
2-25A	High vacuum diode for high peak inverse voltage rectifier circuits.	27.00
250R	As above exc. 5V, 10.5A Fil. 60kV max. inv. v. 250 MA avg. 2.5A peak pl. current.	42.00
575A	Half wave mercury-vap. rect. 5V 11.5A fil.	20.15
673	Half wave mercury-vap. rect. 5V 11.5A fil.	20.15
869B	Half wave mercury-vap. rect. 5V 21A fil.	138.00
869BL	Half wave mercury-vap. rect. 5V 21A fil.	138.00
6894	Half wave mercury-vap. rect. 5V 11A fil.	25.00
8020/100R	As 250R exc. 5V, 6.5A Fil. 40kV max. inv. v. 100MA avg. 1.5A peak pl. curr.	26.50
KY21A	Grid controlled mercury vapor-rect. 2.5V, 10A Fil. 750 MA avg. 3 peak pl. curr.	33.80
RX21A	Half-wave mercury vapor-rect. 2.5V, 10A Fil. 750 MA avg. 3A peak pl. curr.	32.80

TRIODES

2C39A	High mu, ceramic-metal plan. triode 100W pl. diss. 6.3V 1A Fil. 1000V max. pl.	20.75
2C39WA	Suited for use in grid-isolated VHF and UHF circuits.	29.00
3-400Z/8163	Small 0-bias pwr. triode providing 1kW pep as a low distortion class B linear.	34.00
3-1000Z/8164	Larger vers. of 3-400Z. 7.5V 21A Fil. No bias with plate v. below 3000V.	78.00
3CPN10A5/7815	High mu ceramic-metal planar triode for pulse serv. to 3 GC 6V 1A Fil.	30.75
3CX100A5/7289	Improved version of 2C39.	28.50
3CX2500A3	Ceramic Med.-mu pwr. triode, forced air cooled. 7500W output up to 110 Mc. with 4000 plate v. 7.5V 54A Fil. 2500W plate diss.	200.00
3CX300F1	Ceramic-metal replacement for discontinued glass metal type 3X3000A1	210.00
3CX300F1	Ceramic-metal replacement for discontinued glass metal type 3X3000F1	210.00
75TH	Med.-mu triode. 5V. 6.3A Fil. 3000V max. on plate 75W plate diss.	43.00
75TL	Low-mu version of 75TH.	43.00
100TH	High-mu pwr. triode. Full ratings to 40 Mc. 5V. 6.3A Fil. 100W plate diss.	26.00
100TL	Low-mu version of 100TH.	26.00
250TH	High-mu pwr. triode. Up to 1KW in class C with 39W drive. 5V 10.5A Fil. 250W plate diss.	45.00
3CX2500F3	Same as 3CX2500AC exc. flexible leads to simplify grid and fil. conn. Ceramic type.	45.00
250TL	Low-mu version of 250TH.	83.00
304TH	Med.-mu pwr. triode. Up to 1200W class C with 53W drive. No forced air below 40 Mc. 5 or 10V, 25 or 12.5A. Fil. 3000V max. on pl. 300W pl. diss.	83.00
304TL	Low-mu version of 304TH.	85.00
450TH	High-mu pwr. triode, up to 1800W class C with 46W drive, cooled by pl radiation and convection. Ratings to 40 Mc. 7.5V 12A Fil. 6000V max. on pl. 450W pl. diss.	85.00
450TL	Low-mu version of 450TH.	55.00
592/3-200A3	Med.-mu pwr. triode. Ratings to 150 Mc. Cooled by radiation and forced air. 10V 5A Fil. 3500V max. on plate 200W plate dissipation.	224.00
750TL	Med.-mu pwr. triode. 7.5V 23A Fil. 10kV max. on plate. 750W plate dissipation.	224.00
6C21	Pulse-modulator triode. Radiation and forced air cooled. 8.2V 18A Fils. 30kV max. pl. v. 15A max. pulse pl. curr., 300W pl. diss.	99.00
25T	Med.-mu triode. Full Ratings to 60 Mc. 6.3V 3A Fil. 2000 V max. pl. v. 25W plate diss.	37.00
35T	High-mu triode. Full Ratings to 100Mc. 5V 4A Fils. 2000 max. pl. v. 35W plate diss.	41.00
1000T	High-mu pwr. triode. 3000W class C with 60W drive. Forced air cooled. 7.5V 16.5A Fil.	169.00
5867A	Pwr. triode, 350 W PL Diss 5V. 15A. fil.	30.60
6696A	Hi Pwr. triode., 60 KW PL. Diss. 13V. 220A fil.	1105.00
6697A	Air cooled Ver. 6696A 35 KW PL. Diss.	1330.00
7211	Same mech. as 2C39 but 1/3 larger elect. 6.3V 1.3A Fil. 100W pl. diss.	88.50
7289/3CX100A5	Same as 3CX100A5.	26.50
7698	Same as 7211 except has no air cooler on anode.	88.50
7815/3CPN10A5	Same as 3CPN10A5.	30.75

TETRODES & PENTODES

4-65A/8165	Pwr. tetrode. Full Ratings to 150 Mc. 6V 3.8A Fil. 3kV max. on pl. 65W pl. diss.	27.00
4-125A/4021	Rad. beam pwr. tetrode. Ratings to 120 Mc. 375W class C with 2.5W drive. 5V 7A Fil. 3000V max. on pl. 125W plate dissipation.	36.00
4-250A-5D22	Compact pwr. tetrode. Forced air cooled. Full Ratings to 110 Mc. 1kW Class C with 2.5W drive. 5V 14.5A Fil. 4000V max. on pl. 250W pl. diss.	46.50
4-400A/8438	Compact pwr. tetrode. Forced air cooled. Full Ratings to 110 Mc. 1100W class C with 6 W drive. 5V 14.5A Fil. 4000 V max. on pl. 400 W pl. diss.	48.00
4-1000A/8166	Rad. beam pwr. titrode. Forced air cooled. Ratings to 110 Mc. 3400 W class C with 15W drive. 7.5V 21A Fil. 6000V max. on pl. 1000W pl. diss.	131.50
4CX250B/7203	Compact pwr. tetrode. Air cooled. 6V 3A Fil. 2000V max. on plate. 250W pl. diss.	35.60
4CX250K/8245	Compact pwr. Tetrode. Coaxial construc. for cavity oper. Forced air cooled. Ratings to 500 Mc. Useful to 1500 Mc. 6V 3A Fil. 2kV max. on pl. 250W pl. diss.	64.00
4CX250R/7580W	Rugged compact pwr. tetrode. Forced air cooled. Ratings to 500 Mc. 6V 3A Fil 2000V max. on plate. 250W plate dissipation.	44.50
4CX300A/8167	Pwr. tetrode. Air cooled. 6V 3A Fil. 2500V max. on pl., 300W pl. diss.	54.00
4CX350A/8321	Like 4CX250B but higher gain and power. Ratings to 500 Mc. Forced air cooled. 6V 3.6A Fil. 2000V max. on plate. 350W pl. diss.	48.50
4CX350F/8322	Same as 4CX350A/8321 except has 26.5V 800 MA Fil.	51.50
4CX1000A/8168	Pwr. tetrode. Forced air cooled. Excellent high gain and low distortion Ratings to 110 Mc. 6V 10A Fil. 3000V max. on plate. 1000W pl. diss.	181.00
4CX1000K/8352	Ident. to 4CX1000A, but gives better UHF performance to over 400 Mc.	193.00
4CX3000A/8169	Pwr. tetrode. Ratings to 150 Mc. 10V 48.5A Fil. 3KW pl. diss.	420.00
4CX5000A/8170	High pwr. tetrode. Forced air cooled. 16KW class C with 150W drive. Ratings to 110 Mc. 7.5V 78A Fil. 7500V max. on pl. 5000W pl. diss.	495.00
4CX10000D/8171	Electrically ident. to 4CX5000A/8170, but larger anode radiator to reduce cooling air requir. or permit up to 10KW pl. diss.	550.00
4E27A/5-125B	Pwr. pentode with neutralization requir. simplified or eliminated. Ratings to 75 Mc. 375W class C with 2W drive. 5V 7.5A Fil. 4kV max. on pl. 125W pl. diss.	45.00
4PR60B/8252	Pulse mod. tetrode. Replaces 715C and 5D21. Supersedes 4PR60A. 300KW pulse pwr. with less than 1KW drive. 26V 2A Fil. 20kV max. on pl. 60W pl. diss.	107.00
4PR65A/8167	Tetrode for pulse mod., amp., or osc. 6V 3.8A Fil. 15kV max. on pl. 65W cl. diss	43.00
4W20.000A/8173	High pwr. trans. tetrode, water cooled, ratings to 250 Mc. Coaxial term. 10V 25A Fil. 1400V 1.8A bombarder 8kV max. on pl. 20KW pl. diss.	2030.00
4X150A/7034	Compact pwr. tetrode. Air cooled. 6V 3A Fil. 2kV max. on pl. 250W cl. diss.	23.15
4X500A	Pwr. Tetrode for VHF. 500 W. PL. Diss. 5V. 14A. fil.	127.50
7203/4CX250B	Identical to 4CX250B/7203.	35.60

UHF-TV POWER AMPLIFIER KLYSTRON

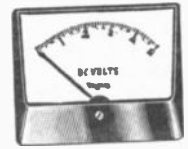
4KM70LA	4 cavity, 12.5 KW output, for channels 14 to 36.	4725.00
4KM100LA	4 cavity, 25 KW output, for channels 14 to 36.	7650.00
4KM150LA	4 cavity, 50 KW output, for channels 14 to 36.	9345.00

Write For Prices On Larger Quantities

Panel Meters *Simpson*

SIMPSON "WIDE-VUE" PANEL INSTRUMENTS

All have self-shielded type movement. DC Ammeters up to 50 amps are self-contained. All meters are accurate $\pm 2\%$ of FS. Model 1227 and model 1257 mount in 2.17" dia. hole. Models 1329, 1349, and 1359 mount in 2.75" dia. holes. Plastic Covers for maximum protection of meter face. Average shpg. wt. 1 lb.



DC VOLTMETERS — Self-Shielding type Movements

Range Volts	Approx. Resis.	Model 1227 2 1/2"				Model 1327 3 1/2"				Model 1329 4 1/2"						
		1-9	10-24	25-49	50-up	1-9	10-24	25-49	50-up	1-9	10-24	25-49	50-up			
0-5	1000 Ohms per Volt	55F1143	15.30	14.77	13.01	12.24	55F1146	15.75	14.18	13.39	12.60	55F1166	17.40	15.66	14.79	13.92
0-8		55F1147	15.75	14.18	13.39	12.60	55F1147	15.75	14.18	13.39	12.60	55F1167	17.40	15.66	14.79	13.92
0-10		55F1500	15.30	14.77	13.01	12.24	55F1550	15.75	14.18	13.39	12.60	55F1600	17.40	15.66	14.79	13.92
0-15		55F1501	15.30	14.77	13.01	12.24	55F1551	15.75	14.18	13.39	12.60	55F1601	17.40	15.66	14.79	13.92
0-25		55F1502	15.30	14.77	13.01	12.24	55F1552	15.75	14.18	13.39	12.60	55F1602	17.40	15.66	14.79	13.92
0-30		55F1503	15.30	14.77	13.01	12.24	55F1553	15.75	14.18	13.39	12.60	55F1603	17.40	15.66	14.79	13.92
0-50		55F1504	15.30	14.77	13.01	12.24	55F1554	15.75	14.18	13.39	12.60	55F1604	17.40	15.66	14.79	13.92
0-100		55F1505	15.30	14.77	13.01	12.24	55F1555	15.75	14.18	13.39	12.60	55F1605	17.40	15.66	14.79	13.92
0-150		55F1506	15.30	14.77	13.01	12.24	55F1556	15.75	14.18	13.39	12.60	55F1606	17.40	15.66	14.79	13.92
0-200		.....	.....	.....	.....	.....	55F1148	15.75	14.18	13.39	12.60	55F1168	17.40	15.66	14.79	13.92
0-250	.....	.....	.....	.....	.....	55F1149	15.75	14.18	13.39	12.60	55F1169	17.40	15.66	14.79	13.92	
0-300	2000 Ohms per Volt	55F1508	15.75	14.18	13.39	12.60	55F1558	16.50	14.85	14.02	13.20	55F1608	17.85	16.07	15.17	14.28
0-500		55F1144	19.35	17.42	16.45	15.48	55F1164	16.50	14.85	14.03	13.20	55F1170	17.85	16.07	15.17	14.28
0-750		55F1145	19.65	17.69	16.70	15.72	55F1165	20.55	18.50	17.47	16.44	55F1171	21.90	19.71	18.62	17.52
0-1000		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

*Require external shunt

DC AMMETERS — Self-Shielding type Movements

Range Amps.	Ohms	Model 1227 2 1/2"				Model 1327 3 1/2"				Model 1329 4 1/2"						
		1-9	10-24	25-49	50-up	1-9	10-24	25-49	50-up	1-9	10-24	25-49	50-up			
0-1	.050	55F1172	14.40	12.96	12.24	11.52	55F1559	15.15	13.64	12.88	12.12	55F1609	16.50	14.85	14.03	13.20
0-1.5	.033	55F1173	14.40	12.96	12.24	11.52	55F1181	15.15	13.64	12.88	12.12	55F1191	16.50	14.85	14.03	13.20
0-2	.025	55F1174	14.40	12.96	12.24	11.52	55F1560	15.15	13.64	12.88	12.12	55F1610	16.50	14.85	14.03	13.20
0-3	.0166	55F1175	14.40	12.96	12.24	11.52	55F1561	15.15	13.64	12.88	12.12	55F1611	16.50	14.85	14.03	13.20
0-5	.010	55F1512	14.40	12.96	12.24	11.52	55F1562	15.15	13.64	12.88	12.12	55F1612	16.50	14.85	14.03	13.20
0-10	.005	55F1513	14.40	12.96	12.24	11.52	55F1563	15.15	13.64	12.88	12.12	55F1613	16.50	14.85	14.03	13.20
0-15	.0033	55F1176	14.40	12.96	12.24	11.52	55F1564	15.15	13.64	12.88	12.12	55F1614	16.50	14.85	14.03	13.20
0-25	.0025	55F1177	14.40	12.96	12.24	11.52	55F1565	15.15	13.64	12.88	12.12	55F1615	16.50	14.85	14.03	13.20
0-30	.0017	.....	.....	.....	.....	.....	55F1182	15.15	13.64	12.88	12.12	55F1192	16.50	14.85	14.03	13.20
0-50	.001	55F1178	14.40	12.96	12.24	11.52	55F1566	15.15	13.64	12.88	12.12	55F1616	16.50	14.85	14.03	13.20
0-100*	10.0	55F1179	14.40	12.96	12.24	11.52	55F1183	15.15	13.64	12.88	12.12	55F1193	16.50	14.85	14.03	13.20
0-150*	10.0	55F1180	14.40	12.96	12.24	11.52	55F1184	15.15	13.64	12.88	12.12	55F1194	16.50	14.85	14.03	13.20
0-200*	10.0	.....	.....	.....	.....	.....	55F1185	15.15	13.64	12.88	12.12	55F1195	16.50	14.85	14.03	13.20
0-300*	10.0	.....	.....	.....	.....	.....	55F1186	15.15	13.64	12.88	12.12	55F1196	16.50	14.85	14.03	13.20
0-500*	10.0	.....	.....	.....	.....	.....	55F1187	15.15	13.64	12.88	12.12	55F1197	16.50	14.85	14.03	13.20

DC MILLIVOLTMETERS

Range Ma.	Ohms	Model 1227 .94"				Model 1327 1.12"				Model 1329 2.00"						
		1-9	10-24	25-49	50-up	1-9	10-24	25-49	50-up	1-9	10-24	25-49	50-up			
0-50	10	55F1637	14.40	12.96	12.24	11.52	55F1638	15.15	13.64	12.88	12.12	55F1639	16.50	14.85	14.03	13.20

DC MILLIAMMETERS — Self-Shielding type Movements

Range Ma.	Approx. Resis.	Model 1227 2 1/2"				Model 1327 3 1/2"				Model 1329 4 1/2"						
		1-9	10-24	25-49	50-up	1-9	10-24	25-49	50-up	1-9	10-24	25-49	50-up			
0-1	42 ohms	55F1517	14.25	12.83	12.11	11.40	55F1567	14.85	13.37	12.62	11.88	55F1617	15.75	14.18	13.18	12.60
0-3	46 ohms	55F1198	14.25	12.83	12.11	11.40	55F2501	14.85	13.37	12.62	11.88	55F2506	15.75	14.18	13.18	12.60
0-5	20 ohms	55F1518	14.25	12.83	12.11	11.40	55F1568	14.85	13.37	12.62	11.88	55F1618	15.75	14.18	13.18	12.60
0-10	2.2 ohms	55F1519	14.25	12.83	12.11	11.40	55F1569	14.85	13.37	12.62	11.88	55F1619	15.75	14.18	13.18	12.60
0-15	2.2 ohms	55F1199	14.25	12.83	12.11	11.40	55F2502	14.85	13.37	12.62	11.88	55F2507	15.75	14.18	13.18	12.60
0-20	2.2 ohms	.....	.....	.....	.....	.....	55F2503	14.85	13.37	12.62	11.88	55F2508	15.75	14.18	13.18	12.60
0-25	6.0 ohms	55F1520	14.55	13.10	12.37	11.64	55F1570	15.30	13.77	13.01	12.24	55F1620	16.50	14.85	14.03	13.20
0-50	3.0 ohms	55F1521	14.55	13.10	12.37	11.64	55F1571	15.30	13.77	13.01	12.24	55F1621	16.50	14.85	14.03	13.20
0-100	1.5 ohms	55F1522	14.55	13.10	12.37	11.64	55F1572	15.30	13.77	13.01	12.24	55F1622	16.50	14.85	14.03	13.20
0-150	1.0 ohms	55F1523	14.55	13.10	12.37	11.64	55F1573	15.30	13.77	13.01	12.24	55F1623	16.50	14.85	14.03	13.20
0-200	.75 ohm	55F1524	14.55	13.10	12.37	11.64	55F1574	15.30	13.77	13.01	12.24	55F1624	16.50	14.85	14.03	13.20
0-250	.60 ohm	55F2500	14.55	13.10	12.37	11.64	55F1575	15.30	13.77	13.01	12.24	55F1625	16.50	14.85	14.03	13.20
0-300	.50 ohm	55F1526	14.55	13.10	12.37	11.64	55F1576	15.30	13.77	13.01	12.24	55F1626	16.50	14.85	14.03	13.20
0-500	.30 ohm	55F1527	14.55	13.10	12.37	11.64	55F1577	15.30	13.77	13.01	12.24	55F1627	16.50	14.85	14.03	13.20
0-750	.20 ohm	.....	.....	.....	.....	.....	55F2504	15.30	13.77	13.01	12.24	55F2509	16.50	14.85	14.03	13.20
0-1000	.05 ohm	.....	.....	.....	.....	.....	55F2505	15.30	13.77	13.01	12.24	55F2510	16.50	14.85	14.03	13.20

DC MICROAMMETERS — Self-Shielding type Movements

Range Microamp.	Approx. Resis.	Model 1227 2 1/2"				Model 1327 3 1/2"				Model 1329 4 1/2"						
		1-9	10-24	25-49	50-up	1-9	10-24	25-49	50-up	1-9	10-24	25-49	50-up			
0-50	1820	55F1529	18.45	16.61	15.68	14.76	55F1579	18.90	17.01	16.07	15.12	55F1629	20.40	18.36	17.34	16.32
0-100	1820	55F1530	16.50	14.85	14.02	13.20	55F1580	17.25	15.53	14.66	13.80	55F1630	19.20	17.28	16.32	15.36
0-200	1120	55F1531	15.15	13.64	12.88	12.12	55F1581	15.75	14.18	13.39	12.60	55F1631	17.40	15.66	14.79	13.92
0-500	89	55F1532	14.85	13.37	12.62	11.88	55F1582	15.45	13.91	13.13	12.36	55F1632	16.80	15.12	14.28	13.44
25-0-25	2000	.....	.....	.....	.....	.....	55F2512	19.05	17.15	16.19	15.24	55F2516	20.55	18.50	17.47	16.44
50-0-50	2000	55F1533	16.80	12.12	14.28	13.44	55F1583	17.40	15.71	14.83	13.96	55F1633	19.35	17.42	16.45	15.48
100-0-100	1000	.....	.....	.....	.....	.....	55F2513	15.90	14.31	13.52	12.72	55F2517	17.55	15.80	14.92	14.04
500-0-500	46	.....	.....	.....	.....	.....	55F2514	15.15	13.64	12.88	12.					

Simpson Panel Meters

"WIDE VUE" PANEL INSTRUMENTS

TAUT-BAND "WIDE VUE" DC MICROAMMETERS



These panel meters have 25% fewer parts thus reducing chance of failure; built to conform to Simpson's rigid quality and performance standards. Performance tested for equivalent of 30 years of actual use without a single failure. Higher sensitivity with lower resistance; high accuracy with better repeatability.

Accuracy $\pm 2\%$. Spade pointer with case construction of molded black phenolic base with high temp. black plastic cover. Supplied with mounting and terminal hardware. Shipping weight: 6 oz. (1227 T), 8 oz. (1327 T), 10 oz. (1329 T).

Range Microamps	Ohms. Res.	2 1/2" Model 1227 T				
		Stk. No.	1-9	10-24	25-49	50-up
10	4900	55F2223	29.70	26.83	25.25	23.76
15	1960	55F2224	26.85	24.17	22.83	21.48
25	1960	55F2225	25.50	22.95	21.68	20.40
50	960	55F2226	20.10	18.09	17.09	16.08
100	503	55F2227	18.15	16.34	15.43	14.52
200	234	55F4328	17.10	15.39	14.54	13.68

Range Microamps	Ohms. Res.	4 1/2" Model 1329 T				
		Stk. No.	1-9	10-24	25-49	50-up
5	5750	55F4331	37.50	33.75	31.88	30.00
10	4900	55F2233	33.45	30.11	28.35	26.68
15	1960	55F2234	30.30	27.27	25.76	24.24
25	1960	55F2235	29.10	26.19	24.74	23.28
50	1100	55F2236	22.05	19.85	18.75	17.65
100	500	55F2237	20.85	18.77	17.72	16.68
200	234	55F4332	19.50	17.55	16.58	15.60

Range Microamps	Ohms. Res.	3 1/2" Model 1327 T				
		Stk. No.	1-9	10-24	25-49	50-up
5	5750	55F4329	35.25	31.74	29.96	28.20
10	4900	55F2228	30.90	27.89	26.27	24.72
15	1960	55F2229	27.75	24.98	23.59	22.20
25	1960	55F2230	26.70	24.03	22.70	21.36
50	1100	55F2231	20.55	18.50	17.52	16.50
100	500	55F2232	18.90	17.01	16.07	15.12
200	234	55F4330	17.70	15.93	15.03	14.16

Range Microamps	Ohms. Res.	8" Model 728 T				
		Stk. No.	1-9	10-24	25-49	50-up
25	1960	55F4333	33.60	30.24	28.56	26.88
50	1100	55F4334	29.55	26.60	25.12	23.64
100	500	55F4335	28.50	25.75	24.23	22.80



SIMPSON 1 1/2" WIDE-VUE PANEL INSTRUMENTS

Simpson's popular Wide-Vue styling is now available in 1 1/2" size in DC, AC rectifier type, and as VU Models 1212 and 1214 have the Simpson self-shielded movement (calibrations not affected by stray magnetic fields). 1212 accurate to 2% of full scale, 1214 accurate to 3% of full scale at 25°C. Both models mount in 1.50" dia. holes. Size: 1.76"x1.76"x1.32". Scale length is 1.5" at 90°

Arc (38.1 mm). Standard calibration either magnetic or non-magnetic panel with lance type pointer. Base constructed of molded black phenolic plastic with high temperature cover. All models are supplied complete with the necessary mounting and terminal hardware. 8-32 studs are used for terminals. Average shipping weight, 3 1/2 oz.

MODEL 1212 1 1/2" DC VOLTMETERS

Range	Div.	Ohms/Volt	Stock No.	Scale			
				1-9	10-24	25-49	50-up
0-5	50	1000	55F436	14.10	12.69	11.99	11.28
0-10	50	1000	55F437	14.10	12.69	11.99	11.28
0-15	75	1000	55F438	14.10	12.69	11.99	11.28
0-25	50	1000	55F439	14.10	12.69	11.99	11.28
0-30	60	1000	55F440	14.10	12.69	11.99	11.28
0-50	50	1000	55F441	14.10	12.69	11.99	11.28
0-100	50	1000	55F442	14.10	12.69	11.99	11.28
0-150	75	1000	55F443	14.10	12.69	11.99	11.28
0-300	60	2000	55F444	14.10	12.69	11.99	11.28

MODEL 1212 1 1/2" DC MILLIVOLTMETERS

0-50	50	10	55F446	14.10	12.69	11.99	11.28
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MODEL 1212 1 1/2" DC AMMETERS

0-1	50	.050	55F447	14.10	12.69	11.99	11.28
0-2	40	.025	55F448				
0-3	60	.0166	55F449				
0-5	50	.010	55F468				
0-10	50	.005	55F467				

MODEL 1214 1 1/2" AC VOLTMETERS—RECTIFIER TYPE

0-5	50	1000	55F468	19.50	17.55	16.58	15.60
0-10	50	1000	55F469	19.50	17.55	16.58	15.60
0-150	75	1000	55F470	19.50	17.55	16.58	15.60
0-300	60	2000	55F471	19.50	17.55	16.58	15.60

WIDE VUE VU METERS

(External magnet type movement. Ref. level—lmw 600 ohm line. A scale stresses level in VU, B scale stresses % of output.)

3 1/2" Model 1347

Stk. No.	Scale	VU Range	1-9	10-24	25-49	50-up
55F1546	A	-20 to 3	24.75	22.28	21.04	19.80
55F1547	B	-20 to 3	24.75	22.28	21.04	19.80

4 1/2" Model 1349

Stk. No.	Scale	VU Range	1-9	10-24	25-49	50-up
55F2520	A	-20 to 3	26.10	23.49	22.19	20.18
55F2521	B	-20 to 3	26.10	23.49	22.19	20.18

AC VOLTMETERS — Iron Vane Type Movements

Range Volts	Approx. Resist.	Model 1257 2 1/2"				Model 1357 3 1/2"				Model 1359 4 1/2"						
		1-9	10-24	25-49	50-up	1-9	10-24	25-49	50-up	1-9	10-24	25-49	50-up			
0-5	33	.....	.....	.....	.....	55F2524	13.95	12.56	11.86	11.16	55F2531	15.90	14.31	13.52	12.72	
0-10	133	55F1534	13.65	12.29	11.60	10.92	55F1584	13.95	12.56	11.86	11.16	55F1634	15.90	14.31	13.52	12.72
0-15	300	.....	.....	.....	.....	55F2525	13.95	12.56	11.86	11.16	55F2532	15.90	14.31	13.52	12.72	
0-25	833	55F2522	13.80	12.42	11.73	11.04	55F2526	14.40	12.96	12.24	11.52	55F2533	16.05	14.45	13.64	12.84
0-50	3,333	55F2523	13.80	12.42	11.73	11.04	55F2527	14.40	12.96	12.24	11.52	55F2534	16.05	14.45	13.64	12.84
0-100	16,666	.....	.....	.....	.....	55F2528	15.15	13.64	12.88	12.12	55F2535	16.20	14.58	13.77	12.96	
0-150	25,000	55F1535	14.40	12.96	12.24	11.52	55F1585	15.45	13.91	13.13	12.36	55F1635	16.50	14.85	14.03	13.20
0-250	41,166	.....	.....	.....	.....	55F2529	15.45	13.91	13.13	12.36	55F2536	16.50	14.85	14.03	13.20	
0-300	50,000	55F1536	14.40	12.96	12.24	11.52	55F1586	15.45	13.91	13.13	12.36	55F1636	16.50	14.85	14.03	13.20
0-500	83,333	.....	.....	.....	.....	55F2530	19.65	17.69	16.70	15.72	55F2537	21.00	18.90	17.85	16.80	

**NEWARK Can Supply All Simpson Panel Meters at OEM Prices—
Phone—Wire—Write For Items Not Listed In This Catalog**

Panel Meters Simpson

"WIDE-VUE" PANEL INSTRUMENTS (Cont.)

*Require external current trans.

AC AMMETERS — Iron Vane Type Movements

Range Amps	Approx. Resis.	Model 1257 2 1/2"				Model 1357 3 1/2"				Model 1359 4 1/2"						
		1-9	10-24	25-49	50-up	1-9	10-24	25-49	50-up	1-9	10-24	25-49	50-up			
0-1	.287	55F2580	12.90	11.61	10.97	10.32	55F1537	13.80	12.42	11.73	11.04	55F1587	16.05	14.45	13.64	12.84
0-1.5	.185	55F2581	12.90	11.61	10.97	10.32	55F2588	13.80	12.42	11.73	11.04	55F2595	16.05	14.45	13.64	12.84
0-2	.115						55F2589	13.80	12.42	11.73	11.04	55F2596	16.05	14.45	13.64	12.84
0-3	.027						55F2590	13.80	12.42	11.73	11.04	55F2597	16.05	14.45	13.64	12.84
0-5	.012	55F2582	12.90	11.61	10.97	10.32	55F1538	13.80	12.42	11.73	11.04	55F1588	16.05	14.45	13.64	12.84
0-10	.0031	55F2583	12.90	11.61	10.97	10.32	55F1539	13.80	12.42	11.73	11.04	55F1589	16.05	14.45	13.64	12.84
0-15	.0022	55F2584	12.90	11.61	10.97	10.32	55F1540	13.80	12.42	11.73	11.04	55F1590	16.05	14.45	13.64	12.84
0-25	.0003	55F2585	13.65	12.29	11.60	10.92	55F1541	14.25	12.83	12.11	11.40	55F1591	16.50	14.85	14.03	13.20
0-50	.0006	55F2586	13.65	12.29	11.60	10.92	55F1542	14.25	12.83	12.11	11.40	55F1592	16.50	14.85	14.03	13.20
0-75	.0005						55F1008	15.45	13.91	13.13	12.36	55F1009	17.70	15.93	15.05	14.16
0-100*	.012						55F2591	13.80	12.42	11.73	11.04	55F2598	16.05	14.45	13.64	12.84
0-150*	.012						55F2592	13.80	12.42	11.73	11.04	55F2599	16.05	14.45	13.64	12.84
0-200*	.012						55F2593	13.80	12.42	11.73	11.04	55F2600	16.05	14.45	13.64	12.84
0-300*	.012	55F2587	12.90	11.61	10.97	10.32	55F2594	13.80	12.42	11.73	11.04	55F2601	16.05	14.45	13.64	12.84

AC MILLIAMMETERS — Iron Vane Type Movements

Range Ma.	Approx. Resis.	Model 1257				Model 1357				Model 1359						
		1-9	10-24	25-49	50-up	1-9	10-24	25-49	50-up	1-9	10-24	25-49	50-up			
0-50	80					55F2539	13.80	12.42	11.73	11.04	55F2543	16.05	14.45	13.64	12.84	
0-100	20					55F2540	13.80	12.42	11.73	11.04	55F2544	16.05	14.45	13.64	12.84	
0-250	5					55F2541	13.80	12.42	11.73	11.04	55F2545	16.05	14.45	13.64	12.84	
0-500	.9	55F2538	12.90	11.61	10.97	10.32	55F2542	13.80	12.42	11.73	11.04	55F2546	16.05	14.45	13.64	12.84

SIMPSON "WIDE-VUE" PANEL INSTRUMENTS

The AC instruments are accurate to $\pm 2\%$, except the Rectifier type, which are accurate to $\pm 3\%$. The model 1257 and the model 1257 mount in 2.17" dia. hole. Models 1327, 1347 and 1357 mount in 2.73" dia. hole. Models 1329, 1349, and 1359

mount in 2.75" dia. holes. Has a one-piece, wrap-around, break-resistant cover, molded from clear methyl methacrylate of highest quality. Avg. Shipping Weight, 1 lb.

AC VOLTMETERS — RECTIFIER TYPE — Self Shielding Type Movements

Range Volts	Approx. Res./Ohms	Model 1347 3 1/2"				Model 1349 4 1/2"					
		1-9	10-24	25-49	50-up	1-9	10-24	25-49	50-up		
0-5	2000 Ohms per Volt	55F2602	20.25	18.23	17.21	16.20	55F2607	22.20	19.98	18.87	17.76
0-10		55F2603	20.25	18.23	17.21	16.20	55F2608	22.20	19.98	18.87	17.76
0-15		55F2604	20.25	18.23	17.21	16.20	55F2609	22.20	19.98	18.87	17.76
0-50		55F2605	20.25	18.23	17.21	16.20	55F2610	22.20	19.98	18.87	17.76
0-150		55F1543	20.25	18.23	17.21	16.20	55F1593	22.20	19.98	18.87	17.76
0-300		55F2606	20.25	18.23	17.21	16.20	55F2611	22.20	19.98	18.87	17.76

WIDE VUE VOLUME LEVEL INDICATORS — DECIBEL METERS

Reference Level (ohms)	Resis.	Model 1247 2 1/2"				Model 1545 3 1/2"				Model 1595 4 1/2"						
		1-9	10-24	25-49	50-up	1-9	10-24	25-49	50-up	1-9	10-24	25-49	50-up			
600	5000	55F2519	24.15	21.74	20.53	19.32	55F1545	24.75	22.28	21.04	19.80	55F1595	26.10	23.39	22.19	20.88

EDGEWISE PANEL METERS

Core magnet meter movement. Self shielded. Needs 1/2 the panel area of usual 2 1/2" meter; yet comparable scale length (1 1/2"). Complete mtg. hardware. DC acc.: 2% of full scale. Standard scale—Black numbers on a white background. Dustproof, molded lucite case.

Accurate comparative readings by mounting meters side by side. Saves space—makes every square inch count. Quick, simple mounting. Meters are supplied complete with mounting hardware. Terminals: Solder (ammeters, stud). Shpg. wt., 12 ozs.



MODEL 1522

Range DC	Stock No.	1-9	10-24	25-49	50-up
0-10 volts	55F2628	16.50	14.85	14.03	13.20
0-15 volts	55F2629				
0-50 volts	55F1122				
0-150 volts	55F1123				
0-500 volts	55F1124	16.80	15.12	14.28	13.44
0-5 amperes	55F1125	17.40	15.66	14.79	13.92
0-25 amperes	55F2632	17.40	15.66	14.79	13.92
0-1 milliamperes	55F1126	16.35	14.72	13.90	13.08
0-5 milliamperes	55F2634				
0-10 milliamperes	55F1127				

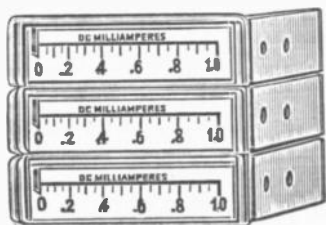
MODEL 1522—CONTINUED

Range DC	Stock No.	1-9	10-24	25-49	50-up
0-25 microamperes	55F2641	24.45	22.01	20.78	19.56
0-50 microamperes	55F1130	21.45	19.31	18.23	17.16
0-100 microamperes	55F1131	19.20	17.28	16.32	15.36
0-200 microamperes	55F2642	17.40	15.66	14.79	13.92
0-500 microamperes	55F2643	16.95	15.26	14.41	13.56

MODEL 1542

VU Meter "A" scale	55F1132	27.30	24.57	23.21	21.84
VU Meter "B" scale	55F1133	27.30	24.57	23.21	21.84
0-150 AC volts Rect.					
1000 Ohms per volt	55F1141	21.15	19.04	17.98	16.92
0-300 AC volts Rect.					
1000 Ohms per volt	55F1142	21.15	19.04	17.98	16.92

NEW EDGEWISE PANEL METERS STACK HORIZONTALLY OR VERTICALLY



New miniature edgewise panel meter features unique Self-Shielding core magnet which eliminates the need for protruding barrel. Sharp, modern, extremely compact. Meter scale extending nearly full width and height of meter. Optimum scale display area allowing for easy-to-read numerals.

DC VOLTMETERS

Range	Approx. Resis.	Model 1921 1 1/2"	1-9	10-24	25-49	50-up	Model 1622 2 1/2"	1-9	10-24	25-49	50-up
0-10	5000/v.	55F4300	18.45	16.61	15.68	14.76	55F4314	19.50	17.55	16.58	15.60
0-15	5000	55F4301	18.45	16.61	15.68	14.76	55F4315	19.50	17.55	16.58	15.60
0-25	5000	55F4302	18.45	16.61	15.68	14.76	55F4316	19.50	17.55	16.58	15.60
0-50	5000	55F4303	18.45	16.61	15.68	14.76	55F4317	19.50	17.55	16.58	15.60
0-150	5000	55F4304	18.45	16.61	15.68	14.76	55F4318	19.50	17.55	16.58	15.60
0-500							55F4319	19.65	17.69	16.70	15.72

DC MILLIAMMETERS

0-1	18	55F4306	18.15	16.34	15.43	14.34	55F4320	19.35	17.42	16.45	14.68
0-5	2	55F4307	18.15	16.34	15.43	14.34	55F4321	19.35	17.42	16.45	14.68
0-10	5	55F4308	18.15	16.34	15.43	14.34	55F4322	19.35	17.42	16.45	14.68
0-25	2	55F4309	18.90	17.01	16.07	15.12	55F4323	20.10	18.09	17.09	16.08
0-50	1	55F4310	18.90	17.01	16.07	15.12	55F4324	20.10	18.09	17.09	16.08
0-100	.5	55F4311	18.90	17.01	16.07	15.12	55F4325	20.10	18.09	17.09	16.08
0-500	1	55F4312	18.90	17.01	16.07	15.12	55F4326	20.10	18.09	17.09	16.08

DC MILLIVOLTMETERS

0-50	400/v.	55F4313	19.20	17.28	16.32	15.36	55F4327	20.40	18.36	17.34	16.32
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Simpson Panel Meters

EDGEWISE PANEL METER STACK HORIZONTALLY OR VERTICALLY (Continued)
DC MICROAMMETERS

Micro Amps	Approx. Resis.	Model 1921 1 1/2"	1-9	10-24	25-49	50-up
0-25	7760	55F4336	26.25	23.63	22.31	21.00
0-50	2020	55F4337	23.40	21.06	19.89	18.72
0-100	1060	55F4338	21.00	18.90	17.85	16.80
0-200	310	55F4339	19.20	17.28	16.32	15.36
0-500	63	55F4340	18.75	16.43	15.51	14.60

Micro Amps	Approx. Resis.	Model 1622 2 1/2"	1-9	10-24	25-49	50-up
0-25	7760	55F4341	24.75	22.28	21.04	19.80
0-50	2020	55F4342	24.45	22.00	20.78	19.56
0-100	1060	55F4343	22.20	19.88	18.87	17.76
0-200	310	55F4344	20.40	18.36	17.34	16.32
0-500	63	55F4345	19.80	17.82	16.83	15.84

AC VOLTMETERS—RECT. TYPE

AC Volts Rect. Type	Approx. Ohms	Model 1941 1 1/2"	1-9	10-24	25-49	50-up
0-150	5000	55F4346	22.95	20.66	19.51	18.36

AC Volts Rect. Type	Approx. Ohms	Model 1642 2 1/2"	1-9	10-24	25-49	50-up
0-150	5000	55F4347	24.15	21.74	20.53	19.32

SEGMENTAL VOLTMETERS (Expanded Scale 100-130 AC Volts)



Model 1347C



Model 1349C



Model 49C

Units used primarily in monitoring AC line voltages. Operating Frequency: 20-2000 cps. Accuracy: $\pm 5\%$ of center scale value at 25° C, and 60 cps sine wave. Sen.: 180 to 100 ohms/volt end scale values. Decreases as voltage increases. Av. Shpg. wt., 1 lb.

Stock No.	Scale Length	1-9	10-24	25-49	50-up
55F1006	3.14"	45.00	40.50	38.25	36.00

MODEL 1349C—4 1/2" RECT. WIDE VIEW

55F2859	3.93"	45.15	40.64	38.38	36.12
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MODEL 49C—4 1/2" RECT. STANDARD

55F1007	3.5"	44.55	40.10	37.87	35.64
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MULTI-RANGE MODEL 1349

Stk. No.	Model	Scale Length	1-9	10-24	25-49	50-up
55F245	1349	3.93"	55.80	50.22	47.52	44.72

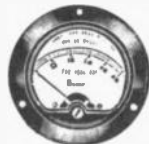
LABORATORY QUALITY "JEWELLED BEARING" PANEL METERS



Model 27



Model 29



Model 25

All DC meters have the Simpson self-shielded movement (Calibration not affected by stray magnetic fields or magnetic mounting.) †External Multipliers, Model 183, are furnished on 3 1/2" and 4 1/2" DC meters 1000 volts and higher. All others are self-contained. ‡DC ammeters are self-contained for ranges up to and including 50 amperes. Higher range DC ammeters (50MV) listed are calibrated for 5 ft. leads and require external shunts. Accuracy: $\pm 2\%$ of full scale; Scale Length: Model 25 & 27—2.5" (63.7mm), Model 29—3.9" (99.0mm). Average shpg. wt. 1 lb.

DC VOLTMETERS

Range	Model 27 3 1/2" Rect.	Model 25 3 1/2" Rnd.	1-9	10-24	25-49	50-up	Model 29 4 1/2" Rect.	1-9	10-24	25-49	50-up
0-5	55F039	55F1010					55F167				
0-10	55F041	55F1012					55F168				
0-15	55F042	55F1013					55F251				
0-25	55F038	55F1014					55F169				
0-30	55F080	55F1112	14.85	13.37	12.62	11.88	55F145	16.35	14.72	13.90	13.08
0-50	55F043	55F1015					55F183				
0-100							55F252				
0-150	55F045	55F1017					55F170				
0-250	55F046	55F1018					55F253				
0-300	55F047	55F1019					55F184				
0-500	55F050	55F1020	15.60	14.04	13.26	12.48	55F185	16.95	15.66	14.41	13.56
0-750	55F081	55F1113	15.60	14.04	13.26	12.48	55F146	16.95	15.66	14.41	13.56
0-1000	55F051	55F1021	19.35	17.42	16.45	15.48	55F186	21.15	19.04	17.98	16.92
0-1500	55F052	55F1022	19.65	17.69	16.70	15.72	55F187	21.45	19.31	18.23	17.16
0-2000	55F053	55F1023	20.10	18.09	17.09	16.08	55F254	21.90	19.17	18.62	17.52
0-2500	55F037		20.40	18.36	17.34	16.32	55F200	22.20	19.98	18.87	17.76
0-3000	55F054	55F1025	20.70	18.63	17.60	16.56	55F255	22.50	20.25	19.13	18.00
0-5000	55F055	55F1026	21.30	19.17	18.11	17.04	55F201	23.10	20.79	19.64	18.48

DC MICROAMMETERS

Range	Model 27 3 1/2" Rect.	Model 25 3 1/2" Rnd.	1-9	10-24	25-49	50-up	Model 29 4 1/2" Rect.	1-9	10-24	25-49	50-up
0-50	55F071	55F1031	19.35	17.42	16.45	15.48	55F176	20.85	18.77	17.72	16.68
0-100	55F072	55F1032	17.10	15.39	14.54	13.68	55F177	19.05	17.15	16.19	15.24
0-200	55F073	55F1033	15.15	13.64	12.88	12.12	55F178	17.10	15.39	14.54	13.68
0-500	55F074	55F1034	15.45	13.91	13.13	12.36	55F179	16.35	14.72	13.90	13.08
25-0-25	55F075	55F1035	19.50	17.55	16.58	15.60	55F163	21.00	18.90	17.85	16.80
50-0-50	55F076	55F1036	17.25	15.53	14.66	13.80	55F164	19.20	17.28	16.32	15.36
100-0-100	55F077	55F1037	15.60	14.04	13.26	12.48	55F165	17.40	15.66	14.79	13.92
500-0-500	55F078	55F1038	14.25	12.83	12.11	11.40	55F166	15.60	14.04	13.26	12.48

DC MILLIAMMETERS

Range	Model 27 3 1/2" Rect.	Model 25 3 1/2" Rnd.	1-9	10-24	25-49	50-up	Model 29 4 1/2" Rect.	1-9	10-24	25-49	50-up
0-1	55F000	55F1040	14.10	12.69	11.99	11.28	55F171	15.45	13.91	13.13	12.36
0-5	55F001	55F1041	14.10	12.69	11.99	11.28	55F257	15.45	13.91	13.13	12.36
0-10	55F002	55F1042	14.10	12.69	11.99	11.28	55F204	15.45	13.91	13.13	12.36
0-25		55F1043	14.70	13.23	12.50	11.76	55F188	16.35	14.72	13.90	13.08
0-50		55F1044	14.70	13.23	12.50	11.76	55F258	16.35	14.72	13.90	13.08
0-100	55F004	55F1045	14.70	13.23	12.50	11.76	55F172	16.35	14.72	13.90	13.08
0-150	55F006	55F1046	14.70	13.23	12.50	11.76	55F173	16.35	14.72	13.90	13.08
0-200	55F007	55F1047	14.70	13.23	12.50	11.76	55F174	16.35	14.72	13.90	13.08
0-250	55F008	55F1048	14.70	13.23	12.50	11.76	55F206	16.35	14.72	13.90	13.08
0-300	55F009	55F1049	14.70	13.23	12.50	11.76	55F207	16.35	14.72	13.90	13.08
0-500	55F010	55F1050	14.70	13.23	12.50	11.76	55F189	16.35	14.72	13.90	13.08
0-1000	55F011	55F1051	14.70	13.23	12.50	11.76	55F208	16.35	14.72	13.90	13.08

Panel Meters *Simpson*

LABORATORY QUALITY "JEWELED BEARING PANEL METER (Cont.)

†Require External Shunt

DC AMMETERS — Self contained Shunt through 50 amps

Range	Model 27 3½" Rect.	Model 25 3½" Rnd.	1-9	10-24	25-49	50-up	Model 29 4½" Rect.	1-9	10-24	25-49	50-up
0-1	55F060	55F1055	14.70	13.23	12.50	11.76	55F209 55F238 55F259 55F260 55F210 55F211	16.20	14.58	13.77	12.96
0-1.5	55F083	55F1115									
0-2	55F061	55F1056									
0-3	55F062	55F1057									
0-5	55F063	55F1058									
0-10	55F064	55F1059									
0-15	55F084	55F1116	14.25	12.83	12.11	11.40	55F239 55F281 55F212 55F240 55F241 55F262 55F263	15.90	14.31	13.52	12.72
0-25	55F065	55F1060									
0-50	55F068	55F1061									
0-75†	55F085	55F1117									
0-100†	55F086	55F1118									
30-0-30	55F066	55F1062									
50-0-50	55F067	55F1063	15.15	13.64	12.88	12.12	16.80	15.12	14.28	13.44	

DC MILLIVOLTMETERS

Range	Model 27 3½" Rect.	Model 25 3½" Rnd.	1-9	10-24	25-49	50 up	Model 29 4½" Rect.	1-9	10-24	25-49	50 up
0-50	55F1000	55F1002	14.25	12.83	12.11	11.40	55F1004 55F1005	15.60	14.04	13.26	12.48
0-100	55F1001	55F1003									

VOLUME LEVEL METERS



Self Shielding Meter Movement Type A scale stressing level in VU for monitoring Imp. is 3900 at "O" V U. deflection. Average shpg wt., 1lb.

Stk. No.	Model	Scale	Overall			1-9	10-24	25-49	50-up
			Depth	Width					
55F160	47	2.6"	3.24"	3.00"	24.60	22.44	20.91	19.68	
55F161	142	3½"	2.28"	4.25"	24.60	22.44	20.91	19.68	
55F162	142, as above, illum. face				29.40	26.46	24.90	23.52	

LABORATORY QUALITY AC INSTRUMENTS

Manufactured to high standards of accuracy to insure long life and excellent performance. All instruments listed below have moving iron vane type movements — no rectifiers are used. Reasonable accuracy with any waveform; with sinusoidal input the accuracy is guaranteed

to ± 3% of full scale. External resistors furnished with meters having a range of 500 volts or higher. All models mount in 2¼" holes. Other dimensions same as DC counterparts. Mounting template and hardware furnished with all meters. Average shipping weight, 1 lb.



Model 55



Model 57, 59

AC VOLTMETERS

Range	Model 57 3½" Rect.	Model 55 3½" Rnd.	1-9	10-24	25-49	50-up	Model 59 4½" Rect.	1-9	10-24	25-49	50-up
0-1.5	55F109 55F111 55F112	55F1066 55F1067 55F1068	13.80	12.42	11.73	11.04	55F281 55F215 55F190 55F180	15.60 15.60 15.60 15.60	14.04 14.04 14.04 14.04	13.26 13.26 13.26 13.26	12.48 12.48 12.48 12.48
0-5											
0-10											
0-15											
0-25	55F272 55F113 55F115	55F1641 55F1069 55F1071	14.10	12.69	11.99	11.28	55F216 55F181	15.60 16.35	14.04 14.72	13.26 13.90	12.48 13.08
0-50											
0-150											
0-250	55F273 55F116 55F117 55F274 55F275	55F1642 55F1072 55F1073 55F1643 55F1644	15.15	13.64	12.88	12.12	55F191 55F192	16.35 20.25	14.72 18.23	13.90 17.21	13.08 16.20
0-300											
0-500											
0-750											
0-1000											

AC MILLIAMMETERS

Range	Model 57 3½" Rect.	Model 55 3½" Rnd.	1-9	10-24	25-49	50-up	Model 59 4½" Rect.	1-9	10-24	25-49	50-up
0-50	55F100	55F1076	13.50	12.15	11.48	10.80	55F218 55F213 55F214 55F199	15.90	14.31	13.52	12.72
0-100	55F101	55F1077									
0-250	55F102	55F1078									
0-500	55F103	55F1079									

†Require External Transformer

AC AMMETERS

Range	Model 57 3½" Rect.	Model 55 3½" Rnd.	1-9	10-24	25-49	50-up	Model 59 4½" Rect.	1-9	10-24	25-49	50-up
0-1	55F130	55F1085	13.50	12.15	11.48	10.80	55F182 55F193 55F256 55F194 55F195 55F196 55F282	15.90	14.31	13.52	12.72
0-1.5											
0-2	55F131 55F132 55F133 55F134 55F156	55F1086 55F1087 55F1088 55F1089 55F1119	13.50	12.15	11.48	10.80	55F197 55F219 55F283 55F284	16.50 16.50 15.90 15.90	14.85 14.85 14.31 14.31	14.03 14.03 13.52 13.52	13.20 13.20 12.72 12.72
0-3											
0-5											
0-10											
0-15											
0-25											
0-50	55F135 55F136	55F1090 55F1091	13.80	12.42	11.73	11.04	16.50	14.85	14.03	13.20	
0-75†											
0-100†	55F157 55F158	55F1120 55F1121	13.50 13.50	12.15 12.15	11.48 11.48	10.80 10.80	15.90 15.90	14.31 14.31	13.52 13.52	12.72 12.72	

MAKE NEWARK YOUR ONE POINT SOURCE FOR ALL YOUR ELECTRONIC NEEDS
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Simpson Meters — Shunts — Transformers

RUGGED SEAL PANEL METERS



3 1/2", 4 1/2"
Models



2 1/2", 3 1/2", 4 1/2"
Models



4" x 6"
Models

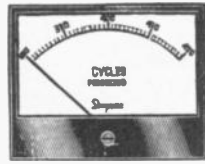
Segmental Voltmeters make it possible to measure very small changes in input conditions. Significant portion of the overall voltage or frequency range is expanded to occupy full scale length. Thus, only that segment of the range that is important appears. AC Segmental Voltmeters are available in either average sensing or true

R.M.S. sensing units. When working with sine wave currents or when other measurements will be made with average sensing equipment averages sensing meters are preferred. When working with distorted wave-forms true R.M.S. sensing meter would probably be preferred. Average shpg. wt. 1 lb.

SQUARE RUGGED-SEAL SEGMENTAL PANEL METERS

AC Volts	Centerscale Voltage	Accuracy of Centerscale	Model 3383 3 1/2 Inch			Model 3384 4 1/2 Inch			Model 3386 4x6 Inch		
			Stk. No.	1-9	10-24	Stk. No.	1-9	10-24	Stk. No.	1-9	10-24
100-130	115	±1.0	55F4000	64.95	58.46	55F4006	71.55	64.40	55F4012	76.50	68.85
105-125	115	±0.6	55F4001	64.95	58.46	55F4007	71.55	64.40	55F4013	76.50	68.85
110-120	115	±0.3	55F4002	64.95	58.46	55F4008	71.55	64.40	55F4014	76.50	68.85

DC Volts	Centerscale Voltage	Accuracy of Centerscale	Model 3323 3 1/2 Inch			Model 3324 4 1/2 Inch			Model 3326 4x6 Inch		
			Stk. No.	1-9	10-24	Stk. No.	1-9	10-24	Stk. No.	1-9	10-24
24-30	27	±0.5	55F4003	54.15	48.74	55F4009	60.75	54.68	55F4015	65.40	58.86



4"x6" Models
3326, 3346

SQUARE RUGGED AND SEALED METERS

Metal cased panel instruments are ideal for use in field test equipment or wherever rigorous environmental conditions are encountered. They are completely sealed, commercially ruggedized, glass window, metal cased and shielded, not affected by steel panel mounting. The movement shielded by steel en-

closure will not be affected by magnetic panel materials or stray R.F. Accuracy: ±2% F.S. @ 25° and 60 cy. Sine Wave. For durability and long service life the meters are of metal construction Scale Length: Size 3 1/2" = 2.9" (74 mm); Size 4 1/2" = 3.9" (101 mm); Size 4"x6" = 4.7" (120 mm). Average shpg. wt. 1 lb.

Range	Full Scale Accuracy	Model 3323 3 1/2 Inch				Model 3324 4 1/2 Inch				Model 3326 4x6 Inch			
		Stk. No.	1-24	25-49	50-99	Stk. No.	1-24	25-49	50-99	Stk. No.	1-24	25-49	50-99
0-1.5 DC Volts	2%	55F4034				55F4053				55F4072			
0-10 DC Volts	2%	55F4035				55F4054				55F4073			
0-15 DC Volts	2%	55F4036				55F4055				55F4074			
0-25 DC Volts	2%	55F4037	18.90	17.01	16.09	55F4056	20.55	18.50	17.47	55F4075	22.50	20.25	19.13
0-50 DC Volts	2%	55F4038				55F4057				55F4076			
0-100 DC Volts	2%	55F4039				55F4058				55F4077			
0-500 DC Volts	2%	55F4040				55F4059				55F4078			
0-5 DC Amperes	2%	55F4041	19.20	17.28	16.32	55F4060	20.85	18.77	17.22	55F4079	23.10	20.79	19.64
0-10 DC Amperes	2%	55F4042	19.20	17.28	16.32	55F4061	20.85	18.77	17.22	55F4080	23.10	20.79	19.64
0-1 DC Milliamps	2%	55F4043	18.15	16.34	15.43	55F4062	19.80	17.82	16.83	55F4081	22.05	19.85	18.74
0-100 DC Milliamps	2%	55F4044	19.20	17.28	16.32	55F4063	20.85	18.77	17.22	55F4082	23.10	20.79	19.64
0-50 DC Microamps	2%	55F4045	24.45	22.01	19.56	55F4064	26.10	23.49	22.19	55F4083	28.65	25.79	24.35
0-100 DC Microamps	2%	55F4046	22.20	19.98	18.87	55F4065	23.85	21.47	20.27	55F4084	26.40	23.76	22.44

Range	Full Scale Accuracy	Model 3343			Model 3344			Model 3346					
		Stk. No.	1-9	10-24	Stk. No.	1-9	10-24	Stk. No.	1-9	10-24			
0-150 AC Volts	2%	55F4047	22.80	20.25	19.38	55F4066	24.15	21.74	20.53	55F4085	26.40	23.76	22.44
0-800 AC Volts	2%	55F4048	22.80	20.25	19.38	55F4067	24.15	21.74	20.53	55F4086	26.40	23.76	22.44
0-1 AC Amperes	2%	55F4049	28.50	25.65	24.23	55F4068	29.70	26.73	25.25	55F4087	32.10	28.89	27.29
0-5 AC Amperes	2%	55F4050	28.50	25.65	24.23	55F4069	29.70	26.73	25.25	55F4088	32.10	28.89	27.29
0-1 AC Milliamps	2%	55F4051	22.50	20.25	19.13	55F4070	23.85	21.47	20.27	55F4089	25.80	23.22	21.93
0-100 AC Microamps	2%	55F4052	23.85	21.47	20.21	55F4071	24.75	22.28	21.04	55F4090	27.15	24.44	23.08

SINGLE CONTROL CONTACTLESS METER RELAYS



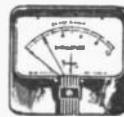
Intended for those applications in which utmost reliability of operation on small differential or small power is desired. Set points are adjusted thru external, front adjusted gear drive. Set point is indicated by separate lance pointers. Sensing is accomplished thru an infinite life lamp and photoconductors. A solid state switching circuit and D.P.D.T. slave relay are provided (internally) for each control point. Slave relays will switch 10 amperes @ 115 volt; extremely adjustable over 95% of the scale arc. Control point indication is within 2% of actual switching. Control Point Differential: difference between "on" and "off" is within .5% of Full Scale. Power Requirements: 115 Volts A.C. 50-500 CPS. D.C. power required for sensing and switching is provided by the external power module furnished with the relay. Output:

D.P.D.T. relay contacts for each control point. Contacts rated @ 10 amperes, 115 A.C. resistive. Meter Indication: Continuous, unaffected by control point setting. Control Circuitry: Fail-safe. Both slave relays "open" in event of power failure. Average shpg wt., 1 lb.

CONTACTLESS TYPE "4 1/2" MODEL 3324XA SINGLE CONTROL

Stk. No.	Type	Range	Description	Ohms	NET
55F2467	3324XA	0-50	DC Microammeter	3000	99.00
55F2462	3324XA	0-100	DC Microammeter	1300	96.15
55F2463	3324XA	0-200	DC Microammeter	570	96.15
55F2464	3324XA	0-500	DC Microammeter	220	96.15
55F2465	3324XA	0-1	DC Milliammeter	80	95.10
55F2466	3324XA	0-50	DC Millivoltmeter	10	95.40

FRONT ADJUSTABLE METER RELAYS SINGLE CONTACT TYPE MODEL 29XA



D'Arsonval Type Relays. Externally adjusted limit setting contacts are non-lock and intended for circuits w/external lock provisions or for light duty non-lock applications. Accuracies: ± 2% of full scale. Contacts: Gold Alloy. For use @ 15VDC, 10ma max., on resistive or diode protected inductive loads. Size: 2.75" D., body, 5" L. Av. shpg. wt. 1 lb.

Stk. No.	Range	Description	Ohms	1-9	10-24	25-49	50-up
55F2653	0-50	DC Microammeter	5280	48.60	43.74	41.31	48.88
55F2654	0-100	DC Microammeter	1800	46.50	41.85	39.53	37.20
55F2655	0-200	DC Microammeter	1000	43.65	39.29	37.10	34.72
55F2656	0-500	DC Microammeter	280	42.90	38.61	36.47	34.32
55F2657	0-1	DC Milliammeter	140	42.00	37.80	35.70	33.60
55F2658	0-50	DC Millivoltmeter	10	42.15	37.94	35.83	33.72

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SIMPSON PANEL METERS

WATTMETERS — DYNAMOMETER TYPE

Self contained, dynamometer-type. Measure DC and single-phase AC power to 250 cps. Normally calibrated for non-magnetic panels. Available in magnetic panel calibration. Frequency range of 25-125 cycles. Mount in 2 3/4" holes. Scale length, 2.3 inches. Accuracy 2% of full scale. Shpg. wt. 1 lb.



Model 77

MODEL 77—3 1/2" RECTANGULAR METER

Stk. No.	Range	Max. Amps	Max. Volts	1-9	10-24	25-49	50 up
55F226	0-75	1.0	150	30.45	27.41	25.88	24.36
55F227	0-150	2.0	150				
55F228	0-300	4.0	150				
55F229	0-750	10.0	150				
55F1137	0-600	4.0	300	33.00	29.70	28.05	26.40
55F230	0-1500	10.0	300				
55F1138	0-3000	20.0	300				

MODEL 79—4 1/2" RECTANGULAR METER

Stk. No.	Range	Max. Amps	Max. Volts	1-9	10-24	25-49	50-up
55F232	0-75	1.0	150	37.35	33.62	31.75	29.88
55F233	0-150	2.0	150				
55F234	0-300	4.0	150				
55F235	0-750	10.0	150				
55F1139	0-600	4.0	300	40.20	36.18	34.17	32.16
55F236	0-1500	10.0	300				
55F1140	0-3000	20.0	300				

COMPENSATED WATTMETERS

MODEL 77—3 1/2" RECTANGULAR METER

Dynamometer movement calibrated for either magnetic or non-magnetic panels; frequency 25 to 125 cycles.

Stk. No.	Range	Max. Amps	Max. Volts	1-9	10-24	25-49	50 up
55F012	0-10	.175	300	48.60	43.74	41.31	38.88
55F013	0-20	.400	300				
55F014	0-20	.175	500				
55F015	0-30	.650	300				
55F016	0-30	.300	500				
55F017	0-50	.500	500				

MODEL 79—4 1/2" RECTANGULAR METER

Stk. No.	Range	Max. Amps	Max. Volts	1-9	10-24	25-49	50 up
55F032	0-10	.175	300	50.40	45.36	42.84	40.32
55F033	0-20	.400	300				
55F034	0-20	.175	500				
55F035	0-30	.650	300				
55F036	0-30	.300	500				
55F018	0-50	.500	500				

JBT FREQUENCY AND ELAPSED TIME METERS



resets automatically.

TIME METERS

Record elapsed or operating time of electronic equipment. Popular for xmitter tube life, etc. Registers in 1/10 hour steps to 9999.9 hours . . . then

55F691. Type 31-EX. 110-125V . . .	16.75
55F699. Type 31-EXW. 6 digits, 0-99, 999.9 hours, 60 cy. 110-125 volts. NET	16.95
55F692. Type 31-EX-200. 230v. NET	17.50
55F698. Model 31-ES. 110-125 volts, 60 cycles. As above except with square black molded case. 3"x3". NET	17.50



FREQUENCY METERS

Each vibrating reed responds to a different frequency. Input frequency is indicated by reed with greatest swing. All operate from 100-130v. with accuracy of ±.3% or better. All have 3 1/2" molded case with MIL-M-6B mounting. Shipping weight 12 oz. each. Type 31-FX. 5 reeds cover 58-62 cycles.

55F685. NET	23.65
Type 34-FX. 9 reeds cover 56-64 cycles. 55F686. NET	27.25
Type 33-FX. 9 reeds cover 380-420 cps. 55F687. NET	34.10



TIME-FREQUENCY

Type 31-FE. Uses a separate exciting coil for the reeds to achieve close control of reed amplitude and frequency. Ideal for use on motor generator set and on electrical equipment where maintenance routine calls for periodic servicing. Tenths shown in red, all others in white on black backgr'nd. 58-62 cps. Time meter reads 0-9999.9 hours. For 100-130v AC. Saves panel space on motor generator sets. 5 reeds indicate at 4.7v. 3 1/4" metal case. Shpg. wt., 12 oz.

55F688. NET	33.00
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3 1/2" ELAPSED TIME PANEL METERS

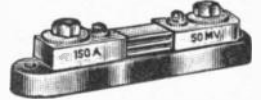
Widely used by research labs, manufacturing plants, broadcasting stations, etc., to keep life and performance records based on operating time. Meters use self-starting synchronous motors. They indicate up to 99999.9, then recycle and begin again at 00000.0. Model 55-3 1/2" round. Model 57-3 1/2" rectangular. Case depth for all models: 2 9/16".



Stk. No.	Type	Range	1-9	10-24	24-49	50-up
55F2472	55ET	120V-60	20.85	18.77	17.72	16.68
55F2473	55ET	230V-60	21.15	19.04	17.98	16.92
55F2474	57ET	120V-60	20.85	18.77	17.72	16.68
55F2475	57ET	230V-60	21.15	19.04	17.98	16.92

EXTERNAL PORTABLE SHUNTS FOR DC AMMETERS

Adjusted for a 50 millivolt drop for use with switchboard and panel meters where external shunts are required. Price includes 5" leads. Shpg. wt. 1 lb.



Stk. No.	Mfr's. No.	Amps	1-9	10-24	25-49	50 up
55F294	6700	1	8.70	7.83	7.40	6.96
55F295	6703	5				
55F264	6704	10				
55F265	6705	15				
55F296	6707	25				
55F297	6708	30				
55F266	6709	50	8.70	7.83	7.40	6.96
55F267	6711	75				
55F2569	6713	100				
55F2570	6715	200				

SWITCHBOARD SHUNTS

55F268	6500	100	8.70	7.83	7.40	6.96
55F2571	6503	150	9.30	8.37	7.51	7.44
55F2572	6504	200	9.30	8.37	7.51	7.44
55F2573	6506	300	9.30	8.37	7.51	7.44
55F298	6508	500	13.50	12.15	11.48	10.80

CURRENT TRANSFORMERS FOR AC AMMETERS

Inserted one turn primary type for use with switchboard and panel ammeters where external transformers are required.

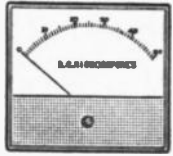
Stk. No.	Mfr's. No.	Pri.	Sec.	1-9	10-24	25-49	50 up
55F269	1293	50 amps	5	22.20	19.98	18.87	17.76
55F2575	1306	75 amps	5	16.35	14.72	13.90	13.08
55F270	1297	100 amps	5	13.50	12.15	11.48	10.80
55F2576	1298	150 amps	5	12.00	10.80	10.20	9.60
55F2577	1299	200 amps	5	12.00	10.80	10.20	9.60
55F2578	1300	300 amps	5	13.50	12.15	11.48	10.80
55F2579	1301	500 amps	5	16.35	14.72	13.90	13.08

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Panel Meters



G SERIES PANEL INSTRUMENTS

Three sizes; 2½", 3½", and 4¼" models with black molded plastic cases and clear molded plastic fronts. An all new meter design that features flexibility and interchangeability, with optional mounting bezel for behind panel mounting. Self shielded, exact, reliable—DC instruments have the famous Triplet BAR-

RING movements—more torque, faster response, greater ruggedness. Provides a dominant scale with plenty of dial area for multiple scales. DC Scale lengths: 4¼ in., 4.035", 3½ in., 3.163", 2½ in., 2.536". AC Scale lengths: 4¼ in., 3.43", 3½ in., 2.688", 2½ in., 2.155".

1000 OHMS/V DC VOLTMETERS

Range	Model 220-G 2½"	1-9	10-24	25-up	Model 320-G 3½"	1-9	10-24	25-up	Model 420-G 4¼"	1-9	10-24	25-up
0-10	55F4100	13.00	11.70	10.40	55F4104	13.50	12.15	10.80	55F4108	14.90	13.41	11.92
0-50	55F4101				55F4105				55F4109			
0-150	55F4102				55F4106				55F4110			
0-300	55F4103				55F4107				55F4111			

DC MILLIVOLTMETERS

Range	Model 220-G 2½"	1-9	10-24	25-up	Model 320-G 3½"	1-9	10-24	25-up	Model 420-G 4¼"	1-9	10-24	25-up
0-50	55F4112	12.00	10.80	9.60	55F4113	12.80	11.52	10.24	55F4114	14.10	12.69	11.28

DC MICROAMMETERS

Range	Model 220-G 2½"	1-9	10-24	25-up	Model 320-G 3½"	1-9	10-24	25-up	Model 420-G 4¼"	1-9	10-24	25-up
0-50	55F4116	18.00	16.20	14.40	55F4121	18.80	16.92	15.04	55F4126	20.10	18.09	16.08
0-100	55F4117	15.70	14.13	12.56	55F4122	16.50	14.85	13.20	55F4127	17.80	16.02	14.24
0-200	55F4118	13.40	12.06	10.72	55F4123	14.20	12.78	11.36	55F4128	15.50	13.95	12.40
50-0-50	55F4119	15.70	14.13	12.56	55F4124	16.50	14.85	13.20	55F4129	17.89	16.02	14.24

DC MILLIAMMETERS

Range	Model 220-G 2½"	1-9	10-24	25-up	Model 320-G 3½"	1-9	10-24	25-up	Model 420-G 4¼"	1-9	10-24	25-up
0-1	55F4130	12.00	10.80	9.60	55F4136	12.80	11.52	10.24	55F4142	14.10	12.69	11.28
0-5	55F4131				55F4137				55F4143			
0-10	55F4132				55F4138				55F4144			
0-50	55F4133	12.40	11.16	9.92	55F4139	13.20	11.88	10.56	55F4145	14.50	13.05	11.60
0-100	55F4134				55F4140				55F4146			
0-500	55F4135				55F4141				55F4147			

DC AMMETER

Range	Model 220-G 2½"	1-9	10-24	25-up	Model 320-G 3½"	1-9	10-24	25-up	Model 420-G 4¼"	1-9	10-24	25-up
0-1	55F4148	12.40	11.16	9.92	55F4152	13.20	11.88	10.56	55F4156	14.50	13.05	11.60
0-5	55F4149	13.00	11.70	10.40	55F4153	13.50	12.15	10.80	55F4157	14.90	13.41	11.92
0-10	55F4150	13.00	11.70	10.40	55F4154	13.50	12.15	10.80	55F4158	14.90	13.41	11.92
0-50	55F4151	13.00	11.70	10.40	55F4155	13.50	12.15	10.80	55F4159	14.90	13.41	11.92

AC VOLTMETERS

Range	Model 230-G 2½"	1-9	10-24	25-up	Model 330-G 3½"	1-9	10-24	25-up	Model 430-G 4¼"	1-9	10-24	25-up
0-10	55F4160	12.50	11.25	10.00	55F4164	13.30	11.97	10.64	55F4168	14.10	12.69	11.28
0-150	55F4161	13.80	12.42	11.04	55F4165	14.50	13.05	11.60	55F4169	15.30	13.77	12.24
0-250	55F4162	14.40	12.96	11.52	55F4166	15.20	13.68	12.16	55F4170	15.80	14.22	12.64
0-300	55F4163	15.00	13.50	12.00	55F4167	15.70	14.13	12.56	55F4171	16.50	14.85	13.20

AC AMMETERS

Range	Model 230-G 2½"	1-9	10-24	25-up	Model 330-G 3½"	1-9	10-24	25-up	Model 430-G 4¼"	1-9	10-24	25-up
0-5	55F4172	12.50	11.25	10.00	55F4177	13.30	11.97	10.64	55F4182	14.10	12.69	11.28
0-10	55F4173				55F4178				55F4183			
0-25	55F4174				55F4179				55F4184			
0-30	55F4175				55F4180				55F4185			
0-50	55F4176				55F4181				55F4186			

AC MILLIAMMETERS

Range	Model 230-G 2½"	1-9	10-24	25-up	Model 330-G 3½"	1-9	10-24	25-up	Model 430-G 4¼"	1-9	10-24	25-up
0-10	55F4187	12.50	11.25	10.00	55F4191	13.30	11.97	10.64	55F4195	14.10	12.69	11.28
0-100	55F4188				55F4192				55F4196			
0-250	55F4189				55F4193				55F4197			
0-500	55F4190				55F4194				55F4198			



G/P SERIES PORTABLE INSTRUMENT FOR SCHOOL OR LAB

• Diodes protect against instantaneous overloads on DC movements.

Now you can make all types of electrical measurements right in your own lab or shop set-up with these new economically priced portable instruments. ±2% accuracy on DC and AC Iron Vane Type. ±3% accuracy on AC Rectifier Type and Ohms.

• Bar-Ring construction in DC movements assures self-shielding.

Five-way binding posts. Knife-edge pointers. Rugged case and movement construction safeguards against rough handling. Overload protection of all models guards against electrical damage from misuse. Case dim. 4¼"x3½"x4¼".

DC 320G/P METERS

DC VOLTMETERS		
Stk. No.	Ranges	NET
55F4199	0-1-5-25	29.30
55F4200	0-25-100-500	30.00
55F4201	0-6-60-600	30.00

DC MICROAMMETERS		
Stk. No.	Ranges	NET
55F4202	0-10-50-250	58.10
55F4203	0-50	27.30
55F4204	500-25-0-25-500	30.90

DC MILLIAMMETERS		
Stk. No.	Ranges	NET
55F4205	0-25-1-5	28.50
55F4206	0-25-100-500	28.90
55F4207	0-1-10-100	28.90

DC AMMETERS		
Stk. No.	Ranges	NET
55F4208	0-1-5-25	16.30
55F4221	0-3-15	26.50

DC MILLIVOLTMETER		
Stk. No.	Ranges	NET
55F4209	0-50-100-250	28.90

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G/P Series continued on next page

Panel Meters

Type G/P Portable Instruments Continued from Previous Page

AC VOLTMETER RECTIFIER TYPE 350-G/P

Stk. No.	Description and Range	NET
55F4210	0-6-60-600V at 1000G/V	47.60

MILLIAMMETERS AND AMMETERS AC IRON VANE TYPE 330-G/P

55F4211	0-120-600V and 0-12Ma	39.60
55F4212	0-5-25V and 0-250Ma	29.60
55F4213	0-150V	30.80
55F4214	0-1 Ampere	22.30
55F4215	0-5 Ampere	22.30
55F4216	0-25 Ampere	22.30

Ideal for communications equipment and industry. All feature polished jewel bearings. DC meters are of the D'Arsonval type, with exclusive Bar-Ring self-shielded construction and one piece die-cast frame. AC instruments are of the moving van type, and have a light moving system. Long life under adverse conditions. Meters are accurate within $\pm 2\%$.

METER DIMENSIONS (All Shpg. Wts. 1 lb.)

Mtr's. Type	Flange Shape	Flange Size	Body Dia.	Body Depth	Scale Length
327T	Square	3x3"	2 3/4"	1"	2.49"
321T	Round	3 1/2" Dia.	2 3/4"	1 5/16"	2.49"
331S	Round	3 1/2" Dia.	2 3/4"	1 5/16"	2.22"

AC OHMMETERS 320-G/P

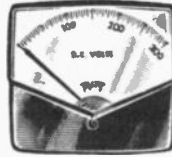
Stk. No.	Description and Range	NET
55F4217	0-1K-100K (in. 1.5V battery, test leads)	32.50
55F4218	0-1Meg-100Meg (5K-500K) 30V Battery	37.50

R.F. VOLT METER 340-G/P

55F4219	0-2.5V (240 ohms per volt)	45.10
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WATTMETER 360-G/P

55F4220	0-150 Watts (Max. 150 volts 2 amperes)	47.70
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"M" Types



327-T



321-T-331-S

A.C. VOLTMETERS

Range	Model 331S	Model 330M	1-9	10-24	25-49	Range	Model 430M	1-9	10-24	25-49
0-10	55F1255	55F2476	13.30	11.97	10.64	0-10	55F2487	14.10	12.69	11.28
0-150	55F1258	55F2477	14.50	13.05	11.66	0-150	55F2488	15.30	13.77	12.24
0-250	55F1283	55F2478	15.20	13.68	12.16	0-250	55F2489	15.80	14.22	12.64
0-300	55F1259	55F2479	15.70	14.13	12.56	0-300	55F2490	16.50	14.85	13.20

A.C. AMMETERS

Range	Model 331S	Model 330M	1-9	10-24	25-49	Range	Model 430M	1-9	10-24	25-49
0-1	55F496	55F2480	13.30	11.97	10.64	0-1	55F2491	14.10	12.69	11.28
0-5	55F497	55F2481	13.30	11.97	10.64	0-5	55F2492	14.10	12.69	11.28
0-10	55F1269	55F2482	13.30	11.97	10.64	0-10	55F2493	14.10	12.69	11.28
0-15	55F1328	55F2483	13.30	11.97	10.64	0-15	55F2494	14.10	12.69	11.28
0-25	55F1270	55F2484	13.30	11.97	10.64	0-25	55F2495	14.10	12.69	11.28
0-30	55F498	55F2485	13.30	11.97	10.64	0-30	55F2496	14.10	12.69	11.28
0-50	55F1272	55F2486	13.30	11.97	10.64	0-50	55F2497	14.10	12.69	11.28

A.C. MILLIAMMETERS

Range	Model 331S	1-9	10-24	25-49	Range	Model 330M	1-9	10-24	25-49	Range	Model 430M	1-9	10-24	25-49
0-250	55F579	13.30	11.97	10.64	0-250	55F589	13.30	11.97	10.64	0-250	55F591	14.10	12.69	11.28
0-500	55F588	13.30	11.97	10.64	0-500	55F590	13.30	11.97	10.64	0-500	55F592	14.10	12.69	11.28

D.C. MILLIVOLTMETERS

Range	Model 327T	1-9	10-24	25-49
0-50	55F672	12.80	11.52	10.24
0-100	55F673	12.80	11.52	10.24

Range	Model 321T	1-9	10-24	25-49
0-50	55F674	12.80	11.52	10.24
0-100	55F675	12.80	11.52	10.24

D.C. MICROAMMETERS

Range	Model 327T	1-9	10-24	25-49
0-20	55F630	28.30	25.47	22.64
0-50	55F631	18.80	18.92	15.04
0-100	55F632	16.50	14.85	13.20
0-200	55F633	14.20	12.87	11.36
0-500	55F634	13.60	12.24	10.88
50-0-50	55F2092	16.50	14.85	13.20

Range	Model 321T	1-9	10-24	25-49
0-20	55F1241	28.30	25.47	22.64
0-50	55F1242	18.80	18.92	15.04
0-100	55F1243	16.50	14.85	13.20
0-200	55F1244	14.20	12.87	11.36
0-500	55F1251	13.60	12.24	10.88
50-0-50	55F2090	16.50	14.85	13.20

D.C. AMMETERS

Range	Model 327T	1-9	10-24	25-49
0-1	55F580	13.20	11.88	10.56
0-5	55F582	13.50	12.15	10.80
0-10	55F583	13.50	12.15	10.80
0-25	55F585	13.50	12.15	10.80
0-30	55F586	13.50	12.15	10.80
0-50	55F587	13.50	12.15	10.80

D.C. AMMETERS

Range	Model 321T	1-9	10-24	25-49
0-1	55F1246	13.20	11.88	10.56
0-5	55F1248	13.50	12.15	10.80
0-10	55F1249	13.50	12.15	10.80
0-25	55F1245	13.50	12.15	10.80
0-30	55F1252	13.50	12.15	10.80
0-50	55F1253	13.50	12.15	10.80

D.C. MILLIAMMETERS

Range	Model 327T	1-9	10-24	25-49
0-1	55F586	12.80	11.52	10.24
0-10	55F522	12.80	11.52	10.24
0-25	55F523	13.20	11.88	10.56
0-50	55F524	13.20	11.88	10.56
0-100	55F526	13.20	11.88	10.56
0-500	55F531	13.20	11.88	10.56

Range	Model 321T	1-9	10-24	25-49
0-1	55F1227	12.80	11.52	10.24
0-10	55F1229	12.80	11.52	10.24
0-25	55F1230	13.20	11.88	10.56
0-50	55F1231	13.20	11.88	10.56
0-100	55F1233	13.20	11.88	10.56
0-500	55F1238	13.20	11.88	10.56

D.C. VOLTMETERS

Range	Model 327T	1-9	10-24	25-49
0-10	55F593	13.50	12.15	10.80
0-15	55F541	13.50	12.15	10.80
0-25	55F542	13.50	12.15	10.80
0-50	55F543	13.50	12.15	10.80
0-100	55F544	13.50	12.15	10.80
0-150	55F545	13.50	12.15	10.80
0-500	55F547	14.30	12.67	11.44

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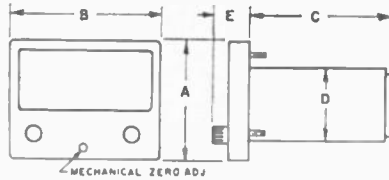
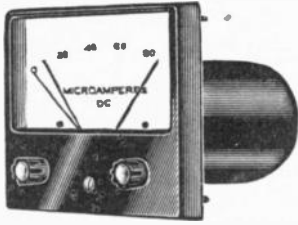
api Meter Relays

- Solid state circuitry, fail-safe wiring
- Taut Band movements in most ranges
- Fully continuous reading

COMPACT OPTICAL METER RELAY CONTROLLER

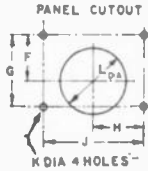
- Complete package—no external components
- Unaffected by ambient light
- Gear drive-slip clutch set pointers—cannot be damaged

Use to control or monitor from any panel meter signal

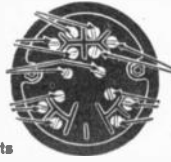


DIMENSIONS

	503-K	603-K
A	4.27 Max.	4.36 Max.
B	4.71 Max.	5.75 Max.
C	5.50 Max.	5.50 Max.
D	2.79 Max.	2.79 Max.
E	1.39 Max.	1.39 Max.
F	2.020 ±.010	2.150 ±.010
G	3.560 ±.005	3.000 ±.005
H	2.00 ±.010	2.625 ±.010
J	4.000 ±.005	5.250 ±.005
K	.161 ±.005	.161 ±.005
L	2.82 ±.01	2.82 ±.01



- 115 VAC
- High limit release
- Meter signal
- High output relay contacts



- Low limit release
- Low output relay contacts

TYPICAL APPLICATIONS

- Motor load
- Temperature
- Voltage
- Current
- RPM
- Pressure
- Liquid level
- Position

CONTROL DESCRIPTIONS

ON-OFF CONTROLS

Models 503-KH. (Single set point) and 503-KD (double set point). Compacts packaged complete with power supply, control circuitry and load relays coupled to an Optical Meter Relay. Screw type terminal connections are at rear of meter barrel (illustration). Control circuit is a reliable phase sensitive AC bridge, switching SCR on or off as the meter photocell changes resistance. The SCR "on" energizes the load relay coil. All circuit components wired failsafe below set point on KH and between set points on KD. Units easily converted from automatic on-off control to push button reset latching circuit. SPDT relay contacts—load rating: 5 A, resistive at 115 VAC. Dial arc: 4". *Taut Band movement.

‡ AC Load Compact. Meter range is 47 mV AC, matching secondary of current transformers (below). Dial reads 0-150% Load. Operates with any transformer listed. Use to monitor or control by measuring motor load. Be sure to order appropriate transformer for each unit.

ON-OFF TEMPERATURE CONTROL

Models 603-KH (single set point) and 603-KD (double set point). Same circuit description as 503-KH & KD with addition of electrical cold junction compensation, automatic thermocouple break protection & copper error correction. Medium resistance thermocouple actuated pyrometers. Taut Band. Damped against vibration. Dual Fahrenheit-Centigrade mirrored scales. Dial arc 5". Adjustable for thermocouples 0-10 ohms. For control or alarm applications.

TIME PROPORTIONING-TEMPERATURE CONTROL

Model 603-KTP. Compensation and Thermocouple break protection same as 603-KH & KD but control circuit provides proportional control from relay output. Ratio of relay, on time to "off" time proportional to deviation from set point "on" time 3%, adjustable to 6%. Time cycle settable to 5, 10, or 15 seconds. Capable of straight line control better than ±1 degree F. Taut Band, damped against vibration.

COMPACTS

503-KH SINGLE SET POINT

Stock No.	Range	1-9	10-24
55F4500	*10 μA DC	120.00	108.00
55F4501	*50 μA DC	105.00	94.50
55F4502	*100 μA DC	100.00	90.00
55F4503	1 mA DC	94.00	84.60
55F4504	*10 mV DC	104.00	93.60
55F4505	50 mV DC	96.00	85.40
55F4506	‡AC load	100.00	90.00
55F4507	*50 μA AC	109.00	98.10
55F4508	1 mA AC	98.00	88.20

503-KD DOUBLE SET POINT

Stock No.	Range	1-9	10-24
55F4509	*10 μA DC	145.00	130.50
55F4510	*50 μA DC	130.00	117.00
55F4511	*100 μA DC	125.00	112.50
55F4512	*50/0/50 μA DC	125.00	112.50
55F4513	*5/0/5 μA DC	145.00	130.50
55F4514	1 mA DC	119.00	107.10
55F4515	*10 mV DC	129.00	116.10
55F4516	50 mV DC	121.00	108.90
55F4517	‡AC load	125.00	112.50
55F4518	*50 μA AC	134.00	120.60
55F4519	1 mA AC	123.00	110.70

TRANSFORMERS FOR AC LOAD COMPACT (‡)—SPECIFY RANGE

Stk. No.	Prim. Range (Amps)	Each	Stk. No.	Prim. Range (Amps)	Each	Stk. No.	Prim. Range (Amps)	Each	Stk. No.	Prim. Range (Amps)	Each
55F4621	3	5.00	55F4623	7.5	5.00	55F4625	15	5.00	55F4627	30	5.00
55F4622	5	5.00	55F4624	10	5.00	55F4626	25	5.00	55F4628	50	5.00

COMPACTS

Range				603-KH High set point				603-KD Double set point			
F°	C°	TC	Type	Stock No.	1-9	10-24	Stock No.	1-9	10-24		
0/300	0/150	1/C	J	55F4520	119.00	107.10	55F4526	144.00	129.60		
0/500	0/260	1/C	J	55F4521	117.00	105.30	55F4527	142.00	127.80		
0/750	0/400	1/C	J	55F4522	117.00	105.30	55F4528	142.00	127.80		
0/1000	0/500	1/C	J	55F4523	117.00	105.30	55F4529	142.00	127.80		
0/1500	0/800	C/A	K	55F4524	114.00	102.60	55F4530	139.00	125.10		
0/2500	0/1370	C/A	K	55F4525	114.00	102.60	55F4531	139.00	125.10		

MODEL 603—KTP TIME PROPORTIONING TEMPERATURE CONTROL

Stock No.	Range		TC	Type	1-9	10-24
	F°	C°				
55F4532	0/300	0/150	1/C	J	144.00	129.60
55F4533	0/500	0/260	1/C	J	142.00	127.80
55F4534	0/750	0/400	1/C	J	142.00	127.80
55F4535	0/1000	0/500	1/C	J	142.00	127.80
55F4536	0/2500	0/1370	C/A	K	139.00	125.10

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Panel Meters and Pyrometers **api**

SUPER CALIBRATED TAUT BAND PANEL METERS

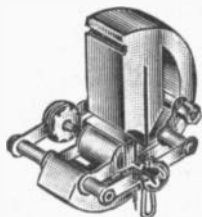
This listing offers the largest available selection of Taut Band meters in three different calibration types: 1% Tracking, 0.5% Tracking and 1% Accuracy. Choice of 4 1/2 in. or 5 1/2 in. size. All have high sensitivity self shielding bar ring movements, Taut Band suspension. Frictionless design allows near perfect repeatability. Easily converted from front panel mount to Stylist mount with bezel kit.

TRACKING VS ACCURACY

Most electronic meter applications require better tracking (electrical linearity) instead of full scale accuracy. Tracking is a meters ability to proportionately divide a full scale indication. Example: a 100 μ A 1% tracking meter with a 100 division scale. Used in a VTVM, may require 102 μ A to indicate full scale. Exactly 1/2 that full scale indication (51 μ A should put the indicator at 50 divisions ± 1 and 25.5 μ A at 25 divisions ± 1 . Tracking is more important in any application where zero or full scale indication is set electrically; tachometers, PH meters, thermistor bridge temperature meters etc. Meters with good full scale accuracy are used for absolute measurements like Volts, Amps, thermocouple temperature readings etc.

502 and 602. 1% Tracking, 2% Accuracy (indicates 2% Tracking, 502-1 and 602-1. 1% accuracy. Have mirrored scales and knifed pointers.

502-II. 0.5% Tracking, 2% Accuracy. Mirrored scales & knifed ptrs.



METER DIMENSIONS

Model	Height	Width	Barrel		Model	Height	Width	Barrel	
			Dia.	Depth				Dia.	Depth
502	4.15"	4.60"	2.79"	1.85"	503	4.27"	4.71"	2.79"	1.86"
602	4.25"	5.62"	2.79"	1.85"	603	4.36"	5.75"	2.79"	1.86"

STYLIST BEZEL KITS

With addition of bezels, Panelist Models 502 and 602 become respectively, Stylist Models 1502 and 1602. Stylist is recessed-mounted. To order, specify Panelist model and Stk. No., and Model and Stk. No. for bezel.

Panel Cutout: 1502 (4.81x2.78") 1602 (5.86x3.14")

55F4633, Model 1502 For 502-1, II 1.25

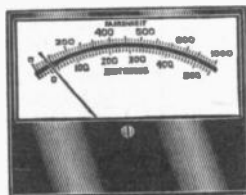
55F4634, Model 1602 For 602-1, II 1.50

PANELIST-4% TRACKING 2% ACCURACY

DC Range	Ohms $\pm 20\%$	502		602	
		Stock No.	1-9	Stock No.	1-9
3 μ A*	15000	55F4537	50.00	55F4553	52.00
5 μ A*	6700	55F4538	40.00	55F4554	42.00
10 μ A*	4300	55F4539	33.00	55F4555	35.00
20 μ A	2900	55F4540	27.00	55F4556	29.00
50 μ A	1000	55F4541	21.75	55F4557	23.75
100 μ A	1050	55F4542	20.25	55F4558	22.25
200 μ A	650	55F4543	19.95	55F4559	21.45
500 μ A	210	55F4544	19.25	55F4560	20.75
1 Ma	100	55F4545	19.25	55F4561	20.75
5/0/5 μ A*	4300	55F4546	33.50	55F4562	35.50
50/0/50 μ A	1050	55F4547	20.75	55F4563	22.75
100/0/100 μ A	650	55F4548	20.45	55F4564	21.25
500/0/500 μ A	100	55F4549	19.75	55F4565	21.25
5 MV	20	55F4550	28.00	55F4566	30.00
10 MV	40	55F4551	25.50	55F4567	27.50
50 MV	50	55F4552	20.75	55F4568	22.25

MODEL 503 PYROMETER 2% ACCURACY

Thermocouple pyrometers are medium resistance, have automatic bi-metal cold junction correction and copper error compensation. External resistor adjusts for varying thermocouple resistance up to 10 ohms. Mirror scale reading in Fahrenheit and Centigrade. 1/C is Iron Constantan; C/C—Copper Constantan; C/A—Chromel aluminum. Knife edge pointers. Dial arc is 4". Phenolic case. See table for dimensions. Shpg. wt.: 1 lb.



MODEL 603-1 PYROMETER 1% ACCURACY

Same as Model 503 but with a larger case, 1% accuracy.

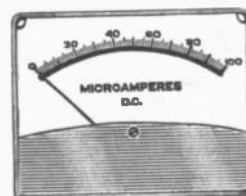
MODEL D-1 PORTABLE PYROMETER

Pocket size thermocouple activated pyrometers designed for checking laboratory ovens, oil baths, appliances, refrigerators, air conditioners, solder pots, furnaces, etc. Allows quick, accurate measurements. Features Taut Band frictionless meter, highly resistant to shock, responds to smallest input. Dial calibrated in F° and C°. Has mirrored scale for accurate readings. Movements have bi-metal cold junction correction and copper error compensation. Tough vinyl covered case has aluminum trim for protection, push button latch. Rugged and compact (5 1/2 x 3 3/4"). Supplied complete with 3 foot Chromel-Constantan rust proof thermocouple. Shpg. wt.: 1 lb.

Stock No.	Temperature Range		Each
	F°	C°	
55F4616	-100/+600	-70/+310	37.50
55F4617	0/300	0/150	37.50
55F4618	0/500	0/260	37.50
55F4619	0/750	0/400	37.50
55F4620	0/1000	0/500	37.50



STYLIST. Crisp clean lines for easier readings. Panel hides bottom third of meter, increasing dial area.



PANELIST. Features rugged anti-static plastic case. Standard meter dimensions.

PANELIST-1% ACCURACY

DC Range	Ohms	502-I		602-I	
		1-9	1-9	1-9	1-9
10 μ A	4300	55F4569	44.00	55F4578	46.00
20 μ A	2900	55F4570	30.00	55F4579	32.00
50 μ A	1000	55F4571	24.75	55F4580	26.75
100 μ A	1050	55F4572	23.25	55F4581	25.25
5/0/5 μ A	4300	55F4573	44.50	55F4582	46.50
50/0/50 μ A	1050	55F4574	23.75	55F4583	25.75
500 μ A	210	55F4575	22.25	55F4584	23.75
1 Ma	100	55F4576	22.25	55F4585	23.75
10 MV	40	55F4577	28.50	55F4586	30.50

PANELIST-5% TRACKING 2% ACCURACY

Range DC	Ohms	502-II		602-II	
		1-9	1-9	1-9	1-9
10 μ A	4300	55F4587	49.00	55F4596	51.00
20 μ A	2900	55F4588	35.00	55F4597	37.00
50 μ A	1000	55F4589	29.75	55F4598	31.75
100 μ A	1050	55F4590	28.25	55F4599	30.25
5/0/5 μ A	4300	55F4591	49.50	55F4600	51.50
50/0/50 μ A	1050	55F4592	28.75	55F4601	30.75
500 μ A	210	55F4593	27.25	55F4602	28.75
1 Ma	100	55F4594	27.25	55F4603	28.75
10 MV	40	55F4595	33.50	55F4604	35.50

MODEL 503

Stock No.	Range		TC	Type	1-9
	F°	C°			
55F4605	-75/+225	-60/+110	1/C	I	35.00
55F4606	0/300	0/150	1/C	I	34.00
55F4607	0/500	0/260	1/C	I	32.00
55F4608	0/750	0/400	1/C	I	32.00
55F4609	0/1000	0/500	1/C	I	32.00
55F4610	0/1500	0/800	C/A	K	29.00
55F4611	0/2000	0/1100	C/A	K	28.00
55F4612	0/2500	0/1370	C/A	K	28.00

MODEL 603-1

55F4613	0/300	0/150	1/C	I	44.75
55F4614	0/500	0/260	1/C	I	42.75
55F4615	0/750	0/400	1/C	I	42.75





Weston Panel Meters



PIVOT-JEWEL PANEL INSTRUMENTS 1900 SERIES

The 1900 Series is an integrated line of a-c and d-c panel instruments, providing selected sizes, scales, and ranges. All instruments are provided with zero correctors. Clear plastic fronts. Specially treated Alnico 5 magnets provide long term reliability and stability. Spring back jewels with locking nuts for

fine adjustment. 3 1/2" size has scale length (100° arc) of 2.7". 4 1/2" size has scale length (100° arc) of 3.9". Lance pointers on all models except 1946, which has knife-edge pointer. 2% accuracy with plain scales and lance pointers or 1% accuracy with mirrored scales and knife-edge pointers.

D-C (CORMAG) MICROAMMETERS

Range ua	1931 3 1/2"	1-9	10-24	25-49	1941 4 1/2"	1-9	10-24	25-49
50	55F2900	19.10	17.19	15.28	55F2921	20.10	18.09	16.08
100	55F2901	17.90	16.11	14.32	55F2922	18.80	16.92	15.04
200	55F2902	17.10	15.39	13.68	55F2923	18.10	16.29	14.48
500	55F2903	16.10	14.49	12.88	55F2924	17.10	15.39	13.68

D-C (CORMAG) MILLIAMMETERS

Range ma	1931 3 1/2"	1-9	10-24	25-49	1941 4 1/2"	1-9	10-24	25-49
1	55F2904	15.10	13.59	12.08	55F2925			
10	55F2905				55F2926			
50	55F2906	15.10	13.59	12.08	55F2927	16.10	14.49	12.88
100	55F2907	15.10	13.59	12.08	55F2928			
500	55F2908	15.10	13.59	12.08	55F2929			

Ranges of 50ma and up are shunted and have a drop of 100mv.

D-C (CORMAG) AMMETERS—MV DROP 50

Range amps	1931 3 1/2"	1-9	10-24	25-49	1941 4 1/2"	1-9	10-24	25-49
2	55F2910	15.10	13.59	12.08	55F2931	16.10	14.49	12.88
5	55F2911	15.10	13.59	12.08	55F2932	16.10	14.49	12.88
10	55F2912	15.10	13.59	12.08				

Approx. MV Drop 50.

D-C (CORMAG) VOLTMETERS

Range volts	1931 3 1/2"	1-9	10-24	25-49	1941 4 1/2"	1-9	10-24	25-49
10	55F2913				55F2934			
15	55F2914				55F2935			
30	55F2915				55F2936			
50	55F2916	15.90	14.31	12.72	55F2937	16.90	15.21	13.52
100	55F2917				55F2938			
150	55F2918				55F2939			
300	55F2919				55F2940			
500	55F2920				55F2941			

1000 Ohms per Volt Nominal Resistance

A-C (IRON VANE) MILLIAMMETERS

Range ma	1934 3 1/2"	1-9	10-24	25-49	1944 4 1/2"	1-9	10-24	25-49
50	55F2947				55F2959	15.40	13.86	12.32
100	55F2948	14.65	13.19	11.72	55F2961	15.40	13.86	12.32
500	55F2949							

Frequency: 25 to 500 cycles.

A-C (IRON VANE) AMMETERS

Range amps	1934 3 1/2"	1-9	10-24	25-49	1944 4 1/2"	1-9	10-24	25-49
1	55F2950				55F2962			
2					55F2963			
5	55F2952	14.65	13.19	11.72	55F2964	15.40	13.86	12.32
10					55F2965			

Frequency: 25 to 500 cycles.

A-C (IRON VANE) VOLTMETERS

Range volts	1934 3 1/2"	1-9	10-24	25-49	1944 4 1/2"	1-9	10-24	25-49
15	55F2954	15.40	13.86	12.32	55F2966			
150					55F2967	16.15	14.54	12.92
300	55F2956	15.40	13.86	12.32	55F2968			

D-C (EXTERNAL MAGNET) MICROAMMETERS

Range ua	1936 3 1/2"	1-9	10-24	25-49	1946 4 1/2"	1-9	10-24	25-49
50					55F2943	30.50	27.45	24.40

Type 1946: mirrored scale, knife-edge pointer, 1% accuracy.

RECTIFIER TYPE A-C (CORMAG) VOLTMETERS

Range volts	1932 3 1/2"	1-9	10-24	25-49	1942 4 1/2"	1-9	10-24	25-49
150	55F2944	20.70	18.63	16.56	55F2945	21.70	19.53	17.36

1000 Ohms per Volt Nominal Resistance.

PANEL METERS



Weston meters feature ±2% accuracy in series 301, 302 and 304 panel meters. Available in 3 1/2" round and 3 1/2" square types. Meters can be mounted on non-magnetic or magnetic panels affecting their readings. Bakelite Cases completely sealed against dust. Spring back jewels with locking nuts for fine adjustments. Superior response time with minimum power consumption. Scale length: 2 1/2". Terminal length 1 1/2". Shpg. wt. 1 lb.



AC VOLTMETERS (25-125 CYCLES)

Range	Type 304 Round	Type 304 Square	Resis. Ohms	1-9	10- 24	25- 49
5	55F 3002		10			
10	55F 3003	55F 3048	10	14.10	12.69	11.28
50	55F 3004	55F 3049	45			
100		55F 3050		14.10	12.69	11.28
150	55F 3006	55F 3051	130	14.45	13.02	11.56
300	55F 3007	55F 3052	260	14.45	13.02	11.56
500	55F 3008	55F 3053	260	17.50	15.75	14.00

AC AMMETERS (25-500 CYCLES)

Range	Type 3009	Type 3054	Resis. Ohms	1-9	10- 24	25- 49
1	55F 3009	55F 3054	.125			
5	55F 3010	55F 3055	.002	13.75	12.38	11.00
10	55F 3011	55F 3056	.001			
50	55F 3012	55F 3057				

AC VOLTMETERS (RECTIFIER TYPE)

Range	Type 302 Round	Type 302 Square	Resis. Ohms	1-9	10- 24	25- 49
150	55F 2999	55F 3044	1000/V	20.70	18.63	16.56

AC MILLIAMMETERS (25-500 CYCLES)

Range	Type 304 Round	Type 304 Square	Resis. Ohms	1-9	10- 24	25- 49
50		55F 3058	82	13.75	12.38	11.00
500	55F 3014	55F 3059	65	13.75	12.38	11.00

AC MILLIAMMETER (RECTIFIER TYPE)

Range	Type 302 Round	Type 302 Square	Resis. Ohms	1-9	10- 24	25- 49
1	55F 3000	55F 3045	470	20.70	18.63	16.56

DC VOLTMETERS

Range	Type 301 Round	Type 301 Square	Resis. Ohms	1-9	10- 24	25- 49
5	55F 2970	55F 3015				
10	55F 2971	55F 3016				
15	55F 2972	55F 3017				
30	55F 2973	55F 3018				
50	55F 2974	55F 3019				
100	55F 2975	55F 3020				
150	55F 2976	55F 3021				
300	55F 2977	55F 3022		15.40	13.86	12.32

DC AMMETERS

Range	Type 2986	Type 3031	Resis. Ohms	1-9	10- 24	25- 49
1	55F 2986	55F 3031		14.40	12.96	11.52
5	55F 2987			14.40	12.96	11.52
15	55F 2988			15.40	13.86	12.32
50	55F 2989	55F 3034		15.40	13.86	12.32
50-0-50	55F 2990			15.40	13.86	12.32

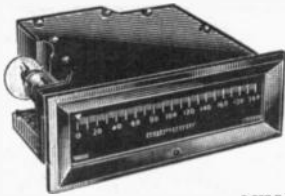
DC MILLIAMMETERS

Range	Type 301 Round	Type 301 Square	Resis. Ohms	1-9	10- 24	25- 49
1	55F 2991	55F 3036	88			
5	55F 2992	55F 3037	8			
10	55F 2993	55F 3038	2.5			
50		55F 3039	2	14.40	12.96	11.52
100	55F 2995	55F 3040	1			
150	55F 2996		.66			
200	55F 2997		.5			
300	55F 2998					

DC MICROAMMETERS

Range	Type 2979	Type 3024	Resis. Ohms	1-9	10- 24	25- 49
50	55F 2979	55F 3024	4800	20.30	18.27	16.24
100	55F 2980	55F 3025	1230	17.30	15.57	13.84
200	55F 2981	55F 3026	600	14.90	13.41	11.92
500	55F 2982	55F 3027	230	14.90	13.41	11.92
25-0-25	55F 2983	55F 3028	4800	20.30	18.27	16.24
50-0-50	55F 2984	55F 3029	1230	17.30	15.57	13.84
500-0-500		55F 3030	88	14.40	12.96	11.52

Weston Meters & Accessories



● **NEW WESTON SERIES 1201 EDGEWISE PROJECTED MOVING POINTER PANEL METERS**
 A true flat scale edgewise instrument at a price comparable to mechanical pointer types. Since the pointer is projected on the same plane as the scale divisions, parallax errors are eliminated. All-glass optical system. Self-shielding CORMAG movement—these units can be mounted

side-by-side with no loss of accuracy, are unaffected by panel material, normal magnetic fields. With lamp (5V, 2.86A AC/DC req.); bulb life 10,000 hrs. Choice of horizontal or vertical mounting. All units white markings on black background, $\pm 1\%$ full-scale accuracy, except $\pm 2\%$. Scale length $4\frac{1}{2}$ " Wt. 1 lb.
DC VOLTMETERS

DC MILLIAMMETERS

Range, ma	Resis. (ohms)	Horiz. Mtg.		Vert. Mtg.		1-9	10-24	25-49
		Type 1201	Stock No.	Type 1201	Stock No.			
1	18.8	-4911001	55F3200	-4912001	55F3205	55.50	49.95	44.40
10	2.3	-4911010	55F3201	.....	.....	55.50	49.95	44.40
20	2.0	-4911020	55F3202	.....	.....	55.50	49.95	44.40
50	2.0	-4911050	55F3203	.....	.....	57.00	51.30	45.60
500	0.2	-4911500	55F3204	.....	.....	58.00	52.20	46.40

Range, Volts	Ohms/Volts	Horiz. Mtg.		Vert. Mtg.		1-9	10-24	25-49
		Type 1201	Stock No.	Type 1201	Stock No.			
1	1000	-1911001	55F3220	.....	.....	58.00	52.20	46.40
5	1000	-1911005	55F3221	.....	.....	58.00	52.20	46.40
10	1000	-1911010	55F3222	.....	.....	58.00	52.20	46.40
20	1000	-1911020	55F3223	.....	.....	58.00	52.20	46.40
100	1000	-1911100	55F3224	.....	.....	58.00	52.20	46.40
500	1000	-1911500	55F3225	.....	.....	58.00	52.20	46.40

DC MICROAMMETERS

Range	Resis. (ohms)	Horiz. Mtg.		Vert. Mtg.		1-9	10-24	25-49
		Type 1201	Stock No.	Type 1201	Stock No.			
50	2300	-5911050	55F3210	.....	.....	61.50	55.35	49.20
100	640	-5911100	55F3211	.....	.....	60.00	54.00	48.00
200	415	-5911200	55F3212	.....	.....	58.50	52.65	46.80
500	88	-5911500	55F3213	.....	.....	57.00	51.30	45.60
50-0-50	640	-5911750	55F3214	-5912750	55F3219	60.00	54.00	48.00

AC VOLTMETERS* (Rectifier Type)

Range, Volts	Ohms/Volts	Horiz. Mtg.		Vert. Mtg.		1-9	10-24	25-49
		Type 1201	Stock No.	Type 1201	Stock No.			
150	1000	-1921150	55F3232	.....	.....	63.50	57.15	50.80
300	1000	-1921300	55F3233	.....	.....	64.00	57.60	51.20

WESTON SERIES 1209 PROJECTED MOVING SCALE PANEL METERS



- Large Scale in a Small Package
- Self-Shielded "Cormag" Movement
- 1% Accuracy
- Eliminates Parallax Errors
- Self-Illuminated

This moving-scale instrument provides an 8" meter scale in only $2\frac{1}{2}$ inches of panel width. Simple, foolproof optical system projects moving scale onto a coated window. Because the hairline is on the same plane as the scale image, these meters may be read at oblique angles without parallax errors associated with pointer-type meters. With standard #44 pilot lamp (requires 6-8 volts AC/DC, .25 amp). Lamps are easily replaced from front of panel. All units feature $\pm 1\%$ accuracy and employ Weston "Cormag" self-shielded movements. Scales have 100 divisions, choice of white markings on black background or black on white. Solder terminals. HxWxD: $3x2\frac{1}{2}x4\frac{1}{4}$ ".

DC MILLIAMMETERS

Range	Resis. (Ohms)	Black Background		White Background		1-9	10-24	25-49
		Type No.	Stk. No.	Type No.	Stk. No.			
1	21	1209-4912001	55F3106	1209-4911001	55F3111	55.50	49.95	44.40
2	8.6	1209-4912002	55F3107	1209-4911002	55F3112	55.50	49.95	44.40
5	3.96	1209-4912005	55F3108	1209-4911005	55F3113	55.50	49.95	44.40
20	2.2	1209-4912020	55F3109	1209-4911020	55F3114	55.50	49.95	44.40
50	2.0	1209-4912050	55F3110	1209-4911050	55F3115	57.00	51.30	45.60

DC MICROAMMETERS

Range	Resis. (Ohms)	Black Background		White Background		1-9	10-24	25-49
		Type No.	Stk. No.	Type No.	Stk. No.			
50	5700	1209-5912050	55F3116	1209-5911050	55F3121	61.50	55.35	49.20
100	1160	1209-5912100	55F3117	1209-5911100	55F3122	60.00	54.00	48.00
200	231	1209-5912200	55F3118	1209-5911200	55F3123	58.50	52.65	46.80
500	73	1209-5912500	55F3119	1209-5911500	55F3124	57.00	51.30	45.60
50-0-50	1160	1209-5912003	55F3120	1209-5911003	55F3125	60.00	54.00	48.00

DC VOLTMETERS

Range	Ohms/V	Black Background		White Background		1-9	10-24	25-49
		Type No.	Stk. No.	Type No.	Stk. No.			
1	1000	1209-1912001	55F3126	1209-1911001	55F3133	58.00	52.20	46.40
2	1000	1209-1912002	55F3127	1209-1911002	55F3134	58.00	52.20	46.40
5	1000	1209-1912005	55F3128	1209-1911005	55F3135	58.00	52.20	46.40
10	1000	1209-1912010	55F3129	1209-1911010	55F3136	58.00	52.20	46.40
50	1000	1209-1912050	55F3130	1209-1911050	55F3137	58.00	52.20	46.40
100	1000	1209-1912100	55F3131	1209-1911100	55F3138	58.00	52.20	46.40
500	1000	1209-1912500	55F3132	1209-1911500	55F3139	58.00	52.20	46.40

DC MILLIVOLTMETERS

Range	Resis. (Ohms)	Black Background		White Background		1-9	10-24	25-49
		Type No.	Stk. No.	Type No.	Stk. No.			
50*	5	1208-9912050	55F3104	1209-9911050	55F3105	57.00	51.30	45.60

*Adjusted for standard 0.065 ohm (5 ft.) shunt leads.

TAUT-BAND DC PANEL METERS—SERIES 1930 AND 1940



Super-sensitive, dependable taut-band movements. Available with black bakelite (illus.) or clear plastic front; screw-driver zero adjust. $3\frac{1}{2}$ " types (1931T) $\pm 2\%$ accuracy, with lance pointer. $4\frac{1}{2}$ " types (1941T, 1946T) $\pm 1\%$, with knife-edge pointer and mirror scale. All types require 1.91" behind panel. Approx. shpg. wt., 12 oz.

$3\frac{1}{2}$ " DC MICROAMMETERS—2% ACC.

Range	Model 1931T		Res. Ohms	EACH		
	Plastic	Bakelite		1-9	10-24	25-49
0-50 μ a	55F3080	55F3083	2250	21.00	18.90	16.80
0-100 μ a	55F3081	55F3084	538	19.70	17.73	15.76
0-200 μ a	55F3082	55F3085	440	18.80	16.92	15.04

$3\frac{1}{2}$ " DC MILLIAMMETERS—2% ACC.

Range	55F3082	55F3087	29	18.60	14.94	13.28
0-1 ma	55F3084	55F3089	2.0	16.60	14.94	13.28

$3\frac{1}{2}$ " DC VOLTMETERS—2% ACC.

Range	55F3069	55F3077	1000/v	17.40	15.66	13.92
0-50v	55F3071	55F3079	1000/v	17.40	15.66	13.92

MOUNTING BEZELS FOR TAUT-BAND AND PIVOT-JEWEL METERS

Made for meters with clear plastic fronts only. Flat black enamel finish. For $\frac{1}{8}$ "- $\frac{3}{16}$ " panels. With hardware, template.

Stk. No.	Type	Description	1-9	10-21	25-49
55F2898	1984870	Half Bezel for 1931/2/4/6/8	1.30	1.17	1.04
55F2899	1984880	Half Bezel for 1941/2/4/6/8	1.35	1.21	1.08

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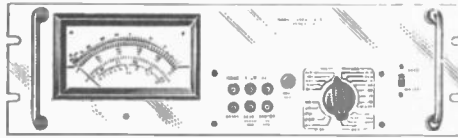


Weston Test Equipment

MODEL 80 SERIES MULTI-RANGE ANALYZERS



Model 81



Model 80-R



Model 80

The first multimeter design in years incorporating features wanted by the man on the bench. Extremely easy to read, these units offer maximum operating convenience, ruggedness, and unusually high accuracy (1% on most ranges). Portable types have panel and scale slanted at an ideal viewing angle. All types have 5 1/2" meters with a unique refractive anti-

MODEL 80-R RACK MOUNTING VOM

Non-custom made rack mounting 1% VOM. Ranges: DC volts, 5KV/1KV/250/100/50/25/10/2.5/1/.25 (at 20K ohms/volt); AC volts, 5KV/1KV/500/250/50/10/2.5 (at 5000 ohms/volt); DC current, 10/1 amps/100/10/1 ma/50 ua; ohms, 5 ranges from 2K to 20 meg-ohms; DB scale, -10 to +10 DB. 1% accuracy on ohms and DC scales; AC scales, 1.5%; 1 & 5KV scales, 2% DC and 2.5% AC.

62F1092. Type 80-9008002. NET 94.50

MODEL 80 VOM

Identical electrically to Model 80-R, but for portable or bench service.

62F1085. Type 80-9008001. NET 89.50

MODEL 81 DC VOLTMETER

Ranges: 1000/250/100/50/25/10/5/2.5/1/1/25 at 20,000 ohms/volt. Accuracy is ± 1% (except ± 2% on 1000 volt range).

82F1086. Type 81-9008102. NET 68.50

MODEL 81 DC MILLIAMMETER/AMMETER

Ranges: 10/3/1 amps/300/100/30/10 ma (10 ma range has 50 mv drop for use with external shunts). Accuracy is ± 1%.

62F1087. Type 81-9008101. NET 68.50

parallax face. With fuse and diode overload protection, polarity reversing switch. Model 80 types supplied with test leads. Model 81 and 82 types less leads, with 5-way binding post terminals spaced to accept standard double banana plugs. Model 80-R is for standard 19x5 1/4" rack mounting; portable models measure 8 1/4x6 5/8x7 3/8". Approx. wt., 3 lbs.

MODEL 81 DC MICROAMMETER/MILLIMETER

Ranges: 100/30/10/3/1/3/1 Ma. Accuracy is 1% on all ranges.

62F1088. Type 81-90081003. NET 68.50

MODEL 82 AC VOLTMETER

Ranges 1000/500/250/50/10/2.5 volts at 5000 ohms/volts. Overall accuracy is 1.5%; use of film resistors and selected germanium diodes results in temperature and frequency error less than 1% for a change of 10°C, and frequencies from 25-2000 cps. Ranges below 250V are usable to 15 kc.

62F1089. Type 82-9008201. NET 71.50

MODEL 82 AC MILLIAMMETER/AMMETER

Ranges: 5/2/1 amperes/500/200/100/50 ma. Transformer-rectifier circuit causes losses less than 1.5 va for 5 amp range at 60 cps. Accuracy: 2%, 60-400 cps; 1.5% from 25-100 cps; usable to 5 kc.

62F1090. Type 82-9008202. NET 71.50

MODEL 9959 CARRYING CASE

Leather carrying case with handle, for portable Models 80, 81 and 82.

62F1091. Type PN250753. NET 9.85

D-C MILLIVOLT/MICROAMMETER & AMPLIFIER

Model 1477. Portable test instrument to measure potentials and currents in the low-level millivolt and micro-ampere ranges. D-C input ranges: 1/2/5/10/20/50/100/200/500/1000 milli-volts; 10/20/50/100/200/500/1000 microamperes. D-C output rear terminals: 1 MA DC for full scale input into a load up to 5000 ohms. 7 1/2" x 6 1/2" x 4 3/8". Shp. wt. 7 lbs.

62F1373. NET 513.25



HIGH SENSITIVITY PORTABLE D-C INSTRUMENTS



Model 622. Highly sensitive portable instrument especially adapted to a variety of laboratory requirements. With shielding, hinged cover and mirror scales. Permanent magnet moving coil type. Accuracy: 1/2 of 1%. Scale length: 1". Size 8 3/4" x 7 3/4" x 4"

D-C VOLTMETERS—MODEL 622

Stk. No.	Type	Range	NET
62F1374	622-4962001	300/150/75/30/15/7 1/2/3/1 1/2 V	370.00
62F1375	622-1962034	1000/500/200/100/50/20/10/5/2 V	386.00

D-C MILLIAMMETERS—MODEL 622

Stk. No.	Type	Range	NET
62F1378	622-4963002	100/10/1/0.1 Ma	378.00
62F1379	622-4963004	500/50/5/0.5 Ma	378.00

D-C MICROAMMETERS—MODEL 622

Stk. No.	Type	Range	NET
62F1380	622-5963002	1000/500/200/100/50 µa	414.00
62F1381	622-5963003	1000/500/200/100/20 µa	430.00

CURRENT TRANSFORMER

Model 461. For use with A-C instruments as multipliers. Four self-contained primary ranges are brought out to binding posts. A secondary short circuiting switch is provided. *Indicates primarily used for Ammeter applications. †Indicates primarily used for Wattmeter applications. 7.97" x 6.63" x 2.75". Black bakelite case. Case opening: 2.12"



Stock No.	Type	Range (Amps) Pri. to 5 Sec.	NET
62F1382	461-9901001	800/400/200/100/50/20/10	127.00
62F1383	461-9902001†	800/400/200/100/50/20/10	159.00
62F1384	461-9901002*	1000/500/250/100/50/25/10	127.00
62F1385	461-9902002†	1000/500/250/100/50/25/10	159.00
62F1386	461-9902003†	500/250/100/50/25/10/5/2 1/2/5/1 1/2	170.00

PORTABLE/PANEL MULTI-RANGE INSTRUMENTS



Models 911 & 912. Features CORMAG self-shielding mechanism, with spring back jewels. Large, easy to read 7.2" microback scale with maximum natural illumination. Employs long-life components, including precision metal film resistors. Accuracy: ± 1% of full scale on DC Voltmeters (± 2% of FS on 300 and 1000 volts DC); ± 2% of full scale value on rectifier type AC voltmeters (± 3% on 1000 volt range). Heavy duty, grey finished steel case. Front-clear plastic. 7 1/2 x 6 1/2 x 2 3/8".

Model 911 DC Voltmeter. Range: 1/3/10/30/100/300/1000 V @ 20,000 ohms/V.

62F1229. NET 69.50

Model 911 DC Ammeter. 1/3/10 amps, 10/30/100/300 milliams.

62F1230. NET 69.50

Model 911 DC Milliammeter. 1/3/1/3/10/30/100 milliams.

62F1231. NET 69.50

Model 912 AC Voltmeter. Range: 3/10/30/100/300/1000 V @ 5000 ohms/V.

62F1232. NET 78.50

Model 912 AC Rectifier Ammeter, Range 5/2/1/0.5/0.2/0.1/0.05 amps

62F1225. NET 78.50

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COMPETITIVE WITH THE MANUFACTURER.

Weston Portable Meters



DIRECT CURRENT PORTABLE

Model 931. Compact, light weight and accurate (within 0.5 of 1%). Hand calibrated mirror scale and knife-edge pointer. Self shielded permanent magnet moving coil type. Scale length, 4.04". Black bakelite case with handle. Size: 5½ x 5 x 3¼". Shpg. wt., 4 lbs.



DC VOLTMETERS—1000 ohms/volt

Stock No.	Range	Scale Div.	NET
62F1100	150/15/3	150	109.00
62F1431	750/300/150	150	109.00

5000 ohms/volt

62F1121	75/30/7.5	150	122.00
62F1132	300/150/3	150	122.00
62F1122	750/300/150	150	122.00

DC AMMETERS

62F1133	10/5/1	100	110.00
62F432	30/15/3	150	110.00
62F1145	50/25/10	100	110.00

DC MILLIAMMETERS

62F1134	15/1.5/0.15	150	119.00
62F1102	150/15/1.5	150	107.00
62F435	1500/150/15	150	107.00
62F1101	3000/300/30	150	107.00

LIGHT MEASURING INSTRUMENTS

Model 703. Type 7 Sight-meter. Handy pocket-size sightmeter for industrial and office use. Pocket size for convenience in using and carrying. Will function accurately in any position. Range is 0 to 100 foot candles (with Viscor and cosine correction filter). 1 lb.



62F467. NET **69.00**

Model 703-3A. As above, but 0-75 foot-candles and unfiltered.

62F1124. NET **52.00**

Model 9959. Handsome leather carrying case for the above. Sturdy and practical.

62F1125. NET **3.25**

Model 9924. Multiplier disk (x10). Extends range to 10 times normal full scale value. Not usable with cosine corrected instruments.

62F1137. NET **2.20**

LIGHT METER

Model 614 Foot-Candle Meter.

A highly competent precision instrument that is recommended for commercial lighting surveys and any measurements requiring a wide range of light values. Any type of commercial lighting can be measured directly with this compact Foot-Candle Meter. Ranges are selected through the operation of a conveniently located range-changing switch. The photo-electric (Photronic) cell is mounted on a hinge, so that it will pick up measurements from a wall or ceiling without unnecessary moving of the meter. Three ranges: 0 to 100 foot-candles, 0 to 250 foot-candles, and 0 to 500 foot-candles; each with a separate scale. With Viscor and cosine correction filters. Entirely self-contained in a sturdy bakelite case, equipped with a hinged cover and leather carrying strap. Size: 7¼x3¾x2½". Shpg. wt., 2 lbs.



62F474. NET **164.00**

PORTABLE METERS

Model 901. Features a curved, shadow reducing, wide angle window that is non-breakable and specially treated against electrostatic effects. Self-shielded permanent magnet moving coil type. Accurate within 0.25 of 1%. Has 5½" hand calibrated mirror scale and knife edge pointer. Size: 7½x3¼x3¾". Wt. 5 lbs.



DC VOLTMETER—5000 ohms/volt

Stock No.	Range	Scale Div.	NET
62F1136	750/300/150/75/30/15/3	150	197.00

DC AMMETER

62F1344	50mv/20/5/2	100	179.00
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DC MILLIAMMETERS

62F1146	1000/500/200/100/50/20/10	100	186.00
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Model 904. Same as Model 901, except 0.5 of 1% accuracy. Radial vane. Moving iron type.

AC VOLTMETERS. Std. Freq. 50-450 cps.

Stock No.	Range	Scale Div.	NET
62F1143	750/300/150/75/30/15/7.5/3	150	267.00

AC AMMETERS. Std. Freq. 25-1000 cps.

62F1149	150/20/10/5/2/1	100	233.00
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POCKET CLAMP AC VOLT-AMMETER

Model 749. Measures AC current and voltage without breaking circuit. Accommodates conductors up to 1" round or 1¾x¾" rectangular. Features: core magnet shock mounted mechanism with spring back jewels, large smooth action trigger, shatter-proof wraparound plastic window; bright red pointer for easy reading; positive action range selector switch. AC Voltage ranges 0-150, 300, and 600; Current ranges, 0-6, 15, 30, 60, 150 and 300 amperes. Fully insulated for 750 V service. Bakelite case. With carrying case, voltage test leads with insulated battery clips. Shpg. wt., 2½ lbs.



62F481. NET **51.50**

62F482. Type 9886. Plug in adapter for above. **6.00**

AC CLAMP VOLT-AMP & AMP METERS



Model 633. Ideal maintenance tool for on-the-job testing. Measures AC current through any given conductor (up to 2" diameter) without breaking the circuit. Accuracy within 3%. Insulated for 750-volt service. 13¾x4¼x2½". Shipping weight, 4½ lbs.

62F1111. Type A-1. 500-250-100-50-25-10 amps. NET **133.50**

62F1112. Type A-2. 1000-500-250-100-25-10 amps. NET **133.50**

62F1113. Type A-3. 2000-1000-500-250-100-50 amps. NET **133.50**

Type VA-1. 1000-250-100-25-10 amps. 700-250-175 volts. NET **141.50**

62F1118. NET **141.50**

LEATHER CARRYING CASE for any above units.

62F1119. NET **13.50**

Model 433. Self-shielded permanent magnet moving iron type. Accurate within 0.75 of 1%. 5½" mirror scale and knife edge pointer. 7½ x 3¼ x 3¾". Shpg. wt. 5 lbs.



AC AMMETERS. Std. Freq. 25-500 cps.

Stk. No.	Range	Scale Div.	NET
62F1345	50/20/5	100	151.00
62F436	5	100	98.00
62F437	10/5	100	110.00
62F438	10/5/1	100	151.00
62F1131	30/7.5/3	150	151.00
62F1099	3/1.5/0.75	150	151.00
62F1098	20/5/2	100	151.00

AC VOLTMETERS. Std. Freq. 25-125 cps.

62F439	150	150	102.00
62F1105	150/75	150	103.00
62F441	300/150	150	103.00
62F442	600/300/150	150	121.00
62F1097	10/5	150	103.00
62F1096	750/300/150	100	121.00

AC MILLIAMMETERS. Std. Freq. 25-500 cps.

62F1106	300/150	150	108.00
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AC MILLIAMMETER'S. Std. Freq. 25-1000 cps.

62F1095	100/50	100	114.00
62F1094	500/250	100	114.00

MODEL 432 WATTMETER

Alternating current at freq. from 25 to 125 cy. Current ranges self contained up to 300V 50 amp. Size: 3¼x5x5¼". Shipping wt., 3¼ lbs.



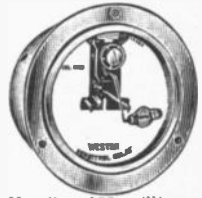
Stock No.	Scale Div.	NET
62F1346	75	208.00
62F1347	75	208.00
62F1348	75	208.00
62F1349	75	225.00

RANGES

Normal Volts	Max. Volts	Normal Amps	Max. Amps
150/75	200/100	1	1.5
300/150	400/200	50	75
300/150	400/200	10/5	15/7.5
300/150	400/200	5/2.5	7.5/3.75

MODEL 1092 SENSITROL RELAY

Operates on a few microamps or low millivolt input. Can be set close to any DC value from 0-50 microamps at drop of 0-100 millivolts. Can be connected to make on either increasing or decreasing current-zero right to left. Handles 100 milliamps at 120 VAC or DC w/o chatter. Single screw driver slot adjustment requires no auxiliary hold-in coil, no stand by power. Once set, will repeat within narrow limits (±0.2 microamps attainable). 3½" rd. flush case—1½" D. Wt., 3 ozs.



62F1093. NET **30.40**

Model 980 Mark II Analyzer. 20,000 ohm/dcv volt-ohm-amp meter. Accuracy 2% dc, 3% ac. Ranges: ACV 1.6, 8, 40, 160, 400, 800, 4000 at 20,000 ohm/v. DCV 1.6, 8, 40, 160, 400, 800, 4000 at 20,000 ohm/v. DC ma 1.6, 8, 80, 800. DB —15 to 54 (in six ranges). DC Amps 8, DC Mics: 80. Ohms: 5 decade ranges 1K to 10 meg full scale. 25 ohms to 250K center scale. Black impact resistant plastic case. Sizes: 7¼x6¼x3". Shpg. wt., 3 lbs.



62F476. NET **53.50**

Combination cover and stand, stores all test leads

62F1142. NET **5.50**

Simpson Test Equipment

255 MULTI-PURPOSE TESTER

- Diode protected taut-band movement
- Ideal for heating and utility services-men



Well suited to the needs of servicemen in many fields, such as gas appliances, electrical utilities, heating equipment. This tester includes the VOM functions of the popular model 260, as well as providing a temperature measurement range of +100 to +1050° F. Has low millivolt drop on the DC ranges; ideal for checking transistorized equipment. DC ranges: 0-50, 0-250 millivolts; 0-2.5, 0-10, 0-50, 0-250, 0-1000 volts; 0-50 microamperes (with both 50 and 250 mv drop); 0-1, 0-10, 0-100, 0-500 MA with 50 mv drop. AC ranges: voltage: 0-2.5, 0-10, 0-50, 0-250,

0-1000; amps: adapter available to read to 500 amps. Resistance ranges: 0-2K, 0-200K, 0-20 megohms. Complete with test leads, 5 ft. thermocouple lead and operator's manual. Size: 5 1/4 x 7 x 3 1/4"; wt. 3 1/2 lbs. **62F1693. NET 90.00**

250 LOW MILLIVOLT DROP VOM

- FITS 260 LINE ADAPTERS AND ACCESSORIES
- 20,000 OHMS PER VOLT DC



Perfect VOM for transistor circuitry. Model 250 contains all of the built-in features of Simpson's well-known model 260, and includes low millivolt drop on current ranges. Has provision for using the entire line of "add-a-tester" adapters, high voltage probes, and other 260 series accessories. Ranges: DC volts: 0-50, 0-2050 mv; 0-2.5, 10, 250, 500, 1000 volts at 20K-ohms/v.; AC volts 0-2.5, 10-50, 250, 500, 1000 volts at 5,000 ohms/v. DC microamperes: 0-50 (with both 50 and 250 mv drop); DC ma: 0-1, 10, 100, 500 (50 mv drop); DC amps: 0-10 (50 mv drop). AC volts: 0-2.5, 10, 50, 250,

500, 1000; DB (1 mw into 600 ohms ref. level): -20 to +10; -8 +50. Resistance: 0-2K, 200K, 20 meg-to +22; +6 to +36; +20 to ohms. Self-shielding, diode-protected, taut-band movement. Complete with test leads and operator's manual. Size: 5 1/4 x 7 x 3 1/4". Wt. 3 1/2 lbs. **62F1692. NET 60.00**

263 DUAL SENSITIVITY VOM

Dual sensitivity Volt-Ohm-Milliammeter with accuracies of $\pm 1\frac{1}{2}\%$ DC and $\pm 3\%$ AC F.S. Overlapping ranges offers greater accuracy expressed as a percentage of reading. Diode overload protection (Prevents movement burning out even on 200,000% overload). External battery replacement makes battery replacement easier. Uses 1 1/2 volt alkaline battery, insures greater stability on low ohms scale. Input protected with an internal 1 amp fuse. DC Volt Accuracy: 0-0.15 to 1500 $\pm 1\frac{1}{2}\%$; 0-3000 to 6000 $\pm 2\frac{1}{2}\%$. AC Volt Accuracy: 0-2.5 to 1500 $\pm 3\%$. Comes complete with test leads No. 0115 and operator's manual. Dimensions: 6" x 7 1/4" x 3". Shpg. wt., 4 lbs.



62F1193. NET 85.00

466 5" PORTABLE OSCILLOSCOPE



A small, handy scope designed to take on practically any radio-TV service job. Vertical amplifier: ± 1 db 15c to 100kc; 6 db down at 250 kc, usable to 1 mc. Maximum vertical deflec. sensitivity: 30 mv/inch. Sweep range: 15c to 80 kc. Maximum input voltage: 400 v. peak. Calibrating voltage (at 117.5 VAC source voltage) 1 v. peak-to-peak, $\pm 10\%$. Horizontal amplifier has flat response within ± 1 db, 15c to 20 kc; down 6 db at 100 kc. Maximum horizontal deflection sensitivity is 0.7 volt/inch. Sensitivity with Z-axis (intensity) modulation: 20 volts rms extinguishes beam. Input resistance (with attenuator set at x1) 0.1 megohm (with attenuator at x100) 0.5 megohm input capacitance, 40 mmf. Operates from 117 VAC 50/60 cycle, 50 watts. Supplied complete with input cable No. 0100 and operator's instruction manual. Unit weighs 19 lbs.; shpg. wt. 40 lbs. Size: 7 7/8 x 12" x 16 1/2"

62F347. NET 170.00

604 "MULTICOLOR" RECORDING MULTIMETER



Accurately measures and permanently records a wide range of voltage and current values. The ideal instrument for university and industrial research labs, and other situations where permanent records of varied measurements are needed. Inkless recording using fast sequential impressions on pressure-sensitive paper—no pen-and-ink maintenance problems. Three chart speeds: 1" / 3" / 12" per hr.; impressions made every 2 sec. High torque, shock-proof taut-band meter movement. Ranges: DC volts: 0-1, .5, 2.5, 10, 25, 100, 250, 500, at 20,000 ohms/v. AC volts: 0-10, 25, 100, 250, 500 at 5000 ohms/v. DC microamperes: 0-50, 250; DC ma: 0-1, 5, 25; DC

amps: 0-1, .25, 1.0. AC current: 0-2 ma. Chart drive: self-starting synchronous motor, operates from 115 VAC 60 cps. Chart paper width, 2.3". Unique marking system indicates range in use, avoids confusion. Accuracy of recording: $\pm 2.5\%$ F.S. AC response flat from 15-10,000 cps. Temp. deviation: 1% of reading per 10°C., max. Size: 9 1/4 x 4 3/4 x 4". Complete with No. 7500 test leads and two rolls of chart paper. Wt. 5 1/2 lbs. **62F1689. NET 200.00**

Type 02612. Additional Chart Paper.

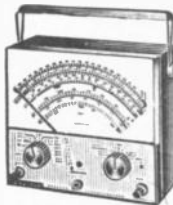
62F1690. Per roll. NET 2.50

Box of 10, NET 19.50

Type 0683. Special Gear Unit, 30/60/90 in./hr.

62F1691. NET 30.00

312 EXTRA HIGH IMPEDANCE WIDE SCALE VTVM

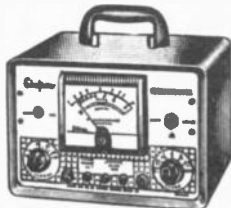


The input resistance of this instrument is 16 megohms, not 11 megs as in most other VT-VM's. 40% higher input impedance means 40% less circuit loading and correspondingly greater accuracy in readings. Extra-large, easy to read seven-inch scale eliminates squinting. Voltage ranges: DC 0-500 mv, 0-1.5, 5, 15, 50, 150, 500, 1500 volts at 16 megohms input resistance; AC RMS: 0-1.5, 5, 15, 50, 150, 500, 500, 1500 volts at 1 meg minimum input impedance; peak-to-peak: 0-4, 14, 40, 400, 1400, 4000 volts. Resistance ranges: R x 1, 10 ohms center scale.

Accuracies are $\pm 3\%$ of full-scale value on all voltage ranges, $\pm 3\%$ of arc on resistance. Frequency response is flat $\pm 3\%$ from 51 cps to 3 megacycles on AC voltage ranges through 150 volts with special RF probe, range can be extended to 250 mc. Operates from 105/125 VAC, 50/60 cycles. Modern smartly designed case measures 7 3/4 x 6 3/4 x 3 3/4". Comes complete with No. 0150 AC/ohms/DC probe and operator's manual. Wt. 4 3/4 lbs.

62F1688. NET 85.00

383A "CAPACOHMETER" CAPACITOR CHECKER



In-circuit capacitor leakage tester utilizes a pulse technique to detect many "marginal" capacitors. Measures the leakage resistance of defective paper, mica or ceramic capacitors; indicates directly the capacitance of good ones over a range of 10.0 mmf to 10.0 mf. All measurements are made under load conditions. Avoid tedious adjustment of bridge circuitry and balancing controls. Borderline capacitors which cause costly "callbacks" are detected immediately with the pulse test.

Operates from 105/125 VAC, 50-60 cycle. Comes complete with test leads. Shpg. wt. 12 lbs. **62F345. NET 99.95**

458 7" COLORSCOPE



Specially designed for color TV troubleshooting. Frequency response is flat within ± 1 db to 4.5 mc under wide-band operation; color burst frequencies are faithfully displayed with greater than 40 mv (rms)/inch vertical sensitivity. On narrow band operation, response is flat within \pm db. 10 to 300,000 cps; sensitivity greater than 15 mv/inch. Has horizontal sweep to 250 kc and 1-volt peak-to-peak calibrating voltage. With vernier and compensated

decimal step attenuator; provision is made for 2-axis modulation. 105/125 VAC, 50-60 cycle. Size: 11 x 16 1/2" x 14 1/2"; unit wt. 29 lbs., shpg. wt. 38 lbs. Complete with operator's manual. **62F339. NET 375.00**

260 VOM SERIES 5

- New Ruggedness From Spring Back Jewels • Greater Repeatability
- Increased Linearity and Stability • Higher Accuracy $\pm 2\%$ DC $\pm 3\%$ AC
- Input Protected With an Internal 1 Amp Fuse

Simpson 260. Volt-Ohm-Milliammeter. Handier, more sensitive, more accurate. Polarity Reversing Switch for faster, easier DC measurements. Full-Wave Bridge Rectifier System gives more accurate VAC measurements. Easy access to all components. Ranges—VDC (20,000 ohms-per-volt): 0-250 MV, 0-2.5 V, 0-10V, 0-50V, 0-250V, 0-1000V, 0-5000V. VAC (5000 ohms-per-volt): 0-2.5V, 0-10V, 0-50V, 0-250V, 0-1000V, 0-5000V; VAF (0.1 uf internal series capacitor): 0-2.5V, 0-10V, 0-50V, 0-250V; DB Vol. (0 DB to 1 MW across 600-ohm line): -20 to +10DB, -8 to +22DB, +6 to +36DB, +20 to +50DB; DC Resistance: 0-2000 ohms (12 ohms center), 0-200,000 ohms (1200 ohms center), 0-20 megohms (120,000 ohms center); Direct Current: 0-50 μ A, 0-1 MA, 0-10 MA, 0-100 MA, 0-500 MA, 0-10 amp. Size: 5"x7x3 1/8". 3 1/2 lbs. with Leads.

55.00

62F300. NET
62F305. 260 Series 5M. As above but mirror scale. NET.....**57.00**
62F309. 261 VOM. High Accuracy model AC/DC volt-ohm-milliammeter. NET **65.00**



260



260RT

ROLL-TOP SIMPSON 260 RT

Lightweight, carry-anywhere unit, same as Model 260 above, but has bakelite roll-top cover and convenient test-lead compartment.

Shipping weight, 9 lbs.

62F303. NET.....

61.00

See Simpson accessory listing for cases and test leads for above units

260-5P GOOF-PROOF VOM SERIES

The World Famous 260, long the standard in the V.O.M. Field, now is available in a foolproof overload protected model. The 260-5P incorporates a unique S.C.R. circuit which senses overload conditions and trips a protective relay. The entire tester is protected — even when 110 volts is applied to the 1 milliamp or 50 milliamp range, no damage is caused. No chance of "fooling" this protection, either as with some other "burnout proof" V.O.M.'s. It can't be reset — even momentarily — until the overload has been removed. A "must" for labs, schools, shops or wherever mortality rate of V.O.M.'s is apt to be high. Complete with test leads and operator's manual. Size: 5 1/4"x7x3 1/8". Wt. 9 1/2 lbs.



85.00

62F1191. NET.....

NEW V-O-M DEMONSTRATOR

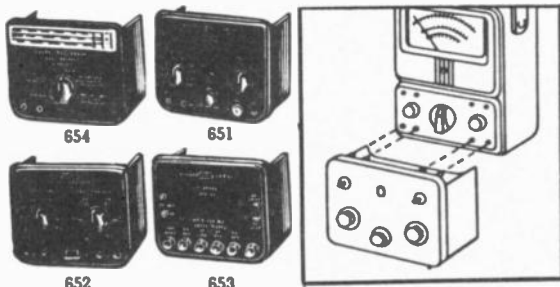
The "260" demonstrator reduces the amount of time needed to develop skill in using the Simpson "260" V-O-M. It makes everything easier to see and understand. The V-O-M teaching aid stands 34" high, and is big enough for students to read easily several yards away. The "ZERO ADJUST" is mechanically coupled to the pointer, and permits setting the pointer to any desired position on the scale. It is quicker and easier to test the individual reading skill of the entire class. There is no need for double checking each student. It is easy to build realism and proper operating techniques by setting the range and function selector knobs to conform with the problem under discussion. The "260" is lt. wt. and portable, dim. 34"x22"x2".



24.50

62F1724. NET.....

OUTSTANDING VOM ADAPTERS FOR SIMPSON 260 AND 270 VOM SERIES



- Integral-unit design . . . simply plug together!
- Self-powered, self-contained!
- Versatility for all types of instrument testing
- New advancement in convenience and portability

A new concept in test equipment design! Just plug in these new 260 and 270 adapters and you have an integral unit designed to provide versatility for all types of instrument testing. Each adapter makes use of the 260's and 270's top-notch meter and circuitry. The Add-A-Tester line provides convenience and portability never before seen in the test equipment field.

MILLIOHMETER SIMPSON 657

Plugs into any 260 to measure resistance values as low as .001 in 3 ranges—.1; .5; 1.0. Independent of contact resistances. Will not overheat small resistors.

62F393. NET..... **45.00**

TRANSISTOR TESTER

Simpson 650. Provides complete test for all transistors. Beta ranges include 0-10, 0-50, and 0-250 (F.S.). Beta accuracy is $\pm 3\%$, with 260 $\pm 5\%$ nominal. Ico range: 0-100 microamperes Ico accuracy: $\pm 1\%$, with 260 $\pm 3\%$ (F.S.). Size 3 5/8"x5 1/16"x2 7/8" Shipping weight: 1 lb.

62F382. NET..... **35.00**

DC VACUUM TUBE VOLTMETER

Simpson 651. Voltage ranges: 0-5/1.0/2.5/5.0/10/25/50/100/250/500. Accuracy: $\pm 1\%$, with 260 $\pm 3\%$ (F.S.) Input impedance: greater than 10 megohms on all ranges. Size: 3 5/8"x5 1/16"x2 7/8". Shipping weight: 1 lb.

62F383. NET..... **40.00**

TEMPERATURE TESTER

Simpson 652. Temperature ranges: -50°F to +100°F, and +100°F to +250°F. Accuracy: with 260 $\pm 2\%$ (nominal). Three lead positions provided. Thermistor sensing element. Size: 3 5/8"x5 1/16"x2 7/8". Shipping weight: 1 lb.

62F384. NET..... **40.00**

AC AMMETER

Simpson 653. Ranges: 0-0.25/1/2.5/12.5/25 amperes. Accuracy: $\pm 1\%$, with 260 $\pm 5\%$ nominal. Frequency range: 50 cycles to 300 cycles. Case size: 3 5/8"x5 1/16"x2 7/8". Shpg. wt., 1 lb.

62F385. NET..... **23.00**

AUDIO WATTMETER

Simpson 654. Load ranges: 4, 8, 16, 600 ohms. Wattage: Continuous 25 watts (8,600 ohms), 50 watts (4, 16 ohms); intermittent: 50 watts (8,600 ohms), 100 watts (4, 16 ohms). Accuracy: $\pm 5\%$, with 260 $\pm 10\%$ nominal. Direct reading scale from 17 microwatts to 100 watts. Size: 3 5/8"x5 1/16"x2 7/8". Shipping weight: 1 lb.

62F386. NET..... **25.00**

DC AMMETER

Simpson 661. Multi-range, excellent accuracy of reading. Applications: automotive accessories (servicing), automotive electrical system, DC supplies, industrial.

62F1194. Model 661. NET..... **25.00**

Simpson Test Equipment

NEW SIMPSON 160 VOM



SIMPSON 160. Compact version of World Famous 260. The Simpson 160 Volt-Ohm-Milliammeter is a rugged, accurate, compact operating instrument used for measuring electrical characteristics of circuit and circuit components. It indicates measurements for DC and AC voltages, direct currents, resistances and decibels. The Simpson 160 VOM features a small tester with a taut band suspension type movement with diode overload protection. The tester features one knob range selection, polarity reversing switch, banana type jacks and easily replaceable batteries. Most of the component parts are mounted on a printed

circuit board. This simplifies assembly, reduces maintenance and extends the useful life of the instrument. The Simpson 160 VOM is furnished with one pair of three foot test leads. DC Voltage (Sensitivity: 20,000 ohms per volt), AC Voltages (Sensitivity: 5000 ohms per volt), Accuracy: DC Voltage and Current $\pm 3\%$ of full scale, AC Voltage $\pm 4\%$ of full scale. Frequency Response: The 2.5 and 10 volt ranges are within ± 1 dB from 30 cps. to 1 megacycle, the 50 volt range to 150,000 cps. and the 250 volt range to 50,000 cps. Dimensions: $4\frac{1}{2} \times 3\frac{1}{2} \times 1\frac{3}{4}$ ". Shpg. wt., 12 oz. 62F1723. NET **47.95**

269-2 VOLT-OHM-MICROAMMETER



Improved 100,000 Ω/V incorporates self-shielded meter movements with spring backed jewels. Damage to meter pivots eliminated. Two new ranges, 400 V. AC and 800 V. DC. Ampere range coverage changed from 16 to 8, and Ohm Center Scale changed to 12 ohm. Accuracies: $\pm 2\%$ DC and $\pm 3\%$ AC of full scale. External battery compartment. With test leads No. 0115, operators manual, 4000V DC probe extension. Protected with internal 1.5

amp. fuse. 62F330. Type 269-2. NET **90.00**



385-3L TEMPERATURE METER

- Temperature Checks From -50°F to $+70^{\circ}\text{F}$
- Light Weight, Portable

Simpson 385-3L is ideal for those fast, accurate temperature checks from -50°F to $+70^{\circ}\text{F}$. Light weight, portable, fits easily in your hand. Three lead model. Takes temperature readings in three different locations with a simple flick of the selector knob. Standard Model has Fahrenheit scale. Supplied with one No. 0010, 15 ft. thermistor lead and operator's manual. Size: $3" \times 5\frac{1}{2}" \times 2\frac{1}{2}"$. Wt., $1\frac{1}{2}$ lbs. 62F1195. Type 385-3L. NET **36.00**

VOLT-OHM-MILLIAMMETERS WITH 7" METERS

Simpson 267 & 268. Ideal for TV and Radio service and anywhere where accurate repetitive readings are required. Feature high sensitivity (5000 ohms per volt for AC and 20,000 ohms per volt for DC ranges) and improved readability. 7" meter with spread out Black and Red scales for easier and faster reading. One major switch selects range position and function at the same time to provide efficient operation. Improved frequency response in AC measurements: ± 2 db at 5-5000 cps. Full wave bridge rectifier for high AC measurements accuracy. Accuracy: DC Volts, Milliamperes, Amperes, $\pm 3\%$ of full scale, DC Microamperes: $\pm 2\%$ of full scale, AC Volts: $\pm 5\%$ of full scale, Ohms: $\pm 3\%$ of linear arc. Both types supplied with No. 7500 leads & operator's manual.

268 VOM

Ranges: AC/DC Volts: 0-3, 12, 60, 300, 600, 1200; DC Microamperes: 0-50; DC Milliamperes: 0-1.2, 12, 120; DC Amperes: 0-12; DB Scale: $-12, +11$; 1 mw. 600 ohms. Output Ranges: to 300 VAC; Ohms: 0-2000 (12 ohms, center), 0-20,000 (1200 ohms, center), 0-20 Megohm (120K ohms, center). Dimensions: $6 \times 7\frac{1}{2} \times 3\frac{1}{4}"$. Shpg. wt., 4 lbs. 62F394. With leads and oper. man. NET. **60.00**

267 VOM

Ranges: AC/DC Volts: 0-2.5, 10, 50, 250, 500, 1000; DC Microamperes: 0-50; DC Milliamperes: 0-1, 10, 100, 500; DC Amperes: 0-10; DB Scale: $-20, +10$; 1 mw. 600 ohms. Output Ranges: to 250 VAC. Ohms: 0-2000 (12 ohms, center), 0-20,000 (1200 ohms, center), 0-20 Megohm (120K ohms, center). Dimensions: $6 \times 7\frac{1}{2} \times 3\frac{1}{4}"$. Wt., 4 lbs. 62F395. With leads and oper. man. NET **60.00**

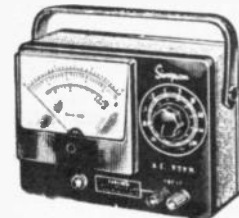


- Large easy-to-read 7" scale
- Accuracy: $\pm 3\%$ DC scale $\pm 5\%$ AC scale

715 HIGH SENSITIVITY AC VTVM

Sensitivity: 10 millivolts full scale on lowest range. Input impedance: Minimum of one megohm at 1 KC. Frequency response: flat within one decibel between 10 cps and 400 KC. One percent tolerance precision resistors used throughout as internal multipliers. Meter scale provides DB markings on both the voltage range positions. AC rms volts 0-0.1, 0.03, 0.1, 0.3, 1.0, 3.0, 10, 30, 100

and 300. Decibels: total range, -52 to $+52$ DBM (at Zero DBM, reading is one millivolt across 600 ohms). Scale reads -12 DB to $+2$ DB. Accuracy on all ranges: $\pm 5\%$ of full scale. Unit requires 110-125 VAC, 50-60 cycles. $7\frac{1}{2}" \times 5\frac{1}{2}" \times 3"$ D. Gray hammertone finish. Complete with operator's manual, and shielded input cable. Shpg. Wt. 3 lbs. 62F1182. NET **70.00**



311 VACUUM TUBE VOLT-OHMMETER

Multirange all purpose VTVM cuts circuit loading effects to minimum. Accessors RF probe can handle AC voltage to 150 V RMS or 400 V peak-to-peak. High voltage breakdown exceeds 2000 volts. ACCURACY. VDC $\pm 3\%$ of full scale; VAC $\pm 5\%$ of full scale; DC Resistance $\pm 3\%$ of linear arc. RANGES: VDC and VAC 0-1.5, 5, 15, 50, 150, 500, 1500 volt. AF Voltage: 0-1.5, 5, 15, 50, 150, 500, 1500; RF Voltage (with probe): 0-1.5, 5, 15, 50, 150 (50 cps to 100 MC.) Peak-to-Peak voltage: 0-4, 14, 40, 140, 400

plete with No. 7594 AC/DC/Ohms probe, No. 0733 ground lead and operator's manual. Size: (HWD) $7\frac{1}{2} \times 5\frac{1}{2} \times 4\frac{1}{2}"$. Shpg. wt. 6 lbs. 62F375. NET **75.00**

303 AC-DC VACUUM TUBE VOLT-OHMMETER

High accuracy, features low current consumption and wide voltage and resistance ranges. Can be used as a DC voltmeter, an ohmmeter, an AC voltmeter, an AF voltmeter, an RF voltmeter (with RF probe) and an output meter. Has zero-center scale for FM discrimination alignment. Input resistances: DC, 10 meg-ohms (DC probe has 1-meg isolating resistor) AC and DC volts: 0-1.2-12-60-300-1200. Frequency response AF volts: 0-1.2-12-60, flat to 100 KC. Resistance, ohms: 0-1000-100,000 and 0 1 10-1000 meg ohms. Db: -20 to

$+63$ in 5 ranges. Large $4\frac{1}{2}"$ meter. Polarity reversing switch. Includes DC probe, No. 0067 and AC-Ohms probe. No. 0068, ground lead, No. 0069 and operator's manual. In bakelite case. Size, $7 \times 5\frac{1}{4} \times 3\frac{3}{8}"$. For operation from 105-125 volts, 60 cycles. Shpg. wt., $6\frac{1}{2}$ lbs. 62F304. NET **80.00**

303 RT ROLL TOP VOM

Same as above, but in safety roll top bakelite case. 62F327. NET **90.00**



- Small compact size
- Large easy-to-read scale
- Accuracy: $\pm 3\%$ DC scale $\pm 5\%$ AC scale

270-3 30-RANGE 20,000 OHMS/VOLT VOM

30-range multi-scale instrument. Includes all of the excellent features of the world-famous 260, plus a mirrored scale; knife-edge pointer; and printed circuit. It offers dependability and repeatability, ruggedness, and the higher accuracy necessary for many production and laboratory applications. The instrument has an easy-to-read 4½" meter at top of front panel. 3 operating controls and 8 circuit jacks are located directly below the meter. 7 DC voltage ranges (at 20,000 ohms per volt) are: 0-250 MV, 2.5V, 10V, 50V, 250V, 1000V, and 5000V. 6 AC ranges (at 5,000 ohms per volt) include: 0-2.5V, 0-10V, 0-50V; 0-250V, 0-1000V, and 0-5000V. 4 AF output voltages with 0.1μf internal series capacitor are 0-2.5V, 0-10V, 0-50V, 0-250V. Three resistance ranges: 0-2000 ohms center, 0-200,000 ohms (1200 ohms center), and 0-20 megohms (120,000 ohms center). 4 volume levels include —20 to +10 db., —8 to +22 db., +8 to +36 db., and +20 to +50 db. Variable resistance to ohmmeter circuit is used to compensate for aging of internal batteries. Heavy bakelite case is black with reinforced walls for maximum durability. Entire instrument slips in and out of case in one piece. Size: 5¼x7x3⅞". Shpg. wt., 4.2 lbs.



62F380. NET 68.00

270-3RT ROLL TOP VOM

Same as Model 270 above, but has safety bakelite roll top case.

62F381. NET 74.00

MICRO-TESTERS

370 AC AMMETER

Built-in current transformer. Measures current drain of appliances, motors, heating elements, radios, etc. Ranges: 0-1-2.5-5-10-25 amperes. Bakelite case, 3x5⅞x2½". 60 cycle operation. Less leads. Wt. 3 lbs.

62F319. NET 26.00

372 WIDE-RANGE OHMMETER

0.2 ohm—50 megohms. Ohms adjuster compensates for battery variation. 85 micro-amp. sensitivity. Range: 0-500-5000-50,000-500,000 ohms & 0-5-50 megohms. 3x5⅞x2½". Batteries & leads. 3 lbs.

62F318. NET 33.00

373 PORTABLE DC MILLIAMMETER

General purpose tester. Valuable in many applications such as plate and screen grid measurements on vacuum tubes. Accuracy ±3% of full scale. Provides DC current measurements from 1 to 1,000 MA Ranges: 0-1, 5, 10, 25, 50, 100, 250, 1000 milliamperes, 3x5⅞x2½". Shpg. wt. 3 lbs.

62F323. NET 25.00

390 AC VOLT-AMP-WATTMETER

For measuring AC/DC volts, AC amps, and AC watts with one meter. Built for continuous full-load operation. Tests power consumption on all types of appliances. Ranges: 0-150-300 ACV; 0-3-15 amps; 0-300-600-1500-3000 W. 60 cyc. operation, 3" meter. 3x5⅞x2½". With plugs and leads. Wt., 4 lbs.

62F317. NET 55.00

388-3L THERM-O-METER

The Therm-o-meter measures the temperature of air, gases, liquids, or solids by means of thermocouple type leads from —50°F to +100°F. Both Fahrenheit & Centigrade readings can be made in 15 to 30 sec. and up to a distance of 7½". A selector switch on the 388-3L connects any one of the three leads into the meter circuit. The lead wires are small enough to pass through a closed door and gasketing. The meter movement is self-shielding. A compensator circuit automatically corrects room temperature effects from 60 to 100° F. With one general purpose lead, battery, and operator's manual. 7½x6x2⅞". Shipping weight, 4 lbs.

62F350. NET 70.00



MICRO-TESTERS



Model 240-3



Model 362



Model 387

240 COMPACT AC-DC VOM

Designed for radio testing. Sensitivity 1000 ohms-per-volt on AC and DC Ranges: DCV, 0-15-150-300-750-3000; ACV, 0-15-150-750-3000; mA, 0-15-150-750; ohms 0-3000 (center scale 30), 0-300,000 (center scale 3,000). Accuracies: DC volts +3% F.S.; AC volts ±5% F.S.; DC Resistance ±3% of arc from absolute value of resistance measured. Complete with testleads and operator's manual. Black bakelite case. 3x5⅞x2½". Shpg. wt., 3 lbs.

62F313. NET 35.00

362 LOW-OHM METER

Two ranges. Very accurate readings from 0.1 to 25 ohms. Ideal to check motor armatures and fields; switch and relay contact resistances; shorts between generator windings and grounds; shorts in TV and radio chassis wiring; industrial electrical equipment. Accuracy ±3% full scale. Complete with test leads. Shpg. wt., 3 lbs.

62F368. NET 28.00

378 AC MILLIAMMETER

(Self-contained current transformer.) Five separate ranges make it suitable for a wide variety of testing; 0-5, 25, 100, 250, 1000 ma. 3x5⅞x2½". Shpg. wt., 3 lbs.

62F365. NET 30.00

379 BATTERY TESTER

Loading resistors of 1% accuracy to properly load all batteries including Transistor-Radio and Hearing Aid batteries. With leads. 3x5⅞x2½". Shpg. wt. 3 lbs.

62F366. NET 30.00

387 DC MILLIVOLTMETER

Checks safety thermocouples on gas-fired units—Furnaces—Boilers—Heaters—Hot Water Heaters—Dyers—Refrigerators. Gas unit servicing faster, accurate, simply place the probe across the thermocouple terminals and test for the correct value. Ranges are 10, 30, 100, 300 and 1000 millivolts. Accuracy 3% fullscale from 50° to 120° F. 3x5⅞x2½". With leads and operator's manual. Shpg. wt., 3 lbs.

62F367. NET 30.00

371 AC VOLTMETER

Designed primarily for testing voltages applied to motors, heating equipment and many other industrial applications. Accuracy: ±3% of full scale. 0-150, 0-300, 0-600 volts. Size: 3x5⅞x2½". Shpg. wt. 3 lbs.

62F360. NET 26.00

374 DC MICROAMMETER

Basic movement sensitivity 50 microamperes with self contained shunts for all other ranges. Can be used with external resistors or multipliers as a high sensitivity voltmeter at 20,000 ohms per volt. Can be shorted out of circuit by use of "short" selector knob. 0-50, 100, 250, 500, 1000 μa. 3x5⅞x2½". Shpg. wt., 3 lbs.

62F361. NET 30.00

375 DC AMMETER

Provides a complete range from a fraction of an amp to 2.5 amps without the necessity of using auxiliary external shunts. 0-1, 2.5, 5, 10, 25 amps. 3x5⅞x2½". Wt.: 3 lbs.

62F362. NET 25.00

DUAL RANGE THERM-O-METER

Model 389-3L may be used to measure temperatures of gases, liquids, or solids in many fields; frozen food packaging, ice manufacturing, freezer storage, refrigeration, photo processing, air conditioning, and numerous others. Using the three leads, readings may be made in three different locations at once. There are two ranges. A low from —50°F. and a high from 100°F to 250°F. Accuracy is within 3°F in any position, near center of scale within 2°F or better. Compensation for room temperature effects. Large easy to read 7" meter. Self shielded core magnet, minimizes heavy electrical interference. Includes sensing probes with thermistors, tip and 15' lead, and batteries. Black bakelite case. 7½x6x2⅞". Wt., 6 lbs.

62F391. NET 65.00



Simpson Test Equipment and Accessories

ACCESSORIES FOR SIMPSON TEST EQUIPMENT



4299
Microtester
Ever-Redy
Carrying Case



Model 0805
Ever-Redy
Carrying Case



Model 5262
Ever-Redy
Carrying Case



7500
Banana Plugs &
Alligator Clips
for 260-3



0190
General Purpose
Thermocouple
Leads

CARRYING CASES

Model 1818. Leather carrying case for models 250, 260, 261, and 270.	
62F301. NET	9.00
Model 0805. Ever-Redy carrying case for Models 250, 260, 261, 270, and 303. Leather.	
62F302. NET	10.00
Model 5262. Ever-Redy carrying case for Models 262, 267, 268, 269, 388-3L, 389-3L. Vinyl.	
62F329. NET	10.00
Model 6355. Ever-Redy carrying case for Model 355. Leather.	
62F354. NET	3.95
Model 4299. Ever-Redy carrying case for all Microtesters. Leather.	
62F326. NET	9.00
Model 8073. For 385-3L Ever-Redy. Leather.	
62F1733. NET	8.75
Model 3413. For 391, 392 Wattmeter. Leatherette Covered.	
62F1734. NET	8.00
Model 3011. For all Microtesters. Leatherette Covered.	
62F1735. NET	6.00
Model 6192. Roll Top Safety Case for 260-2 Model 9's, 10's, 880's, 62F1736. NET	10.00
Model 0249. Roll Top Safety Case for 260-4, 261, 263, 270.	
62F1737. NET	10.00
Model 6379. Roll Top Safety Case for 303 VTVM.	
62F1738. NET	10.00
Model 0549. New Utility Vinyl Case.	
62F1697. NET	16.00
Model 0574. Probe Case.	
62F1696. NET	4.00

TEMPERATURE TEST LEADS AND PROBES

Model 0789. Free Air Temp. Probe. For Model 385-3L, 389-3L. 652-3L, 260 Adapter.	
62F308. NET	7.45
Model 0416. 100 Ft. Thermistor Lead. For Models 385-3L, 389-3L, 652-3L, 260 Adapter.	
62F1742. NET	10.40
Model 0417. 150 Ft. Thermistor Lead. For Models 385-3L, 389-3L, 652-3L, 260 Adapter.	
62F1743. NET	12.90
Model 0790. Surface Temperature Probe. For Models 385-3L, 389-3L, 652-3L, 260 Adapter	
62F396. NET	6.00

You Can Depend on NEWARK

for Complete Stocks — Lowest Prices —
Fastest Service — Your One Source for
Everything in Industrial Electronics

"MIDGETESTER" VOLT-OHMMETER

Model 355. VOM, ideal for radio, appliance and TV servicemen. Sensitivity 10,000 ohms per volt on both AC/DC. Accuracy 3% on DC, 5% on AC of full scale voltages. Ranges: AC/DC volts 0-3, 12, 60, 300, 1200; Ohms 0-10K, 100K, 1 meg, 10 meg. Compactness and sensitivity made possible by 100-micro-amp self-shielded core meter movement. Sturdy, polished styrene case. Size 2 3/4 x 4 1/2 x 1". Complete with set of probe leads and instruction manual. Shpg. wt. 1 lb.



43.00
62F335. NET

LEADS

Model 7500. Banana Plugs and Alligator Clip. For Model 260. Series 3, 4, 261, 270.	
62F370. NET	2.10
Model 7538. Banana Plugs and Test Prods. For Model 260. Series 3, 267, and 268.	
62F325. NET	2.50
Model 8600. Test Prods. For Model 355.	
62F353. NET	2.10
Model 0010. 15 foot Thermistor Lead. For Model 385-3L and 389-3L	
62F386. NET	5.50
Model 0216. 30 foot Thermistor Lead. For model 385-3L, 389-3L.	
62F397. NET	8.45
Model 0190. General Purpose Thermocouple. For Model 388-3L.	
62F352. NET	5.00
Model 0187. Surface Temperature Thermocouple (900° F MAX.) For Model 388-3L.	
62F351. NET	8.90
Model 8381. Test Prods and Elbow Terminals. For Models 230, 240, 260-2, 372.	
62F369. NET	2.50
Model 8379. Test Prods and Spade Terminals. For all Microtesters.	
62F399. NET	2.50
Model 8375. Alligator Clips and Elbow Terminals. For Models 230, 240, 260-2, and 372.	
62F343. NET	1.75
Model 8376. Alligator Clips and Spade Terminals. For 370, 371, 373, 374, 375, 376, 377, 378.	
62F1725. NET	1.75
Model 8463. Combination Test Prods with Removable Alligator Clips and Elbow Terminals. For 262, 269.	
62F1726. NET	2.30

PROBES—High Voltage Types

Model 0150. DC/AC Ohms. For Model 312 VTVM.	
62F1699. NET	8.50
Model 0074. 30,000 volts. For Model 303.	
62F341. NET	12.00
Model 0507. 10,000 V. For 260 Series 3, 4, 4M, 261, 267, 270-2.	
62F1727. NET	10.20
Model 0508. 25,000 V. For 260 Series 3, 4, 4M, 261, 267, 270-2.	
62F346. NET	11.50
Model 0509. 50,000 V. For 260 Series, 3, 4, 4M, 261, 267, 270-2.	
62F1729. NET	12.50
Model 0141. 30KV@10K/V. 15V@20K/V. The #0141 is for the New 263 Dual Sensitivity VOM.	
62F1730. NET	12.00
Model 0119. 16,000 volts. For 269 Series-2.	
62F1731. NET	11.95
Model 0120. 40,000 volts. For 269 Series-2.	
62F1732. NET	12.50

PROBES—Miscellaneous Type

Model 0073. High Frequency. For Model 303.	
62F342. NET	8.75
Model 0731. 311 VTVM. High Frequency.	
62F1745. NET	11.50
Model 0732. 311 VTVM High Voltage.	
62F1746. NET	11.75
Model 7594. 311 VTVM DC-AC Ohms.	
62F1747. NET	8.50
Model 0155. High Voltage. For Model 312 VTVM.	
62F1695. NET	11.75
Model 0152. High Frequency. For Model 312 VTVM.	
62F1694. NET	8.75

METER SAFE/GUARD



Model 12621. Fast, easy to install. Provides meter movement protection for series 1, 2, 3, or 4, 260 (or any other 20,000 ohm per volt VOM). Prevents electrical damage to the meter movement, regardless of the polarity, even with currents of as much as 200 milliamperes applied. Use with AC or DC. Has low leakage, sharp knee characteristics.

62F1698. NET 1.95



COLOR-BAR/DOT-CROSSHATCH GENERATOR

Model WR-64B. Produces time-tested color bar signals needed for adjusting a and troubleshooting color TV circuits as well as dot and crosshatch patterns for adjusting convergence in color receivers, and for adjusting linearity and overscan in both color and black and white receivers. Crystal-controlled RF Oscillator for stable picture carrier. Crystal-controlled synchronizing pulses. Crystal-controlled sound carrier for accurate adjustment of receiver fine tuning. Fixed number of dots and lines for ease in checking our scan. PATTERN control (Color-Bar/Dot/Crosshatch). CHROMA control to check receiver color sync-lock action. FUNCTION control with OFF—STANDBY—PATTERN—PATTERN + Sound positions. Convenient panel switches for shorting out the red, blue, or green guns of the color picture tube. Complete with RF output cable, cable-carrying bracket attachment, three leads for connection to red, blue, and green grid connections, and instruction booklet. Width 13½", height 10", depth 8", weight 13¼ lbs.



62F085. Model WR-64B. Factory wired and tested. NET **189.50**

CRYSTAL-CALIBRATED MARKER GENERATOR

Model WR-99A. Supplies a fundamental frequency RF carrier of crystal accuracy for use in aligning and trouble-shooting TV (color and black and white) and FM receivers and other electronic equipment operating in the range of 19 to 260 Mc in 8 bands on fundamental frequencies. Built-in crystal calibrator, heterodyne detector, amplifier and speaker provides calibrating beats at 1 Mc or 10 Mc intervals throughout entire tuning range which is covered by 8 bands. A built-in 4.5 Mc crystal provides necessary accuracy for alignment of intercarrier-if amplifier and discriminators. At least 0.1 volt output VFO ranges; 0.05 volt crystal frequencies, into a termination of 90 ohms. Provides signals for adjusting vertical or horizontal linearity. Precision matched impedance/resistance pad attenuator, 0-60 db in 5 db steps. Special modulation input available for re-transmission. Provision for use as Heterodyne Frequency Meter. Provides dual markers 4.5 Mc apart for bandwidth checks and RF alignment. Triple markers for sound-if alignment and bandwidth checks. Adjustable dial pointer for accurate registration with crystal-calibration check points. Wt. 21 lbs.



62F054. Model WR-99A. Factory wired and tested. NET **256.50**

TELEVISION/FM SWEEP GENERATOR

Model WR-69A. For visual alignment of both TV and FM receivers. Has preset switch positions for all VHF TV channels, the FM broadcast band, and TV video, chrominance, and IF frequencies. VHF output is on fundamental frequencies only; no beat notes of harmonics are used. Exceptionally good linearity is provided by a precision vibrator capacitor. Continuously adjustable sweep width and flat output make for accurate sweep response displays. Special sample-voltage terminal on panel permits use with marker-adder units in alignment. Dual-piston attenuator provides smooth even attenuation over 60 db range for TV and FM channels and 70 db range and video. IF/Video output frequency continuously tunable from 50 Kc to 50 Mc in 6 ranges. Sweep-frequency bandwidth continuously adjustable from 50 Kc to 20 Mc on IF/Video and FM; 12 Mc max. on TV channels. Return trace blanking. Two continuously adjustable bias voltages, 0 to -12 volts, available on front panel. Width 13½", height 10", depth 7", weight 16 lbs.



62F071. Model WR-69A. Factory wired and tested. NET **295.00**

RF/IF/MARKER ADDER

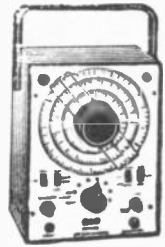
Model WR-70A. For RF, IF, and video sweep alignment of both color and black and white TV receivers. Provides sharp, easy-to-read markers for alignment. A choice of four different marker shapes is available, permitting use of marker type best suited to the response curve. Designed for use with conventional marker and sweep generators and the WR-59 and WR-69 series TV sweep generators. Marker signal is added to the sweep-response curve after the sweep signal is taken out of the receiver under test. Eliminates or reduces distortion of sweep curve by the marker. Permits trap alignment without marker 'suckout.' Hi-Q markers — high in amplitude, narrow in width. Power supply voltage stabilized for rock-steady trace display. Wt. 11 lbs.



62F072. Model WR-70A. Factory wired and tested. NET **87.00**

RF SIGNAL GENERATOR WITH SWEEP FEATURES

Model WR-50B. Designed for maintenance, troubleshooting and instructional purposes. Provides an accurate source of CW or amplitude-modulated signals from 85 Kc to 40 Mc. Suited for aligning and signal tracing AM, FM, Hi-Fi and Citizens' Band and amateur radio receivers. A 400-cycle output provides a practical means for checking a audio amplifier circuits. Built-in crystal calibrating oscillator circuit with front panel crystal socket. Permanently attached shielded RF output cable. Built-in DC blocking capacitors. Two-step RF attenuator switch plus a continuously variable attenuator control. Vernier tuning. Sweep output is provided at 455 Kc. and 10.7 Mc for sweep alignment both AM and FM IF circuits. A return-trace blanking circuit is included to provide a zero reference line. Width 5¾", height 7¾", depth 4¾", weight 5 lbs.



62F086. Model WR-50B. Factory wired and tested. NET **65.00**

62F089. Model WR-50B(K). As above KIT FORM. **45.00**

AUDIO SIGNAL GENERATOR SINE/SQUARE WAVE OUTPUT

Model WA-44C. For measurement of frequency response characteristics of audio amplifiers, and testing of loudspeakers and enclosures or finding impedance of LC combinations. Switch selection for sine-wave or squarewave output. Simple one-scale dial. Separate 60 cps line frequency output for intermodulation distortion measurements. Wide frequency range, 20 cps to 200,000 cps. Less than ½ of 1% distortion over the audio-frequency range. Operated from a 50/60 cycle, 105-125 volt source; covers in four bands a range from 20 cps to 200,000 cps. The circuit of the sine-wave function consists of a "Bridged-T" oscillator with a cathode follower output stage. The square-wave output is developed by using the sine-wave oscillator output to drive a clipping and shaping circuit. Produces a stable signal with an amplitude variation of not more than 1.5 db. Total harmonic distortion is limited to 0.25% over the range of 30 cps to 15 Kc. Width 10½", height 7", depth 6½", weight 10½ lbs.



62F013. Model WA-44C. NET **98.50**

COLOR PICTURE TUBE TESTER

Model WT-115A. Designed specifically for testing TV color picture tubes, tests each gun for emission quality inter-electrode leakage, and shorts. Readily portable large, 3-color, sensitive meter with two scales: Red/green 'quality' scale, with reference marks from 0 to 10, separate yellow scale to indicate interelectrode leakage. Sensitive meter and cut-off adjustment control for evaluating the true emission of each gun. Neon shorts indicator. AC line-voltage adjustment for accurate measurements. Test procedure includes 2-minute and 4-minute tests for determining warm-up performance of tube. Tests color picture tube in-set or out-of-set. Built-in cable and socket assembly. Wt. 8 lbs.



62F1780. Model WT-115A. NET **89.50**

STEREO FM SIGNAL SIMULATOR

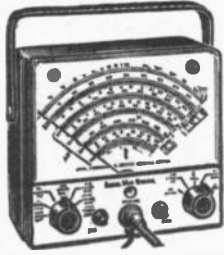
Model WR-52A. Designed to generate signals required for service, alignment, and maintenance of mono and stereo FM receivers and multiplex adaptors. Provides the following signals. Composite stereo output for either right or left channel; FM stereo output for either channel (100 mc FM carrier is adjustable to permit selection of a quiet point in the FM band, RF deviation is adjustable 0-75 Kc); Monaural FM output (a switch is provided to disable the 19 Kc oscillator for low-distortion mono output); 100 mc sweep output to check receiver RF/IF alignment (sweep rate is 60 cps., sweep width is adjustable 0-750+ kc); Audio signals of 400 cps, 1 and 5 kc; Crystal-controlled 19 kc and 38 kc signals for multiplex circuit adjustments; 67 and 72 kc output signals for SCA trap circuit adjustments; special internal test signal to check phase adjustment of stereo signal. Direct unterminated cable is used with composite stereo and audio signal outputs, and a terminated cable for RF output to 75 or 300 ohm antenna input. Complete with connecting cables. Size 13½"x10x8"; shpg. wt., 21 lbs.



62F1785. NET 227.00



Test Equipment



SENIOR VOLTOHMYST
Model WV-98C. Provides direct reading of peak-to-peak voltages of complex waveforms found in video, sync, and deflection circuits. New mirrored scale provides more accurate readings. Measures complex waveforms directly from 0.2 to 4200 volts in 7 overlapping ranges. Measures RMS values of sine waves from 0.1 volt to 1500 volts. Measures from 0.01 volts to 1500 volts dc on two 3" to 1" ranges. Input resistance: 11 megohms. Measures resistance from 0.2 ohm to 1000 megohms on a single scale. Frequency response: 30 cps to 250 Mc with WG-301A Crystal Diode Accessory probe— ± 1 db 30 cps to Mc (1.5 and 5 VAC ranges). Electronic protection against burn-out. Size: 7"x6 $\frac{1}{2}$ "x3 $\frac{3}{4}$ ". Ship. wt. 6 lbs.

62F060. Model WV-98C. NET. **84.00**
 62F074. Model WV-98C(K). As above, kit. NET. **57.95**

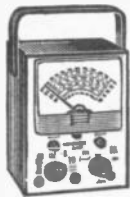


COLOR TEST JIG

Model 11A1015. A must for any serviceman now servicing or planning to service color TV receivers. The RCA Color Test Jig makes a one man service call out of costly two man cabinet pulling jobs. It eliminates the necessity of removing picture tube from cabinet and of reconverging tube when chassis is returned. Convergence control panel provides dynamic as well as static convergence. This versatile unit can be used with CTC-4, 5, 7, 9, 10, 11, 12 and 15 chassis. Supplied with factory installed safety glass and kine mask. Includes kit with all necessary components and instructions for installation of and RCA Tri-Color Kinescope. (Kine not included.) Finish matches that of your other RCA test instruments. Shipping wt. 93 lbs. (less tube).

57F2001. Model 11A1015. NET. **135.00**

VOLTOHMYST



Model WV-77E. Flat frequency response $\pm 5\%$ from 40 cps to 5 Mc on the 1.5, 5 and 15 volt RMS ranges and the 4, 14, and 40 volt peak-to-peak ranges. Measures DC from 0.02 volt to 1500 volts, RMS AC from 0.2 volt to 400 volts, and resistance from 0.2 ohm to 1000 megohms—all in seven overlapping ranges. Full-scale accuracy is $\pm 3\%$ on DC and $\pm 5\%$ on AC. Meter is electronically protected against burnout. Separate scales are provided for low AC measurements. Color coded scales for easier, faster readings. Fuse in ohms circuit prevents burnout. Ultra-slim probes and extra-flexible cables are included. Instruction sheet is provided.

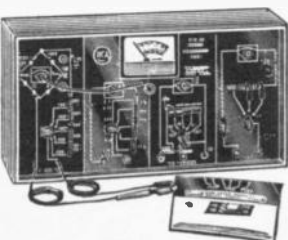
62F075. Model WV-77E. NET. **52.00**
 62F076. Model WV-77E(K). As above, kit. NET. **38.00**



VOLT-OHM-MILLIAMMETER

Model WV-38A. Extra large 5 $\frac{1}{4}$ " meter. Protected meter movement. Has an input resistance of 20,000 Ω/V on DC; 5,000 Ω/V on AC; $\pm 3\%$ of full scale on DC, $\pm 5\%$ of full scale AC. Regular scales: 2.5, 10, 50, 250, 1000, 5000 VAC/VDC; 50 amp, 1, 10, 100, 500 ma, 10 amp (DC); plus extra scales of 250 mv and 1 volt DC. Resistance ranges 0-20 meg in 3 ranges. Size: 5 $\frac{1}{4}$ x6 $\frac{1}{8}$ x3 $\frac{1}{2}$ ". Ship. wt. 3 $\frac{1}{2}$ lbs.

62F052. Model WV-38A. NET. **52.00**
 62F051. Model WV-38A(K). As above, kit. NET. **38.00**
 62F053. Model WG-270A. Carrying case. NET. **4.95**



- Separate schematic and wiring diagrams printed on large, easy to follow layout panel.
- Each circuit function is color coded for easy identification.
- Kit assembly is so simple no previous experience required.

Model WE-95A (K). Here is a dynamic aid for teaching the principles of meters and metering circuits in science classes at the high school level or in technical trade schools. This kit is not simply an educational aid but once assembled, it becomes

SUPER PORTABLE OSCILLOSCOPE



Model WO-33A. This 3" Oscilloscope is the "all purpose" scope. All bandwidth you need for servicing color TV, video broadcast monitors and cameras; and for square-wave testing of audio and ultrasonic equipment. All the gain you need for low-level audio work. With vertical amplifier in narrow-band position. Sensitivity is 3 RMS millivolts/inch; bandwidth within $-3db$, 20 cps to 150 Kc. Wide band position: sensitivity 100 rms millivolts/inch; bandwidth within $-3db$, 5.5 cps to 5.5 Mc. Sweep circuit: sawtooth range from 15 cps to 75 Kc; sync: external, \pm internal; line sweep—160 adjustable phase; sync range to 4.5 Mc. Size: 6 $\frac{1}{2}$ x8 $\frac{3}{4}$ x10 $\frac{3}{4}$ ". Ship wt. 14 lbs.

62F049. Model WO-33A. NET. **139.00**
 62F048. Model WO-33A(K). NET. **99.00**

AC VACUUM-TUBE VOLTMETER



Model WV-76A. A high-sensitivity AV VTVM for hi-fi and other audio applications. Designed for measuring AC voltages from 0.0002 volt to 500 volts over the frequency range of 10 cy. to 1.5 Mc. Offers nine overlapping AC voltage ranges from 10 millivolts to 100 volts full scale. Provides approximately 38 db gain throughout the frequency range from 10 cps to 500 Kc. with probe in "Low-Cap" position and 10 cps to 1.5 Mc with probe in "Direct" position. Probe and cables are supplied in "Direct" position. Probe measures up to 100 volts; in "Low-Cap" position, probe can be used to measure up to 500 volts or $+56$ db. Size: 5 $\frac{1}{2}$ x7 $\frac{3}{8}$ x4 $\frac{3}{4}$ ". Ship. wt. 5 lbs.

62F088. Model WV-76A. NET. **79.95**

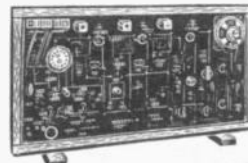
POWER LINE MONITOR



Model WV-120A. The RCA Power Line Monitor is designed for use by radio-TV repair shops, laboratories, and industries where it is important to know the power line voltage at all times. Used in conjunction with the RCA WP-25A Isotap isolation transformer on a 50-60 cycle power line, the WV-120A is a valuable aid in selecting line voltages for such applications as TV servicing, test instrument calibration, and the operation of electronic equipment that requires a known line voltage supply. Size: 3 $\frac{11}{16}$ x5x3 $\frac{1}{16}$ ". Ship. Wt. 2 $\frac{1}{2}$ lbs.

62F058. Model WV-120A. NET. **16.50**

TRANSISTOR RADIO DYNAMIC DEMONSTRATOR KITS



• Special silver-plated spring connectors provide mechanical and electrical connection . . . assure easy component installation.

• Inherent operational simplicity assures ease of service checks and tests . . . exceptionally easy component substitution.

The RCA WE-93A (K) and WE-92A (K) are AM superheterodyne transistor radio receivers converted into kit form for educational and instructional purposes. Once assembled they become actual operating AM receivers. Designed to provide the student with easy-to-follow, step-by-step instruction, the RCA Transistor Radio Dynamic Demonstrators are extremely easy to assemble. No previous kit assembly experience is required. The circuit diagram is drawn in an easily understood manner. The wiring diagram on the reverse side helps avoid mistakes. Ship. wt. 22 lbs.

62F1782. Model WE-93A (K). 12 x 24". NET. **39.95**
 62F1783. Model WE-92A (K). 24 x 48". NET. **69.50**

V-O-M DYNAMIC DEMONSTRATOR KIT

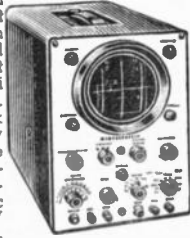
an actual test instrument that can be used to test and service TV, AM, FM and short-wave radios, hi-fi monophonic and stereo sound equipment. Size: 12x24x5 $\frac{1}{4}$ ". Ship. wt. 8 lbs.
 62F1781. Model WE-95A (K). NET. **37.95**



5" OSCILLOSCOPE

- Flat response from 10 cps to 4.5 Mc
- Adjustable sweep oscillator has excellent linearity

Model WO-91B. The RCA WO-91B is a reliable, heavy duty, precision instrument especially suited for use in production and servicing both black and white and color TV receivers, monitors, broadcast equipment, TV distribution systems, hi-fi systems and communications equipment. A multi-scale graph screen makes peak to peak voltage measurements as easy as with a VTVM. Applications include waveforms analysis, square wave testing, and observation of circuit and vacuum tube characteristics. A 2-stage sync separator makes it easy to check TV horizontal and vertical sweep synchronization. Complete with WG-300B Direct/Low cap. probe and cable, ground cable, alligator clip, clip insulator, green-graph screen, instruction book. Size: 9x13 1/2 x 16 1/2". Ship. wt., 30 lbs.

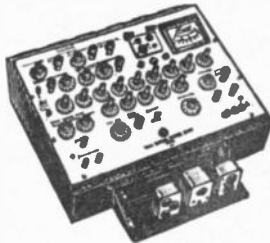


269.00

ELECTRON-TUBE MICROMHOMETER

- Measures transconductance up to 100,000 micromhos in six ranges.
- Meter completely burnout proof.

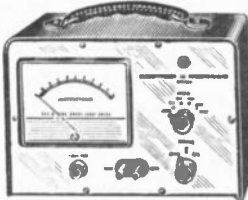
Model WT-100A. A precision laboratory measuring instrument which tests tubes under typical operating conditions as specified in the tube manufacturers' technical manuals. It is particularly useful in production line testing, design and development work, pre-selecting for critical applications, quality control programs, and preventive maintenance. Measurements performed: AC heater current from 0.02 ampere to 10 amperes; DC filament current up to 250 ma. voltage drop across rectifier tubes and semiconductor diodes; transconductance from 10 micromhos to 100,000 micromhos. Within the range of its facilities it will test: vacuum tubes—diodes, triodes, tetrodes, pentodes, heptodes, hexodes, octodes, and multi unit types; gas tubes—thyratrons, voltage regulators, cold-cathode and hot cathode rectifiers; semi-conductor diodes—small dry-disc rectifiers, germanium and silicon diode types. Size: 23 1/2 x 8 x 18 1/2". Ship. wt. 50 lbs.



989.00

ULTRA-SENSITIVE DC MICROAMMETER

- Six direct-current ranges for measuring current from 0.002 to 1000 microamperes.
- Voltage drop for full scale deflection only 0.5 volts.



Model WV-84C. Application: a battery operated vacuum tube microammeter designed for measuring minute direct currents, for making current and voltage measurements in electrolysis and corrosion investigations, and for checking in light meters, ultra-violet and infrared detectors, and spectrophotometric devices. Self-contained batteries permit use almost anywhere. Low drain tubes extend battery life and protect the delicate meter against burnout due to accidental overloads. When used as a voltmeter, it is especially suited to measurements in circuits where loading is a critical factor. Size: 7 1/2 x 6 1/4 x 1 1/2". Ship. wt., 10 lbs.

110.00

49F001. VS004 Battery. 2 required. 1 1/2 lbs. NET 1.26
49F023. VS124 Battery. 2 required. 1 1/2 lbs. NET 1.78

PHASE CHECKER

- Sound powered for simplicity and reliability.
- Permits dynamic check of output phasing.

Model WG-360A. Provides a simple, fast, and reliable method for checking the phasing of low frequency and mid-range speakers in hi-fi, stereo, and PA systems. One of the principal applications for the WG-360A is in checking the phasing between the speaker assemblies of the left

and right-hand channels in stereo systems. Provides an overall dynamic check on phasing, including everything from input source to soundwave output from speakers. Size: 5 1/2 x 6 3/4 x 5". Ship. wt., 5 lbs.

62F178A. NET 14.95

TV ISOTAP

Model WP-25A. Speeds up servicing, prevents damage to test equipment. May be used as a high-medium-low voltage isolation transformer. Supplies outputs of 130, 115, and 105 AC volts at maximum load and is tapped to match line voltages from 105 to 130 volts in 6 steps. Ship. wt., 13 lbs.

62F047. NET 27.50

TV-SIGNAL AMPLIFIER AND SET COUPLER

Model WG-330B. For improved reception in fringe areas. 2 Nuvistors for increased gain, greater stability. Provides up to 12 db gain. Feeds up to 6 sets by means of easily made directional couplers. On/off switch. Installs indoors . . . not at the antenna. Ship. wt., 2 lbs.

62F091. NET 19.95

TV BIAS SUPPLY KIT

Model WG-307B. Provides three output voltages, and is designed for use in servicing and aligning color and black and white TV receivers. Three separate output voltages, adjustable from 0 to -15 volts are provided for application in RF, IF, and AGC bias circuits. Ship. wt., 2 lbs.

62F027. NET 11.95

PROBES AND RESISTORS

Model WG-289. High voltage probe. For use with RCA models WV-98A, WV-77A, WV-77B, WV-77C, WV-97A, WV-87A, and WV-87B, WV-98A, WV-98B, WV-98C, Volt-Ohmysts. Ship. wt., 1 lb.

62F020. NET 11.95

Model WG-279. High voltage probe. Similar to above, for use with RCA model WV-77E, WV-77E (K), WV-38A, WV-38A (K). Shipping wt., 8 oz.

62F057. NET 11.95

Model WG-206. Megohm multiplier resistor. For VTVM's having 11 megohm input. Shipping wt., 2 oz.

62F082. NET 3.50

Model WG-210. Megohm resistor. Multiplies 5,000 volt DC range of 20,000 ohms per volt VOM's by a factor of 100.

62F083. NET 3.50

Model WG-211. Megohm resistor. Multiplies 250 volt DC range of 20,000 ohms per volt VOM's by a factor of 100.

62F084. NET 3.50

Model WG-293D. Ohms probe and cable. For use with Volt-ohmysts except WV-77E and WV-77E (K).

61F061. NET 7.95

Model WG-354A. Capacitance-type voltage divider probe. The WG-354A used with the WG-300B probe and cable extends the range of oscilloscopes so that signal pulse amplitudes up to 5000 volts can be observed.

62F067. NET 7.50

Model WG-350A. Demodulator probe for use with WO-33A for demodulation and signed tracing of radio TV, RF, and IF signals.

62F092. NET 4.95

Model WG-302A. RF/IF/VF signal tracing probe. "Slip-on" type high frequency probe designed for use with WG-300A and B to permit visual signal tracing for rapid isolation of trouble in radio receivers and in TV IF and video stages.

62F064. NET 8.50

Model WG-351A. Crystal diode probe for extending RF measuring capability of the WV-77C, WV-77E and WV-77E (K) to 100 Mc.

62F059. NET 4.95

Model WG-300B. Direct/low capacitance probe and cable. For use with RCA WO-91A, WO-88A and WO-78B scopes.

62F062. NET 9.95

Model WG-301-A. Crystal diode probe. Slip on type used with WG-293D to increase frequency range to 250 Mc.

62F063. NET 7.75

RF MODULATOR

Model WG-304B. Checks frequency of TV receivers. Permits mod. of rf marker signal. Size: 7 x 5 1/2 x 4 1/2".

62F028. NET 16.50

VIDEO MULTIMARKER

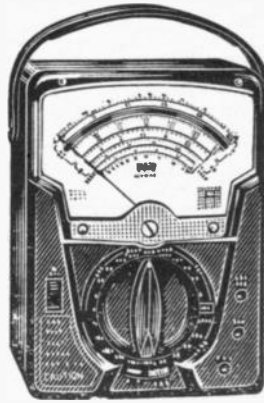
Model WG-295C. Seven absorption markers at present frequencies for marking video response curves in color TV receivers. Size: 7 x 5 1/2 x 4 1/2". Ship. wt., 2 lbs.

62F044. NET 32.50

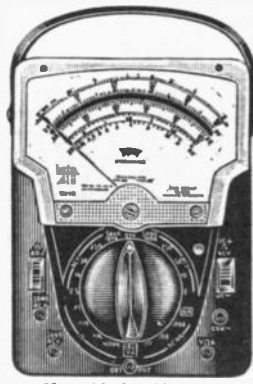




Model 630-PLK



Model 630-M



New Model 630 APLK



Model 630-PL

VOLT-OHM-MILLIAMMETER

Model 630-PLK. Transistorized relay circuit provides protection from burn-outs; overload sensing device does not load circuit under test. Life of transistor circuit battery is nearly that of shell life. Automatically checked by using X100K ohms range. 20 position range switch turns in either direction. Patented Bar-Ring Movement provides self-shielding; not affected by stray magnetic fields; usable with frequencies through 500 Kc. Sensitivity: 20,000 ohms VDC, 5,000 ohms VAC. Resistors directly connected to switch to form a simplified unit. Jacks located on lower corners of panel, permitting greater accessibility to control knob. Banana type leads for low-contact resistance at jacks. Leads are 50 inches long, test prods with removable alligator clips. DC Volts: 0-2.5-10-50-250-1,000-5,000 at 20,000 ohms/volt; 0-0.25 at 100 microamperes. AC Volts: 0-3-10-50-250-1,000-5,000 at 5,000 ohms/volt. Decibels: -20 to +11 +21, +35, +49, +61, +75; "O" DB at 1 MW on 600 ohm line. DC Microamperes: 0-100 at 250 Mv. DC Milliamperes: 0-10-100-1000 at 250 Mv. DC Amperes: 0-10 at 250 Mv. Ohms: 0-1000-10,000 (4.4-44 at center scale). Megohms: 0-1-100. (4,400-440,000 at center scale). Output Volts (AC): 0-3-10-50-250-1000 at 5000 ohms/volt; jack with condenser in series with AC ranges. $\pm 2\%$ DC, $\pm 3\%$ AC accuracy. Size: $3\frac{1}{2} \times 5\frac{1}{2} \times 7\frac{1}{2}$ ". Shipping weight, 5 pounds. **62F1775. NET 85.00**

VOLT-OHM-MICROAMMETER

Model 630-M. The input impedance of a VTVM with the convenience of a VOM. The 630-M's sensitivity is derived from the singular achievement of its basic 0-1 DC micro-ampere movement. The 630-M incorporates no amplifiers, has no zero drift, no warm-up, and no power requirements. 1,000 ohms per volt AC for greater accuracy on high resistance circuits. 20,000 ohms per volt AC. 1 mu-a Suspension Meter Movement: no pivots, bearings, or rolling friction. Extremely rugged. Greater sensitivity and repeatability. 61 ranges, usable with frequencies through 100 KC. Temperature compensated. $\pm 1\frac{1}{2}\%$ DC accuracy, $\pm 3\%$ AC. Current measurements from 20 nanoamperes. Voltage measurements from 5 mv. VDC: 0-6-3-12-60-300 at 500,000 ohms/volt. 0-3-1.5-6-30-150 at 1,000,000 ohms/volt. 0-1200 at 125,000 ohms/volt. 0-6-60-600 at 250,000 ohms/volt. VAC: 0-3-12-60-300-1200 at 10,000 ohms/volt. 0-1.5-6-30-150-600 at 20,000 ohms/volt. DB: -20 to +63 in 10 ranges. DC MICROAMPERES: 0-1 at 300 MV. 0-60-600 at 300 MV. 0-120 at 600 MV. DC MILLIAMPERES: 0-6-60-600 at 300 MV. 0-1-2-12-120-1200 at 600 MV. DC AMPERES: 0-6 at 300 MV. 0-12 at 600 MV. OHMS: 0-1K-10K-100K (4.4-44-440 at center scale). MEGOHMS: 0-1-10-100 (4400-44,000-440,000 ohms center scale.) Self-contained batteries, one 1.5 volt cell. Shpg. wt. 5 lbs. **62F1776. NET 200.00**

NEW VOLT-OHM-MILLIAMMETER

Model 630-APLK. Transistorized Electronic Switching Circuit guards against accidental burnouts! Comprehensive overload protection. Polarity reversing switch and suspension Meter Movement. One selector switch minimizes chance of incorrect settings. Transistorized overload sensing device does not load circuit under test, eliminating possibility of damaging circuit components. Rugged 0-50 microampere suspension type movement. Diode network across meter protects against instantaneous transient voltages. Automatically checked by using X100K ohms range. One 20 position range switch turns in either direction to obtain desired range. Special meter shunting feature on "OFF" position for high damping when moving tester. Accuracy $\pm 1\frac{1}{2}\%$ on DC, $\pm 3\%$ AC. Flush mounted controls, jacks and meter. DC VOLTS: 0-2.5-10-50-250-1,000-5,000 at 20,000 ohms/volt 0-0.25 at 100 microamperes. AC VOLTS: 0-3-10-50-250-1,000-5,000 at 5,000 ohms/volt. DC MICROAMPERES: 0-100 at 250 Mv. DC MILLIAMPERES: 0-10-100-1,000 at 250 Mv. DC AMPERES: 0-10 at 250 Mv. Ohms: 0-1,000-10,000 (4.4-44 at center scale). Megohms: 0-1-100 (4,400-440,000 at center scale). Output Volts (AC): 0-3-10-50-250 at 5,000 ohms/volt; jack with condenser in series with AC ranges. Case: Molded, fully insulated; $3\frac{1}{2} \times 5\frac{1}{2} \times 7\frac{1}{2}$ ". Shpg. wt., 5 lbs. **62F1777. NET 95.00**

DE LUXE, EASY-TO-READ VOMS!

Model 630-PL. Volt-Ohm-Milliammeter Instant vision, wider spread scales. Outstanding linear ohm scale; low reading 0.1 ohm; high to 100 megs. One switch selects any range; reduces wrong settings, burnouts. Usable with frequencies through 500Kc. DC polarity reversing switch. High sensitivity. Accuracy: $\pm 2\%$ DC; $\pm 3\%$ AC. Ranges -V DC: 0-2.5-10-50-250 at 160 microamperes V AC: 0-3-10-50-250-1000-5000 at 50 ohms/V; DB: -20 to +11, +21, +35, +49, +61, +75; "O" DB at 1 MW on 600-ohm line; DCua: 0-100 at 250 MV. DC MA: 0-10-100-1000 at 250 MV; DC Amp.: 0-10 at 250 MV; ohms 0-10000-10,000 (4.4-44 at cir scale); megohms: 0-1-100 (4400-440,000 at cir scale); V AC output: 0-3-10-50-250-1000 at 5000 ohms/V, jack w. condenser in series with AC ranges. Case-molded fully insul. Leads, alligator clips, rubber feet, batteries. $3\frac{1}{2} \times 5\frac{1}{2} \times 7\frac{1}{2}$ ". Shpg. wt. $4\frac{1}{2}$ lbs. **62F241. NET 55.00**

Model 630-APL. Volt-Ohm-Milliammeter. As above except lab. type featuring $\frac{1}{2}$ " resistors, mirrored scales. $\pm 1\frac{1}{2}\%$ DC accuracy. **62F242. NET 65.00**

200,000 OHMS/VOLT-OHM-MILLIAMMETER

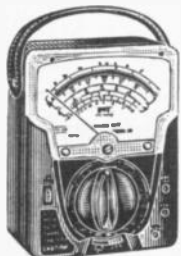
Model 630-NS. Has 62 ranges. 200,000 ohms per volt DC for greater accuracy on high resistance circuits. 20,000 ohms per volt AC. Suspension Meter Movement. Molded insulated case. DC Volts: 0-0.6-3-12-60-300-1200 at 100,000 Ohms/Volt. 0-3-1.5-6-30-150-600 at 200,000 Ohms/Volt. 0-0.150 at 60 microamperes AC Volts: 0-3-12-60-300-1200 at 10,000 Ohms/Volt. 0-1.5-6-30-150-600 at 2000 Ohms/Volt. Accuracy $\pm 1\frac{1}{2}\%$ DC, $\pm 3\%$ AC. $3\frac{1}{2} \times 5\frac{1}{2} \times 7\frac{1}{2}$ ". Wt. 5 lbs. **62F168. NET 100.00**

Model 630-NA. As above except 10,000 and 20,000 ohms/V DC and 5000 and 10,000 ohms/V AC. 70 ranges. **62F228. NET 85.00**

VOLT-OHM-MILLIAMMETER

Model 630. Reads DC volts to 6,000 in six ranges at 20,000 ohms/volt. AC volts in corresponding ranges at 5000 ohms/volt. DC current ranges are: 0-60 microamperes. 0-1-2-12-120 mils. 0-12 amps. Measures ohms 0-1,000-10,000 and meg-ohms 0-1-100. Also reads db from -20 to +77 in six ranges. One switch selects any range. $5\frac{1}{2}$ " scale; 50 microamp movement. Resistors are precision wire-wound or carbon film. With batteries test leads. **62F212. NET 55.00**

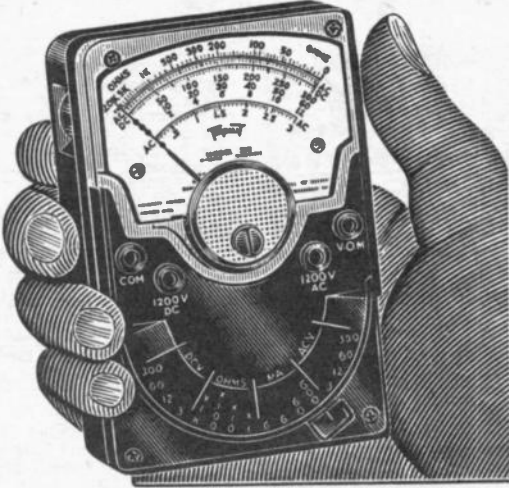
Deluxe Model 630-A. Laboratory version of Model 630 VOM above. Has same ranges and sensitivity, but comes equipped with $\frac{4}{8}$ " mirror scale and knife-edge pointer. **62F211. NET 65.00**



Model 630-NS



Model 630



HAND-SIZE VOM 20,000 OHMS/VOLT DC SCALE

Model 310. Complete miniaturized VOM with selector range switch. An interchangeable test prod fits into tester top, becoming common probe and freeing one of your hands for other work. Self-shielded for use in magnetic field. Unbreakable plastic meter window. Rugged, high-torque, barring instrument. Standard sensitivity, 20,000 ohms per volt DC and 5,000 ohms per volt AC. Accuracy, 3% DC, 4% AC. RANGES: VDC 0-3-12-60-300-1,200 (at 20,000 ohms per volt). VAC 0-3-12-60-300-1,200 (at 5,000 ohms per volt). OHMS: 0-20,000-200,000. MEGOHMS: 0-2-20. DC MICROAMPERES: 0-60 at 250 millivolts. DC MILLIAMPERES: 0-6-60-600 at 250 millivolts. CASE: molded, fully insulated, 2 3/4" x 4 1/4" x 1 1/2". Complete with leads, battery, and instruction manual. Shipping weight 2 lbs.

40.00
62F230 Model 310-C. Same as model 310, but has 15,000 ohms per volt on AC, 600 volt ranges in place of 1200v. range of 310. Lever range switch, reversing switch for DC. Range switch fully enclosed. 14 oz.
62F232. NET 50.00
62F231. No. 369. Carrying case for above. NET.... 3.50

AC CLAMP-ON AMMETER ADAPTER FOR 310 VOM

Checks all line loads instantly, accurately, safely—without breaking the circuit or interrupting work. Easy range switch. RANGES: 0-6-12-30-60-120-300. Clips around single wire to read AC amperes direct. Use dwith Adapter 101 to divide instantly two-conductor cords. A lever securely locks the Model 10 to Model 310 when used in combination. Model 10 can be left attached to Model 310 when the latter tester is used as an AC-DC VOM only. The only necessary change is to remove the lead plug from the Model 310 VOM jack and insert it in the jack provided in the Model 10 housing. Case is black molded plastic with engraved white markings. Ideal for checking wiring circuits, motor loads, appliance loads. Its use expanded with leads below.



Model 101



Model 10

62F235. NET. **17.00**

No. 611. Long lead attachment for using Model 10 as clamp-on ammeter with any VOM having a 3-volt AC scale at 5,000 ohms per volt, such as 630, 630-A, 630-NA, 630-PL, 630-APL, 631, etc.

62F236. NET **2.50**

No. 311. Long lead to separate No. 10 from No. 310 for easy reading in awkward spots.

62F237. NET **2.50**

No. 101. Line Separator dividing 2 conductor cords and increasing No. 10 sensitivity 10X & 20X.

62F238. NET **7.00**

Model 379. Carrying case for No. 310 and No. 10 in combination.

62F239. NET **7.00**

VOM AND CLAMP-ON AMMETER SET

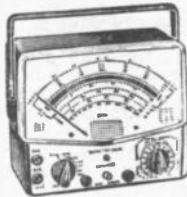
Model 100. Complete set includes Model 310 VOM, Model 10 Clamp-on Ammeter Adapter, Model 101 Line Separator, Model 379 Leather Case, and Model 311 Leads.

62F249. NET **70.00**

LAB VOM WITH 7" MIRROR SCALE SUSPENSION MOVEMENT

Model 800. 70 ranges with 1 1/2% DC accuracy including DC Polarity Reversing Switch. Overload protection; temperature, frequency compensated. Long mirror scale easily read, preventing misreadings due to parallax. DC volts at 20,000 and 10,000 ohms per volt, AC at 10,000 and 5,000 ohms per volt. 3% AC accuracy to 1200 volts. RANGES: DC volts: 0-6-3-12-60-300-1200-6000 at 10,000 ohms per volt. 0-3-1.5-6-30-150-600-3000 at 20,000 ohms per volt. 0-.120 at 60 microamperes. AC volts: 0-3-12-60-300-1200-6000 at 5,000 ohms per volt. 0-1.5-6-30-150-600-3000 at 10,000 ohms per volt. DB: -20 to +70 in 12 ranges. DC MICROAMPERES: 0-60-600 at 120 MV. 0-120 at 240 MV. DC MILLIAMPERES: 0-6-60-600 at 120 MV. 0-1-2-12-120-1200 at 240 MV. DC AMPERES: 0-6 at 120 MV. 0-12 at 240 MV. OHMS: 0-1K-10K-100K (4.4-40-440 ohms at center scale. Case: 7 1/2" x 6 1/4" x 3 3/8". Shipping weight 7 lbs.

62F291. NET. **100.00**



VACUUM TUBE VOLTMETER

Model 850. Long 7" easy-to-read scale. For transistor circuits, .5 DCV range. Hi-stability; meter connected in cathode circuit of 12AU7. Accurate within ±3% on AC or DC. Ohms accurate within ±3% of full scale based on DC scale. Line voltage: 115 VAC 50-60 cycles. Grounded plug. RANGES: 8 DCV ranges: 0-5-1.5-5-15-50-150-500-1500. 7 AC RMS volts ranges: 0-1.5-5-15-50-150-500-1500. Seven peak-to-peak volts ranges: 0-4-14-140-400-1400-4000. Seven resistance ranges: 0-100-100,000-100,000-1 Meg-10 Meg-100 Meg-1000 Meg-ohms. FREQUENCY RANGE: 15 cps. to 3 MC. (Up to 250 with accessory diode probe available extra). INPUT IMPEDANCE: DCV 11 megohms; ACV minimum of .83 megohms. Case: Molded black case completely insulated. 7 5/8" x 6 1/8" x 3 3/4". Shpg. wt., 7 lbs.

62F290. NET. **85.00**



VTVM AND VOM TEST METER

Model 631. Two fundamental units at the price of a single tester. Combines wide range testing facilities of 2 testers in one compact unit. Molded compartment houses resistors, rectifier, etc. By using VOM for general testing, and VTVM when needed, the unit makes a VTVM with long battery life. 5 1/2" meter. Adjusted to 50 microamperes at 250 MV. Has good temperature compensation. VOM ranges AC-DC volts: 0-3-12-60-300-1200 at 20,000 ohms/volt DC, 5,000 ohms/volt AC. Micro-

amps 0-60 at 250 MV; DC milliamperes: 0-1-2-12-120-1200 at 250 MV. DC ampere ranges: 0-12 at 250 MV. DB ranges: -20, +11, +23, +37, +21, +63; Ohms: 0-1500-15000; Megohms: 0-1.5-150; Output Condenser in series with AC volts: VTVM ranges-DC volts 0-1-2-6-30-120. With 2-22 1/2 volt Burgess leads. Accuracy: ±3% DC, ±4% AC ±4% VTVM. Alligator clips, rubber feet. 3 1/2 x 2 1/2 x 7 1/2". Shpg. wt., 4 lbs.

62F227. NET. **75.00**



TRIPLETT Test Equipment



825-835 PORTABLES

Model 825. For general industrial laboratory testing, plant incoming inspection, production line applications, for high school and college laboratories. Feature self-shielded Triplett BAR-RING magnet with a suspension movement. Overload protection diodes on DC Model. Wire-wound $\pm 0.5\%$ accuracy resistors. Accuracy is $\pm 1/2$ of 1% of full scale deflection in horizontal position at 77F. Scale length is 6.84", features anti-

parallax mirror and knife-edge pointer. Brushed aluminum panel. Heavy, molded black case completely insulated $7\frac{1}{2} \times 6\frac{1}{4} \times 3\frac{3}{8}$ ".

Model 835. Thermocouple type usable at rated accuracy ($\pm 1/2\%$) on both AC and DC. Incorporate a "Standby/Read" switch which de-sensitizes meter in "Standby" position. "Read" position on spring return for safety.

835 A.C. RANGES

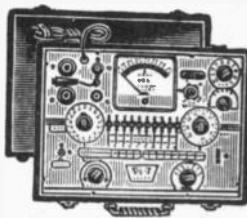
AC MILLIAMP/AMMETER. 0-10-20-50-100-200-500 millamps AC/DC at 1.5 volts.
62F1770. NET **250.00**
AC VOLTMETER. 0-2-5-10-20-50-100-200-500- volts AC/DC at 143 Ohms Per Volt.
62F1771. NET **300.00**

825 D.C. RANGES

DC VOLTMETER. 0-.5-1-2-5-10-20-50-100-200 volts at 50,000 Ohms Per Volt. 0-500 at 20,000 Ohms Per Volt. 0-1000 at 10,000 Ohms Per Volt.
62F1772. NET **190.00**
DC MILLIAMP/AMMETER. 0-1-2-5-10-20-50-100-200-500 milliamperes at 50 millivolts. 0-1-2-5-10 amperes at 50 millivolts.
62F1773. NET **160.00**
DC MICRO/MILLIAMMETER. 0-20-50-200-500 microamps at 300 to 500 millivolts. 0-1-2-5-10-20-50 milliamperes at 500 millivolts.
62F1774. NET **170.00**

FLEXIBLE TUBE TESTER

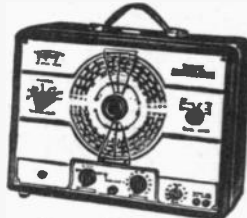
Model 3414. Rejects burned out tubes without waiting for filament to heat. Full range filament voltages from 0.65V to 117V in 23 steps. Quick-change roll chart included. Three color REPLACE-GOOD scale. Neon indicator shorts test. Revised circuit provides a modified plate conductance for closer correlation to tube characteristics. Sockets: 8 prong octal, 8 prong local, 7 prong miniature, 9 pin subminiature. Aluminum case. Size: $15\frac{1}{2} \times 11\frac{1}{2} \times 6\frac{1}{2}$ ".



num. panel. For 117 VAC. Shpg. wt. 14 lbs.
62F206. NET **120.00**

SIGNAL GENERATOR

Model 3432A. Shielded for AM-FM radio, monochrome and color TV servicing. Complete frequency coverage in 7-calibrated ranges from 160 KC to 110 MC on fundamentals (220 MC using harmonics) with no skips. Circuit selector provides internally modulated signal variable from 0 to 100% at 400 cycles; variable amplitude of external modulation 40 to 15,000 cycles; unmodulated signal and variable audio at 400 cycles. Cathode follower output. 3-position step type attenuator for R-F selection. For 115 volts 50-60 cycles AC.



Stk. No.	Type	Size	Weight	Each
62F200	3432A	$15\frac{1}{2} \times 11\frac{1}{2} \times 6\frac{1}{4}$	12 lbs.	130.00

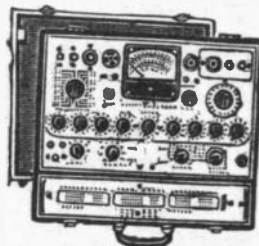
COMPACT VOM

Model 668-R. Pocket size VOM featuring 1,000 ohms-per-volt sensitivity on both AC and DC voltage ranges. Uses only two controls in all—the single range switch and the ohms adjust control. Has flush-mounted 3" microammeter. Scale, 29 $\frac{1}{2}$ " long at top arc. Ranges: DC and AC volts, 0-10-50-250-1,000-5,000 at 1,000 ohms per volt; DC ma. 0-10-100; DC amps, 0-1; ohms, 0-3,000-300,000; megs, 0-3. Complete with batteries, test leads, banana plugs, and alligator clips. $3\frac{1}{2} \times 5\frac{1}{2} \times 2\frac{1}{2}$ " size. Shpg.



wt. 1 $\frac{1}{2}$ lbs.
62F209. NET **40.00**

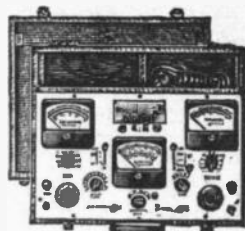
TUBE ANALYZER



Model 3444. Measures true Gm without extra compensating factors using proper value DC electrode potentials 5 KC-AC signal source and a vacuum tube microammeter. Has socket and chart set-up for nuvistor type tubes. Low 33-ohm plate impedance. Plots tube characteristic curve, contains noise test jacks. Will check gas under actual operating conditions. Filtered DC short and leakage measurement from 0 to 10 megohms at 85 volts. Direct reading Gm ranges: 1,000, 3,000, 10,000 and 30,000 micromhos. Signal potentials @ 5 KC: 1,000, 0.333, 0.100 and 0.033 volt. 5 and 50 ma DC plate current ranges. Roll chart incl. Power input required: 117V AC. 50-60 cps.

Stk. No.	Type	Size	Weight	Each
62F274	3444	$15\frac{1}{2} \times 18\frac{1}{2} \times 7\frac{3}{4}$	27 lbs.	350.00

TRANSISTOR ANALYZER



Model 3490-A. Designed to test all types of PNP and NPN transistors. Analyzes both power and signal types. Tests: Tet-rode (using separate power supply), D.C. Beta, A.C. Beta, ICEO Leakage, ICO Leakage, IEO Leakage, Zenar diode test Diode and rectifier tests, SCR tests. Punch thru, Saturation, Floating, Potential, and Alpha. Provisions for many different parameters. Common base or emitter configuration. Inter-locked warning lights. Input current meter reads emitter or base current at all times. Additionally, unit provides continuous current and voltage control. Hi-power silicon full wave rectifiers deliver up to 30 Amp DC collector current and 1 Amp input current. Gray leatherette case with removable cover. Etched aluminum panel. Heat Sink—copper bar. Fused. Meters: 0-200 ua, 0-100 ua, 0-5 ua suspension types. $15\frac{1}{2} \times 18\frac{1}{2} \times 6\frac{1}{2}$ ". Shpg. wt., 30 lbs.

62F202. NET **400.00**

POWER AND SIGNAL TRANSISTOR TESTER



Model 2590. Tests Power and Signal Type Transistors under SIMULATED OPERATING CONDITIONS. Provides for testing ICEO (at 9.5v); ICBO (at 9.5v) and BETA (at 3v) on both NPN and PNP transistors. Checks leakage and forward currents of Diodes. The panel of etched heavy gauge aluminum has natural finish with black and red markings and trim. The indicating instrument is a microammeter with five scales in black and red and green. Top scale arc is 4.04 inches long. Connectors—Transistor socket; also three separately colored banana-type jacks for connection to transistor with leads provided. 26" long leads. Test prods with small alligator clips at one end. Banana plugs for connecting to tester jacks at the other end. SCALES—0-1 MA for Signal Transistor ICEO; 0-100 MA for Power Transistor ICEO; 0-500 UA for Signal Transistor ICBO; 0-1 MA for Power Transistor ICBO; 5-100 Beta Range. Power, 115 volts, 50-60 cycle. AC. $11\frac{1}{2} \times 8\frac{1}{2} \times 5\frac{1}{2}$ ". Shp. wt., 9 lbs.

62F289. NET **65.00**

CARRYING CASES AND REPLACEMENT LEADS

Model 639. Black cowhide leather case. Space for tester and accessories. For Models 630, 630-A, 630-M, 630-NA, 630-NS, 630-PL, 630-APL, 630-PLK, and 631.

62F213. NET **11.00**

Model 639-P. Same as 639, but lined with $\frac{3}{8}$ " sponge rubber padding for maximum protection of tester.

62F234. NET **16.00**

Model 639-N. Black Leather case with center cover flaps, permits complete access to tester without removal from case. For Models 630, 630-A, 630-NA, 631, 630-PL, 630-APL, 630-NS, 630-M, and 630-PLK.

62F233. NET **11.00**

Model 669. Black leather case with strap handle, space for tester leads, accessories. For 666-R.

62F210. NET **7.50**

T-79-127. Rubber replacement leads for Models 630, 630-A, 666-R, 630-PL, 630-APL, 630-PLK, 630-NA, 630-NS, 630-M, and 631.

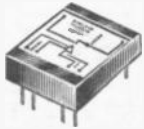
62F245. NET **2.50**

T-79A-153. Replacement leads for Model 310 and 310C.

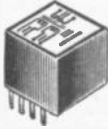
62F246. NET **2.50**

Test Equipment AMPHENOL

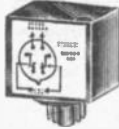
SENSITAK



Model 11, 12



Model 13



Model 14, 15

SENSITIVE SOLID-STATE METERING RELAYS

Combines silicon, solid-state amplifier and a reed contactor, epoxy encapsulated and temperature compensated. Operates from an 8 VAC $\pm 10\%$, 20 MA primary power source. Reed normally open and has 15 watt capacity, AC or DC. They may be solder mounted on printed circuit boards. Any number of relays may be used in series or parallel for high or low limit functions.

MODEL 11A OVER-VOLTAGE LATCHING RELAY

Contacts will close if signal exceeds 1V or 1MA. Contacts remain closed until the primary power is interrupted.

60F2820. NET. 14.65

MODEL 11B UNDER-VOLTAGE LATCHING RELAY

Contacts close when signal falls below 1V or 1MA. Closed until primary power interrupted.

60F2821. NET. 17.95

MODEL 12A OVER-VOLTAGE ON/OFF RELAY

Contacts close when signal exceeds 1V or 1MA. Open when signal drops below 1V or 1MA.

60F2822. NET. 14.65

MODEL 12B UNDER-VOLTAGE ON/OFF RELAY

Contacts close when signal drops below 1V or 1MA. Open when signal exceeds that.

60F2823. NET. 17.95

MODEL 13 POWER SUPPLY

Supplies 2 relays continuous duty .4 relays intermittent duty.

60F2824. NET. 5.50

MODEL 14 SERVO/DIFFERENTIAL RELAY

Can be operated as servo relay, differential relay, and phase detector. Solid state, AC operated. Epoxy-encapsulated, all silicon, incorporating 2 dry reed switches. Signal normally derived from four-arm bridge excited by a low voltage AC power source. When bridge is balanced reeds are open. When bridge is unbalanced, reed in direction of unbalance is closed. Requires primary power source and phase sensing signal derived from the same primary power source. Primary power requirements: 1 Watt, 120V $\pm 15\%$, 60 to 400 cps. Operating range: -40 to $+85^\circ\text{C}$. Unaffected by temperature and voltage variations. Response time 5 millisecond. size, $1\frac{1}{16} \times 1\frac{1}{32} \times 1\frac{1}{8}$ ".

60F2825. 14—Octal Plug. 21.75

60F2826. 14A—6" Wire Leads. 21.75

60F2827. 14B—Turret Lugs. 21.75

MODEL 15

Micro sensitive solid state servo/differential relay. Incorporates high gain Silicon Solid State Amplifier requiring a primary power source and a phase sensing signal source derived from the same primary power source. The relay output consists of dry reeds with 15W AC or DC switching capacity. Current amplification factor 10^8 . Primary power requirements: 1W, 120 V $\pm 15\%$, 60 to 500cps. Unaffected by a shock or temp. variation in range of -40 to $+85^\circ\text{C}$. Designed for use directly with low level transducers.

60F2828. NET. 31.95

NEW MODEL 16 SERIES RELAYS

Operate at ambient temperatures of -40 to $+85^\circ\text{C}$, have less than 1 millisecond response time, high input impedance, and high signal sensitivity. Reed switch has 15 watt or 250ma max. cap. up to 125 VAC or DC (resistive load). Electrically isolated from amplifier to 1,000 VAC. Capable of multi-million operations at rated load.

60F2829. EACH. 6.30

INDUSTRIAL MEASUREMENTS AND CONTROLS CORP.

SOLID STATE OSCILLOSCOPE

- Triggered sweep
- Extended frequency response

- Calibrated sweep times
- Calibrated vertical attenuator

Model S-3. Ideal for industrial maintenance departments, traveling servicemen and lab use. Input impedance: 1 megohm shunted by 20 uuf. Display tube, 3" flat face with external graticule. Vertical sensitivity, .05 V/div. linear over 8 divisions (2"); Attenuator freq. compensated—10 steps, .05V to 50V/div., 3% accuracy. Freq. response—DC to 6 mc. Rise time @ 2 div. amplitude .075 usec. @ 4 div. 0.1 usec. Horizontal: Sweep speeds—1 usec./div. to 500 milliseconds/div. in 18 steps. Accuracy capability better than $\pm 3\%$. 1 usec. to 50 MS/div. $\pm 10\%$. 100 to 500 MS/div.; Continuously variable uncalibrated sweep than $\pm 3\%$. 5X Multiplier increases max. sweep rate to 0.2 usec./div. Trigger Modes: Free run; Internal speeds; 5X Multiplier increases max. sweep rate to 0.2 usec./div. Trigger Modes: Free run; Internal \pm or $-$ slope; External \pm or $-$ slope, trigger level is adjustable; Automatic sweep stability—when in triggered mode trace is definitely triggered at the slope and level set; Trigger delay — delay between signal reaching the trigger level and start of sweep is approximately 0.75 usec. Power Supply: 15 watts @ 105-135 VAC line. Overall size, 14" x 6" x 8 3/4". Shipping weight, 20 lbs.

62F1070. NET. 450.00

MODEL 840 SIGNAL COMMANDER

A sensitive, battery-operated field strength meter for precise VHF and UHF measurements. Completely portable, all-transistor unit has two linear scales, 0-100 uv and 20-40 db reference to 1 mV. Switched attenuators extend range to 100,000 uv and 100 db. Plug-in tuning modules available covering VHF and UHF TV, and 50-900 mc. Accepts both 50- and 72-ohm unbalanced systems without adapters. Frequency measurements accurate to $\pm 5\%$; signal strength measurements accurate to ± 1.5 db. Operates on two 8.4 volt mercury batteries (not supplied). Size, $9\frac{1}{2} \times 5\frac{1}{4}$ ". Shpg. wt., 3 1/2 lbs. Less modules, and antenna.



62F1055. 149.95
62F1056. Model 840-13. FM & VHF Module. 69.95
62F1057. Model 840-83. UHF Module. 54.95
62F1058. Model 840-300. Balun Matching Xformers. 8.95
62F1059. Model 840-1000. Adj. Dipole Antenna. 12.95

MODEL 855 CRT COMMANDER

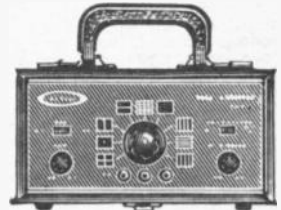
Tester and Rejuvenator. Fool-proof tests of color CRT's. Tests all CRT's, even new 110" 23 inch tubes. Measures emission relative to identical cutoff conditions. Tests for life expectancy, gas, leakage shorts and opens. Test is achieved by triode connecting the elements of the tube under test. Result is meter reading indicative of tube's contrast capabilities. Exclusive built-in voltmeter with D'Arsonval movement. Has two ranges: 0 to 1000 volts, 0 to 50K volts, 20,000 ohm/perm volt. Dynamic electron gun test: grid cut off as low as 1u Amp Gas test 1 megohm sensitivity. Improved rejuvenation method. Revitalizes cathode and enlarges grid aperture. Compact and lightweight. Size: 9"x12"x5 1/2". Shpg. wt., 7 1/2 lbs.



62F1060. NET. 89.95

MODEL 860 COLOR COMMANDER

Precision adjustment is available for critical horizontal and vertical linearity settings, fine tuning, static and dynamic convergence, and all color adjustments. Crystal controlled and silicon solid-state construction insures stable and reliable operation. Battery powered, consumes 1/2 watt, less than standard flashlight lamp. Patterns include single cross hatch for centering, single dot for static convergence, 20x15 cross hatch for fine tuning, dynamic convergence, linearity; 3-bar color pattern, full dot, single vertical bar, single horizontal bar, multi-horizontal bar, and multi-vertical bar patterns. Small and lightweight. Size: 5"x9"x4". Shpg. wt., 3 1/2 lbs. Less batteries. Uses 9 penlite cells.



62F1061. NET. 169.95
62F1062. Model 860AC with AC pwr. Supply. 189.95
62F1063. Model 860-2 Optional AC Pwr. Supply. 19.95

DC response



B&K Test Equipment

TV ANALYST

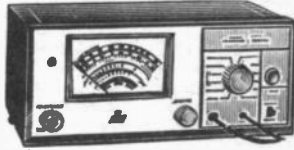
Model 1076. Provides RF and IF test pattern signals to trouble shoot. Check resolution, bandwidth, shading and contrast capabilities with test pattern in flying spot scanner. 4.5 mc, 400 cycle FM modulated sound signal. Sync signal adjustable to ± 50 volts. Sweep pulses; yolk and transformer test; high voltage indicator. White dot, crosshatch and color bar patterns for color sets. Bias supply and AGC keying pulse. 17" x 10 $\frac{1}{4}$ " x 10". Shpg. wt., 36 lbs.



329.95

B & K CAPACITOR ANALYST

Model 801. Measures capacitance and leakage resistance in both in-circuit and out-of-circuit. Designed to operate on 105-125 volts 60 cycle AC, but will operate from 90 to 140VAC after a 2 min. warm-up. Can detect "shorts" in normal circuits where the capacitor tested is shunted by more than 25 ohms. Detects "Opens" in circuits where the capacitor tested is more than 25 pfd or shunting resistance is more than 50 ohms. Unique circuit determines how capacitor stores energy and returns it to the circuit. Spots marginal electrolytics that need replacement and predicts the life expectancy of electrolytic capacitor of 3 volts or more. Meter movement is protected against overloads. Easy to test low-voltage transistor circuit capacitors as well as those in vacuum-tube circuits. Electrolytic tests up to 2000 mfd, using a balanced bridge. One knob makes it easy to select the desired function and range. Simplified internal design, easily portable. Weight, 8 $\frac{3}{4}$ lbs.



109.95

NEW TRANSISTOR EQUIPMENT ANALYST

Model 870. For FM or AM, auto home and portable radios and transistorized TV and audio amplifiers. In-circuit transistor test permits quick determination of operation of any stage of amplification. Out-of-circuit transistor test reads Beta directly on meter scale and tests for leakage current. Built-in power supply with a 5 amp output and low ripple. Out-put voltage 1.5 to 15 volts in eight 1.5 v. steps plus 6.8 and 13.6 volts for auto radios. Fused input and output. Bias supply with variable 1.5 to 15 volts output. AM and FM generator outputs with vernier tuning: 250kc to 2000kc with AM modulation, 10mc to 11.4mc with AM or FM modulation 88mc to 108mc with FM modulation. DC volt-ohm-milliammeter with burn-out-proof meter movement. 400 CPS grade output or modulation. Modulation on AM not less than 30%. Deviation on FM not less than 70kc at maximum level setting. Separately adjustable audio modulation and RF output controls find incorrect bandpass in IF's and discriminator on FM. All solid state construction. Size: 15 $\frac{1}{2}$ x 8 $\frac{1}{2}$ x 9". Shpg. wt., 22 lbs.



199.95

NEW COLOR GENERATOR

Model 1245. For quick and easy checking and adjustment of: convergence, demodulator alignment, color sync, color fit, horizontal and vertical size, linearity and overscan. Small, lightweight solidstate. Dots only one raster line high and .25 sec. wide. Free of retrace lines. Station quality waveforms for absence protection and least convergence time through minimizing need for brightness, contrast and line readjustment. Precise waveforms permit accurately setting color killer control without a B&W telecast. Built-in gun killer works on any picture tube. Output is at RF with more than 50,000 μ V of signal on Channel 3, 4 or 5. This generator provides crystal-controlled keyed rainbow color bar display; dot, crosshatch, horizontal line and vertical line patterns. Size 27 $\frac{1}{2}$ " h x 8 $\frac{1}{2}$ " d x 8 $\frac{1}{2}$ " w. Shpg. wt., 3 lbs.



134.95

DYNAMIC MUTUAL CONDUCTANCE TUBE TESTER

- Multiple socket selection
- Simplified switch selection

Model 707. Provides multiple socket selection to quick check most TV and radio tubes. Simplified switch selection. Includes provisions for future new sockets. Tests all types of tubes. Automatic compensation for line voltage variation. 4 $\frac{1}{2}$ " meter with "Replace-Good" scale. Lists common tube types on socket panel. Complete reference chart in cover. 7, 9, and 10 pin straighteners on panel. Checks each section of multi-section tubes separately. Tests for all shorts, grid emission, leakage and gas. Grid emission test is adjustable, with sensitivity to over 100 megohms. Makes quick "life" test. Professional, dynamic mutual conductance tube tester that combines multiple-socket speed with high Gm accuracy—plus obsolescence protection. Size: 16 $\frac{1}{8}$ x 15 $\frac{1}{4}$ x 5 $\frac{7}{8}$ ". Shpg. wt., 15 $\frac{1}{2}$ lbs.



189.95

NEW DYNA-JET TUBE TESTER

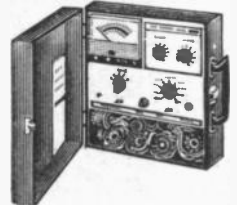
Model 606. This multiple socket design has reduced the number of settings for testing each tube from 17 required in many other types of testers to only 4. You can test for all shorts, grid emissions, leakage and gas; and check cathode emission the accurate way—under simulated load conditions! With the really portable Model 606, you won't reject the good tubes, and you'll quickly find the bad ones, reducing call backs, selling more tubes, and increasing service profit. You'll find "tough dogs" and weak tubes with the exclusive adjustable grid emission test, which has the sensitivity of over 100 megohms. Molded tube sockets have phosphor bronze contacts for long, trouble-free life. Simplified heater voltage setting with power-on indicator. Each section of a multiple section tube is checked. Size 11" w x 8 $\frac{1}{2}$ " h x 4 $\frac{1}{2}$ " d. Operates from 105-125v., 50-60 cycles A.C. Shpg. wt., 8 lbs.



79.95

NEW CRT TESTER AND REJUVENATOR

Model 485. Tests and rejuvenates black & white and color TV picture tubes without removing tube from set. Provides correct filament voltage (0-13 v.) for all tubes. Tests and rejuvenates all hi G-2 and low G-2 tubes including those requiring a G-2 voltage as low as 25 volts. Tests new rectangular color tubes. Corrects each color gun separately. Uses DC on all tests. 4 $\frac{1}{2}$ " meter and neon bulb indicators for easy reading. Leatherette 10 $\frac{1}{2}$ " x 11 $\frac{1}{2}$ " x 4 $\frac{1}{2}$ " luggage type case. For 117 VAC, 50/60 cps. Shpg. wt., 10 lbs.



89.95

NEW VOLT OHM MILLIAMMETER

Model 120. The most comprehensive unit of its type ever offered in its price range. It features 61 ranges and functions specifically designed for use in industry, laboratories, maintenance shops and schools. 20,000 ohms per volt DC. 5000 ohms per volt AC. Rugged 50 microamp meter: $\pm 2\%$ accuracy. Extra-low resistance and voltage ranges. Wide frequency response AC and dB ranges. Mirrored scale, burn-out proof meter. Size: 7" x 5 $\frac{1}{2}$ " x 3 $\frac{1}{2}$ ". Shpg. wt., 4 lbs.



51.95

NEW B&K PORTABLE VTVM

Model 175. Built in battery eliminator. Single AC/OHMS/DC test probe with switch. Transit carry-meter is shunted to provide protection in transit. Pilot light. Accuracy: $\pm 5\%$ AC, $\pm 3\%$ DC full scale. Operates on: 117V, 50/60 CPS, AC. AC Voltmeter, 7 Ranges (RMS): 0-1.5-5-15-50-150-500-1500 volts full scale. DC Voltmeter, 0-1.5-5-15-50-500-1500 volts full scale. Input Resistance: 11 megohms (1 megohm in probe) Sensitivity: 7 $\frac{1}{4}$ megohms-per-volt on 1.5 volt range. Size: 7 $\frac{1}{4}$ " x 5 $\frac{3}{8}$ " x 4 $\frac{1}{4}$ ". Shpg. wt., 6 lbs.



59.95

Test Equipment

PRECISION APPARATUS TEST EQUIPMENT

NEW WIDE RANGE SINE AND SQUARE-WAVE GENERATOR

Model E-310. Used for amplifiers, PA, transmitter modulation response tests, input and output impedance measurements, ultrasonic voltage source, and loudspeaker resonance tests. All tubes preaged to assure long term stability of calibration. Logarithmic, etched dial scale with Vernier and Fast tune dials provides accurate resetability. Frequency Range: Sine and square waves from 5 Hz to 600 kHz in 5 decimal bands. Output Level: Sine Wave, 10 V. RMS into 600 ohms; Square Wave, 10 V. P-P, 4 position step attenuator and continuous amplitude control. Calibration Accuracy: $\pm 2\%$ or 1 Hz. Distortion: Less than 1% from 5 kHz to 600 kHz. Supply Voltage: 117 VAC 50/60 Hz standard; 220 V. AC 50-60 Hz. available. Heavy-gauge, steel case, blue-grey ripple and aluminum panel and tuning dial. $11\frac{1}{2} \times 9 \times 11\frac{1}{4}$ ". Ship. wt. 24 lbs.

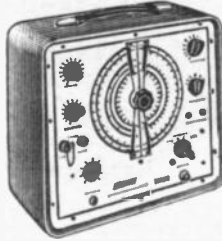


199.95

63F065. NET

NEW MULTI-BAND SIGNAL MARKING GENERATOR

Model E-200C. Exceptionally stable and accurate, this general purpose RF signal generator serves in conjunction with PRECISION Sweep Signal Generators or other similar sweep signal generators. Frequency coverage: 88 kc to 440 mc (to 110 mc on fundamental). $6\frac{1}{2}$ " brushed aluminum dial: direct reading in 10 bands up to 440 mc -1% accuracy. 0-1000 point vernier scale: direct reading to 1 part in 1000 for hand-calibration & frequency spotting. Circuit: 6AU6 in stable ECO circuit; 6U8 sine-wave audio oscillator-modulator; 5Y3 full wave rectifier. 400-cycle sine wave audio oscillator. Dual-shielded RF attenuators. Four types of signals: Unmodulated RF; 400 cps; modulated RF; Externally modulated RF; 400 cps audio output. Built-in AVC-AGC bias substitution. 117V, 50/60 cycles, AC. $13 \times 11\frac{1}{2} \times 6\frac{5}{8}$ ". Weight: 16 lbs.



119.95

63F066. NET

NEW VACUUM TUBE VOLTMETER

Model V75. For general use in schools, labs, production lines, radio-TV and appliance service shops. Polarity reversal switch for time saving diode leakage checks and other work in semiconductor circuitry. Transit switch position for meter movement protection. Built in battery eliminator. No ohmmeter battery required. Single high-impact Cycloc Dual Purpose Uni-Probes for withstanding rugged production service, and lab use. Inherent protection from its vacuum tube insures no harm from application of a wrong input voltage. DC Volts: $\pm 0-1.5$, 5, 15, 50, 500, 1500. AC V. (RMS) 0-1.5, 5, 15, 50, 150, 500, 1500. Resistance: Full Scale 1000; 10,000; 100,000, 1, 10, 100, 1,000 Megohm. Mid-scale 10, 100, 1000, 10,000, 100,000 ohm, 1 meg. 10 meg. Accuracy: $\pm 5\%$ full scale AC and $\pm 3\%$ full scale DC. Operates on 117 V. 50/60 Hz. Dimensions: $7\frac{1}{2} \times 5\frac{3}{8} \times 4\frac{1}{4}$ ". Weight: 6 lb.

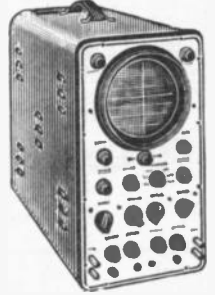


59.95

63F067. NET

NEW WIDE BAND OSCILLOSCOPE

Model ES-550B. For general purpose use for lab., schools, production line, and service shop; for color and b&w TV servicing. For multiplex alignment and solid state and vacuum tube equipment. Has 60mc. wide frequency response and 5" scope screen, 3-position vertical & horizontal step attenuator, freq. compensated: $\times 100$, $\times 10$, $\times 1$. response: 10 Hz. to 5 mHz. 3000-V. intensifier mode potential; amplified Auto-Sync Circuit. Four-way sync selection (internal neg., internal pos., external, and line) Direct-reading P-P voltage calibrator permits oscilloscope tube used as vacuum-tube voltmeter. Vertical pattern reversing switch, linear multi-vibrator sweep circuit 10 Hz to 100 kHz; automatically synchronized 30 Hz & 7875 Hz. sweep for TV sync-pulse analysis; amplified sweep retrace blanking. Built-in 60 Cps. phasing & blanking controls. Power Input: 117 VAC 60 Hz standard; High contrast filter-type illuminated graticule. Dimensions: $18\frac{1}{2} \times 14\frac{1}{2} \times 8\frac{1}{4}$ ". Shipping weight 47 lbs.



279.95

63F068. NET

PROBE SET FOR MODEL ESS0B

Model SPS. Oscilloscope probes including high impedance low capacity, crystal demodulating, resistive, and direct probe. Shipping wt. 5 lbs.

29.95

63F069. NET

NEW VOLT-OHM-MILLIAMMETER

Model 120. For general use in schools, laboratories, production lines, and radio-TV and appliance service-shops. Has 61 ranges (+ & -) Extra-high 6000 V. range, Extra-low ohms, current and voltage range, Mirrored, No-Parallax scale standard without extra cost. Transit meter movement protection Polarity reversing switch. DC V. (20,000 ohms/V.) 0-0.3, 1.2, 3, 12, 60, 300, 600, 1200, 6000. AC V. (5,000 ohms/V.) 0-1.2, 3, 12, 60, 300, 600, 1200, 6000. AC Output Ranges: 0-1.2, 3, 12, 60, 300, 600 V. (Built-in 600 V. blocking capacitor) Response: ± 1 db from 15 Hz -100 kHz on low voltage ranges. DB Scales: 8 wide-frequency db ranges -20 to +77 db; Resistance Full-scale 200, 2000, 200,000 ohms. Dc Polarity reversing switch for ease of measurement and quick front-to-back diode check. Precision 1% Multipliers and shunts: extra wide-vision meter with polished mirrored scale. Model 120 VOM complete with batteries, test leads and technical manual which describes the device in detail. Dimensions: $7 \times 5\frac{5}{8} \times 3\frac{1}{8}$ ". Shipping Weight: 4 lbs.



51.95

63F070. NET

ACCESSORIES FOR MODEL V 75

Model AV-2. High-Voltage Probe. Increases DC voltage range up to 60,000 volts. Shipping wt. 1 lb.

12.95

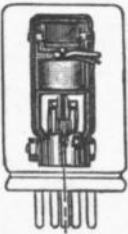
63F071. NET

Model AV-1. R. F. Probe Increases frequency range up to 250 mHz. Shipping wt. 1 lb.

7.95

63F072. NET

JAMES ELECTRONICS, INC. COMMERCIAL CHOPPER



- 50 to 70 C.P.S.
- S.P.D.T.
- Long Life

Model C-1800. Commercial type chopper for modulating low level microvolt and millivolt signals. For use in DC amplifiers, recorders, experimental analog instrumentation and comparators. Non-resonant read assembly insures stable operation over environmental changes of temperature, vibration and shock experienced in test and control equipment. Chopper is designed to maintain operational specifications with considerable driving frequency variations. SPDT with 150 ± 15 degree closure. Drive is 6.3 volts RMS at 50-70 cps., octal base. Noise less than 8 mv. RMS into 1 megohm. Size $1\frac{1}{2}$ " dia. by $2\frac{1}{2}$ ".

13.23

62F405. NET

Lots of 10 to 49

12.50

50-up


11.85

SAVE TIME! SAVE MONEY! At NEWARK - Quantity prices competitive with manufacturer!

SENCORE Test Equipment

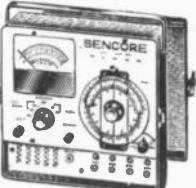


TC-136 TUBE TESTER
Ideal for the serviceman on call. Weighing ONLY 7 lbs. But, checks all tubes including Noyars. Nuvisors and Compactrons plus 10-pins. Functional cover serves as data manual. Simple set-up with only four controls. All steel construction with detachable hinge cover. Sensitivity of 100 megohms. Grid leakage read right off the meter. Wt. 9 lbs.
62F427. NET 74.50



CRT CHECKER AND REJUVENATOR
Model CR133. Recommended for color CRT's. Tests color guns individually; AC line voltage adjustment insures highest accuracy and safety; G2 voltage variable from 25-325 VDC to check all present and future tube models. Indicates shorts between any two elements. Two plug-in cables have all required sockets — no adaptors needed. Rugged steel case measures 10x9x3½". Wt., 10 lbs.
62F422. NET..... 89.95


TR-115 TRANSISTOR CHECKER
Test transistors for leaks, opens and shorts. Ratio check as well as Beta, good-bad. Equivalent check data for Japanese type and all American made transistors.
62F735. NET..... 24.95



FS-134 FIELD STRENGTH METER
Completely transistorized, battery powered portable. Frequency of 50-100Mc, 160-230Mc, 460Mc-900Mc. (channel 2-channel 83) Sensitivity Zero adjustment nullifies noise. Input 75 ohms (300 with matching Trans.) Indicated signal strength 0-5db. Band width 500Kc. 4" logarithmic scale calibrated in 60 db range, 2-2000 My range. Other controls include fine tuning, audio level, calibration. Indicates FM and AM signals. Size: 10x9x5". Shpg. wt., 9 lbs.
62F743. NET 199.50



NEW LO-BOY STANDARD COLOR BAR GENERATOR
Model CG10. Small, compact. Ten standard RCA type Color bar patterns; NTSC phased colors. Crosshatch, individual vertical and horizontal lines, and adjustable white dot patterns — no lines missing on crosshatch. Interlace control. Stops dot bounce that varies from set to set. All steel construction with a vinyl finish. Low in warm-up time. All solid state design with battery powered long life "C" cells provides all patterns instantly. With new Zenler diode, the 12 volt battery can "wear down" to almost 9 volts before the circuits are affected. All new patent pending counting circuits use new silicon transistors. No internal timer controls are used. Timer controls are brought out as simple operator's controls on the front panel. Weight: 7 lbs.
62F745. NET 89.95



Model RC121. Complete range of carbon resistors, capacitors, electrolytics and rectifiers for on-the-spot substitution. Contains: CARBON RESISTORS: 12 resistors 1 watt from 10 ohms to 5600 ohms. 12 resistors ½ watt from 10K to 5.6 megohms. POWER RESISTORS: 20 wire wound—20 watts from 2.5 to 15,000 ohms. CAPACITORS: 10 at 600 volts from 100 mmfd.

NEW TRANSISTORIZED COLOR GENERATOR AND ANALYZER
Model CG135. All solid state insures instant signals with no warm up time. Six jump out proof "Unijunction" counters guarantee solid patterns at all times below zero and up to 140°F. Produces all patterns needed for installing color TV, converging or trouble shooting. Connect to antenna terminals and tune receiver to channel 4. Can be returned to channel's 3 or 5. Unmodulated video (2V PP ±) for color circuit isolation and sync pulses. Color gun interruptors with switches on front panel are guaranteed not to load circuit. Wt. 8 lbs.
62F746. NET..... 149.50



NEW 5-INCH-WIDE BAND OSCILLOSCOPE
Model PS127. Vertical amplifier response flat within 1DB from 10 CPS to 4.5 MC and only 3DB down at 6.2 MC insures true waveform reproduction. Vertical amplifier sensitivity of .017 volts RMS for one-inch deflection on wide band (without band switching). High input impedance of 2.7 megohms shunted by 99 MMFD (or 27 megohms with 9 MMFD built-in low capacity probe) insures minimum circuit loading. For the first time waveforms viewed in the TV horizontal and vertical output circuits with built-in low capacity probe up to 5000 volts peak-to-peak. Vertical amplifier attenuator controls calibrated in peak-to-peak volts. Set waveform to one-inch in height and read directly. Horizontal amplifier sweep range from 5 to 500 KC in five overlapping steps and horizontal frequency response from 10 CPS to 1 MC within 3 DB guarantee linear sweep and positive synchronization. External inputs for horizontal sweep and synchronization on front panel. Provisions for intensity modulation, and direct connection to deflection plates on read. Tops in performance, operational simplicity, and appearance. Comparable to much higher costing oscilloscopes. 12"x9"x15½". Weight 25 lbs.
62F747. NET 189.50



NEW IN-CIRCUIT TRANSISTOR TESTER
Model TR-139. Checks Transistors or diodes in-circuit without disconnecting a single lead. The same procedure is used for in-circuit and out of circuit testing. Transistors can be matched, sorted, and selected for specific required values of beta and ICBO. True AC beta reading on a large 6-inch meter. Measures the ratio of AC signal on the base of the transistor to that obtained on the collector. Beta reading slightly more accurate when checked out of the circuit. Gives leakage current (ICBO) of any transistor directly on the meter. Checks both rectifiers and diodes either in or out of the circuit. In-circuit test gives a "go or no go" indication. Out of circuit testing measures the actual front to back conduction in microamps. A special circuit protects even the most delicate transistors and diodes, even if the leads are accidentally hooked up to the wrong terminals in the transistor. Clip type test leads included. Plug in jacks on front panel for adaptation to other applications. Large 6" face sensitive 200 microamps. Zener diode regulated power supply. All steel case, leatherette covered. 9"x7½"x6". Weight 8 lbs.
62F748. NET..... 89.50

SUBSTITUTION UNIT
to 0.5 mfd. RECTIFIERS: Universal Selenium—0.5 amps—800 PIV and Universal Silicon 0.5 amps—800 PIV. ELECTROLYTICS: 10 dual electrolytics 2-450 VDC. Each section can be used independently. 4 test leads. Wrinkle black steel cabinet, 6x10x3½". Wt., 6 lbs.
62F732. NET..... 39.95

Amprobe Test Equipment



AMPROBE SNAP-AROUND VOLT-AMP-OHMMETERS

The most popular and asked for tools of their type. Only one volt or amp range is revealed in its unbreakable plastic window at any one time. Rotary scale eliminates guesswork and reading errors. Currents may be measured instantly and accurately. Pointer-lock freezes needle at the reading with the flick of a switch. Allows you to take readings in darkness or hard to see areas and then read away from the conductor. A valuable tool in balancing circuits, tracing faults and grounds, and diagnosing operating troubles without shutting down equipment. Built-in 25 ohm mid scale ohmmeter on RS-3 and RS-1000. Accuracy within $\pm 3\%$ FS. One hand operation. With case and leads.



Stk. No.	Type	Volts	Amps	Net
62F650	RS-1	0-150/600 AC	0-6/15/40/100 AC	43.85
62F708	RS-2	0-150/300 AC	0-6/15/40/100 AC	43.85
62F658	RS-3	0-150/300/600 AC	0-6/15/40/100/300 AC	57.50
62F707	RS-300	0-150/300/600 AC	0-6/15/40/100/300 AC	52.50
62F708	RS-1000	0-150/300/600 AC	0-15/40/100/300/1000 AC	76.50

AMPROBE JR. YO MODELS AND KITS

The only voltage testers in their price class that measure voltage, current and resistance; furnished with test leads. Also comes as Amprobe Jr. Test-Master Kit consisting of a specially designed leather case containing the YO Amprobe Jr., an Amprobe A-45L Energizer, battery attachment and test leads. The New YO precision instruments measure instantly and accurately on a calibrated scale. Ohm-meter range: 25 ohms mid-scale; frequency: 60 cycles A.C. (*Indicates Test-Master Kits).



Stk. No.	Type	Ammeter Range	2 Voltage Ranges	Net
62F950	YO 525	0-25	0-150/600	27.50
62F951	YO 550	0-50	0-150/600	
62F952	YO 500	0-100	0-150/600	
62F954	YO 50	0-50	0-125/250	
62F956	TM-YO 525*	0-25	0-150/600		37.85
62F957	TM-YO 550*	0-50	0-150/600	
62F958	TM-YO 500*	0-100	0-150/600	
62F959	TM-YO 25*	0-25	0-125/250	
62F960	TM-YO 50*	0-50	0-125/250	
62F961	TM-YO 100*	0-100	0-125/250	

Type P-1. Carrying case for above "YO" models and also models listed elsewhere on this page. **3.25**

62F968. NET

AMPROBE® JUNIOR LINE-PROBE

Versatile four-in-one pocket sized tester. Can trace up to 10 circuits at one time. Measures voltage ($\pm 3\%$ FS), quick and easy current reading, and checks for continuity. AC amps: 0-50. Furnished with 10 station markers, 2 station marker holders, voltage leads, fused battery attachment and case.



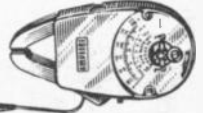
Stock No.	Type	Volts, AC	NET
62F970	ALP50	0-125/250	38.50
62F971	ALP550	0-150/600	38.50

Depend on NEWARK for the Latest Top-Quality Equipment. Complete On-the-Shelf Stocks • Lowest Prices—

• Fast Service

AMPROBE JR.

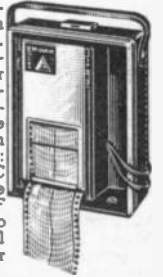
The only voltage testers in their price class that also measures amperage. They are precision instruments that measure instantly and accurately on a calibrated scale $\pm 3\%$ full scale (not just an indication). Amperage ranges to 100 amps and voltage scales to 600 volts are available. Price includes Test Leads, Less case.



Stk. No.	Type	Ranges	Net
62F963	Y25	0-25 Amps A.C. 0-125/250 Volts A.C.	22.50
62F964	Y50	0-50 Amps A.C. 0-125/250 Volts A.C.	
62F966	Y525	0-25 Amps A.C. 0-150/600 Volts A.C.	
62F967	Y550	0-50 Amps A.C. 0-150/600 Volts A.C.	
62F968	Y500	0-100 Amps A.C. 0-150/600 Volts A.C.	
62F969	P-1	Carrying case for above models	3.25

AMPROBE RECORDERS

Rugged, compact instruments in their own genuine leather case. Especially designed for high accuracy, dependability, and ease of operation. Small size and easy loading plus a unique design feature permits them to be used either as monitoring/recording devices or as indicating instruments making these recorders extremely versatile. Can be used as round the clock trouble shooters without the need for an operator to be present. Power requirements: 115VAC, 60 cycles, 2.5 watts. Accuracy: AC amps and volts $\pm 3\%$ FS; AC expanded scale volts $\pm 1.25\%$ FS; Temperature $\pm 3^\circ\text{F}$ on $+20^\circ\text{F}$ $\pm 4^\circ\text{F}$ on -50°F to $+100^\circ\text{F}$; $\pm 5^\circ\text{F}$ on $+50^\circ\text{F}$ to 250°F . Chart Speed is 12"/hr. Supplied with 1 roll each of the necessary strip charts. Other chart speed available. Weight 20 oz. *With resistance bulb thermometer (FL-RBT-1)



**With A60FL Transducer

**With A-70FL Transducer

Stk. No.	Type	Description	Range	Net
62F678	LAA81	Ammeter***	0-10/50/250/500 Amps AC	109.85
62F679	LAA82	Ammeter**	0-5/25/100/250 Amps AC	104.85
62F680	LAV2X	Voltmeter	95-130/190-260 V., AC	98.85
62F979	LAV3X	Voltmeter	95-130/190-260/380-520 V., AC	124.85
62F698	LAV8600	Voltmeter	0-150/300/600 V., AC	98.85
62F685	LAVA81	Voltmeter/Ammeter**	95-130/190-260 V., AC	148.85
62F686	LAVA82	Voltmeter/Ammeter**	0-10/50/250/500 Amps, AC	143.85
62F980	LAVA83	Voltmeter/Ammeter**	95-130/190-260/380-520 V., AC	143.85
62F981	LAVA84	Voltmeter/Ammeter**	0-10/50/250/500 Amps, AC	169.85
62F681	LT8100	Thermometer*	0-5/25/100/250 Amps, AC	164.85
62F674	ADV220	Motor Volt Adapter	-50 to $+100^\circ\text{F}$; $+50$ to 250°F . Permits Rec. Mtr. to operate on 220 V., AC	103.85

STRIP CHARTS FOR ABOVE RECORDERS

Perforated and printed 2 colors. Individually boxed 30' rolls.

Stk. No.	Type	Description	Net
62F704	830AV600	Use with model LAV8600.	1.50 per roll
62F689	850A	Use with models LAA81, LAA82, LAV81, LAVA82, LAVA83, LAVA84.	
62F690	835X3A	Use with models LAV2X, LAV3X, LAVA81, LAVA82, LAVA83, LAVA84.	1.50 per roll
62F691	823T1	Use with model LT8100	
62F692	833T2	Use w/model LT8100 ($+50^\circ\text{F}$ / $+250^\circ\text{F}$).	

TEST MASTER KITS

TM33. The TM Kit keeps all instruments in a leather carrying case. Has a built-in tool compartment. Contains one RS-3, Deca. Comes in the following models: Tram A50-1, A-45L. **94.50**

62F681. NET

Type TM43. Contains one RS-3, Deca-Tran A50-1, Phase Sequence Adapter PSA-1, A45L. **103.85**

62F983. NET

Type TM53. Contains one RS-3, PSA-1, A45L. **76.85**

62F984. NET

ENERGIZER

Model A-45L. Permits current readings on permanently wired low-current equipment by simplifying series connection. Increases ammeter sensitivity 5x or 10x for more precise reading directly at outlets by splitting double conductor line cords while equipment is connected to line. Cap: 10 amps. With pouch. **6.75**

62F985. NET



Rustrak Chart Recorders-Accessories

BASIC CURRENT AND VOLTAGE RECORDERS



Miniaturized, automatic chart recorders for lab use. Continuous, distortion-free rectilinear recording. Records information every 2 seconds, at 1" per hour. Accuracy is 2% of full scale. Meter sensitivity: 1 ma. Rated 750v. maximum peak. Drive mechanism for 115v., 60 cycle AC. AC voltmeter movements operate up to 500 cps. Size: 5½x3½x4½". Portable and panel hardware supplied. Shipping weight, including paper roll, 5½ lbs.

Stock No.	Description	Net
62F1326	50 u.A., DC, 5400 ohms	98.50
62F1283	100u.A., DC 4600 ohms	93.50
62F1284	200 u.A., DC 2200 ohms	89.50
62F1250	1 MA DC, 100 ohms	83.50
62F1252	1 MA DC, with access window, 100 ohms	88.50
62F1253	.5-0.5 MA DC Zero Center 1000 ohms	88.00
62F1267	500 MA DC 200 ohms	88.00
62F1268	1 AMP DC .1 ohm	88.00
62F1270	1 Volt DC 1000 ohms/volt	88.00
62F1275	10 Volt DC 1000 ohms/volt	88.00
62F1254	0-150 Volt AC 1000 ohms/volt Rect. Type	92.95
62F1327	10 Millivolt DC 10 ohms	94.50
62F1328	25 Millivolt DC 12.5 ohms	94.50
62F1269	100 MVDC 100 ohms	83.50

MINIATURE FOUR CHANNEL EVENT RECORDER

• Easy to Install

Model 92. Designed to monitor from one to four ON-OFF operations. Recording is a clear, black line indicating the number, duration, relation, and chronological time of these operations. Portable or rack mounted. RETMA standard panels are available for mounting. Drive motor operates on 120 Volts, 60 cycles. Pen actuators operate on 24 VDC. Supplied with 1 in/hr. gear train. Additional gear trains available (See listings on this page.) Less Power supply for Pen Actuators. Shpg. wt., 5½ lbs.

62F1223. NET

• Easy to Operate

92.00

POWER SUPPLY FOR PEN ACTUATORS

Model 921. Power supply operates from 120 volt 50/60 cycle to supply 24 VDC which will operate all four channels.

62F1325. NET

15.00

AC DUAL VOLTAGE-CURRENT RECORDER

Model 120. Rustrak dual channel recorder contains two individual galvanometers; one recording voltage, the other recording current, with both being recorded simultaneously. Accuracy 2%. Wt., 5½ lbs.

Stk. No.	Amp.	Volt	Net
62F1247	0-5	100-140	149.50
62F1331	0-5	200-280	154.50

MODEL 91 DUAL CHANNEL "DC" RECORDERS

Both channels record simultaneously on the same chart paper.

Stk. No.	Ch 1	Ch 2	Net
62F1332	0-1MA	0-1MA	130.50
62F1333	0-100uA	0-100uA	144.50
62F1334	0-1MA	0-100uA	143.50

TEMPERATURE RECORDERS WITH

SPANS FROM -100°F. to 600°F.
Model 144. Temperature recording instrument for high resolution accurate recording of temps. from -100°F to 600°F. Sensing device of fine nickel wire. Thirty standard spans available on order; 115V, 60 cycles. Model 144 supplied with Model 1442 probe & 15 ft. extension cable. Model 1441 & 1442 probes interchangeable with standard extension cable. Model 1441 utility probe of 304 stainless steel; will withstand pressure of 150 p.s.i. Model 1443 stainless high pressure fitting for inserting Model 1441 probe to pressure vessel.

Stk. No.	Type	Temp. Span	Net
62F1335	144	0-100°F	185.00
62F1336	144	150-250°F	185.00
62F1337	144	0-500°F	185.00
62F1338	1441	Probe	39.50
62F1339	1443	Pressure fitting	3.00

"AC" RESTRICTED RANGE, HIGH RESOLUTION TYPES

62F1277. 70-135VAC, with line cord. NET 99.95

62F1278. 70-135VAC and 140-270VAC. NET 96.95

RACK MOUNTING PANEL, HARDWARE

62F1280. Panel for mounting 2 recorders. NET 15.00

62F1287. For mounting 3 recorders. NET 15.00

62F1288. For mounting 4 recorders. NET 15.00

62F1282. *Set of separate panel-mounting hardware. NET 1.50

62F1281. *Set of separate portable hardware. NET 1.50

*Recorders are delivered either panel mounted or portable. These items permit both uses.

TEMPERATURE RECORDER



Model 133. A self-contained temperature recording instrument which produces a high resolution, accurate recording of temperatures. Used with Thermistor probes. Standard 1" per hr., ½" per hr., to 450" per hr. on order. 105-130V, 60 cycles. Accuracy 2% of span. Stability ½% of span. Temperature Range -50°F to 300°F on order. Shpg. wt., 5½ lbs.

Stk. No.	Type	Temp Span	Net
62F1216	133	90-115°F	180.00
62F1217	133	30-105°F	180.00
62F1218	133	100-200°F	180.00

PROBES (FOR ABOVE)

All probes are equipped with 10' cords and connecting plug.

Stk. No.	Model No.	Type	NET
62F1219	1331	Oral-Rectal	13.50
62F1220	1332	Utility	21.00
62F1221	1333	Extended disc	25.50
62F1222	1334	Flexible lead disc	21.00

DC AMPLIFIERS TO INCREASE THE VERSATILITY OF THE CHART RECORDERS



Amplifiers are chopper stabilized vacuum tube types. 5 thousand ohm, 5V max. output. Amplifiers are the same size as recorders. General sensitivity ratings are for a one milliamper recorder or galvanometer. Frequency response from DC to 5 cycles. Using a 200 microampere galvanometer increases the sensitivity 5 times. Shpg. wt. 5 lbs.

Model 98. Accuracy 1% due to all causes. Input resistance 1 megohm all ranges. Freq. 5 cycles. Ranges: .01, .1, 1, 10 volts DC. 1 & 10 microamps. NET 115.00

Model 114. Amplifier can be used with low or high resistance transducers having low D.C. MV outputs. Accuracy 1% due to all causes. Input resistance 100,000 ohms. Frequency 5 cycles. Sensitivity 10 MV continuously variable. Zero offset ½ scale, 1 MA. NET 114.50



MULTIPLIER BOX

Model 111A. Consists of multipliers and shunts with a selector switch. Standard Rustrak 1 MA recorder will give the following readings when used in conjunction with this box: 1-5-10-50-100-500-1000 volts or milliamperes DC.

62F1237. NET 49.50

Model 111B. Same as above, but has readings. 3-15-30-75-150-300-750V or Ma. DC.

62F1236. NET 49.50

SAVE WORK! Make Newark your Complete 1-Point Stock Source!
SAVE TIME! At Newark—fast, efficient service always!
SAVE MONEY! Quantity Prices Competitive with Manufacturer!

MILLEN TEST EQUIPMENT



GRID-DIP METER

Model 90651. Uses the calibrated RF oscillator principle. 2" G.E. meter reads oscillator grid current. Common use: To find resonant freq of non-energized tuned circuits. Other uses: Receiver tuned circuit align., determination of transmitter tuned circuit freq. with power off, oscillating detector. Range: 1.7-300 mc. 105-125 v., 60 cps. with polypropylene carrying case which protects coils/probes and meter. 7x3 $\frac{1}{2}$ x3 $\frac{3}{4}$ ". Wt., 3 $\frac{1}{2}$ lbs. **68.85**

97F220. NET
97F221. 90651-C. Case only..... 4.80
Type 46721. Link probe. 220kc to 65 mc.
97F231. NET..... 1.95

97F232. 46702 coil. 925-2000 kc
97F233. 46703 coil. 500-1050 kc.
97F234. 46704 coil. 325-600 kc.
97F235. 46705 coil. 220-350 kc.
97F238. 46706 coil. 165-225 kc.
All coils listed above. NET EACH..... **8.25**

BEZELS AND FILTERS FOR CR TUBE

Made of black molded phenolic. With rubber cushion except* green plastic filter scale and hardware. Wt. $\frac{1}{2}$ lb.

No.	Type	For	NET
97F290	80071*	1" CR Tube	1.65
97F282	80072	2" CR Tube	2.00
97F283	80073	3" CR Tube	4.75
97F284	80075	5" CR Tube	9.20



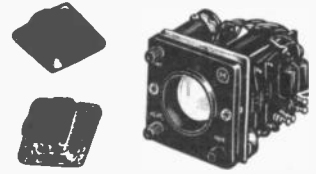
BASIC OSCILLOSCOPE UNITS

Millen's complete self-contained portable oscilloscopes are basic components for permanent incorporation into more specialized equipment. As transmitter modulation monitors, no additional equipment or accessories are required. The well known trapezoidal monitoring patterns are secured by feeding modulated carrier voltage from a pickup loop directly to the vertical plates of the cathode ray tube and audio modulating voltage to the horizontal plates. By the addition of such units as sweeps, pulse generators, amplifiers, servo sweeps, etc., all of which can be conveniently and neatly constructed on companion rack panels, the original basic scope unit can be expanded to serve any conceivable application. Sensitivity: vertical 100 volts P to P; horizontal, 120 volts P to P. Controls: intensity, Focus, Horizontal Centering, Vertical Centering, Power and Horizontal Input Selector. For 105-125 volts, 60 cycles AC. Less CR tube. Shpg. wt., 13 lbs.

Model 90902. 2" scope. Size, 19x3 $\frac{1}{2}$ x9 $\frac{1}{4}$ ".
Uses tube types 2BP1 or 2BP11.
97F280. NET..... 70.00

Model 90903. 3" scope. Size, 19x5 $\frac{1}{4}$ x13 $\frac{1}{2}$ ".
Uses tube types 3KP1, 3KP4, 3KP7, 3KP11.
97F280. NET..... 82.50

Model 90905. 5" scope for SUP1. Size, 19x7x16".
97F281. NET..... 125.00



1" OSCILLOSCOPE

90901. A miniature panel mounting basic cathode ray oscilloscope. Uses a 1CP31 CRT. Vertical deflection sensitivity of 1.7 volts r.m.s. per mm deflection and 4.7 volts peak to peak per mm deflection. Horizontal sensitivity is 2.5 volts r.m.s. per mm deflection and 6.9 volts peak to peak per mm deflection. The 1CP31 is a fixed focus tube so no focus control is required. Intensity and centering controls but no amplifiers, sweep, or power supply. Size 2 $\frac{3}{4}$ x2 $\frac{3}{4}$ x4 $\frac{5}{8}$ ". Shpg. wt., 1 lb.
97F285. Less CR Tube. NET..... **23.10**
1CP31. Tube. To be used with 90901. NET..... 29.95

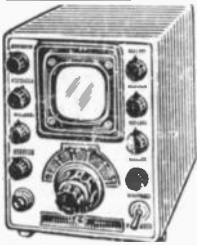
POWER SUPPLY FOR OSCILLOSCOPE

90202. Especially for use with model 90901. Input: 117 volts 50/60 cps. Output: 750 volts DC at 3 ma. and 6.3 volts AC at 600 ma. Octal plug for input and output. Entire assembly is encapsulated. Size: 2x2 $\frac{1}{2}$ x2x5" high. Wt., 1 $\frac{1}{4}$ lbs.
97F291. NET..... 23.10

CATHODE RAY TUBE SHIELDS

No.	Type	For Tubes	NET
97F286	80042	2BP1	7.30
97F287	80043	3DP1 & 3BP1	9.60
97F288	80045	5BP1, 5GP1, 5HP1, 5NP1	21.85
97F289	80055	5CP1	21.85

MILLEN MODULATION MONITOR OSCILLOSCOPE



Model No. 90932. Amateur Band Monitor Oscilloscope is a complete oscilloscope for monitoring the modulated r-f output of a transmitter. Built-in link-coupled tuned circuits cover all amateur bands 3.5 to 54 mc. All circuits and accessories are built in. The monitor will display the r-f envelope and/or the trapezoidal monitoring pattern of single side band transmitters or amplitude modulated transmitters. The cathode ray beam responds instantly and provides information not available in moving coil meters. Provides a continuous complete picture of the overall performance of the transmitter. For trapezoidal display, the horizontal display is taken from the modulator output. The overall power supply voltage is 1040 VDC which is high enough to provide a very sharply focused trace with good intensity. The beam is blanked during standby by the operation of a 6.3 volt relay. High voltage rectifier consists of two selenium stacks which eliminate the need of a rectifier tube and its attendant heat. Uses 2BP1 CR tube. **87.00**
97F222. Model 90932. NET Less Tube.....

EDNA-LITE

5" CRT OPTICAL IMAGE EXPANSION

- Distortion Freedom of Optical Glass • Close Viewing, Remote Viewing, Group Viewing
- Complete Eye Relaxation • Approx. 4X Increase in CRT Traces and Grids
- Perfect Resolution at 20 Feet

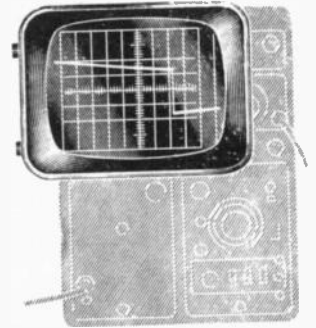
PRECISE OSCILLOSCOPE READOUT

Model OS-STV-2. Stereoscopic Oscilloscope Image Expander attaches simply, quickly to all standard 5" lab type oscilloscopes, including Tektronix, Hewlett-Packard, etc. Supplied complete with mounting bezel. Size: 8x8x6". Shpg. wt., 9 lbs.
62F097. NET..... **144.00**

Model OS-STV-3. Same as Model OS-STV-2 except with swivel type mount and bezel.
62F098. NET..... **149.00**

Model OS-STV-GS. Polarizing Glare Shield to eliminate extraneous light and remove interference from viewing area. Attaches instantly directly to front of Image Expander. Shpg. wt., 4 lbs.
62F096. NET..... **29.00**

Model OS-STV-CC. Storage Case for Image Expander. Completely portable. Made of durable fibre with extra metal protected corners. Size: 9 $\frac{5}{8}$ x9 $\frac{3}{8}$ x7 $\frac{1}{8}$ ". Shipping wt., 5 lbs.
62F099. NET..... **19.80**



MAKE NEWARK YOUR ONE POINT SOURCE FOR ALL YOUR ELECTRONIC NEEDS
NEWARK speeds your project by off-the-shelf supply of over 70,000 items in current demand.
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COMPETITIVE WITH THE MANUFACTURER.

Hickok Test Equipment

INDUSTRIAL AND COMMUNICATIONS TUBE TESTER



Model 752A. Portable mutual conductance tube tester providing fast and accurate evaluation of an electron tube. Tests VR tubes for firing point, regulating voltage, and current range. Takes 4, 5, 6, 7, 9, and 10-pin miniature, 7-pin in-line and 8-pin round subminiature (corn, Compactron, Novar 5 and 7-pin Nuvisor tubes. Gm ranges: 0-1500; 3000; 6000; 15,000; 30,000 micromhos. Inter-element leakage indicated on meter, sensitivity 10 megohms.

Test voltages: Filament, 0-117 VAC in 19 steps; signal, 0.25, 0.5, 1.25, 2.5 VAC; plate, 75 and 150 VDC; screen 56 and 130 VDC; Grid bias variable 0 to -40 VDC; extra negative supply, -40 VDC; diode test, 20 V RMS; OZA test; 287 V RMS. Cathode activity/line test. Dual section tubes tested without setup change. Self-bias test jacks on panel. Bias and line fusing. Illuminated meter and roll chart. Roll chart lists over 1600 types. Size: 16 $\frac{3}{4}$ "x18 $\frac{1}{2}$ "x7 $\frac{1}{2}$ " D. Shpg. wt., 27 lbs. 62F198. NET **365.00**

INDUSTRIAL AND LABORATORY TUBE TESTER



Model 500. Has features found in Hickok's Cardmatic testers. Complete range of test settings. Gm measurements under duplication of operating conditions. Tube sockets: 4, 5, 6, 7 pin, octal, loctal 7, 9, 10 pin miniature, 7 & 8 pin subminiature, compactron, novar and 5, 7 pin nuvisor. Four μ mo ranges to 60,000 μ mhos. Gas test circuit, sensitive to .05 μ amps. Leakage meter. Push button test of dual section tubes. Safety switches

prevent damage. 19x15 $\frac{1}{2}$ "x7". For operation from 105-125v., 60 cycles. Shpg. wt. 35 lbs. 62F1755. NET **585.00**

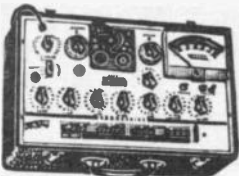
PORTABLE LAB TUBE TESTER



Model 539C. Industrial and laboratory portable Gm tube tester. Tube sockets: 4, 5, 6, 7-pin, octal, loctal, 7, 9, and 10-pin miniature, 7-pin in-line and 8-pin miniature. Compactron, Novar, 5 and 7-pin Nuvisor. Socket covers provided for 7 and 9-pin and octal. Gm ranges: 60,000; 30,000; 15,000; 6000; 3000; 600 micromhos. Rectifier diode and VR ranges. Inter-element leakage indicated on meter or neon lamp, sensitivity: 50 megohms. Test voltages: filament, 0-117 VC in 20 steps; signal, .025, 0.5, 1, 2.5 RMS; plate, 66 and 150 VDC; screen, 56 and 130 VDC; fixed bias variable 0 to -40 VDC. Self bias terminals on panel. Roll chart has data for latest industrial and entertainment tubes. Three 1% accuracy Hickok meters: Gm, VR voltage and leakage; line voltage; twin range bias meter. Size: 15 $\frac{1}{4}$ "x18 $\frac{1}{4}$ "x7 $\frac{1}{4}$ " D. For 105/125 VAC, 50/400 cps, 40 watts. Shpg. wt., 35 lbs.

62F133. NET **525.00**

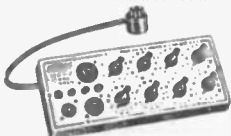
HIGH SPEED GM TUBE AND TRANSISTOR TESTER



Model 6000A. Tests all the new tubes including Compactrons, Novars, Nuvisors, and 10-pin headers. A high speed, extremely accurate tester. Instant line adjust and automatic short indication. Covers 3,000 to 15,000 μ mhos in 3 ranges. Shows gas evaluation. Able to determine the reserve capacity of tubes which could cause trouble in the future. A filament continuity button to check for open filaments. Filament voltage from 0.6 to 117 volts in 19 steps. Complete with removable socket plate that accommodates practically all tubes in use today. (7-pin, octal, loctal, 7- and 9-pin noval, Novar, Compactron, Nuvisors, 10-pin "headers.") Red leatherette portable case size: 16 $\frac{3}{4}$ "x11 $\frac{1}{4}$ "x7 $\frac{1}{2}$ ". Panel gold anodized. For 105-125 VAC, 60 cycles, 40 watts. Shpg. wt.: 21 lbs. 62F171. NET **239.50**

HICKOK ADAPTER

Model CA-4. Adapter for testing compactrons, 10-pin "headers," 9-pin novars and Nuvisors. For use with all current Hickok manual tube testers. Wt., 6 lbs. 62F101. NET **59.50**



MULTI-SOCKET TUBE TESTER



Model 799. "Mustang" model with mutual conductance tests in a unique solid-state design. Tube sockets: 7, 9, 10-pin Sylvaria, Novar, Octal; 5, 7-pin Nuvisor; and new 10-pin decal. Two continuously variable Gm ranges: 1000 to 5000, and 5000 to 20,000 μ mhos. 105-125 volts., 30 watts. Transistorized sensing circuit provides 50 megohm leakage tests and u α gas tests. Gas tests spot tube faults, and multisocket design eliminates complex, time-consuming switching. Color-coded "permutator" switch triples effective socket coverage.

Removable panel accommodates sub-chassis for future tube additions, through direct access to switching circuits. Size: 15 $\frac{1}{2}$ "x18 $\frac{1}{2}$ "x6 $\frac{1}{2}$ " H. Shipping weight, 21 lbs. 62F1759. Model 799. NET **199.95**

TUBE-TRANSISTOR TESTER



Model 800A. Checks leakage between tube elements up to 10 megohms. Includes transistor and diode check. Filament continuity test is provided to greatly speed the testing of series-string tubes. Push button reverses meter for testing special tubes such as the 117N types. Tube sockets for 4, 5, 6, 7-pin, octal, loctal, noval and 7-pin miniature noval 5 and 7-pin nuvisors, novars, compactrons, and 10-pin types. Circuits

test tubes under simulated operation conditions. 0-3,000, 6,000, 15,000, micromhos are directly indicated on the meter dial. Calibrated Gm circuit provides increased accuracy in testing of latest tubes. Selector control on panel permits a reserve capacity test to evaluate the reserve strength of a tube under test. Time saving tube reference chart contains test data for all popular tubes. Power supply 105-120 volts AC, 50-70 cycles, 40 watts. Portable case covered red leatherette with brass colored hardware, panel is gold anodized aluminum with red and black lettering. Size: 16 $\frac{3}{4}$ "x11 $\frac{3}{4}$ "x7 $\frac{1}{4}$ ". Shpg. wt., 21 lbs. 62F182. NET **219.95**

DYNAMIC BETA IN-CIRCUIT TRANSISTOR TESTER



Model 890. Unique circuit measures AC Beta with equal accuracy in or out of circuit. Measures parameters: AC Beta; Rin (transistor input resistance); Z Ohms (base-emitter circuit impedance); Ic. Measures AC Beta, Ic and lcb α out-of-circuit. In-circuit AC Beta measurement accuracy \pm 5% (150 ohms minimum circuit impedance). Portable and completely self-contained. Utilizes an AC bridge principle. Useful for incoming inspection of transistorized products and sub-assemblies. Beta Ranges: 0-50, 0-100, 0-200. Furnished complete with test cable. AC Test Signal: Variable 1000 cps sine wave-Calibration setting at 5 μ a, 100 mv. protected against overload. Portable carrying, 6 $\frac{1}{2}$ "H, 9"D, 10 $\frac{3}{4}$ "W. Shpg. Wt., 8 lbs. 62F102. NET **155.00**

PORTABLE TRANSISTOR TESTER



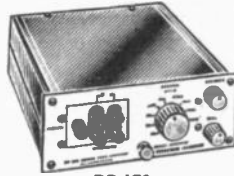
Model 870. Features two units in one. Measures large signal DC Beta on power transistors as well as small signal AC Beta on low and medium power transistors. Has variable collector voltage. Collector test current is variable up to 2 amps, permitting Beta measurements on power transistors rated at 5 amps or more. Provides low voltage, high current tests which makes it excellent for switching transistors. Controls provide maximum set-up flexibility combined with speed-engineered layout for volume testing of transistors. Includes roll chart giving test data for over 2000 transistors. Large easy to read panel meter. Tech. Spec: Beta ranges 0-100 & 0-300, extendable to 600. Beta test collector voltage variable from 0.5 volts. Accuracy within 5% for both AC & DC Beta. Requirements—115 volts AC, 40 watts. Size: 7 $\frac{7}{8}$ "x11 $\frac{3}{4}$ "x14 $\frac{1}{2}$ ". Shpg. wt., 22 lbs. 62F149. NET **355.00**



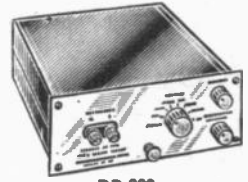
DMS-3200



DP-150



DP-170



DP-200

SOLID STATE DIGITAL DISPLAY MULTIMETER SYSTEM

- Three Digit Readout
- Bright Neon-Type Tube Display
- 1 mc Counter Response
- Fully Transistorized

Model DMS-3200. A precision electronic instrument which displays reading in digital form instead of difficult to read pointer system. Consists of a main frame and a number of plug in units which are described below. Reliability and long life are achieved through the use of solid-state circuitry throughout and all transistors and diodes are silicon type. The counter has a response of 1 mc, assuring reliable count and readout of input pulse trains. Has metal-film and wirewound resistors in critical areas. Has built in power supply for main frame and plug

in. Has a low power consumption—14 watts. Display var: 1/2 second to 6 second reading. Count time: 100 msec. Features: die cast aluminum front and rear panels; slip out top and bottom sections; slip out construction of printed circuit boards, and heavy duty handles. Rich black and chrome color combination. Size: 9 1/4" W x 6 3/8" H x 12 7/8" D. Ship wt. 10 lbs.

Stock No.	Type	1-9	10-24
62F1761	DMS-3200	320.00	304.00

PLUG IN UNITS FOR USE WITH ABOVE

Model DP-100. Plugs into main frame above to provide digital display of DC voltages from 0.1 millivolt to 1000 volts, with an accuracy of $\pm 0.1\%$ full scale. Five ranges: 0.0 to 99.9 millivolts; .000 to .999 volts; 0.00 to 9.99 volts; 00.0 to 99.9 volts; 00 to 999. volts. Excellent AC rejection for reading accuracy; 80db at line frequency. Size 3" H x 8 1/4" W x 10" D. Ship wt. 3 1/2 lbs.

Stock No.	Type	1-9	10-24
62F1762	DP-100	175.00	166.25

Model DP-170. Ohmmeter Plug-in, when used with the DMS-3200 Main Frame, provides digital display of resistance measurements from 0.01 ohms to 1,000 meg-ohms. The wide range of resistance measurements, coupled with accuracy of $\pm 0.1\%$ F.S. $\pm 0.2\%$ of reading, makes this a remarkable unit. Four terminals are provided so that lead resistance does not cause inaccuracies on extremely low resistance measurements. In addition a guard terminal is provided so that spurious leakages in components are automatically balanced out. Aluminum case. Size: 3" x 8 1/4" x 10". Shpg. wt. 3 1/2 lbs.

Stock No.	Type	1-9	10-24
62F1764	DP-170	240.00	228.00

Model DP-150. 1 Mc. Counter. Measure frequency of simple or complex waveforms from .1 cy. to 1 Mc.; period from 999 sec. to .1 msec. Overrange capability allows 7-digit resolution, accurate to $\pm .001\%$. Provision for event totalizing and manual reset. Input: 1 megohm shunted with 40 pf, overload protected. 10 mv max. sensitivity. Provision for internal check at 1c, 1kc, 100kc; Schmitt trigger output on front panel for use as time mark generator, scope trigger, etc. Shpg. wt.. 4 lbs.

Stock No.	Type	1-9	10-24
62F1763	DP-150	195.00	175.00

Model DP-200. Capacity meter Plug-in when used with the DMS-3200 Main Frame, provides digital display of capacity measurements from 1 picofarad to 9,999 microfarads. Design is all solid state. Eight ranges: 000. to 999. picofarads; 0.00 to 9.99 nanofarads; 00.0 to 99.9 nanofarads; 000. to 999. nanofarads; 0.00 to 9.99 microfarads; 00.0 to 99.9 microfarads; 000. to 999. microfarads; and 0.00 to 9.99 millifarads. Size: 3" x 8 1/4" x 10". Ship wt. 3 1/2 lbs.

Stock No.	Type	1-9	10-24
62F1765	DP-200	240.00	228.00

PORTABLE VTVM

Model 470A. Uses only two scales for all measurements including peak to peak. Large easy to read meter with 6" arc top scale. High sensitivity range for transistor bias testing. AC and DC ranges are: 0-5, 1.5, 5, 15, 50, 150, 500, 1500 volts. Peak to peak ranges: 0-1.4,

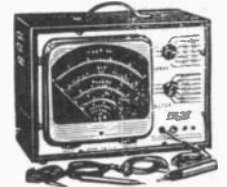


4, 14, 40, 140, 400, 1400, 4000 volts. Resistance ranges (center scale = 10): X1, X10, X100, X1000, X10,000, X100,000, X1 meg, X10 meg. Input resistance: DC volts, 17.7 megohms; AC volts 17.7 megohms paralleled with approximately 150 mmf. Frequency range: 15 cps to 2.5 mc. Includes 48" long removable test lead and probe. Has range switch for use on AC, DC and Ohms ranges, and 48" long common lead. For 115 VAC, 50/60 cps, 15 watts 6 3/8" x 7 1/2" x 4 1/2". Shpg. wt.. 10 lbs.

62F196. NET 89.50

LABORATORY VTVM AND CAPACITANCE METER

Model 209C. Ranges: DC volts, 0.5, 1.5, 5.0, 15, 50, 150, 500, 1500 volts; AC volts, 1.5, 5.0, 15, 50, 150, 500, 1500 volts; DC current, 0.5, 1.5, 5.0, 15, 50, 150, 500, 1500 ma; Ohms, x1, x10, x100, x1K, x10K, x100K, x1M; Capacity, x10, x1, x0.1, x0.01, x0.001ufd, x10 and x100uufd. Frequency response: within 3 db, 10 cycles to 200Mc. Accuracy: $\pm 3\%$, full scale Ohms and capacity, $\pm 3^\circ$ of arc. Power supply is self contained and is safe for all transistor and diode usage. The VTVM is grounded. Size: 11" H x 15" W x 7 1/2" D. Ship wt. 20 lbs.



62F106. NET 239.50

BURNOUT-PROOF VOM

Model 455A. A versatile, compact portable volt-ohm-milliammeter, which provides automatic overload protection. YOU CAN'T BURN IT OUT! A unique protection circuit incorporates an interlocked combination of relay, fuse and neon lamp to protect against any conceivable overload. Sensitivity: 20,000 ohms per volt DC and AC AC and DC ranges: 3, 15, 60, 150, 600, 1200 volts. Resistance: 0-100 megohms in 4 ranges. Accuracy of $\pm 3\%$ DC, $\pm 5\%$ AC, and ± 3 of arc on resistance scale

is provided in the Model 455A. Features: single function range selector switch; batteries instantly accessible—snapped in or out; attractive streamlined, high impact phenolic case. Center scale ranges: 5, 500, 5,000, 500,000 ohms. Size 8 1/2" x 5 7/8" x 3". Ship. wt. 3 3/4 lbs.

62F134. NET 89.50

Case for above. Made of durable neoprene.
62F195. NET 12.50



SAVE WORK! Make Newark your Complete 1-Point Stock Source!
SAVE TIME! At Newark—fast, efficient service always!
SAVE MONEY! Quantity Prices Competitive with Manufacturer!

Test Equipment & Decade Boxes

HICKOK TEST EQUIPMENT



WIDE BAND SERVICE TECHNICIAN'S OSCILLOSCOPE

Model 677. Designed to provide service technicians with a high quality instrument at low cost. Has calibrated screen with full cathodic correction to facilitate use in both waveform and peak to peak observations and measurements. Has preset horizontal and vertical sweep positions. Vertical amplifier has frequency response flat to within 3 db from 5 cycles to 4.5 MC. Sensitivity 40 MVRMS. Horizontal amplifier has

response within 3 db from 5 cycles to 350 KC. Power input: 117VAC, 50/60 cycles, 90 watts fused. Size: 14"x9 1/2"Wx18 1/2"D. Shpg. wt., 36 lbs. **62F1750. NET 214.50**



TRANSISTOR ANALYZER

Model 850P. Provides evaluations of a transistor to determine its ability to function under a specific circuit condition. Highly accurate indicating meters, within $\pm 2\%$ of full scale. Checks power transistors with collector currents of up to 500 MA. An excellent aid in demonstrating transistor theory in technical educational schools. Panel selector quickly sets operator's choice of circuit-use conditions to detect suitability of transistor to operate from signal sources of varying impedances. Can be used as "breadboard" to build up amps, oscillators. Checks parameters in 3 configurations. Common base, common emitter, and common collector. Battery operated. Portable case with aluminum panel. Size: 8x16 1/2x13 1/2". Shpg. wt., 22 lbs. **62F166. NET 169.50**

LABORATORY OSCILLOSCOPE



Model 770A. 5" wide-band and general purpose oscilloscope. Calibrated 4MC DC vertical amplifier with 8-step and vernier attenuator. Three operational modes of internal sweep generator: free-running, driven, and automatic. Eighteen direct reading calibrated sweep rates from 0.5 sec/div to 1 usec/div. 5 times sweep magnifier, accuracy within $\pm 3\%$. Model has vertical and horizontal deflection systems and incorporates sweep magnification on internal sweep functions. Internal calibrating signal provides 60 cycle square wave. Flat-faced, post-accelerated CRT. Illuminated, cathode ray grid.

Works with 105-125 volts, 50/60 cycles; 130 watts furnished complete with operating manual. 60 cycle line sweep adjustable over about 180°. Shipping weight, 57 lbs. **62F1760. NET 585.00**



AM-FM SWEEP AND MARKER GENERATOR

Model 288AX. Provides the necessary signal voltages for servicing AM and FM receivers as well as TV receivers. A crystal controlled 100Kc and 1000Kc oscillator provides an accurate frequency standard. A wide choice of frequency ranges, sweep widths and methods of modulation plus a new ultrasonic range of 35Kc to 110 Kc, make this a versatile generator. High output voltage permits visual stage by stage alignment of IF stages, limiter, and discriminator on both AM and FM receivers. Power and voltage measurements, as well as determination of resonance in alignment work, are materially aided by a self-contained decibel meter with range of -10 to +38 db. Sweep synchronizing voltage is brought out to front panel. Output control; vernier control w/decade steps of 1, 10, 100. Pwr. requirements: AC 110v, 50-70 cycs. Complete w/crystal, cable assm. mtr. ld., instruction book. 16x13x7" Wt., 33 lbs. **62F1752. NET 315.00**

CORNELL-DUBILIER TEST EQUIPMENT



CDC



CDA



CDE



RDA



CDT

CAPACITOR AND RESISTOR DECADES

CDE decade instrument boxes provide a reliable and accurate source of precision selected values for breadboarding and substitution. Featuring common size heat and shock-resistant phenolic individual boxes, direct-reading value ranges, six-way molded nylon terminal posts, and calibration chart for capacitance boxes, these handy units are widely used in electronic and electrical application work. Size: 3 1/4"x3x3 3/8", weight 2 lbs.

Stock No.	Model	Cap Mfd.	Steps Mfd.	1-9	10-24	25-49	50-up
62F629	CDA	0.011	0.0001	14.95	13.60	12.50	11.55
62F645	CDB	1.1	0.01	16.35	14.95	13.75	12.65
62F646	CDC	10.0	1.0	27.25	24.95	22.90	21.10
62F647	CDE	150	10	14.20	13.20	11.95	11.05

Polarized Tantalum Foil—10-100 mfd. Plain; 100-1000 mfd. etched. Max. Voltage: 50 VDC Polarized. Capacitance, mfd.: Min.—10; Max.—1100; Step—10. 2 Rotary Switches. 7 lbs.

Stock No.	Model	Res. Ohms	Steps Mfd.	1-9	10-24	25-49	50-up
62F655	RDA	1-110	1	15.35	14.05	12.90	11.90
62F656	RDB	100-11K	100	15.65	14.30	13.15	12.15
62F654	RDC	10K-1meg	10K	15.85	14.30	13.15	12.15

CDT TANTALUM BOX

CDT decade capacitors provide a reliable source of precision selected capacitance for substitution purposes in a wide variety of applications. Features CDE capacitors, smooth range selection, & heat- and shock-resistant phenolic cases. Capacitance tol: $\pm 5\%$ (10-100 mfd.), $\pm 10\%$ (100-1000 mfd.). Capacitor Dielectric:

Polarized Tantalum Foil—10-100 mfd. Plain; 100-1000 mfd. etched. Max. Voltage: 50 VDC Polarized. Capacitance, mfd.: Min.—10; Max.—1100; Step—10. 2 Rotary Switches. 7 lbs. **62F638. NET 99.50**

DEPEND ON NEWARK FOR EVERYTHING IN INDUSTRIAL ELECTRONICS

- Lowest Prices
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- Cincinnati, Ohio
- Chicago, Illinois (Main Office)
- Grand Rapids, Mich.
- New York, N.Y.
- Complete Stocks
- Satisfaction Guaranteed

SPRAGUE TEST EQUIPMENT



Model M-2

"MIKE-O-METER" CAPACITOR TESTER

Model M-2. Speeds and simplifies capacitor testing for air conditioning, refrigeration and electric motor service technicians. Measures capacitance and power factor of any capacitor from .1 to 2000 Mfd. by Wien bridge method. Magic eye tube for easy bridge balancing. Has special "Press to test" safety feature which allows voltage to appear at terminals only when switch is pressed. Direct reading on calibrated scales. Finished in dark gray enamel. Size: 9"x6"x5 1/4". Shipping weight, 6 lbs.
62F634. NET 32.50



Model TCA-1

TRANSFARAD CAPACITOR ANALYZER

Model TCA-1. Specifically designed to safely test capacitors used in transistor and other low voltage circuits. Capacitance and power factor are measured without danger of overheating. Low AC bridge protects even 1 volt capacitors from damage. Capacitance: 1mmfd to 2000 mfd in 5 ranges. Power factor: 0-50%. Dual regulation of power supply assures short time stability. Specially processed etched circuits and complete encapsulation of the critical bridge null amplifier insure long time stability. Sensitivity control for magic eye null detector permits accurate measurement of small capacitances. Cap. discharged after testing. AC bridge V:0.5 V Polar V 0-150V. Wt., 28 lbs.
62F633. NET 197.50



Model TO-8

MODEL TO-6 TEL-OHMIKE

Capacitor analyzer measuring up to 2000 mfd in five overlapping ranges. 1.35 AC test voltage for use with capacitors in transistorized circuits. 10,000 Megohm at 30 volts for low-voltage check and 50,000 megohm at 150 volts for high voltage check. Electrolytics checked directly on 4-range Ma. scale (0-60Ma) Magic eye tube for balancing. 3-ranges of DC polarization, variable to 600VDC. Instant discharge automatically protects the user. Charcoal-gray panel with white designations. 8 7/8"x14 1/2"x6 1/8". For operation from 115VAC 50-60 cycles. Shpg. wt. 13 lbs.
62F632. NET 99.50

AEROVOX DECADE BOXES

• Provide Accurate Standards of Resistance, Capacitance & Inductance



Type ALD-42



Type ARD-15



Type ACD-23



Type ARD-41

All units provide accurate standards of resistance, capacitance, and inductance. Ideal for laboratory and experimental use. Decade boxes of the highest quality are available in ranges most needed for electronic and electrical laboratories for a price below that of equivalent quality standards. Boxes are available in 11 units; 4 resistance decades, 3 capacitance decades, and 4 inductance decades. Face plates are black with white numerals for maximum legibility. Heavy duty construction of seamless, drawn steel and gray enamel housing insure trouble free operation and unimpaired accuracy. New resistance model ARD-41

is housed in special high impact plastic case which is capable of rugged handling. In "Use" column of the following table, C indicates the Capacitance Decade Box, L the Inductance Decade Box, and R the Resistance Decade Box. Except for ALD-42 the Capacitance Decade Boxes have operating ranges of 400 to 20,000 cps. ALD-42 has a range of 400 to 5,000 cps. The new decade box, ARD-41, has a range of 0 to 1.1 megohms in 1 ohm steps, combining all the three other resistance decades into one compact box. Multiple-dial Capacitance Decade Boxes have the highest value multiplier to the left so that readings are instantly visible.

CAPACITANCE

Stock No.	Mr. Type	Use	Dielectric	Dials	Range	Steps	Accuracy ±		Rating 1st Dial	2nd Dial	NET
							1st Dial	2nd Dial			
62F1300	ACD-13	C	Mica	2	0 to .011 mfd.	0.0001 mfd.	3%	3%	600 VDC	800 VDC	14.95
62F1301	ACD-23	C	Oil-Paper	2	0 to 1.1 mfd.	0.01 mfd.	3%	3%	220 VAC	220 VAC	
62F1302	ACD-33	C	Oil-Paper	1	0 to 10.0 mfd.	1.0 mfd.	3%	3%	600 VDC	600 VDC	16.50
									220 VAC	220 VAC	
									600 VDC	600 VDC	27.25
									220 VAC	220 VAC	

INDUCTANCE

62F1303	ALD-12	L	Toroidal	1	0 to 10 mh.	1.0 mh.	2%	.....	250 MaDC	.....	29.90
62F1304	ALD-22	L	Toroidal	1	0 to 100 mh.	10.0 mh.	2%	.....	79 MaDC	.....	29.90
62F1305	ALD-32	L	Toroidal	1	0 to 1.0 hy.	100.0 mh.	2%	.....	25 MaDC	.....	29.90
62F1306	ALD-42	L	Toroidal	1	0 to 10.0 hy.	10.0 hv.	2%	.....	8 MaDC	.....	32.90

RESISTANCE

62F1307	ARD-15	R	Wire-Wound	2	0 to 110 ohms	1.0 ohm	5%	3%	1.0 Amp.	0.5 Amp.	15.15
62F1308	ARD-23	R	Wire-Wound	2	0 to 11 K	100 ohm	3%	3%	100 Ma.	50 Ma.	15.15
62F1309	ARD-31	R	Carbon Deposited	2	0 to 1.1 meg	10 K ohm	1%	1%	5 Ma.	2 Ma.	15.15
62F1310	ARD-41	R	Wire-Wound & Metal Film	6	0 to 1.1 meg	1.0 ohm	1%	1%	1st Dial 2 Ma. 2nd Dial 50 Ma. 3rd Dial 5 Ma. 15 Ma.	4th Dial 50 Ma. 5th Dial 150 Ma. 150 Ma. 500 Ma.	44.95

Test Equipment

CLAROSTAT TEST EQUIPMENT

POWER RESISTOR DECADE



Type 240C. This handy power resistor box permits changing resistance values in a working circuit at the flip of a switch. This is an instrument that no lab, shop, or serviceman can afford to be without. Saves time and work in developing new circuits where some values are unknown. Ideal for checking voltage regulation of power supplies, since load can

be varied over a wide range. Handles any value from 1-999,999 ohms in steps of 1 ohm. Power rating is 225 watts. Maximum voltage should not exceed 1,000 VDC, or 660 VAC. Housed in ventilated metal cabinet. Size: 13" x 8 1/2" x 5 1/4". Shipping weight, 11 pounds.

62F730. NET 110.00



CLARO-DEC PRECISION RESISTANCE DECADE BOX

Serves many applications with all the versatility needed for the job. Claro-Dec (within established parameters of current) are used whenever accurate steps of resistance values between .1 and 900K ohms $\pm 1\%$ or required. Two piece molded housing. Temp coefficient less than 100ppm. Temp. 40°C max. at rated current. Derated to 0 at 85°C. Color: Grey. Shpg. wt., 3 oz. a (pproximate) per individual unit.

Stock No.	Type	Total res. of decade	Resistance per step	Accuracy ($\pm C$) [*]	Maximum Current	NET
62F723	260-1	0.9 Ω	0.1 Ω	$\pm 5\%$	1 amp	3.95
62F724	260-2	9 Ω	1.0 Ω	$\pm 1\%$	350 ma.	3.95
62F725	260-3	90 Ω	10 Ω	$\pm 1\%$	100 ma.	3.95
62F726	260-4	900 Ω	100 Ω	$\pm 1\%$	35 ma.	3.95
62F727	260-5	9K Ω	1K Ω	$\pm 1\%$	10 ma.	3.95
62F728	260-6	90K Ω	10K Ω	$\pm 1\%$	3.5 ma.	3.95
62F729	260-7	900K Ω	100K Ω	$\pm 1\%$	1.0 ma.	3.95

(*) Contact Res. .005 — .03 ohms typical, .01 ohms.

EICO TEST EQUIPMENT

MODEL 1100-K EIA RESISTANCE SUBSTITUTION BOX KIT

Permits rapid substitution of a wide range of EIA resistance values in an operating circuit to determine the resistance required for best performance. . . . determines the value of unmeasurable resistors. 36 EIA 1 watt, 10% resistors, arranged in Hi and Lo decades give resistance ranges

of 15 ohms-10 megs in decade multiples of 15, 22, 33, 47, 68 and 100 ohms 5-way jack-top binding posts for connection of practically any type of test lead. Molded black bakelite cabinet with 2 color deep etched aluminum panel. With all parts, less solder and leads. Size 3 1/4 x 6 1/2 x 3 1/2". Wt., 2 lbs.

62F808. NET 7.95
Model 1100W. As above, wired and tested. 12.95
62F807. NET

MODEL 1020K POWER AND BIAS SUPPLY KIT

Power supply includes power transformer, full-wave silicon diode rectifier circuit, heavy R-C filtering, plus two power transistors in a unique cascaded filter circuit. Ripple is reduced to 1/200 of 1% at full load, a figure not approached by cheap devices. Provides continuously variable output voltage to 30 volts monitored by a dual range voltmeter (0-6, 0-30 VDC). Max. load current varies from 150 ma. in the 1-12V range to 300 ma. in the 24-30V range. 1/2 amp. fuse will blow in case of short to protect unit. Uses include entirely hum-free operation of the most sensitive

transistor radios, hearing aids, preamp, instruments. As a variable bias supply for transistors or tubes in circuit development; to offset AVC and AGC voltages in the alignment of TV and radio receivers or to cut off the color burst amplifier in color TV adjustment. Grey case. Size: 5x4x5 1/2". Wt. 5 lbs.

62F856. NET 25.95
Model 1020 As above but factory wired. 34.95
62F857. NET

1171-K RESISTANCE DECADE BOX KIT

Permits changing resistance in a working circuit at the flip of a switch. May be used alone or in conjunction with the model 950-K RC bridge. Supplies resistance values from 0 to 99,999 ohms. Uses 1/2% resistors. Separate comparator position and binding posts permit instant substitution. Steel case, 3 1/2 x 12 x 3". With diagrams, instructions and all parts; less solder and leads. Wt., 3 lbs.

62F795. Kit. NET 24.95

Model 1171. As above but factory wired. 34.95
62F802. NET

MODEL 1064K BATTERY ELIMINATOR AND CHARGER KIT



Delivers smooth, undistorted DC necessary for servicing transistorized equip., or for any application where minimum ripple, is essential. Two DC voltage ranges: 0-8v. and 0-16v. Automatic switching of appropriate ammeter range as you select either of the 2 voltage ranges. Separate volt meter and dual-range ammeter for more accurate reading. 105-125v. AC. 50/60 cps; 150 watts. Grey steel cabinet. Size: 8 1/2 x 5 3/4 x 7 1/2". Same current, ripple ratings as Model 1060. Wt. 14 lbs.

62F870. NET 45.95
Model 1064. As above but factory wired. 54.95
62F871. NET

MODEL 1060-K BATTERY ELIMINATOR AND CHARGER KIT



Battery substitute for operation and servicing of battery operated transistorized, also "hybrid" and vacuum tube equip. Separate output ammeter and voltmeter. Has extra low ripple filter. Output 0-8V, @ 10 amps continuous, 0-16V @ 6 amps continuous. 0.3% ripple @ 2 amps. Size: 8 1/4 x 10 1/2 x 7 3/4". With instructions, less leads. 17 lbs.

62F852. NET 39.95
Model 1060. As above but factory wired and tested. 49.95
62F853. NET

1120K CAPACITOR SUBSTITUTION BOX

Enables rapid substitution of a wide range of RETMA capacitance values from .0001 to 0.22 mfd. in an operating circuit to determine value needed for optimum performance and to find value of badly damaged or illegible capacitors. Minimum accuracy 10%. Convenient 5-way, jack top binding posts. Size: 3 3/4" high x 6 1/2" wide x 3 1/2" deep. Shipping weight, 2 lbs. Less leads.

62F840. NET 6.95
Model 1120W. As above but factory wired. 10.95
62F841. NET

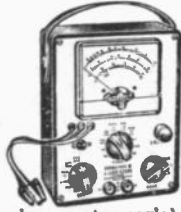
MODEL 1180-K CAPACITANCE DECADE BOX KIT

Has a range of 100 mmf to .111 mfd. Features $\pm 1\%$ silver mica condensers. High quality ceramic wafers switches, low-loss dielectric terminal board and 5-way binding posts. Rated at 500 VDC. Steel cabinet 9x3 1/2 x 3 1/2". Less solder and leads. Shpg. wt. 3 lbs.

62F797 NET 17.95
Model 1180. As above but factory wired. 24.95
62F798. NET

TRANSISTOR AND CIRCUIT TESTER KIT

Model 680K. Transistor and circuit tester providing accurate measurement of basic transistor and diode characteristics required for quality testing, plus VOM facilities. Measures: DC current 0-50 μ a, 0-500 μ a, 0-5 ma, 0-50 ma, 0-500 ma; DC voltage 0-5 V, 0-50 V; resistance 0-2K (12 ohms center scale), 0-200K (1200 ohms center scale), 0-20 megohms (120K center scale); ICBO and ICEO for signal and power transistors; DC beta 2-30, 20-300; AC beta (indirectly). Overall accuracy: 3%. $3\frac{1}{2}$ " clear plastic face 50 μ a meter. Polished bakelite case and brushed aluminum panel. 6 $\frac{3}{4}$ "x5 $\frac{1}{4}$ "x3"D. Uses 4 size AA, 1 size C batteries. With instructions. Shpg. wt., 3 lbs.

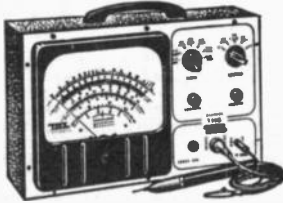


25.95

62F881. NET
Model 680. As above, factory wired and tested.
62F882. NET **39.95**

MODEL 249-K DELUXE PEAK-TO-PEAK VTVM KIT

Has the same ranges and exclusive design features as the Eico Model 232 including the 1% precision resistors, external calibration, zero center for alignment purposes, one zero adjustment for all functions and ranges, and readability of a large $7\frac{1}{2}$ " meter. Satin finish etched panel with contrasting knobs. Complete with all parts less solder. Size: 8 $\frac{1}{2}$ "x13x5". For 110-120 V. 50/60 cy. AC. Shpg. wt., 9 lbs. With Uni-Probe.



39.95

62F813. NET
Model 249. As above but factory wired and tested. Ready to use.
62F814. NET **59.95**

MODEL 255K AC VTVM KIT

Model 255K. High sensitivity, wide-band AC VTVM. Single sensitivity adjust: Two-stage R-C coupled amplifier. Full-bridge meter circuit in one overall feedback loop; Frame-grid triode cathode follower input circuit. DC-biased filaments and h u m - a d j u s t p o t. Voltage Range: RMS m.v. 1, 3, 10, 30, 100, 300. RMS volts, 1, 3, 10, 30, 100, 300. DB. Range: -80 to +52 db in 12 ranges. Freq. resp. ± 0 db 10 cps. to 600kc. Accuracy: $\pm 3\%$ of full scale. Power req.: 105-125 VAC, 50/60 cps. 15 watts drain. Grey steel cabinet. Size: (HWD) 8 $\frac{1}{2}$ "x5 $\frac{3}{4}$ "x7". Kit complete with instructions. Weight, 7 lbs.



62F872. Model 255K. Kit. NET **44.95**
62F873. Model 255. Factory wired and tested. NET **72.95**

MODEL 221-K VTVM KIT

VTVM kit with 15 different ranges. AC-DC ranges: 0-5, 10, 100, 500, 1000 volts (30 kv when used with HVP-1 or -2). Measures up to 200 mc when used with PRF probe. 5 ohmmeter ranges from .2 ohms to 1000 megs. DB scale for audio and gain measurements. 25 megs DC input impedance. All multiplier resistors have accuracy of 1%. $4\frac{1}{2}$ " meter with zero center scale for TV & FM discriminator alignment. Double-triode balanced bridge circuit. Uses: 6SN7, 6H6, 6X5. Steel case, 9 $\frac{1}{2}$ "x6x5". For 105-125 v., 50-60 cycles. Less solder. Shpg. wt., 7 lbs.



25.95

62F757. NET
Model 221. As above, but factory-wired and tested. Wt., 7 lbs.
62F758. NET **39.95**

MODEL 566-K 1000 OHMS/VOLT MULTIMETER KIT

Large-size, high-efficiency instrument with 38 different full scale ranges. AC-DC and output volts: 0 to 1, 5, 10, 50, 100, 500 and 5000 with 1,000 ohms per volt sensitivity on both AC and DC ranges. AC-DC current: 0-1 ma, 10 ma, 0.1 amp, 1 amp. Ohms: 0-5,000, 100,000, 1 meg. 6 db ranges: -20 to +69. Large $4\frac{1}{2}$ " 400 ma D'Arsonval meter and motor. Features new low minimum battery-drain ohm ranges. Dual rectifier has separate low and high voltage calibration in AC ranges. High-impact bakelite case, 6 $\frac{3}{4}$ "x5 $\frac{1}{4}$ "x3". With instructions, less solder. Shpg. wt., 3 lbs.



16.95

62F775. NET
Model 566. As above, but factory-wired and tested. Wt., 3 lbs.
62F776. NET **22.95**

AC VOLT-WATT METER KIT

Model 261K. Excellent for audio design and production line applications. Provides measurements of amplifier gain/response, amplifier power output, network response and output level. Specs. VOLTMETER: Ranges: 0.01, 0.03, 0.1, 0.3, 1, 3, 10, 30, 100, 300, 1000 RMS volts. Frequency response: ± 0 db 10 cps-150 KC, -3 db at 50 KC; Input Impedance: 2 Megohm; Accuracy: $\pm 4\%$. Specs. WATT-METER: Ranges: 0.15 mw, 1.5 mw, 15mw, 150mw, 1.5W, 15W, 150W; Frequency Response: ± 0 db, 10 cps-100 KC; Accuracy: $\pm 5\%$; Internal loads: 4, 16, 600 ohms for 40W and 8 ohms for 80W. External Loads: 4, 8, 16, 600 all to 150W. The DB scale reads directly in dbm on 600 ohms load (-20 to +2 db). Relative voltage db on the same scale (0 db = 0.774 volt). Successive power ranges are 10 db apart. Power: 105/125V, 50/60 cps, 15W. Size: (HWD) 8 $\frac{1}{2}$ "x5 $\frac{3}{4}$ "x7". With instructions. Shpg. wt. 6 lbs.



49.95

Model 261. As above, factory wired and tested.
62F867. NET **79.95**

MODEL 250K AC VTVM AND AMPLIFIER KIT

Model 250K. High sensitivity, wide-band AC VTVM and AMPLIFIER of laboratory accuracy and quality. It measures AC voltage from 100 microvolts to 300 volts in 12 ranges. A function selector switch on the panel converts the instrument to a wide-band amplifier with a gain of 60 db on the 1 MV range, and a maximum output of 5 volts RMS. Stabilized power supply incorporates voltage regulator; DC-biased filaments and hum-adjust pot. Voltmeter voltage ranges: 1, 3, 10, 30, 100, 300 RMS m.v. and 1, 3, 100, 300 RMS volts. Max. Hum and Noise: -40 db @ 2 mv in. Amplifier max. output v. 5 RMS v. Power Req. 105-125 VAC, 50/60 cps. 15 watts drain. Grey steel cabinet. Kit complete with instructions. Size: (HWD) 8 $\frac{1}{2}$ "x5 $\frac{3}{4}$ "x7". Wt., 7 lbs.



49.95

62F874. Model 250K. Kit. NET
62F875. Model 250. Factory wired and tested. NET **79.95**

MODEL 232-K PEAK-TO-PEAK VTVM KIT

Features high circuit stability and accuracy. Uses 1% precision resistors throughout. Directly measures p-p voltage of complex and sine waves on scales of 0-4, 14, 42, 140, 420, 1,400 and 4,200 volts. Resis. ranges: 0-1,000 megs in 7 steps. 7 non-skip ranges on the 4 functions of: +DC volts, -DC volts, AC volts, Ohms. Frequency response: 30 cps to 3 mc. Up to 250 mc with PRF probe. DC-RMS sine voltage ranges: 0-1.5-5-50-150-500-1,500 volts. $4\frac{1}{2}$ " meter in a burn-out-proof circuit. Zero center for TV-FM discriminator alignment. Calibrates without removal of cabinet. Complete with all parts, less solder. Compact in size: 8 $\frac{1}{2}$ "x5x5". For 110-120 V. 50-60 cy. AC. Kit complete with instructions. Wt., 5 lbs. With Uni-Probe.



29.95

62F811. NET
Model 232. As above but factory wired and tested. Ready to use.
62F812. NET **49.95**

MODEL 222K VTVM KIT

Provides entirely electronic, direct reading measurement of AC and DC voltages.

DC Range: 0-3, 15, 75, 300, 1500 volts (to 30 kv with HVP probe using 1090 meg Multiplier Resistor). Input Imp: 11 meg. Accuracy: $\pm 3\%$.

AC Range: 0-3, 15, 75, 300, 1500 volts. Input Imp: 1 meg. Accuracy: $\pm 5\%$. Freq. Resp. 30 cps to 3 mc (up to 250 mc with PRF probe; peak-to-peak readings directly on DC scale possible with PTP probe).

Ohmmeter: 0.2 ohms to 1000 meg in 5 ranges. Uses 1.5 volt battery. Includes Dual-purpose AC/DC Uni-Probe; a half turn of probe-tip selects DC or AC-Ohms. Kit complete with full instructions. Shpg. wt., 7 lbs.



27.95

62F876. NET
62F877. Model 222. As above but factory wired and tested.
NET **42.95**

EICO® Test Equipment & Kits



MODEL 380 SOLID STATE NTSC COLOR GENERATOR

Compact solid-state color signal and dot-bar generator provides precisely shaped, completely standard color signals essential for setting-up and servicing color TV. Instant operation. Unit incorporates 33 transistors . . . provides completely standard, fully saturated NTSC color signals including both chrominance and luminance signals as specified. Saturated transistors for switching and delay provides square "clean"

waveforms without significant overshoots or ringing for excellent signal definition. RF output: 0-50,000 μ V into 300 ohms. Video output: both positive and negative polarities; 0-10V, p-p into 4.7 ohms. 13 horizontal lines; 10 verticals. Crosshatch: 13 horizontals; 10 verticals. Dots: 130 for static and dynamic convergence adjustments. 117 VAC, 60 cps. 8 1/2 x 5 1/4 x 6 3/4". Wt. 8 lbs.

62F768. Factory wired. **159.95**

NEW MODEL 378K AUDIO GENERATOR KIT



Extreme versatility and positive error elimination are now yours for any application where a stable, accurate audio sine wave must be used. Precisely metered output controlled by 8 position decade and line attenuators. Highly accurate, switch - selected frequencies from lops to 100kc in 1 cycle steps. Positive setting detent switches need no interpretation. Frequency accuracy: $\pm 5\%$. Distortion less than 0.1% (20cps-20kc). Output voltage ranges: 0-3, 10v into hi-z (10k min.); 0-.003, .01, .03, .1, .3, 1V into ext. 600 Ω load—or with int. load into ext. hi-z. Output meter accuracy: $\pm 5\%$ of full scale. Power requirements: 120V, 50/60 cps, 40 Watts. Size: (HWD): 8 1/2" x 12 1/2" x 9". Weight, 13 pounds.

62F900. Kit. NET **49.95**
Model 378. As above, factory wired & tested.

62F901. NET **69.95**

MODEL 944-K FLYBACK TRANSFORMER & YOKE TESTER KIT

- Checks inductive windings on chokes, transformers, coils, relays!

Quickly and accurately troubleshoots horizontal circuits of all TV receivers. Allows positive check of all types flybacks and yokes, in or out of the set. Has three separate colored "Good-Bad" scales on a large easy to read 4 1/2" meter which operates on the extremely sensitive grid-dip principle. Shows up a single shorted turn. Checks inductive windings on any transformer, choke, coil solenoid, relay, etc. May be used as a proportional AC ohmmeter. Gray wrinkle steel case. 7x5x4".

With all parts. 105-125 V. 60 cyc. AC. 5 lbs.
62F832. Kit. Complete with instructions. NET **23.95**

62F833. Model 944. As above, but wired and tested. NET **34.95**

TEST PROBES



HVP-2

PRF-11

MODEL HVP-2 HIGH VOLTAGE PROBE

HV probe extends range of VTVM's and VOM's to 30,000 volts. 62F815. With 740 meg. multiplier resistor for use with Models 221, 214. NET **6.95**

62F850. With 1030 meg. multiplier resistor for use with Models 222, 232, 249. NET **6.95**

VTVM PROBES

Model PRF-11. An RF probe for any 11 meg. VTVM. 1/2 lb. 62F816. Kit. NET **3.95**; 62F817. Wired. NET **4.95**

Model PRF-25. An RF probe for any 25 meg. VTVM. 1/2 lb. 62F818. Kit. NET **3.95**; 62F819. Wired. NET **4.95**

Model PTP-11. Peak-to-peak probe. For 11 megs. VTVM. 1/4 lb. 62F820. Kit. NET **4.95**; 62F821. Wired. NET **4.95**

Model PTP-25. Peak-to-peak probe. For 25 megs. VTVM. 1/4 lb. 62F822. Kit. NET **4.95**; 62F823. Wired. NET **4.95**

MODEL UP UNI-PROBE



Dual-Purpose AC/DC probe as used in models 222, 232 & 249. 62F864. Kit. NET **4.95**

62F865. Wired. NET **6.95**

UTILITY TESTER KIT MODEL 540-K

- Neon lamp AC leakage test circuit
- Multi-range AC/DC voltmeter



A versatile instrument that can be used as a multi-range AC/DC voltmeter, an ammeter, an ohmmeter, a wattmeter, and a leakage detector. 3 1/2" meter. All voltage ranges (0-7.5-15-150-300 volts) and current range (0-15 amps) are AC/DC. 0-1000 direct reading ohms. Neon lamp ac leakage test circuit permits continuity check of resistors between 1000 ohms and 2 megohms and capacitors above .0005 mid. Direct reading of power line voltage up to 300 volts AC/DC. Panel outlet permits metering current up to 15 amps drawn by any appliance. Provides "good-bad" readings on 6 or 12 volt storage batteries. Size: 3 3/4 x 6 1/4 x 3 1/2". With instructions. 3 lbs.

62F848. NET **12.95**

Model 540. As above, factory wired and tested.

62F847. NET **15.95**

MODEL 565-K 20,000 OHMS/VOLT MULTIMETER KIT



New extra-sensitive 20,000 ohms per volt instrument kit featuring 31 different full scale ranges. AC-DC and output volts: 0-2.5, 10, 50, 250, 1000, 5000 (DC at 20,000 ohms per volt, AC at 1,000 ohms per volt). DC current: 0-100 microamps, 10 ma, 100 ma, 500 ma, 10 amp. Ohms: 0-2000, 200-000, 20 meg. 5 db ranges: -12 to +55. Large 4 1/2" meter with 50 microamp D'Arsonval movement. Hand-calibrated and tested rectifier. High impact bakelite case, 6 1/4 x 5 1/4 x 3 3/4". With diagrams, instructions, all necessary parts; less solder. Wt., 3 lbs.

62F773. NET **24.95**

Model 565. As above, but factory wired.

62F774. NET **29.95**

MODEL 536K 1000 OHMS/VOLT MULTIMETER KIT



1000 ohms/volt multimeter kit with extra-extended ranges from 0 to 1 volt up to 0-5000 volts, 31 different full scale ranges. AC-DC volts: 0 to 1, 5, 10, 50, 100, 500, 5000. AC-DC current: 0-1 ma, 10 ma, 0.1 amp, 1 amp. Ohms: 0-5,000, 100,000, 1 meg. 6 db ranges: -20 to +69. Large 3" 400 ma meter movement. Low minimum battery-drain ohm ranges. Dual rectifier has separate low and high voltage calibration in AC ranges. High-impact bakelite case, 6 1/4 x 3 3/4 x 2 3/4". With instructions, less solder and leads. Shpg. wt., 2 lbs.

62F778. NET **14.95**

Model 536. As above, but factory-wired and tested. Wt., 2 lbs.

62F777. NET **18.95**

Type 610. Test lead kit for above.

35F829. NET **1.80**

DELUXE MODEL 147-K MULTI-SIGNAL TRACER KIT



Transformer operated for isolation and safety. High gain RF and low gain audio with both visual and aural monitors, magic eye indicator and 5" PM speaker. Calibrated wattmeter circuit (fused) reveals abnormal total wattage consumption, open, or intermittent filament circuit, etc. Permits RF, IF and AF signal tracing in FM, AM and TV sets. Noise localizer circuit. Size 8x10x4 1/4". 105-125 volts AC, 50-60 cyc., 40 watts. Kit. Complete with instructions. Shpg. wt. 10 lbs.

62F809. NET **29.95**

Model 147. As above, but factory wired and tested.

62F810. NET **49.95**

MODEL 377-K AUDIO GENERATOR KIT

Complete sine wave coverage from 20-200,000 cycles in 4 ranges individually calibrated on panel. Complete square wave coverage from 80-50,000 cycles (5% round-off at 50 kc), read on same scales as sine wave. Response ± 1.5 db from 80 cycles to 150 kc. Extremely stable Wien bridge-type oscillator for high power output. Continuously variable power output: 100 mw into rated load (10 volts across 1,000 ohm load). Rated load impedance, 1000 ohm resistance. Distortion only 1%. Hum less than 0.4% of output. All bridge resistors 1% accurate. Uses: 1-6X5, 1-6S7J, 2-6K6, 1-6SN7, 105-125 v., 50-60 cycles. Calibration accuracy: $\pm 3\%$ or 1 cps, whichever is greater. Has choke filtering in power supply for minimum hum level. Aluminum panel, gray steel case, $11\frac{1}{2} \times 7\frac{1}{2} \times 7\frac{1}{8}$ ". Shpg. wt., 13 lbs.



39.95

62F785. NET.
Model 377. As above, but factory-wired and tested. Wt., 13 lbs.
62F770. NET. **54.85**

R-C COMBINATION BOX KIT

Model 1140-K. Combines Model 1100-K and Model 1120-K in one box with facilities for selection of either R alone, C alone, or series or parallel combinations of R and C (1350 combinations!). Includes all EIA resistance values from 15 ohms to 10 megohms and all EIA capacitance values from .001 to 0.22 mfd. Min. accuracy $\pm 10\%$; resistors 1 watt carbon and capacitors silver-mica or molded/impregnated plastic, most rated at 600 volts. Powerful tool and time-saver in servicing, lab work, and study. May be substituted in operating circuit to determine RC combination value, or just R or C value, needed for optimum performance. Invaluable when working without circuit diagram and damaged component value is illegible. Convenient 5-way jack top binding posts. Satin-aluminum front panel. Shipping weight, 3 lbs.

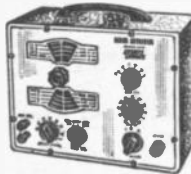


14.95

62F860. NET.
62F861. Model 1140. As above, wired and tested. NET. **19.95**

324-K RF SIGNAL GENERATOR KIT

For IF-RF alignment signal tracing, trouble-shooting of AM, FM and TV all on fundamentals. Marker generator for alignment of hi freq. TV IF's. Extended fundamental freq. range from 150 kc to 145 mc in 8 bands. 7th calibrated harmonic band from 111 mc to 435 mc. Colpitts RF oscillator, directly plate-modulated by cathode follower. Coarse and fine RF attenuators. With all parts; full instructions. $8\frac{1}{2} \times 4\frac{1}{4}$ ". 8 lbs.



32.95

62F838. NET.
Model 324. As above, but factory wired and tested.
62F839. NET. **44.95**

MODEL 315-K SIGNAL GENERATOR KIT

Extremely stable, boosted range oscillator circuit covering the full range of 75 kc. to 150 mc. 4-step RF shielded output attenuator. Seven separate calibrated scales with accuracy better than 1%. Internal 400-cycle pure sine wave audio signal generator modulates RF and is available for external audio testing with AF attenuator. Provision for external modulation. 0-100 vernier scale. Triple shielding for extremely low leakage output; copper plated chassis fully shielded from cabinet; specially shielded attenuation controls; line filter specially shielded. Uses: 6C4, 7F7, 6X5, VR-150. Steel case, $13\frac{1}{2} \times 2\frac{1}{2}$ ". With diagrams, instructions, all parts; less solder. For 105-125 v., 50-60 cycles. Wt. 20 lbs.



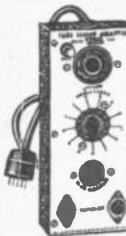
59.95

62F759. NET.
Model 315. As above, but factory-wired and tested. Wt., 21 lbs.
62F760. NET. **79.95**

TUBE TESTER ADAPTER

Updates models 625 and 668

Model 610 Tube Tester Adapter. Adapts Eico 625 or 668 tube testers for the following new construction tube types: 5-pin Nuvistor, 7-pin Nuvistor, Novar, 10-pin miniature, and Compactron 12-pin. Cable from adapter plugs into 9-pin socket of tube tester. Cap terminal on adapter accepts grid cap lead from tube tester. Included are roll chart supplements for both the 625 and 668 tube types listed above. Housed in a steel case with aluminum panel $1\frac{1}{2} \times 2\frac{1}{2} \times 8$ ". Shpg. wt., 1 lb.



5.95

62F879. Model 610K. Kit. NET.
Model 610. As above but factory wired. **11.85**

MODEL 667-K DYNAMIC TUBE AND TRANSISTOR

TESTER KIT

A mutual conductance tester with a peak emission test to give a single reading of tube quality. Spots bad transistors by gain and leak tests. Tests 5 & 7-pin Nuvistors; 7 & 8-pin subminiature, 7, 9, 10-pin miniature, octal, local, electronray and VR tubes; compactrons, novars, and pilot lights. $4\frac{1}{2}$ " meter indicates leakage between elements or Beta current amplification of n-p-n, p-n-p transistors. Multi-circuit lever switch sets up plate, screen, and voltage controls. 13 pushbuttons alternate element setup of tube. New data roll chart. Steel case. $12" \times 15" \times 4\frac{1}{2}"$. Wt. 20 lbs.



79.95

62F889. NET.
62F890. Model 667. As above but factory wired. NET. **129.85**

MODEL CRU UNIVERSAL CRT TEST ADAPTER

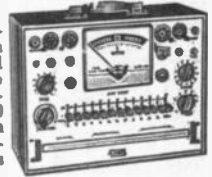
In conjunction with testers 667 and 628. Tests all black and white CRT 70, 90 & 110". Checks tubes without removal from set. Complete with 4-foot interconnecting test cable.

9.95

62F891. NET.

MODEL 628-K TUBE TESTER

Simple test set-up procedure for checking emission, shorted elements, open elements, and continuity. 13 individual lever-type element switches for complete flexibility. $4\frac{1}{2}$ " meter with 3-color REPLACE-WEAK-GOOD scale, 0 to 100 scale for matching. Tests 7-9- and 10-pin miniatures, octal, local, 5- and 7-pin nuvistors novars, and compactrons. Types tested include series string, magic eye, VR's. Adapter available for testing all CRT's, both color and black and white. New 3-column wide roll chart for extra tube listing capacity. Snap-out chart window. Pilot light test socket (contact type). Line adjust control. Protective overload lamp shows transformer overloads and acts as fuse. Type of Tube Merit Test: Cathode conductance (emission). Tube Merit Indicator: Size (HWD): $9\frac{1}{2}" \times 12\frac{1}{2}" \times 4\frac{1}{4}"$. Shpg. wt., 11 lbs.



44.95

62F892. NET.
62F893. Model 628. Same as above, but factory wired. NET. **59.85**

TEST TUBE ADAPTER

Adapts Models 628 and 667 tube testers for testing 4, 5, 6 or 7 pin tubes. (Older types)

5.95

62F785. Model 615K Kit. NET.
62F766. Model 615. As above, Factory Wired. NET. **11.85**

MODEL 369-K TV/FM SWEEP MARKER GENERATOR KIT

The EICO 369 feeds sweep signal only to i.f. strip being aligned. At the output end of the circuit a demodulator cable picks off the signal, demodulates it, and feeds the demodulated signal to a mixer stage inside the generator where the markers are added. Then this combined signal is fed on to the oscilloscope. This means that the marker signals are not affected by the receiver circuitry and that traps in the receive. will not reduce or eliminate the marker. It means that a TV technician can align TV and FM i.f. strips faster and more accurately. Five Ranges: 75 - 316 mc; 32 - 85 mc; 16 - 40 mc; 7.5 - 10 mc and 3.5 - 9 mc. All five ranges are fundamentals and tuning the desired frequency is simplified by a 6:1 vernier dial and a 330° scale. Output impedance is 50 ohms. A 6BQ7-A sweep oscillator and rf output cathode follower, a 12AT7 variable and crystal marker oscillator, a 12AX7 blanking diode and first aac amplifier, a 6DR7 second aac amplifier and aac series regulator. For 110-120v A.C. Shpg. wt. 18 lbs.



99.95

62F894. NET.
62F895. Model 369. Same as above, but factory wired. NET. **149.85**

MODEL 965 FARAHOHM BRIDGE/ANALYZER

Model 965. Nine-range low-voltage (0.45 VAC) capacitance-resistance bridge scales measures even 1-volt electrolytics. Capacitance range 5 pF-5000 μ f; resistance range .5 ohm-500 megs. Metered bridge balance, leakage test voltage (6 DC VTVM ranges; 1.5-500V), leakage current (11 DC VTAM ranges: 0.15 μ A-15mA). DC VTVM (10 megohm input Z) and DC VTAM (75 mv drop) both externally usable. Electronically filtered leakage test supply with less than 8.5% ripple and V/A metering is ideal for transistor/diode testing, supplying transistor circuit breadboards, or as a transistor battery eliminator. Complete overload protection. Requires 115 VAC, 60c., 32w. $8\frac{1}{2} \times 12 \times 9$ "; wt. 15 lbs.



129.95

62F782. Model 965 wired and tested. NET.

EICO® Test Equipment and Kits

MODEL 430K-3" OSCILLOSCOPE KIT



Compact and lightweight general purpose with 3" flat face CRT and mu-metal neck shield. V Amp: Flat from 2 c/s to 500kc. Sensitivity 25m/cm; 2 position LO-HI (100/1) frequency Compensated coarse attenuator; input impedance 1M ohm shunted by 30 pF. H Amp: Flat 2 cps. to 300kc. Sensitivity 0.25 v/am. Recurrent sweeps from 10 c/s to 100 kc in four overlapping ranges external or internal synchronization; synchronization is fully automatic on all ranges; full retrace blanking; 60 c/s sine wave sweep, and EXT. HORIZONTAL input available at switch positions of the SWEEP RANGE switch. Intensity modulation (Z-axis) input impedance 2M ohms 25 pF 3V RMS required for 105-125Vac, 60 watts. Size (HWD)

blinking beam. Power: 8 1/2 x 5 3/4 x 11 1/2". Shpg. wt., 11 lbs.
62F896. NET 69.95
 Model 430. Same as above but, factory wired. **99.85**
62F897. NET

5" OSCILLOSCOPE KIT 460-K



Tops for color, black and white use. Flat from DC to 4.5 mc., usable to 10 mc., featuring DC amplifiers. Vert. Sens. 25 mv/in. push pull thru-out. Sweep freq.: 10 cps to 100 kc. low sweep with ext. condenser. Automatic sync limiter and amp. eliminates sync voltage adjustment. 60 cps variable phase sine sweep. Pre-set TV V&H filter screen with variable illumination. 4 freq. compensated attenuator positions up to 1000:1 on either direct or capacitive coupled input. On front: int. mod., saw tooth output, 60 cps, ext. sync., ext. cap. jacks. For 105-125 v. Shpg. wt. 29 lbs.

62F842. NET 89.95
 Model 460. As above, but factory wired and tested. **129.50**
62F843. NET

MODEL 427K GEN. PURPOSE 5" OSCILLOSCOPE KIT



The Model 427K gen. purpose oscilloscope; 4-position frequency compensated vertical input attenuator. Internal calibration voltage. Astigmatism, Focus and Intensity Controls on panel. Sharp, clean trace free of blooming. Instantaneous, drift free V & H positioning. Vert amp direct-coupled and pushpull throughout (6 stages in 3-push-pull pairs). Vert Amp: Flat from DC to 500kc. -6db at 1 Mc; sensitivity 10mv p-p or 3.5mv rms/cm. Horiz. Amp: Flat from 2 cps to 450kc; sensitivity 0.5 v P-P or 0.18 v rms per cm. Sweep Circuit: Recurrent sweeps from 10 cps to 100 kc in 4 overlapping ranges: min ratio of forward sweep time to retrace time 15:1; sync

may be int pos. int neg. 60 cps, or ext. Power Reg: 105-125 v 60 cps; 55W drain. Dim: 12 1/2" x 8 1/2" x 16 1/8". Kit is complete with all parts instructions and diagrams. Shpg. wt., 26 lbs.
62F885. NET 79.95
62F886. Model 427. Factory wired and tested. 119.95

SCOPE PROBES

Demodulator Probe. Shpg. wt., 1/4 lb. **62F824. Model PSDK Kit. NET 3.95**
 62F825. Model PSD Wired. NET **5.95**
 Low-Capacity Probe. Shpg. wt., 1/4 lb. **62F826. Model PLCK Kit. NET 3.95**
62F827. Model PLC Wired. NET 5.95
 Direct Probe. Shpg. wt., 1/4 lb. **62F828. Model PDK Kit. NET 2.95**
62F829. Model PD Wired. NET 3.95

MODEL 955K IN-CIRCUIT BRIDGE-TYPE CAPACITOR TESTER



Permits out-of-circuit or in-circuit short check with shunt res. as low as 1 ohm. Reliable up to 2000 out 60 cps test freq. Max. test volt 6.3 v AC (open leads), dec. with dec. imp. Open test of capacitors as small as 15 uuf with inst. adjusted normally. For in-circuit testing, shunt res. may be as low as 35 ohms for capacitors above 250mmf (7K ohm at 15uuf). Capacity Meas.: From 0.1 to 50uf ±10% accuracy at any point on the capacity dial in either in-circuit or out-of-circuit meas. Oper. freq. of the bridge is 60 cps. Line Voltage: 105 to 130 v AC, 60 cps; 8 w drain. Dim: 8 1/2" x 5 3/4" x 6".

With instructions, less solder. Shpg. wt., 4 lbs.
62F883. Model 955K. Kit. NET 19.95
62F884. Model 955. Wired & Tested. NET 39.85

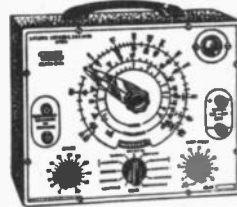
632K CRT TESTER AND REJUVENATOR KIT



Includes universal multi-socket cable that accommodates any CRT, black and white or color including those for transistor TV's. 1000 volt DC supply for repairing CRT defects, 150 volt variable negative supply for checking contrast range of CRT. Variable filament voltage in three ranges: 0-5, 5-10, 10-15. Grid cut-off voltage and filament voltage read on 4 1/2" meter. Beam current read on meter on "BAD - ? - GOOD" scale. Neon lamp for short-open circuit testing. Each gun of color tube tested separately. Comes in a luggage-type

pyroxylin covered wood carrying case. Size: 9 3/4" H x 12" W x 5" D. For 105-130 VAC, 60 cps. Shpg. wt., 12 lbs.
62F887. NET 54.95
 Model 632. As above, wired and tested. **79.95**
62F888. NET

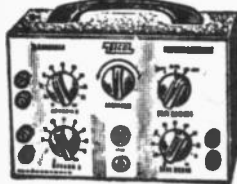
MODEL 950-K RC BRIDGE/R-C-L COMPARATOR KIT



Measures and tests all resistors from 0.5 ohm to 500 meg-ohms, and all capacitors from 10 mmd to 5000 mfd Comparator Range for comparison of resistance, capacitance and inductance with a complementary component as a standard; has wide range of 400:1. Has continuously variable 0-500 volts DC source for capacitor leakage testing. For 110 volts, 60 cycles AC. In rugged steel case; 10x8x4 3/4". With all parts; less solder and leads. Wt. 8 lbs.

62F794. NET 25.95
62F799. Model 950. As above, wired and tested. NET 34.95

MODEL 488K ELECTRONIC SWITCH KIT



Allows simultaneous observation of 2 patterns on a single scope screen. Direct comparison of voltage and current amplitudes, waveforms, frequencies and phase relationship. Separate amplitude control for each pattern. Positioning control permits superimposing. Each of the 3 switching rate ranges is continuously variable. Low: 10-100 cps. Med: 50-400 cps. Hi: 250-2,000 cps. Sinusoidal frequency response of 0-30,000 cps (useful to 300,000 cps) at -2 db. Continuously variable gain control with negligible phase distortion. 400 v. peak-to-peak maximum input. Input imped. of 100,000 ohms. Output imped. 50,000 ohms. With all parts except leads. Size: 6x6x6". Shpg. wt. 7 lbs.

62F830. Kit form. NET 23.95
 Model 488. As above but factory wired. **39.95**
62F831. NET

MODEL 435K DC WIDEBAND 3" OSCILLOSCOPE KIT



Dc to 4.5Mc flat response for reproduction of 3.58 Mc. sync burst and oscillator signal in color television servicing. Distortionless V&H trace and retrace blanking. Directly coupled push-pull vertical amplifier, eliminating low frequency shift and distortion in wave forms. Zener diode control of square wave calibration. Sweep range 10 cps. to 100Kc. in four ranges with vernier adjustment. Automatic sync limiter and amplifier. V-amp: -1, -3 db from Dc to 4.5 Mc response and 18Mv/Cm RMS (50Mv-P-P) Sensitivity input 1 megohm shunted by 35mmfd. Square wave 200 Mv P-P ±5%. Vert. attenuator 1, 10, 100 and 1000 positions. 3V blanking at 2.2 megohms. Sawtooth output 10V at 10 to 100 Kc P-P. Variable output impedance to 300 ohms. 9 tubes plus silicon diode and Zener diode with WKS013P1 3" anti-bloom CRT. 8 1/2 x 5 3/4 x 12 3/4". Shpg. wt. 15 lbs. Model 435K.

62F779. NET 99.95
 Model 435. As above, but factory wired and tested. **149.85**
62F780. NET

Test Leads, Prods and Adapters



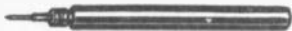
ALL-PURPOSE TEST LEAD KIT



Type 610. 48" of 5000 volt heavy duty rubber covered test lead wire. Plastic handles with solderless prods. Other end supplied with standard #204 banana plugs which are interchangeable with the phone tips, alligator clips, or spade lugs which are supplied. Shpg. wt., 6 oz.

35F929. NET. 1.80

SOLDERLESS TEST PROD— THREADED TYPE



Type 302. Wire fits through handle and body of plug then wrapped around screw portion and tightened with knurled nut provided. Brass, nickel plated tip with Red or Black molded plastic handle. Specify color. 4" handle. Shpg. wt., 3 oz.

35F930. NET. 30c

R.F. TEST PROBE



Type 630. Heavy insulated fibre probe. Large inside diameter enables use of coax cable or 1N34 crystal for R.F. Probes. Heavy duty removable tip. Shpg. wt., 3 oz.

35F931. NET. 72c

PHONO NEEDLE TEST PRODS



Type 318. Brass, nickel plated body with steel nickel plated needle. Removable chuck for replacing broken needles. Red or Black machined handle. 5 1/2" long, 3/8" dia. Wt., 3 oz.

35F906. BLACK. NET. 33c

35F907. RED. NET. 33c

Type 317. As above with red or black molded plastic handle. 4" long, 3/8" dia. Wt., 3 oz.

35F939. Black. NET. 30c

35F940. Red. NET. 30c

ALLIGATOR CLIP TEST LEAD

Type 647. Heavy duty lead wire with steel, cadmium plated clips. Clips have handles of molded Butyrate in red and black. Elbows are in corresponding red and black and of molded Thermosetting plastic. Safe and easy to use. Prices are per pair.

35F960. NET. 1.20

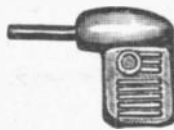


SOLDERLESS TEST PROD



Molded Butyrate handle, type 3 class (MIL-L-P349A). Brass, nickel plated plug; rating of 12 amps AC for 10°C temp. rise. Threaded type. Wire fits through handle and body of plug.

Stk. No.	Type	Color	Overall	NET
35F680	303R	Red	6 3/4"	.33
35F681	303B	Black	6 3/4"	.33

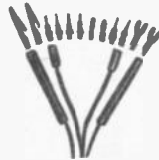


MOLDED METER TIP PLUG

Type 235. Molded meter type plug molded in two halves for easy assembling with screw and nut. Brass nickel plated tip fits in all standard tip jacks. Available in Red and Black. New styling is attractive and facilitates easy handling.

39F964. BLACK. NET. 27c
39F963. RED. NET, Each. 27
10 for. 2.43 100 for. 20.25

UNIVERSAL TEST LEADS



Fifty leads in one! One lead can make any required test lead combination. All parts adapt into prod handle or tip handle. Shpg. wt., 3 oz.

39F887. No. 699. 3.00

SOLDERLESS TIP TEST LEADS

Plastic handles colored red and black. 4" long, 3/8" diameter. Flexible kinkless rubber covered wire leads 50" long also colored red and black. Shpg. wt. 3 oz.

39F872. No. 600. Phone tips. 87c

39F873. No. 601. Spade lugs. 87c

39F874. No. 602. Alligator clips. 83c

HIGH TENSION TEST LEADS

Sturdy attractive test leads with heavy duty probes, and 48" of quality high tension kinkless test lead wire. Fibre handles. Test lead wire is heavy type with .248 outside diameter. Voltage breakdown is 22,000V. Shpg. wt., 3 oz.

35F928. Type 620. With Phono Tips. NET. 1.98

35F941. Type 622. With Alligator Clips. NET. 2.40

HEAVY DUTY TEST PRODS



Model 319. This threaded type prod has a large diameter well which will enable soldering of heavy duty wire directly into plug. Body is nickel plated brass. The handle is made of 4" molded plastic. The overall size is 5 1/8". Shpg. wt., 3 oz.

35F908. Red. NET. 30c

35F909. Black. NET. 30c

Model 329. A threaded type prod with a large diameter well to enable soldering of heavy duty wire directly into plug. Body is nickel plated brass. Handle is 5 1/2" machined plastic. Overall size is 6 1/8". Shipping weight 4 oz.

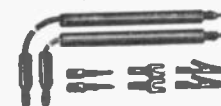
35F942. Red. NET, Each. 33

10 for. 2.97 100 for. 24.75

35F943. Black. NET, Each. 33

10 for. 2.97 100 for. 24.75

TEST LEAD KIT



Type 611. Kit supplied with one pair of test leads. One end test prods, other end ins. banana plugs. Needle tip prods. Fittings: Two each: phone tips, alligator clips, spade lugs.

35F682. NET. 1.80

METER TIP TEST LEAD



Test leads with 50" of rubber covered kinkless test lead wire. Molded plastic fingertip tips on one end and 4" plastic test prod handles on other end. Supplied in two types: solderless tip or needle tip prod handles.

35F932. 625 Solderless Prods. per pr. 1.35
35F933. 626 Needle Tip Prods. per pr. 1.35

METER TEST LEADS



Type 685. Solderless prod with banana meter tip. Body of nickel plated brass. Price per pair.

35F882. NET. 1.50

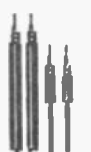
"SLIM JIM" TEST LEADS



Type 698. Long slim probes, fully insulated with vinyl tubing to prevent shock or shorting. Perfect for those hard to get at spots. Supplied with molded meter tip ends and 50" rubber coated kinkless lead wire. Shpg. wt., 5 oz.

35F934. NET. 1.14

SOLDERLESS TEST LEADS



Type 603. The insulated handles and insulated plugs are both of the solderless type construction. Flexible kinkless rubber covered leads are 50" long. This type offers convenience at a low price, in addition to safety. Shpg. wt., 5 oz.

35F936. NET. 1.26

SLIM HANDLE TEST LEADS



Type 670. Slim red and black tenite handles only 3/16" O.D. with solder type phone tips on other end. Flexible, kinkless rubber covered wire 50" long. An extremely sturdy, but low cost serviceable and safe pair of leads. Shpg. wt. 5 oz.

35F957. NET. 66c

SUB MINIATURE TEST LEAD



Type 678. Fibre handles colored red and black with O.D. only 1/4", with insulated tips. Flexible, kinkless rubber covered wire only 50" long. Threaded phone tips. Perfect for testing in cramped space. Shpg. wt., 4 oz.

35F938. NET. 1.26

ALLIGATOR CLIP TEST LEAD PAIR



Heavy duty test lead wire with Cadmium plated steel alligator clips on both ends. Prices are per pair. Average shpg. wt. 4 oz.

Stk. No.	Type	Length	NET
35F942	684	12"	.57
35F943	605	24"	.63
35F944	606	36"	.72
35F945	687	48"	.81

ALLIGATOR CLIP TEST LEADS



Type 672. Heavy duty test leads with steel, cadmium plated clips. Lead comes in re-usable clear plastic hinged box and with 50 in. of extra-flexible rubber-covered kinkless wire. Prices are per pair.

35F961. NET. 1.26

Order from NEWARK'S Complete Inventory
Seven Convenient Locations Across the Country

STANDARD SINUSOIDAL TYPE CVS HARMONIC-FREE TRANSFORMERS

The Sola Constant Voltage Transformer is a static-magnetic voltage regulator designed to keep its output within $\pm 1\%$ with input variations up to $\pm 15\%$. Completely automatic, no tubes, moving parts or manual adjustments. Current limiting characteristic protects transformer and its load equipment. All have new low stray-field design. Practical for most built-in applications. Harmonic content of output voltage wave is less than 3% total RMS at any load above 25% of rating. At lighter loads it never exceeds that of most public utility sources. May be used to provide a sine-wave source of stabilized voltage for the most exacting applications. All have screw type terminals in outlet box. Figure A and B units can be modified for accessory use by installing cord-receptacle kit listed below. All are 95-130 or 190-260 volts, 60 cycles, AC input, except *95-130 volts, 60 cycles; **95-130, 175-235 or 190-260 volts, 60 cycles; ***190-260 or 380-520 volts, 60 cycles; †50 cycles.

118 VOLT OUTPUT

Stock No.	Mfrs. Type	Fig.	Output V.A.	Size	Wt. Lbs.	1-4	5-9	10-49
SF1100	23-13-030	A	30*	6 1/8 x 4 x 5 1/4 in.	8	27.00	24.30	22.95
SF987	23-13-060	A	60*	6 1/8 x 4 x 5 3/4 in.	10	32.00	28.80	27.20
SF1102	23-23-060	A	60***	6 1/8 x 4 x 5 3/4 in.	10	35.00	31.50	29.75
SF988	23-22-112	A	120	8 x 4 x 5 1/4 in.	14	41.00	36.90	34.85
SF1103	23-23-112	A	120***	8 x 4 x 5 1/4 in.	14	44.00	39.60	37.40
SF943	23-22-125	B	250	9 3/8 x 5 3/8 x 7 1/4 in.	28	56.00	50.40	47.60
SF1104	23-23-125	B	250***	10 x 5 3/8 x 7 1/4 in.	29	60.00	54.00	51.00
SF944	23-22-150	B	500	12 7/8 x 9 x 6 7/8 in.	45	87.00	78.30	73.95

118 OR 236 VOLT OUTPUT

SF1105	23-26-150	B	500***	12 7/8 x 9 x 6 7/8 in.	46	93.00	83.70	79.05
SF945	23-25-210	B	1000**	17 7/8 x 9 x 6 7/8 in.	72	146.00	131.40	124.10
SF1106	23-26-210	B	1000***	17 7/8 x 9 x 6 7/8 in.	72	146.00	131.40	124.10
SF993	23-25-220	C	2000**	19 7/8 x 12 3/4 x 10 1/4 in.	140	265.00	238.50	.....
SF1107	23-26-220	C	2000***	19 7/8 x 12 3/4 x 10 1/4 in.	148	265.00	238.50	.....
SF994	23-25-230-3	C	3000**	21 7/8 x 12 3/4 x 10 1/4 in.	194	356.00	320.40	.....
SF1108	23-26-230	C	3000***	21 7/8 x 12 3/4 x 10 1/4 in.	196	356.00	320.40	.....
SF1127	23-25-250	....	5000**	20 1/4 x 25 1/4 x 10 1/4 in.	335	556.00	500.40	.....
SF1128	23-26-250	....	5000***	20 1/4 x 25 1/4 x 10 1/4 in.	342	556.00	500.40	.....
SF414	23-13-560	....	118†	7 1/4 x 4 x 5 1/4 in.	11	37.00	33.30	31.45
SF415	23-23-560	....	118†	7 1/4 x 4 x 5 1/4 in.	11	40.00	36.00	34.00
SF416	23-22-612	....	118†	8 3/4 x 5 3/8 x 7 1/4 in.	21	47.00	42.30	39.95
SF417	23-22-625	....	118†	11 1/8 x 3 x 6 7/8 in.	35	64.00	57.60	54.40
SF418	23-22-650-1	....	118†	13 x 9 x 6 7/8 in.	53	100.00	90.00	85.00
SF419	23-25-710	....	118 x 236†	18 7/8 x 12 3/4 x 10 1/4 in.	120	168.00	151.20	142.80
SF420	23-25-720	....	118 x 236†	20 5/8 x 12 3/4 x 10 1/4 in.	170	305.00	274.50	.....
SF421	23-25-730	....	118 x 236†	26 5/8 x 12 3/4 x 10 1/4 in.	227	409.00	368.10	.....

400 CYCLE TYPE CVS CONSTANT VOLTAGE TRANSFORMERS

Fig. F provides stabilized output voltage despite great variations of input voltages. Compact and light weight, the CVS series was designed for component applications on ground support equipment, inverters, data processing, etc. Features 118 volt output $\pm 1\%$ load regulation from full to no load, 115 volt nom. input less than 3% total rms harmonic content. Will operate at 50°C ambient temperature. Capacitors for the CVS line will be rated for 400 cycle operation.

Stock No.	Type	V.A.	Size	Capacitor Size	Lbs.	1-4	5-9	10-49
SF1109	43-13-060	60	5 1/4 x 3 3/4 x 3 1/4 in.	27 x 1 1/2 x 1 1/4 in.	6	40.00	36.00	34.00
SF1110	43-13-112	120	5 1/4 x 3 3/4 x 3 3/4 in.	43 x 2 1/2 x 1 3/4 in.	8	55.00	49.50	46.75
SF1111	43-13-125	250	7 3/4 x 4 1/2 x 3 3/4 in.	43 x 3 3/4 x 2 1/2 in.	16	75.00	67.50	63.75
SF1112	43-13-150	500	7 3/4 x 4 1/2 x 3 1/2 in.	43 x 3 3/4 x 3 3/4 in.	19	94.00	84.60	79.90
SF1113	43-13-210	1000	8 5/8 x 5 1/4 x 3 1/4 in.	5 1/8 x 4 1/2 x 3 3/4 in.	20	127.00	114.30	107.95

NORMAL HARMONIC TYPE TRANSFORMERS

Embodies all the voltage stabilizing and other characteristics of the Standard Sinusoidal Type CVS listed above except output voltage wave shape is not sinusoidal. Average of 14% total RMS harmonic content in output voltage wave. Recommended for applications where sine wave voltage supply is known to be unnecessary, such as filament supplies, etc. All have screw type terminals in outlet box except Figures D and E. Figures A and B units can be modified for accessory use by installing cord-receptacle kit listed below. All are 95-130 volts, 60 cycle input except *95-130 or 190-260 volts, 60 cycles; **95-130 or 175-235 or 190-260 volts, 60 cycles; ***190-260 or 380-520 volts, 60 cycles.

6.0 SECONDARY VOLTAGE (CVF)

Stock No.	Type	Fig.	V.A.	Size	Lbs.	1-4	5-9	10-49
SF973	20-01-015	D	15	5 1/8 x 2 5/8 x 3 1/2 in.	4	16.00	14.40	13.60
SF977	20-06-015	E	15	4 7/8 x 2 1/2 x 2 1/8 in.	3	15.00	13.50	12.75

6.3 SECONDARY VOLTAGE (CVF)

SF974	20-02-015	D	15	5 9/16 x 2 5/8 x 3 1/2 in.	4	16.00	14.40	13.60
SF718	20-04-015	E	15	4 13/16 x 2 1/2 x 2 1/8 in.	3	15.00	13.50	12.75
SF976	20-04-030	E	31.5*	4 13/16 x 3 1/8 x 3 1/8 in.	6	17.00	15.30	14.45
SF977	20-04-065	E	63*	4 13/16 x 3 1/8 x 3 1/8 in.	8	22.00	19.80	18.70
SF978	20-04-095	E	94.5*	4 13/16 x 3 1/8 x 3 1/8 in.	11	26.00	23.40	22.10
SF980	20-04-116	E	157.5*	7 x 4 1/2 x 5 1/4 in.	23	38.00	34.20	32.30

118 SECONDARY VOLTAGE (CVN)

SF989	20-10-015	D	15	5 9/16 x 2 5/8 x 3 1/2 in.	4	16.00	14.40	13.60
SF719	20-14-015	E	15	4 13/16 x 2 1/2 x 2 1/8 in.	3	15.00	13.50	12.75
SF981	20-13-030	A	30	5 7/8 x 4 x 5 1/4 in.	7	22.00	19.80	18.70
SF953	20-14-030	E	30	4 7/8 x 2 1/2 x 2 3/8 in.	5	17.00	15.30	14.45
SF982	20-13-060	A	60	6 11/16 x 3 1/8 x 3 3/8 in.	8	27.00	24.30	22.95
SF954	20-14-060	E	60	4 13/16 x 3 1/8 x 3 3/8 in.	8	23.00	20.70	19.55
SF983	20-13-112	A	120	7 3/8 x 4 x 5 1/4 in.	12	36.00	32.40	30.60
SF955	20-14-112	E	120	4 13/16 x 3 1/8 x 4 13/16 in.	11	31.00	27.90	26.35
SF984	20-13-115	A	150	8 3/4 x 5 3/8 x 7 1/4 in.	22	43.00	38.70	36.55
SF911	20-13-125	B	250	11 1/8 x 6 1/4 x 6 7/8 in.	25	53.00	47.70	45.05
SF912	20-13-150	B	500	12 7/8 x 6 1/4 x 6 7/8 in.	36	83.00	74.70	70.55
SF913	20-13-210	B	1000	15 1/8 x 6 1/4 x 6 7/8 in.	48	138.00	124.20	117.30

118 AND/OR 236 SECONDARY VOLTAGE

SF990	20-25-220	C	2000**	20 x 10 1/2 x 10 1/4 in.	128	251.00	225.90	.....
SF991	20-25-230	C	3000**	22 x 10 1/2 x 10 1/4 in.	170	340.00	306.00	.....
SF720	20-27-250	....	5000***	21 x 14 1/2 x 14 3/8 in.	290	529.00	476.10	.....



Fig. A



Fig. B

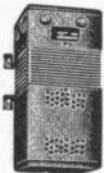


Fig. C



Fig. D

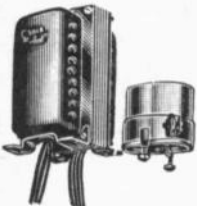


Fig. E

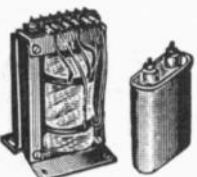


Fig. F

Transformers & Power Supplies

TYPE CVN NORMAL HARMONIC 50 CYCLE DUTY

Stock No.	Mfr's Type	Output Volts	Input Volts	Cap. VA	Nominal	Adapter Kit Code	Mounting	Struct.	Lbs.	1-4	5-9	10-49
SF266	20-10-515	118	95-130	15	5 $\frac{1}{2}$ ex2 $\frac{3}{8}$ x3 $\frac{1}{2}$		5 $\frac{1}{2}$ ex1 $\frac{1}{8}$	D	5	18.00	16.20	15.30
SF267	20-14-530	118	95-130	30	4 $\frac{1}{2}$ ex3 $\frac{3}{8}$ x3 $\frac{3}{8}$		2 $\frac{1}{2}$ x2 $\frac{3}{8}$	E	6	20.00	18.00	17.00
SF268	20-13-560-1	118	95-130	60	6 $\frac{1}{2}$ ex4 $\frac{5}{16}$	A	3x3 $\frac{1}{2}$	W	11	31.00	27.90	26.35
SF269	20-14-560	118	95-130	60	4 $\frac{1}{2}$ ex3 $\frac{1}{8}$ x4 $\frac{1}{8}$		2 $\frac{1}{2}$ x3 $\frac{1}{8}$	E	9	6.00	23.40	22.10
SF270	20-13-612	118	95-130	120	8 $\frac{3}{4}$ ex5 $\frac{1}{2}$ x7 $\frac{1}{8}$	B	4 $\frac{1}{2}$ ex4 $\frac{1}{8}$	W	22	41.00	36.90	34.85
SF271	20-13-615	118	95-130	150	9 $\frac{1}{2}$ ex5 $\frac{1}{2}$ x7 $\frac{1}{8}$	B	4 $\frac{1}{2}$ ex4 $\frac{1}{8}$	W	25	49.00	44.10	41.65
SF272	20-13-625	118	95-130	250	11 $\frac{1}{2}$ ex6 $\frac{1}{4}$ x8 $\frac{1}{8}$	C	4 $\frac{1}{2}$ ex6 $\frac{1}{8}$	W	27	61.00	54.90	51.85
SF273	20-22-625	118	95-130x 190-260	250	11 $\frac{1}{2}$ ex6 $\frac{1}{4}$ x8 $\frac{1}{8}$	C	4 $\frac{1}{2}$ ex6 $\frac{1}{8}$	W	28	61.00	54.90	51.85
SF274	20-23-625	118	190-260x 380-520	250	11 $\frac{1}{2}$ ex6 $\frac{1}{4}$ x8 $\frac{1}{8}$	C	4 $\frac{1}{2}$ ex6 $\frac{1}{8}$	W	28	61.00	54.90	51.85
SF275	20-13-650	118	95-130	500	12 $\frac{1}{2}$ ex6 $\frac{1}{4}$ x8 $\frac{1}{8}$	C	4 $\frac{1}{2}$ ex6 $\frac{1}{8}$	W	43	95.00	85.50	80.75
SF276	20-22-650	118	95-130x 190-260	500	12 $\frac{1}{2}$ ex6 $\frac{1}{4}$ x8 $\frac{1}{8}$	C	4 $\frac{1}{2}$ ex6 $\frac{1}{8}$	W	41	95.00	85.50	80.75
SF277	20-23-650	118	190-260x 380-520	500	12 $\frac{1}{2}$ ex6 $\frac{1}{4}$ x8 $\frac{1}{8}$	C	4 $\frac{1}{2}$ ex6 $\frac{1}{8}$	W	41	95.00	85.50	80.75
SF278	20-26-650	118 x236	190-260x 380-520	500	12 $\frac{1}{2}$ ex6 $\frac{1}{4}$ x8 $\frac{1}{8}$	C	4 $\frac{1}{2}$ ex6 $\frac{1}{8}$	W	42	102.00	91.80	86.70
SF279	20-20-710	118	190-260	1000	18 $\frac{1}{2}$ ex10 $\frac{1}{2}$ x10 $\frac{1}{8}$	....	3 $\frac{1}{2}$ ex8 $\frac{3}{8}$	W	125	159.00	143.10	135.15
SF280	20-22-710	118	95-130x 190-260	1000	18 $\frac{1}{2}$ ex10 $\frac{1}{2}$ x10 $\frac{1}{8}$	....	3 $\frac{1}{2}$ ex8 $\frac{3}{8}$	W	125	159.00	143.10	135.15
SF281	20-25-720	118 x236	190-260 95-130x 175-235x 190-260	2000	20 $\frac{3}{4}$ ex10 $\frac{1}{2}$ x10 $\frac{1}{8}$	....	5 $\frac{1}{2}$ ex8 $\frac{3}{8}$	W	144	289.00	260.10	.....

FIG. A. FIXED CONSTANT VOLTAGE DC POWER SUPPLIES

Will withstand high transient overload without damage or output voltage drop. Self-protecting on continuous overload. Output regulation $\pm 1\%$ or less over 100-130v. input range. 1% ripple except 281200 and 281250 which are $\frac{1}{2}\%$. Load regulation less than 4% from 20% to full load. Efficiency approx. 75%. Output impedance approx. 3 ohm. Mounted on standard 19x5 $\frac{1}{4}$ x 9 $\frac{3}{4}$ " panel for rack mounting. Protective iridite coating. Input 100-300, 60 cyc. AC.

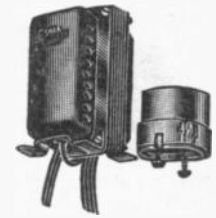


FIG. A

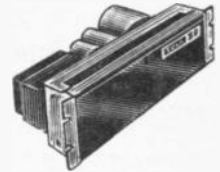


FIG. B

Stock No.	Type	Volts	Amps	VA	Load Regulations			WT.	1-4	5-9	10-24
					20% F.L.	50% F.L.	PANEL HT.				
SF1114	281513-1	6	10	60	9	7	3 $\frac{1}{2}$	27	150.00	135.00	120.00
SF152	282123	6	15	90	9	7	5 $\frac{1}{4}$	*38	175.00	157.50	140.00
SF1115	281515-1	12	5	60	7	5	3 $\frac{1}{2}$	18	115.00	103.50	92.00
SF153	282124	12	10	120	7	5	5 $\frac{1}{4}$	*31	150.00	135.00	120.00
SF154	281845	12	15	180	7	5	5 $\frac{1}{4}$	50	185.00	175.50	158.00
SF1116	281515-1	18	5	90	5	4	3 $\frac{1}{2}$	20	120.00	108.00	98.00
SF155	282125	18	10	180	7	5	5 $\frac{1}{4}$	*45	175.00	157.50	140.00
SF924	281024-1	24	6	144	5	4	5 $\frac{1}{4}$	30	145.00	130.50	116.00
SF156	282126	24	10	240	6	4	5 $\frac{1}{4}$	*48	180.00	162.00	144.00
SF1117	281203	24	15	360	5	4	8 $\frac{3}{4}$	64	250.00	225.00	200.00
SF157	282127	24	25	600	6	4	7	*72	335.00	291.50	258.00
SF1118	28626	28	8	224	6	4	5 $\frac{1}{4}$	42	180.00	162.00	144.00
SF158	282128	28	15	420	7	5	7	*55	250.00	225.00	200.00
SF925	281048	48	4	192	3.5	2.5	5 $\frac{1}{4}$	32	135.00	121.50	108.00
SF1119	281561	48	10	480	4	2	5 $\frac{1}{4}$	48	185.00	166.50	148.00
SF159	282129	48	20	960	3	2	8 $\frac{3}{4}$	*95	275.00	247.50	220.00
SF926	281125	125	2	250	2.5	1.5	5 $\frac{1}{4}$	44	145.00	130.50	116.00
SF927	281150	150	2	300	2	1.5	5 $\frac{1}{4}$	48	145.00	130.50	116.00
SF928	281200	200	1	200	3	2	5 $\frac{1}{4}$	39	140.00	126.00	112.00
SF929	281250	250	1	250	3	2	5 $\frac{1}{4}$	45	150.00	135.00	120.00

FIG. B. REGULATED PLATE-FILAMENT POWER TRANSFORMERS

Low stray field, ideal for TV, Hi-Fi, industrial amateur or broadcast use as built-in component. Has same characteristics on standard Type CVN above except secondaries regulated $\pm 3\%$

over 100-130 V; 60 cycle input. Separate capacitor with mounting brackets furnished. *Center-tapped. **Has additional 6.3 V. 8.0 amp. unregulated filament winding.

Stock No.	Type	DCV Input to Filter	V	A	V	A	Wt. Lbs.	1-9	10-49	50-99
SF960	CVE7104	275V @ 50MA	6.3*	2.5	5.0	2.0	6	13.00	11.70	10.40
SF961	CVE7106	385V @ 100MA	6.3*	3.0	5.0	2.0	8	16.00	14.40	12.80
SF962	CVE7107	380V @ 250MA	6.3**	4.0	5.0	3.0	19	30.00	27.00	24.00

FIG. C.—CV MULTI-TAP TRANSFORMER

112 rectifier outputs from one transformer with live regulation of $\pm 1\%$ or less. Eliminates tandem-hook-ups and special transformers for proto-typing, lab. work, short production runs. A

power source for both AC and DC outputs. Typical AC outputs (Regulated): 3.4, 27.2, 24.0, 22.0, 20.2. 1.4, 36.0, 14.9, 13.4, 12.6, 11.6, 10.8.

Stock No.	Type	VA RATING	AC Volts	Dimensions	Lbs.	1-4	5-9	10-49
SF964	73-13-040	40	9.3-28.9	4 $\frac{1}{2}$ ex3 $\frac{1}{2}$ x5 $\frac{7}{8}$ "	6	26.00	23.40	22.10
SF965	73-13-075	75	10.3-30.0	4 $\frac{1}{2}$ ex3 $\frac{1}{2}$ x5 $\frac{7}{8}$ "	8	34.00	30.60	28.90
SF966	73-13-115	150	10.8-31.4	6 $\frac{1}{2}$ ex4 $\frac{1}{2}$ x5 $\frac{7}{8}$ "	13	47.00	42.30	39.95
SF967	73-13-122	225	10.1-30.1	6 $\frac{1}{2}$ ex4 $\frac{1}{2}$ x5 $\frac{7}{8}$ "	18	58.00	52.20	49.30
SF968	73-13-130	300	10.2-30.8	6 $\frac{1}{2}$ ex4 $\frac{1}{2}$ x8"	22	68.00	61.20	57.80
SF969	73-13-145	450	9.4-30.2	6 $\frac{1}{2}$ ex4 $\frac{1}{2}$ x8 $\frac{1}{8}$ "	30	94.00	84.60	79.90

CORD/RECEPTACLE ADAPTER KITS

Used when convenience of input plug and output receptacle is preferred to standard arrangement of terminals in transformer housing.

Stock No.	Type	Input Cord.	Output Connections	Adapter Code	EACH
SF985	999-004	2-wire	2-wire Receptacle	a	2.50
SF996	999-018	3-wire	3-wire Receptacle	a	3.75
SF160	999-005	2-wire	2-wire Receptacle	b	2.50
SF997	999-019	3-wire	3-wire Receptacle	b	3.75
SF161	999-009	2-wire	2-wire Receptacle	c	3.25
SF998	999-020	3-wire	3-wire Receptacle	c	3.75

ADJUSTABLE SINUSOIDAL TYPE CVL-AC-SUPPLY

Type 23-90-150. Same characteristics as CVS Transformers, plus adj. output from 0-130 volts from recept. and jacks on front panel; from jacks at rear. Fixed 115v from front recept. Volt. reg. on all outputs $\pm 1\%$, with less than 3% har. content. Grey finish. Std.

19" panel, 9" high, 12 $\frac{1}{16}$ " deep. Input 100-130 VAC, 60 cyc. Output capacity 500 VA, with max. cur. of 7.5 amps. Shpg. wt. 77 lbs.

SF995. NET **275.00**



Superior Transformers

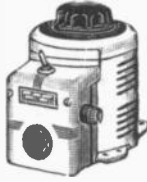
POWERSTAT VARIABLE VOLTAGE TRANSFORMERS



Type 10B



Type 21, 22



Type 116B, 117B, 216B

Type 2PF10 is encased, all others open. Type 10B is single unit, 10B-2 is two-gang for either 240V, single-phase or 120V, 3-phase operation. 10B-3 is 3-gang, wye connected for 240V, 3-phase operation. *60 cps. #50/60 cps. All rated 1.75 amps, 2.25 amps when mounted on metal panel except 2PF10 1.0 amps.

Stk. No.	Type	Volts	KVA	Lbs.	Dia. x Lt.	1-11	12-99
5F893	2PF10	0-132*	.132	3.3	3 1/2 x 3 3/4"	18.00	15.30
5F800	10B	0-120#	.30	2.4	2 3/4 x 2 1/8"	9.00	7.65
		0-132*	.30				
Stk. No.	Type	Volts	KVA	Lbs.	Dia. x Lt.	1-11	2-49
5F775	10B-2	0-240#	.54	5.6	3 7/8 x 5 1/8"	28.00	23.80
		0-264*	.59				
		0-120##†	.47				
		0-132**†	.51				
5F724	10B-3	0-240*	.94	8.3	3 7/8 x 8 1/8"	44.00	37.40

SERIES 12

Current ratings: (all types) .9a on metal panel, otherwise .75a (constant-Z load); .7a on metal panel, otherwise .5a (constant-current load). Size: same as types 10B, 10B-2, 10B-3 respectively. All are for 240 V 50-2000 c. input except *480 V.

Stk. No.	Type	Volts	Phase	KVA	1-11	12-99
5F1229	12	0-240	single	0.22	12.00	10.20
					Ex.	2-49
5F1230	12-2	0-480	1-series*	0.43	31.60	29.90
		0-240	3-delta	0.37		
5F1231	12-3	0-480	3-Y*	0.75	47.70	45.05

SERIES 116B-117B

All 120V input except #240V. "U" types open for panel mtg — all others encased for wall or bench mtg. Types ending in -2 are 2-gang, those ending in -3 are 3-gang. D—Delta-wired, Y—Wye-wired, S—Series-wired. All units are plug-in except those with "T" suffix, which are for permanent installation. Type 3PF have polarized 2-blade plug; 3PN, NEMA std. 3-blade plug; 3TF 3-blade twist-lock plug; 2PF or no suffix, std. 2-blade plug; approx. 6" deep per gang, 4 5/8" dia., except sq. units. Series 116B rated 10A, 117B rated 12A, const. current loads. All units 4 1/4" sq. All 50/60 cps., except 116T-3 and 116U-3, 60 cps. All models feature tough, contamination- and fungus-resistant POWERKOTE coils. Shpg. wt., 12 lbs.

Stk. No.	Type	Volts	Phase	KVA	1-11	12-99
5F801	116B	0-140	1S	1.4	26.00	22.10
5F726	116BL	0-120	1S	1.2	25.00	22.10
5F728	3PF116B	0-140	1S	1.4	33.00	28.05
5F858	3PN116B-L	0-120	1S	1.2	30.00	25.50
5F857	3PN116B	0-140	1S	1.4	30.00	25.50
5F729	3TF116B	0-140	1S	1.4	33.00	28.05

Shpg. wt. for 116BT-2, 24 lbs.; 116BT-3, 36 lbs.; 116BU-2, 21 lbs.; 116BU-3, 30 lbs.

Stk. No.	Type	Volts	Phase	KVA	1-11	12-99
5F777	116BT-2	0-280#	1S	2.8	53.10	50.15
		0-240##	1S	2.4		
		0-140	3D	2.4		
		0-120	3D	2.1		
5F790	116BT-3	0-280#	3Y	4.8	76.50	72.25
		0-240##	3Y	4.2		
5F733	116BU-2	0-280#	1S	2.8	42.10	41.65
		0-240##	1S	2.4		
		0-140	3D	2.4		
		0-120	3D	2.1		
5F736	116BU-3	0-280#	3Y	4.8	61.20	57.80
		0-240##	3Y	4.2		

Stk. No.	Type	Volts	Phase	KVA	1-5	6-24	25-99
5F807	116BU	0-140		1.4			
		0-120		1.2	18.00	16.20	15.30

Shpg. wt. of above: 11 lbs. All single phase.

Stk. No.	Type	Volts	Phase	Lbs.	1-5	6-24	25-99
5F839	117B-T	0-120	1S	12	25.00	22.50	21.25
					1-11	12-99	
5F739	2PF117B	0-120	1S		31.00	26.35	
5F740	3PN117B	0-120	1S		35.00	29.75	

All above rated 1.8 KVA; all 60 cps.

Stk. No.	Type	Volts	Phase	KVA	1-5	6-24	25-99
5F741	117BT-2	0-240#	1S	3.6			
		0-120	3D	3.1	54.90	51.85	
5F742	117BT-3	0-240#	3Y	6.2	77.40	73.10	

Above all 60 cps. Shpg. wt. 24 lbs.

Stk. No.	Type	Volts	Phase	KVA	1-5	6-24	25-99
5F743	117BU	0-120	1S	1.8	20.00	18.00	17.00

All 60 cps. Shpg. wt., 24 lbs.

Stk. No.	Type	Volts	Phase	KVA	1-5	6-24	25-99
5F746	117BU-2	0-240#	1S	3.6			
		0-120	3D	3.1	45.00	42.50	
5F749	117BU-3	0-240#	3Y	6.2	62.10	58.65	

All 60 cps. Max. for const.-cur. load KVA shown max for const.-imp. load.

SERIES 21

Open construction. 21-2 is 2-gang, 21-3 is 3-gang. 120V, single phase except † 120V 3-phase and ‡ 240V 3-phase. 50/60 cycle except #60 cps. Rating 6.5 amps (onstant-Z load), exc. *4.5A. 16 lbs.

Stk. No.	Type	Volts	KVA	Depth	Dia.	1-5	6-24	25-99
5F809	21	0-120	0.78					
		0-140*	0.63	4 1/8"	5 7/8"	14.00	12.60	11.90

Shpg. wt. 5F776, 12 lbs.; 5F725, 17 lbs.

Stk. No.	Type	Volts	KVA	Dept.	Dia.	1-5	6-24	25-99
5F776	21-2	0-240	1.6	9"	5 7/8"	36.90	34.85	
		0-280	1.3					
		0-120†	1.4					
		0-140†	1.1					
5F725	21-3	0-240#	2.7	12 1/8"	5 7/8"	58.50	55.25	
		0-280##	2.2					

22 SERIES POWERSTAT VARIABLE TRANSFORMERS

Transformers of new 22 Series provide higher voltage ratings with no increase in size or weight. Zero wave-form distortion, high efficiency, moderate temperature rise. Open construction, intended for back-of-panel mounting. Can be operated at any frequency between 50 and 2000 cycles. Shpg. wt.; Type 22-2, 12 lbs.; Type 22-3, 17 lbs. † 1 phase series. ‡ 3 phase Open Delta. † 3 phase Wye. All have POWERKOTE coils.

Stk. No.	Type	Volts	KVA	Depth	Dia.	1-5	6-24	25-99
5F895	22	0-240	0.54	4 1/8"	5 7/8"	15.00	13.50	12.75
		0-280	0.63					

Stk. No.	Type	Volts	KVA	Depth	Dia.	Each	2-49
5F896	22-2	0-480	†1.1	9"	5 7/8"	39.60	37.40
		0-560	†1.3				
		0-240	*0.94				
		0-280	*1.1				

5F897	22-3	0-480	†1.9	12 1/8"	.....	63.00	59.50
		0-560	†2.2				

SERIES 146-246 HIGH-CURRENT VARIABLE TRANSFORMERS



Rated over 4 KVA, constant impedance load. 146 types are for 120VAC, 50/60 cycle input, deliver 30 amps to constant-Z loads (35 amps without overvoltage). Type 246: 120 VAC 50/60 c. input, delivers 15 amps up to 150 V; 240 V input, delivers 19 amps to 240 V. Reduced current on overvoltage. Size: 9 1/8"wx10 1/2" deep, except *11" deep.

Stk. No.	Type	Volts	Phase	KVA	Lbs.	1-5	6-24	25-99
5F1232	146	0-120	single	4.2	38	94.00	84.60	79.90

Stk. No.	Type	Volts	Phase	KVA	Lbs.	1-5	6-24	25-99
5F1233	*146-2	0-120	1-paral.	8.4	76			
		0-240	1-series	8.4		187.20	176.80	
		0-120	3-delta	7.3				

5F1234	246	0-240	single	4.6	38	94.00	84.60	79.90
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All of the above feature POWERKOTE coils.

SERIES 216B

"U" types open for panel mtg.,—all others encased for wall or bench mtg. Types ending in -2 are 2-gang, those ending in -3 are 3-gang. D—Delta-wired, S—Series-wired, Y—Wye-wired. Type 3PF have polarized 3-blade plug; 3PN have NEMA std. 3-blade plug; 3TF have 3-blade twist-lock plug; 2PF have std. 2-blade plug; 3.5 amps, except *5 amps. †Current shown max for const.-cur. load, KVA shown max for const.-imp. load. ‡Max. KVA at max. output voltage. **Input 120V. ##Input 240V. †Input 480V. All units approx. 6" deep per gang. 4 5/8" dia., except sq. units are 4 1/4" sq. With POWERKOTE coils. Shpg. wt., 12 lbs.

Stk. No.	Type	Volts	Phase	KVA	1-11	12-99
5F802	216B	0-280##	1S	1.2		
		0-280**	1S	*.42	29.00	24.65
5F669	3PN216B	Xfmr. same as 216			33.00	28.05

Stk. No.	Type	Volts	Phase	KVA	1-5	6-24	25-99
5F872	216B-U	0-280**	1S	.42			
		0-280##	1S	.98			
		0-240##	1S	.84	22.00	19.80	18.70

Shpg. wt. 11 lbs.

Superior Variable Transformers



METERED KNOB ASSEMBLIES FOR BACK OF PANEL MOUNTED UNITS

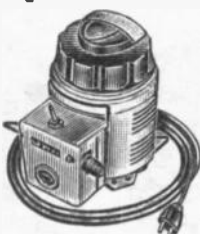


Can be combined with standard cataloged powerstat variable transformers that are designed or adaptable for back panel mounting. Easily adapted for retrofitting existing installations. Large functionally designed knob turns freely while meter remains stationary. Accurate voltmeter insensitive to stray magnetic fields. Consists of metered knob, mounting screws and complete wiring and installation instructions.

VS150—Where 120 volt duty is required. Has 0-150 meter scale.

VS300—Where 240 volt duty is required. Has 0-300 meter scale.

Stk. No.	Type	1-11 Net Ea.	12-99 Net Ea.
6F118	VS150	32.00	27.20
6F119	VS300	32.00	27.20



NEW METERED KNOBS POWERSTAT® VARIABLE TRANSFORMERS

Designed for back-of-panel or general utility mounting. Excellent for use in laboratories, and inspection and test applications where voltage must be controlled without the necessity of installing a separate way of measuring voltage. Have knobs which include a stationary direct-reading voltmeter; Accuracy of $\pm 2.5\%$ of full scale. and on 240 volt types have 0-300 volt scales.

VS118B — VS216B SERIES

Stk. No.	Type	Input Volts	Output Volts	Output Constant Current Load		Shpg. Wt.	1-11 Net Ea.	12-99 Net Ea.
				Max. Amps	Max. KVA			
6F120	VS118B	120	0-120	10.0	1.2	12	98.00	49.30
6F121	VS216B	240	0-240	3.5	0.84	12	61.00	49.85

VS126, VS226 SERIES

Stk. No.	Type	Input Volts	Output Volts	Max. Amps	Max. KVA	Shpg. Wt.	1-11 Net Ea.	12-99 Net Ea.
6F122	VS126	120	0-120	22	1.8	18	71.00	60.35
6F123	VS226	240	0-240	7.5	1.8	18	71.00	60.35

VS136B, VS236B SERIES

Stk. No.	Type	Input Volts	Output Volts	Max. Amps	Max. KVA	Shpg. Wt.	1-11 Net Ea.	12-99 Net Ea.
6F124	VS136B	120	0-120	22	2.6	26	87.00	73.85
6F125	VS236B	240	0-240	10	2.4	26	87.00	73.85

"POWERSTAT" VARIABLE TRANSFORMERS

An autotransformer of toroidal core design with a movable brush-top riding on the Gold-plated bared portion of the winding. Delivers from 0 to or above line voltage. Operating temp. rise is less than 50°C above ambient. Special Gold plated plating and polishing process produces a glass-smooth commutator surface which is forever free of oxides.

(F) with fuses in the output brush leads and terminal boards enclosed. Knock-outs in enclosures permit wiring with BX or equivalent. (T) terminal boards enclosed. (2PF) parallel blade plug. (2TF) 2-blade twist lock plug. (3PF) polarized 3-blade plug. (3PN) standard 3-blade plug. (3TF) polarized 3-blade twist lock plug. (-2) 2-gang. (-3) 3-ganged. Single phase except where otherwise noted. All 136-236 and 1156-1256 units have POWER-KOTE coils for greater stability.

136B SERIES

22 Amps output except #40 120V input except (*) 240V CPS. 50/60. except (+) 60.

Stk. No.	Type	Volts	KVA	Lbs.	1-5	6-24	25-99
5F812	136B	0-140	3.1	25			
		0-120	2.6	25	55.00	48.50	46.75

Stk. No.	Type	Volts	KVA	Lbs.	1-11	12-99
5F696	2PF136B	Same as 136B	136B	27	72.00	61.20
5F699	3PN136B	Same as 136B	136B	27	72.00	61.20
5F617	3TF136B	Same as 136B	136B	27	72.00	61.20

Stk. No.	Type	Description	Lbs.	1-5	6-24	25-99
5F694	136BT	Same as 136B	26	61.00	54.90	51.85
5F695	F136B	Same as 136B	26	61.00	54.90	51.85

Stk. No.	Type	Volts	Phase	KVA	Lbs.	Ea.	2-49
5F778	136B-2	0-140	1P#	6.2	52		
		0-120	1P#	5.3	52		
		0-280*	1S	6.2	52	116.10	109.65
		0-240*	1S	5.3	52		
		0-140	3D	5.3	52		
		0-120	3D	4.6	52		

Stk. No.	Type	Description	Lbs.	1-5	6-24	25-99
5F819	F136B-2	Same as 136B-2	53	120.00	110.00	
5F782	136B-3+	0-280* 3Y	10.7	76		
		0-240* 3Y	9.1	76	169.30	150.95

SERIES 1256D

Max. amps. output 28.0 except (+) 58.0 50/60 cps all one phase: 1256D-2P Parallel, 1256D-2S series.

Stk. No.	Type	In. V.	Volts	Max. KVA	Wt. Lbs.	Ea.	2-49
5F806	1256D	240	0-280	7.8	79	130.00	110.50
5F780	1256D-2P+	240	0-280	15.7	160	298.00	251.80

TRANSFORMER REPLACEMENT BRUSHES

Stk. No.	Type	Series	1-5	6-24	25-99	Stk. No.	Type	Series	1-5	6-24	25-99
5F703	RB-10B	10B	1.00	.80	.85	5F709	RB-1126	1126	2.25	2.03	1.91
5F704	RB-21	21	1.00	.80	.85	5F710	RB-1226	1226	2.25	2.03	1.91
5F705	RB-116	116	1.25	1.13	1.06	5F711	RB-136	136	1.75	1.57	1.49
5F707	RB-216	216	1.25	1.13	1.06	5F712	RB-236	236	1.75	1.57	1.49

Stk. No.	Type	Volts	Phase	KVA	Lbs.	1-5	6-24	25-99
5F681	2PF217B	0-240##	IS	1.2	12	31.00	26.35	
5F856	217BT	0-240##	IS	1.2	12	28.00	23.20	23.80
5F685	217BU	0-240##	IS	1.2	11	23.00	20.70	19.55

SERIES 217B

Stk. No.	Type	Volts	Phase	KVA	Lbs.	Ea.	2-49
5F683	217B-2	0-480†	IS	3.4			
		0-240##	3D	2.9	24	59.40	56.10
5F684	217B-3	0-480†	3Y	5.4	36	85.50	80.75



Type 136B
Type 236B



Type 1156D



Type 1256D

236B SERIES

Max output amps 10 50/60 cycles except (*) 60 only.

Stk. No.	Type	Output			Wt. Lbs.	1-5	6-24	25-99
		Inp. V.	V.	Max. KVA.				
5F813	236B	120	0-280	1.2	25			
		240	0-280	2.8	25			
		240	0-240	2.4	25	55.00	48.50	46.75

Stk. No.	Type	Output			Wt. Lbs.	1-11	12-99
		Inp. V.	V.	Max. KVA.			
5F624	2PF236B	.....	.....	Same as 236B	27	72.00	61.20
5F628	3TF236B	.....	.....	Same as 236B	27	72.00	61.20

Stk. No.	Type	Description	Wt. Lbs.	1-5	6-24	25-99
5F623	F236B	Same as 236B	26	61.00	54.90	51.85

Stk. No.	Type	Output				Wt. Lbs.	Ea.	2-49
		Phase	In. V.	Volts	Max. KVA.			
5F782	236B-2	1 series	240	0-560	2.4	52		
		1 series	480	0-560	5.6	52		
		1 series	480	0-480	4.8	52	116.10	109.85
		3 delta	120	0-280	2.1	52		
		3 delta	240	0-280	4.8	52		
		3 delta	240	0-240	4.2	52		

SERIES 1156D

Max. amps output 50.

Stk. No.	Type	Volts	Phase	KVA	Lbs.	1-5	6-24	25-99
5F808	1156D	120	0-140	7.0	79	130.00	110.50	
5F779	1156D-2S	240	0-280	14.0	152	287.00	243.95	
5F794	1156D-3Y	240	0-280	24.2	225	389.70	368.05	

PARALLELING CHOKE

Stk. No.	Type	Application	1-5	6-24
5F635	T5000	For 136B-2 and 236B-2	14.00	11.90

DEPEND ON NEWARK FOR EVERYTHING IN INDUSTRIAL ELECTRONICS

• OEM Factory Prices

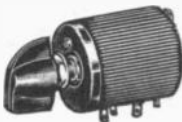
• Same Day Shipment from On-the-Shelf Stocks



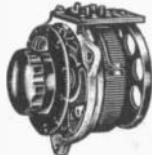
Superior Transformers — Regulators



3HS04UK



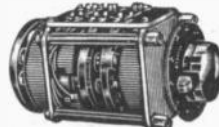
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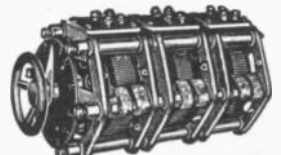
1HMD07UK



1HMD07CK



2HMS07UK-3Y



2HL15UK-3Y

POWERSTAT VARIABLE TRANSFORMERS FOR 400/800 CYCLE SERVICE

For high-frequency uses in aircraft, ships, missiles, and industry. Single- and three-phase 400/800 cycle, manual and motor-driven air-cooled 28-, 120-, and 480-v models in 56 VA to 8.7 KVA ratings. Perform some tasks as conventional 60-cycle units but weigh $\frac{1}{2}$ as much and occupy $\frac{1}{2}$ the space. Operate at -55° to $+40^{\circ}$ ambient at full rated load (reducing to $+80^{\circ}\text{C}$); altitudes to 50,000 ft.; up to 95% rel. humidity; vibration, shock and incli-

nation per MIL-T-17113; corrosion resistance per QQM-151-A and other military specs. Types HL and HMS units available with either 28 VDC or 120 V, 400-cycle AC motors with std. speed of 60 sec. for full range travel. Manual units knob-operated, but screw-driver slot method of turning optional for HS and HMS single phase. Open construction unless specified * enclosed, † indicates square frame construction. Specify mtg. when ordering.

FOR 28, 120- AND 240-VOLT SINGLE-PHASE SERVICE

Stk. No.	Type	Line Volt.	Output			Wt. Lbs.	1-5	6-24	25-99
			Volts	Amps.	KVA				
5F860	3HS02UK	28	0-28	2.0	.056	0.9	20.00	18.00	17.00
5F861	3HS02CK*	28	0-28	2.0	.056	0.9	22.00	19.80	18.70
5F862	3HS04UK	28	0-28	4.0	.112	1.2	22.00	19.80	18.70
5F863	3HS04CK*	28	0-28	4.0	.112	1.2	24.00	21.60	20.40
5F864	1HS01UK	120	0-120/140	1.0	.14	1.3	14.50	13.05	12.33
5F865	1HS01CK*	120	0-120/140	1.0	.14	1.4	20.00	18.00	17.00
5F867	1HMS03UK†	120	0-120/140	3.0	.42	2.8	15.50	13.95	13.18
5F868	1HMS07UK†	120	0-120/140	7.5	1.0	3.8	20.00	18.00	17.00
5F869	1HMD07UK	120	0-120/140	7.5	1.0	4.2	20.00	18.00	17.00
5F870	1HMD07CK*	120	0-120/140	7.5	1.0	4.7	22.00	19.80	18.70
5F871	1HL15UK	120	0-120/140	15.0	2.1	14.0	50.00	45.00	42.50
5F872	2HMS03UK†	240	0-240/280	3.0	.84	3.8	22.50	20.25	19.13
5F875	2HL09UK	240	0-240/280	9.0	2.5	15.4	50.00	45.00	42.50

FOR 240- AND 480-VOLT THREE-PHASE SERVICE

Stk. No.	Type	Line Volt.	Output			Wt. Lbs.	NET	
			Volts	Amps.	KVA		EACH	2-49
5F876	2HMS03UK-3Y†	240	0-240/280	3.0	1.5	8.5	44.55	42.08
5F877	2HMS07UK-3Y†	240	0-240/280	7.5	3.6	11.6	60.30	56.95
5F878	2HL15UK-3Y	240	0-240/280	15.0	7.3	41.0	126.00	119.00



LW136B



Type EN



Type UC1MB

VARIABLE TRANSFORMER WITH ISOLATED SECONDARY

Powerstat type LW-136B is a double wound assembly with an isolated secondary on a single core. The one phase unit can be connected for either 120-volt or 240-volt, 50/60 cycle input and can be used as a source of 0-30 volts isolated output; either a 120-volt or 240-volt line corrector; or either a 120-volt or 240-volt limited range "buck-boost" variable transformer. The three-phase, three-gang unit can be connected for either 240-volt or 480-volt, 60-cycle input and can be used as a source of 0-60 volts isolated output; either a 240-volt or 480-volt line corrector; or either a 240-volt or 480-volt limited range "buck-boost" variable transformer. Gray enamel finish. Spg. wt., LW136B—25 lbs. LW136B-3—77 lbs. Features POWERKOTE coils.

MODEL LW136B—FOR 50/60 CYCLE, 1-PHASE SERVICE

Stk. No.	Line Volt.	Output			1-5	6-24	25-99
		Volts	Amps	KVA			
5F881	120	0-30	25	.75	77.00	69.30	65.45
	120	15-0-15	35	.52			
	240	0-30	25	.75			
	240	15-0-15	35	.52			
	120	105-135	35	4.7			
	107-137	120	35	4.2			
	240	225-255	35	8.9			
	226-256	240	35	8.4			

MODEL LW136B-3—FOR 60 CYCLE, 3-PHASE SERVICE

Stk. No.	Line Volt.	Output			NET EACH	2-49
		Volts	Amps	KVA		
5F889	240	210-270	35	16.4	227.70	215.05
	219-264	240	35	14.6		
	480	450-510	35	30.9		
	452-512	480	35	29.1		

MULTI-PURPOSE POWERSTAT



Type 5-1011. Miniaturized for 400/1600 cycles, 1 phase service has connections for use as limited range variable transformer, low voltage output variable transformer, and line corrector. As limited range variable transformer with 115-volt input, may connect for output of 83-113 V, 2.6 amp., 0.29 max. KVA; or 98-130 V, 2.6 amp., 0.34 max. KVA; or 116-149 V, 2.6 amp., 0.39 max. KVA. As low voltage output variable transformer with 115 V, input may connect for an output of 0-26 V, 2.6 amp., 0.068 max. KVA. As line corrector may connect to correct to output of 115 volts, 2.6 amp., 0.30 max. KVA from input of 90-113 volts, 104-133 volts or 117-149 volts. Only $1\frac{1}{4}$ " in dia., $2\frac{1}{4}$ " depth behind panel. Wt., 1 lb.

Stk. No.	Type	1-5	6-24	25-99
5F894	5-1011	33.00	29.70	28.05



40 VOLT POWERSTATS

Meets high current, low voltage power supply applications. Manual type with open construction. Input: 40 V, 60 cps. Output: 0-40 V. POWERKOTE coils.

Stk. No.	Type	Max.				
		Amps.	KVA	1-11	12-99	
5F754	1QB-40	7	.28	11.00	9.35	
				1-5	6-24	25-99
5F755	21-40	18	.72	16.00	14.40	13.60
5F758	116BU40	25	1.0	23.00	20.70	19.55

SUPERIOR TYPE UC1MB VOLTBOX

Type UC1MB. Voltbox. For AC variable voltage testing up to 10 amps. Has Powerstat, direct reading voltmeter. Input: 120 volts, 50/60 cycles. Output: 0-140 volts, 1.4 KVA. Includes renewable fuse, 6-foot cord-plug. Size: $7\frac{1}{2} \times 8\frac{1}{2}$ ". Sh. wt., 17 lbs.

Stk. No.	Type	1-5	6-24	25-99
5F820	UC1MB	72.00	64.80	61.20

SUPERIOR POWERSTAT VARIABLE VOLTAGE TRANSFORMERS

Rotation of brush tap delivers a continuously-adjustable voltage from AC power lines over range from zero to or above line voltage. Manual and motor-driven, open and enclosed air-cooled types are available for 120, 240 and 480 volt, 25, 50/60 cycle, single and three phase service in rating from 1.8 KVA to 2.1 KVA. Current rating available over entire range of output voltage. Zero waveform distortion, negligible maintenance, gold-alloy plated commutator, excellent regulation, POWERKOTE coils. †Unencased.

FOR 120 VOLT, 50/60 CYCLE SINGLE PHASE

Stk. No.	Mfr. Type	OUTPUT			Wt. lbs.	1-5	6-24	25-99
		Volts	Amps.	KVA				
5F766	126	0-140	15	2.1	15	39.00	35.10	33.15
5F767	126U††	0-140	15	2.1	14.5	34.00	30.60	28.90
5F768	226	0-280	7.5	2.1	15	39.00	35.10	33.15
5F769	226U††	0-280	7.5	2.1	14.5	34.00	30.60	28.90

EN TYPE

Variable Transformers. Deliver continuously adjustable voltage from AC power lines. Wide flexibility in application and mounting position. May be bench, floor, wall, front-of-panel or back-of-panel mounted. Rugged enclosures are dust-tight for operator and unit protection but also easily removable for easy inspection. Single units below. $6\frac{1}{2} \times 8\frac{1}{2} \times 4\frac{1}{2}$ " WxHxD. Wt., 15 lbs.

Stk. No.	Mfr. Type	V. Freq.	Input V.	OUTPUT			1-5	6-24	25-99
				V.	Amp.	KVA			
5F835	EN116B	120	50/60	0-140	8	1.1	25.00	22.50	21.25
5F836	EN117B	120	60	0-120	14.5	1.7	25.80	22.50	21.25

Superior Regulators & Transformers



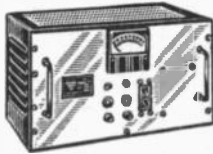
NEW IES SERIES VOLTAGE REGULATOR

Regulates output voltage through controlled firing of inverse parallel pair of SCR's connected in the shunt leg of an autotransformer. Solid state circuitry and smaller, lighter units are featured. No vacuum tubes, motors, blowers or relays are used. Wide operating frequency range: 50 or 60 cycles $\pm 10\%$. Maintains output voltage within 100 millivolt rms band for any combination of input voltage and load current changes and for changes in load power factor from 1.0 to 0 lagging. Distortion will not exceed 3%. Speed of response instantaneous for most applications. Time constant response: 30 milliseconds. Operated at ambient temperatures from 0 to 50°C. Temperature coefficient: 0.01%/°C; output voltage will change 0.01% for a degree C change. Mounted in cabinet. All except Type IE9115 have cabinets which can also be rack mounted by removing the feet. Provisions for high remote sensing. Also features a removable plug-in circuit board. High VA efficiency (up to 95%). Includes an overcurrent protection circuit which senses the magnitude of flowing current in SCR leg and removes gate drive from SCR's when current exceeds pre-set magnitude.



Stock No.	Type	Max. Output Amps	Rated Output KVA	Shpg. Wt. Lbs.	EACH	2-49
6F126	IES91005	4.4	0.5	57	393.00	314.50
6F127	IES9101	8.7	1.0	72	387.00	365.50
6F128	IES910C	26.1	3.0	136	594.00	561.00
6F129	IES9106	52.2	6.0	181	738.00	697.00
6F130	IES9115	130	15.0	382	1566.00	1479.00
6F131	IES920C	13	3.0	126	675.00	637.50
6F132	IES9206	26.1	6.0	171	774.00	731.00
6F133	IES9215	65	15.0	372	1566.00	1479.00

Type EMT. Electro-Mechanical Transistorized Series. Motor driven "Powerstat" variable transformer, detector circuit & auxiliary transformer. No critical adjustments. Operating sensitivity adjustable to within $\pm 1\%$. 50/60 cycle AC service. Cabinet matg. except rack (*) & wall (**). 1 phase except 3 phase (***)



Stock No.	Type	Max. Output Amps	Rated Output KVA	Shpg. Wt. Lbs.	EACH	2-49
6F106	EMT4102B	20.0	2.3	90	427.50	403.75
6F107	EMT4106C	57.0	6.6	135	495.00	467.50
6F108	EMT4106CR*	57.0	6.6	135	488.00	442.00
6F109	EMT4106CW**	57.0	6.6	135	495.00	467.50
6F110	EMT4112B	114.0	13.0	135	495.00	467.50
6F111	EMT4112BR	114.0	13.0	135	468.00	442.00
5F815	EMT4115B	144.0	16.6	300	630.00	595.00
5F819	EMT4207B	36.0	8.3	200	540.00	510.00
5F832	EMT4228B	130.0	29.9	350	675.00	637.50
6F112	EMT6210E***	33.0	13.1	460	949.50	896.75
6F113	EMT6220E***	63.0	25.1	460	1080.00	1020.00
6F114	EMT6245B***	145.0	57.8	975	1458.00	1377.00

FLEXIFORMER PACKAGED TRANSFORMER

Model TP150. This transformer is a self-contained toroidal primary coil incased in durable high impact plastic; the center opening permits hand-winding the proper number of secondary turns for the desired turns ratio. The primary consists of a strip-wound silicon-steel core having a coil of 400 turns of copper wire. Input rating: 120V, 50/60 cycles, at 150VA. As a current transformer, maximum primary current is 400A. With 5-way binding posts for connections. Size, 6 x 5 3/4" x 4 3/4"; shpg. wt., 6 lbs.

5F770. 1-11 NET EACH 25.00
12-99 NET EACH 21.25



TP150

Model TP1000. Similar to above, except rated 1000VA at 120V 50/60 cycles. Maximum input voltage: 175V, 60c; 145V, 50c.

5F645. 1-11 NET EACH 75.00
12-99 NET EACH 63.75

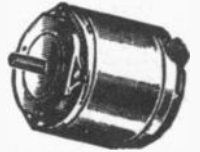


TP1000

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SLO-SYN SYNCHRONOUS/STEPPING MOTORS

Standard Types. Rugged bi-directional motors that can be used either as AC constant-speed motors or DC stepping motors. Rated for continuous duty at 40°C max. Types with suffix P1, P2, etc. have planetary gear speed reduction assemblies mounted on motor to lower speed and increase torque; assemblies are in dustproof enclosure, employ nylon gears. Types with RC suffix have built-in phase shift network for single-phase operation; other units operate from 2-phase current, require external RC network for 1-phase use (see below for components). Avg. shpg. wt., 6 1/2 lbs.



Stk. No.	Type	Speed (RPM)	Max. Amps	Torque (oz.-in)	1-5	6-24	25-99
6F134	SS25	72.000	0.1	25	40.00	36.00	34.00
6F135	LSS50	24	0.4	75	75.00	67.50	63.75
6F136	LSS2	24	0.2	75	75.00	67.50	63.75
6F143	TSS50	200.000	0.3	50	55.00	49.50	46.75
6F144	TSS2	200.000	0.2	50	55.00	49.50	46.75
5F847	SS50	72.000	0.3	50	36.00	32.40	30.60
5F849	SS50P1	16.6	0.3	120	46.00	41.40	39.10
6F116	SS50P2	3.32	0.3	600	46.00	41.40	39.10
5F844	SS15C	72.900	0.4	150	45.00	40.50	38.25
5F836	SS150P-2	3.323	0.4	2000	55.00	49.50	46.75
5F837	SS150P-3	.665	0.4	2000	65.00	58.50	55.25
5F838	SS150P-4	.133	0.4	2000	75.00	67.50	63.75
5F839	SS150P-5	.027	0.4	2000	85.00	76.50	72.25
5F841	SS150-P2-RC	3.323	0.4	2000	64.00	57.60	54.40
5F842	SS150-P3-RC	.665	0.4	2500	74.00	66.60	62.90

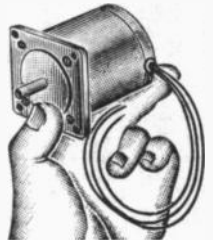
All types above for 120V 50/60c. except *240V, 50/60c.

COMPONENT PARTS FOR SINGLE PHASE AC OPERATION

Stk. No.	Type	Description	1-5	6-24	25-99
5F845	R-SS50/SS150	Auxiliary resistor for above 250 ohms 25 watts	1.25	1.12	1.06
5F846	C-SS150	Auxiliary capacitor for above 3.75 mfd. 330 VAC	3.50	3.15	2.98
5F848	C-SS50	Capacitor for SS50 2.6 mfd.	4.50	4.05	3.83

Bifilar Type Synchronous Stepping Motors

Can be used either as an AC constant-speed motor or as a DC stepping device in a wide variety of control functions, automatic and semi-automatic. Maintenance-free; well suited for use in remotely-operated applications, where access for regular servicing is not possible. Starts, stops, reverses instantly. 72 RPM shaft speed, except *24 RPM, †200 RPM. All types for 120 VAC; DC voltages as shown. Avg. shpg. wt., 1 1/2 lbs.



Stk. No.	Type	DC Volts	Amps/Winding	1-5	6-24	25-99
5F1218	SS25-1002	5.9	0.88	65.00	58.50	55.25
5F1219	SS25-1001*	11.8	0.44	65.00	58.50	55.25
6F137	LSS50-1001*	3.0	4.0	100.00	90.00	85.00
6F138	TSS50-1001†	3.0	4.0	80.00	72.00	68.00
6F139	SS50-1009	2.5	1.3	61.00	54.90	51.85
6F-140	SS250-1002	9.0	1.55	90.00	89.00	76.50
6F141	SS250-1027	4.6	3.1	90.00	89.00	76.50
6F142	SS250-1021	5.3	3.4	125.00	112.50	106.25

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Variable Transformers

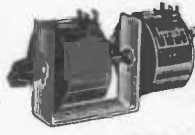
OHMITE "V.T." VARIABLE TRANSFORMERS



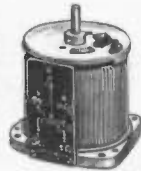
VT02E
In Case



VT1, VT02, VT3



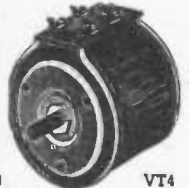
VT02-2



VT8



VT20



VT4

Six sizes for a wide range of electrical ratings. Excellent regulation at any point within the rated load. Output free of wave form distortion. Deliver full rated current at any brush setting. Have overvoltage feature, except those marked "No Overvoltage", and high-current low-voltage to meet transistorized power supplies and high current applications. All units single phase except Two-in-Tandem. All may be used to over 400 cps. Screw terminals and solder lugs on all models

except types VT1, VT02, and VT3 which have solder lugs and accept push on connectors and have 3/8-32 threaded bushings for single mount. Shafts may be extended from the brush or base side. VT20 has a collet shaft lock for repositioning without scoring shaft. Dials on overvoltage models calibrated for overvoltage and normal line connection. Knob, dial, mounting hardware supplied.

SINGLE TRANSFORMERS—UNCASED

Stk. No.	Type	Input Volts	Cyc.	Max. Out Volts	Amps	Description	Size	Wt. Lbs.	1-9	10-24	25-49	50-99
SF562	VT1	120	60	1.0	0-120/132	Basic 1.0A model	2 7/8" D. x 2 1/16" L.	1.5	8.00	7.20	6.80	6.40
SF563	VT1N	120	60	1.2	0-120	No overvoltage	2 7/8" D. x 2 1/16" L.	1.5	8.00	7.20	6.80	6.40
SF650	VT02	120	60	1.75	0-120/132	Basic 1.75A model	2 7/8" D. x 3 9/16" L.	2.25	9.00	8.10	7.65	7.20
SF570	VT02N	120	60	2.0	0-120	No overvoltage	2 7/8" D. x 3 9/16" L.	2.25	9.00	8.10	7.65	7.20
SF571	VT2LN	40	60	5	0-40	Hi-amps, Low-volts	2 1/4" D. x 3/8" L.	2.4	11.00	9.90	9.35	8.80
SF586	VT3	120	60	2.6	0-120/132	Basic 2.6A model	2 7/8" D. x 3 1/16" L.	3.0	10.50	9.45	8.93	8.40
SF587	VT3N	120	60	3.0	0-120	No overvoltage	2 7/8" D. x 3 1/16" L.	3.0	10.50	9.45	8.93	8.40
SF651	VT4	120	50	3.5	0-120/140	Basic 3.5A model	3 9/16" D. x 4 1/16" L.	5.25	14.00	12.60	11.90	11.20
SF572	VT4LN	40	50	12.0	0-40	High-amps, Low-volts	3 9/16" D. x 4 1/16" L.	5.25	16.00	14.40	13.60	12.80
SF577	VT4N	120	50	4.75	0-120	No overvoltage	3 9/16" D. x 4 1/16" L.	5.25	16.00	14.40	13.60	12.80
SF652	VT8	120	50	7.5	0-120/140	Basic 7.5A model	4 7/8" D. x 5 1/16" L.	10.25	28.00	18.00	17.00	16.00
SF573	VT8LN	40	50	22	0-40	High-amps, low-volts	4 7/8" D. x 5 1/16" L.	10.25	28.00	18.00	17.00	16.00
SF576	VT8N	120	50	25	0-120	No overvoltage	4 7/8" D. x 5 1/16" L.	10.25	18.00	16.20	15.30	14.40
SF574	VT20	120	50	20	0-120/140	Basic 20A model	7 1/2" W. x 8 1/16" D. x 5 5/8" H.	22	50.00	45.00	42.50	40.00
SF581	VT20N	120	50	25	0-120	No overvoltage	7 1/2" W. x 8 1/16" D. x 5 5/8" H.	22	50.00	45.00	42.50	40.00
SF588	VT20H	240	50	9	0-240/280	Basic 240 V. Input	7 1/2" W. x 8 1/16" D. x 5 5/8" H.	22	52.00	46.80	44.20	41.60
SF589	VT20HN	240	50	11	0-240	No overvoltage	7 1/2" W. x 8 1/16" D. x 5 5/8" H.	22	52.00	46.80	44.20	41.60

SINGLE TRANSFORMERS—CASED

Stk. No.	Type	Input Volts	Cyc.	Max. Out Volts	Amps	Description	Size	Wt. Lbs.	1-4	5-12	13-24	25-49
SF654	VT02E	120	60	1.4	0-132	Fixed Mtg.	3 3/8" W. x 2 1/2" D. x 4 1/4" H.	2.8	14.00	12.60	11.90	11.20
SF659	VT02F	120	60	1.75	0-132	Portable	3 3/8" W. x 2 1/2" D. x 4 1/4" H.	3.2	15.50	13.95	13.18	12.40
SF578	VT4FC	120	50	3.5	0-140	3 wire type ASA cord	4 7/8" W. x 4 1/2" D. x 6 1/4" H.	7.8	23.50	21.15	19.98	18.80
SF579	VT8FC	120	50	7.5	0-140	Same as VT4FC	5 1/32" W. x 5 1/4" D. x 7 3/8" H.	13.8	27.50	24.75	23.38	22.00
SF580	VT8GC	120	50	6.0	0-120/140	Same as VT4FC	5 3/8" W. x 5 1/4" D. x 7 3/8" H.	14.2	31.00	27.90	26.35	24.80
SF582	VT8G	120	50	6.0	0-120/140	Laboratory Portable	5 3/8" W. x 5 1/4" D. x 7 3/8" H.	14.2	28.00	25.20	23.80	22.40
SF575	VT20B	120	50	20	0-120/140	Basic protective enclosure Fixed mtg.	7 5/8" W. x 8 1/8" D. x 6 1/8" H.	22.5	55.00	49.50	46.75	44.00
SF583	VT20NB	120	50	25	0-120	No overvoltage Encl.	7 5/8" W. x 8 1/8" D. x 6 1/8" H.	22.5	55.00	49.50	46.75	44.00

TWO IN TANDEM ASSEMBLIES

Stk. No.	Type	Input Volts	Cyc.	Max. Out Volts	Amps	Description	Size	Wt. Lbs.	1-4	5-12	13-24	25-49
SF653	VT02-2	240	60	1.75	0-240/264	Series conn.	2 7/8" W. x 4 1/4" H. x 5 3/32" D.	5.25	27.00	24.30	22.95	21.60

RAYTHEON VOLTAGE REGULATORS

RVA & RVC Series: combination of resonant electrical circuit and reactance magnetic circuit providing regulated output voltage. Electrical component consists of input winding, resonant circuit with winding capacitor, output winding and compensating winding. Magnetic component of laminated core with shunt be-

tween input and output windings. RVC available in line (S), filament (6.3S), and plate/filament (570S, 800S, & 780S) voltage values. VR Series of linear reactor, non-linear reactor and capacitor. VR set-up auto transformer gives higher voltage to capacitor for energy storage. Cannot be damaged by overload or continuous short circuit across output terms. Current limited to 200% of rated load. All regulators operate at standard 60 cyc. input.



Stk. No.	Type*	Overall Case Size LxWxH	Lbs.	1-4	5-9	10-24	25-49
SF590	15S	5 9/16" x 2 5/8" x 3 1/2"	3	15.00	13.50	12.75	12.00
SF591	30S	5 1/4" x 4 x 5 9/16"	6	20.00	18.00	17.00	16.00
SF592	60S	6 1/4" x 4 x 5 9/16"	9 1/2	25.00	22.50	21.25	20.00
SF450	120S	7 7/8" x 4 x 5 9/16"	13	33.00	29.70	28.05	26.40
SF594	250S	11 1/8" x 6 1/4" x 6 7/16"	24	49.00	44.10	41.65	39.20
SF595	500S	12 3/8" x 6 1/4" x 6 7/16"	36	77.00	69.30	65.45	61.60
SF596	1000S	15 1/8" x 6 1/4" x 6 7/16"	52	128.00	115.20	108.80	102.40
SF451	2000	16 1/2" x 10 x 9"	86	232.00	208.80	197.20	185.60
SF452	3000	19 5/8" x 10 x 9"	124	315.00	283.50	267.75	254.40

Stk. No.	Type*	Overall Case Size LxWxH	Lbs.	1-4	5-9	10-24	25-49
SF453	250	15 1/4" x 6 1/4" x 6 7/16"	58	52.00	46.80	44.20	41.60
SF454	500	15 1/4" x 6 1/4" x 6 7/16"	58	81.00	72.90	68.85	64.80
SF455	1000	16 3/4" x 10 1/4" x 9 1/2"	86	135.00	121.50	114.75	108.80
SF456	2000	23 9/16" x 10 1/4" x 9 1/2"	124	245.00	220.50	208.25	197.00

*Output 118VAC

Stk. No.	Type*	VA	Overall Case Size LxWxH	Lbs.	1-9	10-49
SF647	RVC40-570S	40	3 1/4" x 3 1/4" x 4 7/8"	6	12.00	10.80
SF648	RVC70-800S	70	3 1/4" x 3 1/4" x 4 7/8"	8	15.00	13.50
SF645	RVC185-780S	185	4 27/32" x 4 5/8" x 7 9/32"	19	27.00	24.30

*Output 6.3VAC; Input 100-130VAC

Stk. No.	Type	VA Rate	Case Size L x W x H	Lbs.	1-4	5-9	10-24	25-49
SF457	*15S	15	2 5/8" x 2 1/2" x 4 3/8"	3	14.00	12.60	11.90	11.20
SF458	+15-6.3S	15	2 5/8" x 2 1/2" x 4 3/8"	4	14.00	12.60	11.90	11.20
SF459	*30S	30	3 3/8" x 2 1/2" x 4 3/8"	5	16.00	14.40	13.60	12.80
SF460	+30-6.3S	30	3 x 3 1/4" x 4 7/8"	6	16.00	14.40	12.80	12.00
SF461	*60S	60	3 3/4" x 3 1/4" x 4 7/8"	8	21.00	18.90	17.85	16.80
SF462	+65-6.3S	65	3 3/4" x 3 1/4" x 4 7/8"	7	20.00	18.00	16.00	15.00
SF463	*120S	120	4 7/8" x 3 1/4" x 4 7/8"	11	29.00	26.10	24.65	23.20
SF464	*250	250	5 1/2" x 4 3/8" x 7 3/8"	22	45.00	40.50	38.25	36.00

*Output 118VAC; Input 95-130VAC ±Output 6.3VAC; Input 95-130VAC; Input 95-130VAC; Input 95-130VAC

Stk. No.	Type	VA Rate	Case Size L x W x H	Lbs.	1-4	5-9	10-24	25-49
SF600	6110	15	6 1/4" x 2 1/2" x 1 3/8"	4	19.00	17.10	16.15	15.20
SF612	6111	30	7 9/16" x 3" x 4 3/16"	5	23.70	21.33	20.14	18.96
SF610	6112	60	7 9/16" x 3" x 4 3/16"	6 1/2	29.70	26.73	25.24	23.76
SF614	6113	120	7 9/16" x 3" x 5 1/16"	10 1/2	39.20	35.28	33.32	31.36
SF608	6114	250	12 3/8" x 5" x 7 7/8"	27	58.20	52.38	49.47	46.56
SF609	6115	500	12 3/8" x 5" x 9 3/8"	45	91.50	82.35	77.77	73.20

*Output 115VAC; Input 95-130VAC

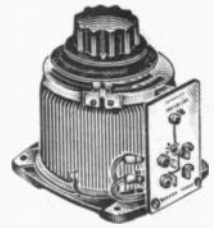
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Voltage Regulation & Control Devices



G-E "VOLT-PAC" VARIABLE TRANSFORMER

Provides continuously adjustable output voltage. Handles short duration current surges up to 10 times rated current and overload current up to 2 times rated current for approximately 1/4 hour without overheating. Maximum output currents applicable up to 100% voltage. Core consists of high grade strip wound silicon steel, plus moulded phenolic winding form to insulate coil from form. Types for 50-60 cycles, except (*) for 60 cycles only. Cased units with enclosed terminal boards, plug-and-cord-set units, motor-operated units, multiple-core units, three-phase units, and automatic control units are available through Newark.



120V INPUT — UNCASED, SINGLE CORE

All units provide 0-140V overvoltage output except * 0-132V, † no overvoltage 0-120V only. *Max. amps†: output into constant-Z load at or below 120V; at overvoltage "rated" current should not be exceeded. Uncased, with exposed terminals.

Stock No.	Type No.	Max. Amps.	Rated Amps.	Shpg. Wt.	1-9	10-24	25-99
5F1000	9T92Y1*	3.2	2.5	2 1/2	9.00	8.10	7.29
5F1002	9T92Y5	5.8	4.0	4 1/2	14.00	12.60	11.34
5F1003	9T92Y7	10.8	7.5	9 3/4	18.00	16.20	14.58
5F1007	9T92Y8†	13.0	.....	9 3/4	18.00	16.20	14.58
5F1005	9T92Y9	11.5	9.0	9 3/4	22.00	19.80	17.82
5F1008	9T92Y10†	14.5	.....	9 3/4	28.00	25.20	22.68
5F1009	9T92Y27	19.0	15.0	17	38.00	34.20	30.78
5F1011	9T92Y28	21.7	18.0	17	45.00	40.50	36.45
5F1025	9T92Y37	34.0	30.0	17	89.00	80.10	72.09
5F1026	9T92Y38	37.0	37.0	30	106.00	95.40	85.86
5F1027	9T92Y49	55.0	50.0	60	130.00	117.00	105.30
5F1028	9T92Y50	60.0	60.0	60	185.00	166.50	149.85

120V INPUT — CASED, SINGLE CORE

Identical to units at left, except enclosed (terminals exposed).

Stock No.	Type No.	Max. Amps.	Rated Amps.	Shpg. Wt.	1-9	10-24	25-99
5F1004	9T92Y7G2	10.8	7.5	10 1/2	23.00	20.70	18.63
5F1006	9T92Y9G2	11.5	9.0	10 1/2	27.00	24.30	21.87
5F1010	9T92Y27G2	19.0	15.0	18 3/4	43.00	38.70	34.83
5F1012	9T92Y28G2	21.7	18.0	18 3/4	50.00	45.00	40.50
5F1033	9T92Y37G2	34.0	30.0	30	94.00	84.60	76.14

240V INPUT — UNCASED, TRIPLE CORE

Similar to units at left, but triple core for tandem or 3-phase operation. 0-280V output; uncased, exposed terminals.

Stock No.	Type No.	Max. Amps.	Rated Amps.	Shpg. Wt.	1-9	10-24	25-99
5F1034	9T92Y19	10.8	7.5	30	61.20	57.80	54.40
5F1035	9T92Y33	19.0	15.0	51	117.00	110.50	104.00
5F1036	9T92Y34	21.7	18.0	51	138.50	131.75	124.00

120V INPUT — SINGLE CORE PLUG-IN TYPE

Cord-and-plug input, standard 2-blade socket output, except * output accepts standard grounding plug. Fully enclosed.

Stock No.	Type No.	Max. Amps.	Rated Amps.	Shpg. Wt.	1-9	10-24	25-99
5F1037	9T2Y90	10.8	7.5	11	28.00	26.40	21.06
5F1038	9T92Y86*	10.8	7.5	11	30.00	27.00	21.80
5F1039	9T92Y91	11.5	9.0	11	38.00	34.20	30.78
5F1040	9T92Y87*	11.5	9.0	11	38.00	34.20	30.78

Write NEWARK For Information On The Complete Line Of "Volt-Pac" Variable Transformers.

120/240V INPUT — UNCASED SINGLE CORE

Similar to above. 0-280V overvoltage output. except * 240V input, 0-240V output only.

Stock No.	Type No.	Max. Amps.	Rated Amps.	Shpg. Wt.	1-9	10-24	25-99
5F1017	9T92Y12*	5.8	.....	9 3/4	20.00	18.00	16.20
5F1015	9R92Y13	5.0	3.5	9 3/4	20.00	18.00	16.20
5F1018	9T92Y14*	6.8	.....	9 3/4	30.00	27.00	24.30
5F1019	9T92Y23	10.1	7.0	17	40.00	36.00	32.40
5F1021	9T92Y30	11.0	8.5	17	47.00	42.30	38.07
5F1029	9T92Y39	14.0	14.0	16	89.00	80.10	72.09
5F1030	9T92Y40	16.0	16.0	30	102.00	91.80	82.62
5F1031	9T92Y51	33.0	30.0	60	130.00	117.00	105.30
5F1032	9T92Y52	35.0	35.0	60	185.00	166.50	149.85

AC VOLTAGE STABILIZERS

Unfiltered Types. All have 118V output except * 118/236V.

Stock No.	Type	Rated V-A	Input Volts	Wt., Lbs.	1-4	5-9	10-24	25-49
5F1041	9T91Y4070	15	95-130	5	14.00	12.46	11.62	10.92
5F1042	9T91Y4090	30	95-130	6	16.00	14.24	13.28	12.48
5F1043	9T91Y4110	60	95-130	7	21.00	18.69	17.43	16.38
5F1044	9T91Y4130	120	95-130	15	29.00	25.81	24.07	22.62
5F1045	9T91Y4140	250	95-130	24	48.50	43.17	40.26	37.83
5F1046	9T91Y4142	250	190-260	24	48.50	43.17	40.26	37.83
5F1047	9T91Y4150	500	95-130	37	76.00	67.64	63.08	59.28
5F1048	9T91Y4152	500	190-260	37	76.00	67.64	63.08	59.28
5F1049	9T91Y4155	500	380-520	37	76.00	67.64	63.08	59.28
5F1050	9T91Y4170	1000	95-130	55	116.50	103.69	96.70	90.87
5F1051	9T91Y4172	1000	190-260	55	116.50	103.69	96.70	90.87
5F1052	9T91Y4183*	2000	95-130/175-235/190-260	95	243.00	208.26	194.22	182.52
5F1053	9T91Y4184	2000	190-260/380-520	95	243.00	208.26	194.22	182.52

Harmonic Filtered Types. 118V output, except * 118/236.

Stock No.	Type	Rated V-A	Input Volts	Wt., Lbs.	1-4	5-9	10-24	25-49
5F1054	9T91Y7140	250	95-130	36	50.00	44.50	41.50	39.00
5F1055	9T91Y7150	500	95-130	43	78.50	69.87	65.16	61.23
5F1056	9T91Y7170	1000	95-130	80	120.00	106.80	99.60	93.60
5F1057	9T91Y7172	1000	190-260	80	120.00	106.80	99.60	93.60



Static-magnetic transformer-type units provide voltage maintained within ± 1% while input fluctuates 15% unfiltered output waveform is relatively flat-topped, with 15-20% harmonic content; filtered types provide near-sinusoidal output, maximum harmonic content 3%. All units are for single-phase, 60 cycle AC only; stabilized output 118V except as noted. Completely enclosed, with enclosed terminals, except units rated below 250 V-A have insulated cable leads.

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Cord/Receptacle Types. Standard 2-blade plug and cord input, socket output. 118V output.

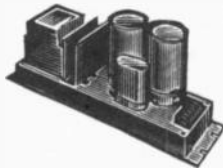
Stock No.	Type	Rated V-A	Input Volts	Wt. Lbs.	1-4	5-9	10-24	25-49
5F1058	9T91Y4090G19	30	95-130	7	18.00	16.02	14.94	14.04
5F1059	9T91Y4110G19	60	95-130	7	23.00	20.47	19.08	17.94

Filament Types. Current-limiting characteristic protects tube filaments from surges. Unenclosed. Output: 6.3V, unfiltered.

Stock No.	Type	Rated V-A	Input Volts	Wt. Lbs.	1-4	5-9	10-24	25-49
5F1060	9T91Y367	15	95-130	2	13.20	11.75	10.96	10.30
5F1061	9T91Y369	31.5	95-130/190-260	2 1/2	15.00	13.35	12.45	11.70
5F1062	9T91Y370	63	95-130/190-260	3	19.70	17.53	16.35	15.37

REGULATED DC POWER SUPPLIES

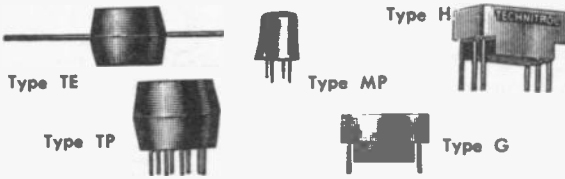
Furnish fixed DC output voltage within ± 1% tolerance while input AC voltage varies ± 15%. All units feature rugged magnetic and semiconductor circuitry and are designed for chassis or standard 19" rack mounting. Short-circuit current is limited to approximately twice the rated value. Can be installed with either polarity grounded. Input voltage range: 97-130VAC, 60 cps, 40°C ambient. Output ripple level 1% rms max. Efficiency 70-85% for normal output levels; efficiency may decrease for unusually low output levels.



Stock No.	Type	Output		Wt. lbs.	1-4	5-9	10-24
		V	A				
5F1063	9T66Y51	12	5.0	16	135.00	121.50	108.00
5F1064	9T66Y53	12	15.0	25	162.00	145.80	129.60
5F1065	9T66Y987	24	2.5	16	117.50	105.75	94.00
5F1066	9T66Y988	24	6.0	25	138.50	124.65	110.80
5F1067	9T66Y989	24	10.0	28	161.00	144.90	128.80
5F1068	9T66Y990	24	20.0	45	210.00	189.00	168.00
5F1069	9T66Y93	28	8.0	25	153.00	137.70	122.40
5F1070	9T66Y93	48	4.0	25	122.00	109.80	97.60
5F1071	9T66Y94	48	10.0	35	180.00	162.00	144.00
5F1072	9T66Y980	125	2.0	26	134.00	120.60	107.20
5F1073	9T66Y981	150	2.0	28	144.00	129.60	115.20

Write NEWARK For Information On The Complete Line Of GE Voltage Regulation & Control Devices.

T Technitrol Pulse Transformers



TECHNITROL LOW POWER PULSE TRANSFORMERS
 Pulse transformers are specifically designed to accommodate wide range voltage and frequency changes without producing distortion in the wave form. High permeability core and insulation withstanding temperatures from -55°C. to +105°C. Meet all requirements of MIL-T-27A to insure dependability.

SERIES T
 Designed for blocking oscillator and interstage coupling.
Series T, Type TE. Electrical characteristics are the same as the above, with pig-tail leads. Size: 1 1/2 x 1/4 x 1 1/2". Leads are two inches minimum. Shpg. wt., 1 oz.
Series T, Type TP. 7-pin printed circuit leads, 1/4" long. Overall size: 1 1/2 x 1/4 x 1 1/2". The electrical characteristics are the same as listed above. Shpg. wt., 1 oz.

SERIES M
 Specifications include: pulse width from 0.05 to 5.0 μ sec., pulse repetition rate up to 10 mc, and test voltage of 500 volts DC. Shipping weight is approximately 1 ounce.
Series M, Type MP. 4-pin printed circuit leads, 1/4" long. Overall size: 1 1/2 x 1/4 x 1 1/2". The electrical characteristics are the same as above.

GENIE SERIES
Type G. Miniature 3 winding transformers meet MIL-T-27B Grade 5 Class S, also MIL-T-21038A. Printed circuit assembly or conventional wiring techniques may be used. Leads are #22 AWG soft phosphor bronze. Electro-tin plated as per MIL-T-10727.
 #22 AWG. Size: .35" x .425" x .650".
Type H. Sub-miniature case 3 winding transformers meet all physical and environmental requirements of MIL specs listed under Type G. Leads are #22 AWG soft phosphor bronze.
 #24 AWG. Size: .250" x .350" x .500".

TYPE TE							
Stock No.	Type	Pr. Mh	Turns Ratio	1-9	10-24	25-49	50-up
7F400	G1WA	22	1:1:1				
7F401	G5WA	22	5:1:1				
7F402	G15WA	22	5:5:1				
7F403	G3WA	22	3:1:1				
7F404	G13WA	22	3:3:1				
7F405	B1WA	10	1:1:1				
7F406	B5WA	10	5:1:1				
7F408	B3WA	10	3:1:1				
7F409	B13WA	10	3:3:1				
7F410	K1WA	4.7	1:1:1	8.00	7.05	6.00	4.95
7F411	K5WA	4.7	5:1:1				
7F412	K15WA	4.7	5:5:1				
7F415	O1QA	1.0	1:1:1				
7F416	O5QA	1.0	5:1:1				
7F417	O15QA	1.0	5:5:1				
7F429	O3QA	1.0	3:1:1				
7F421	O15QA	0.47	5:5:1				
7F424	U1QA	0.1	1:1:1				
7F425	U5QA	0.1	5:1:1				

TYPE MP							
Stock No.	Type	Pr. mh	Turns Ratio	1-9	10-24	25-49	50-99
7F435	MB1UE	10	1:1				
7F490	MB2UE	10	2:1				
7F436	MB3UE	10	3:1				
7F438	MB5UE	10	5:1				
7F439	MK1UE	4.7	1:1	8.00	7.05	6.00	4.95
7F440	MK3UE	4.7	3:1				
7F491	MO2UE	1.0	2:1				
7F447	MO1UE	0.47	1:1				
7F451	MS1UE	0.22	1:1				
7F452	MS3UE	0.22	3:1				

TYPE TP						
Stock No.	Type	Inductance	1-9	10-24	25-49	50-up
7F430	XVAM	58 mh ±20%	8.00	7.05	6.00	4.95
7F431	BVAM	15 mh ±20%				
7F432	AVAM	3.5 mh ±20%				

TYPE H							
Stk. No.	Type	Pr. μH	Turns ratio	1-9	10-24	25-49	50-up
7F350	11PHA	2500	1:1:1				
7F351	11LHA	750	1:1:1				
7F352	11HHB	250	1:1:1				
7F353	11EHA	70	1:1:1				
7F354	11DHB	48	1:1:1				
7F355	11BHC	25	1:1:1				
7F356	11AHA	15	1:1:1				
7F357	118HA	7.5	1:1:1				
7F358	21PHA	2500	2:1:1				
7F359	21LHA	750	2:1:1				
7F360	21HHA	250	2:1:1				
7F361	21EHA	70	2:1:1				
7F362	21DHA	48	2:1:1				
7F363	21BHA	24	2:1:1				
7F364	21AHA	13.5	2:1:1				
7F365	218HA	6.7	2:1:1				
7F366	31PHA	2500	3:1:1				
7F367	31LHA	750	3:1:1				
7F368	31HHA	250	3:1:1				
7F369	31EHA	68	3:1:1	6.50	5.50	4.80	3.95
7F370	31DHA	52	3:1:1				
7F371	31BHA	25	3:1:1				
7F372	31AHA	15	3:1:1				
7F373	318HA	7.5	3:1:1				
7F374	33PHA	2500	3:3:1				
7F375	33LHA	750	3:3:1				
7F376	33HHA	250	3:3:1				
7F377	33EHA	68	3:3:1				
7F378	33DHA	52	3:3:1				
7F379	33BHA	25	3:3:1				
7F380	33AHB	15	3:3:1				
7F381	338HA	7.5	3:3:1				
7F382	42PHA	2500	4:2:1				
7F383	42LHA	750	4:2:1				
7F384	42HHA	250	4:2:1				
7F385	42EHA	77	4:2:1				
7F386	42DHA	53	4:2:1				
7F387	42CHA	28	4:2:1				
7F388	42AHA	13.5	4:2:1				
7F389	429HA	8.8	4:2:1				

Balanced Center Tapped Transformers available on special order.

TYPE G							
Stk. No.	Type	Pr. mh	Turns ratio	1-9	10-24	25-49	50-up
7F390	11GGA	0.12	1:1:1				
7F391	11KGB	0.5	1:1:1				
7F392	11NGB	1.4	1:1:1				
7F393	11RGD	5.0	1:1:1				
7F394	11UGA	12.5	1:1:1				
7F395	21GGA	0.12	2:1:1				
7F396	21KGA	0.5	2:1:1				
7F397	21NGB	1.4	2:1:1				
7F398	21RGA	5.0	2:1:1				
7F399	21UGA	12.5	2:1:1				
7F592	31GGA	0.12	3:1:1				
7F593	31KGA	0.5	3:1:1				
7F594	31NGA	1.3	3:1:1				
7F595	31RGB	5.0	3:1:1				
7F596	31UGA	12.5	3:1:1				
7F597	33GGA	0.12	3:3:1				
7F598	33KGA	0.5	3:3:1				
7F599	33NGA	1.3	3:3:1				
7F845	33RGB	5.0	3:3:1				
7F846	33UGA	12.5	3:3:1				
7F847	42GGB	0.12	4:2:1				
7F848	42KGA	0.5	4:2:1				
7F849	42NGA	1.4	4:2:1				
7F850	42RGA	5.0	4:2:1				
7F851	42UGA	12.5	4:2:1				

Balanced Center Tapped Transformers available on special order.

DYNACO SUPER-FIDELITY OUTPUT TRANSFORMERS



All models have taps on primary windings. Units in steel cans with 12" color coded leads, mtg. studs and hdw. #A450 transformer used in circuits like A-430 with 4 output tubes in parallel. Power supply handle 400 ma of DC.

Stock No.	Type	Undistorted pwr.		Min. Freq. resp.	Impedance Ratio	Application	Wt. Lbs.	NET
		30 cps. to 15KC.	20 cps. to 20KC.					
7F050	A-410	30 w.	15 w.	±1 db. 6 cps. to 60 kc.	8,000 ohms ct to 8, 16 sec.	6V6's, EL-84's 6AQ5's	5	14.95
7F051	A-420	60 w.	30 w.	±1 db. 6 cps. to 60 kc.	6,600 ohms ct to 8, 16 sec.	KT66's, 5881's EL34's or 6CA7's	7	19.95
7F052	A-430	120 w.	60 w.	±1 db. 6 cps. to 60 kc.	4,300 ohms ct to 8, 16 sec.	6550's, EL34's or KT-98's pp.	14	29.95
7F053	A-431	Same as above except—			to 4, 8, 16 sec.	par KT-66	14	34.95
7F055	A-450	240 w.	120 w.	±1 db. 4 cps. to 60 kc.	2,200 ohms ct to 8, 16 sec.	#pp. par. 6550's, EL-34's or KT-98's	23	39.95
7F057	PA-015						14	21.00
7F059	P-782					400 ma power transformer for 120 watt amplifier circuit.	10	12.00
7F058	C-492					400 ma power transformer for Dynakit Mark III.	3	4.50
7F060	C-354					400 ma choke for 120 watt amplifier circuit.	2	1.50

Chicago-Stancor Transistor Transformers



TRANSISTOR INPUT TYPES

Stock No.	Mfr's. Type	Imp. in Ohms		Max. Pri. Ma. DC	Power Watts	Mfg. Ctrs.	Fig.	Each, Boxed				Bulk Packed	
		Pri.	Sec.					1-9	10-24	25-49	50-99	100-249	250-499
1F429	TA-1	600CT	10	20	.05	1 $\frac{1}{2}$ ₁₆	A	2.37	2.13	2.01	1.90	1.42	1.30
1F870	TA-18	30CT	50000	14.7	.15	2 $\frac{1}{2}$ ₃₂	A-1	4.15	3.74	3.53	3.32	2.25	2.05
1F871	TA-47	1000CT	20000CT	123	.30	1 $\frac{1}{2}$	A	3.99	3.59	3.39	3.19	2.15	1.96

TRANSISTOR INTERSTAGE TYPES

Stock No.	Mfr's. Type	Imp. in Ohms	Max. Pri. Ma. DC	Power Watts	Mfg. Ctrs.	Fig.	Each, Boxed				Bulk Packed		
							1-9	10-24	25-49	50-99	100-249	250-499	
1F428	TA-2	100CT	100	.25	1 $\frac{1}{2}$ ₁₆	A	2.24	2.02	1.90	1.79	1.29	1.18	
1F429	TA-3	100	1000CT	100	.25	2	2.22	2.00	1.89	1.78	1.33	1.22	
1F430	TA-4	500CT	5000CT	12	.03	2	3.15	2.84	2.68	2.52	1.82	1.66	
1F672	TA-19	100CT	100CT	—	.15	2 $\frac{1}{2}$ ₃₂	A-1	4.47	4.02	3.80	3.58	2.42	2.21
1F674	TA-24	500CT	50000	—	.15	2 $\frac{1}{2}$ ₃₂	A-1	3.99	3.59	3.39	3.19	2.15	1.96
1F675	TA-27	1200	20000CT	—	.15	2 $\frac{1}{2}$ ₃₂	A-1	3.99	3.59	3.39	3.19	2.15	1.96
1F676	TA-28	1500	500CT	—	.15	2 $\frac{1}{2}$ ₃₂	A-1	3.99	3.59	3.39	3.19	2.15	1.96
1F677	TA-30	5000CT	7500CT	—	.15	2 $\frac{1}{2}$ ₃₂	A-1	4.00	3.60	3.40	3.20	2.17	1.98
1F678	TA-31	5000CT	10000CT	—	.15	2 $\frac{1}{2}$ ₃₂	A-1	3.99	3.59	3.39	3.19	2.15	1.96
1F679	TA-32	5000CT	80000CT	—	.15	2 $\frac{1}{2}$ ₃₂	A-1	3.99	3.59	3.39	3.19	2.15	1.96
1F680	TA-34	10000	200CT	—	.15	2 $\frac{1}{2}$ ₃₂	A-1	4.22	3.80	3.59	3.38	2.29	2.09
1F681	TA-35	10000	200CT	—	.15	2 $\frac{1}{2}$ ₃₂	A-1	3.99	3.59	3.39	3.19	2.15	1.96
1F682	TA-36	10000	3096CT	—	.15	2 $\frac{1}{2}$ ₃₂	A-1	3.99	3.59	3.39	3.19	2.15	1.96
1F683	TA-38	500CT	150CT	—	.15	2 $\frac{1}{2}$ ₃₂	A-1	4.05	3.65	3.44	3.24	2.20	2.01
1F684	TA-46	10000	1500CT	—	.30	1 $\frac{1}{2}$	A	3.99	3.59	3.39	3.19	2.15	1.96

TRANSISTOR DRIVER TYPES

*Tri-Filar Wound, 1:1:1 Impedance Ratio—50 ohms per winding.

Stock No.	Mfr's. Type	Imp. in Ohms	Max. Pri. Ma. DC	Power Watts	Mfg. Ctrs.	Fig.	Each, Boxed				Bulk Packed		
							1-9	10-24	25-49	50-99	100-249	250-499	
1F431	TA-5	1000	200CT	10	.05	1 $\frac{1}{2}$ ₁₆	A	5.44	4.90	4.62	4.35	2.94	2.68
1F432	TA-6	2000	200CT	5	.05	1 $\frac{1}{2}$ ₁₆	A	5.82	5.24	4.95	4.66	3.15	2.87
1F433	TA-7	100	100CT	100	.5	2 $\frac{1}{2}$ ₃₂	A	2.19	1.97	1.86	1.75	1.30	1.19
1F443	TA-16	20	36CT	400	1.0	1 $\frac{1}{2}$	A	2.24	2.02	1.90	1.79	1.34	1.22
1F821	TA-59	500CT	200CT	50	.5	1 $\frac{1}{2}$	A	2.67	2.40	2.27	2.14	1.54	1.41
1F822	TA-61	—	—	—	—	2	S	3.14	2.83	2.67	2.51	1.75	1.60
1F823	TA-63*	20,000CT	200CT	—	.300	1 $\frac{1}{2}$	A	5.24	4.72	4.45	4.19	2.84	2.59

TRANSISTOR OUTPUT TYPES

†2 secondaries: 16 ohm series, 4 ohms parallel.

Stock No.	Mfr's. Type	Imp. in Ohms	Max. Pri. Ma. DC	Power Watts	Mfg. Ctrs.	Fig.	Each, Boxed				Bulk Packed		
							1-9	10-24	25-49	50-99	100-249	250-499	
1F437	TA-10	2000CT	16/8/4	—	.2	1 $\frac{1}{2}$	A	6.00	5.40	5.10	4.80	3.33	3.04
1F438	TA-11	48CT	16/8	275	5	2 $\frac{1}{2}$	A	4.52	4.07	3.84	3.62	2.52	2.30
1F440	TA-12	20CT	8	500	10	2	A	2.22	2.00	1.89	1.78	1.33	1.22
1F439	TA-14	2ACT	16/4	200	10	3 $\frac{1}{2}$ x2 $\frac{3}{4}$	TD	13.74	12.37	11.68	10.99	8.17	7.44
1F685	TA-20	350CT	4/12	—	.15	2 $\frac{1}{2}$ ₃₂	A-1	4.57	4.11	3.88	3.66	2.48	2.26
1F686	TA-21	500CT	4/8/16	—	.15	2 $\frac{1}{2}$ ₃₂	A-1	4.19	3.77	3.56	3.35	2.27	2.07
1F687	TA-23	600CT	4/8/16	—	.15	2 $\frac{1}{2}$ ₃₂	A-1	4.57	4.11	3.88	3.66	2.48	2.26
1F689	TA-26	1250	4/12	—	.15	2 $\frac{1}{2}$ ₃₂	A-1	3.99	3.59	3.38	3.19	2.15	1.96
1F691	TA-33	10000CT	4/8/16	—	.15	2 $\frac{1}{2}$ ₃₂	A-1	4.22	3.80	3.59	3.38	2.29	2.09
1F693	TA-39	100CT	4/8/16	—	.30	1 $\frac{1}{2}$	A	4.17	3.75	3.54	3.34	2.32	2.12
1F694	TA-40	160	4/8/16	—	.30	1 $\frac{1}{2}$	A	4.39	3.95	3.73	3.51	2.38	2.17
1F695	TA-41	400CT	4/8/16	—	.30	1 $\frac{1}{2}$	A	3.99	3.59	3.39	3.19	2.15	1.96
1F696	TA-42	500CT	4/8/16	—	.30	1 $\frac{1}{2}$	A	3.99	3.59	3.39	3.19	2.15	1.96
1F697	TA-43	700CT	4/8/16	—	.30	1 $\frac{1}{2}$	A	4.17	3.75	3.54	3.34	2.32	2.12
1F698	TA-44	2500	4/8/16	—	.30	1 $\frac{1}{2}$	A	4.37	3.93	3.71	3.50	2.37	2.16
1F699	TA-45	3000	4/8/16	—	.30	1 $\frac{1}{2}$	A	4.04	3.64	3.43	3.23	2.24	2.04
1F824	TA-62	25	4	400	4	2 $\frac{1}{2}$	A	2.40	2.16	2.04	1.92	1.38	1.26

UNIVERSAL TYPE TRANSISTOR POWER TRANSFORMERS—PRIMARY 117 VOLT 60CY AC

*Tapped primary to obtain lower secondary voltages.

Stk. No.	Mfr's. Type	OUTPUT 1		OUTPUT 2		Base Area	Fig.	Each, Boxed				Bulk Packed	
		V AC	DCMa	V AC	DCMa			1-9	10-24	25-49	50-99	100-249	250-499
1F441	TP-1	13 or 18	900	13 or 18	900	3x2 $\frac{1}{2}$	C	5.60	5.04	4.76	4.48	3.22	2.94
1F825	TP-2*	10/20CT/40CT	100	—	—	2 $\frac{1}{2}$ ₁₆ x1 $\frac{1}{2}$	A	4.52	4.07	3.84	3.62	2.45	2.23
1F826	TP-3*	10/20CT/40CT	300	—	—	3 $\frac{1}{2}$ ₁₆ x2	A	6.07	5.48	5.16	4.86	3.29	3.00
1F827	TP-4*	10/20CT/40CT	1000	—	—	2 $\frac{1}{2}$ ₁₆ x3	C	10.19	9.17	8.68	8.15	5.50	5.01
1F828	P-8196	80CT	1200	—	—	2 $\frac{1}{2}$ ₁₆ x3 $\frac{1}{2}$	C	7.65	6.99	6.50	6.12	4.40	4.01

AUTO RADIO TRANSISTOR FILTER CHOKE

*Similar to Fig. A-1, but with 4 vert. mtg. tabs.

Stock No.	Mfg. Type	Inductance @ DCMA	DC Res. in Ohms	RMS V. Insulation	Mfg. Ctrs.	Wt. in Lbs.	Each, Boxed				
							1-9	10-24	25-49	50-99	
1F721	TC-2	11 mhy @ 1000 ma	.75	1000	*A2	1 $\frac{1}{4}$ x $\frac{1}{16}$	0.6	1.44	1.30	1.22	1.15

ULTRA MINIATURE TRANSISTOR TRANSFORMERS

Designed primarily for transistor audio application but can be used wherever low power is involved. Useful range, below 1 mw level. Constructed of fine wire, wound in nylon bobbins with special nickel alloy steel laminations. Dimensions $\frac{3}{16}$ x $\frac{3}{16}$ except UM-110: $\frac{1}{4}$ x $\frac{3}{16}$.

Stock No.	Type	Application	Pri. Imp.	Sec. Imp.	Pri. DC Res.	Sec. DC Res.	Wt. oz.	Each, Boxed				Bulk Packed	
								1-9	10-24	25-49	50-99	100-249	250-499
4F422	UM-111	Output or Matching	1,000	50/60	120	9.0	.10	4.65	4.19	3.95	3.72	2.52	2.30
1F829	UM-110	Interstage	20,000	1,000	1675	285	.07	6.79	6.11	5.77	5.43	3.67	3.34
1F830	UM-112	High imp. mic input	200,000	1,000	4000	195	.10	7.50	6.75	6.38	6.00	4.05	3.69
1F831	UM-113	Interstage	20,000	1,000	1350	205	.10	5.19	4.67	4.41	4.15	2.80	2.55

NEW LOW CURRENT CONTROL TRANSFORMERS

Versatile series of low current control transformers suited for pilot lamps, miniature relays, low current-low voltage power supply application. Primaries 117 volt, 50-60 cycles. Three isolated 12-volt secondaries (one with center tap). Can be series or parallel connected.

Stock No.	Type	Amperes Ea. Sec.	Size H x W x D	Fig.	Wt.	Each, Boxed				Bulk Packed	
						1-9	10-24	25-49	50-99	100-249	250-499
1F146	P-8361	.10	1 $\frac{1}{4}$ x2 x1 $\frac{1}{2}$ "	D	.36	3.39	3.05	2.88	2.71	1.94	1.77
1F147	P-8362	.15	2 x2 $\frac{1}{2}$ x1 $\frac{1}{4}$ "	D	.60	3.50	3.15	2.98	2.80	2.02	1.84
1F148	P-8363	.25	2 $\frac{3}{8}$ x2 $\frac{1}{2}$ x1 $\frac{1}{4}$ "	D	.85	3.67	3.30	3.12	2.94	2.12	1.93
1F149	P-8364	.50	2 $\frac{3}{8}$ x2 $\frac{1}{2}$ x2 $\frac{1}{8}$ "	D	1.25	4.25	3.83	3.61	3.40	2.44	2.22

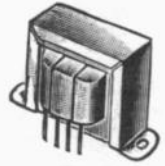


Fig. A

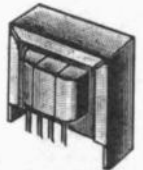


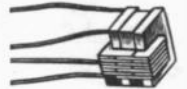
Fig. A-1



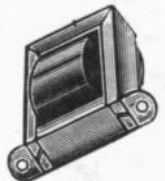
Fig. C

Complete on-the-shelf stock of Chicago-Stancor transformers at Newark, ready for immediate delivery!

Factory Competitive O.E.M. prices!



UM Series



P-8361



Chicago-Stancor Transformers

"8400" SERIES POWER TRANSFORMERS

All units have low temp. rise, well within limits set by EIA. PM types are Fig. M. PC types are Fig. C. PS types are Fig. S. PA types are Fig. A. Provide 260 VDC ic condenser input filter.

Stock No.	Mfr's. Type	Plate V.	CT Max.	Rect.		Fil.		Mtg. Ctrs.	Wt. Lbs.	Each, Boxed				Bulk Packed	
				V.	A.	V.	CT			1-9	10-24	25-49	50-99	100-249	250-499
1F000	PC-8401	470	40	5.0	2.0	6.3CT	2.0	2 x 1 1/8	2 1/2	6.15	5.54	5.23	4.92	3.54	3.23
1F001	PM-8401	470	40	5.0	2.0	6.3CT	2.0	2 x 2 1/2	2 1/2	6.77	6.09	5.75	5.42	3.89	3.54
1F002	PC-8402	480	55	5.0	2.0	6.3CT	2.0	2 x 1 1/8	2 1/2	5.87	5.28	4.99	4.70	3.38	3.06
1F003	PM-8402	480	55	5.0	2.0	6.3CT	2.0	2 x 2 1/2	2 1/2	6.82	5.96	5.63	5.30	3.80	3.46
1F004	PC-8403	500	70	5.0	2.0	6.3CT	2.5	2 x 2 1/2	3 1/4	7.02	6.32	5.97	5.62	4.04	3.66
1F005	PM-8403	500	70	5.0	2.0	6.3CT	2.5	2 x 2 1/2	3 1/4	7.29	6.56	6.20	5.83	4.19	3.82
1F006	PC-8404	520	90	5.0	2.0	6.3CT	3.0	2 1/2 x 2 1/2	4	7.90	7.11	6.72	6.32	4.54	4.14
1F007	PM-8404	520	90	5.0	2.0	6.3CT	3.0	2 1/2 x 2 1/2	4	7.60	6.84	6.46	6.08	4.52	4.12
1F008	PC-8405	540	120	5.0	3.0	6.3CT	3.5	2 1/2 x 2 1/2	5	10.30	9.27	8.76	8.24	5.70	5.19
1F009	PM-8405	540	120	5.0	3.0	6.3CT	3.5	2 1/2 x 2 1/2	5	10.72	9.65	9.11	8.58	5.94	5.41

Designed for use with choke input filter. VR tube regulated supply, speaker field in filter, or higher voltage with condenser input filter. Has two 6.3 V @ 3.0 A Wdgs.

1F010	PC-8406	650	40	5.0	2.0	6.3CT	2.0	2 x 1 1/8	2 1/2	6.65	5.99	5.65	5.32	3.83	3.49
1F011	PM-8406	650	40	5.0	2.0	6.3CT	2.0	2 x 2 1/2	2 1/2	6.82	6.14	5.80	5.46	3.92	3.57
1F012	PC-8407	650	55	5.0	2.0	6.3CT	2.0	2 x 2 1/8	3 1/4	6.90	6.21	5.87	5.52	3.98	3.63
1F013	PM-8407	650	55	5.0	2.0	6.3CT	2.0	2 x 2 1/2	3 1/4	7.08	6.30	5.95	5.60	4.17	3.80
1F014	PC-8408	680	70	5.0	2.0	6.3CT	2.5	2 1/2 x 2 1/2	3 3/4	8.49	7.84	7.22	6.79	4.88	4.45
1F015	PM-8408	680	70	5.0	2.0	6.3CT	2.5	2 1/2 x 2 1/2	3 3/4	8.55	7.70	7.27	6.84	5.09	4.64
1F016	PC-8409	700	90	5.0	2.0	6.3CT	3.0	2 1/2 x 2 1/2	4 1/2	10.48	9.43	8.91	8.38	5.03	4.58
1F017	PM-8409	700	90	5.0	2.0	6.3CT	3.0	2 1/2 x 2 1/2	4 1/2	8.97	7.98	7.54	7.10	5.28	4.81
1F018	PC-8410	720	120	5.0	3.0	6.3CT	3.5	2 1/2 x 2 1/2	5 1/2	10.04	9.04	8.53	8.08	5.77	5.26
1F019	PM-8410	720	120	5.0	3.0	6.3CT	3.5	2 1/2 x 2 1/2	5 1/2	10.72	9.65	9.11	8.58	6.16	5.61
1F020	PC-8411	750	150	5.0	3.0	6.3CT	4.5	2 1/2 x 2 1/2	5 3/4	13.80	12.42	11.73	11.04	7.64	6.96
1F021	PM-8411	750	150	5.0	3.0	6.3CT	4.5	2 1/2 x 2 1/2	5 3/4	15.37	13.83	13.06	12.30	8.52	7.76
1F022	PC-8412	800	200	5.0	3.0	6.3CT	5.0	3 x 2 1/2	8 1/4	14.37	12.93	12.21	11.50	8.25	7.51
1F023	PM-8412	800	200	5.0	3.0	6.3CT	5.0	3 x 2 1/2	8 1/4	14.60	13.14	12.41	11.68	8.38	7.63
1F024	PC-8413	800	250	5.0	4.0	6.3CT	5.0	3 x 3 1/2	10	15.52	13.87	13.19	12.42	8.92	8.12
1F025	PM-8414	1200	200	5.0	3.0	6.3CT	3.0	3 x 3 1/2	8 1/4	17.15	15.44	14.58	13.72	9.85	8.97
1F764	PC-8422	650	150	5.0	3.0	6.3CT	5.0	2 1/2 x 2 1/2	5.8	10.94	9.85	9.30	8.75	6.28	5.72
1F814	PM-8422	650	150	5.0	3.0	6.3CT	5.0	2 1/2 x 2 1/2	5.8	11.64	10.48	9.89	9.31	6.68	6.08

For use with 6AX5, 6X4, or selenium rectifiers. *Half wave.

1F026	PS-8415	125*	15	6.3	0.6	2	3/4	2.69	2.42	2.29	2.15	1.60	1.46
1F027	PS-8416	250	25	6.3	1.0	2 3/8	1 1/2	3.22	2.90	2.74	2.58	1.85	1.69
1F035	PA-8421	125*	50	6.3	2.0	3 1/8	1 1/2	4.22	3.80	3.59	3.38	2.34	2.13
1F028	PC-8417	440	50	6.3	0.6	25.2	0.5	2 x 1 1/8	2 1/4	7.37	6.63	6.26	5.90	4.24	3.86
1F029	PC-8418	460	50	.....	6.3	2.5	2 x 1 1/8	2 1/4	5.34	4.81	4.54	4.27	3.07	2.80
1F030	PM-8418	460	50	.....	6.3	2.5	2 x 2 1/2	2 1/4	5.44	4.90	4.62	4.35	3.23	2.94
1F031	PC-8419	480	70	.....	6.3	3.0	2 x 1 1/8	2 1/2	6.12	5.51	5.20	4.90	3.52	3.21
1F032	PM-8419	480	70	.....	6.3	3.0	2 x 2 1/2	2 1/2	6.29	5.66	5.35	5.03	3.82	3.30
1F033	PC-8420	520	90	.....	6.3	4.0	2 x 2 1/2	3 1/2	7.14	6.43	6.07	5.71	3.95	3.60
1F765	PM8420	520	90	.....	6.3	4.0	2 1/2 x 2 1/2	3 1/2	7.49	6.74	6.37	5.99	4.30	3.98

POWER TRANSFORMERS WITH SPECIAL OR COMBINATION FILAMENT WINDINGS

Stock No.	Mfr's. Type	Plate Supply		Rect. Fil.	Other Fil.	Wdgs. Amps.	Mtg. Ctrs.	Wt. Lbs.	Each, Boxed				Bulk Packed		
		A.C. Volts	D.C.						Volts/Amps	Volts	1-9	10-24	25-49	50-99	100-249	250-499
1F766	P-6348	240-0-240	60	.....	6.3CT	2.75	1 1/2	2.3	6.65	5.99	5.65	5.32	3.60	3.28	
1F767	P-8177	300-0-300	120	5.0	3.0	6.3CT	5.0	2 3/4 x 2 3/4	5 3/4	10.77	9.69	9.15	8.62	6.40	5.83
1F067	P-8174	250-0-250	20	.....	6.3	0.6	2 3/8	1 1/2	5.87	5.28	4.99	4.70	3.25	2.96	
1F068	P-8175	300-0-300	70	5.0	3.0	6.3CT	3.0	2 1/2 x 2 1/2	4	9.12	8.21	7.75	7.30	5.42	4.94
1F069	P-8176	350-0-350	110	5.0	2.0	6.3CT	2.0	2 3/4 x 3	5 1/2	12.20	10.98	10.37	9.76	7.25	6.60
1F055	P-6011	350-0-350	70	6.3	2.5	5CT	.....	3 1/2	8.34	7.51	7.09	6.67	.....	.....
1F058	P-6014	350-0-350	150	6.3	5	5CT	.....	3 1/2 x 3 3/4	6	11.65	10.49	9.90	9.32	.....	.....
1F076	P-6315	370-0-370	275	6.3	7.0	5CT	.....	3 3/4	9.5	16.85	15.17	14.32	13.48	9.88	8.81
1F082	P-6143	440-0-440	130	6.3	3.5	5	.....	2 3/4 x 2 3/4	7	13.84	12.48	11.76	11.07	7.94	7.23
1F815	P-8359	190/160-160/	70	.....	6.3	0.6	.....	.....	.....	.....	.....	.....	.....	.....	.....
1F816	P-8360	437.5-0-437.5	185	5.0	3.0	6.3	4.0	4x4 1/2	9.5	17.84	16.06	15.16	14.27	9.88	9.00
1F817	P-5059	337.5-0-337.5	200	5.0CT	3.0	6.3CT	5.0	3 3/4 x 4 1/2	9.6	15.04	13.54	12.78	12.03	8.64	7.87

SILICON OR SELENIUM RECTIFIER TRANSFORMERS (FIG. BV)

Stock No.	Mfr's. Type	Rect. Circ.	Out. Resis. Induc. Load Max. DC		Out Capacitive Load Max. DC		Shpg. Wt. Lbs.	Each, Boxed				Bulk Packed		
			V	Amps	V	Amps		1-9	10-24	25-49	50-99	100-249	250-499	
			V	Amps	V	Amps		1-9	10-24	25-49	50-99	100-249	250-499	
1F378	RT-201	CT Bridge	11.2	2.0	13.8	2.0	2.5
1F379	RT-202	CT Bridge	23.0	1.25	30.0	1.25	2.5	5.55	5.00	4.72	4.44	3.30	3.01	
1F380	RT-204	CT Bridge	11.1	4.0	14.7	4.0	3.8	7.72	6.95	6.56	6.18	4.59	4.18	
1F381	RT-206	CT Bridge	24.3	2.0	33.0	2.0	3.8	9.95	8.96	8.46	7.96	5.92	5.39	
1F382	RT-208	CT Bridge	12.0	8.0	14.5	8.0	6.1	14.24	12.82	12.10	11.39	8.47	7.71	
1F383	RT-2012	CT Bridge	24.0	4.0	32.4	4.0	6.1	17.95	16.16	15.26	14.36	10.67	9.71	
1F384	RT-408	CT Bridge	11.5	12.0	14.4	12.0	9.1	31.35	28.22	26.65	25.08	18.63	16.96	
			23.7	8.0	32.5	8.0	12.6	47.94	43.15	40.75	38.35	28.48	25.92	
			11.4	22.5	14.3	22.5	20.5							
			23.5	12.0	33.0	12.0	20.5							
			44.0	8.0	63.0	8.0	26.5							

CONTROL TRANSFORMERS

Typical applications: Automatic assembly equipment, relays, solenoids, small motors, speed changers, control valves for fluids and gases, fans and blowers, electronic tubes, lighting signal lamps, etc.

Stock No.	Mfr's. Type	Primary	Secondary		VA Rat.	Mtg. Type	Shpg. Wt.	Each, Boxed				Bulk Packed	
			Parallel	Series				1-9	10-24	25-49	50-99	100-249	250-499
1F818	P-6376	115V/230/0	6V @ 4A	12V @ 2A	24	I	1.5	4.30	3.87	3.66	3.44	2.48	2.26
1F819	P-6377	50/60 CPS	12V @ 4A	24V @ 2A	48	I	2.5	5.35	4.82	4.55	4.28	3.06	2.81
1F820	P-6378	on call	12V @ 8A	24V @ 4A	96	BV	4.5	8.70	7.83	7.40	6.98	5.00	4.55



Fig. M
PM Types



Fig. C
PC Types

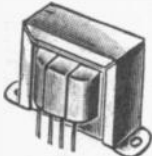


Fig. A
PA Types

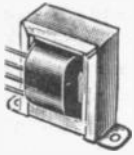


Fig. S
PS Types



Fig. BV

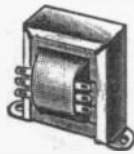


Fig. J

Chicago-Stancor Transformers



POWER TRANSFORMERS

Shielded against magnetic and electrostatic fields by one piece drawn steel cases. Vacuum impreg. coils, compound filled under heat and pressure to resist moisture. Cores are high grade, non-aging silicon steel. All trans-

formers are guaranteed to operate at rated values with EIA heat rise standards. For operation from 110-120 volts, 50-60 cps. AC. Type PCC-250 has 2nd fil. 5 Volts/2 amp.



Type PCC
Type PCR

Type PSR
Type PSC

CASE STYLES AND DIMENSIONS

Case	Width x Height x Depth	Case	Width x Height x Depth
F8	2 1/16 x 3 1/2 x 2 7/8"	F10D	3 3/4 x 4 1/16 x 3 11/16"
F8D	2 1/16 x 3 3/4 x 2 7/8"	F11	4 1/8 x 5 1/16 x 4 9/16"
F9	3 x 4 x 3 1/4"	F12	4 1/8 x 6 1/16 x 5 9/16"
F19	3 3/16 x 4 1/8 x 3 11/16"	S9	3 x 3 7/8 x 3 1/4"

CONDENSER INPUT POWER TYPES

Stock No.	Mfr. Type	Description	AC		Rect.		Fil.		Wt. Lbs.	Case	Each, Boxed				Bulk Packed	
			VCT	Ma.	V	A	VCT	A			1-9	10-24	25-49	50-99	100-249	250-499
4F001	PCC-40	Wire Leads	450	40	5	2	6.3	2	3 1/4	F8	10.62	9.56	9.03	8.50	5.74	5.23
4F002	PSC-40	Solder Lugs	450	40	5	2	6.3	2	3 1/4	F8D	18.14	14.53	13.72	12.91	8.94	8.14
4F003	PCC-55	Wire Leads	540	55	5	2	6.3	2	3 1/2	F8	12.27	11.04	10.43	9.82	6.07	6.18
1F887	PSC-55	Solder Lugs	540	55	5	2	6.3	2	3 1/2	F8D	18.64	16.78	15.84	14.91	10.79	8.17
4F003	PCC-80	Wire Leads	600	60	5	2	6.3	3	4 1/2	F9	12.67	11.40	10.77	10.14	7.02	6.39
4F024	PSC-70	Solder Lugs	670	70	5	2	6.3	3	4 1/2	F9	18.72	16.85	15.91	14.98	10.38	9.45
4F006	PCC-105	Wire Leads	690	105	5	2	6.3	3.5	6 1/2	F10	14.75	13.28	12.54	11.80	8.17	7.44
1F800	PSC-150	Solder Lugs	740	150	5	3	6.3	4	11 1/2	F11	33.19	29.87	28.21	26.55	19.05	17.34
1F801	PCC-200	Wire Leads	770	200	5	3	6.3	4.5	12	F11	25.50	22.95	21.68	20.40	14.64	13.33
4F029	PSC-200	Solder Lugs	770	200	5	3	6.3	4.5	12	F11	33.82	30.44	28.75	27.06	19.42	17.68
4F010	PCC-250	Wire Leads	800/160	250	5	6	6.3	7	15	F12	29.15	26.24	24.78	23.32	16.14	14.69

*Has extra 6.3V. CT @ 1A. WDG

CHOKE INPUT POWER TYPES

Stock No.	Mfr. Type	Description	AC		Rect.		Fil.		Wt. Lbs.	Case	Each, Boxed				Bulk Packed	
			VCT	Ma.	V	A	VCT	A			1-9	10-24	25-49	50-99	100-249	250-499
4F081	PSR-55	Solder Lugs	700	55	5	2	6.3	2	3 1/4	F8D	17.54	15.79	14.91	14.03	9.48	8.63
4F041	PCR-55	Wire Leads	700	55	5	2	6.3	2	3 1/4	F8D	12.25	11.03	10.41	9.80	6.62	6.03
1F803	PCR-70	Wire Leads	850	70	5	2	6.3	3	4 1/2	F9	13.72	12.35	11.66	10.98	7.60	6.92
1F804	PSR-70	Solder Lugs	850	70	5	2	6.3	3	4 1/2	F9D	19.25	17.33	16.36	15.40	10.65	9.70
4F044	PCR-105	Wire Leads	900	105	5	2	6.3	3.5	6 1/2	F10	14.87	13.38	12.64	11.90	8.24	7.50
4F084	PSR-105	Solder Lugs	900	105	5	2	6.3	3.5	6 1/2	F10D	21.02	18.92	17.87	16.82	12.07	10.99
1F802	PCR-300	Wire Leads	1100*	300	5	6	6.3	5	17 1/2	F12	35.23	31.71	29.85	28.18	18.52	17.77

PLATE TRANSFORMERS

DC output rated at load terminals of single section reactor-input filter with full-wave mercury vapor rectification. Primary is 117 AC volts. Sec. ACV: 2400 CT. Shipping wt., 13 lbs. 4x5 1/2 x 4 3/4".

Stock No.	Type	DCV	DCMA		Each, Boxed				Bulk Packed	
			CCS	ICAS	1-9	10-24	25-49	50-99	100-249	250-499
4F403	PT-8311	1000	225	280	21.12	19.01	17.85	16.90	12.55	11.43

DC output rated at load terminals of single section reactor input filter, ICAS with single section capacitor input filter. All primary are 117V AC. *Capacitor input rating is for intermittent duty. †Secondary CT must be grounded.

Stock No.	Type	Sec. ACV†	DC Output		Type Filter	Size	Shpg. Wt.	Each, Boxed				Bulk Packed	
			V	MA				1-9	10-24	25-49	50-99	100-249	250-499
4F404	PC-8301	830CT	300	200	Reactor Input	3 1/4 x 3 1/2 x 4	4.8	8.84	7.96	7.51	7.07	5.08	4.63
			425	160	*Capacitor Input								
1F805	PC-8303	1330CT	500	250	Reactor Input	4 3/4 x 4 x 4 1/2	9.6	16.12	14.51	13.70	12.90	9.25	8.42
			750	200	*Capacitor Input								
4F405	PC-8304	1500CT	600	265	Reactor Input	4 x 4 7/8 x 4 3/4	11.5	16.90	15.21	14.37	13.52	10.05	9.15
			850	200	*Capacitor Input								
4F406	PC-8305	1840CT	750	250	Reactor Input	4 3/4 x 4 x 5	11.9	18.87	16.96	16.04	15.10	10.84	9.87
			1000	200	*Capacitor Input								

OUTPUT TRANSFORMERS

Single plate to line or voice coil. Dimensions 2 1/2 x 2 3/8 x 3 1/8". Max. D.C. in Pri: 55na. Weight: 2 1/4 lbs.

Stock No.	Type	Imp. Ohms Pri.-Sec.	Power Level	Each, Boxed				Bulk Packed	
				1-9	10-24	25-49	50-99	100-249	250-499
1F806	COS-1	Pri: 5,000 Sec: 600/150/16/8/4 Pri: 8000	5-watts	14.69	13.22	12.49	11.75	7.94	7.23
4F418	COS-2	Pri: 600/150/16/8/4 Sec: 800/150/16/8/4 Pri: 12,000 CT	5-watts	13.39	12.05	11.38	10.71	7.42	6.76
1F807	PCO-150A	Pri: 12,000 CT Sec: 600/150/16/8/4	15-watts	15.34	13.81	13.04	12.27	8.49	7.73

SILICON RECTIFIER POWER TRANSFORMERS — WT. 7 LBS.

Stock No.	Type No.	Sec. No. 1 V	Sec. No. 2 DCMA V	Sec. No. 3 Amps	Mfg. Ctr.	Each, Boxed				Bulk Packed		
						1-9	10-24	25-49	50-99	100-249	250-499	
1F808	RP-400	400CT	400	6.3	3.0	29 1/2 x 3 1/2	14.82	13.34	12.80	11.86	8.20	7.46
1F809	RP-600	300CT	600	6.3	2.5	29 1/2 x 3 1/2	14.57	13.11	12.38	11.66	8.08	7.36
1F810	RP-800	200CT	800	6.3	2.0	29 1/2 x 2 1/2	14.50	13.05	12.33	11.60	8.04	7.32
1F811	RP-1600	100CT	1600	6.3	1.5	29 1/2 x 2 1/2	13.50	12.15	11.48	10.80	7.48	6.81
1F812	RP-2000	80CT	2000	6.3	1.5	29 1/2 x 2 1/2	14.04	12.64	11.93	11.23	7.78	7.08
1F813	RP-2500	60CT	2500	6.3	1.5	29 1/2 x 2 1/2	16.65	14.99	14.15	13.32	9.00	8.19

Fig. CD — BIAS SUPPLY TRANSFORMERS

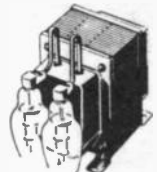
High Voltage Type. Size 3 1/2 x 3 3/8 x 4". Shpg. wt., 4.9 lbs.

Stock No.	Type	AC volts @ 200 DC ma.	Rectifier Fil.		Each, Boxed				Bulk Packed	
			Volts	Amps	1-9	10-24	25-49	50-99	100-249	250-499
1F082	P-6317	400/340/260/180 CT	5.0	3.0	14.34	12.91	12.19	11.47	7.94	7.23

NEWARK CAN SUPPLY ALL CHICAGO-STANCOR TRANSFORMERS. CALL, WRITE OR WIRE FOR PRICES ON ITEMS NOT LISTED IN THIS CATALOG.



COS-2



Type PT



Type PC



Fig. CD



Chicago-Stanco Transformers

TYPE F — FILAMENT TRANSFORMERS

Primaries: 115/230 volts, 50-60 cycles.

Stk. No.	Type	Secondary		Insulation Volts RMS	WxDxH	Wt. Lbs.	Each, Boxed				Bulk Packed	
		Volts	Amps.				1-9	10-24	25-49	50-99	100-249	250-499
4F082	F-210	2.5CT	10	5000	2 7/8x2 1/4x3 3/4	3	12.97	11.67	11.82	10.98	7.70	7.01
4F085	F-54	5.0CT	4	2500	2 1/2x2 3/8x3 1/8	2 1/4	9.54	8.59	8.11	7.83	5.68	5.17
4F089	F-520HB	5.0CT	20	10000	4 1/4x4 1/8x5 1/8	13	28.50	25.85	24.23	22.80	16.94	15.42
4F097	F-615	6.3CT	1.5	2500	2 1/4x2 1/8x2 1/4	1	14.60	13.14	12.41	11.68	7.89	7.18
1F879	F-63	6.3CT	3	2500	2 1/4x2 3/8x3 1/8	2	9.67	8.70	8.22	7.74	5.75	5.24
1F880	F-65	6.3CT	5.5	2500	2 7/8x2 1/4x3 3/4	3	13.35	12.02	11.35	10.68	7.40	6.74
1F881	F-610	6.3CT	10	2500	3 1/4x3 4 1/4	5	19.80	17.82	16.83	15.84	10.97	9.99
4F296	F-725	7.5CT	25	2500	4 3/4x4 1/8x5 1/8	12	33.32	29.99	28.32	26.66	19.13	17.41

Type F

FILAMENT TRANSFORMERS

All have 117V, or 117/107V primaries except + which has 6.3 volt primary; * electrostatic shield.

Stk. No.	Type	Sec. V	Amps	Size	Fig.	Lbs.	Each, Boxed				Bulk Packed	
							1-9	10-24	25-49	50-99	100-249	250-499
1F083	P-4026	2.5	1.5	2 7/8x1 1/2x1 3/8	A	3/4	3.32	2.99	2.82	2.66	1.80	1.64
1F100	P-6133*	2.5	5	2 1/4x3 1/8x2 1/4	S	1 1/2	4.30	3.67	3.66	3.44	2.57	2.34
1F101	P-3024*	2.5	10	3 1/8x2 5/8x2 3/8	C	2 1/2	5.60	5.04	4.76	4.48	3.22	2.94
1F102	P-3060	2.5	10	3 1/8x2 7/8x2 1/2	NV	2 1/2	7.70	6.93	6.55	6.16	4.43	4.04
1F333	P-6454	2.5	10.0	3 3/8x2 1/2x3 1/8	S	2 1/2	4.67	4.20	3.97	3.74	2.69	2.45
1F095	P-6467	5.0	3.0	3 3/4x2x2"	A	1 1/2	3.65	3.29	3.10	2.82	1.98	1.81
1F336	P-3026	5.0	3.0	2 9/8x2 9/8x2 9/8	C	2 3/4	5.89	5.30	5.01	4.71	3.39	3.09
1F096	P-3062*	5.0	6.0	2 1/2x2 1/2x3 1/8	NV	2 1/2	5.55	5.00	4.72	4.44	3.19	2.91
1F334	P-6455	5.0	6.0	3 1/4x2 1/2x2 9/8	S	2	5.20	4.68	4.42	4.16	2.82	2.57
1F335	P-5000*	5.0	6.0	2 1/2x3x3 1/8	C	3 1/4	6.60	5.94	5.61	5.28	3.79	3.45
1F104	P-6135	5.0	10	3 1/8x2 1/2x2 7/8	NV	3	6.00	5.40	5.10	4.80	3.58	3.28
1F097	P-6468*	5.0	30.0	3 1/8x3 3/8x4 1/8	C	4 1/2	16.05	14.45	13.64	12.84	9.22	8.40
1F376	P-6492	5.0	30.0	4 3/4x3 3/4x3 3/8	C	4 1/2	13.39	12.05	11.38	10.71	7.97	7.26
1F375	P-6465	6.3	0.6	1 3/8x2 3/8x1 3/8	A	1 1/2	2.24	2.02	1.90	1.79	1.29	1.18
1F539	P-8190	6.3	1.2	2x3 1/4x1 3/4	A	1	3.10	2.79	2.64	2.48	2.13	1.94
1F540	P-8191+	6.3	1.2	2x3 1/4x1 3/4	A	1	3.64	3.28	3.09	2.91	1.68	1.53
1F105	P-8134	6.3	1.2	1 9/8x2 3/4x1 3/4	A	1	2.39	2.15	2.03	1.91	1.38	1.26
1F138	P-6462	6.3	3.0	3 3/8x2 9/8x3"	S	2	6.60	5.94	5.61	5.28	3.57	3.25
1F106	P-5014*	6.3	3	3 1/8x2 1/2x2 1/2	NV	2	5.00	4.50	4.25	4.00	2.88	2.63
1F123	P-6466	6.3	3	2x3 1/4x2"	A	1 1/2	3.62	3.26	3.08	2.90	2.00	1.82
1F098	P-4019*	6.3	4.0	2 3/8x3 1/8x2 3/8	C	2 3/4	5.85	5.27	4.97	4.68	3.37	3.07
1F107	P-3064*	6.3	6	3 1/8x2 1/2x2 7/8	NV	2 1/2	5.80	5.22	4.93	4.64	3.34	3.04
1F139	P-6456	6.3	6.0	2 1/4x3 3/8x2 1/2	A	2	4.29	3.86	3.65	3.43	2.47	2.25
1F108	P-6308*	6.3	10	3 1/8x2 7/8x2 7/8	NV	3 1/2	7.34	6.61	6.24	5.87	4.22	3.85
1F109	P-8309*	6.3	20	4 3/8x3 3/4x3"	NV	7	11.19	10.07	9.51	8.95	6.43	5.86
1F110	P-5015*	7.5	4	3 1/8x2 1/2x2 7/8	NV	3	5.27	4.74	4.48	4.22	3.13	2.85
1F337	P-6138*	7.5	8.0	3 1/8x2 7/8x3 3/8	NV	4 7/16	8.60	7.74	7.31	6.88	4.94	4.50
1F112	P-5016*	10.0	4	3 1/2x2 7/8x2 3/8	NV	3 1/2	6.74	6.07	5.73	5.39	3.38	3.54
1F141	P-6458*	10.0	5	3 1/8x2 1/2x2 7/8	NV	3 1/2	5.34	4.81	4.54	4.27	2.97	2.71
1F119	P-6139*	10.0	8.0	3 7/8x3 3/8x3 1/8	NV	5	8.62	7.76	7.33	6.90	4.35	4.51
1F142	P-6461	10.0	10.0	3 7/8x3 1/4x3 5/8	C	5	9.67	8.70	8.22	7.74	5.75	5.24
1F120	P-8130	12.6	2.0	2x3 1/4x2"	A	1 1/2	3.95	3.56	3.36	3.16	2.19	2.00
1F944	P-8180	25.2	1.0	2 1/8x3 1/4x2"	A	1.4	3.72	3.35	3.16	2.98	2.07	1.89
1F882	P-8358	12.6	3.0	3 3/8x2 1/2x2 1/4	A	2	4.82	4.34	4.10	3.86	2.60	2.37
1F116	P-6469	25.2	1.0	2x3 1/4x2"	A	1 1/2	3.69	3.32	3.14	2.95	2.00	1.82
1F883	P-8357	25.2	2.0	4x2 1/4x2 3/8	A	2 1/4	5.95	5.36	5.06	4.76	3.30	3.01
1F945	P-8388	25.2	2.8	2 1/4x4x2 3/8	A	2.2	6.00	5.40	5.10	4.80	3.45	3.14
1F946	P-8389	6.3	1.0	1 1/2x2 7/8x2 3/8	A	0.6	2.22	2.00	1.89	1.78	1.28	1.17

FILAMENT TRANSFORMERS WITH MULTIPLE SECONDARY

Stk. No.	Type	Secondary		RMSV Insul.	Pri. V.	Fig.	Ht.	Base Area	Wt. Lbs.	Each, Boxed				Bulk Packed	
		Volts	Amps.							1-9	10-24	25-49	50-99	100-249	250-499
1F884	P-6430	6.3 CT	3.0	2500	117	C	3 1/8	2 1/2x3 7/8	3	6.49	5.84	5.52	5.19	3.73	3.40

TUBE CHECKER MULTI-TAPPED FILAMENT TRANSFORMER

Stock No.	Type No.	Secondary Volts	Primary Volts	Height	Base Area	Mtg. Ctrs.	Wt.	Each, Boxed				Bulk Packed	
								1-9	10-24	25-49	50-99	100-249	250-499
1F885	P-1834-3	1.1/1.4/1.5/2.0/2.5/3.0/ 3.3/4.0/5.0/6.3/7.5/ 12/20/25/30/35/50/70/85/ 110/117	105/115/125	2 5/8	4x2 1/2	3 9/16	2.4	10.94	9.85	9.30	8.75	6.50	5.92

CATHODE RAY TUBE POWER TRANSFORMERS

Stock No.	Type No.	Plate Supply AC Volts	DCMA	Other Windings		Mtg. Type	Size	Wt.	Each, Boxed				Bulk Packed		
				Volts	Amps				1-9	10-24	25-49	50-99	100-249	250-499	
1F310	P-8179	1600	half wave	3.0	6.3/5/2.5 6.3/5/2.5	1.0 3.0	M	3x2 1/4x3 3/8	3.5	12.69	11.42	10.79	10.15	6.85	6.24
1F090	P-8150	1550	half wave	1.5	.....	.....	TD	3x2 1/4x3 1/8	2	9.99	8.99	8.49	7.99	5.40	4.82
1F091	P-8151	12400	half wave	5.0	2.5	2.0	C	3 3/8x3 3/8x4 5/8	7	14.79	13.31	12.57	11.83	8.49	7.73

TV BOOSTER TRANSFORMER

Stock No.	Type	Plate Supply		Filament		Ht.	Base Area	Mtg. Ctrs.	Fig.	Each, Boxed				
		AC Volts	DCMA	Volts	Amps					1-9	10-24	25-49	50-99	
1F525	P-8181	150	half wave	25	6.3CT	0.5	2	2 1/16x1 3/4	2	VE	3.84	3.46	3.26	3.07

PCF SERIES POWER CIRCUIT TRANSFORMERS

Stock No.	Type No.	Pri. Volts	Sec. Volts	Amps	V-A Cap	Wt.	Each, Boxed				Bulk Packed	
							1-9	10-24	25-49	50-99	100-249	250-499
1F886	PCF-2025	230	115	.25	25	2	6.79	6.11	5.77	5.43	3.67	3.34

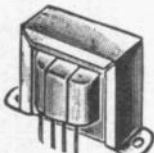


Fig. A



Fig. NV

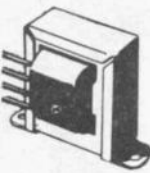


Fig. S



Fig. C



Fig. VE

Chicago-Stancor Filters & Chokes



FILTER REACTORS

Stock No.	Mr. Type	Description	Hy.	Ma.	Ohm	Type	Case	1-9	Each. 10-24	Boxed 25-49	50-99	100-249	250-499
4F101	RC-1540	Wire Leads	15	40	475	C	F6	5.62	5.08	4.78	4.50	3.12	2.84
4F103	RC-1555	Wire Leads	15	55	380	C	F6	6.44	5.80	5.47	5.15	3.57	3.25
4F104	RC-1085	Wire Leads	10	85	175	C	F7	6.74	6.07	5.73	5.39	3.74	3.41
4F414	RS-1085	Solder Lugs	10	85	175	S	F7	9.05	8.15	7.89	7.24	5.02	4.57
1F889	RS-1585	Solder Lugs	15	85	285	S	F7D	7.40	6.66	6.29	5.92	4.10	3.74
4F108	RC-8150	Wire Leads	8	150	100	C	F9	11.45	10.31	9.73	9.16	6.34	5.77
4F111	RC-12200	Wire Leads	12	200	140	C	F-10	12.40	11.16	10.54	9.92	7.13	6.49
1F888	RC-1055	Wire Leads	10	55	230	C	F6	5.92	5.33	5.03	4.74	3.28	2.99
4F123	RS-1555	Solder Lugs	15	55	380	S	F6	8.94	8.05	7.80	7.15	4.84	4.41
4F121	RS-1540	Solder Lugs	15	40	475	S	F6	7.87	7.08	6.89	6.30	4.37	3.98
4F127	RS-12105	Solder Lugs	12	105	170	S	F8D	12.05	10.85	10.24	9.64	6.88	6.08
4F415	RC-12105	Wire Leads	12	105	170	C	F8D	11.99	10.79	10.19	9.59	6.88	6.27
4F416	RC-12150	Wire Leads	12	150	150	C	F9D	13.75	12.38	11.89	11.00	7.89	7.18
4F129	RS-12150	Solder Lugs	12	150	150	S	F9D	13.05	11.75	11.09	10.44	7.50	6.83
4F131	RS-12200	Solder Lugs	12	200	140	S	F10D	17.12	15.41	14.55	13.70	9.83	8.95
4F130	RS-8200	Solder Lugs	8	200	85	S	F10D	13.00	11.70	11.05	10.40	7.73	7.04
1F890	RC-8280	Wire Leads	8	200	85	C	F10D	12.97	11.87	11.02	10.38	7.44	6.78
1F891	RC-8380	Wire Leads	8	300	60	C	F11	19.30	17.37	16.41	15.44	11.47	10.44

HIGH CURRENT FILTER CHOKES

Inductance values rated at 1 volt RMS, 60 cycles. May be used with rectifier Power Transformers.

Stock No.	Type No.	Hys.	DC Amps	DC Ohms	Insul Test V.RMS	Mtg. Ctrs.	Fig.	Wt.	1-9	Each. 10-24	Boxed 25-49	50-99	Bulk Packed 100-249	250-499
1F893	C-2685	35	2.0	.75	1500	2 1/2"x2"	NH	1.9	3.95	3.58	3.36	3.16	2.35	2.14
1F894	C-2686	25	4.0	.425	1500	2 1/8"x2 1/8"	NH	3.4	6.90	6.21	5.87	5.52	3.83	3.49
1F895	C-2688	10	12.5	.11	1500	3 1/2"x2 3/8"	NH	5.9	10.50	9.45	8.93	6.40	5.82	5.30

SMOOTHING CHOKES

Stk. No.	Type	Hys.	Ma	Ohms	Size	Fig.	Lbs.	1-9	10-24	25-49	50-99	*100-249	*250-499
1F896	C-2708	0.32	600	10	1 1/2"x3 1/2"x1 1/2"	A	1.3	3.49	3.14	2.97	2.79	1.94	1.77
1F897	C-2343	0.75	300	32	1 1/2"x2 7/8"x1 1/2"	A	0.6	1.74	1.57	1.48	1.39	1.04	.95
1F176	C-2328	0.8	375	25	2 1/4"x3 3/4"x2"	A	1 1/2	4.12	3.71	3.50	3.30	2.23	2.03
1F510	C-2326	1.0	300	43	2 1/4"x3 3/4"x2 1/4"	A	1 3/4	3.27	2.94	2.78	2.62	1.88	1.72
1F533	C-2327	1.5	200	85	1 5/8"x2 7/8"x1 1/2"	A	1	2.19	1.97	1.86	1.75	1.22	1.12
1F898	C-2707	2.0	15	70	1 1/4"x2 1/2"x1 1/8"	A	0.5	1.72	1.55	1.46	1.38	.97	.89
1F509	C-2325	2.0	200	60	2 1/4"x3 3/4"x2 1/4"	A	2	3.27	2.94	2.78	2.62	1.88	1.72
1F165	C-2304	2.3	150	60	2x3 1/4"x1 3/4"	A	1	2.57	2.31	2.18	2.06	1.43	1.31
1F164	C-2303	2.5	130	100	2x3 1/4"x1 3/4"	A	1	2.54	2.29	2.16	2.03	1.42	1.30
1F899	C-2706	2.6	310	50	3 3/4"x2 5/8"x3 1/4"	C	4	7.20	6.48	6.12	5.76	4.14	3.77
1F177	C-2334	2.8	300	60	2 5/8"x2 1/4"x4"	A	2 1/2	6.17	5.55	5.24	4.94	2.45	2.23
1F167	C-2309	3	150	90	2 1/4"x3 3/4"x2 1/4"	A	1 3/4	2.97	2.67	2.52	2.38	1.77	1.62
1F150	C-1410	4	175	100	3 1/4"x2 5/8"x2 5/8"	C	2 1/2	5.39	4.85	4.58	4.31	3.10	2.83
1F153	C-1703	4	250	60	3 1/2"x2 7/8"x3 3/8"	BV	4 1/4	7.02	6.32	5.97	5.62	4.18	3.81
1F173	C-1412	4.0	250	60	3x3 1/2"x3 3/8"	C	4 1/2	7.97	7.17	6.77	6.38	4.58	4.17
1F156	C-1706	4.5	50	300	1 3/8"x2 3/8"x1 3/8"	A	1/2	1.49	1.34	1.27	1.19	.85	.78
1F151	C-1411	4.5	200	80	3 5/8"x3x3 1/8"	C	3 1/2	6.47	5.82	5.50	5.18	3.72	3.39
1F900	C-1723	4.5	50	325	1 3/8"x2 3/8"x1 3/8"	A	0.4	1.85	1.67	1.57	1.48	1.07	.98
1F166	C-2305	5	100	300	2 1/4"x2 3/4"x2 3/8"	TD	1 1/2	3.89	3.50	3.31	3.11	2.38	2.12
1F152	C-1848	5	200	90	4x3 1/4"x3 3/8"	C	4 1/2	7.94	7.15	6.75	6.35	4.55	4.15
1F157	C-1707	7	50	550	1 3/8"x2 3/8"x1 3/8"	A	1/2	1.74	1.57	1.48	1.39	1.00	.91
1F171	C-1421	7.0	140	165	2 5/8"x2 5/8"x3 3/8"	C	2 1/2	5.14	4.63	4.37	4.11	3.05	2.78
1F180	C-1710	7	150	200	2 5/8"x4x2 1/4"	A	2 1/4	4.22	3.80	3.59	3.38	2.52	2.30
1F338	C-1414	7.5	400	60	4 3/4"x4x5 1/8"	D	11-4/5	18.29	16.46	15.55	14.63	10.87	9.90
1F169	C-1355	8.0	75	290	2 1/4"x1 3/4"x2 1/8"	L	1	2.84	2.56	2.41	2.27	1.68	1.54
1F159	C-1709	8	85	250	2x3 1/4"x2"	A	1 1/2	2.70	2.43	2.30	2.16	1.57	1.43
1F154	C-2308	8	300	80	4 3/4"x4x3 3/8"	C	8	14.19	12.77	12.06	11.35	8.15	7.42
1F901	C-1722	8.0	300	80	4 5/8"x3 3/4"x3 1/2"	NV	7.3	11.99	10.79	10.19	9.59	6.88	6.27
1F172	C-1721	8.5	200	120	3 1/8"x3x3 3/8"	NV	4 1/2	8.57	7.71	7.28	6.86	4.93	4.49
1F163	C-1001	10.5	110	225	2 5/8"x4x2 1/4"	A	2 1/2	4.02	3.62	3.42	3.22	2.40	2.19
1F175	C-2318	12.0	90	400	1 3/8"x2 3/8"x1 3/8"	A	1/2	2.20	1.98	1.87	1.76	1.20	1.10
1F158	C-1708	13	65	500	2x3 1/4"x1 3/4"	A	1	2.67	2.40	2.27	2.14	1.49	1.36
1F162	C-1002	15	75	400	2 1/4"x3 3/4"x2 1/4"	A	1 3/4	3.15	2.84	2.68	2.52	1.82	1.66
1F170	C-1420	16.0	80	360	2 5/8"x2 5/8"x3 3/8"	C	2 1/2	5.64	5.08	4.79	4.51	3.24	2.95
1F902	C-1003	16.0	50	580	2x3 1/4"x1 3/4"	A	1.1	2.37	2.13	2.01	1.90	1.42	1.30
1F178	C-1515	20.0	15	900	1 5/8"x2 7/8"x1 1/2"	A	3/4	2.60	2.34	2.21	2.08	1.49	1.36
1F903	C-2345	350	5	5600	2x3 1/4"x1 3/4"	A	0.5	3.94	3.55	3.35	3.15	2.18	1.99

SWINGING CHOKES

Stk. No.	Type	Hys.	DCMA	Ohms	Size	Fig.	Lbs.	1-9	Each. 10-24	Boxed 25-49	50-99	Bulk Packed 100-249	250-499
1F781	C-1402	12.2-2.0	25-250	60	3x3 1/2"x3 3/8"	C	4 1/2	8.10	7.29	6.89	6.48	4.49	4.09
1F083	C-1718	13.5-3.5	15-150	130	2 5/8"x2 1/2"x3 3/8"	C	2.3	5.37	4.83	4.56	4.30	3.09	2.82
1F064	C-1400	12.0-2.0	17.5-175	100	2 5/8"x2 5/8"x3 3/8"	C	2.4	5.87	5.28	4.99	4.70	3.38	3.08
1F085	C-1645	10.2-2.0	20-200	90	3 1/4"x3 3/8"x4"	C	4 1/2	7.84	7.08	6.66	6.27	4.50	4.10
1F086	C-2307	20.0-4.0	30-300	80	4x3 3/8"x4 3/8"	C	7.9	13.85	12.47	11.77	11.08	7.95	7.24

AC-DC CHOKES

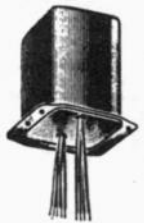
Stk. No.	Type	Hys.	Ma.	Ohms	Size	Fig.	Lbs.	1-9	10-24	25-49	50-99	*100-249	*250-499
1F191	C-1080	3.5	50	200	1 5/8"x2 7/8"x1 1/2"	A	3/4	1.82	1.64	1.55	1.46	1.05	.96
1F194	C-1279	8.5	50	400	1 5/8"x2 7/8"x1 1/2"	A	3/4	1.85	1.67	1.57	1.48	1.07	.98

COMMERCIAL GRADE AUDIO FILTERS

Stock No.	Type No.	Application	Inductance in henries	Max. DCV	Fig.	Mtg. Ctrs.	Wt.	1-9	10-24	25-49	50-99	*100-249	*250-499
1F405	C-2317	Spalter Sup. Filter	0.048-0.9	300ma	BH	2 1/2"x2	2.3	6.64	5.98	5.64	5.31	3.82	3.48

PLATE MODULATION TRANSFORMERS

Stk. No.	Type	Sec.	Pri.	Ma-Pri.	Ma-Sec.	Watts	Fig.	Lbs.	1-9	10-24	25-49	50-99
1F403	A-3812	4000	10,000CT	32	50	5	A	0.7	2.80	2.52	2.38	2.24



C-Type



S-Type

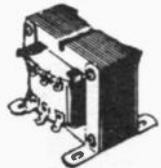


Fig. BH



Fig. D



Fig. TD

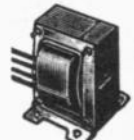


Fig. NV

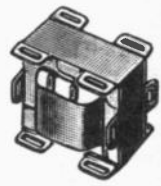


Fig. L

*Bulk Packed

Whatever Your Electronic Needs — NEWARK Will Fill Your Order



Chicago - Stancor Transformers

HIGH-FIDELITY OUTPUT TRANSFORMER

Frequency response: ± 1 db 20 to 20,000 cycles

Stock No.	Type No.	Pri. Imp. in Ohms	Sec. Imp. Ohms	Audio Watts	Mtg. Ctrs.	Fig.	Wt.	1-9	Each 10-24	Boxed 25-49	50-99	Bulk Packed 100-249	250-499
1F904	A-8053	5000	8,16	50'	294x31/8	C	6.5	16.27	14.64	13.83	13.02	9.34	8.50
1F905	A-8056	6500	8,16	50	294x31/8	C	6.5	16.30	14.67	13.86	13.04	9.35	8.51
1F906	A-8054	9000	8,16	50	294x31/8	C	6.5	16.30	14.67	13.86	13.04	9.35	8.51
1F907	A-8072	7600	4,8,16	25	294x31/8	C	6.5	19.47	17.32	16.55	15.58	10.50	9.56

SINGLE PLATE TO VOICE COIL TRANSFORMERS

Stock No.	Type No.	Imp. - Ohms		DC Ma.	Audio Watts	Mtg. Type	Mtg. Ctrs.	Shpg. Wt.	1-9	Each 10-24	Boxed 25-49	50-99	Bulk Packed	
		Pri.	Sec.										100-249	250-499
1F276	A-3332	2,000	3.2	50	3	A	1 3/4	0.4	1.57	1.41	1.33	1.26	.92	.84
1F265	A-3876	2,000	4	60	5	A	2	0.4	1.67	1.50	1.42	1.34	.97	.89
1F260	A-3328	4,000	3.5	10	3	A	1 3/4	0.4	1.62	1.46	1.38	1.30	.93	.85
1F266	A-3877	5,000	4	40	5	A	2	0.4	1.67	1.50	1.42	1.34	1.00	.91
1F340	A-8092	5,000	3-4	50	8	A	2 3/8	0.5	2.49	2.24	2.12	1.99	1.35	1.23
1F908	A-3337	5,000	6-8	40	10	S	2 3/8	1.0	2.57	2.31	2.18	2.06	1.54	1.41
1F339	A-3310	5,000	500/15/8/4	55	20	C	2	2.5	7.00	6.30	5.95	5.60	3.88	3.54
1F267	A-3878	7,000	4	30	5	A	2	0.4	1.74	1.57	1.48	1.39	1.00	.91
1F909	A-2313	7,000	8	40	10	A	2 1/2	1.0	3.05	2.75	2.59	2.44	1.70	1.55
1F261	A-3329	8,000	3.5	10	3	A	1 3/4	0.4	1.62	1.46	1.38	1.30	.97	.89
1F268	A-3879	10,000	4	30	5	A	2	0.4	1.70	1.53	1.45	1.36	.99	.91
1F341	A-3881	15,000	4	10	5	A	2	0.4	2.17	1.95	1.84	1.74	1.25	1.14
1F910	A-3327	25,000	4	5	5	A	2	0.4	2.14	1.93	1.82	1.71	1.23	1.12
1F940	A-8070	1,000	4.0	90	4	A	2	0.4	1.59	1.43	1.35	1.27	.93	.85

PUSH-PULL PLATES TO VOICE COIL

Stk.No.	Type	Fig.	Impedance - Ohms		Watts	1-9	Each 10-24	Boxed 25-49	50-99	Bulk Packed	
			Primary	Secondary						100-249	250-499
1F911	A-8098	C	2,000 CT	32/16/8	15	9.65	8.69	8.20	7.72	5.74	5.23
1F912	A-3800	C	5,000 CT	500/250/15/8/4	30	7.77	6.99	6.60	6.22	4.47	4.07
1F913	A-3304	C	10,000 7,000 CT	500/15/8/4	25	7.32	6.59	6.22	5.86	4.05	3.69
1F914	A-2312	A	14,000 CT	4	10	3.33	3.00	2.83	2.66	1.92	1.75
1F915	A-3496	A	14,000 CT	4	5	3.34	3.01	2.84	2.67	1.80	1.64
1F206	A-8094	A	4,000 CT	32/16/8	7.5	4.89	4.40	4.16	3.91	2.92	2.66
1F776	A-3872	TD	5,000 CT	15/8/4	18	5.22	4.70	4.44	4.18	3.00	2.73
1F777	A-3831	A	10,000 CT	8/4/2	5	3.15	2.84	2.68	2.52	1.82	1.66
1F778	A-3335	S	10,000 CT	6-8/3-2-4	10	3.57	3.21	3.03	2.86	1.99	1.82
1F780	A-3857	A	25,000 CT	4	5	2.72	2.49	2.35	2.22	1.54	1.41
1F222	A-3802	C	3,800/3,300 CT	500/250/8/4	75	17.95	16.16	15.26	14.36	10.30	9.38
1F275	A-3801	C	6,600 CT	500/250/15/8/4	35	9.89	8.90	8.41	7.91	5.68	5.17
1F409	A-3311	C	10,000 CT	500/15/8/4	25	7.39	6.65	6.28	5.91	4.00	3.64
1F225	A-3839	TD	10,000 CT	2,000 & 15/8/4	10	5.79	5.21	4.92	4.63	3.33	3.04
1F226	A-3885	C	9,000 CT	500/250/15/8/4	35	9.90	8.91	8.42	7.92	5.69	5.18
1F227	A-8093	A	10,000 CT	3-4	10	2.60	2.34	2.21	2.08	1.44	1.32

UNIVERSAL OUTPUT TRANSFORMERS

Match any voice coil to rated primary ohms.

Stk. No.	Type	Pri. Ohms	Watts	Fig.	Ctrs.	Lbs.	1-9	10-24	25-49	50-99
1F250	A-3856	4000 to 14,000	4	Q	2"	1/2	3.20	2.88	2.72	2.56
1F252	A-3850	4000 to 14,000	8	J	2"	3/4	3.82	3.44	3.25	3.06

FIG. J. TUBE TO LINE

A-3841 Secondaries, 500 ohms; A-3250 500/333/200/125/50 ohms. A-3841 10W., 1.5 lbs., A-3250, 5W., 1 lb.

Stk. No.	Type	Use	Primary	Size	1-9	10-24	25-49	50-99
1F283	A-3841	Sgl Plate	7000/6000/5000/4000/2500	2 1/2" x 3 3/4" x 2 1/4"	5.95	5.36	5.06	4.76
1F286	A-3250	Sgl/PP Pl	20000/10000/5000	2x3 1/2" x 1 3/4"	4.62	4.16	3.93	3.70

LINE TO VOICE COIL

Stk. No.	Type	Fig.	Impedance - Ohms		Watts	Size	Lbs.	1-9	Each 10-24	Boxed 25-49	50-99	Bulk Packed	
			Primary	Sec.								100-249	250-499
1F366	A-8101	Q	500	6-8/3.2	5	2 3/4" x 1 3/4" x 1 3/8"	1 1/2	1.99	1.79	1.69	1.59	1.19	1.09
1F369	A-3818	J	1,500/1,000/500	15/8/4	25	3 3/4" x 2 1/4" x 3 1/8"	2 1/2	5.57	5.01	4.73	4.46	3.20	2.92
1F370	A-8104	J	3,000/2,000/1,500/ 1,000/500	16/8/4	10	2 1/2" x 1 3/4" x 2 1/8"	1 1/2	4.77	4.29	4.05	3.82	2.64	2.41
1F280	A-7947	Q	2,000, 1,500, 1,000, 500	6-8/3.2	8	1 3/4" x 2 1/4" x 1 1/8"	3/4	3.29	2.96	2.80	2.63	1.89	1.72

25 VOLT LINE TO VOICE COIL TRANSFORMERS

Stk. No.	Type	Pri. Imp.	Sec. Imp.	Watts	Mtg. Ctrs.	1-9	10-24	25-49	50-99	Bulk Packed	
										100-249	250-499
1F389	A-8095	125/250/500/ 1000/2000	8/4	5/2.5/1.25/ 62/31	2"	2.89	2.60	2.46	2.31	1.73	1.58
1F390	A-8096	78/156/312 625/1250	16/8/4	8/4/2/1/ 0.5	2"	4.24	3.82	3.60	3.39	2.35	2.14
1F345	A-6088	156/312/625/ 1250/2500/5000	8	4/2/1/ .5/.25/.12	2 3/8"	2.91	2.62	2.47	2.33	1.69	1.46

OUTPUT TRANSFORMERS

Stock No.	Type No.	Typical Output Tubes	Impedance Ohms		DC Pwr. Pri. Watts	Mtg. Type	Wt. Lbs.	1-9	Each 10-24	Boxed 25-49	50-99	Bulk Packed		
			Primary	Secondary								100-249	250-499	
1F916	PCO-150A	P-P 6V6's, 6F6's	12,000CT	600/150/16/8/4	200	15	TD	5	15.34	13.81	13.04	12.27	8.49	7.73
1F917	COC-1	Sgl. 6L6, 6V6	5,000	600/150/16/8/4	55	5	TD	2 1/4	9.05	8.15	7.69	7.24	4.90	4.48

70.7 VOLT TO VOICE COIL TRANSFORMERS

Stock No.	Type No.	Power Steps In Watts	Impedance in Ohms		Mtg. Type	Mtg. Ctrs.	Shpg. Wt.	1-9	Each 10-24	Boxed 25-49	50-99	Bulk Packed	
			Pri.	Sec.								100-249	250-499
1F373	A-8102	8/4/2/1/0.5	625/1,250/2,500/ 5,000/10,000	16/8 4	J	2	0.7	3.97	3.57	3.37	3.18	2.20	2.01
1F126	A-8105	5/2.5/1.25/ .62/31	1000/2000/4000/ 8000/16,000	16/8 4	Q	2	0.4	3.24	2.92	2.75	2.59	1.87	1.71
1F340	A-8084	4/2/1/.5/.25/ 12	1250/2500/5000/ 10000/20000/40000	8	A	2 3/8"	.07	2.91	2.62	2.47	2.33	1.69	1.46

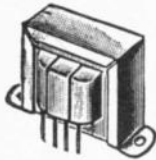


Fig. A



Fig. C



Fig. TD



Fig. J



Fig. Q

Order Chicago-Stancor Transformers from Newark's Complete On-The-Shelf Stock . . . of Factory Competitive O.E.M. Prices! Ready for Immediate Shipments

Chicago-Stancor Transformers



CARBON MIKE OR LINE to SINGLE GRID

†Has Dual primary—when properly connected, the 200 and 500 ohm sections are center tapped.

Stk. No.	Type	Use	Pri.	Sec.	Size	Wt.	Each, Boxed				Bulk Packed	
							1-9	10-24	25-49	50-99	100-249	250-499
IF285	A-4705	SB Mic	200/70	80,000	1 1/2 x 2 3/4 x 1 3/8"	1/2	3.77	3.39	3.20	3.02	2.04	1.86
IF288	A-4351†	Mic or Line	500/333/200/125/50	89,000	2 1/2 x 2 1/4 x 1 1/2"	1 1/4	5.46	4.81	4.64	4.37	.....	.....

MICROPHONE OR LINE TO LINE TRANSFORMERS

Sec. 500/333/200/125/50. Size: 3 1/4 x 1 3/4 x 2" high. Mtg. Ctrs. 2 1/4"

Stk. No.	Type	Primary	Watts	Mtg.	Wt.	1-9	10-24	25-49	50-99
IF763	A-4350	500/333/200/125/50	10	Q	1.0	4.80	4.32	4.08	3.84

INTERCOM TRANSFORMERS

St. No.	Type	Use	Pri. Imp.	Sec. Imp.	Fig.	Ht.	Wt. (lb.)	1-9	10-24	25-49	50-99	100-249	250-499
IF311	A-4744	Input	4Ω	25KΩ	VE	1 3/8"	0.5	2.32	2.09	1.97	1.86	1.34	1.22
IF399	A-4748	Input	45 or 50Ω	50KΩ	A	1 3/8"	0.4	3.22	2.90	2.74	2.58	.....	.....

DRIVER TRANSFORMERS

St. No.	Type	Pri. Imp.	Pri. 1/2 Sec.	Pri. D.C.	Mtg.	Fig.	Lbs.	1-9	10-24	25-49	50-99	100-249	250-499
IF221	A4702	1500 to 5000Ω	5:1	80 ma	2x1 1/2	C	2.5	5.70	5.13	4.85	4.56	3.40	3.10
IF406	A4713	10,000Ω	2:1	30 ma	2 3/8	A	.7	2.50	2.25	2.13	2.00	1.44	1.32
IF407	A4723	10,000Ω	3:1	30 ma	2 3/8	A	.7	2.55	2.30	2.17	2.04	1.48	1.35
IF220	A4752	10,000Ω	2/1.5/1:1	40 ma	2 1/2	A	1.2	3.54	3.19	3.01	2.83	.....	.....

AUDIO TRANSFORMERS

IF302 (Type A-53) Interstage type: 7000-20,000 ohm plate impedance to 1G. Remainder Push Pull Inputs; One 7000-15,000 ohm plate impedance to 2G maximum primary DC 10MA.

Stk. No.	Type No.	Ratio	Size	Fig.	Mtg. Ctrs.	Lbs.	Each, Boxed				Bulk Packed	
							1-9	10-24	25-49	50-99	100-249	250-499
IF302	A-53	1:3	1 3/4 x 2 3/4 x 1 1/2	A	2"	1/2	2.34	2.11	1.99	1.87	1.35	1.23
IF918	A-53C	1:3	1 3/4 x 2 3/4 x 1 3/8	A	2	1/2	2.74	2.47	2.33	2.19	1.53	1.40
IF294	A-52C	1:2	1 3/4 x 2 3/4 x 1 3/8	A	2	1/4	2.57	2.31	2.18	2.06	1.49	1.36
IF291	A-63C	1:3	1 3/4 x 2 3/4 x 1 1/2	A	2 3/8	3/4	3.22	2.90	2.74	2.58	1.79	1.63
IF300	A4711	1:1	1 3/4 x 2 3/4 x 1 1/2	A	2 3/8	3/4	3.85	3.47	3.27	3.08	2.14	1.95

PHOTOFLASH TRANSFORMER

Stk. No.	Type No.	Application	Wt. Lbs.	1-9	10-24	25-49	50-99
IF086	P-6425	Power transformer for AC powered Electronic flash circuits	1 1/4	4.17	3.75	3.54	3.34
IF087	P-6426	Trigger Coil for 450V flash	1/8	1.84	1.66	1.56	1.47

STEP-DOWN TRANSFORMERS

Type SD. For operating 115 volt equipment from 230 volts, 50-60 cycles AC for source, "Sealed in Steel" corrosion-proof. With 8 ft. cord, plug, standard receptacle on case.

Stk No.	Type	Watts	Lbs.	Size	1-9	10-24	25-49	50-99	100-249	250-499
4F141	SD-50	50	2 3/4	3 1/2 x 2 1/2 x 2 7/8"	7.57	6.81	6.43	6.06	4.50	4.10
4F142	SD-100	100	4 1/4	4 1/2 x 3 1/2 x 3 1/2"	9.80	8.82	8.33	7.84	5.83	5.31
4F143	SD-150	150	7	5 1/2 x 4 1/2 x 4 1/2"	14.69	13.22	12.49	11.75	8.73	7.95
4F144	SD-250	250	8 3/4	5 1/2 x 5 1/2 x 4 9/16"	16.54	14.89	14.06	13.23	9.83	8.95
4F145	SD-500	500	14 1/2	5 7/8 x 6 1/2 x 5 1/8"	21.84	19.66	18.57	17.47	12.98	11.82
4F146	SD-1000	1000	22 1/2	6 1/2 x 7 1/2 x 6 1/8"	35.70	32.13	30.35	28.56	21.22	19.32

Primary: 50/60 cycles.

ISOLATION TRANSFORMERS

Stk. No.	Type No.	Input Voltage	Output Voltage	Watts	Lbs.	Size	Each, Boxed				Bulk Packed	
							1-9	10-24	25-49	50-99	100-249	250-499
IF919	IS-50	105/115/125	125/115/105	50	5	3 1/2 x 3 1/2 x 4 1/8"	12.22	11.00	10.39	9.78	7.27	6.62
IF920	IS-100	105/115/125	125/115/105	100	8 1/2	4 1/2 x 4 1/2 x 5 1/8"	21.29	19.16	18.10	17.03	12.65	11.52
IF921	IS-250	105/115/125	125/115/105	250	18 1/4	5 1/2 x 4 1/2 x 6 1/8"	32.05	28.85	27.24	25.64	19.05	17.34

STEP-STEPDOWN AUTOTRANSFORMERS

Type PSU. Designed specifically for use with air conditioners in converting a 208 volt unit to a 230 volt line. 60 cycle operation, 208 v/230 v, 230 v/208 v. Converting from 230 volt unit to a 208 volt line is done by a simple connection inside outlet box. Unit is for air conditioners using 1 to 2 hp motors.

Stk. No.	Type No.	Size	Mtg. Ctrs.	Wt. Lbs.	Each, Boxed				Bulk Packed		
					1-9	10-24	25-49	50-99	100-249	250-499	
IF922	PSU-3000	4x4 1/2 x 6	2 1/2 x 3 3/4	PSU	10	23.12	20.81	19.85	18.50	13.74	12.51

230 TO 115 VOLT STEP-DOWN AUTOFORMERS

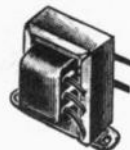
Fig. KA. Reduce 230 VAC to 115V 50/60 cyc. Std. Fem. receptacle on shell, UL-approved 6-ft. cord and plug included. RMS test insulation 1500V.

Stk. No.	Type	Watts	Fig.	Size	Lbs.	1-9	10-24	25-49	50-99	100-249	250-499
IF320	P-6287	40	KA	3 1/2 x 2 1/2 x 2 5/8"	2 1/4	7.60	6.84	6.46	6.08	4.52	4.12
IF321	P-5062	80	KA	3 1/2 x 3 3/4 x 2 1/2"	4	8.52	7.67	7.24	6.82	5.07	4.62
IF322	P-5063	100	KA	3 1/2 x 3 3/4 x 3 1/8"	4 1/2	9.87	8.88	8.39	7.90	5.88	5.36
IF323	P-5064	150	KA	4 1/2 x 4 1/2 x 3 3/8"	5 1/4	11.19	10.07	9.51	8.95	6.65	6.06
IF324	P-5065	300	KA	4 3/4 x 4 1/2 x 4 1/8"	9	14.77	13.29	12.55	11.82	8.48	7.72
IF325	P-6141	500	KA	4 1/2 x 5 1/2 x 4 3/8"	14	19.55	17.60	16.62	15.64	11.63	10.59

STRAIGHT ISOLATION TRANSFORMERS

Heavy duty. Maintain rated wattage. Good pri-sec. isolation: Switched 105-115-125V., 50/60-cy., pri. taps; std. AC recept. 115-V sec. P-6415: test TV and radio recvrs.; 105, 115, 125V output recept., 117V, 60 cyc. pri.

Stk. No.	Type	Watts	Fig.	Size	Lbs.	1-9	10-24	25-49	50-99	100-249	250-499
IF923	P-6161	250	KA	4 3/4 x 4 x 5 3/8"	14.2	22.90	20.61	19.47	18.32	.....	.....
IF924	P-6125	1000	KA	7 3/4 x 5 5/8 x 7 3/8"	34.8	85.20	76.68	72.42	68.16	.....	.....
IF915	P-6160	100	KA	4 3/4 x 4 x 3 7/8"	7	16.47	14.82	14.00	13.18	9.79	8.91
IF916	P-6415	350	KC	5 3/4 x 4 1/2 x 5 3/8"	17	27.65	24.89	23.50	22.12	16.43	14.96
IF317	P-6410	50	.....	3 9/8 x 2 1/2 x 3 1/8"	4	8.49	7.64	7.22	6.79	4.88	4.45
IF319	P-6298	500	KA	7 5/8 x 6 1/2 x 7 3/8"	28.0	59.70	53.73	50.75	47.76	35.48	32.29
IF404	P-6371	175	TE	5 9/8 x 4 3/8 x 5 3/4"	9	22.12	19.91	18.80	17.70	12.69	11.55



Type VE



Fig. C

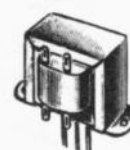


Fig. Q



Type SD



Fig. KA



Fig. TE



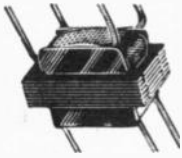
Fig. KC



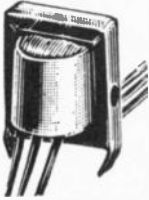
Thordarson Transistor Transformers

AUDIO TRANSISTOR TRANSFORMER — OPEN FRAME

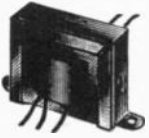
(*) Split Center Tap Winding



MAH



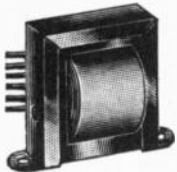
BCH



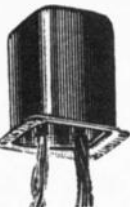
BAH



GGV



BAV



TAV

Stock No.	Type	Mfg. Type	Impedance		Application	Mfg. Cntrs.	Power MW	1-9	10-49	50-99	100-499
			Primary	Secondary							
5F1500	TR-303	BAV	30	120*	D	2	4W	3.00	2.55	2.40	2.20
5F1501	TR-225	MAH	80CT	32*	D	.....	.....	.....	.....	.....	.....
			100CT	40*	I	.....	250	3.90	3.32	3.12	2.86
5F1502	TR-12	BCH	100CT	10CT	I	1 1/16	150	3.90	3.22	3.12	2.86
5F1503	TR-64	BAH	100	100CT	D	1 1/4	500	3.30	2.80	2.64	2.42
5F1504	TR-65	BAH	100	200CT	D	1 1/4	500	3.00	2.55	2.40	2.20
5F1505	TR-257	BAH	100	1000CT	I	2	1W	3.00	2.55	2.40	2.20
5F1506	TR-246	BAH	200CT	2000CT	I	1 1/8	200	3.90	3.32	3.12	2.86
5F1507	TR-224	MAH	400CT	40*	J	.....	250	3.90	3.32	3.12	2.86
			500CT	50*	J	.....	250	3.90	3.32	3.12	2.86
5F1508	TR-223	MAH	400CT	120*	J	.....	250	3.90	3.32	3.12	2.86
			500CT	150*	J	.....	250	3.90	3.32	3.12	2.86
5F1509	TR-222	MAH	400CT	400*	J	.....	250	3.90	3.32	3.12	2.86
			500CT	500*	J	.....	250	3.90	3.32	3.12	2.86
5F1510	TR-247	BAH	400CT	2000CT	I	1 1/8	200	3.90	3.32	3.12	2.86
5F1511	TR-5	BCH	490CT	150CT	D	1 1/16	150	3.60	3.06	2.88	2.64
5F1512	TR-11	BCH	500CT	50	D, S	1 1/16	150	3.60	3.06	2.88	2.64
5F1514	TR-66	BAH	500CT	200CT	D	1 1/4	500	3.00	2.55	2.40	2.20
5F1515	TR-37	MAH	500CT	500CT	S	.....	50	3.60	3.06	2.88	2.64
5F1516	TR-1	BAH	500CT	500CT	D, S	1 1/8	300	3.60	3.06	2.88	2.64
5F1517	TR-259	BAH	500CT	5000CT	I	2	1W	3.30	2.80	2.64	2.42
5F1518	TR-295	BAH	600CT	10	I	1 1/8	50	3.00	2.55	2.40	2.20
5F1520	TR-423	BAH	600	600	D, J	1 1/8	200	3.75	3.19	3.00	2.62
			600CT	600CT	J	1 1/8	200	3.75	3.19	3.00	2.62
5F1523	TR-445	BAH	608CT	1200CT	J	1 1/8	200	3.75	3.19	3.00	2.62
5F1524	TR-205	MAH	1000	50	S	.....	100	3.00	2.55	2.40	2.20
			1200	60	S	.....	100	4.50	3.85	3.60	3.30
5F1525	TR-238	BAH	1000	200CT	D	1 1/16	150	3.60	3.06	2.88	2.64
5F1526	TR-4	BCH	1500	500CT	D, S	1 1/16	150	3.60	3.06	2.88	2.64
5F1527	TR-213	MAH	1500CT	600CT	I, S	.....	100	3.00	2.55	2.40	2.20
5F1528	TR-260	BAH	2000CT	200CT	D	1 1/8	100	4.50	3.85	3.60	3.30
5F1529	TR-421	BAH	2000CT	500CT	I	1	600	4.18	3.55	3.33	2.90
5F1530	TR-413	BAH	2500	2500CT	I	1	200	3.75	3.19	3.00	2.62
5F1532	TR-407	BAH	4000CT	600CT	I	1	600	4.18	3.55	3.33	2.90
5F1534	TR-454	BAH	4000CT	600*	D, J	1 1/8	1.5W	4.18	3.55	3.33	2.90
5F1535	TR-2	BCH	5000CT	7500CT	D, I	1 1/16	150	3.60	3.06	2.88	2.64
5F1536	TR-3	BCH	5000CT	10000CT	D, I	1 1/16	150	3.60	3.06	2.88	2.64
5F1537	TR-108	BCH	5000CT	80000CT	A, I	1 1/16	150	4.50	3.85	3.60	3.30
5F1538	TR-38	MAH	6000	5000CT	D, J	.....	50	3.90	3.32	3.12	2.86
5F1539	TR-415	BAH	7500CT	600CT	I	1	150	4.18	3.55	3.33	2.90
5F1540	TR-420	BAH	7500CT	1200CT	I	1	150	4.18	3.55	3.33	2.90
5F1541	TR-23	BCH	10000	200CT	D, S	1 1/16	150	3.60	3.06	2.88	2.64
5F1542	TR-207	MAH	10000CT	200CT	J	.....	100	3.90	3.32	3.12	2.86
			25000CT	500CT	J	.....	100	3.90	3.32	3.12	2.86
5F1543	TR-210	MAH	10000	500CT	D, S	.....	100	3.00	2.55	2.40	2.20
			12500	600CT	D, S	.....	100	3.00	2.55	2.40	2.20
5F1545	TR-215	MAH	10000CT	1500CT	J	.....	100	3.60	3.06	2.88	2.64
			12000CT	1800CT	J	.....	100	3.60	3.06	2.88	2.64
5F1546	TR-201	MAH	10000	2000CT	I	.....	100	3.90	3.32	3.12	2.86
5F1547	TR-7	BCH	10000	2000CT	I	1 1/16	150	3.60	3.06	2.88	2.64
5F1548	TR-219	MAH	10000	2000CT	D, J	.....	200	3.30	2.80	2.64	2.42
5F1550	TR-6	BCH	10000	3000CT	D, J	1 1/16	150	3.60	3.06	2.88	2.64
5F1551	TR-419	BAH	10000CT	10000CT	J	1	100	4.18	3.55	3.33	2.90
5F1552	TR-216	MAH	10000CT	10000CT	J	.....	100	4.50	3.85	3.60	3.30
			12000CT	12000CT	J, S	1 1/16	150	3.90	3.32	3.12	2.86
5F1553	TR-25	BCH	15000	200CT	J, S	1 1/16	150	3.90	3.32	3.12	2.86
5F1554	TR-200	MAH	20000	800	J	.....	100	3.00	2.55	2.40	2.20
			30000	1200	J	.....	100	3.00	2.55	2.40	2.20
5F1555	TR-218	MAH	20000	800	J	.....	200	3.00	2.55	2.40	2.20
			30000	1200	J	.....	200	3.00	2.55	2.40	2.20
5F1556	TR-208	MAH	20000CT	800CT	J	.....	100	3.90	3.32	3.12	2.86
			30000CT	1200CT	J	.....	100	3.90	3.32	3.12	2.86
5F1557	TR-14	BCH	20000	1200	A, J	1 1/16	150	3.90	3.32	3.12	2.86
5F1558	TR-106	BCH	20000CT	1200	A, J	1 1/16	150	3.90	3.32	3.12	2.86
5F1559	TR-261	BAH	20000CT	2000CT	D	1 1/8	200	4.50	3.85	3.60	3.30
5F1560	TR-406	BAH	25000	600	J	1	100	3.13	2.65	2.50	2.17
5F1561	TR-435	BAH	25000CT	1200CT	J	1 1/8	100	4.50	3.85	3.60	3.30
5F1563	TR-217	MAH	40000CT	400*	J	1 1/8	100	4.50	3.85	3.60	3.30
			50000CT	500*	J	.....	100	4.50	3.85	3.60	3.30
5F1564	TR-34	BCH	50000	30CT	A	1 1/16	150	3.60	3.06	2.88	2.64
5F1565	TR-30	BCH	50000	200CT	A, S	1 1/16	150	3.90	3.32	3.12	2.86
5F1566	TR-26	BCH	50000	500CT	A, D	1 1/16	150	3.90	3.32	3.12	2.86
5F1567	TR-400	BAH	50000	600	A, J	1	100	3.75	3.19	3.00	2.62
5F1569	TR-24	BAH	100000	1500CT	A, J	1 1/8	300	3.60	3.06	2.88	2.64
5F1570	TR-206	MAH	200000	1000	A	.....	5	3.90	3.32	3.12	2.86
5F1571	TR-214	MAH	200000CT	1000CT	A	.....	5	4.50	3.85	3.60	3.30
5F1572	TR-28	BAH	200000	1000	A	1 1/8	300	3.90	3.32	3.12	2.86
5F1573	TR-119	BAH	200000CT	1000CT	A	1 1/8	300	3.90	3.32	3.12	2.86
5F1574	TR-36	BAH	500000	200CT	A	1 1/8	300	3.90	3.32	3.12	2.86

INVERTERS DC TO AC

Converters of low voltage DC to high voltage all types of battery operated equipment. Complete AC or DC power. Ideally suited for powering instructions supplied with each transformer.

Stock No.	Type	Mfg. Type	DC Supply Voltage	Output Voltage	Power Watts	Mfg. Centers	1-9	10-49	50-99	100-499
5F1575	TR-70	GGV	12	117V@60CPS	50	1 1/2x2	14.40	12.24	11.52	10.56
5F1576	TR-71	GGV	12	117V@60CPS	110	2 1/4x2 1/2				
5F1577	TR-287	TYL	28	110/115/125V @400CPS	60	1 7/8x1 3/8				

CONVERTERS DC TO DC

5F1578	TR92	TAV	12	508/250	50	1 1/2x2 3/8	24.00	20.40	19.20	17.60
5F1579	TR-92	TAV	12	506/275	35	1 1/4x2 1/8	24.00	20.40	19.20	17.60

NOTE:
Key to application of Transformers of right
A—Input
J—Interstage
D—Driver
S—Output to Line

OUTPUT-TRANSISTOR TO VOICE COIL

Stock No.	Type	Mfg. Type	Impedance		Mtg. Cntrs.	Power Watts	1-4	5-49	50-99	100-499
			Primary	Secondary						
5F1583	TR-199	GGV	6CT	4/8/16	2 1/2 x 2 1/4	40	12.00	10.20	9.60	8.80
5F1584	TR-191	BAH	24CT	4/8	2 1/8	8	3.90	3.32	3.12	2.86
5F1585	25S81	TAV	24CT	16CT*	3 7/8 x 2 3/4	10	16.24	13.77	12.96	11.29
5F1586	TR-304	BAH	25	4	2 3/8	4	3.00	2.55	2.40	2.20
5F1587	TR-58	BAH	32CT	3.5/8/16	2 1/8	10	3.90	3.32	3.12	2.86
5F1588	TR-8	BAH	48CT	4/8	1 3/8	3	3.90	3.32	3.12	2.86
5F1589	TR-61	BHV	48CT	3.2/8/16	1 3/8	5	3.30	2.80	2.64	2.42
5F1590	TR-196	BAH	48CT	8/16	2 1/8	8	3.90	3.32	3.12	2.86
5F1591	TR-59	BAV	48CT	1.6/4	2 3/8	10	4.50	3.85	3.60	3.30
5F1592	TR-60	BHV	48CT	3.2/8/16	2 3/8	10	3.90	3.32	3.12	2.86
5F1593	TR-111	BAH	100CT	4/8/16	1 3/8	.3	4.50	3.85	3.60	3.30
5F1594	TR-193	BAH	100CT	4/8	1 3/8	2	3.90	3.32	3.12	2.86
5F1595	TR-62	BAV	100	3.2/8/16	1 1/2	3	3.60	3.06	2.88	2.64
5F1596	TR-112	BAH	160	4/8/16	1 3/8	.3	4.50	3.85	3.60	3.30
5F1597	TR-192	BAH	200CT	4/8	1 3/8	.3	3.90	3.32	3.12	2.86
5F1598	TR-265	BAH	250CT	4/8/16	1 3/8	.2	4.50	3.85	3.60	3.30
5F1599	TR-101	BCH	350CT	4/12	1 3/8	.15	4.50	3.85	3.60	3.30
5F1600	TR-22	BAH	400CT	4/8	1 3/8	.3	3.90	3.32	3.12	2.86
5F1601	TR-27	BCH	500CT	3.2	1 3/8	.15	3.90	3.32	3.12	2.86
5F1602	TR-102	BCH	500CT	4/8/16	1 3/8	.15	4.50	3.85	3.60	3.30
5F1603	TR-220	MAH	500CT	3.2	.....	.25	3.30	2.80	2.64	2.42
5F1605	TR-103	BCH	600CT	4/8/16	1 3/8	.15	4.50	3.85	3.60	3.30
5F1606	TR-115	BAH	700CT	4/8/16	1 3/8	.3	4.50	3.85	3.60	3.30
5F1607	TR-29	BCH	825CT	3.4	1 3/8	.15	3.90	3.32	3.12	2.86
5F1608	TR-116	BAH	1000	4/8/16	1 3/8	.3	4.50	3.85	3.60	3.30
5F1609	TR-209	MAH	1200-1500	3.2-4	.....	.1	3.00	2.55	2.40	2.20
5F1610	TR-105	BCH	1250	4/12	1 3/8	.15	3.90	3.32	3.13	2.86
5F1611	TR-258	BAH	2000CT	4/8/16	1 3/8	.2	4.50	3.85	3.60	3.30
5F1612	TR-221	MAH	2000-4000CT	8-16	.....	.25	3.30	2.80	2.64	2.42
5F1613	TR-117	BAH	2500	4/8/16	1 3/8	.3	4.50	3.85	3.60	3.30
5F1614	TR-118	BAH	3000	4/8/16	1 3/8	.3	4.50	3.85	3.60	3.30
5F1615	TR-211	MAH	7500-9400CT	3.2-4	.....	.1	3.00	2.55	2.40	2.20
5F1616	TR-203	MAH	10000	3.2	.....	.1	3.00	2.55	2.40	2.20
5F1617	TR-202	MAH	10000	16	.....	.1	3.00	2.55	2.40	2.20
5F1618	TR-109	BCH	10000CT	4/8/16	1 3/8	.15	4.50	3.85	3.60	3.30
5F1619	TR-402	BAH	50000	6	.....	.01	4.18	3.55	3.33	2.90

*Split CT Winding.

MINIATURE TRANSFORMERS

Top efficiency miniature transformers. Designed for a wide range of civilian and government applications. Used by many manufacturers of hearing aids and a variety of miniature electronic devices where maximum efficiency is necessary. Ideal for original equipment and for replacement.

Stock No.	Type	Mfg. Type	Impedance		Mtg. Cntrs.	Power MW	1-9	10-49	50-99	100-499
			Primary	Secondary						
5F1620	MIT-184	BAH	30/7.5	50000	1 3/8	9	4.05	3.45	3.25	2.85
5F1621	MIT-166	BAH	600/250/50	600/250/50	1 1/8	12	4.05	3.45	3.25	2.85
5F1622	MIT-182	BAH	600/250/50CT	50000	1 3/8	3	4.05	3.45	3.25	2.85
5F1623	MIT-183	BAH	600/250/50CT	50000CT	1 3/8	3	4.05	3.45	3.25	2.85
5F1624	MIT-167	BAH	5000CT	5000CT	1 1/8	12	4.05	3.45	3.25	2.85
5F1625	MIT-143	MAH	10000 to 25000	200 to 500	.....	200	3.30	2.80	2.64	2.30
5F1626	MIT-189	BAH	15000	600/250/50CT	1 3/8	8	3.50	3.00	2.80	2.45
5F1627	MIT-186	BAH	15000	60000	1 3/8	25	4.05	3.45	3.25	2.85
5F1628	MIT-187	BAH	15000	95000CT	1 3/8	3	3.50	3.00	2.80	2.45
5F1629	MIT-73	MAH	25000	500	.....	9	3.75	3.19	3.00	2.61
5F1630	MIT-76	MAH	30000	50	.....	9	3.75	3.19	3.00	2.61
5F1631	MIT-144	MAH	30000	50	.....	200	3.30	2.80	2.64	2.30
5F1632	MIT-191	BAH	30000CT	600/250/50CT	1 3/8	8	3.50	3.00	2.80	2.45
5F1633	MIT-79	MAH	100000	60	.....	9	3.75	3.19	3.00	2.61
5F1634	MIT-146	MAH	100000	60	.....	200	3.60	3.06	2.88	2.51

MINIATURE AUDIO INDUCTORS

Stock No.	Type	Series Connected			Mtg. Type	1-9	10-49	50-99	100-499
		Inductance-Henrys	MADC	Resistance-Ohms					
5F1635	MIT-140	3.5	2	160	MAH	2.70	2.30	2.16	1.88
5F1636	MIT-139	8	2	650	MAH	2.70	2.30	2.16	1.88
5F1637	MIT-82	50	1	4500	MAH	3.75	3.19	3.00	2.61
5F1638	MIT-145	50	1	2675	MAH	2.70	2.30	2.16	1.88
5F1639	MIT-194	300/50	0/3	6000	BAH	3.50	3.00	2.80	2.45

TRANSISTOR BLOCKING OSCILLATOR-CONVERTERS

Designed specifically for use in single transistor blocking oscillator circuits. The DC output voltage of TR-464 is rated for a quadruple rectifier circuit and may vary some due to bias.

Stock No.	Type	DC Supply Voltage	DC Output Voltage	Output Current in Micro Amps	Mtg. Type	1-9	10-49	50-99	100-499
5F1580	TR-464	4	425/500	50	MAH	4.86	4.13	3.89	3.38
5F1581	TR-462	3	1000 (1/2 Wave)	25	BAH	4.86	4.13	3.89	3.38

(TRANSISTOR CONVERTER (Mobile or Fixed Power Supply))

Stock No.	Type	Primaries	Secondaries	Type Mtg.	1-9	10-49	50-99	100-499
5F1582	TR-294	12.6 Volts DC or 117V AC @ 60 Cycles	280 V DC @ 150 MADC 12.6V AC @ 3 Amps (117 Volt Pri. only)	GGV	14.40	12.24	11.52	10.56



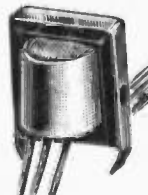
BAH



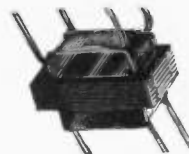
TAV



BHV



BCH



MAH



GGV



Thordarson MIL-T-27B Transformers

MINIATURE TRANSISTOR TRANSFORMER

Designed and built to meet MIL-T-27B Grade 4 specifications. Freq range: 200-20000 Cycles.

Stock No.	Type	MIL-T-27B Class.	Case Type	Impedance		Application	Pwr. MW	1-9	10-49	50-99	100-499
				Primary	Secondary						
5F1640	MIT-241	TF4RX17YY	RAV-6	400/500CT	400/500*	J, S, P	500	7.50	6.38	6.00	5.22
5F1641	MIT-247	TF4RX13YY	RAV-6	9000/10000CT†	9000/10000CT	J, P	100	7.50	6.38	6.00	5.22
5F1642	MIT-236	TF4RX13YY	RAV-6	10000/12000CT	10000/12000CT	J, P	100	7.05	6.00	5.84	4.91
5F1643	MIT-220	TF4RX17YY	RAV-6	500CT	600	S, M	500	6.00	5.10	4.80	4.18
5F1644	MIT-221	TF4RX17YY	RAV-6	900CT	600	S	500	6.00	5.10	4.80	4.18
5F1645	MIT-219	TF4RX17YY	RAV-6	300CT	600	S, M	500	6.00	5.10	4.80	4.18
5F1646	MIT-244	TF4RX17YY	RAV-6	80/100CT	32/40*	J, M, S	500	7.50	6.38	6.00	5.22
5F1647	MIT-222	TF4RX13YY	RAV-6	1500CT	600	S, M	500	6.00	5.10	4.80	4.18
5F1648	MIT-242	TF4RX17YY	RAV-6	400/500CT	120/150*	D, J	500	7.50	6.38	6.00	5.22
5F1649	MIT-237	TF4RX13YY	RAV-6	2000/2500CT	8000/10000*	J, P	100	7.05	6.00	5.84	4.91
5F1650	MIT-211	TF4RX13YY	RAV-6	10000/12500	2000/2500CT	D, J	100	6.00	5.10	4.80	4.18
5F1651	MIT-238	TF4RX13YY	RAV-6	10000/12000CT	2000/2400*	D, J	100	7.05	6.00	5.84	4.91
5F1652	MIT-225	TF4RX13YY	RAV-6	10000/12000CT	1500/1800CT	D, J	100	7.05	6.00	5.84	4.91
5F1653	MIT-210	TF4RX13YY	RAV-6	10000/12500	1200/1500CT	D, J	100	6.00	5.10	4.80	4.18
5F1654	MIT-243	TF4RX17YY	RAV-6	400/500CT	40/50*	J, M, S	500	7.50	6.38	6.00	5.22
5F1655	MIT-202	TF4RX17YY	RAV-6	500/600	50/60	S, M	100	5.40	4.59	4.32	3.76
5F1656	MIT-212	TF4RX17YY	RAV-6	150/200CT	12/16	S	500	6.00	5.10	4.80	4.18
5F1657	MIT-245	TF4RX12YY	RAV-6	1000/1250CT	16000/20000*	J, P	100	7.05	6.00	5.84	4.91
5F1658	MIT-203	TF4RX13YY	RAV-6	1000/1200	50/60	S, M	100	5.40	4.59	4.32	3.76
5F1659	MIT-209	TF4RX13YY	RAV-6	10000/12000	500/600CT	D, S	100	6.00	5.10	4.80	4.18
5F1660	MIT-239	TF4RX13YY	RAV-6	20000/30000CT	1000/1500*	D, J	100	7.05	6.00	5.84	4.91
5F1661	MIT-213	TF4RX17YY	RAV-6	300/400CT	12/16	D, J	500	5.40	4.59	4.32	3.76
5F1662	MIT-201	TF4RX13YY	RAV-6	20000/30000	800/1200	D, J	50	6.00	5.10	4.80	4.18
5F1663	MIT-223	TF4RX13YY	RAV-6	20000/30000CT	800/1200CT	D, J	100	6.00	5.10	4.80	4.18
5F1664	MIT-229	TF4RX17YY	RAV-6	120/150CT	3,2/4	S	500	5.40	4.59	4.32	3.76
5F1665	MIT-214	TF4RX17YY	RAV-6	600/800CT	12/16	S	500	6.00	5.10	4.80	4.18
5F1666	MIT-215	TF4RX17YY	RAV-6	800/1070CT	12/16	S	500	6.00	5.10	4.80	4.18
5F1667	MIT-230	TF4RX17YY	RAV-6	320/400CT	3,2/4	S	500	5.40	4.59	4.32	3.76
5F1668	MIT-217	TF4RX13YY	RAV-6	1500/2000CT	12/16	S	500	6.00	5.10	4.80	4.18
5F1669	MIT-204	TF4RX17YY	RAV-6	600	3,2	S, M	100	5.40	4.59	4.32	3.76
5F1670	MIT-231	TF4RX17YY	RAV-6	640/800CT	3,2/4	S	500	6.00	5.10	4.80	4.18
5F1671	MIT-246	TF4RX16YY	RAV-6	1000000CT†	500CT	A	25	7.50	6.38	6.00	5.22
5F1672	MIT-207	TF4RX16YY	RAV-6	2000000	1000	A	25	6.00	5.10	4.80	4.18
5F1673	MIT-224	TF4RX16YY	RAV-6	2200000CT	1000CT	A	25	7.05	6.00	5.84	4.91
5F1674	MIT-232	TF4RX17YY	RAV-6	800/1000CT	3,2/4	S	500	6.00	5.10	4.80	4.18
5F1675	MIT-233	TF4RX13YY	RAV-6	1060/1330CT	3,2/4	S	500	6.00	5.10	4.80	4.18
5F1676	MIT-205	TF4RX13YY	RAV-6	1200	3,2	S	100	5.40	4.59	4.32	3.76
5F1677	MIT-234	TF4RX13YY	RAV-6	1600/2000CT	3,2/4	S	500	6.00	5.10	4.80	4.18
5F1678	MIT-218	TF4RX13YY	RAV-6	7500/10000CT	12/16	S	100	6.00	5.10	4.80	4.18
5F1679	MIT-240	TF4RX13YY	RAV-6	40000/50000CT	400/500*	J, S	50	7.50	6.38	6.00	5.22
5F1680	MIT-235	TF4RX13YY	RAV-6	8000/10000CT	3,2/4	S	500	6.00	5.10	4.80	4.18
5F1681	MIT-206	TF4RX13YY	RAV-6	10000	3,2	S	100	5.40	4.59	4.32	3.76
5F1682	MIT-249	TF4RX20YY	RAV-6	Series: 8H @ 3MADC Parallel: 2H @ 6MADC		Ind.	.....	7.50	6.38	6.00	5.22
5F1683	MIT-226	TF4RX20YY	RAV-6	1.5H @ 5MADC		Ind.	.....	5.40	4.59	4.32	3.76
5F1684	MIT-208	TF4RX20YY	RAV-6	1H @ 5MADC		Ind.	.....	5.40	4.59	4.32	3.76
5F1685	MIT-227	TF4RX20YY	RAV-6	.5H @ 11MADC		Ind.	.....	4.80	4.08	3.84	3.34
5F1686	MIT-228	TF4RX20YY	RAV-6	1.5H @ 20MADC		Ind.	.....	4.80	4.08	3.84	3.34
5F1687	MIT-250	TF4RX20YY	RAV-6	Series: .06H @ 30MADC Parallel: .015H @ 60MADC		Ind.	.....	5.40	4.59	4.32	3.76
5F1688	MIT-200	TF4RX03YY	RAV-6	Primary: 28V @ 380-1000 Cycles Secondary: 6.3V @ 60MADC		Fil.	.....	6.00	5.10	4.80	4.18
5F1689	MIT-300		RAV-6	High permeability cover, shield 20-30DB shielding		Shd.	.....	.90	.77	.72	.63
5F1690	MIT-271	TF4RX17YY	RAV-4	400/500CT	400/500*	J, S, P	500	7.05	6.00	5.84	4.91
5F1691	MIT-268	TF4RX13YY	RAV-4	10000/12000CT	10000/12000CT	J, P	100	7.05	6.00	5.84	4.91
5F1692	MIT-252	TF4RX13YY	RAV-4	1500CT	600	S	500	5.40	4.59	4.32	3.76
5F1693	MIT-270	TF4RX13YY	RAV-4	10000/12000CT	2000/2400*	J	100	7.05	6.00	5.84	4.91
5F1694	MIT-264	TF4RX13YY	RAV-4	10000/12000CT	1500/1800CT	J	100	7.05	6.00	5.84	4.91
5F1695	MIT-251	TF4RX13YY	RAV-4	10000/12000	500/600CT	D, S	100	6.00	5.10	4.80	4.18
5F1696	MIT-253	TF4RX13YY	RAV-4	20000/30000CT	800/1200CT	D, J	50	6.00	5.10	4.80	4.18
5F1697	MIT-258	TF4RX20YY	RAV-4	.9H @ 4MADC		Ind.	.....	4.32	3.68	3.47	3.03
5F1698	MIT-266	TF4RX20YY	RAV-4	.5H @ 6MADC		Ind.	.....	4.32	3.88	3.47	3.03
5F1699	MIT-295		RAV-4	High permeability cover, shield 25-30DB shielding		Shd.	.....	.90	.77	.72	.63

†Static Shielded; *Split Winding

INPUT-INTERSTAGE-DRIVER

Designed and built to meet all the requirements of MIL-T-27B specifications. Both Transistor and tube type transformers may be used at slightly different impedances. All enclosed except *molded.

Stock No.	Type	MIL-T-27B Class.	Case Type	Impedance		Application	Power MW	1-9	10-49	50-99	100-499
				Primary	Sec.						
5F1700	27A46	TF4RX17YY	NSV-2	500CT	500CT*	Tr. to line	1	14.85	12.60	11.90	10.35
5F1701	27A20	TF4RX10YY	NSV-4	500CT/500CT/500CT/50	50000	Line to grid	3.2	8.70	7.39	6.96	6.06
5F1702	27A121†	TF4RX16YY	YY-18	600/150CT	600/150CT	Tr. Interstage	31	30.00	25.50	24.00	22.00
5F1703	27A196†	TF4RX17YY	NSV-2B	600	600	Tr. Interstage	150	7.20	6.12	5.76	5.02
5F1704	27A37	TF4RX16YY	NSV-2	600CT*	600CT	Mix or Match	6.3	8.10	6.88	6.48	5.64
5F1705	27A120†	TF4RX10YY	YY-18	600CT*	50000CT*	Line to grid	31	30.00	25.50	24.00	22.00
5F1706	27A32	TF4RX10YY	NSV-2	600/150CT*	1 MEG	Line to grid	10	8.10	6.88	6.48	5.64
5F1707	27D39**	TF5RX13ZZ	M3	10000CT	500CT	Driver	50	8.70	7.40	6.96	6.38
5F1708	27D37**	TF5RX13ZZ	M3	10000CT	1200CT	Driver	50	6.60	5.61	5.28	4.84
5F1709	27A112**	TF5RX13ZZ	M3	10000CT	1500CT	Tr. Interstage	50	7.50	6.37	6.00	5.50
5F1710	27A47	TF4RX13YY	NSV-4	10000CT*	2000CT*	Tr. Interstage	1	13.50	11.47	10.80	9.40
5F1711	27D38**	TF5RX13ZZ	M3	10000CT	2000CT	Driver	50	6.60	5.61	5.28	4.84
5F1712	27A33	TF4RX13YY	NSV-2	10000CT*	2000CT*	Tr. Interstage	100	9.90	8.41	7.92	7.26
5F1713	27A34	TF4RX13YY	NSV-2	10000CT*	4000CT*	Tr. Interstage	100	9.90	8.41	7.92	7.26

†Shielded for -70 DB hum reduction; *Split C.T. Winding

NOTE

Key to application of Transistor Transformers at right

- A—Input
- D—Driver
- J—Interstage
- M—Mixing or Matching
- P—Pulse Applications
- S—Output

Thordarson MIL-T-27B Transformers



INPUT-INTERSTAGE-DRIVER (Continued)

Stock No.	Type	MIL-T-27B Classification	Impedance		Case Type	Application	Power MW	Power			
			Primary	Sec.				1-9	10-49	50-99	100-499
5F1714	27A124	TF4RX10YY	10000	50000CT*	YY-18	Interstage	31	30.00	25.50	24.00	22.00
5F1715	27S18	TF4RX15YY	10000	90000	TSM	Plate to Grid	20	7.65	6.50	6.12	5.32
5F1716	27A30	TF4RX15YY	10000	1 MEG	NSV-2	Interstage	10	8.10	6.88	6.48	5.64
5F1717	27A24	TF4RX15YY	15000	60000CT	NSV-2	Plate to Grid	25	7.50	6.37	6.00	5.22
5F1718	27A44	TF4RX15YY	15000CT*	80000CT*	NSV-4	Plate to Grid	15	14.85	12.60	11.90	10.35
5F1719	27A45	TF4RX15YY	15000	80000CT*	NSV-4	Plate to Grid	200	16.20	13.77	12.96	11.28
5F1720	27A25	TF4RX10YY	15000	95000CT	NSV-2	Plate to Grid	3.2	8.70	7.39	6.96	6.06
5F1721	27A26	TF4RX15YY	15000	95000CT*	NSV-2	Plate to Grid	12	8.90	8.41	7.92	7.26
5F1722	27A125	TF4RX21FA	20000CT*	20000CT*	FA	Plate to Grid	3.1W	30.00	25.50	24.00	22.00
5F1723	27A110**	TF5RX12ZZ	25000	1000	M3	Tr. Interstage	40	7.20	6.12	5.76	5.02
5F1724	27A111**	TF5RX12ZZ	25000CT	1000CT	M3	Tr. Interstage	40	7.20	6.12	5.76	5.02
5F1725	27A108**	TF5RX16ZZ	50000CT	1000CT	M3	Tr. Interstage	25	8.10	6.88	6.48	5.64
5F1726	27A109**	TF5RX16ZZ	200000	1000	M3	Input	10	7.20	6.12	5.76	5.02
5F1727	27A107**	TF5RX16ZZ	200000CT	1000CT	M3	Input to Chop.	10	8.10	6.88	6.48	5.64

*Split C.T. Winding.

STEEL JACKET OUTPUT TRANSFORMERS

Built to meet all the requirements of MIL-T-27B impedance. Includes transistor and tube type. All specifications. Listed in order of the primary enclosed except ** molded.

Stock No.	Type	MIL-T-27B Class.	Case Type	Impedance		Application	Pwr. MW	Power			
				Primary	Secondary			1-9	10-49	50-99	100-499
5F1728	27S103	TF5RX17ZZ	M3	120CT	3.2	Tr. to V.C.	50	6.00	5.10	4.80	4.40
5F1729	27S100**	TF5RX17ZZ	M3	500CT	600	Output or Mix.	50	6.00	5.10	4.80	4.40
5F1730	27S105**	TF5RX17ZZ	M3	600CT	3.2	Tr. to V.C.	50	6.00	5.10	4.80	4.40
5F1731	27S95**	TF5RX17ZZ	M3	600CT	12	Tr. to V.C.	50	7.50	6.38	6.00	5.23
5F1732	27S111**	TF5RX17ZZ	M3	600CT	600CT	Tr. to Line	50	7.50	6.38	6.00	5.23
5F1733	27S101**	TF5RX17ZZ	M3	900CT	600	Tr. to Line	50	6.00	5.10	4.80	4.40
5F1734	27S89**	TF5RX17ZZ	M3	1000	50	Tr. to Line	5	8.00	5.10	4.80	4.40
5F1735	27S35	TF4RX13YY	NSV-2	1500CT	500CT*	Tr. to Line	100	8.40	7.14	6.72	5.85
5F1736	27S102**	TF5RX13ZZ	M3	1500CT	600	Tr. to Line	50	6.00	5.10	4.80	4.40
5F1737	27S122	TF4RX13YY	YY-21	5000	4/8/16/150/600	Plate to Line	5W	13.50	11.48	10.80	9.90
5F1738	27S98**	TF5RX13ZZ	M3	7500CT	12	Plate to V.C.	50	7.50	6.38	6.00	5.23
5F1739	27S109**	TF5RX13ZZ	M3	8000CT	3.2	Tr. to V.C.	50	7.50	6.38	6.00	5.23
5F1740	27S19	TF4RX13YY	TSM	1000-25000	200-500	Plate to Line	20	7.85	6.50	6.12	5.32
5F1741	27S110**	TF5RX13ZZ	M3	10000CT	10000CT	Output or Isol.	50	7.50	6.38	6.00	5.23
5F1742	27S24	TF4RX13YY	NSV-4	15000	50/125/200/500	Plate to Line	200	14.40	12.24	11.52	10.00
5F1743	27S31	TF4RX13YY	NSV-2	20000CT	600CT*	Plate to Line	125	8.40	7.14	6.72	5.85
5F1744	27S118	TF4RX13YY	YY-27	20000CT*	600CT*	Plate to Line	1W	15.00	12.75	12.00	11.00
5F1745	27S25	TF4RX13YY	NSV-4	30000CT*	50/125/200/500	Plate to Low I.	80	14.40	12.24	11.52	10.00

*Split C.T. Winding.

MOLDED TOROID INDUCTORS

Toroid wound coils built to meet MIL-T-27B, 2% inductance tolerance. Easily stacked for multiple coil applications. Molded case. Case TM.

Stock No.	Type	Induct. MH	Resis. Ohms	Case — Mfg. Type TM			1-9	10-49	50-99	100-499
				Diameter	Height	Hole Dia.				
5F1746	TOR-748	1	.40	1 1/16	1/2	.144	5.40	4.60	4.32	3.96
5F1747	TOR-775	1	.40	1 1/16	2 3/32	.173	5.40	4.60	4.32	3.96
5F1748	TOR-749	2	.58	1 1/16	1/2	.144	5.40	4.60	4.32	3.96
5F1749	TOR-776	2	.56	1 1/16	2 3/32	.173	5.40	4.60	4.32	3.96
5F1750	TOR-777	3	.70	1 1/16	2 3/32	.173	5.40	4.60	4.32	3.96
5F1751	TOR-778	4	.82	1 1/16	2 3/32	.173	5.40	4.60	4.32	3.96
5F1752	TOR-779	5	.90	1 1/16	2 3/32	.173	5.40	4.60	4.32	3.96
5F1753	TOR-755	10	2.1	1 1/16	1/2	.144	5.10	4.23	4.08	3.74
5F1754	TOR-281	10	1.3	1 1/16	2 3/32	.173	5.70	4.85	4.56	4.18
5F1755	TOR-782	15	1.6	1 1/16	2 3/32	.173	5.70	4.85	4.56	4.18
5F1756	TOR-783	20	1.85	1 1/16	2 3/32	.173	6.00	5.10	4.80	4.40
5F1757	TOR-784	30	2.85	1 1/16	2 3/32	.173	6.00	5.10	4.80	4.40
5F1758	TOR-761	50	11	1 1/16	1/2	.144	5.10	4.23	4.08	3.74
5F1759	TOR-786	50	5.5	1 1/16	2 3/32	.173	6.00	5.10	4.80	4.40
5F1760	TOR-764	100	23	1 1/16	1/2	.144	5.10	4.23	4.08	3.74
5F1761	TOR-788	100	13	1 1/16	2 3/32	.173	6.00	5.10	4.80	4.40
5F1762	TOR-789	200	23	1 1/16	2 3/32	.173	6.00	5.10	4.80	4.40
5F1763	TOR-790	250	33	1 1/16	2 3/32	.173	6.00	5.10	4.80	4.40
5F1764	TOR-791	300	38	1 1/16	2 3/32	.173	5.40	4.60	4.32	3.96
5F1765	TOR-793	500	63.5	1 1/16	2 3/32	.173	6.30	5.36	5.04	4.62
5F1766	TOR-795	700	80	1 1/16	2 3/32	.173	6.60	5.61	5.28	4.84
5F1767	TOR-774	1000	260	1 1/16	1/2	.144	6.00	5.10	4.80	4.40
5F1768	TOR-796	1000	128	1 1/16	2 3/32	.173	6.60	5.61	5.28	4.84
5F1769	TOR-798	2000	220	1 1/16	2 3/32	.173	6.60	5.61	5.28	4.84
5F1770	TOR-799	3000	370	1 1/16	2 3/32	.173	6.60	5.61	5.28	4.84
5F1771	TOR-7101	5000	645	1 1/16	2 3/32	.173	6.60	5.61	5.28	4.84
5F1772	TOR-7103	10000	1100	1 1/16	2 3/32	.173	10.00	8.50	8.00	6.96

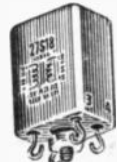
ENCASED SHIELDED TOROID INDUCTORS

High grade toroid wound coils built to meet MIL-T-27B, TF4RX20YY specifications.

Stock No.	Type	Induct. MH	Resis. Ohms	Case Type	Case Size			1-9	10-49	50-99	100-499
					Length	Height	Width				
5F1773	TOR-7136	100	18	TH3	1 1/2	1/2	1 1/8	7.80	6.43	6.04	5.72
5F1774	TOR-7180	120	10	TH5	1 1/2	2 3/32	1 1/8	8.40	7.14	6.72	6.18
5F1775	TOR-7181	200	16	TH5	1 1/2	2 3/32	1 1/8	9.00	7.65	7.20	6.27
5F1776	TOR-7139	400	70	TH3	1 1/2	1/2	1 1/8	8.40	7.14	6.72	6.18
5F1777	TOR-7183	500	40	TH5	1 1/2	2 3/32	1 1/8	9.00	7.65	7.20	6.27
5F1778	TOR-7140	600	103	TH3	1 1/2	1/2	1 1/8	8.40	7.14	6.72	6.18
5F1779	TOR-7184	700	60	TH5	1 1/2	2 3/32	1 1/8	10.00	8.50	8.00	6.96
5F1780	TOR-7185	1000	85	TH5	1 1/2	2 3/32	1 1/8	10.00	8.50	8.00	6.96
5F1781	TOR-7186	1500	135	TH5	1 1/2	2 3/32	1 1/8	10.00	8.50	8.00	6.96
5F1782	TOR-7187	2500	220	TH5	1 1/2	2 3/32	1 1/8	10.80	9.17	8.63	7.51
5F1783	TOR-7188	4000	330	TH5	1 1/2	2 3/32	1 1/8	11.75	8.99	9.40	8.18
5F1784	TOR-7190	10000	850	TH5	1 1/2	2 3/32	1 1/8	13.75	11.70	11.00	9.55



NSV-4



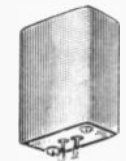
TSM



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TH-3



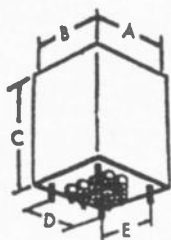
TH-5



Thordarson MIL-T-27B Transformers

CONVERTER-EPOXY MOLDED TOROID-DC TO DC

Ideally suited for powering all kinds of battery operated equipment, these transistor power supply transformers give a wide range of voltage and power from which to choose. Complete instructions included. All case Type TM1.



MIL-T-27B

Stock No.	Type	DC Supply Voltage	DC Output Voltage	Power Output In Watts	Mtg. Hole Diameter	H.	Dia.	1-9	10-49	50-99	100-499
5F1785	TR-269	12.6	250/125	25	11/64	11/16	13/4	21.00	17.85	16.80	15.40
5F1786	TR-270	12.6	300/150	60	11/64	1	13/4	21.00	17.85	16.80	15.40
5F1787	TR-271	12.6	325/162.5	49	11/64	1	13/4	21.00	17.85	16.80	15.40
5F1788	TR-272	12.6	375/187.5	75	11/64	1	2	21.00	17.85	16.80	15.40
5F1789	TR-273	12.6	450/225	68	11/64	1	2	21.00	17.85	16.80	15.40
5F1790	TR-274	12.6	500/250	125	3/16	13/16	23/4	21.00	17.85	16.80	15.40
5F1791	TR-275	12.6	600/300	120	3/16	13/16	23/4	21.00	17.85	16.80	15.40
5F1792	TR-276	28	250/125	20	7/64	9/16	19/8	12.00	10.20	9.60	8.80
5F1793	TR-280	28	450/225	90	11/64	1	2	18.00	15.30	14.40	13.20
5F1794	TR-282	28	600/300	120	3/16	13/16	23/4	18.00	15.30	14.40	13.20

CONVERTER-ENCASED—DC to DC

Stock No.	Type	MIL-T-27B Classification	DC Supply Voltage	DC Output Voltage	Power Output In Watts	Case Type	1-9	10-49	50-99	100-499
5F1795	27R20	TF4RX09AH	12/14 or 24/28	250	15	AH	13.50	11.47	10.80	9.41
5F1796	27R21	TF4RX09AJ	12/14 or 24/28	375	37.5	AJ	14.25	12.11	11.40	9.97
5F1797	27R22	TF4RX09FA	12/14 or 24/28	425	53	FA	18.30	15.55	14.64	12.75
5F1798	27R23	TF4RX09GB	12/14 or 24/28	550	110	GB	20.25	17.21	16.20	14.85

LOW VOLTAGE RECTIFIER TRANSFORMERS

Dual Secondary—Tapped Primary. Primary 115 supply, battery chargers and similar applications. Volts 50/60 Cycles. For transistor supply, bias Built to MIL-T-27B specifications.

Stock No.	Type	MIL-T-27B Classification	Military DC Range	Industrial DC Range	MIL Case	Mtg. Centers	1-9	10-49	50-99	100-499
5F1799	27V61	TF4RX02AJ	6V-.22A to 53V-.07A	6V-.28A to 53V-.085A	AJ	1 1/2 x 1 1/8	12.00	10.20	9.60	8.36
5F1800	27V62	TF4RX02FA	6V-1.2A to 53V-.4A	6V-1.52A to 53V-.48A	FA	1 1/2 x 1 1/8	12.90	10.97	10.32	9.00
5F1801	27V63	TF4RX02HA	6V-3A to 53V-1A	6V-3.8A to 53V-1.2A	HA	2 1/8 x 1 5/16	18.00	15.32	14.40	12.30

60 Cycles. Silicon rectifiers, bias, and filament supply, and all 60 cycle low voltage power supply applications. All units constructed to MIL-T-27B, Grade 4, Class R specifications.

Stock No.	Type	MIL-T-27B	Volts Primary	Secondary Volts/Amps	Approx. DC Volts Res. or Ind. Load Full Wave Bridge	MIL Case	1-9	10-49	50-99	100-499
5F1802	27V67	TF4RX02EB	117	20CT .3	8	EB	10.00	8.50	8.00	6.95
5F1803	27V97	TF4RX02NA	105/115/125	30CT 2.5	12.5	JA	27.00	23.00	21.60	18.80
5F1804	27V98	TF4RX02HA	105/115/125	80CT .6	35	HA	16.60	14.10	13.28	11.56

400 Cycles. These units meet MIL-T-27B, Grade 4, Class R specifications.

Stock No.	Type	MIL-T-27B	Volts Primary	Secondary Volts/Amps	Approx. DC Volts Res. or Ind. Load Full Wave Bridge	MIL Case	1-9	10-49	50-99	100-499
5F1805	27V86	TF4RX02FA	105/115/125	18.5CT 3	7	FA	15.00	12.75	12.00	11.00
5F1806	27V35	TF4RX02EA	105/115/125	26CT 1.5	10.7	EA	15.00	12.75	12.00	11.00
5F1807	27V34	TF4RX02FA	105/115/125	26CT 3	10.7	FA	15.00	12.75	12.00	11.00
5F1808	27V87	TF4RX02GA	105/115/125	35CT 3	14.5	GA	16.60	14.10	13.28	11.56
5F1809	27V88	TF4RX02FA	105/115/125	70CT 1	30	FA	15.00	12.75	12.00	11.00

MULTI SHIELDED-LINE ISOLATION

50/60 Cycles. Units have been specifically designed for critical circuitry where minimum coupling capacity is imperative and battery-isolation is desired.

Stock No.	Type	MIL-T-27B	Pri. Volt	Volt Sec.	VA Output		MIL Case	1-9	10-49	50-99	100-499
					Military	Industrial					
5F1810	27V47	TF2RX01GA	115	115	25	30	GA	22.40	19.05	17.92	15.63
5F1811	27V50	TF4RX01YY	115	115	50	60	YY-73	30.00	28.05	26.40	23.00
5F1812	27V48	TF2RX01KA	115	115	115	140	KA	30.00	25.50	24.00	22.00
5F1813	27V51	TF4RX01YY	115	115	120	150	YY-74	33.00	28.05	26.40	23.00
5F1814	27V52	TF4RX01YY	115	115	160	200	YY-75	45.00	38.20	36.00	33.00
5F1815	27V49	TF2RX01NB	115	115	300	360	NB	33.00	28.05	26.40	23.00
5F1816	27V53	TF4RX01YY	115	115	400	480	YY-76	66.00	56.10	52.80	46.00

LINE ISOLATION TRANSFORMERS

380 to 1500 Cycles. Meet MIL-T-27B, Class R specifications. Applicable to communications, lighting and equipment systems requiring isolation. All units are static shielded.

Stock No.	Type	MIL-T-27B Classification	Pri. Volt	Sec. Volt	VA Output	MIL Case	1-9	10-49	50-99	100-499
5F1817	27V42	TF4RX01YY	115	115CT*	2	NSV-2	8.75	7.45	7.00	6.05
5F1818	27V41	TF4RX01EB	115	115CT*	40	EB	15.00	12.75	12.00	11.00
5F1819	27V40	TF4RX01GA	115	115CT*	150	GA	16.60	14.10	13.28	11.56

PULSE TRANSFORMERS — TRANSISTOR TYPE

Built to meet MIL-T-2103B specifications. All have 5/16 Diameter and 3/16 Height. RAV-7 Case.

Stock No.	Type	MIL-T-2103B Classification	Turns Ratio	Coupling Circuit			1-9	10-49	50-99	100-499
				Pulse Width Micro-Sec.	Rise Time (Micro-Sec.)	Impedance in/out				
5F1820	PUL-39	TP6RX4410CZ	4:4:1	.05	.017	50/50	6.07	5.17	4.87	4.24
5F1821	PUL-40	TP6RX4410CZ	4:4:1	.10	.024	50/50	6.07	5.17	4.87	4.24
5F1822	PUL-41	TP6RX4410CZ	4:4:1	.20	.035	100/100	6.07	5.17	4.87	4.24
5F1823	PUL-42	TP6RX4410CZ	4:4:1	.50	.061	100/100	6.07	5.17	4.87	4.24
5F1824	PUL-43	TP6RX4410CZ	4:4:1	1.0	.150	100/100	6.07	5.17	4.87	4.24
5F1825	PUL-44	TP6RX4410CZ	4:4:1	2.0	.181	100/100	6.07	5.17	4.87	4.24
5F1826	PUL-45	TP6RX4410CZ	4:4:1	3.0	.210	100/100	6.07	5.17	4.87	4.24
5F1827	PUL-46	TP6RX4410CZ	4:4:1	5.0	.230	200/200	6.07	5.17	4.87	4.24
5F1828	PUL-47	TP6RX4410CZ	4:4:1	10.0	.41	200/200	6.07	5.17	4.87	4.24

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Thordarson MIL-27B Transformers



MILITARY STANDARD TRANSFORMERS

These transformers bear government classification and part numbers as shown below. Dimensions, mounting centers, terminal arrangements, and markings are all in accordance with government specifications. All units will meet the requirements

of Grade 4 MIL-T-27B specifications for Class R operation. Input, Output, and Interstage Transformers are 300 to 10000 CPS; Maximum Altitude 50000 ft. Case style AJ.

INPUT

Stock No.	Type	MIL-T-27B Classification	MIL-T-27B Part No.	Primary Impedance	Secondary Impedance	Max. Power Level	Case Style			
							1-9	10-49	50-99	100-499
5F1800	27A02	TF4RX10A|001	MS-90002-2	*600 ohms CT	135000 ohms CT	15 dbm	15.60	13.28	12.48	10.86

*Split center tap—balanced windings

INTERSTAGE

Stock No.	Type	MIL-T-27B Classification	MIL-T-27B Part No.	Primary Impedance	Secondary Impedance	Max. Power Level	Case Style			
							1-9	10-49	50-99	100-499
5F1830	27A03	TF4RX16A|001	MS-90003-2	*600 ohms CT	*600 ohms CT	15 dbm	14.25	12.11	11.40	9.97
5F1831	27A01	TF4RX15A|001	MS-90060-2	10000 ohms CT	22500 ohms CT	15 dbm	15.60	13.28	12.48	10.86

*Split center tap—balanced windings

OUTPUT

Stock No.	Type	MIL-T-27B Classification	MIL-T-27B Part No.	Primary Impedance	Secondary Impedance	Max. Power Level	Case Style			
							1-9	10-49	50-99	100-499
5F1832	27S01	TF4RX16A|002	MS-90001-2	*600 ohms CT	4/8/16 ohms	2 watts	18.00	15.50	14.40	13.20
5F1833	27S02	TF4RX13A|001	MS-90004-2	4800/7600	*600 ohms CT	2 watts	15.00	12.75	12.00	11.00
5F1834	27S03	TF4RX13A|002	MS-90005-2	4800/7600	4/8/16 ohms	2 watts	15.00	12.75	12.00	11.00
5F1835	27S04	TF4RX13A|003	MS-90006-2	15000 ohms CT	*600 ohms CT	2 watts	15.00	12.75	12.00	11.00
5F1836	27S05	TF4RX13A|004	MS-90007-2	24000 ohms CT	*600 ohms CT	1 watt	15.00	12.75	12.00	11.00
5F1837	27S06	TF4RX13A|005	MS-90008-2	60000 ohms CT	*600 ohms CT	0.5 watt	15.00	12.75	12.00	11.00

*Split center tap—balanced windings

*Parallel rating is twice that of Series CHOKES

Stock No.	Type	MIL-T-27B Classification	MIL-T-27B Part No.	Inductance (Henrys)		MA DC*		Case Size	1-9	10-49	50-99	100-499
				Series	Parallel	Series	FA					
				Series	Parallel	Series	FA					
5F1808	27C01	TF4RX04FA001	MS-90009-2	16	4	80	FA	12.00	10.20	9.60	8.36	
5F1809	27C02	TF4RX04GA002	MS-90010-2	25	6.25	80	GA	13.50	11.47	10.80	9.40	
5F1810	27C03	TF4RX04HA003	MS-90011-2	40	10	80	HA	30.00	25.50	24.00	22.00	
5F1841	27C04	TF4RX04HA005	MS-90013-2	16	4	125	HA	18.00	15.30	14.40	13.20	
5F1842	27C05	TF4RX04JB006	MS-90014-2	25	6.25	125	JB	30.00	25.50	24.00	22.00	
5F1843	27C06	TF4RX04KA007	MS-90037-2	40	10	125	KA	38.00	30.60	28.80	28.40	
5F1844	27C07	TF4RX04LA009	MS-75000-2	16	4	200	LA	38.00	30.60	28.80	28.40	
5F1845	27C08	TF4RX04MA010	MS-75001-2	25	6.25	200	MA	38.00	30.60	28.80	28.40	
5F1846	27C09	TF4RX04NA012	MS-75002-2	16	4	315	NA	48.00	40.80	38.40	33.44	
5F1847	27C10	TF4RX04YY013	MS-75003-2	25	6.25	315	YY	75.00	63.75	60.00	55.00	

FILAMENT TRANSFORMERS

Stock No.	Type	MIL-T-27B Classification	MIL-T-27B Part No.	Secondary		Insulation	Case Size	1-9	10-49	50-99	100-499
				Volts	Amps.							Volts RMS
5F1848	27F36	TF4RX01EB002	MS-90016-2	2.5	3.0	2,500	FB	12.00	10.20	9.60	8.80
5F1849	27F37	TF4RX01GB003	MS-90017-2	2.5	10	2,500	GB	15.75	13.39	12.60	11.55
5F1850	27F38	TF4RX01FB004	MS-90018-2	5.0	3.0	2,500	FB	12.00	10.20	9.60	8.80
5F1851	27F39	TF4RX01HB005	MS-90019-2	5.0	10	2,500	HB	15.75	13.39	12.60	11.55
5F1852	27F40	TF4RX01FB006	MS-90020-2	6.3	2.0	2,500	FB	12.00	10.20	9.60	8.80
5F1853	27F41	TF4RX01GB007	MS-90021-2	6.3	5.0	2,500	GB	13.20	11.22	10.56	9.88
5F1854	27F42	TF4RX01JB008	MS-90022-2	6.3	10	2,500	JB	12.00	10.20	9.60	8.80
5F1855	27F43	TF4RX01KB009	MS-90023-2	6.3	20	2,500	KB	21.00	17.85	16.80	15.40
5F1856	27F44	TF4RX01LB012	MS-90024-2	2.5	10	10,000	LB	17.40	14.79	13.92	12.76
5F1857	27F45	TF4RX01KB013	MS-90025-2	5.0	10	10,000	KB	21.00	17.85	16.80	15.40

POWER TRANSFORMERS — REACTOR INPUT

Stock No.	Type	MIL-T-27B Classification	MIL-T-27B Part No.	Secondary		D-DV Output	Case Size	1-9	10-49	50-99	100-499
				A-C Volts	D-CMA						
5F1858	27R86	TF4RX03HA001	MS-90026-2	200-100-0-100-200	70	385	HA	20.25	17.21	16.20	14.85
5F1859	27R87	TF4RX03JB002	MS-90027-2	325-0-325	70	260	JB	30.00	25.50	24.00	22.00
5F1860	27R88	TF4RX03KB003	MS-90028-2	325-0-325	150	245	KB	24.00	20.40	19.20	16.72
5F1861	27R89	TF4RX03LB003	MS-90029-2	400-0-400	175	318	LB	30.00	25.50	24.00	22.00
5F1862	27R90	TF4RX03MB004	MS-90030-2	450-0-450	250	345	MB	30.00	25.50	24.00	22.00
5F1863	27R91	TF4RX02KB001	MS-90031-2	350-0-350	250	255	KB	20.25	17.21	16.20	14.85
5F1864	27R92	TF4RX02LB002	MS-90032-2	550-0-550	250	419	LB	24.00	20.40	19.20	16.72
5F1865	27R93	TF4RX02NB003	MS-90036-2	800-0-800	250	640	NB	38.00	30.60	28.80	26.40

MIL-T-27B LOW FREQUENCY HIGH Q INDUCTORS

Units have magnetic shielding as well as more on frequencies ranging from 60 to 300 cycles. bucking construction. Designed to a Q of 40 or Split winding termination.

Stock No.	Type	MIL-T-27B Classification	Series		Parallel		Case Size	1-9	10-49	50-99	100-499
			Ind. ±2%	Res. ±20%	Ind. ±2%	Res. ±20%					
5F1866	27C226	TF4RX20YY	50	10	2.5	12.5	NSV-5	27.00	22.95	21.60	18.80
5F1867	27C227	TF4RX20YY	82	20	5	20	NSV-5	27.00	22.95	21.60	18.80
5F1868	27C228	TF4RX20YY	820	200	50	205	NSV-5	27.00	22.95	21.60	18.80
5F1869	27C502	TF4RX20YY	3,750	300	75	937	NSV-3	12.15	10.32	9.71	8.47
5F1870	27C229	TF4RX20YY	2,100	400	100	525	NSV-5	30.00	25.50	24.00	21.00

Buy at Factory Competitive Prices at NEWARK

MIL-T-27B CASE DIMENSIONS

Case Style	1-9	10-49	50-99	100-499
A	1 3/8	1 3/8	1 3/8	1 3/8
B	1 3/8	1 3/8	1 3/8	1 3/8
C	1 3/8	1 3/8	1 3/8	1 3/8
D	1 3/8	1 3/8	1 3/8	1 3/8
E	1 3/8	1 3/8	1 3/8	1 3/8
FA	2 1/8	2 1/8	2 1/8	2 1/8
FB	2 1/8	2 1/8	2 1/8	2 1/8
GA	2 3/4	2 3/4	2 3/4	2 3/4
GB	2 3/4	2 3/4	2 3/4	2 3/4
HA	3 1/8	2 3/8	2 3/8	2 3/8
HB	3 1/8	2 3/8	2 3/8	2 3/8
JA	3 1/8	3 1/8	3 1/8	3 1/8
KB	3 1/8	3 1/8	3 1/8	3 1/8
LA	4 1/8	3 1/8	3 1/8	3 1/8
LB	4 1/8	3 1/8	3 1/8	3 1/8
MA	4 1/8	4 1/8	4 1/8	4 1/8
MB	4 1/8	4 1/8	4 1/8	4 1/8
NA	5 1/8	4 1/8	4 1/8	4 1/8
NB	5 1/8	4 1/8	4 1/8	4 1/8



Thordarson MIL-T-27B Transformers

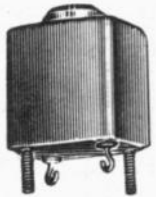
ALIGNAIRE INDUCTORS—VARIABLE

Ideally suited for hard to align or frequently changed circuits. Applicable to mid-audio tuned freq. circuits. Case type AL-1— $1\frac{1}{2} \times 1\frac{1}{2} \times 2\frac{1}{2}$ ex-cept case type AL-3— $1\frac{1}{2} \times 1\frac{1}{2} \times 2\frac{1}{2}$ (not illus.).

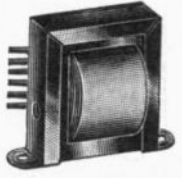
Stock No.	Type	MIL-T-27B	Induct. Hy.		Maxc.	Resis. Ohms	Mtg. Centers	1-9	10-49	50-99	100-499
			Maxc.	Min.							
5F1871	27C180	TF4RX20YY	.020	.002	100	.51	27 $\frac{1}{2}$	8.10	6.88	6.48	5.65
5F1872	27C181	TF4RX20YY	.050	.005	60	1.42	27 $\frac{1}{2}$	8.10	6.88	6.48	5.65
5F1873	27C207*	TF3RX20YY	.098	.029	36	6.0	1 $\frac{1}{2}$ ex29 $\frac{1}{2}$	6.00	5.10	4.80	4.18
5F1874	27C182	TF4RX20YY	.111	.011	40	3.5	27 $\frac{1}{2}$	8.10	6.88	6.48	5.65
5F1875	27C208*	TF3RX20YY	.155	.046	30	9.3	1 $\frac{1}{2}$ ex29 $\frac{1}{2}$	6.00	5.10	4.80	4.18
5F1876	27C209*	TF3RX20YY	.240	.071	25	15.5	1 $\frac{1}{2}$ ex29 $\frac{1}{2}$	6.00	5.10	4.80	4.18
5F1877	27C183	TF4RX20YY	.300	.030	30	8.7	27 $\frac{1}{2}$	8.10	6.88	6.48	5.65
5F1878	27C210*	TF3RX20YY	.390	.115	20	24	1 $\frac{1}{2}$ ex29 $\frac{1}{2}$	6.00	5.10	4.80	4.18
5F1879	27C211*	TF3RX20YY	.828	.187	20	36	1 $\frac{1}{2}$ ex29 $\frac{1}{2}$	6.00	5.10	4.80	4.18
5F1880	27C184	TF4RX20YY	.700	.070	20	22	27 $\frac{1}{2}$	8.10	6.88	6.48	5.65
5F1881	27C212*	TF3RX20YY	1.00	.300	15	58	1 $\frac{1}{2}$ ex29 $\frac{1}{2}$	6.00	5.10	4.80	4.18
5F1882	27C213*	TF3RX20YY	1.57	.467	13	94	1 $\frac{1}{2}$ ex29 $\frac{1}{2}$	6.00	5.10	4.80	4.18
5F1883	27C185	TF4RX20YY	2.00	.200	16	55	27 $\frac{1}{2}$	8.10	6.88	6.48	5.65
5F1884	27C214*	TF3RX20YY	2.40	.716	10	150	1 $\frac{1}{2}$ ex29 $\frac{1}{2}$	6.75	5.74	5.40	4.70
5F1885	27C215*	TF3RX20YY	4.07	1.2	8	235	1 $\frac{1}{2}$ ex29 $\frac{1}{2}$	6.75	5.74	5.40	4.70
5F1886	27C153	TF4RX20YY	5.00	.500	10	140	27 $\frac{1}{2}$	8.25	7.01	6.60	6.05
5F1887	27C216*	TF3RX20YY	6.28	1.87	6.5	375	1 $\frac{1}{2}$ ex29 $\frac{1}{2}$	6.75	5.74	5.40	4.70
5F1888	27C217*	TF3RX20YY	10.0	3.00	6	585	1 $\frac{1}{2}$ ex29 $\frac{1}{2}$	6.75	5.74	5.40	4.70
5F1889	27C186	TF4RX20YY	11.0	1.10	7	365	27 $\frac{1}{2}$	9.00	7.65	7.20	6.27
5F1890	27C218*	TF3RX20YY	15.7	4.65	5	955	1 $\frac{1}{2}$ ex29 $\frac{1}{2}$	6.75	5.74	5.40	4.70
5F1891	27C219*	TF3RX20YY	24.0	7.16	4	1500	1 $\frac{1}{2}$ ex29 $\frac{1}{2}$	6.75	5.74	5.40	4.70
5F1892	27C187	TF4RX20YY	30.0	3.00	5	945	27 $\frac{1}{2}$	9.00	7.65	7.20	6.27
5F1893	27C188	TF4RX20YY	70.0	7.0	3.6	2200	27 $\frac{1}{2}$	9.00	7.65	7.20	6.27
5F1894	27C189	TF4RX20YY	200	20	2.1	5500	27 $\frac{1}{2}$	10.05	8.54	8.04	7.00
5F1895	27C190	TF4RX20YY	500	50	1.5	15500	27 $\frac{1}{2}$	10.05	8.54	8.04	7.00

POWER TRANSFORMERS

Stock No.	Type	Plate Supply		Rectifier Fil.		Other Fil.		Mtg. Type	1-9	10-49	50-99	100-499
		Volts	MA DC	Volts	Amps	Volts	Amps					
5F1896	22R39	125-0-125	25	.....	.....	6.3	1	BAV	3.00	2.58	2.40	2.20
5F1897	24R10	220-0-220	50	6.3	.6	25.2	.5	GGV	7.50	6.40	6.00	5.50
5F1898	25R23	225-0-225	40	5	2	6.3CT	2	TTV	15.00	12.75	12.00	11.00
5F1899	24R11	230-0-230	50	.....	.....	6.3	2.5	AGF	4.80	4.08	3.84	3.52
5F1900	24R11U	230-0-230	50	.....	.....	6.3	2.5	GGV	4.80	4.08	3.84	3.52
5F1901	24R00	240-0-240	40	5	2	6.3CT	2	AGF	6.00	5.10	4.80	4.40
5F1902	24R19	240-0-240	55	5	2	6.3CT	2	AGF	6.00	5.10	4.80	4.40
5F1903	24R19U	240-0-240	55	5	2	6.3CT	2	GGV	6.00	5.10	4.80	4.40
5F1904	24R12	240-0-240	70	.....	.....	6.3	3	AGF	6.00	5.10	4.80	4.40
5F1905	24R12U	240-0-240	70	.....	.....	6.3	3	GGV	6.00	5.10	4.80	4.40
5F1906	24R90	250-0-250	20	6.3	.6	6.3	1.2	FGV	4.50	3.80	3.60	3.30
5F1907	22R00	250-0-250	40	5	2	6.3CT	2	AGF	7.50	6.40	6.00	5.50
5F1908	24R03	250-0-250	70	5	2	6.3CT	2.5	AGF	7.50	6.40	6.00	5.50
5F1909	24R09U	250-0-250	70	5	2	6.3CT	2.5	GGV	7.50	6.40	6.00	5.50
5F1910	26R31U	260-0-260	90	.....	.....	6.3	4	GGV	7.50	.....	.....	.....
5F1911	24R13	260-0-260	90	5	2	6.3CT	3	AGF	7.50	6.40	6.00	5.50
5F1912	24R13U	260-0-260	90	5	2	6.3CT	3	GGV	7.50	6.40	6.00	5.50
5F1913	26R53	268-0-268	260	5	3	6.3	8	GGV	15.00	.....	.....	.....
5F1914	25R24	270-0-270	55	5	2	6.3CT	2	TTV	15.00	12.75	12.00	11.00
5F1915	24R20	270-0-270	120	5	3	6.3CT	3.5	AGF	9.00	7.65	7.20	6.60
5F1916	24R20U	270-0-270	120	5	3	6.3CT	3.5	GGV	9.00	7.65	7.20	6.60
5F1917	22R01	275-0-275	50	5	2	6.3CT	2.5	AGF	7.50	6.40	6.00	5.50
5F1918	25R03	300-0-300	60	5	2	6.3CT	3	TAV	15.00	12.75	12.00	11.00
5F1919	22R02	300-0-300	70	5	2	6.3CT	3	AGF	7.50	6.40	6.00	5.50
5F1920	22R04	300-0-300	90	5	2	6.3CT	3.5	AGF	8.25	7.01	6.60	6.05
5F1921	22R05	300-0-300	120	5	3	6.3CT	5	AGF	12.00	10.20	9.60	8.80
5F1922	22R05U	300-0-300	120	5	3	6.3CT	5	GGV	12.00	10.20	9.60	8.80
5F1923	24R01	325-0-325	40	5	2	6.3CT	2	AGF	6.00	5.10	4.80	4.40
5F1924	24R08	325-0-325	55	5	2	6.3CT	2	AGF	7.50	6.40	6.00	5.50
5F1925	24R08U	325-0-325	55	5	2	6.3CT	2	GGV	7.50	6.40	6.00	5.50
5F1926	25R27	335-0-335	70	5	2	6.3CT	3	TTV	15.00	12.75	12.00	11.00
5F1927	25R06	345-0-345	105	5	2	6.3CT	3.5	TAV	15.00	12.75	12.00	11.00
5F1928	25R30	350-0-350	30	5	2	6.3CT	2	TTV	20.25	17.20	16.20	14.85
5F1929	24R02	350-0-350	70	5	2	6.3CT	2.5	AGF	7.50	6.40	6.00	5.50
5F1930	24R02U	350-0-350	70	5	2	6.3CT	2.5	GGV	7.50	6.40	6.00	5.50
5F1931	24R04	350-0-350	90	SCT	3	2.5CT	3.5	AGF	7.65	6.50	6.12	5.61
5F1932	24R04U	350-0-350	90	SCT	3	2.5CT	3.5	GGV	7.65	6.50	6.12	5.61
5F1933	22R32	350-0-350	110	SCT	2	6.3CT	3	GGV	10.80	9.18	8.64	7.92
5F1934	24R05	350-0-350	120	SCT	3	6.3CT	4.7	AGF	9.00	7.65	7.20	6.60
5F1935	24R05U	350-0-350	120	SCT	3	6.3CT	4.7	GGV	9.00	7.65	7.20	6.60
5F1936	22R07	350-0-350	200	SCT	3	6.3CT	6	AGF	15.00	12.75	12.00	11.00
5F1937	22R87	350-0-350	200	SCT	3	6.3CT	8	GGV	12.00	10.20	9.60	8.80
5F1938	24R22	360-0-360	120	5	3	6.3CT	3.5	AGF	12.00	10.20	9.60	8.80
5F1939	24R22U	360-0-360	120	5	3	6.3CT	3.5	GGV	12.00	10.20	9.60	8.80
5F1940	25R32	370-0-370	150	5	3	6.3CT	4/1	TTV	30.00	25.50	24.00	22.00
5F1941	24R24	370-0-370	275	SCT	3	6.3CT	7	AGF	7.50	6.40	6.00	5.50
5F1942	24R06	375-0-375	150	5	3	6.3CT	4.7	AGF	12.00	10.20	9.60	8.80
5F1943	24R06U	375-0-375	150	5	3	6.3CT	4.7	GGV	12.00	10.20	9.60	8.80
5F1944	25R33	385-0-385	200	5	3	6.3CT	4.5/1	TTV	30.00	25.50	24.00	22.00
5F1945	24R66	400-0-400	30	5	2	6.3	1.2	GGV	9.00	7.65	7.20	6.80
5F1946	24R45	400-0-400	140	5	3	6.3CT	4	GGV	11.25	9.56	9.00	8.25
5F1947	24R07	400-0-400	200	5	3	6.3CT	5	AGF	12.00	10.20	9.60	8.80
5F1948	24R07U	400-0-400	200	5	3	6.3CT	5	GGV	12.00	10.20	9.60	8.80
5F1949	24R03	400-0-400	250	5	4	6.3CT	5	GGV	15.00	12.75	12.00	11.00
5F1950	25R11	400-80-0-80-400	250	5/5	6/2	6.3CT	7	TAV	20.25	17.20	16.20	14.85
5F1951	22R35	400-0-400	340	5	6	6.3CT	7	GGV	24.00	20.40	19.20	17.60
5F1952	25R35	425-0-425	70	5	2	6.3CT	3	TTV	20.25	17.20	16.20	14.85
5F1953	24R15	438-0-438	185	5	3	6.3	4/3	GGV	15.00	12.75	12.00	11.00
5F1954	24R25	440-0-440	130	5	3	6.3CT	3.5	GGV	9.00	7.65	7.20	6.60
5F1955	25R37	450-0-450	60	5	2	6.3CT	3.4	TTV	20.25	17.20	16.20	14.85
5F1956	22R36	600-0-600	200	5	3	6.3	5	GGV	18.00	15.30	14.40	13.20



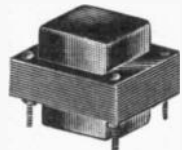
AL-1



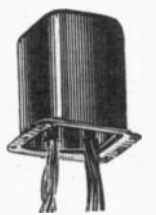
BAV



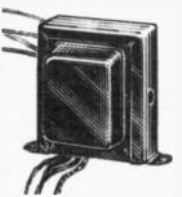
GGV



AGF



TAV



FGV

MICROPHONE, PICKUP OR LINE TO GRID

Stock No.	Type	Application	Impedance In Ohms		Mtg. Type	1-9	10-49	50-99	100-499
			Primary	Secondary					
5F1957	25A210	Chopper Input	53000	13250CT	TAJ-1*	12.42	10.56	9.94	8.85
5F1958	20A00	Line to S. or PP Grids	600/500CT	60000CT	BAH	3.20	2.72	2.56	2.35
5F1959	25A28	Mike, Pickup or Line to S. or PP Grids	600/500/250, 200/50	50000CT	RTV	7.65	6.50	6.12	5.33
5F1960	25A58	Mike, Pickup or Line to S. or PP Grids	600/500/333/250, 200/150/125/50	50000CT**	UTV	12.00	10.20	9.60	8.36
5F1961	25A75	Mike, Pickup or Line to PP Grids	600/500/333/250, 200/150/125/50	80000CT**	UTV	19.95	16.96	15.96	13.90
5F1962	25A121	Multiple Alloy Shield Mike or Line to Grid	500/333/200, 125/50	89000	TAV	6.75	5.73	5.40	4.70
5F1963	20A32	Mike to S. Grid	200/70	80000	BAH	4.80	4.08	3.84	3.52
5F1964	MIT154	Mike or Line to Grid	600/250/50	250000	BAH	4.05	3.45	3.25	2.85
5F1965	20A35	Mike or Mixer to Grid	50	50000	BAH	3.00	2.55	2.40	2.20
5F1966	MIT141	Mike to Grid	200	250000	MAH	3.30	2.80	2.64	2.30
5F1967	20A04	Voice Coil to Grid	6/3	38400	BAH	2.40	2.04	1.92	1.76
5F1968	20A09	Mike, Line to Grids	100	70000CT	BAH	4.50	3.82	3.60	3.33

*Shielded for -90DB Hum Reduction; 1 1/2 spade bolt mountings. **Split CT Winding.

INTERSTAGE TRANSFORMERS

Stock No.	Type	Impedance In Ohms		Unbalanced Primary MADC	Mtg. Type	Mtg. Centers	1-9	10-49	50-99	100-499
		Primary	Secondary							
5F1969	25A46	500*	500*	20	RTV	1 1/16	8.10	6.88	6.48	5.64
5F1970	25A69	500*	150*	20	UTV	1 5/16 x 1 1/32	9.00	7.65	7.20	6.27
5F1971	25A62	600*	2000*	0	UTV	1 5/16 x 1 1/32	10.80	9.18	8.64	7.52
5F1972	20A16	7000—	28000—							
		15000	60000CT	10	BAH	2	3.20	2.72	2.56	2.35
5F1973	25A35	15000	60000	0	RTV	1 1/16	6.75	5.73	5.40	4.70
5F1974	25A64	10000*	2000*	8	UTV	1 5/16 x 1 1/32	9.00	7.65	7.20	6.27
5F1975	25A66	15000	80000*	8	UTV	1 5/16 x 1 1/32	12.00	10.20	9.60	8.36
5F1976	25A38	15000	95000CT	4	RTV	1 1/16	7.05	6.00	5.64	4.91
5F1977	20A18	7000—	63000—							
		15000	135000CT	10	BAH	2	2.40	2.04	1.92	1.76
5F1978	20A45	10000	90000	10	BAH	2	2.40	2.04	1.92	1.76
5F1979	MIT142	10000	90000	.25	MAH		3.30	2.80	2.64	2.30
5F1980	20A93	10000	90000CT	10	BAH	2 3/8	5.40	4.60	4.30	3.85
5F1981	25A48	500*	50*	20	RTV	1 1/16	8.10	6.88	6.48	5.64
5F1982	25A68	10000*	500*	8	UTV	1 5/16 x 1 1/32	10.80	9.18	8.64	7.82
5F1983	25A41	10000*	4000*	4	RTV	1 1/16	7.65	6.50	6.12	5.33
5F1984	25A67	25000*	500*	3	UTV	1 5/16 x 1 1/32	10.80	9.18	8.64	7.82
5F1985	25A39	10000	1 Meg.	...	RTV	1 1/16	7.05	6.00	5.64	4.91

*Split C.T. Winding.

SINGLE PLATE TO PUSH PULL GRIDS

Stock No.	Type	Primary Ratio to 1/2 Sec.	Primary MADC	Mtg. Type	Mtg. Centers	Dimension			1-9	10-49	50-99	100-499
						H	W	D				
5F1986	20D23	2:1	15	BAH	2 3/8	1 5/8	2 7/8	1 1/2	4.80	4.08	3.84	3.52
5F1987	20D75	2.4:1	10	BAH	2	1 3/8	2 3/8	1 1/4	6.00	5.10	4.80	4.40
5F1988	20D77	2.5:1	30	FGV	2 3/8	2 1/8	2 7/8	2 1/8	6.00	5.10	4.80	4.40
5F1989	20D76	5:2:1	15	BAH	2	1 3/8	2 3/8	1 1/4	6.00	5.10	4.80	4.40
5F1990	25D50	3:1	25	TAV	2 1/16 x 1 3/4	3 1/8	3	2 1/2	9.00	7.65	7.20	6.60
5F1991	20D89	3:1	40	BAH	2 3/8	1 3/8	2 1/8	1 1/2	3.00	2.55	2.40	2.20
5F1992	20D30	5:1	45	GGV	2 x 1 1/16	3 1/8	2 3/8	2 3/8	4.80	4.08	3.84	3.52

OUTPUT—SINGLE PLATE TO LINE OR VOICE COIL

Stock No.	Type	Impedance		Pri. MADC	Watts	Mtg. Type	1-9	10-49	50-99	100-499
		Primary	Secondary							
5F1993	24S50	2000	3.5	55	5	BAH	1.50	1.28	1.20	1.10
5F1994	24S51	5000	3.5	40	5	BAH	1.50	1.28	1.20	1.10
5F1995	25S43	5000	4/8/16/150/500	55	5	TTV	12.00	10.20	9.60	8.80
5F1996	22S35	5000	3.5	50	5	BAH	2.25	1.91	1.80	1.65
5F1997	24S91	5000	4/8/16/500	55	10	GGV	6.00	5.10	4.80	4.40
5F1998	24S52	7-10000	3.5	30	5	BAH	1.50	1.28	1.20	1.10
5F1999	24S96	7000	4/8/16	40	10	BAH	2.10	1.78	1.68	1.54
5F2000	24S81	8000	3.5	30	3	BAV	1.80	1.53	1.44	1.32
5F2001	25S44	8000	4/8/16/150/600	55	5	TTV	12.00	10.20	9.60	8.80
5F2002	24S84	10000	3.5	30	3	BAV	2.25	1.91	1.81	1.65
5F2003	24S98	10000	3.5	30	5	BAH	2.10	1.78	1.68	1.54
5F2004	24S54	15-20000	3.5	10	5	BAH	1.50	1.28	1.20	1.10
5F2005	24S99	25000	3.5	5	5	BAH	2.10	1.78	1.68	1.54

OUTPUT—PUSH PULL PLATES TO LINE OR VOICE COIL

Stock No.	Type	Impedance	Pri. MADC	Watts	Mtg. Type	1-9	10-49	50-99	100-499	
5F2006	22S58	5000/7000CT	3.5/8	45	10	BAH	4.50	3.82	3.60	3.30
5F2007	24S119	6000CT	4/8/16/500	100	30	GGV	7.50	6.38	6.00	5.50
5F2008	24S57	6,600CT	4/8/16/250/500	150	35	GGV	9.00	7.65	7.20	6.60
5F2009	24S58	7000/10000CT	3.5/8/16/500	60	25	GGV	7.50	6.38	6.00	5.50
5F2010	24S56	10000CT	2/4/8	75	8	BAH	4.50	3.83	3.60	3.30
5F2011	24S19	10000CT	4/8/16	60	12	BAV	6.00	5.10	4.80	4.40
5F2012	26S47	14000CT	3.5	35	12	BAH	3.96			

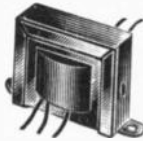
OUTPUT—TUBE TO LINE OR LINE MIXER

Stock No.	Type	Impedance		Pri. MADC	Watts	Mtg. Type	1-9	10-49	50-99	100-499
		Primary	Secondary							
5F2013	25S01	15000	50/200-250/500-600	0	.006	RTV	7.30	6.21	5.84	5.09
5F2014	25S02	15000	Same as 25S01	4	.006	RTV	7.30	6.21	5.84	5.09
5F2015	25S03	30000CT	Same as 25S01	0*	.006	RTV	8.10	6.88	6.48	5.65
5F2016	25S12	15000**	50/125-150/200-250/333/500-600	0*	.031	UTV	12.00	10.20	9.60	8.80
5F2017	25S13	15000	Same as 25S12	8	.031	UTV	12.00	10.20	9.60	8.80
5F2018	25S17	15000**	Same as 25S12	8	.160	UTV	18.90	16.07	15.12	13.17
5F2019	25S16	30000CT	Same as 25S12	1	.2	UTV	18.90	16.07	15.12	13.17
5F2020	25S33	30000CT	50/150/200/250/333/500	5	.5	UTV-1	30.00	25.50	24.00	22.00

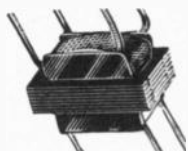
*Unbalanced Primary Current. **Split Center Tap.



UTV



BAH



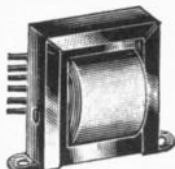
MAH



RTV



TTV



BAV



Thordarson Transformers

LOW VOLTAGE RECTIFIER TRANSFORMERS 50/60 CYCLES

Stock No.	Type	Primary Voltage	Secondary AC		Mtg. Type	Mtg. Centers	1-9	10-49	50-99	100-499
			Voltage	Amps						
5F2047	23V103	115	6.3/13/19.5/26	3	LAV	2 1/2x2 3/16	7.20	6.12	5.78	5.24
5F2048	23V107	115	7/8/9	7	LAV	2 1/2x2 3/16	7.20	6.12	5.78	5.24
5F2049	23V116	115**	10/20CT/40CT	.1	BAH	3 3/8	3.75	3.19	3.00	2.75
5F2050	23V117	115**	10/20CT/40CT	.3	BAH	3 3/8	3.75	3.19	3.00	2.75
5F2051	23V118	115**	10/20CT/40CT	.75	BAH	3 3/8	7.20	6.12	5.78	5.24
5F2052	23V114	115/230	12CT/12CT	10	GGV*	3x3 3/8	18.00	15.30	14.40	13.20
5F2053	23V113	115	12/13.5/15/16.5/18 12/13.5/15/16.5/18	20 20	LAV	2 3/4x4 1/2	48.00	40.80	38.40	35.20
5F2054	23V100	115	17/18	3	LAV	1 5/8x2 3/8	6.00	5.10	4.80	4.40
5F2055	23V101	115	17/18	6	LAV	2 1/2x2 1/16	10.50	8.92	8.40	7.70
5F2056	23V104	115	24/27/30/33/36	3	LAV	2 1/2x2 1/16	10.50	8.92	8.40	7.70
5F2057	23V105	110/120	24/27/30/33/36	8	LAV	3x3 3/8	21.00	17.85	16.80	15.40
5F2058	23V112	115	24/26/28/30	15	LHV	3 3/4x4 1/8	30.00	25.50	24.00	22.00
5F2059	23V102	115	36/36	3/3	LAV	3x3 3/8	15.00	12.75	12.00	11.00
5F2060	23V119	115**	10/20CT/40CT	1	GGV	2x2 1/4	7.50	6.68	6.00	5.50

*Top chassis mounting—lead holes on side of shield.

**Primary tapped to produce lower secondary voltages.

MULTI-TAPPED-LOW VOLTAGE RECTIFIER

Stock No.	Type	Rectifier Circuit	Secondary AC. Volts	Recom. Capacitor	Mtg. Type	Mtg. Centers	1-9	10-49	50-99	100-499
5F2061	23V60	Full Wave Bridge	11.7 to 29.4	1000 MFD						
			11.1 to 28.5	500 MFD	AH	2x2 1/8	7.20	6.12	5.76	5.24
5F2062	23V61	Full Wave Bridge	12.2 to 29.7	2000 MFD						
			12.2 to 29.7	1000 MFD	AJ	2 1/2x2 3/8	9.00	7.65	7.20	6.60
5F2063	23V62	Full Wave Bridge	11.7 to 29.2	4000 MFD						
			11.8 to 29.2	2000 MFD	FA	2 1/2x2 7/8	12.00	10.20	9.60	8.80
5F2064	23V63	Full Wave Bridge	12.0 to 29.8	6000 MFD						
			12.0 to 29.6	3000 MFD	HA	2 3/4x3 1/4	15.00	12.75	12.00	11.00
5F2065	23V64	Full Wave Bridge	12.2 to 29.7	7500 MFD						
			12.1 to 29.2	4000 MFD	KA	2 1/2x3 3/8	18.00	15.30	14.40	13.20
5F2066	23V66	Full Wave Bridge	12.2 to 29.1	11250 MFD						
			12.2 to 29.0	6000 MFD	OA	3 1/2x4 1/4	30.00	25.50	24.00	22.00
5F2067	23V65	Bridge	25 to 53.5	4000 MFD	HA	3 1/2x5 1/4	30.00	25.50	24.00	22.00

SILICON RECTIFIER POWER TRANSFORMERS

Stock No.	Type	Secondary		Secondaries		Mtg. Type	Mtg. Centers	1-9	10-49	50-99	100-499
		Volts	MADC	6.3 Volts @	6.3 Volts @						
5F2068	24R105	30-0-30	2500	1.5A	1.5A	GGV	2 3/4x2 1/16	12.00	10.20	9.60	8.80
5F2069	27R105	30-0-30	2500	1.5A	1.5A	LA	3 1/16x2 1/16	30.00	25.50	24.00	22.00
5F2070	24R104	40-0-40	2000	1.5A	1.5A	GGV	2 3/4x2 1/16	12.00	10.20	9.60	8.80
5F2071	27R104	40-0-40	2000	1.5A	1.5A	LA	3 1/16x2 1/16	30.00	25.50	24.00	22.00
5F2072	24R103	50-0-50	1600	1.5A	1.5A	GGV	2 3/4x2 1/16	12.00	10.20	9.60	8.80
5F2073	27R103	50-0-50	1600	1.5A	1.5A	LA	3 1/16x2 1/16	33.00	27.05	26.40	22.99
5F2074	24R102	100-0-100	800	2A	2A	GGV	2 3/4x2 1/16	15.00	12.75	12.00	11.00
5F2075	27R102	100-0-100	800	2A	2A	LA	3 1/16x2 1/16	33.00	27.05	26.40	22.99
5F2076	24R101	150-0-150	600	2.5A	2.5A	GGV	2 3/4x3 1/4	15.00	12.75	12.00	11.00
5F2077	27R101	150-0-150	600	2.5A	2.5A	LA	3 1/16x2 1/16	30.00	25.50	24.00	22.00
5F2078	24R100	200-0-200	400	3A	3A	GGV	2 3/4x3 1/4	15.00	12.75	12.00	11.00
5F2079	27R100	200-0-200	400	3A	3A	LA	3 1/16x2 1/16	30.00	25.50	24.00	22.00

LOW VOLTAGE CONTROL

Stock No.	Type	VA Output	Primary Voltage	Secondary		Mtg. Type	Mtg. Centers	1-9	10-49	50-99	100-499
				Voltage	Amps						
5F2021	23V50	12	115/230	2 or 12	2 or 4	BHV	2 3/8	4.80	4.08	3.84	3.52
5F2022	23V51	24	115/230	6 or 12	4 or 2	BHV	2 1/8	6.00	5.10	4.80	4.40
5F2023	23V160	24	115	24	1	BGH	2 1/8	4.80	4.08	3.84	3.52
5F2024	23V52	48	115/230	12 or 24	4 or 2	BHV	3 3/8	6.00	5.10	4.80	4.40
5F2025	23V53	96	115/230	12 or 24	8 or 4	BHV	2 3/8x2 1/4	12.00	10.20	9.60	8.80

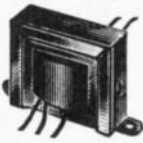
ISOLATION TRANSFORMERS 50/60 CYCLES

Stock No.	Type	VA Output	Primary Voltage	Secondary Voltage	Mtg. Type	Mtg. Centers	1-9	10-49	50-99	100-499
5F2026	23V17	35	115	115	BAH	3 3/8	4.80	4.08	3.84	3.52
5F2027	23V80	40	115/230	115	BAH	3 3/8	6.00	5.10	4.80	4.40
5F2028	23V45	50	115	115	GMV	2 1/2x1 1/8	12.00	10.20	9.60	8.80
5F2029	23V18	80	115	115	GGV	2 1/2x2 3/8	9.00	7.65	7.20	6.60
5F2030	23V25	100	105/115/125	115	GMV	2 3/4x3 1/4	21.00	17.85	16.80	15.40
5F2031	23V49	150	115	115	GMV	3x2 3/8	18.00	15.30	14.40	13.20
5F2032	23V74	150	115/230	115	GMV	2 1/2x3	15.00	12.75	12.00	11.00
5F2033	25V19	250	105/115/125	115**	TMV*	3 1/2x5 3/8	24.00	20.40	19.20	17.60
5F2034	23V28	500	105/115/125	115	GMV	4 3/8x4 1/4	48.00	40.80	38.40	35.20
5F2035	23V88	1200	110/120	110/120	GMV	3 5/8x6 5/8	60.00	51.00	48.00	44.00

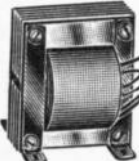
*Complete with tap switch. **Or 125/115/105 with 115 V. Primary.

AUTOFORMERS 50/60 CYCLES

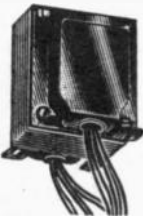
Stock No.	Type	VA Output	Primary Voltage	Secondary Voltage	Mtg. Type	Mtg. Centers	1-9	10-49	50-99	100-499
5F2036	25V10	50	220/250	110/125	TMV	2x3 3/8	8.10	6.89	6.48	5.49
5F2037	23V70	65	230	115	GMV	2x1 1/8	30.00	25.50	24.00	22.00
5F2038	23V81	85	220/240	110/120	GMV	2x1 1/8	9.00	7.65	7.20	6.60
5F2039	23V21	100	220/250	110/125	GMV	2 1/2x1 3/4	9.00	7.65	7.20	6.60
5F2040	25V11	100	220/250	110/125	TMV	2 1/2x3 7/8	8.10	6.88	6.48	5.94
5F2041	23V22	150	220/250	110/125	GMV	2x2 1/2	9.90	7.90	7.44	6.82
5F2042	25V12	150	220/250	110/125	TMV	2 1/2x4 3/8	9.90	8.16	7.68	7.04
5F2043	25V13	250	220/250	110/125	TMV	2 1/2x4 3/8	16.50	14.02	13.20	11.50
5F2044	23V20	300	230	115	GMV	3x3 3/8	21.00	17.85	16.80	15.40
5F2045	23V24	500	220/250	110/125	GMV	3x3 3/8	18.00	15.30	14.40	13.20
5F2046	23V46	3000	208 or 230	230 or 208	GMH	2 1/2x3 3/4	24.00	20.40	19.20	17.60



BAH



LAV



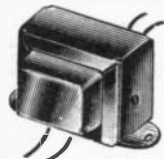
GGV



8HV



CHV



BGH

CHOKES

Stock No.	Type	Inductance		DC Res. Ohms	Test Volts RMS	Mtg. Centers	Mtg. Type	1-9	10-49	50-99	100-499
		Henrys	MADC								
5F2080	26C40	1.5	10	95	2500	1 3/4	BAH	1.50	1.28	1.20	1.10
5F2081	20C43	20	15	900	2500	2 3/8	BAH	3.00	2.55	2.40	2.20
5F2082	20C51	35	15	1850	2500	2	BAH	1.80	1.53	1.44	1.32
5F2083	20C05	15	20	1000	1000	1 3/4	BAH	3.00	2.55	2.40	2.20
5F2084	20C52	8	40	450	2500	2	BAH	1.80	1.53	1.44	1.32
5F2085	25C49	15	40	475	2500	1 1/2 x 2 3/8	TTV	3.00	2.55	2.40	2.20
5F2086	26C42	4.5	50	200	2500	2 3/8	BAH	1.80	1.53	1.44	1.32
5F2087	20C84	7	50	550	2500	2	BAH	1.80	1.53	1.44	1.32
5F2088	20C66	9	50	500	2500	2 3/8	BAH	2.25	2.17	2.04	1.87
5F2089	26C87	16	50	580	2500	2 1/2 x 3/8	BAH	2.40	2.04	1.92	1.76
5F2090	20C59	7	55	200	2500	2 3/8	BAH	1.80	1.53	1.44	1.32
5F2091	25C51	15	55	420	2500	1 1/2 x 2 3/8	TTV	12.00	10.20	9.60	9.36
5F2092	20C85	13	65	500	2500	2 1/2 x 3/8	BAH	2.40	2.04	1.92	1.76
5F2093	20C48	8	80	250	2500	2 1/2 x 3/8	BAH	2.55	2.17	2.04	1.87
5F2094	20C53	12	80	375	2500	2 1/2 x 3/8	BAH	2.70	2.30	2.16	1.98
5F2095	25C52	10	85	175	2500	1 3/4 x 2 1/4	TTV	6.00	5.10	4.80	4.40
5F2096	20C06	10	90	270	1000	2 3/8	BAH	3.00	2.55	2.40	2.20
5F2097	20C67	5	100	300	2500	2 3/8 x 1 1/2	TAV	4.05	3.44	3.24	2.97
5F2098	25C55	12	105	170	2500	2 x 3 1/8	TTV	8.10	6.88	6.48	5.64
5F2099	20C08	6	110	160	1500	3 1/8	BAH	3.00	2.55	2.40	2.20
5F2100	20C09	9	125	250	1000	3 1/8	BAH	3.45	2.93	2.76	2.41
5F2101	20C64	4	130	100	2500	3 1/8	GGV	2.70	2.30	2.16	1.98
5F2102	20C68	7	150	200	2500	3 1/8	BAH	3.75	3.20	3.00	2.78
5F2103	20C54	8	150	145	2700	2 x 1 3/4	GGV	4.05	3.44	3.24	2.97
5F2104	20C93	4	175	100	3000	2 x 1 1/4	GGV	6.00	5.10	4.80	4.40
5F2105	26C41	1.5	200	90	2500	2 3/8	BAH	1.80	1.53	1.44	1.32
5F2106	26C94	2	200	60	2500	3 1/8	BAH	3.60	3.06	2.88	2.64
5F2107	20C49	4.5	200	58	2500	3 3/8	BAH	3.90	3.30	3.10	2.86
5F2108	20C94	4.5	200	80	3000	2 1/2 x 2	GGV	6.00	5.10	4.80	4.40
5F2109	20C55	6	200	75	2500	2 x 2 1/4	GGV	9.00	7.65	7.20	6.60
5F2110	20C14	6	200	150	1500	3 3/8	BAH	3.90	3.30	3.10	2.86
5F2111	25C58	8	200	85	2500	3 3/8 x 2 3/4	TTV	8.10	6.88	6.48	5.64
5F2112	20C96	8.5	200	120	3000	3 1/2 x 2 1/4	LAV	6.00	5.10	4.80	4.40
5F2113	26C45	10	200	140	3000	2 7/8 x 2 1/4	GGV	9.90	8.42	7.92	7.26
5F2114	25C59	12	200	140	2500	3 7/8 x 2 1/4	TTV	10.50	8.92	8.40	7.70
5F2115	20C16	4	250	100	1500	3 3/8	BAH	3.90	3.30	3.10	2.86
5F2116	20C98	4	250	60	3000	2 1/4 x 2 1/2	LAV	9.00	7.65	7.20	6.60
5F2117	26C77	.7	290	30	1500	2 3/8	BAH	1.80	1.53	1.44	1.32
5F2118	26C44	1	300	60	2500	2 1/2 x 3/8	BAH	3.00	2.55	2.40	2.20
5F2119	26C91	2.8	300	60	2500	3 3/8	BAH	3.60	3.06	2.88	2.64
5F2120	20C69	8	300	80	3000	3 x 2 1/2	GGV	13.20	11.20	10.60	9.70
5F2121	20C19	2.6	310	60	1500	2 x 2 3/8	GGV	6.60	5.60	5.28	4.84
5F2122	20C22	6	400	60	300	3 x 3 3/4	GGV	13.20	11.20	10.60	9.70
5F2123	20C107	7.5	400	60	5000	3 x 3 1/2	GTV	12.60	10.70	10.08	9.24
5F2124	26C81	.32	600	10	1500	2 1/2	BAH	3.00	2.55	2.40	2.20
5F2125	20C00	.035	2A.	.75	1500	2 1/2 x 2	LHH	3.90	3.30	3.10	2.86
5F2126	20C01	.025	4A.	.425	1500	2 1/2 x 2 3/8	LHH	6.60	5.60	5.28	4.84
5F2127	20C03	.01	12.5A	.11	1500	3 3/4 x 2 3/8	LHH	9.00	7.65	7.20	6.60

FILAMENT TRANSFORMERS WITH SINGLE SECONDARY

Stock No.	Type	Primary Voltage	Secondary		Test Volts RMS (Sec.)	Mtg. Centers	Mtg. Type	1-9	10-49	50-99	100-499
			Volts	Amps							
5F2128	21F34	117	2.5	1.5	2500	2 3/8	BAH	6.00	5.10	4.80	4.40
5F2129	21F00	117	2.5CT	5	2500	2 3/8	BAV	4.80	4.08	3.84	3.56
5F2130	21F01	117	2.5CT	10	2500	2 1/2	BAV	6.75	5.73	5.40	4.70
5F2131	21F32	107/117	2.5CT	10	2500	2 x 1 3/4	GGV	6.00	5.10	4.80	4.40
5F2132	21F02	117	2.5CT	10	10000	2 x 1 3/4	CAV	6.75	5.73	5.40	4.70
5F2133	21F03	117	5.0CT	3	2500	2 3/8	BAV	6.75	5.73	5.40	4.70
5F2134	25F60	115/230	5.0CT	4	2500	1 3/4 x 2 1/2	TTV	10.50	8.92	8.40	7.28
5F2135	21F37	117	5.0CT	6	2500	2 x 2	LHV	5.40	4.59	4.32	3.96
5F2136	21F04	117	5.0CT	8	2500	2 x 1 3/4	CAV	6.75	5.73	5.40	4.70
5F2137	21F20	117	5.0CT	15	10000	2 1/2 x 3	CAV	10.50	8.92	8.40	7.70
5F2138	21F67	117	5.2CT	24	1500	2 1/2 x 3 1/8	LAV	10.50	8.92	8.40	7.70
5F2139	21F75	117	6.0CT/6.3CT	11	3000	2 1/4 x 2 1/2	LAV	6.60	5.61	5.28	4.84
5F2140	21F21	117	6.3	.6	2500	2	BAH	2.10	1.80	1.70	1.55
5F2141	21F08	117	6.3CT	1	2500	2	BAV	2.10	1.80	1.70	1.55
5F2142	21F09	117	6.3	1.2	2500	2 3/8	BAH	2.10	1.80	1.70	1.55
5F2143	26F60	117	6.3CT	1.2	5000	2 3/8	BAH	3.60	3.06	2.88	2.65
5F2144	25F67	115/230	6.3CT	1.5	2500	1 1/2 x 2 3/8	TTV	16.50	14.00	13.20	12.10
5F2145	21F10	117	6.3CT	3	2500	2 1/2	BAH	3.30	2.80	2.64	2.42
5F2146	21F107	117	6.3CT	3	2500	2 x 1 3/4	LHV	4.20	3.57	3.36	3.08
5F2147	25F78	115/230	6.3CT	4	2000	1 1/4 x 1 3/8	NTV	8.10	6.88	6.48	5.64
5F2148	25F69	115/230	6.3CT	5.5	2500	2 x 3 1/8	TTV	16.50	14.00	13.20	12.10
5F2149	21F11	117	6.3CT	6	2500	2 x 1 3/4	CAV	5.40	4.59	4.32	3.96
5F2150	21F96	117	6.3CT	8	2500	3 3/8	BAH	4.80	4.08	3.84	3.56
5F2151	21F12	117	6.3CT	10	2500	2 x 2	CAV	6.75	5.73	5.40	4.70
5F2152	25F70	115/230	6.3CT	10	2500	2 1/4 x 3 1/2	TTV	16.50	14.00	13.20	12.10
5F2153	21F77	117	6.3CT	20	2500	2 1/2 x 3	GGV	12.00	10.20	9.60	8.80
5F2154	21F45	117	7.5CT	4	2500	2 x 2 1/2	LHV	3.30	2.80	2.64	2.42
5F2155	21F62	117	7.5CT	8	2500	2 1/2 x 2 3/8	LAV	7.50	6.38	6.00	5.50
5F2156	21F18	117	10.0CT	5	2500	2 1/2	CAV	6.00	5.10	4.80	4.40
5F2157	21F68	115	10CT/11CT/12CT	11	3000	2 3/4 x 2 3/8	LAV	10.50	8.92	8.40	7.70
5F2158	26F67	117	12.6CT	2	2500	2 1/2	BAH	3.60	3.06	2.88	2.65
5F2159	21F81	117	12.6CT	3	2500	3 1/8	BAH	4.20	3.57	3.36	3.08
5F2160	21F52	117	12.6/25.2	7/3.5	2500	2 1/4 x 2 3/8	GGV	10.50	8.92	8.40	7.70
5F2161	26F68	117	24.0	1	2500	2 1/2	BAH	5.25	4.44	4.16	3.85
5F2162	21F97	117	24CT/12	2/4	1500	3 3/8	BAH	4.80	4.08	3.84	3.56
5F2163	21F51	117	25.2	1	2500	2 1/2	BAH	3.90	3.31	3.12	2.86
5F2164	21F100	117	26.0CT	.04	2500	1 3/4	BAH	3.75	3.19	3.00	2.75
5F2165	21F101	117	26.0CT	.25	2500	2 3/8	BAH	3.75	3.19	3.00	2.75
5F2166	21F27	117	26.5CT	.6	7500	2 1/2	BAH	4.80	4.08	3.84	3.56
5F2167	21F82	117	26.5CT	1	1500	2 1/2	BAH	4.20	3.57	3.36	3.08



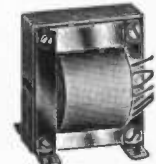
TTV



TAV



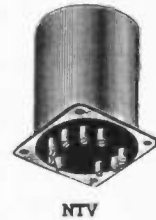
GGV



LAV



CAV



NTV



Triad Transformers

TYPE HS-HSM HERMETICALLY SEALED TRANSFORMERS

Case	Size						Wt. lbs.
	A	B	C	D	E	I	
AH	1 3/4"	1 3/4"	1 3/4"	1 1/4"	3/8"	6-32	4 oz.
AJ	1 3/8"	1 3/8"	2 3/8"	1 1/8"	1/2"	6-32	9 oz.
EA	1 13/16"	1 13/16"	2 3/4"	1 3/8"	1/4"	6-32	1 lb.
FA	2 1/4"	2 3/4"	3 1/8"	1 1/2"	1/4"	6-32	1 1/2 lb.

HS-HSM series transformers are designed to meet MIL-T-27B requirements. Equip. using these transformers need not be re-designed to submit for MIL. approval.

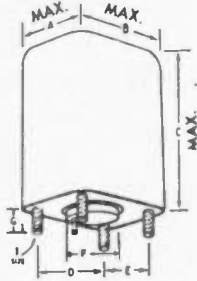
These transformers are permanently marked with electrical and test data as specified in MIL-T-27B. All are "Climate" treated. Avg. wt. 10 oz.

TYPE HS COMBINED PLATE AND FILAMENT TRANSFORMERS/PRIMARY 115 VOLTS/380-1500 CYCLE

Stk. No.	Type	MIL Type	Pri. Volts	Sec. Volts	Sec. Amp.	Case	1-9	10-24	25-49	50-99	100-249	250-up
3F836	HSM-225	TF4RX01EA	105-115-125	6.3CT	2	EA	22.47	20.22	18.20	16.93	15.91	15.11
3F737	HSM-230	TF4RX01FA	105-115-125	24CT	0.8	FA	17.35	15.62	14.06	13.08	12.30	11.69

TYPE HS TRANSFORMERS 380/1500 CYCLE (*Center Topped)

Stk. No.	Type	MIL Type	Sec. A.C. Volts	Fil. Volts	Fil. Amps	Case	1-9	10-24	25-49	50-99	100-249	250-up
4F442	HS-409	TF4RX03HA	350-0-350	700*, 6.3"	15.4	HA	30.87	27.78	25.00	23.25	21.86	20.77
3F338	HS-417	TF1RX03LA	400-300-0-300-400	800*, 6.3"	3.6	LA	49.44	44.50	40.05	37.25	35.02	33.27
3F738	HS-436	TF4RX01AH		6.3CT	1	AH	11.75	10.58	9.52	8.85	8.32	7.90
3F739	HS-425	TF4RX01YH	105-115-125	6.3CT	2	AJ-2	16.34	14.71	13.24	12.31	11.57	10.99
3F740	HS-427	TF4RX01EA	105-115-125	6.3CT	5	EA	21.19	19.07	17.16	15.96	15.00	14.25
3F741	HS-438	TF4RX01EA	105-115-125	24CT	1.5	EA	20.59	18.53	16.88	15.51	14.58	13.85
3F742	HS-433	TF4RX01FA	105-115-125	6.3CT/6.3	5	FA	23.34	21.01	18.91	17.59	16.53	15.70
3F745	HS-443	TF4RX01YH	105-115-125	12.6CT, 12.6	0.8	AJ-2	18.69	16.82	15.14	14.08	13.24	12.58
3F719	HS-442	TF4RX01EA	57.5-99.7-115-120	12.6CT, 12.6	2	EA	22.34	20.11	18.10	16.83	15.82	15.03



TYPE HS AND JAF AUDIO TRANSFORMERS

Stk. No.	Type	Mil. Type	Application	Primary Imp.	Secondary Imp.	Freq. Resp.	1-9	10-24	25-49	50-99	100-249	250-up
3F339	HS-14	TF1QX10YY	input	600-250-150-62.5	117,600 CT	20-20,000	25.59	23.03	20.73	19.28	18.12	17.21
4F443	HS-27	TF1QX15YY	interstage	20K CT/5000	60K CT/15K	20-20,000	24.72	22.25	20.03	18.63	17.51	16.63
4F444	HS-52	TF1QX13YY	output	20K CT/5000	600-250-150-62.5	20-20,000	26.27	23.64	21.28	19.79	18.60	17.67
4F445	JAF-15	TF1QX10YY	plate to grid	15,000	1 meg	300-3,000	14.57	13.11	11.80	10.97	10.31	9.79
4F446	JAF-33	TF1QX21YY	Hi Imp Insl	5000 CT	5000 CT	60-15,000	16.49	14.84	13.36	12.42	11.67	11.09

TYPE HS ISOLATION TRANSFORMERS—115 V., 380/1500 CYCLE

Stk. No.	Type No.	Mil. Type	Current	Volt-Amperes	Wt. lbs.	1-9	10-24	25-49	50-99	100-249	249-up
3F359	HS-470	TF4RX01EA	.35A	40	1.5	17.97	16.17	14.55	13.53	12.72	12.08
3F594	HS-472	TF4RX01GA	1.39A	160	3.1	22.09	19.88	17.89	16.64	15.64	14.86

TYPE R COMBINED PLATE AND FILAMENT TRANSFORMERS—Primary 115 Volts, 50-60 Cycles

All types are "Climate" treated for protection against moisture and for elimination of lamination chatter. Hold temp. rise below 55°C. Only copper foil static shields, grounded to the case and core, are used. Leads are UL approved. All connection data permanently marked on case. Small in size.

Stock No.	Type No.	Plate Supply		Rect. Fil.		Other Fil.		Mtg. Dim.-		1-9	10-24	25-49	50-99	100-249	250-up
		AC V	DC Ma	Volts	Amp.	Volts	Amp.	MW	MD						
3F942	R-4A	500CT	40	5	2	6.3CT	2	1 3/4"	6.65	5.99	5.39	5.01	4.71	4.47	
3F943	R-5A	600CT	65	5	2	6.3CT	2.7	2	7.77	6.99	6.29	5.85	5.50	5.23	
3F944	R-6A	480CT	50	5	2	6.3CT	2	2	8.03	7.23	6.51	6.05	5.69	5.41	
3F945	R-7A	600CT	50	5	2	6.3CT	2	2	8.22	7.40	6.66	6.19	5.82	5.53	
3F946	R-8A	500CT	75	5	2	6.3CT	2.5	2	8.65	7.79	7.01	6.52	6.13	5.82	
3F948	R-10A	525CT	90	5	2	6.3CT	5	2 1/4"	10.09	9.08	8.17	7.60	7.14	6.78	
3F949	R-11A	700CT	90	5	3	6.3CT	3.5	2 1/4"	10.77	9.69	8.72	8.11	7.62	7.24	
3F950	R-20A	700CT	200	5	3	6.3CT	8	2 3/4"	15.95	14.36	12.92	12.02	11.30	10.74	
3F956	R-72A	800CT	140	5	3	6.3CT	3	2 3/4"	12.20	10.98	9.88	9.19	8.64	8.21	
4F441	R-22A	320CT	70	5	3	6.3	6	2	7.90	7.11	6.40	5.95	5.59	5.31	

TYPE TY AUDIO TRANSISTOR TRANSFORMERS

Stk. No.	Type	Prim. Imped.	Size	Mtg. Ctrs.	Sec. Imped.	Output Watts	1-9	10-24	25-49	50-99	100-249	250-up
2F921	TY32X	200 CT	1 3/4" x 1 3/8" x 1"	1 3/8"	2,000 CT	2	3.77	3.39	3.05	2.84	2.67	2.54
2F923	TY34X	400 CT	1 3/4" x 1 3/8" x 1"	1 3/8"	2,000 CT	2	3.60	3.24	2.92	2.72	2.56	2.43
2F924	TY35X	500 CT	5/8" x 1 1/8" x 1 1/8"	1 1/8"	150 CT	1	3.17	2.85	2.57	2.39	2.25	2.14
2F934	TY45X	500 CT	1 3/8" x 1 3/8" x 1 1/8"	1 3/8"	16/8/4	2	4.12	3.71	3.34	3.11	2.92	2.77
2F937	TY49X	500 CT	1 3/8" x 2 3/8" x 1 3/8"	2	5,000 CT	3	3.98	3.58	3.22	2.99	2.81	2.67
2F939	TY51X	2,000 CT	5/8" x 1 3/8" x 1 1/8"	1 1/8"	200 CT	.05	4.50	4.05	3.65	3.39	3.19	3.03
2F940	TY52X	20,000 CT	1 3/8" x 1 3/8" x 7/8"	1 3/8"	2,000 CT	1	5.63	5.07	4.56	4.24	3.99	3.79
2F943	TY56X	10,000	1 3/8" x 1 3/8" x 7/8"	1 3/8"	2,000 CT	.05	3.77	3.39	3.05	2.84	2.67	2.54
2F944	TY57X	250 CT	1 3/8" x 1 3/8" x 7/8"	1 3/8"	16/8/4	2	4.07	3.66	3.29	3.06	2.88	2.74

TYPE TY OUTPUT AND DRIVER TRANSISTOR TRANSFORMERS—HIGH LEVEL

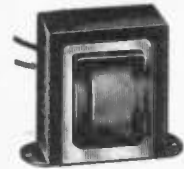
Stock No.	Type No.	Pri. Match. Imped.	Pri. Cur. MA	Sec. Match. Imped.	Max. Level	Size	1-9	10-24	25-49	50-99	100-249	250-up
2F959	TY-29X	24 CT	500	8/4	8 W	1 3/8" x 3 3/8" x 1 3/4"	4.95	4.46	4.01	3.73	3.51	3.33
2F949	TY-30X	100 CT	100	8/4	2 W	1 3/8" x 2 1/8" x 1 1/4"	3.32	2.99	2.69	2.50	2.35	2.23
2F950	TY-31X	200 CT	50	8/4	2 W	1 3/8" x 2 1/8" x 1 1/4"	3.25	2.93	2.64	2.46	2.31	2.19
2F952	TY-53X	200 CT	10	400 CT	6 W	1 1/8" x 3 3/8" x 1 3/4"	4.20	3.78	3.40	3.16	2.97	2.82
2F953	TY-61X	100 CT	100	100 CT	6 W	1 3/8" x 2 1/8" x 1 1/2"	3.49	3.14	2.83	2.63	2.47	2.35
2F954	TY-63X	48 CT	275	16/8	5 W	1 1/8" x 3 3/8" x 1 3/4"	4.83	4.35	3.92	3.65	3.43	3.26
2F955	TY-64X	32 CT	575	16/8/4	10 W	1 3/8" x 3 3/8" x 1 3/4"	4.95	4.46	4.01	3.73	3.51	3.33
2F956	TY-65Z	32 CT	575	6K/4K/3K	10 W	2 1/8" x 2 7/8" x 2"	4.52	4.07	3.66	3.40	3.20	3.04
2F957	TY-66A	6 CT	5A	6K/4K/3K	40 W	3 1/8" x 3 3/8" x 2 1/2"	10.22	9.20	8.28	7.70	7.24	6.88
2F958	TY-67A	6 CT	5A	16/8/4	40 W	3 1/8" x 3 3/8" x 2 1/2"	9.89	8.90	8.01	7.45	7.00	6.65

*Units have 1" mtg. ctrs., 1/32" W x 3/16" H x 3/4" D.

Stock No.	Type	Turns Ratio	DC Res.	Max. Pri. DC.Ma	Power level	Min. Pri. Induct	1-9	10-24	25-49	50-99	100-249	250-up
4F450	TY-160X	6:1:1	45	3.6	50	3-5W	5.47	4.92	4.43	4.12	3.87	3.68



CASE X



CASE Z



CASE A

NOTE: LAST LETTER OF MFR. TYPE NUMBER FOR ITEMS IN THIS SECTION DENOTES CASE STYLE

Triad Transformers



TYPE TY DC-TO-AC TRANSISTOR TRANSFORMERS

Stock No.	Mir. Type	DCV Pri.	Secondary (115 VAC)	Dimensions (HWD, in.)	Mtg. Dim. MW MD	Wt. Lbs.	1-9	10-24	25-49	50-99	100-249	250-up
3F851	TY-468	28	400cps 60W	1 7/8 x 2 1/4 x 2	1 7/8" 1 3/8"	1/2	13.35	12.02	10.82	10.06	9.46	8.99
3F852	TY-75A	12	60cps 115W	3 7/8 x 3 1/2 x 3 1/4	2 1/2" 2 3/8"	3	16.54	14.89	13.40	12.46	11.71	11.12
3F853	TY-76A	12	60cps 60W	3 1/2 x 2 1/2 x 2 3/8	2" 1 1/2"	3	10.67	9.60	8.64	8.04	7.56	7.18

*1" mtg. ctrs., 1 3/32" x 3/8" x 3/4" D.

MINIATURE AUDIO—"TRIJECTS"

Stock No.	Type	Application*	Pri. Imp.	Sec. Imp.	Resp.	1-9	10-24	25-49	50-99	100-249	250-up
3F017	T-31X	Line to line	600/250/50	600/250/50	50-15000	4.20	3.78	3.40	3.16	2.97	2.82
3F018	T-33X	Hi-imp. line to line	5000 CT	5000 CT	60-15000	4.90	4.41	3.97	3.69	3.47	3.30

TYPE SP "RED SPEC" TRANSISTOR TRANSFORMERS

Type SP. Designed especially for use in transistorized and printed circuit applications, these units come in tough epoxy-molded cases, weigh 1/10 oz.! Incorporate .020" dia. strong nickel-alloy leads spaced on standard 1/10" grid ctrs. to fit printed circuit boards. Base dimensions: .310x.410". Lead length: 3/4". Meet MIL-T-27B specs. *SP-66 is an output-isolation transformer. Shpg. wt., 1 oz.

Stock No.	Type	MIL-T-27B Designation	Pri. Imp.	Sec. Imp.	Pwr. M.W.	1-9	10-24	25-49	50-99	100-249	250-up
3F011	SP-4	TF5RS16Z2	200K CT	1K CT	10	10.50	9.45	8.51	7.91	7.44	7.07
3F012	SP-5	TF5RS16Z2	50K CT	1K CT	25	9.95	8.96	8.06	7.50	7.05	6.70
INPUT Response: ± 2 db, 230 cps-50 kc @ 25 mw., 100 cps-50 kc @ 1 mw.											
INTERSTAGE Response: ± 2 db, 200 cps-50 kc @ 40 mw., 100 cps-50 kc @ 1 mw.											
3F018	SP-15	TF5RS13Z2	110K/12K CT	1.5K/1.8K CT	50	8.99	8.09	7.28	6.77	6.36	6.04
DRIVER Response: ± 2 db, 175 cps-50 kc.											
3F017	SP-20	TF5RS13Z2	10K/12K CT	1.2K/1.5K CT	50	8.72	7.85	7.07	6.58	6.19	5.88
3F018	SP-21	TF5RS13Z2	10K/12K CT	2K/2.5K CT	50	8.77	7.89	7.10	6.60	6.20	5.89
OUTPUT Response: ± 2 db, 250 cps-50 kc @ 50 mw., 150 cps-50 kc @ 1 mw.											
4F437	SP-32	TF5RS17Z2	500	50	50	6.97	8.18	5.56	5.17	4.86	4.62
3F257	SP-33	TF5RS17Z2	1K/1.2K	50/60	50	7.10	6.39	5.75	5.35	5.03	4.78
3F279	SP-48	TF5RS13Z2	7.5K/10K CT	12/16	50	7.78	7.00	6.30	5.86	5.51	5.23
3F281	SP-50	TF5RS13Z2	500 CT	600	50	7.62	6.86	6.17	5.74	5.40	5.13
3F283	SP-52	TF5RS13Z2	1.5K CT	600	50	7.98	7.18	6.46	6.01	5.65	5.37
3F291	SP-65	TF5RS13Z2	8K/10K CT	3.2/4	50	7.50	6.75	6.08	5.65	5.31	5.04
3F292	SP-66	TF5RS13Z2	10K CT*	10K CT	50	8.48	7.63	6.87	6.39	6.00	5.74

CHOKES

Stock No.	Type	Inductance (O DC)	DCR (ohms) + 25%	Ma. DC Max.	1-9	10-24	25-49	50-99	100-249	250-over
3F204	SP-107	TF5RS20Z2	1.25 hy. @ 2 ma.	.....	5.98	5.38	4.84	4.50	4.23	4.02
3F216	SP-108	TF5RS20Z2	3.5 hy. @ 2 ma.	.....	6.22	5.60	5.04	4.69	4.41	4.19
3F318	SP-310	Magnetic Shielding Case	.....	.....	.84	.80	.76	.70	.67	.63

EX SERIES SUB-MINIATURE ENCAPSULATED TOROIDAL INDUCTORS

For quick circuit board mounting; from 50 millihenries to 400 millihenries. 1/16"D by 1/4"H. Encapsulated in high temp. epoxy resin; leads of gold plated nickel alloy. Manufactured to MIL-T-27B.

Stk. No.	Type	Inductance (O DC)	DCR (ohms) + 25%	Ma. DC Max.	1-9	10-24	25-49	50-99	100-249	250-over
2F960	EX-050A	50 mh	48	14	9.27	8.34	7.51	6.98	6.56	6.23
2F961	EX-100A	100 mh	86	10	9.89	8.90	8.01	7.45	7.00	6.65
2F962	EX-200A	200 mh	139	6	10.55	9.50	8.55	7.95	7.47	7.10
2F963	EX-300A	300 mh	206	5	10.77	9.69	8.72	8.11	7.62	7.24
2F964	EX-400A	400 mh	310	4.5	10.99	9.89	8.90	8.28	7.78	7.39

TYPE TY EPOXY MOLDED TOROIDAL TYPES

Type TY. Compact, hermetically sealed, very high efficiency. Single-hole mounting and peripheral terminals permit ready stacking for easy series-parallel connection if increased output is desired. Meet MIL-T-27B, Grade 5, Class R specs. DC Source Volts: *12.6, #28. Av. Shpg. wt., 1 1/4 lb.

Stock No.	Mir. Type	DCV from Rectifier	Max. DC Ma.	D.x.H. (in.)	Wt. Lbs.	1-9	10-24	25-49	50-99	100-249	250-up
3F438	*TY-68S	250/125	85	1 1/4 x 1 3/4	2	7.52	6.77	6.09	5.66	5.32	5.05
3F633	*TY-78	250/125	100	1 3/8 x 1 1/2	35	14.72	13.25	11.93	11.09	10.42	9.90
3F634	*TY-79	300/150	200	1 3/4 x 1	35	14.72	13.25	11.93	11.09	10.42	9.90
3F635	*TY-80	325/162.5	150	1 3/4 x 1	35	15.94	14.35	12.92	12.02	11.30	10.74
3F636	*TY-81	375/187.5	200	2 x 1	50	15.19	13.67	12.30	11.44	10.75	10.21
3F637	*TY-82	450/225	150	2 x 1	50	14.72	13.25	11.93	11.09	10.42	9.90
3F638	*TY-83	500/250	250	2 3/4 x 1 3/4	85	21.17	19.05	17.15	15.95	14.99	14.24
3F639	*TY-84	600/300	200	2 3/4 x 1 3/4	1.00	21.57	19.41	17.47	16.25	15.28	14.52
2F966	*TY-86	425/212.5	350	1 3/8 x 1 1/2	1.00	21.80	19.62	17.66	16.42	15.43	14.66
3F640	*TY188	250/125	80	1 1/2 x 1 1/2	.25	13.02	11.72	10.55	8.81	9.22	8.76
3F641	#TY-92	450/225	200	2 x 1	.50	15.50	13.95	12.56	11.68	10.98	10.43

EC AND EK SERIES TOROIDS

Stk. No.	Type No.	Ind.	Approx. Ohms	DC-ma for 5% ind. drop	1-9	10-24	25-49	50-99	100-249	250-up
4F015	EC-001	1 mh	.46	520	5.72	5.15	4.64	4.32	4.06	3.86
4F016	EC-002	2 mh	.50	368	5.68	5.11	4.60	4.28	4.02	3.82
4F017	EC-003	3 mh	.70	300	5.93	5.34	4.81	4.47	4.20	3.99
4F036	EC-010	10 mh	1.30	165	6.20	5.58	5.02	4.67	4.39	4.17
4F038	EC-020	20 mh	1.85	116	6.27	5.64	5.08	4.72	4.44	4.22
4F039	EC-030	30 mh	2.85	95	5.92	5.33	4.80	4.46	4.19	3.98
4F051	EC-050	50 mh	5.50	74	6.38	5.74	5.17	4.81	4.52	4.29
4F053	EC-100	100 mh	13.00	52	6.92	6.23	5.61	5.22	4.91	4.66
4F054	EC-200	200 mh	23.00	37	6.72	6.05	5.45	5.07	4.77	4.53
4F055	EC-250	250 mh	33.00	33	6.80	6.12	5.51	5.12	4.81	4.57
4F058	EC-500	500 mh	65.50	23	6.93	6.24	5.62	5.23	4.92	4.67
4F060	EC-1700	700 mh	80.00	19.5	7.08	6.37	5.73	5.33	5.01	4.76
4F076	EC-1000	1000 mh	128.00	16.5	7.25	6.53	5.88	5.47	5.14	4.88
4F078	EC-2000	2000 mh	220.00	11.6	7.65	6.89	6.20	5.77	5.42	5.15
4F079	EC-3000	3000 mh	370.00	9.5	7.97	7.17	6.45	6.00	5.64	5.36
4F236	EC-5000	5000 mh	645.00	7.4	8.32	7.49	6.74	6.27	5.89	5.60
4F238	EC-10000	10000 mh	1100.00	5.2	9.60	8.64	7.78	7.24	6.81	6.47
4F439	EK-100	100 mh	4.4	82	5.92	5.33	4.80	4.46	4.19	3.98
4F440	EK-1000	1000 mh	45.0	26	7.15	6.44	5.80	5.39	5.07	4.82



"Red Spec"

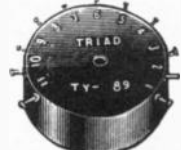


SP-310 Magnetic Shielding Case

Type SP. All models have tough epoxy-molded case, weigh only 1/10 oz.! .02" dia. nickel-alloy leads are 3/4" long, no stripping or tinning. Base size, .310 x .410"; height, .465". Operating voltage 150 VDC. Meet MIL-T-27B spec. *SP-66 is an output-isolation transformer. Shpg. wt., 1 oz.



Toroidal Inductors



Epoxy Molded Toroidal



EC Series
EC SERIES. Powdered nickel alloy dust cores closely approach perfect inductor with high "Q", high stability with level and temp. High res. to shock and vibration. Ind. coils held to 2% inductance tol. Supplied in molded epoxy to meet MIL-T-27B. Size: 1 1/8 dia. x 2 3/8" ht. Shpg. wt., 1 1/2 lbs. EK series comes with plastic coated leads. Size: 1 1/8"D. x 3/8"H.



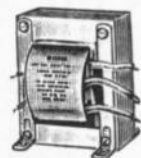
Transformers

TYPE F FILAMENT TRANSFORMERS, SINGLE SECONDARY—Primary 115 volts, 60 cycles

Stk. No.	Type No.	Secondary Volts	Secondary Amperes	Test Volts	Mtg. MW	Dim. In. MD	Wt. Lbs.	1-9	10-24	25-49	50-99	100-249	250-over
3F720	F-1X	2.5CT	3	1500	2 ³ / ₁₆		.68	3.55	3.19	2.87	2.67	2.51	2.38
3F722	F-3X	2.5CT	10	3000	3 ¹ / ₁₆		1 ¹ / ₁₆	4.98	4.48	4.03	3.75	3.53	3.35
3F723	F-5U	2.5CT	10	7500	2		2.2	6.38	5.74	5.17	4.81	4.52	4.29
3F724	F-7X	5 CT	3	1500	2 ¹ / ₁₆	1 ¹ / ₁₆	1 ¹ / ₁₆	4.00	3.60	3.24	3.01	2.83	2.69
3F958	F-13X	6.3CT	.6	1500	2		.37	2.67	2.40	2.16	2.01	1.89	1.80
3F959	F-14X	6.3CT	1.2	2500	2 ³ / ₁₆		3 ¹ / ₁₆	3.17	2.85	2.57	2.39	2.25	2.14
3F960	F-16X	6.3CT	3	2500	2 ¹ / ₁₆		1 ¹ / ₁₆	3.98	3.58	3.22	2.99	2.81	2.67
3F961	F-18X	6.3CT	6	1500	3 ¹ / ₁₆		2 ¹ / ₁₆	5.88	5.29	4.76	4.43	4.16	3.95
3F775	F-18A	6.3CT	6	1500	2	1 ¹ / ₁₆	2 ¹ / ₁₆	7.05	6.35	5.71	5.32	5.00	4.75
3F776	F-21A	6.3CT	10	1500	2 ¹ / ₁₆	2	3 ¹ / ₁₆	9.00	8.10	7.29	6.78	6.37	6.05
2F532	F-45X	24CT	1	1500	2 ¹ / ₁₆		1.3	3.77	3.39	3.05	2.84	2.67	2.54
3F777	F-22A	6.3CT	20	2000	2 ¹ / ₁₆	3	7	12.50	11.25	10.13	9.42	8.85	8.41
3F778	F-25X	12.6CT	1.5	1500	2 ¹ / ₁₆		1 ¹ / ₁₆	3.75	3.38	3.04	2.83	2.66	2.53
3F996	F-26X	12.6CT	2.5	1500	3 ¹ / ₁₆		1.55	4.15	3.74	3.37	3.13	2.94	2.79
3F779	F-40X	26.8CT	1	1500	2 ¹ / ₁₆		1 ¹ / ₁₆	3.38	3.04	2.74	2.55	2.40	2.28
3F726	F-41X	25.2CT	2	1500	3 ¹ / ₁₆		2 ¹ / ₁₆	4.82	4.34	3.91	3.64	3.42	3.25
3F828	F-12X	5 CT	8	2500	3 ¹ / ₁₆		3 ¹ / ₁₆	6.05	5.45	4.91	4.57	4.30	4.09
3F828	F-15U	5 CT	15	3000	2 ¹ / ₁₆		2 ¹ / ₁₆	9.32	8.39	7.55	7.02	6.60	6.27
3F829	F-20U	6.3/6CT	11	3000	2 ¹ / ₁₆		4	9.82	8.84	7.96	7.40	6.96	6.61
3F831	F-28U	7.5/6.3CT	25	3000	3		7 ¹ / ₁₆	18.07	16.28	14.83	13.61	12.79	12.15
3F832	F-29U	12/11/10CT	11	3000	2 ³ / ₁₆		6.5	12.51	11.28	10.13	9.42	8.76	8.32
4F435	F-42A	12.6 @ 2.5	5	1500	2 ¹ / ₁₆	2	3.7	7.40	6.66	5.99	5.57	5.24	4.98



Case X



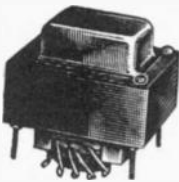
Case U

POWER TRANSFORMERS FOR TRANSISTOR CIRCUITRY—For Delco 50 Watt and 100 Watt Amplifiers

Stk. No.	Type	Sec. V.	Sec. Amp.	Test V.	Mtg. MW	Dim. In. MD	Wt. Lbs.	1-9	10-24	45-49	50-99	100-249	250-up
4F451	R-82B	70	3.5	1500	3 ³ / ₁₆	3	8 ¹ / ₁₆	13.93	12.54	11.29	10.50	9.87	9.38
4F453	R-206B	68	1.25	1500	3 ¹ / ₁₆	2 ¹ / ₁₆	4 ¹ / ₁₆	10.48	9.43	8.49	7.90	7.43	7.06

TYPE F SELENIUM RECTIFIER TRANSFORMERS—Primary 60 cycles

Stk. No.	Type No.	Pri. Volts	Secondary		Rectifier HW Volts DC	Circuit FWB Volts DC	Mtg. Dim.		Wt. Lbs.	1-9	10-24	25-49	50-99	100-249	250-over
			AC Volts	Amps RMS			MW	MD							
3F984	F-47U	115	17-18	3	6-7	13-14	1 ¹ / ₁₆	2 ³ / ₁₆	3.2	8.07	7.26	6.53	6.07	5.71	5.42
3F982	F-48U	115	17-18	6	6-7	13-14	2 ¹ / ₁₆	2 ¹ / ₁₆	5.5	9.97	8.97	8.07	7.51	7.06	6.71
3F985	F-49U	115	36	3	13	26	3	3 ¹ / ₁₆	9.75	16.39	14.75	13.28	12.35	11.61	11.03
3F963	F-60U	115	8.5-13-19.5-26	3	9	18	2 ¹ / ₁₆	2 ³ / ₁₆	3.5	7.10	6.39	5.75	5.35	5.03	4.78
3F986	F-61U	115	24-27-30-33-36	3	13	26	2 ¹ / ₁₆	2 ¹ / ₁₆	5.65	10.17	9.15	8.23	7.65	7.19	6.83
3F965	F-64U	115	7-8-9	7	5-6-7	11	2 ¹ / ₁₆	2 ³ / ₁₆	3.5	8.79	7.91	7.12	6.62	6.22	5.91
3F990	F65U	110-120	0-140-150-160	.75	60	115	2 ¹ / ₁₆	2 ¹ / ₁₆	5.8	10.17	9.15	8.24	7.66	7.20	6.84
3F967	F-67U	110-120	24-27-30-33-36	8	13	26	3	3 ¹ / ₁₆	10 ³ / ₁₆	19.52	17.57	15.81	14.70	13.82	13.13
3F823	F-79U	115	24-26-28-30	15	11.4	22.8	3 ¹ / ₁₆	4 ¹ / ₁₆	18 ¹ / ₁₆	28.19	25.37	22.83	21.23	19.96	18.96
3F624	F-80U	115 tap.	18-18	20-20	—	13	2 ³ / ₁₆	4 ¹ / ₁₆	25	47.08	42.37	38.13	35.46	33.33	31.66
3F625	F-84AC	230-115	12-12	10-10	—	8.5	3	3 ¹ / ₁₆	12.5	22.60	20.34	18.31	17.00	16.01	15.21



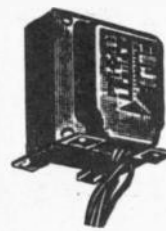
Case C

TYPE X LOW VOLTAGE RECTIFIER TRANSFORMERS—50-60 Cycles

Stk. No.	Type	Pri. Volts	Secondary		Case Dim.			Wt. Lbs.	1-9	10-24	25-49	50-99	100-249	250-up	
			Volts	Current	H	W	D								
3F620	F-96X	115	Tapped	40CT-20CT-10	100 ma DC	1 ¹ / ₁₆	2 ³ / ₁₆	1 ⁵ / ₁₆	3 ¹ / ₁₆	3.97	3.29	3.05	2.84	2.67	2.54
3F321	F-91X	115	Tapped	40CT-20CT-10	300 ma DC	2 ³ / ₁₆	3 ¹ / ₁₆	2	1 ¹ / ₁₆	4.45	4.01	3.61	3.36	3.16	3.00
3F822	F-92A	115	Tapped	40CT-20CT-10	1 A DC	3 ¹ / ₁₆	4 ¹ / ₁₆	3 ¹ / ₁₆	3 ¹ / ₁₆	7.73	6.96	6.26	5.82	5.47	5.20

TYPE R POWER TRANSFORMERS FOR AMPLIFIERS, VTVM, etc.—Primary 115 volts, 60 cycles

Stk. No.	Type No.	Plate Supply		Fil. Windings Volts-Amps.	Mtg. MW	Dim.-In.		Wt. Lbs.	1-9	10-24	25-49	50-99	100-249	250-over
		AC Volts	DC Ma			MD	Lbs.							
3F930	R-68A	800 CT	30	5V.-2A, 6.3-1.2A, 6.3V.-1.2A.	2	2 ³ / ₁₆	3	9.77	8.79	7.91	7.36	6.92	6.57	
2F534	R-2C	135	15	6.3V.-.9A	1 ¹ / ₁₆	1 ¹ / ₁₆		6.35	5.72	5.15	4.79	4.50	4.28	
3F932	R-3A	500 CT.	20	6.3V. CT.-2A.	1 ³ / ₁₆	1 ³ / ₁₆	1 ³ / ₁₆	6.83	6.15	5.54	5.15	4.84	4.60	
2F533	R-108A	500 CT.	75	5V.-2A, 6.3-2.5	2	1 ⁷ / ₁₆	2.4	7.82	7.04	6.34	5.90	5.55	5.27	
3F933	R-29A	230 CT.	40	6.3V.-1.5A.	1 ³ / ₁₆	1 ³ / ₁₆	1 ³ / ₁₆	5.92	5.33	4.80	4.46	4.19	3.98	
3F934	R-30X	135	50	6.3V.-1.5A.	3 ¹ / ₁₆	1 ¹ / ₁₆	1 ¹ / ₁₆	5.45	4.91	4.42	4.11	3.86	3.67	
3F935	R-54X	115	15	6.3V.-.6A.	2 ³ / ₁₆		1	2.72	2.45	2.21	2.06	1.94	1.84	



Case A

TRANSFORMERS FOR CATHODE RAY TUBES—Primary 115 Volts—50-60 Cycles

Stk. No.	Type	Plate Supply		Filament Windings Volts and Amperes	HxWxD	1-9	10-24	25-49	50-99	100-249	250-up
		AC Volts	DC Ma								
3F853	R-43C	1600	3	6.3/5/2.5V., 1A 6.3/3/2.5V., 3A	2 ³ / ₁₆ x3 ¹ / ₁₆ x2 ³ / ₁₆	12.49	11.24	10.12	9.41	8.85	8.41
4F264	R-41C	440-0-440-1250	125/5	6.3V-6A, 2.5V-1.75A 2.5V-1.75A, 5.0V-3.0A	3 ¹ / ₁₆ x4 ¹ / ₁₆ x3 ¹ / ₁₆	15.97	14.37	12.93	12.02	11.30	10.74
4F265	R-83A	800 CT 650	70 3	6.3CTV.-3.5A. 6.3V.-.6A. 1.25V.-.3A.	3 ¹ / ₁₆ x2 ³ / ₁₆ x3 ¹ / ₁₆	18.59	16.73	15.06	14.01	13.17	12.51

LOW FREQUENCY TRANSFORMERS—30 TO 500 CYCLES

One half of primary balanced to other half in both inductance and "Q". Cores specially treated to eliminate noise in microvolt range of input signals.

Stock No.	Type	Primary Imp. in Ohms	Secondary Imp. in Ohms	Size	Weight	1-9	10-24	25-49	50-99	100-249	250-up
2F535	G-19	1000 CT.	1000 CT.	2 ³ / ₁₆ Hx1 ³ / ₁₆ x2"	5 ¹ / ₄ oz.	25.11	22.80	20.34	18.92	17.78	16.89
4F255	G-21	200000 CT.	12500 CT.	2 ³ / ₁₆ Hx1 ³ / ₁₆ x2"	5 ¹ / ₄ oz.	31.89	28.52	25.67	23.87	22.44	21.32
4F258	G-22	50000 CT.	800000 CT.	2 ³ / ₁₆ Hx1 ³ / ₁₆ x2"	1 lb.	38.12	34.31	30.88	28.72	27.00	25.65
4F436	G-57	18000 CT.	300/333/233/200/125/67 ¹ / ₂ /50/17	1 ³ / ₁₆ Hx7 ¹ / ₁₆ x1 ¹ / ₁₆ "	2 ³ / ₄ oz.	19.62	17.66	15.89	14.78	13.89	13.20



G-22

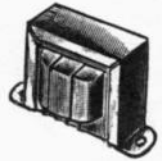


TYPE "A" LOW LEVEL OUTPUT TRANSFORMERS

These audio components are designed to fill demands in public address, amateur, and replacement equipment, and offer absolute maximum of performance

possible in the size allowed. Mtg. Centers: Type A-31X, 2"; Type A-51X, 1 1/4". Type A-53X, 2 1/4". Type A-65J has split Secondary Winding.

Stock No.	Type No.	Application	Freq. Resp.	Pri. Imp.	Sec. Imp.	Wt. Lbs.	1-9	10-24	25-49	50-99	100-249	250-up
2F536	A-31X	Plate to Grid	100-10,000	10,000	90,000 CT	.45	3.90	3.51	3.16	2.94	2.76	2.62
3F782	A-51X	Tube to line	200-8000	7000	50	1/4	3.33	3.00	2.70	2.51	2.36	2.24
3F783	A-53X	Single or p.p. tubes to line	70-10,080	18000 CT	600/250/50	1/4	4.08	3.67	3.30	3.07	2.89	2.75
2F537	A-55J	Plate to line	30-15,000	15,000	600/250/50	.35	5.47	5.52	7.67	7.13	6.70	6.37
2F538	A-65J	Plate to line	30-15,000	15,000 CT	600CT/150	.35	9.89	8.72	7.85	7.30	6.86	6.52



CASE X

TYPE "A" INPUT TRANSFORMERS, Line or Microphone to Grid

Stk. No.	Type No.	Application	Freq. Resp.	Pri. Imp.	Turn Ratio	Mtg. Dim.		Wt. Lbs.	1-9	10-24	25-49	50-99	100-249	250-Up
						MW	MD							
3F786	A-1X	Line or sgle btn mibe to grid.	100-15,000	100	31.4	1 1/4		1/4	2.97	2.67	2.40	2.23	2.10	2.00
3F619	A-3X	Line or db mike to grid	200-10,000	400CT	22.1	1 1/4		1/4	3.32	2.99	2.69	2.50	2.35	2.23
3F689	A-4X	Line to grid.	100-20,000	500/200 67.5CT	12	1 1/4		1/4	4.15	3.74	3.34	3.13	2.94	2.79
3F690	A-5X	Sgle btn mike to pp grids-Hi-gain.	100-15,000	100	84	2 3/4		1/2	4.28	3.85	3.47	3.23	3.04	2.89



CASE A

TYPE "C" SMOOTHING FILTER REACTORS

Stk. No.	Type No.	Inductance Henries	Current Ma.	Resistance Ohms	Test Volts RMS	Mtg. Dim.		Wt. Lbs.	1-9	10-24	25-49	50-99	100-249	250-up
						MW	MD							
3F753	C-30X	50	15	3500	1500	2		1/2	3.00	2.70	2.43	2.26	2.12	2.01
3F754	C-1X	15	20	1000	1000	1 1/4		1/4	2.35	2.12	1.91	1.78	1.67	1.59
3F952	C-3X	10	50	500	1500	2 3/4		3/4	2.75	2.48	2.23	2.07	1.85	1.85
4F430	C-5X	4	50	360	1500	2		.35	2.30	2.07	1.86	1.73	1.63	1.55
3F755	C-7X	12	75	390	1000	2 1/2		1	3.28	2.95	2.66	2.47	2.32	2.20
3F757	C-9X	10	90	270	1000	2 1/2		1 1/4	3.48	3.13	2.82	2.62	2.46	2.34
2F536	C-11X	4	90	100	1500	2 1/2		1	2.90	2.61	2.35	2.19	2.08	1.96
3F354	C-10X	6	110	180	1500	3 1/4		1 1/2	3.82	3.26	2.93	2.72	2.56	2.43
3F758	C-14X	9	125	250	1000	3 1/4		1 1/2	4.13	3.72	3.35	3.12	2.93	2.78
3F956	C-14A	6	200	150	1500	3 3/4		1 1/2	4.75	4.28	3.85	3.58	3.37	3.20
3F760	C-4X	6	200	150	1500	2	1 1/2	2 1/2	6.48	5.83	5.25	4.88	4.59	4.36
3F761	C-18A	10	200	150	2500	2 1/4	2 3/4	4 1/4	8.25	7.43	6.69	6.22	5.85	5.56
3F762	C-15X	4	250	100	1500	3 3/4		2 1/4	4.58	4.12	3.71	3.45	3.24	3.06
4F431	C-17X	1.5	300	40	1500	3 3/4		1.6	3.77	3.39	3.05	2.84	2.67	2.54
3F764	C-20A	6	400	60	3000	3	3 3/4	10 1/2	13.85	12.29	11.06	10.29	9.67	9.19
4F432	C-27X	0.7	290	30	1500	2 3/4		3/4	2.50	2.25	2.03	1.89	1.78	1.69
4F452	C-36X	.5	300	30	1500	2		5	2.42	2.18	1.96	1.82	1.71	1.62
3F785	C-40X	.32	600	10	1500	2 1/2		1 1/4	3.15	2.84	2.56	2.38	2.24	2.13
3F734	C-47U	3-.075	1A-2A	3-.75	1500	2 1/4	2 1/2	5	7.60	6.84	6.16	5.73	5.39	5.12
3F735	C-48U	.08-.02	2.5A-5A	.61-.155	1500	2 1/4	3	6 1/2	9.55	8.60	7.74	7.20	6.77	6.43
2F540	C-49U	.032-.008	5A-10A	.19-.05	1500	2 3/4	3 1/2	8	14.89	13.22	11.90	11.07	10.41	9.89

TYPE "M" MODULATION TRANSFORMERS

Stock No.	Type No.	Primary	Freq. Resp.	Secondary Imped.	Ma.	Audio Watts	Wt. Lbs.	1-9	10-24	25-49	50-99	100-249	250-up
3F1045	M-4Z	5000 (Autoformer)	300-3600	6750	100 (tot.)	10	3/4	4.17	3.75	3.38	3.14	2.85	2.80
3F1046	M-1X	10 000 CT.	300-3000	5000-8000-10,000	50	5	1/4	3.48	3.13	2.82	2.62	2.46	2.34
3F1047	M-3X	10 000 CT.	300-3000	3000-5000-8000	100	20	1 1/2	5.77	5.18	4.67	4.34	4.08	3.88

TYPE "N" ISOLATION TRANSFORMERS—50/60 cycles

Stock No.	Type No.	V. A. Output	Input Volts	Output Volts	Mtg. Dim. MW	MD	Wt. Lbs.	1-4	5-24	25-49	50-99	100-249	250-over
4F433	N-5M*	250	230	115	2 1/2	3	7	13.30	11.97	10.77	10.02	9.49	8.95
3F750	N-51X	35	115	115	3 1/4	.....	1 1/4	4.73	4.26	3.83	3.56	3.35	3.18
3F803	N-68X	50	230/115	115	3 1/4	.....	1 1/4	5.88	5.29	4.76	4.43	4.16	3.95
3F751	N-53M	85	115	115	2 1/4	2 3/4	4 1/2	12.83	11.55	10.40	9.67	9.09	8.64
3F804	N-54M	150	115	115	2 1/2	3	7	14.83	13.35	12.02	11.18	10.51	9.98
2F541	N-55M	250	115	115	3	3 3/4	11	22.67	20.40	18.36	17.07	16.05	15.25
2F542	N-57M	500	115	115	3 1/2	5 1/2	23.75	52.33	47.10	42.39	39.42	37.05	35.20
3F805	N-67A	150	230/115	115	2 1/2	3	7	11.55	10.40	9.36	8.70	8.18	7.77

* Autoformer

TYPE "S" STANDARD OUTPUT TRANSFORMERS

Stock No.	Type	Tubes Used	Primary Imped.	DC. Ma.	Audio Watts	Wt. Lbs.	1-9	10-24	25-49	50-99	100-249	250-up
3F1049	S-12X	25L6, 50L6, 35A5, 50B5 etc.	2500	50	2-3	1/4	2.37	2.13	1.92	1.79	1.68	1.60
3F1052	S-3X	6V6, 7C5, 6AQ5, 25A6, 71, etc.	5000	40	3-4	1/2	2.60	2.34	2.11	1.96	1.84	1.75
3F1056	S-5X	6V6, 7C5, 6AQ5, 25A6, 71, etc.	5000	50	5-8	1	3.32	2.99	2.69	2.50	2.35	2.23
3F1058	S-7X	6K6, 7B5, 6F6, 1Q5, 31, 33, 41, 42, etc.	7500	30	3-5	1/2	2.60	2.34	2.11	1.96	1.84	1.75
3F1066	S-15X	P.p.-6V6, 7C5, 6K6, 6F6, etc.	10,000 CT.	35	7-10	1 1/2	3.27	2.94	2.65	2.46	2.31	2.19
2F543	S-28X	Single plate to line or speaker.	7500	40	5	1	4.72	4.25	3.83	3.56	3.35	3.18
3F1067	S-19Z	P.p.-6V6, 7C5, 6K6, 6F6, etc.	10,000 CT.	50	10-14	1 1/4	4.22	3.80	3.42	3.18	2.99	2.84
2F544	S-20Z	Single tube to 3-4 ohm voice coil.	2000	50	2-3	1/2	2.40	2.16	1.94	1.80	1.69	1.61
4F434	S-29X	Single plate to line or speaker.	5000	45	5	1	4.77	4.29	3.86	3.59	3.37	3.20

SAVE WORK! Make Newark your Complete 1-Point Stock Source!
SAVE TIME! At Newark—fast, efficient service always!
SAVE MONEY! Quantity Prices Competitive with Manufacturer!



CASE Z



CASE M



CASE U



Miniature Transformers



"SUB-OUNCERS"

Tiny transformers for use in hearing aids, pocket radios, etc. Measure only $\frac{3}{32} \times \frac{7}{16} \times \frac{1}{8}$ " H. Weight .03 lb. each. Frequency response, ± 3 db. 200-5,000 cps.
**Indicates split winding.

*Assorted.

Stock No.	Type	Application	Pri. Imp.	Sec. Imp.	1-24°	25-99°	100-up°
3F390	SO-1	Input	200, 50	250,000, 62,500	3.60	3.06	2.88
3F391	SO-2	Inter.	10,000	90,000	3.30	2.81	2.64
3F392	SO-3	Plate to line	10,000, 25,000, 30,000	200, 500	3.30	2.81	2.64
3F393	SO-4	Output	2,675 ohms	50	3.00	2.55	2.40
3F394	SO-5	Reactor 50 hy 1 ma DC transis. Int.	20,000, 30,000	800, 1200	3.00	2.55	2.40
3F396	SO-7	transis. to PP	10,000	2,000CT	3.60	3.06	2.88
3F397	SO-8	transis. to VC	500CT	3.2	3.60	3.06	2.88
3F398	SO-9	transis. to VC	4,000CT	8/16	3.60	3.06	2.88
3F399	SO-10	transis. to VC	400 CT	400**	4.20	3.57	3.36
3F595	SO-11	Inters	500 CT	500**	4.20	3.57	3.36
3F596	SO-12	Inters	400 CT	120**	4.20	3.57	3.36
3F597	SO-13	Inters	500 CT	150**	4.20	3.57	3.36
3F598	SO-14	Inters	400 CT	40**	4.20	3.57	3.36
3F598	SO-14	Inters	500 CT	50**	4.20	3.57	3.36
3F598	SO-14	Inters	80 CT	32**	4.20	3.57	3.36
3F532	SO-CH	Mtg. Channel for any SO			.30	.26	.24

SUB-SUBOUNCER UNITS

Size: $\frac{1}{16} \times \frac{3}{4} \times \frac{3}{16}$ ". Weight .02 lb. Impedance ratios are constant; these units can be used for other impedances if in same ratios. Units may be used reversed.

*Assorted.

Stock No.	Type	Application	Pri. Imp.	Sec. Imp.	1-24°	25-99°	100-up°
3F375	SSO-1	Input	200	250,000	4.50	3.83	3.60
3F376	SSO-2	Inter.	10,000	90,000	4.80	4.08	3.84
3F377	SSO-3	Pl. to Line	10K/25K	200/500	4.20	3.57	3.36
3F378	SSO-4	Out	30K	50	3.90	3.32	3.12
3F379	SSO-5	React. 50 hy at 1 mil dc	4400 ohms		3.90	3.32	3.12
3F381	SSO-7	Transis. Inter.	20,000	800	3.30	2.81	2.64
3F382	SSO-8	Transis. to PP	30,000	1,200	3.30	2.81	2.64
3F383	SSO-9	Transis. to VC	10,000	2,000CT	3.90	3.32	3.12
3F384	SSO-10	Transis. to VC	10,000	16	3.00	2.55	2.40
3F385	SSO-11	Transis. to VC	10,000	3.2	3.00	2.55	2.40
3F385	SSO-11	Transis. Output	500-600	50-60	3.00	2.55	2.40
3F386	SSO-12	Output	1K-1200	50-60	3.00	2.55	2.40
3F387	SSO-13	Xtal to Transis.	200,000	1,000	4.58	3.83	3.60
3F388	SSO-14	Transis. Inter.	10,000	200CT	4.20	3.57	3.36
3F389	SSO-15	Transis. Inter.	25,000	500CT	4.20	3.57	3.36
3F589	SSO-16	Output	20,000	800CT	4.20	3.57	3.36
3F326	SSO-17	Out. or driver	1.2K	3.2/4	3.00	2.55	2.40
3F328	SSO-19	Match	1.5K		3.00	2.55	2.40
3F329	SSO-20	Output	10K	500CT	3.30	2.81	2.64
3F332	SSO-21	Xtal/chopper	12K CT	600CT	3.30	2.81	2.64
3F333	SSO-22	Inter.	200K CT	1,000CT	4.80	4.08	3.84
3F334	SSO-23	Reactor	12K CT	1,500CT	3.90	3.32	3.12
3F335	SSO-24	Reactor	10K CT	1,800CT	3.90	3.32	3.12
3F335	SSO-24	Reactor	8 Hys. @ 2 ma		3.00	2.55	2.40
3F335	SSO-24	Reactor	3.5 Hys. @ 2 ma		3.00	2.55	2.40
3F336	SSO-25	Transis. Inter.	10K CT	10K CT	5.10	4.34	4.08
3F337	SSO-26	Transis. Inter.	12K CT	12K CT	5.10	4.34	4.08
3F533	SSO-CH	Mtg. Channel for any SSO			.30	.26	.24



DI-T TRANSISTOR TRANSFORMERS

DI-T. Smaller than the Deci-Ouncers DO-T's. Power ratings and other characteristics of the DI-T's are identical to those of the DO-T's, except frequency response is approximately ± 2 db. 250 cps to 20kc. Hermetically Sealed to MIL-T-27B-TF4RX.

DI-T200 Series. Have uninsulated leads spaced on .1" radius for printed circuit boards. Hermetically sealed to meet MIL-T-27B-TF4RX $\frac{5}{16}$ " dia. x $\frac{1}{4}$ " H., except DI-T200 Series, $\frac{3}{8}$ " H. Wt. 1/15 oz.

*Assorted.

Stock No.	Type No.	Application	Primary Impedance	Secondary Impedance	1-24°	25-99°	100-up°
3F422	DI-T1	Interstage	20K/30K	800/1200	6.00	5.10	4.80
3F125	DI-T2	Output	600/500	60/50	5.40	4.59	4.32
3F126	DI-T3	Output	1200/1000	60/50	5.40	4.59	4.32
2F642	DI-T5	Output	1200	3.2	5.40	4.59	4.32
3F127	DI-T8	Reactor	2.5Hy @ 2 ma		4.80	4.08	3.84
3F128	DI-T9	Output	10K/12K	500/600CT	6.60	5.61	5.28
3F129	DI-T10	Driver	10K/12.5K	1.2K/1.5KCT	6.60	5.61	5.28
3F130	DI-T11	Output	10K/12.5K	2K/2500CT	6.60	5.61	5.28
3F131	DI-T19	Output	300CT	600	6.00	5.10	4.80
3F132	DI-T20	Output	500CT	600	6.00	5.10	4.80
3F474	DI-T21	Output	900CT	600	6.00	5.10	4.80
3F133	DI-T22	Driver	1500CT	600	6.00	5.10	4.80
3F134	DI-T23	Interstage	20K/30KCT	900/1200CT	6.90	5.87	5.52
3F495	DI-T25	Interstage	10K/12KCT	1.5K/1.8KCT	7.20	6.12	5.76
3F496	DI-T26	Reactor	4.5Hy @ 2 ma		5.70	4.85	4.56
3F497	DI-T27	Reactor	.9Hy @ 2ma		4.80	4.08	3.84
3F498	DI-T28	Reactor	.1Hy @ 4 ma		4.80	4.08	3.84
3F499	DI-T36	Isol or Int	10K/12KCT	10K/12KCT	7.50	6.38	6.00
2F643	DI-T37	Isol. or Int.	2K/2.5KCT	8K/10K split	7.80	6.63	6.24
2F644	DI-T38	Interstage	10K/12KCT	2K/2.4K split	7.80	6.63	6.24
2F645	DI-T41	Int. cr Out.	400/500CT	400/500 split	7.50	6.38	6.00
2F646	DI-T43	Interstage	400/500CT	40/50 split	7.50	6.38	6.00
2F647	DI-T44	Interstage	80/100CT	32/40 split	7.50	6.38	6.00
2F648	DI-T225	Interstage	80/100CT	32/40 split	7.80	7.14	6.72
2F649	DI-T230	Output	300CT	600CT	8.40	7.14	6.72
2F650	DI-T235	Interstage	400/500CT	40/50 Split	8.40	7.14	6.72
2F651	DI-T240	Interstage	400/500CT	400/500 split	8.40	7.14	6.72
2F652	DI-T245	Output	500/600CT	50/60CT	6.90	5.87	5.52
2F653	DI-T250	Output	500CT	600CT	7.20	6.12	5.76
2F654	DI-T255	Output	1K/1200CT	50/60CT	6.90	5.87	5.52
2F655	DI-T260	Output	1500CT	600CT	7.20	6.12	5.76
2F656	DI-T265	Isol. or Int.	2K/2500CT	8K/10K split	6.70	7.40	6.96
2F657	DI-T270	Output	10K/12KCT	500/600CT	7.80	6.63	6.24
2F658	DI-T273	Output	10K/12.5KCT	1200/1.5KCT	7.80	6.63	6.24
2F659	DI-T276	Interstage	10K/12KCT	2K/2400CT	7.80	6.63	6.24
2F660	DI-T278	Interstage	10K/12.5KCT	2K/2.5K split	8.70	7.40	6.96
2F661	DI-T283	Isol. or Int.	10K/12KCT	10K/12KCT	8.40	7.14	6.72
2F662	DI-T288	Interstage	20K/30KCT	800/1200CT	8.10	6.89	6.48
2F663	DI-T204	Split induct.	Ser. 1 hy	Par. -.025	6.00	5.10	4.80
2F664	DI-T208	Split induct.	Ser. 9 hy	Par. 2 hy	6.00	5.10	4.80
2F665	DI-T212	Split induct.	Ser. 2.5 hy	Par. 6 hy	6.00	5.10	4.80
2F666	DI-T216	Split induct.	Ser. 4.5 hy	Par. 1.1 hy	6.90	5.87	5.52
3F531	DI-TSH	Hipermetalloy	Shield & cover for DI-T's		.80	.77	.72

"OUNCER" AUDIOS



Famous one ounce audio transformers represent the acme in compact quality transformers. High fidelity from 30-20,000 cps. Maximum output level +8 db at 6.3 mw. Application: Input and Mixing, Interstage and Output Transformers. Fully impregnated and sealed in a drawn aluminum housing. Size: $\frac{7}{8}$ " dia. x $\frac{1}{16}$ ". Wt. 1 oz.

(*) Assorted.

Stock No.	Type	Primary	Secondary	1-24°	25-99°	100-up°
3F360	0-1	50, 200-250, 500-600	50,000	7.80	6.63	6.24
3F381	0-2	50, 200-250, 500-600	50,000 CT	7.80	6.63	6.24
3F382	0-3	7.5-30	50,000	7.50	5.98	5.00
3F363	0-4	15,000	60,000	6.60	5.61	5.28
3F365	0-6	15,000	95,000 CT	7.50	6.38	6.00
3F366	0-7	15,000-4MA	95,000 CT	7.50	6.38	6.00
3F367	0-8	15,000	50, 200-250, 500-600	7.80	6.63	6.24
3F368	0-9	15,000-4MA	50, 200-250, 500-600	7.80	6.63	6.24
3F369	0-10	30,000 CT PP to ine	50, 200-250, 500-600	8.40	7.14	6.72
3F370	0-12	50, 200-250	50, 200-250, 500-600	7.80	6.63	6.24
3F372	0-14	200	$\frac{1}{2}$ megohm	7.50	6.38	6.00
3F373	0-15	10,000	1 megohm	7.50	6.38	6.00
3F374	0-16	250CT	50,000	10.20	8.67	8.16
3F372	0-19	10,000/2,500 (split)	4,000/1,000 (split)	7.80	6.63	6.24
3F157	0-18	10K/2.5K (split)	2000/500 (split)	7.80	6.63	6.24
2F678	0-20	1500CT	500/125 split	6.30	5.36	5.04
3F158	0-21	2000CT/4000CT	8/16	5.40	4.59	4.32
3F136	0-30	500/125 split	500/125 split	8.10	6.89	6.48
3F138	0-32	500/125 split	50/12.5 split	8.10	6.89	6.48
3F325	0-17	Mumetal shield, slip fit over uncner		1.50	1.28	1.20
2F754	0-BR	Mounting bracket for Ouncers		.21	.18	.17



DO-T TRANSISTOR TRANSFORMERS

Provides unprecedented power handling capacity, reliability, plus ultra small size. Hermetically sealed, metal cased to MIL-T-27B-TF4RX. Greater power rating, ± 2 db, 200 cps -20 KC. Low distortion. Anchored leads stand 10 lb. pull test; tinned and insulated copper conductors. For transistor use only. Size: $1\frac{1}{2}$ " long; $\frac{1}{16}$ " diameter. Weight $\frac{1}{10}$ oz. (*) Assorted.



Stock No.	Mfr's Type	Application	Primary Impedance	Secondary Impedance	1-24*	25-99*	100-up*
3F550	DO-T1	Inter.	30,000/20,000	1200/800	6.00	5.10	4.80
3F551	DO-T2	Out.	600/500	60/50			
3F552	DO-T3	Out.	1200/1000	60/50	5.40	4.59	4.32
3F553	DO-T4	Out.	600	3.2			
3F554	DO-T5	Out.	1200	3.2			
3F555	DO-T6	Out.	10,000	3.2	6.00	5.10	4.80
3F556	DO-T7	Input	200,000	1000	9.30	7.91	7.44
3F557	DO-T8	Inductor	3.5 hys at 2 ma.	560 ohms	4.80	4.08	3.84
3F660	DO-T9	Out.	10,000/12,000	500/600CT			
3F661	DO-T10	Driver	10,000/12,500	1200/1.5KCT	6.60	5.61	5.28
3F662	DO-T11	Driver	10,000/12,500	2K/2500CT			
3F663	DO-T12	Out.	150/200CT	12/16	5.70	4.85	4.56
3F664	DO-T13	Out.	200/400CT	12/16	5.70	4.85	4.56
3F665	DO-T14	Out.	600/800CT	12/16	6.00	5.10	4.80
3F666	DO-T15	Out.	800/1070CT	12/16	6.00	5.10	4.80
3F667	DO-T16	Out.	1000/1390CT	12/16	6.00	5.10	4.80
3F668	DO-T17	Out.	1500/2000CT	12/16	6.00	5.10	4.80
3F669	DO-T18	Out.	7500/10,000CT	12/16	6.30	5.36	5.04
3F670	DO-T19	Out.	300CT	600			
3F671	DO-T20	Out.	500CT	600	6.00	5.10	4.80
3F672	DO-T21	Out.	900CT	600			
3F673	DO-T22	Out.	1500CT	600			
3F674	DO-T23	Inter.	20K/30KCT	800/1200CT	6.90	5.87	5.52
3F675	DO-T24	Input	200,000CT	1000CT	9.90	8.42	7.92
3F676	DO-T25	Inter.	10K/12KCT	1.5K/1800CT	7.20	6.12	5.76
3F677	DO-T26	Inductor	6 hys @ 2 ma	2100 ohms	5.70	4.85	4.56
3F658	DO-T27	Inductor	1.25 hy. at 2 ma	DC 100 ohm	4.80	4.08	3.84
3F654	DO-T28	Inductor	3 Hy @ 4 Ma.	DC 25 ohm.	4.80	4.08	3.84
3F218	DO-T29	Out.	120/150CT	3.2/4	5.70	4.85	4.56
3F219	DO-T30	Out.	320/400CT	3.2/4	5.70	4.85	4.56
3F225	DO-T31	Out.	640/800CT	3.2/4	6.00	5.10	4.80
3F226	DO-T32	Out.	800/1000CT	3.2/4	6.00	5.10	4.80
3F227	DO-T33	Out.	1060/1390CT	3.2/4	6.00	5.10	4.80
3F228	DO-T34	Out.	1600/2000CT	3.2/4	6.00	5.10	4.80
3F229	DO-T35	Out.	8000/10,000CT	3.2/4	6.30	5.38	5.04
3F255	DO-T36	Isol.	10K/12KCT	10K/12KCT	7.50	6.38	6.00
3F236	DO-T37	Isol.	2000/2500CT	8K/10K Split	7.80	6.63	6.24
3F237	DO-T38	Inter.	10K/12KCT	2K/2.4K Split	7.80	6.63	6.24
3F238	DO-T39	Inter.	20K/30KCT	1K/1.5K Split	7.80	6.63	6.24
3F239	DO-T40	Inter.	40K/50KCT	400/500 Split	8.40	7.14	6.72
2F670	DO-T41	Inter.	400/500CT	400/500 Split	7.50	6.38	6.00
3F251	DO-T42	Inter.	400/500CT	120/150 Split	7.50	6.38	6.00
3F252	DO-T43	Inter.	400/500CT	40/50 Split	7.50	6.38	6.00
3F253	DO-T44	Inter.	80/100CT	32/40 Split	7.50	6.38	6.00
2F671	DO-T45	Inter.	1000/1250CT	16K/20K split	7.80	6.63	6.24
2F672	DO-T46	Input	100,000CT	500 CT	9.80	8.16	7.68
2F673	DO-T47	Isol.	9000/10,000CT	9K/10KCT	8.10	6.89	6.48
2F674	DO-T48	Inter.	8000/10,000CT	1200/1.5KCT	7.80	6.63	6.24
2F675	DO-T49	Spt. induct.	Ser. 20 hy Par. 5 hy		7.80	6.63	6.24
2F676	DO-T50	Spt. induct.	Ser. .075 hy Par. .018 hy		5.70	4.85	4.56
2F677	DO-T400	Pri. 28 v. 380-1000 cyc Sec. 6.3 v @ 60 ma			6.60	5.61	5.28
3F659	DO-TSH	Hipermalloy shield for DO-T's			.90	.77	.72

PIP TRANSISTOR PULSE TRANSFORMERS

Meets Mil. Spec. MIL-T-21038B-TP6RX. Subminiature, hermetically sealed metal case. Checked in transistor test circuit to give required pulse width. Size: $\frac{1}{16}$ " dia. x $\frac{3}{16}$ " height. Wt. 1/20 oz.

(*) Assorted.

Stock No.	Type	Width μ sec.	Rise time	Imp. Out	1-24*	25-99*	100-up*
2F550	PIP-1	.05	.02	50	6.00	5.10	4.80
2F551	PIP-2	.1	.025	50	6.00	5.10	4.80
2F552	PIP-3	.2	.03	100	6.00	5.10	4.80
2F553	PIP-4	.5	.05	100	6.00	5.10	4.80
2F554	PIP-5	1.0	.08	100	6.00	5.10	4.80
2F555	PIP-6	2.0	.10	100	6.00	5.10	4.80
2F556	PIP-7	3.0	.20	100	6.00	5.10	4.80
2F557	PIP-8	5.0	.30	200	6.00	5.10	4.80
2F558	PIP-9	10.0	.35	200	6.00	5.10	4.80
2F704	PIP-10	.1	.01	140/50	6.00	5.10	4.80
2F705	PIP-11	1	.02	280/100	6.00	5.10	4.80
2F706	PIP-12	5	.05	560/100	6.00	5.10	4.80

MINIATURE WIDE APPLICATION PULSE TRANSFORMERS

Hermetically sealed to MIL-T-21038B-TP7SX by vacuum molding and suited for service from -70° C to $+130^{\circ}$ C. Wound core structure. Where minimum rise time is important use next lower type. (*) Assorted.

Stk. No.	Type	Width μ Sec.	Rise Time	Imp.	1-24*	25-99*	100-up*
3F081	H-45	.05	.022	250	7.35	6.25	5.88
3F082	H-46	.10	.024	250	7.35	6.25	5.88
3F083	H-47	.20	.026	500	6.60	5.61	5.28
3F084	H-48	.50	.03	500	6.60	5.61	5.28
3F085	H-49	1	.04	500	6.60	5.61	5.28
3F086	H-50	2	.05	500	6.60	5.61	5.28
3F087	H-51	3	.10	500	6.60	5.61	5.28
3F088	H-52	5	.13	1000	6.60	5.61	5.28
3F089	H-53	7	.28	1000	6.60	5.61	5.28
3F090	H-54	10	.30	1000	6.90	5.87	5.52
2F707	H-55	16	.75	1000	6.90	5.87	5.52
2F708	H-56	20	1.25	1000	6.90	5.87	5.52
2F709	H-57	25	2.	1000	6.90	5.87	5.52
2F633	H-60	.05	.016	50	6.60	5.61	5.28
2F634	H-61	.1	.016	50	6.60	5.61	5.28
2F635	H-62	.2	.022	100	6.60	5.61	5.28
2F636	H-63	.5	.027	100	6.60	5.61	5.28
2F637	H-64	1	.033	100	6.60	5.61	5.28
2F638	H-65	2	.066	100	7.50	6.38	6.00
2F639	H-66	3	.087	100	7.50	6.38	6.00
2F640	H-67	5	.097	200	7.50	6.38	6.00
2F641	H-68	10	.14	200	7.50	6.38	6.00

400-CYCLE FILAMENT TRANSFORMERS

These new transformers combine smallness of size and lightness of weight with the maximum possible reliability. These versatile midgets are suitable for either ground or airborne use applications. Molded specifically to meet MIL-T-27B-TF5SX specifications. Primary, 105/115 volts, 380-1000 cycles per second. Secondary, 6.3 volts, center tap.

*Assorted.



Stock No.	Type	Sec. Amp.	LxWxH	Wt. Lbs.	1-24*	25-99*	100-up*
3F071	H-101	3.5	1 $\frac{1}{2}$ x2 $\frac{1}{2}$ x2 $\frac{1}{2}$ "	.3	15.60	13.26	12.48
3F073	H-103	10	2 $\frac{1}{2}$ x2 $\frac{1}{2}$ x2 $\frac{1}{2}$ "	.8	21.00	17.85	16.80

MILITARY STANDARD AUDIO TRANSFORMERS—Meets Mil Spec. MIL-T-27B—TF1RX

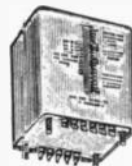
TYPE W

Freq response ± 2 db split 300 cps to 10KC. 600 ohms split winding provides for 600 ohms CT and 150 ohms. Size: $1\frac{1}{2}$ x $1\frac{1}{2}$ x $2\frac{1}{2}$ ". Wt. $\frac{3}{8}$ lb. (**) Electrostatic shielding. (*) Assorted.



TYPE N

Primaries are 105/115/125V. 54/68 cyc. Secondary ma ratings are DC. Choke input; derate ma 40% for condenser input. (*) Assorted.



Stk. No.	Type	Application	Pri. Ohms	Sec. Ohms	1-24*	25-99*	100-up*
2F561	W-785**	Line to Grids	600 split	135K CT	15.30	13.01	12.24
2F562	W-786**	Line to Line	600 split	600 split	15.30	13.01	12.24
2F563	W-787	Plate to Line	7600/4800	600 split	13.95	11.86	11.16
2F564	W-788	Plate to V C	7600/4800	4/8/16	14.25	12.11	11.40
2F565	W-789	Plates to Line	15K CT	600 split	13.95	11.86	11.16

MILITARY STANDARD FILAMENT TRANSFORMERS—Meets Mil Spec. MIL-T-27B-TF4RX

Stk. No.	Type	Secondary Ratings	Size	1-24*	25-99*	100-up*
2F572	N-587A	6.3V-2A 1000 WV	2 $\frac{1}{2}$ x2 $\frac{1}{2}$ x2 $\frac{1}{2}$ "	13.50	11.48	10.80
2F573	N-588A	6.3V-5A 1000 WV	2 $\frac{3}{4}$ x2 $\frac{3}{4}$ x2 $\frac{1}{2}$ "	15.00	12.75	12.00
2F574	N-589A	6.3V-10A 1000 WV	3 $\frac{1}{2}$ x3 $\frac{1}{2}$ x3 $\frac{1}{2}$ "	19.50	16.58	15.60
2F575	N-590A	6.3V-20A 1000 WV	3 $\frac{1}{2}$ x3 $\frac{1}{2}$ x4 $\frac{1}{2}$ "	24.00	20.40	19.20

MILITARY STANDARD MULTIPLE SECONDARY TRANSFORMERS—Meets Mil Spec. MIL-T-27B

Stk. No.	Type	Secondary Ratings	Size	1-24*	25-99*	100-up*
2F578	N-593A	200-100-0-100-200, 70 ma				
2F579	N-594A	6.3V-2A 6.3V-3A 325-0-325, 70 ma	3 $\frac{1}{2}$ x2 $\frac{3}{4}$ x4 $\frac{1}{4}$ "	22.20	18.87	17.76
2F583	N-598A	6.3V-2A 6.3V-4A	3 $\frac{1}{2}$ x3 $\frac{1}{2}$ x3 $\frac{1}{2}$ "	24.00	20.40	19.20
2F584	N-599A	350-0-350, 250 ma 550-0-550, 250 ma	3 $\frac{1}{2}$ x3 $\frac{1}{2}$ x4 $\frac{1}{2}$ "	21.00	17.85	16.80
			4 $\frac{1}{2}$ x3 $\frac{1}{2}$ x4 $\frac{1}{2}$ "	28.50	24.23	22.80



Inductors

MINIDUCTORS

Meet Mil. Spec.
MIL-T-278-TF5RX

Hi Q in miniature form. Meets Mil. Spec. MIL-T-278-TF5RX. Ideal for transistor use and printed circuits. High temp. stability (-55°C to 100°C). ML-1 to 4, and MO-15 to 1 are medium low frequencies—400 cyc., MM and MW for medium frequencies and MH for high frequencies. ML case 1/16" x 3/16" x 1/16". Wt. 1/5 oz. MM and MH cases 1/16" D x 1/4" H. Wt. 1/100 oz. MO case 3/4" x 1 1/16" x 1 1/16" H. Wt. 1 oz. MW case 2 3/32" D x 1 3/32" H. Wt. 1/4 oz. (*) Assorted.

TYPE MH

Stock No.	Type	IND ODC	DC MA	1-24*	25-99*	100-up*
3F029	MH-1	.5 Mhy	90	8.10	6.89	6.48
3F038	MH-2	1.5 Mhy	57	8.10	6.89	6.48
3F039	MH-3	2.5 Mhy	44	8.40	7.14	6.72
3F147	MH-4	6 Mhy	28	8.40	7.14	6.72
3F148	MH-5	10 Mhy	22	8.70	7.40	6.96
3F149	MH-6	15 Mhy	18	8.70	7.40	6.96
3F159	MH-7	25 Mhy	14	9.00	7.65	7.20
3F312	MH-8	40 Mhy	11	9.00	7.65	7.20

TYPE ML

Stock No.	Type	IND ODC	DC MA	1-24*	25-99*	100-up*
3F183	ML-1	.25 Hy	9			
3F184	ML-2	.4 Hy	7			
3F185	ML-3	.7 Hy	5			
3F186	ML-4	1.4 Hy	3	8.40	7.14	6.72
3F187	ML-5	2.5 Hy	3			
3F188	ML-6	4.0 Hy	1			
3F189	ML-7	6.0 Hy	.6			
3F194	ML-8	10 Hy	.5			
3F195	ML-9	25 Hy	.3	8.70	7.40	6.96
3F196	ML-10	60 Hy	.2	9.90	8.42	7.92

TYPE MM

Stock No.	Type	IND ODC	DC MA	1-24*	25-99*	100-up*
3F197	MM-1	3 Mhy	50	7.50	6.38	6.00
3F198	MM-2	5 Mhy	40	7.50	6.38	6.00
3F199	MM-3	8 Mhy	30	7.80	6.63	6.24
3F247	MM-4	12.5 Mhy	25	7.80	6.63	6.24
3F248	MM-5	20 Mhy	20	8.10	6.89	6.48
3F249	MM-6	30 Mhy	16	8.10	6.89	6.48
3F306	MM-7	60 Mhy	11	8.40	7.14	6.72
3F309	MM-8	120 Mhy	8	8.40	7.14	6.72

TYPE MO

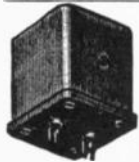
Stock No.	Type	IND ODC	DC MA	1-24*	25-99*	100-up*
2F680	MO-15	.15 Hy	45	9.30	7.91	7.44
2F681	MO-3	.3 Hy	28	9.30	7.91	7.44
2F682	MO-5	.5 Hy	23	9.30	7.91	7.44
2F683	MO-1	1 Hy	16	9.30	7.91	7.44
2F684	MO-2	2 Hy	8	9.60	8.16	7.68
2F685	MO-5	5 Hy	5	9.60	8.16	7.68
2F686	MO-7.5	7.5 Hy	4.5	9.60	8.16	7.68
2F687	MO-20	20 Hy	2.7	9.60	8.16	7.68
2F688	MO-50	50 Hy	1.4	9.90	8.42	7.92
2F689	MO-100	100 Hy	1.1	9.90	8.42	7.92

TYPE MW

Stock No.	Type	IND ODC	DC MA	1-24*	25-99*	100-up*
2F690	MW-5	.5 Hy	8	7.80	6.63	6.24
2F691	MW-7.5	.75 Hy	7	8.40	7.14	6.72
2F692	MW-1	1.0 Hy	6	8.70	7.40	6.96
2F693	MW-1.2	1.2 Hy	5	9.30	7.91	7.44
2F694	MW-2	2 Hy	4	10.80	9.18	8.64
2F695	MW-3	3 Hy	3.5	11.70	9.95	9.36
2F696	MW-5	5 Hy	3	13.50	11.48	10.80

VARIABLE INDUCTORS

Variable units for use in tuned audio circuits. Adjustment of set screw on side of case permits change in inductance of +85% to -45% of mean value shown. In die-cast case. Size: 1 1/2" x 1 1/4" x 1 1/8". Weight, 5 1/2 oz. *Assorted.



Stock No.	Type	DC MA	Hys.	1-24*	25-99*	100-up*
3F404	VIC-5	35	.053			
3F405	VIC-6	30	.084	6.60	5.61	5.28
3F406	VIC-7	25	.13			
3F407	VIC-8	21	.21			
3F408	VIC-9	18	.34	6.90	5.87	5.52
3F409	VIC-10	15	.54			
3F410	VIC-11	12	.85			
3F411	VIC-12	10	1.3	7.20	6.12	5.76
3F412	VIC-13	8	2.2			
3F413	VIC-14	7	3.4			
3F414	VIC-15	6	5.4			
3F415	VIC-16	5	8.5	7.50	6.38	6.00
3F416	VIC-17	4	13			
3F418	VIC-19	3	33	7.80	6.63	6.24
3F419	VIC-20	2	52	8.40	7.14	6.72
3F420	VIC-21	1.5	83	9.00	7.65	7.20



HERMETIC VARIDUCTORS

Variable inductors with higher "Q" and wider inductance ranges . . . plus hermetic sealing to MIL-T27B specs. Screw adjustment on top permits inductance changes from -70% to +200% of mean value. DC current shown is maximum recommended. All 1 1/8" x 1 1/2" x 1 1/2". Weight, 2 ounces. *Assorted.

Stock No.	Mfr's. Type	Min. Hys.	Mean Hys.	Max. Hys.	DC Ma	1-24*	25-99*	100-up*
3F334	HVC-1	.002	.006	.02	100	9.00	7.65	7.20
3F335	HVC-2	.005	.015	.05	60	9.00	7.65	7.20
3F336	HVC-3	.011	.040	.11	40	9.00	7.65	7.20
3F337	HVC-4	.03	.1	.3	30	9.00	7.65	7.20
3F338	HVC-5	.07	.25	.7	20	9.00	7.65	7.20
3F339	HVC-6	.2	.6	2	15	9.00	7.65	7.20
3F340	HVC-7	.5	1.5	5	10	9.60	8.16	7.68
3F341	HVC-8	1.1	4.0	11	7	9.60	8.16	7.68
3F342	HVC-9	3.0	10	30	5	9.60	8.16	7.68
3F343	HVC-10	7.0	25	70	3.5	9.90	8.42	7.92
3F344	HVC-11	20	60	200	2	10.80	9.18	8.64
3F345	HVC-12	50	150	500	1.5	12.00	10.20	9.60

TVC HERMETIC VARIDUCTORS

The MQ series are ideal for audio, carrier and supersonic fields. Laboratory adjusted to 1% tolerance, inductance is virtually independent of frequency, temperature and vibration. Low hum pickup. Shielded case affords high permeability. Hermetically sealed to meet MIL-T-27B. Case similar to HVC above. *Assorted.

Stock No.	Type	Min. Hys.	Mean Hys.	Max. Hys.	DC Ma	1-24*	25-99*	100-999*
3F163	TVC-1	.002	.006	.02	100	11.10	9.44	8.88
3F164	TVC-2	.005	.015	.05	60	11.10	9.44	8.88
3F165	TVC-3	.011	.040	.11	40	11.10	9.44	8.88
3F166	TVC-4	.03	.1	.3	30	11.10	9.44	8.88
3F167	TVC-5	.07	.25	.7	20	11.10	9.44	8.88
3F168	TVC-6	.2	.6	2	15	11.10	9.44	8.88
3F169	TVC-7	.5	1.5	5	10	11.70	9.95	9.36
3F175	TVC-8	1.1	4	11	7	11.70	9.95	9.36
3F176	TVC-9	3	10	30	5	11.70	9.95	9.36
3F177	TVC-10	7	25	70	3.5	12.90	10.97	10.32
3F178	TVC-11	20	60	200	2	14.10	11.99	11.28
3F179	TVC-12	50	150	500	1.5	15.30	13.01	12.24

UTC HIGH Q TOROID INDUCTORS

The MQ series are ideal for audio, carrier and supersonic fields. Laboratory adjusted to 1% tolerance, inductance is virtually independent of frequency, temperature and vibration. Low hum pickup. Shielded case affords high permeability. Hermetically sealed to meet MIL-T-27B. Case similar to HVC above. *Assorted.

‡Indicates inductances expressed in mhy.

No.	Type	Hy	Ma.	Size	Oz.	1-24*	25-99*	100-up*
3F501	MOA-4	30‡	125	1 1/2" x 1 1/4" x 1 1/8"	4	8.40	7.14	6.72
3F502	MOA-6	70‡	80	1 1/2" x 1 1/4" x 1 1/8"	4	9.00	7.65	7.20
3F503	MOA-7	120‡	60	1 1/2" x 1 1/4" x 1 1/8"	4	9.30	7.91	7.44
3F504	MOA-8	2	50	1 1/2" x 1 1/4" x 1 1/8"	4	9.60	8.16	7.68
3F505	MOA-10	5	30	1 1/2" x 1 1/4" x 1 1/8"	4	10.20	8.67	8.16
3F506	MOA-11	7	25	1 1/2" x 1 1/4" x 1 1/8"	4	10.50	8.93	8.40
3F507	MOA-12	1	20	1 1/2" x 1 1/4" x 1 1/8"	4	10.80	9.18	8.64
3F508	MOA-13	1.5	17	1 1/2" x 1 1/4" x 1 1/8"	4	11.10	9.44	8.88
3F509	MOA-14	2.5	13	1 1/2" x 1 1/4" x 1 1/8"	4	11.40	9.69	9.12
3F510	MOA-15	4	10	1 1/2" x 1 1/4" x 1 1/8"	4	12.00	10.20	9.60
3F511	MOA-17	10	7	1 1/2" x 1 1/4" x 1 1/8"	4	13.80	11.73	11.04
3F512	MOA-19	22	4	1 1/2" x 1 1/4" x 1 1/8"	4	18.00	15.30	14.40
3F513	MOB-4	120‡	120	2 1/2" x 1 1/2" x 1 1/2"	14	13.80	11.73	11.04
3F514	MOB-5	5	60	2 1/2" x 1 1/2" x 1 1/2"	14	14.10	11.99	11.28
3F515	MOB-6	1	40	2 1/2" x 1 1/2" x 1 1/2"	14	14.40	12.24	11.52
3F516	MOB-7	2	30	2 1/2" x 1 1/2" x 1 1/2"	14	14.70	12.50	11.76
3F517	MOB-8	3.5	22	2 1/2" x 1 1/2" x 1 1/2"	14	15.00	12.75	12.00
3F521	MOB-10	12	11	2 1/2" x 1 1/2" x 1 1/2"	14	16.80	14.28	13.44
3F518	MOB-12	25	8	2 1/2" x 1 1/2" x 1 1/2"	14	19.20	16.32	15.36
3F526	MOE-5	50‡	50	1 1/2" x 1 1/2" x 1 1/2"	1.5	6.10	6.89	6.48
3F527	MOE-7	100‡	35	1 1/2" x 1 1/2" x 1 1/2"	1.5	8.40	7.14	6.72
2F743	MOE-9	25	22	1 1/2" x 1 1/2" x 1 1/2"	1.5	8.70	7.40	6.96
2F744	MOE-10	4	17	1 1/2" x 1 1/2" x 1 1/2"	1.5	9.00	7.65	7.20
3F529	MOE-11	0.6	14	1 1/2" x 1 1/2" x 1 1/2"	1.5	9.00	7.65	7.20

MOLDED CASE FILTER INDUCTORS

Meets Mil. Spec. MIL-T-27B-TF55X

Grain oriented core materials with high permeability give these molded case inductors high inductance values for their small sizes. *Assorted. **Parallel values. †Series values.

Stock No.	Type	Henries	DCR Ohms	Wt. lbs.	1-24*	25-99*	100-up*
2F697	H-105	2.5 @ 25 ma	225	.1	6.30	5.36	5.04
2F698	H-106	2.25 @ 60 ma	110	.28	6.60	5.61	5.28
2F699	H-107	2 @ 120 ma	55	.9	8.40	7.14	6.72
2F700	H-108	2 @ 220 ma	35	1.7	11.40	9.69	9.12
2F701	H-109††	2 @ 125 ma	.6				
	(2 wdgs)**	.055 @ 250 ma	.15	1.7	12.30	10.46	9.84

Transformers & Filters



HERMETICALLY SEALED COMPONENTS

Hermetically sealed audio units that meet MIL-T-27B-TF4RX specifications. For use where a maximum of sealing and quality construction is required. Compact Audio Units below employ glass bead headers or terminals. Units in RC-25 case are $1\frac{1}{2} \times 1\frac{1}{2} \times 1\frac{1}{2}$ " Mtg. (slot center) $1\frac{1}{2}$ to $1\frac{3}{8}$ ", and weigh 2 oz.; RC-50 case units are $1\frac{1}{2} \times 1\frac{1}{2} \times 2\frac{1}{8}$ ", weight $\frac{1}{2}$ lb.; SM case units $1\frac{1}{2} \times 1\frac{1}{2} \times 2\frac{3}{8}$ ", weight 0.8 oz. Response ± 2 db except ± 4 db. $\frac{1}{2}$ center tapped. (*split).

MINIATURE AUDIO UNITS IN RC-25 CASE *ASSORTED

Stock No.	No.	Uses	Pri. Imp. Ohms	Sec. Imp. Ohms	Response in Cycles	1-24	25-99*	100-up*
3F450	H-1	Mike. pick-up. line to grid	50,200\$ 500\$	50,000	50-10,000	9.00	7.65	7.20
3F453	H-4	Sgl. pl. Sgl.-g. DC in pri.	15,000	60,000	200-10,000	7.80	6.83	6.24
3F454	H-5	Sgl. pl.-PP g.	15,000	95,000\$	50-10,000	8.40	7.14	6.72
3F455	H-6	As above, with DC in pri.	15,000	95,000 split	200-10,000	10.20	8.67	8.16
3F456	H-7	Single or PP plates to line	20,000\$ 150/600*	150/600* 600\$	200-10,000	9.80	8.16	7.68
3F457	H-8	Mix/Match	150/600*	600\$	50-10,000	9.00	7.85	7.20
2F720	H-9	Input to grid	600/150*	1 meg.	200-3,000\$	9.00	7.65	7.20
3F459	H-10	10:1, 1 pl.-1 g.	10,000	1 meg	200-3,000\$	8.40	7.14	6.72
3F460	H-11	Reactor 300 by DC @ 0 DC, 50 hy @ 3 ma	10,000	1 meg	200-3,000\$	7.50	6.38	6.00
2F721	H-13	Tr. Inters	10K/2.5K*	10K/2.5K*	100-10,000	9.00	7.65	7.20
2F722	H-14	Tr. Inters	10K/2.5K*	4K/1K*	100-10,000	9.00	7.65	7.20
2F723	H-15	Tr. to line	1,500 CT*	500/125*	100-10,000	9.00	7.65	7.20

COMPACT AUDIO UNITS IN RC50 CASE *ASSORTED

Stock No.	No.	Uses	Pri. Ohms	Sec. Ohms	Resp. (Cps)	1-24	25-99*	100-up*
3F467	H-19A	Bal. line to grid 1:14	250\$ 500\$	50,000\$ 100,000\$	30- 20,000	16.50	14.03	13.20
2F724	H-20	Plate or PP to PP grids	15,000	80,000	30- 20,000	15.90	13.52	12.72
3F462	H-21	Single plate to PP grids, DC in Pri.	15,000	80,000 split	100- 20,000	18.00	15.30	14.40
3F463	H-22	Single plate to line	15,000	50/200 125/500	50- 20,000	16.50	14.03	13.20
3F464	H-23	PP plates to line	30,000	50/200 125/500	30- 20,000	16.80	14.28	13.44
2F725	H-25	Mixing or trans to line	500\$	500/125 40-	40- 20,000	15.00	12.75	12.00
2F726	H-26	Transistor Interstage	10K/2.5K split	2K/500 split	40\$ 20,000	15.00	12.75	12.00

SUBMINIATURE AUDIOS IN SM CASE *ASSORTED

Stock No.	Type No.	Uses	Pri. Ohms	Sec. Ohms	Response in cycles	1-24	25-99*	100-up*
2F727	H-31	Plate to Grid	10,000	90,000	300-10,000	8.40	7.14	6.72
2F728	H-32	Pl. to Line	10,000	200	300-10,000	8.40	7.14	6.72

HERMETICALLY SEALED FILTER CHOKES *ASSORTED

Meets MIL-T-27BTF4RX Spec. for all types. Cases similar to SM.

Stock No.	Type	Max. Hys.	Cur. Ma	Res. Ohms	Mtg. Ctrs.	1-24	25-99*	100-up*
3F057	H-72	7	125	215	$2\frac{1}{2} \times 1\frac{3}{4}$ "	11.40	9.69	9.12
3F058	H-74	6.5	215	135	$2\frac{1}{2} \times 1\frac{3}{4}$ "	15.60	13.26	12.48

HERMETICALLY SEALED 6.3V. FILAMENT TRANSFORMERS

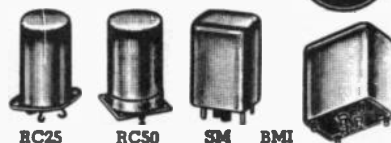
Fully meet MIL-T-27BTF4RX specifications. Current ratings are given for both military and industrial use. Case is similar to SM above. Center tapped secondary. Pri. 105/115/120/220 Volts, 50-06 cycles. Wt., $3\frac{1}{2}$ to 6 lbs. *Assorted.

Stock No.	Types	Amps. (MIL)	Amps. (Ind.)	Size	1-24	25-99*	100-up*
3F075	H-132	6	7	$3\frac{1}{2} \times 3\frac{1}{4} \times 4\frac{7}{8}$	21.00	17.85	16.80
3F077	H-134	10	12	$3\frac{1}{2} \times 2\frac{3}{4} \times 4\frac{1}{4}$	19.50	16.58	15.60

TRANSISTOR FILAMENT SUPPLY TRANSFORMERS

Primary 115 V, 50/60 cycles, tapped on S-77 for dual secondary voltages. (*) Assorted.

Stock No.	Type No.	Sec. V RMS	Sec. A RMS	Lbs.	1-24	25-99*	100-up*
3F140	S-75	6.3	.6				
		6.3	.6	1	6.60	5.61	5.28
3F141	S-76	12.6	2				
		12.6	2	3	9.90	8.42	7.92
3F142	S-77	17/21.5	1.5				
		17/21.5	1.5	4.5	11.40	9.69	9.12



UTC INTERSTAGE AND LINE FILTERS

BMI and BMI types are band-pass units. HMI and HML types are high-pass units. LMI types are low-pass units. Filters with 1 in type number are interstage, input imp., 10,000 ohms, L in type number are line units. All housed in hermetically sealed cases, shielded to reduce hum pick-up to 150 mv per gauss at 60 cycles. Base area, $1\frac{1}{2} \times 1\frac{1}{2}$ ". Mtg. ctrs., $\frac{3}{4} \times 1\frac{1}{4}$ ". Ht.: BMI, LMI, BML, $1\frac{1}{8}$ ". HMI, HML, LML, $2\frac{1}{2}$ ". Average weight, 8 ounces. *Assorted.

Stk. No.	Type	Freq.	1-24	25-99*	100-up*
3F477	BMI-60	60			
3F558	BMI-100	100			
3F559	BMI-120	120			
3F478	BMI-400	400	30.00	25.50	24.00
3F479	BMI-1000	1000			
3F585	BMI-5000	5000			
3F586	BMI-10000	10000			
3F567	HMI-200	200	31.50	26.78	25.20
3F573	BML-1000	1000	30.00	25.50	24.00
2F729	BML-400	400	30.00	25.50	24.00
3F481	LMI-200	200			
3F574	LMI-400	400			
3F575	LMI-500	500			
3F576	LMI-800	800			
3F577	LMI-1000	1000	31.50	26.78	25.20
3F482	LMI-3000	3000			
3F580	LMI-4000	4000			
3F581	LMI-5000	5000			
3F484	HML-200	200			
3F583	HML-300	300	39.00	33.15	31.20
3F584	HML-500	500			
2F745	LML-2000	2000	31.50	26.78	25.20
3F590	LML-4000	4000	31.50	26.78	25.20

BPM MINIFILTERS

Provides almost the same characteristics as larger units with only slightly less attenuation and operating levels. Input and output 10,000 ohms. Case similar to SM above. Size: $\frac{3}{4} \times \frac{3}{4} \times 1\frac{1}{8}$ ". Wt. 1 oz. (*) Assorted.

Stock No.	Type	Freq.	1-24	25-99*	100-up*
2F730	BPM-400	400	27.00	22.95	21.60
3F037	BPM-1000	1000	27.00	22.95	21.60

TRANSISTOR INVERTER TRANSFORMERS

Highly efficient, small size transistor inverter transformers, hermetically sealed to MIL-T-27BTF4RX specs. Transitory peaks that often damage driving transistors have been greatly reduced by new winding coupling method. Optimum results at approximately 1000 cycles. DC output shown is for 12/14 or 24/28 V battery. With 6/7 V battery, current ratings are same but output voltages are halved. Shpg. wts. H-97, $\frac{3}{8}$ lbs.; H-98, $\frac{3}{4}$ lbs.; H-99, $1\frac{1}{4}$ lbs.; H-100, $2\frac{1}{4}$ lbs. (*) Assorted.



Stock No.	Type No.	DC V	Ma	Size (inches)	1-24*	25-99*	100-up*
2F731	H-97	250	60	$1\frac{1}{2} \times 1\frac{1}{2} \times 1\frac{1}{4}$ "	16.50	14.03	13.20
2F732	H-98	375	100	$1\frac{1}{2} \times 1\frac{1}{2} \times 2\frac{1}{8}$ "	17.40	14.79	13.92
2F733	H-99	425	175	$2\frac{1}{4} \times 2\frac{1}{4} \times 3\frac{1}{8}$ "	22.20	18.87	17.76
2F734	H-100	550	200	$2\frac{3}{4} \times 2\frac{3}{4} \times 2\frac{1}{8}$ "	22.20	18.87	17.76

POWER LINE ISOLATION TRANSFORMERS

Ultra shielded, hermetically sealed units simulated battery operation from power line. Less than 1/10th mmd. effective capacity between primary and secondary permits isolation formerly obtained only from battery power. Separate terminal for each shield. Input and output terminals on opposite sides of case. Meet MIL-T-27B specs. Primary and secondary — 115 V/50/60 cycles. (*) Assorted.



Stock No.	Type No.	Watts	Mil.	Ind.	Wt. Lbs.	1-24	25-99*	100-up*
2F735	HIT-1	50	60	5 1/2	33.00	28.05	26.40	
2F736	HIT-15	120	150	13	39.00	33.20	31.20	
2F737	HIT-2	160	200	15 1/2	48.00	40.80	38.40	
2F738	HIT-3	400	480	35	69.00	58.70	55.20	

Primary & Secondary — 115 V. 400 Cycles

2F753	HIT-450	80	100	5.5	33.00	28.05	26.40
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Transformers



A



G-1 G-2
G-3 G-4



G-5
G-7 thru G-12

PLATE AND FILAMENT TRANSFORMERS Assorted*

Stock No.	Type	Rated	Fig.	1-24*	25-99*	100-up*
3F031	S-40	H. V.; 1050-850 CT at 250 ma. Rect. fil. 5V-3A, fil. No. 1, 6.3 VCT-3A; fil. No. 2, 6.3 VCT-3A.	G-7	19.50	16.58	15.60
3F032	S-41	H. V.; 1200 CT at 200 ma. Rect. fil.; 5V-3A; fil. No. 1, 7.5 V tapped, 6.3 V-3A; fil. No. 2, 6.3 VCT-2A.	G-7	19.50	16.58	15.60
3F033	S-42	H. V.; 1200-1050 CT at 300 ma. Rect. fil.; 5V-6A; fil. No. 1, 7.5 V tapped, 6.3 V-3A; fil. No. 2, 6.3 VCT-3A.	G-8	21.00	17.95	16.80

Fig. A—ULTRA COMPACT "A" SERIES

Excellent shielding Max. level 7 db. For top or bottom mtg. Size 1 1/2 x 1 1/2 x 2". *Indicates split winding. Wt. 1/2 lb.

Stock No.	Type	Pri. Imped.	Sec. Imped.	±2 db.	1-24*	25-99*	100-up*
3F340	A-10	50, 125-150, 200-250, 333, 500-600	50,000‡	20-20-200	15.00	12.75	12.00
3F341	A-11	50, 200, 500	50,000 CT	20-20,000	12.00	10.20	9.60
3F342	A-12	50, 125-150, 200-250, 333, 500-600	80,000‡	20-20,000	13.50	11.48	10.80
3F354	A-15	10,000/2,500‡	2000/500‡	40-20,000	10.80	9.18	8.64
3F344	A-16	15,000	60,000	20-20,000	11.40	9.69	9.12
3F345	A-18	15,000	80,000pp‡	20-20,000	13.20	11.22	10.56
3F346	A-19	15,000, 8 ma DC Pri.	80,000pp‡	40-20,000	12.00	10.20	9.60
3F347	A-20	50, 125-150, 200-250, 333, 500-600	Same as Pri.	10-50,000	14.40	12.24	11.52
3F348	A-21	50, 200-250, 500-600	Same as Pri.	30-30,000	12.00	10.20	9.60
3F355	A-22	500 CT	500/125‡	40-20,000	9.90	8.42	7.92
3F349	A-24	15,000‡	50, 125-150, 200-250, 333, 500-600	20-40,000	14.70	12.50	11.76
3F350	A-25	15,000	Same as above	40-20,000	12.00	10.20	9.60
3F351	A-26	30,000 P to P	Same as above	20-40,000	15.30	13.01	12.24
3F352	A-27	100,000‡	Same as above	30-20,000	13.50	11.48	10.80
3F079	A-34	25,000/6250‡	500/125‡	30-20,000	10.20	8.67	8.16
3F080	A-35	10,000/2500‡	500/125‡	30-20,000	9.90	8.42	7.92
3F097	A-36	500/125‡	150/37.5‡	40-20,000	9.60	8.16	7.68
3F098	A-37	500/125‡	50/12.5‡	40-20,000	9.60	8.16	7.68
2F738	A-39	600/150‡	2000/500‡	20-20,000	11.70	9.95	9.36
2F740	A-43	600/150‡	600/150‡	20-30,000	14.70	12.50	11.76
2F741	A-30	Audio inductor 250 hys @ 5 ma 65 hys @ 10 ma. Filter inductor 60 hys @ 15 ma, 15 hys. @ 30 ma. Filter inductor 60 Mhy. @ .4A 240 Mhy. @ .2A		10.20	8.67	8.16	
3F357	A-32	Filter inductor 60 hys @ 15 ma, 15 hys. @ 30 ma.		7.50	6.38	6.00	
3F051	A-41	Filter inductor 60 Mhy. @ .4A 240 Mhy. @ .2A		6.60	5.61	5.28	
2F742	A-42	Filter inductor † Series 4 hys @ 50 ma Par. 1 h y @ 100 ma		6.60	5.61	5.28	
3F050	A-40	Transformer, 115V 60 cycle to two 6.3V CT. A sec.		9.90	8.42	7.92	
3F358	A-33	Mumetal shield slip fit over A case		3.00	2.55	2.40	

"S" SERIES DIMENSIONS

Case	HxWxD	Lbs.	Case	HxWxD	Lbs.
G-1	1 7/8 x 2 1/4 x 1 3/4"	1	G-8	4 5/8 x 5 3/8 x 5 3/8"	12
G-2	2 1/4 x 3 3/4 x 1 15/16"	1 1/2	G-9	5 7/8 x 5 3/8 x 6 3/4"	21
G-3	2 1/2 x 3 3/4 x 2 3/8"	2	G-10	5 7/8 x 6 1/8 x 6 5/8"	24
G-4	2 1/8 x 4 1/8 x 2 1/8"	3	G-11	5 7/8 x 6 1/8 x 7 3/8"	31
G-5	3 3/8 x 3 1/2 x 4 1/2"	4 1/2	G-12	10 1/4 x 7 7/8 x 9 1/4"	52
G-7	4 5/8 x 4 5/8 x 5 1/2"	8			

PLATE TRANSFORMERS Assorted*

Stock No.	Type	High VAC	DCMA	Fig.	1-24*	25-99*	100-up*
3F040	S-44	1150-1050 CT	500	G-9	27.00	22.95	21.60
3F041	S-45	1800-1500 CT	200	G-8	22.50	19.13	18.00
3F043	S-47	3000-2500 2000 CT	300	G-10	36.00	30.60	28.80
3F044	S-48	Same as above	500	G-11	42.00	35.70	33.60
3F045	S-49	4200-3600-3000 CT	300	G-11	39.00	33.15	31.20
3F046	S-50	6000-5000 CT	300	G-12	66.00	56.10	52.80

FILTER, SWINGING AND AUDIO CHOKES

**Audio. †P.P. audio CT. M=Millihenries, A=Amperes. ‡Swinging. All others are filter types.

Assorted*

Stock No.	Type	Hary.	Ma.	Ohms	Test V.	Fig.	1-24*	25-99*	100-up*
3F100	S-23**	300	5	5000	1500	G-2	4.80	4.08	3.84
3F101	S-24††	500CT	3	6000	1500	G-2	5.40	4.59	4.32
3F102	S-25	30	30	800	1500	G-2	4.20	3.57	3.36
3F103	S-26	12	60	250	1500	G-2	4.20	3.57	3.36
3F104	S-27	25	75	350	1500	G-4	5.40	4.59	4.32
3F106	S-29	6	175	90	1500	G-4	5.40	4.59	4.32
3F107	S-30‡	4/20	175	90	1500	G-4	5.40	4.59	4.32
3F108	S-31	6	225	100	2700	G-5	7.50	6.38	6.00
3F109	S-32‡	4/20	225	100	2700	G-5	7.50	6.38	6.00
3F110	S-33	8	300	100	4000	G-7	9.90	8.42	7.92
3F111	S-34‡	4/20	300	100	4000	G-7	10.50	8.93	8.40
3F112	S-35	8	400	60	5000	G-8	12.90	10.87	10.32
3F113	S-36‡	4/20	400	60	5000	G-8	12.90	10.87	10.32
3F114	S-37	8	550	60	6000	G-8	16.50	14.03	13.20
3F115	S-38‡	4/20	550	60	6000	G-8	16.50	14.03	13.20
3F095	S-80‡	45/-10M	1.75A	.5	500	G-1	4.50	3.83	3.60
3F096	S-81‡	100/-8M 25/2M	2.5A 5A	.6 .15	1500	G-3	6.60	5.61	5.28

FILAMENT TRANSFORMERS—105-115 V PRIMARIES

Stock No.	Type	Sec. (CT)	Sec. Amps	Insulation V.	Fig.	1-24*	25-99*	100-up*
3F000	S-53	2.5	10	1,500	G-3	6.90	5.87	5.52
3F001	S-54	5	4	2,500	G-3	6.30	5.38	5.04
3F002	S-55	6.3	3	1,500	G-3	6.00	5.10	4.80
3F004	S-57	2.5	10	10,000	G-5	9.90	8.42	7.92
3F005	S-58	2.5	20	10,000	G-5	10.50	8.93	8.40
3F006	S-59	5-5.25	13	5,000	G-5	9.90	8.42	7.92
3F007	S-60	5-5.25	22	10,000	G-7	15.00	12.75	12.00
3F008	S-61	7.5, 6.3	10	3,000	G-5	12.00	10.20	9.60
3F009	S-62	10	10	3,000	G-5	10.20	8.67	8.16
3F010	S-63	14, 12, 11	10	5,000	G-7	15.00	12.75	12.00

MULTIPLE FILAMENT TRANSFORMERS

Insulation, 3000 V. G-5 case.

Stock No.	Type	Fil. 1 V	A	Fil. 2 V	A	1-24*	25-99*	100-up*
3F026	S-70	6.3CT	5	6.3CT	5	11.40	9.69	9.12

UNIVERSAL DRIVERS

Stock No.	Type	Application	Fig.	1-24*	25-99*	100-up*
3F180	S-8	Sgl. dr. plate to PP grids	G-3	7.20	6.12	5.76
3F181	S-9	PP pl to class B tube grids	G-4	9.60	8.16	7.68

UNIVERSAL OUTPUTS—TO LINE AND VOICE COIL

All have secondary impedance: 500, 15, 8, 2 ohms

Stock No.	Type	Primary Impedance	W.	Fig.	1-24*	25-99*	100-up*
3F180	S-14	2500, 4000, 7,000, 10,000	10	G-2	7.20	6.12	5.76
3F191	S-15	PP tubes: 4000, 5000, 10,000	12	G-2	7.80	6.63	6.24
3F192	S-16	PP3000, 6000, 9000-10,000	30	G-4	9.30	7.91	7.44

UNIVERSAL MODULATION TRANSFORMERS

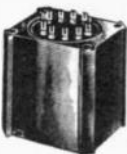
Stock No.	Type	Watts	Fig.	1-24*	25-99*	100-up*
3F170	S-18	12	G-3	8.40	7.14	6.72
3F171	S-19	30	G-4	9.90	8.42	7.92

Transformers and Inductors

UNITED TRANSFORMER CORP.

HIGH LEVEL MATCHING TRANSFORMER

Type LS-33. Primary impedance; 50, 125-150, 200, 250, 333, 500/600. Sec. impedance in 14 steps from 1.2 to 500/600. Max. level, 2C watts. In LS-2 case, L. 4 1/16" W. 3 1/2" H. 4 3/16".



Stock No.	Wt. Lbs.	1-24 Assorted	25-99 Assorted	100-up Assorted
3F235	7.5	24.00	20.40	19.20

HYBRID AND REPEAT COILS

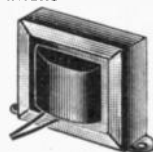
Type LS. Units have high efficiency, low wave form distortion and uniform frequency response. High electrostatic shielding. 3/4 x 2 3/8" H. Wt. 3 lbs.

*Assorted.

Stock No.	Type No.	Application	Primary Impedance	Secondary Impedance	1-24	25-99	100-up
3F549	LS-140	Line or Load	500/600 split	500/600 split	27.00	22.95	21.60
3F290	LS-141	hybrid	3 sets of bal wind each 500/600 CT		24.00	20.40	19.20

FILAMENT/TRANSISTOR TRANSFORMERS

Type FT Channel Frame. Primary; 115 volts. 50/60 cycles. Test Volts RMS: 1500. All units are low temperature rise vacuum-sealed against humidity with special impregnating materials to prevent corrosion and electrolysis. Approximate weight: 2 lbs. Taps on Primary FT-13 and FT-14 to modify secondary nominal V. -6% +6%, +12%.



(* Assorted)

Stock No.	Type No.	Secondary		Mtg. Ctrs	1-24*	25-99*	100-up*
		Volts	Amps				
3F295	FT2	6.3 CT	1.2	2 3/8"	4.50	3.83	3.60
3F296	FT4	6.3 CT	3	2 1/8"	5.10	4.34	4.08
3F297	FT6	5 CT	3	3 1/8"	5.70	4.85	4.56
3F298	FT8	6.3 CT	8	3 1/8"	6.30	5.36	5.04
3F299	FT10	24 CT or 12	2				
			4	3 1/8"	6.90	5.87	5.52
2F702	FT13	26 VCT	.04	1 3/4"	5.70	4.85	4.56
2F703	FT14	26 VCT	.25	2 3/8"	5.70	4.85	4.56

OSCILLOSCOPE TRANSFORMER

Type H-198. Highly shielded scope transformer in hermetically sealed Mil-T-27BTF4RX specs. 800, 1600 & 2400 V. plate windings (no CT) supply approx. 1000, 20000 or 3000 V. DC at 5 ma. allowing great flexibility in application. Has 1.25 V.-2A rect. fil. winding connected to one end of RV winding. Separate 6.3 V. 6A fil. winding insulated to withstand anode voltages. Pri. 115V 50/60 cycle. Case similar to SM. Size 3 1/2 x 2 3/8 x 4 1/4". * Assorted.



Stock No.	Wt.	Type	1-24*	25-99*	100-up*
3F078	4.5	H-198	27.00	22.95	21.60

Depend on NEWARK For Everything in Industrial Electronics

SPRAGUE

TRIGATE PULSE TRANSFORMERS FOR LOW-COST SCR CIRCUIT APPLICATORS

For SCR triggering applications where excellent low cost performance is required. Balanced pulse characteristics and energy transfer from primary to secondary and tertiary windings. Min. saturation effect. Fast pulse rise time and increased current capability to prevent SCR di/dt failure. Transformer leads polyurethane insulated magnet wire. May be soldered directly to terminals or other circuit components without need for removal of



wire insulation. For operation over temp. range of -10°C to +70°C.

Stk. No.	Type	Min. LP (μH)	60 Cy. Di-electric Test (V. RMS)	Max. 60 Cw. A-C	1-14	15-49	50-99	100-249	250-4999	500-999
60F288	1212	200	1600	240	2.80	2.20	1.44	1.04	.96	.88
60F289	1213	300	1600	240	3.08	2.42	1.584	1.144	1.056	.968

MICROTRAN TOROIDAL INDUCTORS

Toroidal inductors have found increasing use in the frequency range from 200 cps to 200 kc in wave filters, oscillators, frequency discriminators, power supplies and interference filters. Inductance is virtually independent of operating frequency, AC or DC level, temperature variations and vibration. Adjusted to ±2% of the nominal inductance.

QGL & QGM SERIES

QGL & QGM SERIES

Style-M. Molded, high temperature epoxy resin. Pig tail turret leads. Useable for printed circuit application. Gold plated .02" x 2" leads. 7/8" D x 3/8" H. #3 clearance hole. Wt. 5 oz.

Style-F. Micro crystalline wax dipped. #27 x 4 plastic leads. 3/8" D x 9/32" H. 3/32" clearance hole. Wt. 1/4 oz.

QIL SERIES

Style-M. Molded in high temperature epoxy silver plated lugs. 1-3/16" D x 1/2" H. #6 clearance hole. Wt. 1 1/2 oz.

Style-F. Micro crystalline wax dipped. #27 x 4" plastic lead. 1" D x 13/32" H. 7/32" clearance hole. Wt. 3/4 oz.

QKL & QKM SERIES

Style-M. Molded in high temperature epoxy silver plated lugs. 1 3/8" D x 3/4" H. #8 clearance hole. Wt. 3 3/4 oz.

Style-F. Micro crystalline wax dipped. #27 x 4" plastic leads, 1 1/4" D x 9/8" H. 7/32" clearance hole. Wt. 2 oz.

QPL SERIES

Style-M. Epoxy molded. Silver plated turret lugs. 2" D. x 1" H. #10 clearance hole. Wt. 6 oz.

Style-F. Micro crystalline wax dipped. #24 leads. 1-15/16" D x 7/8" H. 11/32" clearance hole. Wt. 5 oz.

QTL SERIES

Style-F. Micro crystalline wax dipped. 4" #24 lead. 2-7/16" D x 1" H. 3/8" clearance hole. Wt. 9 oz.

Style-H. Hermetically sealed with teflon terminals in a metal case. 2-9/16" D x 1-5/16" H. Wt. 1 lb.



QGL50M



QIL50F



QTL25000H

QGL & QGM SERIES

Stock No.	Type	Inductance	Typical DCR	Typical Distributed Capacity (F)	Freq. Rang. KC	1-9	10-49	50-99	100-249
7F859	QGL50-M	50 Mhy.	28	40	to 20	6.30	5.67	5.25	4.20
7F860	QGL500-F	500 Mhy.	290	48	to 20	5.40	4.86	4.50	3.60
7F861	QGM25-M	25 Mhy.	30	35	2-100	7.05	6.35	5.88	4.70
7F862	QGM50-F	50 Mhy.	52	37	2-100	6.30	5.67	5.25	4.20

QIL SERIES

7F863	QIL50-F	50 Mhy.	11	47	to 20	4.05	3.65	3.38	2.70
7F864	QIL1000-M	1.0 Why.	210	57	to 20	6.75	6.08	5.63	4.50

QKL & QKM SERIES

7F865	QKL250-F	250 Mhy.	28	87	to 10	4.95	4.46	4.13	3.30
7F866	QKL1000-F	1 Hy.	110	96	to 10	5.25	4.73	4.38	3.50
7F867	QKL1000-M	1 Hy.	110	96	to 10	7.20	6.48	6.00	4.80
7F868	QKM2-F	2 Hy.	45	52	5-50	5.10	4.59	4.25	3.40
7F869	QKM10-M	10 Mhy.	2.5	62	5-50	6.60	5.94	5.50	4.40

QPL SERIES

7F870	QPL25000-F	25 Hy.	1500	150	to 10	13.05	11.74	10.88	8.70
7F871	QPL25000-M	25 Hy.	1500	150	to 10	15.45	13.90	12.88	10.30

QTL SERIES

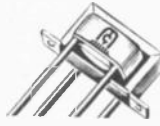
7F872	QTL100-F	100 Mhy.	2.8	144	to 15	11.25	10.12	9.38	7.50
7F873	QTL25000-H	25 Hy.	850	212	to 15	19.50	17.55	16.25	13.00

MICROTRAN Transformers

Suffix letters of Type No. indicate mounting style. Case types for which part numbers are not shown here are available on special order.



SM-AF



SM-FB
MM-FB



SM-H



MM-M



MM-H



VM-FPB



VM-M

SUBMINIATURE TRANSISTOR TRANSFORMERS—SMT SERIES
Designed for rigid sub-miniaturization applications and high resistance to ambience. Freq. Resp. 200-15,000 cps. Type FB. Open framed with channel, $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{3}{4} \times 1\frac{1}{2}$ in. Shpg. wt. 2 oz.

Stk. No.	Type	Application	Primary Imp.	Secondary Imp.	1-9	10-49	50-99	100-249
7F771	SMT1-FB	Line to base	600	600	3.90	3.51	3.25	2.60
7F741	SMT16-FB	Coll. to P.P. base	10,000	1,500 Ct.	4.65	4.18	3.88	3.10
7F743	SMT18-FB	P.P. Coll. to P.P. base	25,000 Ct.	1,200 Ct.	4.95	4.45	4.13	3.30
7F744	SMT19-FB	Coll. to P.P. base	2,500	2,500 Ct.	4.65	4.18	3.88	3.10

SUBMINIATURE AUDIO TRANSFORMERS—SM SERIES

Stk. No.	Type	Application	Primary Imp.	Secondary Imp.	1-9	10-49	50-99	100-249
7F772	SM1-FB	Input	200/50	250K/62.5K	4.35	3.91	3.63	2.90
7F773	SM2-FB	Interstage 3:1	10,000	90K	3.90	3.51	3.25	2.60
7F774	SM3-FB	Plate to line	10,000	200	3.90	3.51	3.25	2.60
7F776	SM5-FB	Reactor 50hy at lma Dc.	3,000 ohms DC resistance		3.30	2.97	2.75	2.20

MICRO MINIATURE AUDIO TRANSFORMERS AND TRANSISTOR SERIES

For rigid sub-miniaturization usage where highest resistance to extremes of ambience must be maintained. Freq. Resp. 200-15,000 cps. Type MM-M. Molded. Designed for plug-in printed circuit applications. Cast Epoxy resin. $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{3}{4}$ in. Shpg. wt., 1 oz.
Type MM-H. Hermetic. Gray enamel finish. High compression glass terminals. Shpg. wt., 1 oz.
Type MM-FB. Open frame with channel, $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{3}{4} \times 1\frac{1}{2}$ in. Shpg. wt., 1 oz.

TRANSISTOR SERIES—MMT SERIES

Stk. No.	Type	Application	Primary Imp.	Secondary Imp.	1-9	10-49	50-99	100-249
7F875	MMT1-M	Line to base	600	600	8.55	7.69	7.13	5.70
7F831	MMT1-FB	Line to base	600	600	3.90	3.51	3.25	2.60
7F833	MMT4-FB	P.P. Coll. to P.P. base	50,000 C.T.	600 C.T.	4.80	4.32	4.00	3.20
7F834	MMT5-FB	Coll. to speaker	50,000	6	4.35	3.91	3.63	2.90
7F876	MMT8-FB	P.P. Coll. to P.P. base	50,000 C.T.	1,200 C.T.	4.65	4.18	3.88	3.10
7F877	MMT9-M	Line to P.P. base	600 C.T.	1,200 C.T.	8.85	7.96	7.38	5.90
7F837	MMT9-FB	Line to P.P. base	600 C.T.	1,200 C.T.	4.20	3.78	3.50	2.80
7F839	MMT11-FB	P.P. Coll. to P.P. base or line	4,000 C.T.	600 C.T.	4.35	3.91	3.63	2.90
7F842	MMT16-FB	Coll. to P.P. base	10,000	1,500 C.T.	4.50	4.05	3.75	3.00
7F845	MMT19-FB	Coll. to P.P. base	2,500	2,500 C.T.	4.05	3.64	3.38	2.70
7F855	MMT21-FB	P.P. Coll. to P.P. Base	4,000 C.T.	600/150 split	4.65	4.19	3.88	3.10
7F335	MMT26-FB	Line to base	600 C.T.	600 C.T.	4.20	3.78	3.50	2.80
7F336	MMT29-FB	Driver/Isolation	10,000 C.T.	10,000 C.T.	4.65	4.18	3.88	3.10
7F338	MMT31-FB	P.P. Coll. to P.P. base	2,000 C.T.	500 C.T.	4.35	3.92	3.63	2.90
7F796	MMT11-M	P.P. Coll. to P.P. base or line	4,000 C.T.	600 C.T.	9.00	8.10	7.50	6.00
7F656	MMT19-M	Coll. to P.P. base	2,500	2,500 C.T.	8.70	7.83	7.25	5.80
7F846	MMT1-H	Line to base	600	600	7.35	6.61	6.13	4.90
7F852	MMT9-H	Line to P.P. base	600 C.T.	1,200 C.T.	7.65	6.88	6.38	5.10
7F632	MMT3-FB	Coll. to base	50,000	600	4.05	3.64	3.38	2.70
7F638	MMT10-FB	Collector to base	25,000	600	3.45	3.10	2.88	2.30

VERI-MINIATURE TRANSISTOR TRANSFORMERS—VM SERIES

VM SERIES. 4 inch #27 color coded leads suitable for dip soldering in printed circuits. Nickel alloy cores, nylon bobbins, formvar wire. Frequency response ± 2 db. 200 to 10,000 cycles. Type FPB. Plug in tab mounted channel $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{3}{4} \times 1\frac{1}{2}$ in. Shpg. wt., 1 oz. Molded. Designed for plug-in printed circuit applications. Cast Epoxy resin. Size: $\frac{1}{2} \times 1\frac{1}{2} \times \frac{3}{4}$ in. Shpg. wt., 1 oz.

Stk. No.	Type	Application	Primary Imp.	Secondary Imp.	1-9	10-49	50-99	100-249
7F879	VM1-FPB	Input	50	600 (1.5 ma)	4.20	3.78	3.50	2.80
7F755	VM2-FPB	Input or Interstage	200,000	600 (1.0 ma)	5.70	5.13	4.75	3.80
7F880	VM11-FPB	Choke	20 hen. (Oma)	12 hen (.5ma)	4.05	3.65	3.38	2.70
7F858	VM14-FPB	Interstage	600 C.T. (7ma)	600 C.T.	4.50	4.05	3.75	3.00
7F345	VM15-FPB	Isolation	50,000 C.T.	50,000 C.T.	6.00	5.40	5.00	4.00
7F347	VM14-M	Interstage	600 C.T. (7ma)	600 C.T.	6.75	6.08	5.63	4.50



MICROTRAN MINIATURIZED TRANSFORMERS

Suitable for use in high fidelity amplifiers, broadcast equipment, and portable applications. Thorough baking and resin impregnation assures reliable life. Style FB. $1\frac{1}{4} \times W \times 1\frac{1}{2} \times D \times \frac{3}{4}$ in. Style AG. $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{3}{4} \times 1\frac{1}{2}$ in. H. MC $1\frac{1}{2}$ in. Style M. $1\frac{1}{2} \times W \times \frac{3}{4} \times D \times \frac{3}{4}$ in. H. MC $1\frac{1}{4}$ in. Approx. Shpg. wt., 1/4 oz.

Stk. No.	Type	Applications	Freq. Resp.	Primary Imp.	Secondary Imp.	1-9	10-49	50-99	100-249
7F788	M10-AG	Push-pull plates to line	30-50,000	30,000 P.P.	50/250/600 C.T.	10.80	9.72	9.00	7.20
7F600	M 1-FB	Mike or line to 1 grid	20-20,000	50/250/600 C.T.	50,000	4.05	3.65	3.38	2.70
7F601	M 2-FB	Mike or line to 2 grids	20-20,000	50/250/600 C.T.	50,000 C.T.	4.20	3.78	3.50	2.80
7F602	M 3-FB	Dynamic mike to 1 grid	20-20,000	7.5/30	50,000	3.90	3.51	3.25	2.60
7F604	M 5-FB	Single plate to 1 grid	200-20,000	15,000	60,000	3.45	3.10	2.87	2.30
7F605	M 6-FB	Single plate to 2 grids	20-15,000	15,000	95,000 C.T.	3.60	3.24	3.00	2.40
7F606	M 7-FB	Single plate to 2 grids	200-20,000	15,000	95,000 C.T.	3.75	3.38	3.13	2.50
7F607	M 8-FB	Single plate to line	20-20,000	15,000	50/250/600 C.T.	3.75	3.38	3.13	2.50
7F609	M10-FB	Push pull plates to line	30-50,000	30,000 P.P.	50/250/600 C.T.	3.90	3.51	3.25	2.60
7F612	M13-FB	Reactor	600 D.C.R.	300 hy. O d. c.	50 hy. @ 3 ma	3.30	2.97	2.75	2.20
7F614	M15-FB	10:1 plate to grid	100-2,500	10,000	1 Megohm	3.60	3.24	3.00	2.40
7F800	MT 9-AG	Line to P.P. base	200-15,000	600 C.T.	1,200 C.T.	9.60	8.64	8.00	6.40
7F657	MT 1-FB	Line to base	200-15,000	600	600	3.60	3.24	3.00	2.40
7F658	MT 2-FB	Coll. to P.P. base 2N57	200-20,000	100	10 C.T./40 C.T.	4.20	3.78	3.50	2.80
7F659	MT 3-FB	Coll. to base or line	300-15,000	50,000	600	3.90	3.51	3.25	2.60
7F664	MT 9-FB	Line to P.P. base	200-15,000	600 C.T.	1,200 C.T.	4.20	3.78	3.50	2.80
7F666	MT11-FB	P.P. coll. to P.P. base	200-15,000	4,000 C.T.	603 C.T.	4.20	3.78	3.50	2.80
7F668	MT13-FB	P.P. coll. to speaker	200-15,000	4,000 C.T.	3.4	4.05	3.64	3.38	2.70
7F669	MT15-FB	P.P. Servo output 2N57	300-20,000	500 C.T.	210	3.90	3.51	3.25	2.60
7F670	MT18-FB	P.P. coll. to P.P. base	200-15,000	25,000 C.T.	1,200 C.T.	4.20	3.78	3.50	2.80
7F672	MT21-FB	P.P. coll. to P.P. base	203-15,000	4,000 C.T.	600/150 split	4.35	3.91	3.63	2.90
7F673	MT22-FB	Line to P.P. base	203-15,000	600/150 split	1,200 C.T.	4.35	3.91	3.63	2.90
7F839	MT26-FB	Line to P.P. base	203-15,000	600 C.T.	600 C.T.	4.05	3.65	3.38	2.70

MIL-T-27B TRANSISTOR-POWER-TRANSISTORS



MIL-T-27B Case

For silicon rect. circuitry. Pri 105/115/125 V. except (*) 115v. only. 50-60 cps. Wt., 4 lbs.

Stk. No.	Type	Freq. Cycles	Secondary		C.T.F.W. D.C.V.	F.W. Bridge D.C.V.	L	W	H	1-9	10-49	50-99	100-249
			A.C. Volts	RMS Amps									
7F709	M8019	380-1600	18.5 C.T.	3	7	14	2 1/8	2 1/8	3 1/8	15.90	14.31	13.25	10.60
7F710	M8020	380-1600	35 C.T.	3	14.5	29	2 3/4	2 3/4	3 1 3/16	18.00	16.20	15.00	12.00
7F711	M8021	380-1600	70 C.T.	1	30	60	2 3/8	2 1/8	3 1/8	16.05	14.44	13.38	10.70
7F874	M8023	50/60	35 C.T.	3	14.5	29	3 1/16	3 3/8	5 1/4	26.10	23.49	21.75	17.40
7F316	M8039	380-1600	12.6	.8	10.5	21	1 5/8	1 5/8	2 3/8	15.15	13.63	12.63	10.10
			12.6 C.T.	.8	10.5	21	1 5/8	1 5/8	2 3/8	15.15	13.63	12.63	10.10
7F304	M8065	380-1600	26 C.T.	1.5	10.7	21.5	1 1/16	1 1/16	2 3/8	15.60	14.04	13.00	10.40
7F305	M8066	380-1600	26 C.T.	3	10.7	21.5	2 3/16	2 3/16	3 1/8	16.05	14.44	13.38	10.70
7F308	M8070*	380-1600	65 C.T.	.170	28.4	56.8	1 5/8	1 5/8	3 1/4	11.25	10.12	9.38	7.50
7F310	M8063*	380-1600	2.85	.045	1.5	3	1 5/16 Dia.	1 1/8 Mtg. Ctrs.		10.50	9.45	8.75	7.00
7F714	M8024	50/60	70 C.T.	1	30	60	3 3/16	3 1/16	4 7/8	25.65	23.09	21.38	17.10
7F312	M8045	50/60	28 C.T.	.6	11.7	23.4	2 3/16	2 1/16	3 1/8	16.35	14.71	13.63	10.90
7F313	M8055	50/60	30 C.T.	2.5	12.5	25	3 3/16	3 1/16	4 7/8	25.65	23.09	21.38	17.10
7F314	M8056	50/60	80 C.T.	.6	35	70.5	3 1/16	2 3/8	4 1/4	18.85	14.98	13.98	11.10

TRANSISTOR DRIVER AND OUTPUT TRANSFORMERS

Hermetically sealed. Designed for transistor, servo and audio applications. All MIL-T-27B construction. #Bi-Filar wound. Wt., 8 oz.

Stk. No.	Type	Application	Pri. Imp.	Sec. Imp.	Freq. Resp.	Watts	L	W	H	1-9	10-49	50-99	100-249
7F701	M8010	P.P. Col. to Servo	120 C.T.	1000	300-15,000	6	1 3/8	1 3/8	2 3/8	11.55	10.39	9.63	7.70
7F706	M8015	P.P. Col. to Servo	1600 C.T.	800	150-20,000	2.5	1 3/8	1 3/8	2 3/8	12.00	10.80	10.00	8.00
7F894	M8003#	Collector to P.P. Base	625 C.T.	100 C.T.	200-20,000	1.5	1 3/8	1 3/8	2 3/8	12.30	11.07	10.25	8.20
7F896	M8005	Collector to P.P. Base	7,000	320 C.T.	70-15,000	.040	1 3/8	1 3/8	1 3/4	14.85	13.36	12.38	9.90

TRANSISTOR BLOCKING OSCILLATOR TYPE TRANSFORMER

For conversion of low voltage DC to high voltage, MIL-T-27B sealed. 400 cycles approximate repetition rate. Wt. 2 lbs.

**Dependent on load and bias conditions. Frequency varies from 100 to 2800 CPS.

*Output when transformer is used in blocking oscillator circuit with single capacitor input rectifier.

Stk. No.	Type	H.V.	Typical Input		Typical Output		L	W	H	1-9	10-49	50-99	100-249
			Volts DC	Ma DC	Volts DC	µa DC							
7F317	M8050	600	3	20	1000*	25	1 3/4	1 3/8	2 1/2	5.55	4.99	4.83	3.70
7F318	M8073	44	4	2-15**	425-500	50 Max.	1/2	7/16	7/16	5.25	4.73	4.38	3.50

D.C. TO D.C. CONVERTER TRANSFORMER—SWITCHING TYPE

Permits conversion of low voltage DC to high voltage. Provides improved reliability, efficiency, and ruggedness. Hermetically sealed to MIL-T-27B spec. Shpg. wt., 2 pounds.

Stk. No.	Type	For Trans.	DC Input Volts	VA Out	F.W. Volts	L	W	H	1-9	10-49	50-99	100-249
7F320	M8072	Delco 2N1307	2.7	190mw	480	1 3/4	1 3/8	2 3/8	5.40	4.86	4.50	3.60

LOW LEVEL CHOPPER TRANSFORMERS

Transfers 30 to 500 cps. Transducer or thermocouple signals to instrument amplifiers. Signal level range .5 µv to .5 volts. 3 mu-metal and 2 copper shields give 90 db magnetic shielding. 1 3/8 Dx 1 1/2 Hx 1 1/2 M.C. Wt., 5 oz.

Stk. No.	Type	Turns Ratio		Ind. of Full Pri. *60 Cycles	Imp. of Full Pri. *60 Cycles	1-9	10-49	50-99	100-249
		Full Pri. to Full Sec.	1/2 Pri. to Full Sec.						
7F819	M8025	1:7.7	1:15.4	17.5	6,600	13.80	12.42	11.50	9.20
7F820	M8026	1:3.2	1:6.4	60 HY	22,500	13.80	12.42	11.50	9.20
7F322	M8053†	1:0.5	1:1	140	53,000	13.65	12.28	11.38	9.10

*.5V † sec. is center tapped

400 CYCLE ISOLATION TRANSFORMERS

Center tap permits use in either F.W. Bridge or F.W.C.T. circuitry. Electrostatic shielding. Sealed per MIL-T-27B.

Stk. No.	Type	Volts-In	Volts-Out	RMS Amps	V.A. Rating	L	W	H	1-9	10-49	50-99	100-up
7F323	M8058	115	115 C.T.	.017	2	2	2	2	9.60	8.64	8.00	6.40
7F324	M8059	115	115 C.T.	.35	40	1 1/8	1 1/8	2 3/8	14.70	13.23	12.25	9.80
7F325	M8060	115	115 C.T.	1.3	150	2 3/4	2 3/8	3 1 3/16	18.45	16.60	15.37	12.30
7F327	M8062	115	115 C.T.	4.4	500	3 1/8	3 3/8	5 1/4	28.85	24.16	22.38	17.90

MICROTRAN TRANSISTOR TRANSFORMER SELECTOR KIT

Model 400K. 9 transformers in one kit! For servo, audio instrumentation and control circuitry! Impedance range of 150-200,000 ohms. Sizes: from 3/8" cube to 3/4x3/4x1". 4" color coded leads. Includes complete design data: Nomographs and circuitry for determining correct transformer impedances for class A and B transistor amplifiers. Power versus DBM chart, terminal connection sheet, guide to MIL-T-27B cross reference index. With outline drawings for later selection of stock items with these same electrical ratings in many other mechanical constructions.

Type	Primary Impedance*	DCR	Secondary Impedance*	DCR	Unbal. Pri. D.C. Ma.	Level MW.	Freq. Resp. ±2db.
MMT9-FB	600 C.T.	45	1200 C.T.	100	16	150	200-15,000
MT24-FB	2,500	230	600 C.T.	55	10	1500	200-15,000
MMT21-FB	4,000 C.T.	300	600/150 Split	30/30	5	600	200-15,000
MMT17-FB	10,000 C.T.	2400	200 C.T.	35	6	100	200-15,000
UM31-F	10,000 C.T.	850	1200 C.T.	120	2	5 (.5W @ 1Kc)	300-10,000
UM22-F	20,000	1100	1000	100	.5	5 (.3W @ 1Kc)	300-10,000
SMT18-FB	25,000 C.T.	2000	1200 C.T.	110	3	100	200-15,000
VM2-FBP	200,000	2650	600	80	1 (Sec.)	5	200-10,000
UM28-F	10 hy (0dc)	650	8 hy (.5ma)	.....	.....	.....	Reactor

*Primary and secondary may be interchanged but impedance will be slightly different.

7F638. NET.

29.50

ULTRA MINIATURE TRANSISTOR TRANSFORMERS—UM SERIES—300 TO 10,000 CYCLE RESPONSE

For the extreme in miniaturization. Supplied with 4 inch #27 color coded leads suitable for dip soldering in printed circuits. Nickel alloy cores, nylon bobbins, formvar wire. Type F—Open frame—3/8x3/8x1 1/2 in. Type M—Molded—1/2x1/2 in. dia. Shpg. wt., 1 oz.

Stk. No.	Type	Application	Primary Imp.	Sec. Imp.	Unbal. Pri.	1-9	10-49	50-99	100-249
7F763	UM21-F	Input	100,000	1,000	0 DC Ma	6.00	5.40	5.00	4.00
7F808	UM23-M	Driver	20,000	1,200 C.T.	.5 DC Ma	6.00	5.40	5.00	4.00
7F878	UM28-F	Choke	10 hy. (0 dc)	8 hy. (.5ma)		3.75	3.38	3.13	2.50
7F329	UM29-M	Interstage	600 C.T.	600 C.T.	7 DC Ma	5.70	5.13	4.75	3.80
7F330	UM29-F	Interstage	600 C.T.	600 C.T.	7 DC Ma	4.65	4.19	3.88	3.10
7F331	UM31-F	Interstage	10,000 C.T.	1,200 C.T.	2 DC Ma	4.80	4.32	4.00	3.20



UM-F



UM-M



Collins Toroidal Coils

MOLDED PLASTIC TYPE MPF

Molded in high temperature resin. All have tinned brass terminals. Excellent Q characteristics. Normally used in the range of 1 KC to 15 KC. Useful for filters, oscillators, and tuned transformers. Mounts with 3-48

screw. Tapped hole. Ambient temperature range: -55°C to +105°C. Size: 0.738" H. x 0.888" L. x 0.375" W. VALUES OF INDUCTANCE IN 2% INCREMENTS ARE AVAILABLE FROM 5mh TO 3H.

TYPE MPF-050 TOROIDS—FOR FREQUENCIES UP TO 15KC (SUBMINIATURE)

Stk. No.	Coil Desig. Type	INDUCTANCE @ 1 VOLT RMS	Q _{min}	RdcQ ±20%	Minimum Self Res. Freq.	l _{max.} MA	1-9	10-24	25-49	50-99	100-249
39F2500	MPF-050-1B	5 MH±1.5% @ 7KC	67 @ 10KC	2.3	360KC	79.7	5.95	4.76	4.05	3.57	2.85
39F2504	MPF-050-5B	10 MH±1% @ 5KC	67 @ 10KC	4.9	242KC	50.1	5.95	4.76	4.05	3.57	2.85
39F2506	MPF-050-7B	15 MH±1% @ 5KC	67 @ 10KC	7.3	196KC	39.8	5.95	4.76	4.05	3.57	2.85
39F2507	MPF-050-8B	17.5 MH±1% @ 4KC	67 @ 10KC	8.5	178KC	39.8	5.95	4.76	4.05	3.57	2.85
39F2508	MPF-050-9B	20 MH±1% @ 4KC	67 @ 10KC	11.2	165KC	31.5	5.95	4.76	4.05	3.57	2.85
39F2510	MPF-050-11B	30 MH±1% @ 3KC	67 @ 10KC	14.3	133KC	31.5	5.95	4.76	4.05	3.57	2.85
39F2513	MPF-050-14B	50 MH±1% @ 2KC	67 @ 10KC	25.0	100KC	25.0	5.95	4.76	4.05	3.57	2.85
39F2517	MPF-050-18B	100 MH±1% @ 2KC	67 @ 10KC	49.0	69KC	15.7	7.20	5.76	4.90	4.32	3.46
39F2521	MPF-050-22B	200 MH±1% @ 1KC	55 @ 7KC	115	47KC	9.9	7.20	5.76	4.90	4.32	3.46
39F2523	MPF-050-24B	300 MH±1% @ 1KC	55 @ 7KC	150	38KC	9.9	7.20	5.76	4.90	4.32	3.46
39F2526	MPF-050-27B	500 MH±1% @ 1KC	55 @ 7KC	290	29KC	6.2	7.20	5.76	4.90	4.32	3.46
39F2530	MPF-050-31B	1.0 HY ±1% @ 400CPS	44 @ 5KC	520	20KC	4.9	8.83	7.06	6.00	5.30	4.24
39F2532	MPF-050-33B	1.5 HY ±1% @ 400CPS	44 @ 5KC	780	16KC	3.9	8.83	7.06	6.00	5.30	4.24
39F2534	MPF-050-35B	2.0 HY ±1% @ 400CPS	30 @ 4KC	1050	14KC	3.1	9.75	7.80	6.63	5.85	4.68
39F2536	MPF-050-37B	3.0 HY ±1% @ 400CPS	30 @ 4KC	1700	11KC	2.5	9.75	7.80	6.63	5.85	4.68

TYPE MPF-051 TOROIDS—FOR FREQUENCIES UP TO 100 MC (SUBMINIATURE)

VALUES OF INDUCTANCE IN 2% INCREMENTS ARE AVAILABLE FROM 1mh TO 3H.

Stk. No.	Coil Desig. Type	INDUCTANCE @ 1 VOLT RMS	Q _{min}	RdcQ ±20%	Minimum Self Res. Freq.	l _{max.} MA	1-9	10-24	25-49	50-99	100-249
39F2584	MPF-051-1B	1 MH±2.5% @ 10KC	78 @ 30KC	1.2	942KC	100	6.55	5.24	4.45	3.93	3.14
39F2588	MPF-051-5B	2.0 MH±1.5% @ 5KC	78 @ 30KC	2.1	625KC	79.7	6.55	5.24	4.45	3.93	3.14
39F2590	MPF-051-7B	3.0 MH±1.5% @ 5KC	78 @ 30KC	3.2	500KC	63.2	6.55	5.24	4.45	3.93	3.14
39F2593	MPF-051-10B	5.0 MH±1% @ 5KC	78 @ 30KC	5.3	374KC	50.1	6.55	5.24	4.45	3.93	3.14
39F2597	MPF-051-14B	10.0 MH±1% @ 5KC	78 @ 30KC	12	251KC	31.5	6.55	5.24	4.45	3.93	3.14
39F2599	MPF-051-16B	15 MH±1% @ 2KC	64 @ 20KC	14	202KC	31.5	6.55	5.24	4.45	3.93	3.14
39F2600	MPF-051-17B	17.5 MH±1% @ 2KC	64 @ 20KC	19.5	185KC	25	6.55	5.24	4.45	3.93	3.14
39F2601	MPF-051-18B	20 MH±1% @ 2KC	64 @ 20KC	22	172KC	25	6.55	5.24	4.45	3.93	3.14
39F2603	MPF-051-20B	30 MH±1% @ 2KC	64 @ 20KC	32	137KC	19.8	6.55	5.24	4.45	3.93	3.14
39F2606	MPF-051-23B	50 MH±1% @ 2KC	64 @ 20KC	51	103KC	15.7	7.25	5.80	4.93	4.35	3.48
39F2610	MPF-051-27B	100 MH±1% @ 1KC	53 @ 15KC	115	71KC	9.9	7.25	5.80	4.93	4.35	3.48
39F2614	MPF-051-31B	200 MH±1% @ 1KC	38 @ 10KC	210	48KC	7.8	8.45	6.76	5.75	5.07	4.06
39F2616	MPF-051-33B	300 MH±1% @ 1KC	38 @ 10KC	330	41KC	6.2	8.45	6.76	5.75	5.07	4.06
39F2619	MPF-051-36B	500 MH±1% @ 400CPS	31 @ 8KC	510	30KC	4.9	8.45	6.76	5.75	5.07	4.06

TYPE MPF-054 TOROIDS—FOR FREQUENCIES UP TO 5 MC (SUBMINIATURE)

VALUES OF INDUCTANCE IN 2% INCREMENTS ARE AVAILABLE FROM .05mh TO 10 mh.

Stk. No.	Coil Desig. Type	INDUCTANCE @ 1 VOLT RMS	Q _{min}	RdcQ ±20%	Minimum Self Res. Freq.	l _{max.} MA	1-9	10-24	25-49	50-99	100-249
39F2627	MPF-054-1B	0.05 MH±2.5% @ 50KC	120 @ 500KC	0.8	6.25MC	78	5.13	4.10	3.49	3.08	2.46
39F2631	MPF-054-5B	0.1 MH±2.5% @ 50KC	120 @ 500KC	1.1	4.1MC	78	5.13	4.10	3.49	3.08	2.46
39F2635	MPF-054-9B	0.2 MH±1.5% @ 25KC	120 @ 500KC	2.2	2.6MC	55	5.13	4.10	3.49	3.08	2.46
39F2637	MPF-054-11B	0.3 MH±1.5% @ 25KC	120 @ 500KC	2.7	2.1MC	55	5.13	4.10	3.49	3.08	2.46
39F2640	MPF-054-14B	0.5 MH±1.5% @ 25KC	100 @ 200KC	4.4	1.6MC	47	5.13	4.10	3.49	3.08	2.46
39F2642	MPF-054-16B	0.72 MH±1.5% @ 25KC	100 @ 200KC	5.4	1.3MC	47	5.13	4.10	3.49	3.08	2.46
39F2644	MPF-054-18B	1.0 MH±1.0% @ 15KC	100 @ 200KC	7.8	987KC	40	5.13	4.10	3.49	3.08	2.46
39F2648	MPF-054-22B	2.0 MH±1% @ 10KC	70 @ 150KC	12.8	669KC	31	5.75	4.60	3.91	3.45	2.76
39F2650	MPF-054-24B	3.0 MH±1% @ 10KC	50 @ 80KC	18.7	532KC	25	5.75	4.60	3.91	3.45	2.76
39F2653	MPF-054-27B	5.0 MH±1% @ 5KC	50 @ 80KC	30.0	395KC	20	5.75	4.60	3.91	3.45	2.76
39F2657	MPF-054-31B	10.0 MH±1% @ 5KC	50 @ 80KC	54.5	260KC	16	5.75	4.60	3.91	3.45	2.76

CORE TYPE 206 TOROIDS—FOR FREQUENCIES UP TO 20 KC

Molded Plastic Type MP-206. Commonly called the Wedding Ring. Excellent Q characteristics compatible with size and weight requirements of portable and airborne equipments. Molded in hi-temp resin. Terminals are tinned brass. Mounts with 6-32 screw. Tapped hole.

Ambient temp. range. -55°C. to 105° C. Normally used in the range of 1KC to 20KC. Dia.: 1 1/16" ± 1/64". Thickness: 1/2" ± 1/64".

VALUES OF INDUCTANCE IN 2% INCREMENTS ARE AVAILABLE FROM 5mh TO 3h.

Stk. No.	Coil Desig. Type	INDUCTANCE @ 1 VOLT RMS	Q _{min}	RdcQ ±20%	Minimum Self Res. Freq.	l _{max.} MA	1-9	10-24	25-49	50-99	100-249
39F2658	MP-206-1B	5 MH±1.5% @ 5KC	130 @ 10KC	0.92	320KC	254	6.18	4.94	4.20	3.71	2.96
39F2662	MP-206-5B	10 MH±1.5% @ 5KC	130 @ 10KC	2.1	221KC	160	6.18	4.94	4.20	3.71	2.96
39F2664	MP-206-7B	15.0 MH±1% @ 3KC	130 @ 10KC	3.3	176KC	127	6.18	4.94	4.20	3.71	2.96
39F2665	MP-206-9B	17.5 MH±1% @ 3KC	130 @ 10KC	3.5	167KC	127	6.18	4.94	4.20	3.71	2.96
39F2666	MP-206-8B	20 MH±1% @ 3KC	130 @ 10KC	3.7	151KC	127	6.18	4.94	4.20	3.71	2.96
39F2667	MP-206-10B	24 MH±1% @ 3KC	130 @ 10KC	5.2	136KC	100	6.18	4.94	4.20	3.71	2.96
39F2668	MP-206-11B	30 MH±1% @ 3KC	130 @ 10KC	5.8	120KC	100	6.18	4.94	4.20	3.71	2.96
39F2671	MP-206-14B	50 MH±1% @ 2KC	130 @ 10KC	9.4	91KC	80	6.18	4.94	4.20	3.71	2.96
39F2672	MP-206-15B	60 MH±1% @ 2KC	110 @ 6KC	13.0	83KC	63	6.18	4.94	4.20	3.71	2.96
39F2674	MP-206-17B	86 MH±1% @ 2KC	110 @ 6KC	19.5	68KC	50	6.18	4.94	4.20	3.71	2.96
39F2675	MP-206-18B	100 MH±1% @ 2KC	110 @ 6KC	21	64KC	50	6.18	4.94	4.20	3.71	2.96
39F2677	MP-206-20B	150 MH±1% @ 1KC	110 @ 6KC	33	51KC	40	6.18	4.94	4.20	3.71	2.96
39F2679	MP-206-22B	200 MH±1% @ 1KC	110 @ 6KC	46	44KC	40	6.85	5.48	4.66	4.11	3.29
39F2680	MP-206-23B	240 MH±1% @ 1KC	110 @ 6KC	51	41KC	32	6.85	5.48	4.66	4.11	3.29
39F2681	MP-206-24B	300 MH±1% @ 1KC	110 @ 6KC	57	35KC	32	6.85	5.48	4.66	4.11	3.29
39F2684	MP-206-27B	500 MH±1% @ 1KC	65 @ 4KC	90	27KC	25	6.85	5.48	4.66	4.11	3.29
39F2688	MP-206-31B	1 HY ±1% @ 400CPS	75 @ 3KC	213	18KC	16	8.50	6.80	5.78	5.10	4.08
39F2870	MP-206-33B	1.5 HY ±1% @ 400CPS	75 @ 3KC	326	15KC	12.5	8.50	6.80	5.78	5.10	4.08
39F2871	MP-206-35B	2.0 HY ±1% @ 400CPS	30 @ 3KC	475	13KC	10	8.50	6.80	5.78	5.10	4.08
39F2872	MP-206-37B	3.0 HY ±1% @ 400CPS	30 @ 3KC	750	11KC	8	8.50	6.80	5.78	5.10	4.08

NEWARK CAN SUPPLY ALL COLLINS TOROID INDUCTORS AND TRANSFORMERS.
CALL, WRITE OR WIRE FOR PRICES ON ITEMS NOT LISTED IN THIS CATALOG.

CORE TYPE MP-254 TOROIDS

Molded Plastic Type MP-254. Features exceptional Q below 5KC. Useful for critical filters, oscillators and tuned transformers in the above range. Provides filters of sharp characteristics and highest power capabilities. Molded in hi-temp resin.

Tinned brass terminals. Mounts with 8-32 screw. Tapped hole. 2" dia., 1" thk. Values of inductance in 2% increments are available from 20Mh to 36th.

Stock No.	Coil Desig. Type	Inductance @ 1 Volt RMS	Q min	R dc Ω ±20%	Minim. Self. Res. Freq.	I max. MA	1-9	10-24	25-49	50-99	100-249
39F2695	MP-254-1B	20 MH±2.5% @ 2KC	155 @ 3.5KC	1.01	100KC	642	11.25	9.00	7.65	6.75	5.40
39F2697	MP-254-3B	30 MH±1.5% @ 2KC	155 @ 3.5KC	1.5	81KC	510	11.25	9.00	7.65	6.75	5.40
39F2700	MP-254-6B	50 MH±1.5% @ 2KC	155 @ 3.5KC	2.5	62KC	404	11.25	9.00	7.65	6.75	5.40
39F2701	MP-254-7B	60 MH±1.5% @ 2KC	155 @ 3.5KC	3.2	56KC	320	11.25	9.00	7.65	6.75	5.40
39F2704	MP-254-10B	100 MH±1.5% @ 1KC	147 @ 3KC	5.5	43KC	254	11.25	9.00	7.65	6.75	5.40
39F2708	MP-254-14B	200 MH±1 % @ 1KC	147 @ 3KC	9.9	30KC	201	12.08	9.66	8.21	7.25	5.80
39F2710	MP-254-16B	300 MH±1 % @ 1KC	125 @ 2KC	15.0	24KC	160	12.08	9.66	8.21	7.25	5.80
39F2713	MP-254-19B	500 MH±1 % @ 400CPS	125 @ 2KC	25.0	18KC	127	12.08	9.66	8.21	7.25	5.80
39F2717	MP-254-23B	1.0HY ±1 % @ 400CPS	105 @ 1.5KC	56.0	13KC	80	12.08	9.66	8.21	7.25	5.80
39F2721	MP-254-27B	2.0HY ±1 % @ 400CPS	79 @ 1KC	100.0	9.0KC	63	13.28	10.62	9.03	7.97	6.37
39F2723	MP-254-29B	3.0HY ±1 % @ 100CPS	79 @ 1KC	155	7.0KC	50	13.28	10.62	9.03	7.97	6.37
39F2726	MP-254-32B	5.0HY ±1 % @ 100CPS	66 @ 800CPS	250	5.5KC	40	13.28	10.62	9.03	7.97	6.37
39F2730	MP-254-36B	10 HY ±1 % @ 100CPS	51 @ 600CPS	560	3.7KC	25	15.70	12.56	10.67	9.42	7.54
39F2734	MP-254-40B	20 HY ±1 % @ 100CPS	43 @ 500CPS	1000	2.6KC	20	15.70	12.56	10.67	9.42	7.54
39F2736	MP-254-42B	30 HY ±1 % @ 100CPS	34 @ 400CPS	1550	2.1KC	16	17.80	14.24	12.10	10.88	8.54

MOLDED PLASTIC CORE TYPE 848 TOROID—FOR FREQUENCIES UP TO 100 KC

Low permeability core material for use in the frequency range of 2KC to 100KC. Molded in hi-temp resin. Tinned brass terminals. Coefficient of inductance: ±180 PPM/° C over AN.

Mounts with 6-32 screw. Tapped hole. Ambient temp. range: -55°C. to 105°C. Values of inductance in 2% increments are available from 2mh to 500mh.

39F2738	MP-848-1B	2.0MH±1.5% @ 10KC	140 @ 30KC	0.92	514KC	254	6.78	5.42	4.61	4.07	3.25
39F2740	MP-848-3B	3.0MH±1.5% @ 10KC	140 @ 30KC	1.39	390KC	202	6.78	5.42	4.61	4.07	3.25
39F2743	MP-848-6B	5.0MH±1 % @ 8KC	140 @ 30KC	2.29	308KC	160	6.78	5.42	4.61	4.07	3.25
39F2747	MP-848-10B	10 MH±1 % @ 5KC	140 @ 30KC	5.1	216KC	101	6.78	5.42	4.61	4.07	3.25
39F2749	MP-848-12B	15 MH±1 % @ 5KC	140 @ 30KC	6.2	174KC	101	6.78	5.42	4.61	4.07	3.25
39F2751	MP-848-14B	20 MH±1 % @ 4KC	140 @ 30KC	9.06	149KC	80	6.78	5.42	4.61	4.07	3.25
39F2753	MP-848-16B	30 MH±1 % @ 3KC	140 @ 30KC	14.0	120KC	63	6.78	5.42	4.61	4.07	3.25
39F2760	MP-848-23B	100 MH±1 % @ 1KC	95 @ 15KC	51.8	64KC	31.5	7.55	6.04	5.13	4.53	3.62
39F2764	MP-848-27B	200 MH±1 % @ 1KC	70 @ 10KC	92.0	44KC	25	8.35	6.68	5.68	5.01	4.01
39F2766	MP-848-29B	300 MH±1 % @ 1KC	70 @ 10KC	143	36KC	19.8	8.35	6.68	5.68	5.01	4.01
39F2769	MP-848-32B	500 MH±1 % @ 1KC	70 @ 10KC	234	27KC	15.7	8.35	6.68	5.68	5.01	4.01

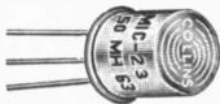
MOLDED PLASTIC CORE TYPE 930 TOROID—FOR FREQUENCIES UP TO 10 KC

Provides higher Q, power level and stability, with only slight increase in weight and volume. For use in frequency range of 500 cycles to 10KC. Molded in hi-temp resin. Tinned brass ter-

minals. Ambient temp. range: -55°C. to +105°C. Mounts with 6-32 screw. Tapped hole. 1 1/16" D x 3/32" Thk. Values of inductance in 2% increments are available from 5mh to 17.5h.

39F2770	MP-930-1B	5 MH±2.5% @ 5KC	115 @ 7KC	0.6	255KC	402	5.90	4.72	4.01	3.54	2.83
39F2774	MP-930-5B	10 MH±1.5% @ 5KC	115 @ 5KC	1.07	172KC	320	5.90	4.72	4.01	3.54	2.83
39F2776	MP-930-7B	15 MH±1.5% @ 2KC	115 @ 5KC	1.65	139KC	254	5.90	4.72	4.01	3.54	2.83
39F2778	MP-930-9B	20 MH±1.5% @ 2KC	115 @ 5KC	1.89	127KC	254	5.90	4.72	4.01	3.54	2.83
39F2780	MP-930-11B	30 MH±1 % @ 2KC	115 @ 5KC	2.93	95KC	201	5.90	4.72	4.01	3.54	2.83
39F2783	MP-930-14B	50 MH±1 % @ 2KC	115 @ 5KC	6.0	72KC	127	5.90	4.72	4.01	3.54	2.83
39F2784	MP-930-15B	60 MH±1 % @ 2KC	115 @ 5KC	6.61	65KC	127	5.90	4.72	4.01	3.54	2.83
39F2787	MP-930-18B	100 MH±1 % @ 1KC	105 @ 4KC	10.6	50KC	100	5.90	4.72	4.01	3.54	2.83
39F2789	MP-930-20B	150 MH±1 % @ 1KC	105 @ 4KC	16.5	40KC	80	5.90	4.72	4.01	3.54	2.83
39F2791	MP-930-22B	200 MH±1 % @ 1KC	105 @ 4KC	23.9	34KC	63	5.90	4.72	4.01	3.54	2.83
39F2793	MP-930-24B	300 MH±1 % @ 1KC	93 @ 3KC	37	28KC	50	5.90	4.72	4.01	3.54	2.83
39F2795	MP-930-26B	430 MH±1 % @ 1KC	93 @ 3KC	44.2	21KC	40	5.90	4.72	4.01	3.54	2.83
39F2796	MP-930-27B	500 MH±1 % @ 400CPS	93 @ 3KC	60.2	21KC	40	5.90	4.72	4.01	3.54	2.83
39F2800	MP-930-31B	1.0HY ±1 % @ 400CPS	73 @ 2KC	107	15KC	31.5	7.23	5.78	4.91	4.34	3.47
39F2801	MP-930-35B	2.0HY ±1 % @ 400CPS	58 @ 1.5KC	240	10KC	20	7.23	5.78	4.91	4.34	3.47
39F2806	MP-930-37B	3.0HY ±1 % @ 100CPS	58 @ 1.5KC	372	8KC	16	7.23	5.78	4.91	4.34	3.47
39F2809	MP-930-40B	5.0HY ±1 % @ 100CPS	42 @ 1KC	605	6.0KC	12.5	9.35	7.49	6.35	5.61	4.49
39F2813	MP-930-44B	10 HY ±1 % @ 100CPS	30 @ 800CPS	1085	4.3KC	10.0	10.45	8.36	7.13	6.28	5.03

TYPE MIC TOROIDS



Meets MIL-27A, Grade 4, Class R. For almost any application requiring a high Q microminiature inductor. Essentially no external magnetic field and no capacitive coupling to nearby circuitry. Automatic machine insertion. Insulation

resistance is 10,000 megohms minimum at 100 v DC. 100 v RMS dielectric strength. Ambient temperature range is -55°C to +85°C. Inductance change with temperature is ±2% over-range of -20°C to ±85°C. AC and DC saturation—Ultra linear to high excitation levels.

Stk. No.	Type	Induct.	1-9	10-24	25-49	50-99	100-249	Stk. No.	Type	Induct.	1-9	10-24	25-49	50-99	100-249
39F2817	MIC-1	1 MH@10KC	4.93	3.94	3.35	2.95	2.36	39F2835	MIC-19	24MH@10KC	4.93	3.94	3.35	2.95	2.36
39F2818	MIC-2	1.2 MH@10KC	4.93	3.94	3.35	2.95	2.36	39F2836	MIC-20	30MH@10KC	4.93	3.94	3.35	2.95	2.36
28F2819	MIC-3	1.5 MH@10KC	4.93	3.94	3.35	2.95	2.36	39F2837	MIC-21	36MH@10KC	4.93	3.94	3.35	2.95	2.36
39F2820	MIC-4	1.75MH@10KC	4.93	3.94	3.35	2.95	2.36	39F2838	MIC-22	43MH@10KC	4.93	3.94	3.35	2.95	2.36
39F2821	MIC-5	2.0 MH@10KC	4.93	3.94	3.35	2.95	2.36	39F2839	MIC-23	50MH@10KC	4.93	3.94	3.35	2.95	2.36
39F2822	MIC-6	2.4 MH@10KC	4.93	3.94	3.35	2.95	2.36	39F2840	MIC-24	60MH@10KC	4.93	3.94	3.35	2.95	2.36
39F2823	MIC-7	3.0 MH@10KC	4.93	3.94	3.35	2.95	2.36	39F2841	MIC-25	72MH@10KC	4.93	3.94	3.35	2.95	2.36
39F2824	MIC-8	3.6 MH@10KC	4.93	3.94	3.35	2.95	2.36	39F2842	MIC-26	86MH@10KC	4.93	3.94	3.35	2.95	2.36
39F2825	MIC-9	4.3 MH@10KC	4.93	3.94	3.35	2.95	2.36	39F2843	MIC-27	100MH@10KC	4.93	3.94	3.35	2.95	2.36
39F2826	MIC-10	5.0 MH@10KC	4.93	3.94	3.35	2.95	2.36	39F2844	MIC-28	120MH@5KC	4.93	3.94	3.35	2.95	2.36
39F2827	MIC-11	6.0 MH@10KC	4.93	3.94	3.35	2.95	2.36	39F2845	MIC-29	150MH@5KC	4.93	3.94	3.35	2.95	2.36
39F2828	MIC-12	7.2 MH@10KC	4.93	3.94	3.35	2.95	2.36	39F2846	MIC-30	175MH@5KC	4.93	3.94	3.35	2.95	2.36
39F2829	MIC-13	8.6 MH@10KC	4.93	3.94	3.35	2.95	2.36	39F2847	MIC-31	200MH@5KC	4.93	3.94	3.35	2.95	2.36
39F2830	MIC-14	10 MH@10KC	4.93	3.94	3.35	2.95	2.36	39F2848	MIC-32	240MH@5KC	4.93	3.94	3.35	2.95	2.36
39F2831	MIC-15	12 MH@10KC	4.93	3.94	3.35	2.95	2.36	39F2849	MIC-33	300MH@5KC	4.93	3.94	3.35	2.95	2.36
39F2832	MIC-16	15 MH@10KC	4.93	3.94	3.35	2.95	2.36	39F2850	MIC-34	360MH@5KC	4.93	3.94	3.35	2.95	2.36
39F2833	MIC-17	17.5 MH@10KC	4.93	3.94	3.35	2.95	2.36	39F2851	MIC-35	430MH@5KC	4.93	3.94	3.35	2.95	2.36
39F2834	MIC-18	20 MH@10KC	4.93	3.94	3.35	2.95	2.36	39F2852	MIC-36	500MH@5KC	4.93	3.94	3.35	2.95	2.36



Capacitors

TYPE AFH TWIST PRONG ELECTROLYTICS



Designed for filter audio bypass applications in radio-TV and amplifier equipment. Also used in many industrial applications. Manufactured to exceed requirements of EIA Spec. RS-154. 85°C

operation; high purity aluminum foil throughout; moisture resistance seal. For use over a wide temperature range with minimum change in capacitance. Positive lugs on bakelite base. Can common negative with twist for upright mounting on metal chassis. Bakelite metal mounting washers furnished. Shpg. wt., 4 oz.

SINGLE SECTION — 15V

Stk. No.	Type	Mfd.	D x L	1-24	25-49	50-99	100-249
60F300	1-02	1000	1x1 1/2"	1.53	1.00	.78	.62
60F301	1-03	2000	1 3/8x2"	2.07	1.46	1.14	.91
60F302	1-04	3000	1 1/2x2"	2.55	1.82	1.42	1.13

SINGLE SECTION — 50V

Stk. No.	Type	Mfd.	D x L	1-24	25-49	50-99	100-249
60F303	1-11	100	3/4x2"	.99	.57	.45	.36
60F304	1-13-05	500	1x3"	1.59	.95	.74	.59
60F305	1-14	1000	1 3/8x3 1/2"	2.25	1.49	1.16	.92
60F306	1-14-50	1500	1 1/2x3"	2.64	1.86	1.45	1.16

SINGLE SECTION — 150V

Stk. No.	Type	Mfd.	D x L	1-24	25-49	50-99	100-249
60F307	1-21	100	1x2"	1.20	.74	.57	.48
60F308	1-24-25	280	1 3/8x2"	1.47	1.04	.81	.65
60F309	1-24-75	300	1 1/8x2 1/2"	1.68	1.22	.95	.78

SINGLE SECTION — 450V

Stk. No.	Type	Mfd.	D x L	1-24	25-49	50-99	100-249
60F310	1-50	20	1x1 1/2"	1.08	.72	.56	.45
60F311	1-51	30	1x1 1/2"	1.17	.80	.62	.50
60F312	1-52	40	1x1 1/2"	1.23	.87	.68	.54
60F313	1-55	80	1 3/8x2 1/2"	1.83	1.33	1.03	.82
60F314	1-55-20	100	1 1/8x2 1/2"	2.07	1.47	1.14	.91

SINGLE SECTION — 500V

Stk. No.	Type	Mfd.	D x L	1-24	25-49	50-99	100-249
60F315	1-61	40	1x2 1/2"	1.50	.99	.77	.61
60F316	1-62	80	1 3/8x2 1/2"	2.16	1.53	1.19	.95

DUAL SECTION — 150V

Stk. No.	Type	Mfd.	D x L	1-24	25-49	50-99	100-249
60F317	2-08	20-20	1x1 1/2"	1.02	.72	.56	.45
60F318	2-15	50-30	1x1 1/2"	1.20	.79	.61	.49
60F319	2-20-50	125-100	1 3/8x2"	2.10	1.18	.92	.73
60F320	2-23	200-200	1 3/8x3"	2.40	1.47	1.14	.92

DUAL SECTION — 250V

Stk. No.	Type	Mfd.	D x L	1-24	25-49	50-99	100-249
60F401	2-26	20-20	1x1 1/2"	1.14	.78	.60	.48

DUAL SECTION — 450V

Stk. No.	Type	Mfd.	D x L	1-24	25-49	50-99	100-249
60F321	2-47	10-10	1x1 1/2"	1.14	.80	.62	.50
60F322	2-51	20-20	1x2"	1.53	.96	.75	.60
60F323	2-52	30-10	1x2"	1.50	.96	.75	.60
60F324	2-54	30-30	1 3/8x2"	1.83	1.24	.96	.77
60F325	2-56	40-20	1 3/8x2"	1.80	1.25	.97	.78
60F326	2-57	40-40	1 3/8x2 1/2"	2.07	1.41	1.10	.88

TRIPLE SECTION — 450V

Stk. No.	Type	Mfd.	D x L	1-24	25-49	50-99	100-249
60F327	3-31	10-10-10	1x2"	1.56	.97	.75	.60
60F328	3-36	20-20-20	1 3/8x2"	2.16	1.34	1.04	.83
60F329	3-44	40-40-40	1 3/8x3"	2.94	1.80	1.40	1.12

QUADRUPLE SECTION — 450V

Stk. No.	Type	Mfd.	D x L	1-24	25-49	50-99	100-249
60F330	4-10	10-10-10-10	1 3/8x2"	2.01	1.25	.97	.78
60F331	4-14	20-20-20-20	1 3/8x2 1/2"	2.82	1.57	1.22	.98
60F332	4-18-45	40-40-40-40	1 3/8x3 1/2"	3.87	2.18	1.70	1.38
60F333	4-59	10-10-10-10	20(25V) 1 3/8x2"	1.89	1.19	.92	.75

TYPE PRS DANDEE MINIATURE ALUMINUM ELECTROLYTICS



TYPE PRS—SINGLE SECTION

Stk. No.	Mfd.	Volts	D x L	1-24	25-49	50-99	100-249
16F600	8	700	1 3/8x2 3/4"	1.74	1.33	1.04	.83
16F602	16	700	1 1/8x3 3/8"	2.10	1.59	1.24	.99
16F603	8	600	1 3/8x2 3/8"	1.71	1.31	1.02	.81
16F604	10	600	1 1/8x2 3/8"	1.77	1.35	1.05	.84
16F606	16	600	1 5/8x3 3/4"	2.07	1.57	1.22	.97
16F655	20	600	1 1/8x3"	2.13	1.61	1.25	1.00
16F607	8	500	1 3/8x1 3/4"	.78	.61	.47	.38
16F663	1	450	7/8x1 1/4"	.66	.51	.39	.32
16F656	2	450	9/8x1 1/4"	.69	.52	.40	.32
16F611	4	450	9/8x1 1/2"	.69	.52	.41	.33
16F612	8	450	1 1/8x1 5/8"	.75	.56	.46	.37
16F613	10	450	1 1/8x1 7/8"	.78	.59	.46	.37
16F614	12	450	1 1/8x1 3/4"	.81	.61	.50	.40
16F615	16	450	1 3/8x1 3/4"	.84	.64	.53	.42
16F616	20	450	1 3/8x2"	.93	.72	.56	.45
16F618	40	450	1 3/8x2 1/2"	1.08	.83	.64	.52
16F664	50	450	1 5/8x3 1/4"	1.26	.97	.75	.60
16F657	60	450	1 1/8x3"	1.41	1.06	.83	.66
16F659	100	450	1 1/8x4"	1.92	1.17	.91	.73
16F619	8	350	9/8x1 3/8"	.72	.55	.43	.34
16F623	4	250	7/8x1 1/4"	.60	.45	.37	.30
16F624	8	250	9/8x1 3/8"	.69	.51	.41	.33
16F627	20	250	1 1/8x1 5/8"	.81	.61	.50	.40
16F665	30	250	1 1/8x2"	.87	.65	.53	.42
16F628	40	250	1 3/8x1 3/4"	.93	.69	.57	.46
16F629	4	150	7/8x1 1/4"	.60	.42	.33	.26
16F630	8	150	9/8x1 1/4"	.63	.44	.34	.28
16F632	16	150	9/8x1 1/2"	.69	.49	.38	.30
16F633	20	150	9/8x1 3/8"	.72	.50	.39	.31
16F635	30	150	1 1/8x1 1/2"	.78	.55	.43	.34

TYPE PRS—SINGLE SECTION (Cont.)

Stk. No.	Mfd.	Volts	D x L	1-24	25-49	50-99	100-249
16F636	40	150	1 1/8x1 3/4"	.81	.58	.45	.36
16F637	50	150	1 3/8x1 3/4"	.94	.59	.46	.37
16F661	80	150	1 3/8x2"	.98	.68	.53	.42
16F667	100	150	1 3/8x2 1/4"	1.05	.74	.58	.46
16F668	150	150	1 5/8x2 3/8"	1.14	.81	.63	.51
16F638	10	50	7/8x1 1/4"	.60	.42	.33	.26
16F639	25	50	7/8x1 1/4"	.63	.44	.34	.27
16F640	50	50	1 1/8x1 1/2"	.72	.51	.40	.32
16F641	100	50	1 1/8x1 3/4"	.84	.59	.46	.37
16F672	150	50	1 3/8x1 3/4"	.93	.65	.51	.41
16F673	250	50	1 5/8x1 3/4"	1.05	.79	.64	.51
16F642	10	25	7/8x1 1/4"	.60	.42	.33	.26
16F644	50	25	7/8x1 3/8"	.66	.47	.36	.29
16F645	100	25	9/8x1 3/8"	.81	.57	.44	.36
16F646	250	25	1 1/8x1 3/4"	1.02	.78	.61	.49
16F647	500	25	1 3/8x2 1/4"	1.38	1.07	.83	.66
16F648	100	12	7/8x1 3/8"	.72	.51	.40	.32
16F649	250	12	7/8x1 3/8"	.87	.65	.53	.42
16F650	500	12	1 1/8x1 7/8"	1.02	.79	.61	.49
16F651	1000	12	1 3/8x2 1/8"	1.35	1.05	.82	.65

TYPE PRS—DUAL SECTION

Stk. No.	Mfd.	Volts	D x L	1-24	25-49	50-99	100-249
16F700	8-8	450	1 3/8x1 3/4"	1.02	.79	.66	.53
16F702	16-16	450	1 3/8x2 1/2"	1.35	1.06	.82	.66
16F705	40-20	450	1 1/8x3"	1.77	1.33	1.09	.87
16F708	40-40	450	1 3/8x3 3/4"	2.01	1.55	1.29	1.03
16F708	30-30	250	1 1/8x2 3/8"	1.35	.95	.74	.59
16F710	20-20	150	1 1/8x1 3/4"	.89	.76	.59	.47
16F711	30-20	150	1 1/8x1 1/2"	1.02	.79	.61	.49
16F713	30-30	150	1 3/8x1 5/8"	1.08	.81	.63	.51
16F712	40-20	150	1 3/8x1 5/8"	1.05	.81	.63	.50
16F716	40-40	150	1 3/8x2"	1.08	.84	.67	.53
16F715	50-30	150	1 3/8x2 1/2"	1.17	.86	.67	.53
16F717	80-40	150	1 3/8x2 1/2"	1.32	.94	.73	.58
16F719	100-100	150	1 5/8x2 3/8"	1.92	1.13	.88	.70

TYPE PRS—TRIPLE SECTION

Stk. No.	Mfd.	Volts	D x L	1-24	25-49	50-99	100-249
16F681	30-30-20	150	1 3/8x1 3/4"	1.58	1.17	.91	.73
16F730	30-30-30	150	1 3/8x1 3/4"	1.58	1.19	.93	.74
16F731	40-20-20	150	1 3/8x1 3/4"	1.58	1.17	.91	.73
16F732	40-40-20	150	1 3/8x1 3/8"	1.63	1.21	.94	.75
16F735	50-30-20	150	1 3/8x1 7/8"	1.63	1.22	.95	.76
16F736	80-40-20	150	1 5/8x2 1/4"	1.74	1.30	1.01	.81

DEPEND ON NEWARK FOR EVERYTHING IN INDUSTRIAL ELECTRONICS

• OEM Factory Prices

• Same Day Shipment from On-the-Shelf Stocks

Capacitors



TYPE CRE ULTRA MINIATURE ELECTROLYTICS



Ultra miniature tubular aluminum cased electrolytics with tinned copper leads. Ideal for use in by-pass, filters and coupling applications. Temp. range: -30°C to +85°C. All welded construction and high purity ingredients insure low leakage, long shelf life. Furnished with heat shrinkable mylar tubing. SIZE: Diameter x length.

Stk. No.	Type	Mfd.	WV DC	Size	1-49	50-99	100-249
60F334	CRE211A	20	3	B	.75	.52	.36
60F335	CRE212A	25	3	B	.75	.52	.36
60F336	CRE217A	50	3	C	.75	.57	.37
60F337	CRE220A	75	3	D	.84	.62	.37
60F338	CRE223A	100	3	D	.84	.62	.37
60F339	CRE228A	150	3	E	.87	.62	.37
60F340	CRE233A	250	3	G	.96	.72	.42
60F341	CRE235A	300	3	G	.99	.72	.42
60F342	CRE243A	500	3	I	1.05	.82	.47
60F343	CRE300A	1	6	B	.81	.52	.39
60F344	CRE302A	3	6	B	.81	.52	.36
60F345	CRE303A	4	6	B	.81	.52	.36
60F346	CRE304A	5	6	B	.81	.52	.36
60F347	CRE306A	8	6	B	.81	.52	.36
60F348	CRE307A	10	6	B	.81	.52	.36
60F349	CRE309A	15	6	B	.81	.52	.36
60F350	CRE311A	20	6	C	.81	.57	.37
60F351	CRE312A	25	6	C	.81	.57	.37
60F352	CRE315A	40	6	D	.84	.62	.37
60F353	CRE317A	50	6	D	.84	.62	.37
60F354	CRE318A	60	6	D	.84	.62	.37
60F355	CRE320A	75	6	E	.87	.62	.37
60F356	CRE328A	150	6	G	.93	.72	.42
60F357	CRE331A	200	6	H	.96	.77	.44
60F358	CRE333A	250	6	H	1.02	.77	.44
60F359	CRE335A	300	6	I	1.08	.82	.47
60F360	CRE400A	1	12	B	.84	.52	.36
60F361	CRE401A	2	12	B	.84	.52	.36
60F362	CRE405A	6	12	B	.84	.52	.36
60F363	CRE406A	8	12	B	.84	.52	.36
60F364	CRE409A	15	12	C	.84	.57	.37
60F365	CRE411A	20	12	C	.84	.57	.37
60F366	CRE412A	25	12	C	.84	.57	.37
60F367	CRE417A	50	12	E	.93	.62	.37
60F368	CRE420A	75	12	F	.99	.67	.39
60F369	CRE423A	100	12	F	1.05	.67	.39
60F370	CRE431A	200	12	H	1.23	.77	.44
60F371	CRE433A	250	12	I	1.32	.82	.47
60F372	CRE450A	1	15	B	.84	.52	.36
60F373	CRE451A	2	15	B	.84	.52	.36

Stk. No.	Type	Mfd.	WV DC	Size	1-49	50-99	100-249
60F374	CRE452A	3	15	B	.84	.52	.36
60F375	CRE453A	4	15	B	.84	.52	.36
60F376	CRE454A	5	15	B	.84	.52	.36
60F377	CRE455A	6	15	B	.84	.52	.36
60F378	CRE456A	8	15	B	.84	.52	.36
60F379	CRE457A	10	15	B	.84	.52	.36
60F380	CRE459A	15	15	C	.87	.57	.37
60F381	CRE461A	20	15	C	.87	.57	.37
60F382	CRE462A	25	15	D	.87	.62	.37
60F383	CRE463A	30	15	D	.90	.62	.37
60F384	CRE464A	35	15	E	.93	.62	.37
60F385	CRE467A	50	15	E	.96	.62	.37
60F386	CRE470A	75	15	F	1.02	.67	.39
60F387	CRE473A	100	15	G	1.08	.72	.42
60F388	CRE478A	150	15	H	1.17	.77	.44
60F389	CRE481A	200	15	I	1.26	.82	.47
60F390	CRE600A	1	25	B	.84	.52	.36
60F391	CRE601A	2	25	B	.84	.52	.36
60F392	CRE602A	3	25	B	.84	.52	.36
60F393	CRE603A	4	25	B	.84	.52	.36
60F394	CRE604A	5	25	B	.84	.52	.36
60F395	CRE605A	6	25	C	.84	.57	.37
60F396	CRE606A	8	25	C	.87	.57	.37
60F397	CRE607A	10	25	C	.87	.57	.37
60F398	CRE609A	15	25	D	.87	.62	.37
60F399	CRE611A	20	25	E	.90	.62	.37
60F400	CRE612A	25	25	E	.93	.62	.37
60F402	CRE614A	35	25	F	.99	.67	.39
60F403	CRE617A	50	25	G	1.08	.72	.42
60F404	CRE620A	75	25	H	1.17	.77	.44
60F405	CRE623A	100	25	I	1.26	.82	.47
60F406	CRE750A	1	50	B	.84	.52	.36
60F407	CRE751A	2	50	B	.84	.52	.36
60F408	CRE753A	4	50	C	.84	.57	.37
60F409	CRE754A	5	50	C	.87	.57	.37
60F410	CRE755A	6	50	D	.87	.62	.37
60F411	CRE756A	8	50	D	.90	.62	.37
60F412	CRE757A	10	50	D	.90	.62	.37
60F413	CRE759A	15	50	E	.90	.62	.37
60F414	CRE761A	20	50	F	.90	.67	.39
60F513	CRE764A	35	50	H	1.02	.77	.44
60F415	CRE767A	50	50	I	1.11	.82	.47
60F416	CRE904A	5	100	E	.90	.62	.37
60F417	CRE905A	6	100	E	.90	.62	.37
60F418	CRE906A	8	100	F	.93	.67	.39
60F419	CRE907A	10	100	G	.93	.72	.42
60F420	CRE909A	15	100	H	.93	.77	.44
60F421	CRE911A	20	100	I	.96	.82	.47
60F422	CRE950A	1	150	D	.84	.62	.37
60F423	CRE953A	4	150	E	.87	.62	.37
60F424	CRE954A	5	150	E	.93	.62	.37
60F425	CRE957A	10	150	H	.96	.77	.44

Hermetically sealed, aluminum can with 4-pin octal base mounting. Commercial equivalent of Type CES1's, 2's, & 3's as listed in MIL C82A. Size: 1 1/2 x 2 1/2" except (*) 1 3/4 x 2 1/2", (†) 1 3/4 x 3 1/2", (‡) 1 3/4 x 4 1/4", (**) 1 3/4 x 3". Av. Shpg. wt., 5 oz.



TYPE AEP PLUG-IN ELECTROLYTIC

Dual Element Units

Stk. No.	Type	Mfd.	VDCW	1-24	25-49	50-99	100-249
16F207	AEP44D	20-20	150	2.46	1.12	.98	.67
16F208	AEP88D	40-40	150	2.55	1.17	1.02	.70
16F209	AEP22J	10-10	450	2.58	1.36	1.19	.82
16F210	AEP44J*	20-20	450	2.91	1.42	1.24	.85
16F219	AEP88J**	40-40	450	3.30	1.64	1.44	.99

Triple Element Units

Stk. No.	Type	Mfd.	VDCW	1-24	25-49	50-99	100-249
16F211	AEP444D	20-20-20	150	2.61	1.30	1.14	.78
16F212	AEP98D4A	40-40-20	150/25	2.67	1.23	1.07	.74
16F213	AEP22J	10-10-10	450	2.79	1.38	1.21	.83
16F214	AEP22JA	10-10-20	450/25	2.70	1.24	1.08	.74
16F215	AEP444A*	20-20-20	450/25	3.03	1.33	1.17	.80
16F216	AEP444J**	20-20-20	450	3.30	1.54	1.35	.92
16F224	AEP822J**	40-10-10	450	3.24	1.59	1.39	.96

Quadruple Element Units—with ground lug

Stk. No.	Type	Mfd.	VDCW	1-24	25-49	50-99	100-249
16F217	AEPG444D4A*	20-20-20-20	150/25	2.88	1.42	1.24	.85
16F225	AEPG2222J**	10-10-10-10	450	3.12	1.54	1.35	.93
16F218	AEPG444J4A**	20-20-20-20	450/25	3.33	1.65	1.44	.99

MSRP & MSRT TUBULAR AC MOTOR START ELECTROLYTIC CAPACITORS

Types MSRP and MSRT. For use with any type of motor driven equipment. MSRP is bakelite cased, MSRT is cardboard insulated over round aluminum can. In various voltages.

125 HEAVY DUTY VAC

Stk. No.	MSRP No.	Cap. Mfd.	Size	NET
16F1627	882	145-175	1 1/4" x 3 3/8"	2.40
16F1628	883	161-193	1 1/4" x 3 3/8"	2.61
16F1629	884	189-227	1 1/4" x 3 3/8"	2.82
16F1630	886	243-292	1 1/4" x 3 3/8"	3.27
16F1631	887	270-324	1 1/4" x 3 3/8"	3.48

110-125 VAC

Stk. No.	MSRP No.	Cap. Mfd.	Size	NET
16F1618	801	108-130	1 1/8" x 2 3/4"	1.56
16F1619	802	124-149	1 1/8" x 2 3/4"	1.59
16F1620	823	145-175	1 1/8" x 2 3/4"	1.86
16F1621	803	161-193	1 1/8" x 2 3/4"	1.92
16F1622	824	189-227	1 1/8" x 3 3/8"	2.13
16F1623	805	216-259	1 1/8" x 3 3/8"	2.43
16F1624	806	243-270	1 1/8" x 3 3/8"	2.64
16F1625	807	270-324	1 1/8" x 3 3/8"	2.88
16F1626	808	320-360	1 1/8" x 3 3/8"	3.03

110 VAC

Stk. No.	MSRT No.	Cap. Mfd.	Size	NET
16F1636	162	108-120	1 3/8" x 3 1/2"	1.71
16F1637	160	124-138	1 3/8" x 3 1/2"	1.74
16F1638	171	145-162	1 3/8" x 3 1/2"	2.01
16F1639	198	161-180	1 3/8" x 3 1/2"	2.04
16F1640	257	189-210	1 3/8" x 3 1/2"	2.31
16F1641	192	216-240	1 3/8" x 3 1/2"	2.55
16F1642	213	243-270	1 3/8" x 3 1/2"	2.82
16F1643	207	270-300	1 3/8" x 3 1/2"	3.03
16F1644	210	324-360	1 3/8" x 3 1/2"	3.21
16F1645	206	378-420	1 3/8" x 3 1/2"	3.63



Capacitors

TYPE K323Z METALLIZED POLYCARBONATE CAPACITORS

Hermetically sealed Polycarbonate film provides high capacitance stability, low dissipation factor, low dielectric absorption and high insulation resistance. Self-heals in the rare 100 VDCW



case of dielectric breakdown. Operating temperature: -65°C to +125°C of full rating. Standard tolerance is 20%. Other tolerances available on special order.

Stk. No.	Mfd.	Size	1-24	25-49	50-99	100-249
16F300	.015	.175x ³ / ₁₆ "	1.59	1.06	.93	.74
16F301	.022	.175x ³ / ₁₆ "	1.59	1.06	.93	.74
16F302	.033	.195x ¹ / ₁₆ "	1.62	1.08	.95	.76
16F303	.047	.235x ³ / ₁₆ "	1.68	1.12	.98	.78
16F304	.068	.235x ¹ / ₁₆ "	1.77	1.18	1.03	.83
16F305	.1	.235x ¹ / ₁₆ "	1.95	1.30	1.14	.91
16F306	.15	.312x ¹ / ₁₆ "	2.04	1.36	1.19	.95
16F307	.22	.312x ¹ / ₁₆ "	2.07	1.38	1.21	.97
16F308	.33	.400x ¹ / ₁₆ "	2.25	1.50	1.31	1.05
16F309	.47	.400x ¹ / ₁₆ "	2.34	1.56	1.37	1.09
16F310	.68	.400x ¹ / ₁₆ "	2.49	1.66	1.45	1.16
16F311	1.0	.400x ¹ / ₁₆ "	2.73	1.82	1.59	1.27
16F312	1.5	.562x ¹ / ₁₆ "	4.35	2.90	2.54	2.03
16F313	2.0	.562x ¹ / ₁₆ "	5.40	3.60	3.15	2.52
16F314	3.0	.562x ¹ / ₁₆ "	5.94	3.96	3.47	2.77
16F315	4.0	.670x ¹ / ₁₆ "	7.05	4.70	4.11	3.29
16F316	5.0	.670x ¹ / ₁₆ "	7.95	5.30	4.64	3.71

For Plastic Sleeve add suffix "P" and add .02 to unit price.

TYPE QE—COMPUTER GRADE ELECTROLYTICS



High reliability, long life, 65°C operating aluminum electrolyte capacitor for energy storage use. For computers, power supplies, industrial use in control and test equipment. Manufactured under controlled conditions with highest purity ingredients.

Hermetically sealed with pressure type safety vent. Low screw inserts and heat shrinkage mylar tubing keep overall size near to can size shown. Shipping weight 5-14 oz. depending on can size.

Stk. No.	Type	Mfd.	Volt	Size	1-24	25-49	50-99
60F426	61QE2048M	1800	10	A1	2.97	1.73	1.34
60F427	61QE2049M	3600	10	A2	3.45	2.01	1.55
60F428	61QE2051M	7300	10	A3	4.71	2.75	2.12
60F429	61QE2052M	11000	10	A4	5.81	3.27	2.52
60F430	61QE2058M	25000	10	C2	8.79	5.13	3.96
60F431	61QE2072M	1500	15	A1	2.97	1.73	1.34
60F432	61QE2073M	3100	15	A2	3.54	2.07	1.59
60F433	61QE2075M	6100	15	A3	4.38	2.58	1.97
60F434	61QE2076M	9200	15	A4	5.61	3.27	2.52
60F435	61QE2079M	14000	15	C1	7.41	4.32	3.33
60F436	61QE2083M	21000	15	C2	8.94	5.22	4.02
60F437	61QE2086M	28000	15	C4	11.18	6.51	5.02
60F438	61QE2088M	35000	15	D2	12.00	7.00	5.40
60F439	61QE2120M	950	25	A1	2.97	1.73	1.34
60F440	61QE2121M	1900	25	A2	3.60	2.10	1.62
60F441	61QE2123M	3800	25	A3	4.82	2.70	2.08
60F442	61QE2124M	5800	25	A4	5.70	3.33	2.57
60F443	61QE2127M	8900	25	C1	6.72	3.92	3.02
60F444	61QE2131M	13000	25	C2	8.60	5.60	4.32
60F445	61QE2134M	17000	25	C4	10.20	5.95	4.59
60F446	61QE2136M	22000	25	D2	11.52	6.72	5.18
60F447	61QE2140M	33000	25	E1	13.56	7.91	6.10
60F448	61QE2164M	23000	35	E1	13.50	7.68	6.08
60F449	61QE2165M	27000	35	E2	14.10	8.23	6.35
60F450	61QE2171M	2400	40	A3	4.86	2.84	2.19
60F451	61QE2175M	5800	40	C1	7.05	4.11	3.17
60F452	61QE2178M	8300	40	C2	9.27	5.41	4.17
60F453	61QE2184M	14000	40	D2	13.50	7.88	6.08
60F454	61QE2185M	16300	40	D3	13.80	8.05	6.21
60F455	61QE2192M	470	50	A1	2.97	1.73	1.34
60F456	61QE2193M	940	50	A2	3.75	2.19	1.69
60F457	61QE2195M	1850	50	A3	4.23	2.47	1.90
60F458	61QE2196M	2830	50	A4	5.79	3.38	2.61

METALLIZED MYLAR "WRAP & FILL" CAPACITORS



Type V148Z. Light weight, high insulation resistance, long stable life. For use in printed assemblies and light weight portable and airborne equipment of all types. Can be mounted in banks

using a minimum amount of space. Self-healing and are of instrument quality. All leads are solder-coated copper-weld wire. Tolerance: ±10%.

100 VDCW @ 85°C 50 VDCW @ 125°C

Stk. No.	Cap.	H. x W. x L.	1-24	25-49	50-99	100-249
16F378	.1	.125x.234x ⁹ / ₁₆ "	.96	.80	.48	.38
16F379	.15	.156x.265x ⁹ / ₁₆ "	1.06	.86	.53	.42
16F380	.22	.156x.250x ¹ / ₁₆ "	1.20	.75	.60	.48
16F381	.33	.203x.312x ¹ / ₁₆ "	1.58	.99	.79	.63
16F382	.47	.250x.359x ¹ / ₁₆ "	1.78	1.11	.89	.70
16F383	.68	.218x.328x ¹ / ₁₆ "	2.21	1.38	1.10	.89
16F384	1.00	.265x.375x ¹ / ₁₆ "	2.93	1.83	1.46	1.16
16F385	1.50	.250x.390x ¹ / ₁₆ "	3.79	2.37	1.90	1.50
16F386	2.00	.312x.468x ¹ / ₁₆ "	4.70	2.94	2.35	1.86
16F387	3.00	.406x.562x ¹ / ₁₆ "	6.67	4.17	3.34	2.64
16F388	4.00	.406x.562x ¹ / ₁₆ "	8.30	5.19	4.15	3.29
16F389	5.00	.375x.593x ¹ / ₁₆ "	9.79	6.12	4.90	3.88

MAKE NEWARK YOUR ONE DEPENDABLE SOURCE FOR EVERYTHING IN INDUSTRIAL ELECTRONICS

200 VDCW

Stk. No.	Mfd.	Size	1-24	25-49	50-99	100-249
16F317	.015	.175x ³ / ₁₆ "	1.83	1.22	1.07	.85
16F318	.022	.175x ³ / ₁₆ "	1.83	1.22	1.07	.85
16F319	.033	.195x ¹ / ₁₆ "	1.86	1.24	1.09	.87
16F320	.047	.235x ¹ / ₁₆ "	1.89	1.26	1.10	.88
16F321	.068	.235x ¹ / ₁₆ "	1.95	1.30	1.14	.91
16F322	.1	.312x ¹ / ₁₆ "	2.22	1.48	1.30	1.04
16F323	.15	.312x ¹ / ₁₆ "	2.25	1.50	1.31	1.05
16F324	.22	.400x ¹ / ₁₆ "	2.25	1.50	1.31	1.05
16F325	.33	.400x ¹ / ₁₆ "	2.46	1.64	1.44	1.15
16F326	.47	.400x ¹ / ₁₆ "	2.61	1.74	1.52	1.27
16F327	.68	.562x ¹ / ₁₆ "	2.73	1.82	1.59	1.27
16F328	1.0	.562x ¹ / ₁₆ "	2.94	1.96	1.72	1.37
16F329	1.5	.562x ¹ / ₁₆ "	4.41	2.94	2.57	2.06
16F330	2.0	.562x ¹ / ₁₆ "	5.37	3.58	3.13	2.51
16F331	3.0	.750x ¹ / ₁₆ "	5.82	3.88	3.40	2.72
16F332	4.0	.750x ¹ / ₁₆ "	6.96	4.64	4.06	3.25
16F333	5.0	.750x ¹ / ₁₆ "	7.68	5.12	4.48	3.58

CASE SIZES

A1 1 ¹ / ₂ x 1 ¹ / ₂	B4 1 ¹ / ₂ x 4 ⁵ / ₁₆	D2 2 ¹ / ₂ x 4 ⁵ / ₁₆
A2 1 ¹ / ₂ x 2 ¹ / ₂	B5 1 ³ / ₄ x 5 ¹ / ₁₆	D3 2 ¹ / ₂ x 4 ⁹ / ₁₆
A3 1 ¹ / ₂ x 3 ¹ / ₂	C1 2 x 3 ¹ / ₁₆	D4 2 ¹ / ₂ x 5 ¹ / ₁₆
A4 1 ¹ / ₂ x 4 ¹ / ₂	C2 2 x 4 ¹ / ₁₆	D5 2 ¹ / ₂ x 5 ⁹ / ₁₆
A5 1 ¹ / ₂ x 4 ⁵ / ₁₆	C3 2 x 4 ⁵ / ₁₆	E1 3 x 4 ¹ / ₁₆
B1 1 ³ / ₄ x 2 ¹ / ₂	C4 2 x 5 ¹ / ₁₆	E2 3 x 4 ⁹ / ₁₆
B2 1 ³ / ₄ x 3 ¹ / ₂	C5 2 x 5 ⁵ / ₁₆	E3 3 x 5 ¹ / ₁₆
B3 1 ³ / ₄ x 4 ¹ / ₂	D1 2 ¹ / ₂ x 3 ¹ / ₁₆	E4 3 x 5 ⁹ / ₁₆

Stk. No.	Type	Mfd.	Volt	Size	1-24	25-49	50-99
60F459	61QE2199M	4300	50	C1	7.20	4.20	3.24
60F460	61QE2202M	6500	50	C2	8.19	4.78	3.69
60F461	61QE2206M	8700	50	C4	10.20	5.95	4.59
60F462	61QE2208M	10900	50	D2	12.90	7.53	5.81
60F463	61QE2243M	950	75	A3	4.05	2.36	1.82
60F464	61QE2247M	2300	75	C1	5.43	3.17	2.44
60F465	61QE2256M	5800	75	D2	10.41	6.07	4.68
60F466	61QE2268M	1000	100	A4	4.62	2.70	2.08
60F467	61QE2271M	1600	100	C1	5.22	3.05	2.35
60F468	61QE2274M	2400	100	C2	6.30	3.68	2.84
60F469	61QE2278M	3200	100	C4	8.64	5.04	3.89
60F470	61QE2280M	4000	100	D2	10.26	5.99	4.62
60F471	61QE2291M	520	150	A3	3.30	1.93	1.49
60F472	61QE2292M	785	150	A4	4.05	2.36	1.82
60F473	61QE2295M	1200	150	C1	5.55	3.24	2.50
60F474	61QE2298M	1800	150	C2	6.72	3.92	3.02
60F475	61QE2304M	3100	150	D2	9.06	5.29	4.08
60F476	61QE2308M	4700	150	E1	13.17	7.68	5.93
60F477	61QE2309M	5400	150	E2	14.10	8.23	6.35
60F478	61QE2315M	400	200	A3	3.27	1.91	1.47
60F479	61QE2319M	960	200	C1	6.60	4.03	3.11
60F480	61QE2323M	1450	200	C2	9.00	5.25	4.05
60F481	61QE2325M	1600	200	D1	9.75	5.69	4.39
60F482	61QE2325M	460	250	A4	3.90	2.28	1.76
60F483	61QE2340M	750	250	C1	5.40	3.15	2.43
60F484	61QE2346M	1100	250	C2	9.00	5.25	4.05
60F485	61QE2363M	250	300	A3	3.75	2.19	1.69
60F486	61QE2387M	185	350	A3	3.66	2.14	1.65
60F487	61QE2400M	1100	350	D2	11.25	6.58	5.06
60F488	61QE2430M	340	450	C2	5.62	3.40	2.62
60F489	61QE2436M	570	450	D2	7.26	4.24	3.27
60F490	61QE2437M	850	450	E1	10.80	6.30	4.86



TYPE PTT PEE-WEE ELECTROLYTIC

Miniature polycap electrolytic encased in polycap tubes with special Aerovox plastic end-fill which binds to the ceramic case. Operating temp. range is minus 30°C plus 65°C. Cap. at 25° is minus 10% plus 250%. *Sizes A: 1/4x3/8, B: 1/4x3/4, C: 1/4x7/8, D: 3/8x3/8, E: 3/8x3/4, F: 5/16x7/8, G: 3/8x1, H: 3/8x3/4, J: 3/8x7/8, K: 3/8x1, M: 3/8x1 1/4, N: 3/8x1 3/8, O: 3/8x1 1/2, P: 1/2x7/8.



3 VDCW							
Stk. No.	Type	Cap. Mfd.	Size*	1-24	25-49	50-99	100-249
16F1099	PTT1	1	A				
16F1142	PTT2	2	A				
16F1143	PTT3	3	A				
16F1144	PTT4	5	A				
16F1145	PTT5	8	A				
16F1146	PTT6	10	A	.42	.32	.25	.20
16F1148	PTT8	20	B				
16F1149	PTT9	25	B				
16F1188	PTT10	30	B				
16F1189	PTT11	40	B				
16F1190	PTT12	50	C				
16F1191	PTT13	100	H	.45	.36	.28	.23
16F1192	PTT14	200	K	.45	.36	.28	.23
16F1193	PTT15	250	K	.48	.36	.28	.23
16F1195	PTT17	500	O	.75	.39	.30	.27

6 VDCW							
Stk. No.	Type	Cap. Mfd.	Size*	1-24	25-49	50-99	100-249
16F1196	PTT18	1	A				
16F1197	PTT19	2	A				
16F1198	PTT20	3	A				
16F1199	PTT21	5	A				
16F1251	PTT23	10	A	.42	.32	.25	.20
16F1252	PTT24	15	B				
16F1253	PTT25	20	B				
16F1254	PTT26	25	B				
16F1256	PTT28	40	C	.45	.32	.25	.20
16F1257	PTT29	50	E	.45	.32	.25	.20
16F1258	PTT30	100	G	.45	.36	.28	.23
16F1259	PTT31	200	K	.48	.36	.28	.23
16F1260	PTT32	250	M	.60	.36	.28	.23

TYPE V146XR AEROFILM "WRAP & FILL" MYLAR CAPACITORS

Aerovox V146XR capacitors offer high resistance to humidity and excellent stability with temperature where a metal case is not needed. Extremely small size makes these ideal for use in miniaturized circuits. Mylar wrapped, epoxy end filled.

Standard tolerance is $\pm 10\%$. Power factor will not exceed 1% at 25°C. Operating temperature range of -65°C to 85°C at full voltage rating and to 125°C with derating. Extended foil construction. Leads are solder-coated Copper-Weld wire.



150 VOLTS					
Stk. No.	Type	Mfd.	1-49	50-99	100-499
60F514	V146XR-1	.01			
60F515	V146XR-2	.015			
60F516	V146XR-3	.022	.30	.24	.21
60F517	V146XR-4	.033			
60F518	V146XR-5	.047			
60F519	V146XR-6	.68	.32	.25	.22
60F520	V146XR-7	1	.35	.28	.24
60F521	V146XR-8	.15	.38	.31	.27
60F522	V146XR-9	.22	.43	.34	.30
60F523	V146XR-10	.33	.45	.36	.32
60F524	V146XR-11	.47	.54	.58	.38
60F525	V146XR-12	.68	.59	.47	.41
60F526	V146XR-13	1.0	.76	.61	.53
60F527	V146XR-14	1.5	.97	.78	.68
60F528	V146XR-15	2.0	1.68	1.18	1.03

200 VOLTS					
Stk. No.	Type	Mfd.	1-49	50-99	100-499
60F529	V146XR-16	.001			
60F530	V146XR-17	.0015			
60F531	V146XR-18	.0022			
60F532	V146XR-19	.0033			
60F533	V146XR-20	.0047	.31	.25	.22
60F534	V146XR-21	.0068			
60F535	V146XR-22	.01			
60F536	V146XR-23	.015			
60F537	V146XR-24	.022			
60F538	V146XR-25	.033			
60F539	V146XR-26	.047	.31	.25	.22
60F540	V146XR-27	.068	.33	.26	.23
60F541	V146XR-28	.1	.35	.28	.25
60F542	V146XR-29	.15	.39	.31	.27
60F543	V146XR-30	.22	.44	.36	.31
60F544	V146XR-31	.33	.47	.37	.33
60F545	V146XR-32	.47	.55	.44	.38
60F546	V146XR-33	.68	.60	.48	.42
60F547	V146XR-34	1.0	.85	.68	.60
60F548	V146XR-35	1.5	1.31	.97	.85
60F549	V146XR-36	2.0	1.52	1.22	1.06

400 VOLTS					
Stk. No.	Type	Mfd.	1-49	50-99	100-499
60F550	V146XR-37	.001	.31	.25	.22
60F551	V146XR-38	.0015	.31	.25	.22

10 VDCW							
Stk. No.	Type	Cap. Mfd.	Size*	1-24	25-49	50-99	100-249
16F1261	PTT34	1	A				
16F1262	PTT35	2	A				
16F1263	PTT36	3	A				
16F1264	PTT37	5	A				
16F1265	PTT38	8	A	.42	.32	.25	.20
16F1266	PTT39	10	A				
16F1267	PTT40	15	B				
16F1268	PTT41	20	B				
16F1269	PTT42	25	E				
16F1270	PTT43	30	E				
16F1271	PTT44	40	E	.45	.32	.25	.20
16F1272	PTT45	50	F				
16F1273	PTT46	100	J	.45	.36	.28	.23

25 VDCW							
Stk. No.	Type	Cap. Mfd.	Size*	1-24	25-49	50-99	100-249
16F1274	PTT74	1	A				
16F1275	PTT75	2	A				
16F1276	PTT76	3	A	.42	.32	.25	.20
16F1277	PTT77	5	B				
16F1278	PTT78	8	B				
16F1279	PTT79	10	E				
16F1280	PTT80	15	E				
16F1281	PTT81	20	H	.45	.32	.25	.20
16F1282	PTT82	25	H				
16F1283	PTT83	30	H				
16F1284	PTT84	40	J	.45	.32	.25	.20
16F1285	PTT85	50	K	.45	.32	.25	.20
16F1286	PTT86	100	N	.66	.36	.28	.23

50 VDCW							
Stk. No.	Type	Cap. Mfd.	Size*	1-24	25-49	50-99	100-249
16F1287	PTT87	1	A				
16F1288	PTT88	2	A				
16F1289	PTT89	3	B	.42	.32	.25	.20
16F1290	PTT90	5	C				
16F1291	PTT91	8	E				
16F1292	PTT92	10	H	.45	.32	.25	.20
16F1293	PTT93	15	H				
16F1294	PTT94	20	J				
16F1295	PTT95	25	K	.48	.32	.25	.20

400 VOLTS (Cont.)					
Stk. No.	Type	Mfd.	1-49	50-99	100-499
60F552	V146XR-39	.0022			
60F553	V146XR-40	.0033			
60F554	V146XR-41	.0047	.31	.25	.22
60F555	V146XR-42	.0068			
60F556	V146XR-43	.01			
60F557	V146XR-44	.015	.31	.25	.22
60F558	V146XR-45	.022	.32	.25	.22
60F559	V146XR-46	.033	.33	.26	.23
60F560	V146XR-47	.047	.35	.28	.24
60F561	V146XR-48	.068	.39	.31	.27
60F562	V146XR-49	.1	.43	.33	.30
60F563	V146XR-50	.15	.47	.37	.33
60F564	V146XR-51	.22	.50	.40	.35
60F565	V146XR-52	.33	.61	.49	.43
60F566	V146XR-53	.47	.78	.62	.54
60F567	V146XR-54	.68	1.00	.80	.70
60F568	V146XR-55	1.0	1.12	.90	.79
60F569	V146XR-56	1.5	1.48	1.18	1.03
60F570	V146XR-57	2.0	1.92	1.54	1.35

600 VOLTS					
Stk. No.	Type	Mfd.	1-49	50-99	100-499
60F571	V146XR-58	.001			
60F572	V146XR-59	.0015			
60F573	V146XR-60	.0022	.31	.25	.22
60F574	V146XR-61	.0033			
60F575	V146XR-62	.0047			
60F576	V146XR-63	.0068	.31	.25	.22
60F577	V146XR-64	.01	.31	.25	.22
60F578	V146XR-65	.015	.34	.27	.24
60F579	V146XR-66	.022	.38	.30	.26
60F580	V146XR-67	.033	.39	.31	.27
60F581	V146XR-68	.047	.43	.34	.30
60F582	V146XR-69	.068	.48	.38	.33
60F583	V146XR-70	.1	.52	.41	.36
60F584	V146XR-71	.15	.64	.51	.45
60F585	V146XR-72	.22	.86	.69	.60
60F586	V146XR-73	.33	1.09	.87	.76
60F587	V146XR-74	.47	1.25	1.00	.88
60F588	V146XR-75	.68	1.61	1.29	1.13
60F589	V146XR-76	1.0	1.97	1.57	1.38
60F590	V146XR-77	1.5	2.73	2.18	1.91
60F591	V146XR-78	2.0	3.31	2.64	2.32



Capacitors



High quality units in Polycap (Polyester Film) casing material which have high insulation resistance, low dielectric absorption and power factor. Relatively small capacitance change over 0° to 85°C.

V161 AEROFILM TUBULAR CAPS

Epoxy end fill will not flow, soften, or melt at any operating temperature. Tolerance $\pm 20\%$. Operating temp. -30° to $+100^\circ\text{C}$. Aver. shpg. wt., 2 oz.

200 WVDC

Stock No.	Mfd.	D x L	1-24	25-49	50-99	100-249
16F1579	.01	$\frac{9}{32} \times 1\frac{1}{8}$ "	.15	.13	.11	.10
16F1580	.05	$\frac{5}{16} \times 1\frac{1}{8}$ "	.15	.13	.11	.10
16F1581	.1	$\frac{3}{8} \times 1\frac{1}{8}$ "	.21	.15	.13	.12
16F1582	.22	$\frac{1}{2} \times 1\frac{1}{8}$ "	.24	.18	.15	.14
16F1583	.25	$\frac{5}{8} \times 1\frac{1}{8}$ "	.27	.18	.15	.14
16F1584	.33	$\frac{3}{4} \times 1\frac{1}{8}$ "	.33	.20	.16	.15
15F1585	1.0	$1\frac{1}{8} \times 1\frac{1}{8}$ "	.57	.37	.31	.28

600 WVDC

Stock No.	Mfd.	D x L	1-24	25-49	50-99	100-249
16F1594	.001	$\frac{9}{32} \times 1\frac{1}{8}$ "	.15	.14	.12	.11
16F1595	.005	$\frac{5}{16} \times 1\frac{1}{8}$ "	.15	.14	.12	.11
16F1596	.01	$\frac{3}{8} \times 1\frac{1}{8}$ "	.18	.14	.12	.11
16F1597	.02	$\frac{1}{2} \times 1\frac{1}{8}$ "	.18	.15	.13	.12
16F1598	.03	$\frac{5}{8} \times 1\frac{1}{8}$ "	.21	.15	.13	.12

400 WVDC

Stock No.	Mfd.	D x L	1-24	25-49	50-99	100-249
16F1586	.00068	$\frac{9}{32} \times 1\frac{1}{8}$ "	.15	.14	.12	.11
16F1587	.01	$\frac{5}{16} \times 1\frac{1}{8}$ "	.15	.14	.12	.11
16F1588	.02	$\frac{3}{8} \times 1\frac{1}{8}$ "	.15	.14	.12	.11
16F1589	.05	$\frac{1}{2} \times 1\frac{1}{8}$ "	.18	.15	.13	.12
16F1590	.1	$\frac{5}{8} \times 1\frac{1}{8}$ "	.21	.18	.15	.13
16F1591	.25	$\frac{3}{4} \times 1\frac{1}{8}$ "	.39	.24	.20	.18
16F1592	.5	$1\frac{1}{8} \times 2\frac{1}{8}$ "	.69	.32	.27	.24
16F1593	1.0	$\frac{7}{8} \times 2\frac{1}{8}$ "	1.05	.53	.44	.40

Stock No.	Mfd.	D x L	1-24	25-49	50-99	100-249
16F1599	.05	$1\frac{1}{2} \times 1\frac{1}{4}$ "	.24	.18	.15	.13
16F1600	.1	$\frac{9}{16} \times 1\frac{1}{2}$ "	.30	.21	.17	.16
16F1601	.2	$\frac{3}{8} \times 2\frac{1}{8}$ "	.48	.37	.31	.28
16F1602	.25	$\frac{3}{4} \times 1\frac{3}{4}$ "	.54	.40	.33	.30
16F1603	.5	$\frac{7}{8} \times 2\frac{1}{8}$ "	.87	.53	.44	.40

TYPE P123ZN METALLIZED PAPER CAPACITORS



Hermetically sealed metal cased metallized paper capacitors. 50 VDCW units specifically designed for transistor applications

and low voltage operations. Oper. temp.: -55°C to $+100^\circ\text{C}$ with no derating, up to 125°C derated to 75%. Standard tolerance of 50 VDCW $\pm 10\%$; 200, 400 & 600 VDCW, .01 and lower $\pm 25\%$; .015 and up $\pm 20\%$. Other tol. and insulated sleeve available on special order.

50 WVDC

Stk. No.	Mfd.	Size	1-24	25-99	100-499
16F1534	.047	$.195 \times 1\frac{1}{8}$ "	2.11	.95	.82
16F1535	.068	$.195 \times 1\frac{1}{8}$ "	2.13	.96	.83
16F1536	.1	$.195 \times 1\frac{1}{8}$ "	2.15	.97	.83
16F1537	.15	$.235 \times 1\frac{1}{8}$ "	2.18	.98	.85
16F1538	.22	$.312 \times 1\frac{1}{8}$ "	2.22	1.00	.86
16F1539	.33	$.312 \times 1\frac{1}{8}$ "	2.27	1.02	.88
16F1540	.47	$.312 \times 1\frac{1}{8}$ "	2.34	1.05	.90
16F1541	.68	$.400 \times 1\frac{1}{8}$ "	2.54	1.14	.99
16F1542	1.0	$.400 \times 1\frac{1}{8}$ "	2.75	1.24	1.06
16F1543	1.5	$.500 \times 1\frac{1}{8}$ "	3.08	1.38	1.20
16F1544	2.0	$.562 \times 1\frac{1}{8}$ "	3.41	1.53	1.32
16F1545	3.0	$.562 \times 1\frac{1}{8}$ "	3.86	1.74	1.49
16F1546	4.0	$.670 \times 1\frac{1}{8}$ "	4.31	1.94	1.67

200 WVDC

Stk. No.	Mfd.	Size	1-24	25-99	100-499
16F1296	.0005	$.175 \times \frac{1}{2}$ "	1.36	.61	.53
16F1297	.001	$.175 \times \frac{1}{2}$ "	1.36	.61	.53
16F1298	.002	$.175 \times \frac{1}{2}$ "	1.38	.61	.53
16F1299	.003	$.175 \times \frac{1}{2}$ "	1.36	.61	.53
16F1347	.005	$.175 \times \frac{1}{2}$ "	1.36	.61	.53
16F1348	.01	$.175 \times \frac{1}{2}$ "	1.36	.61	.53
16F1349	.015	$.195 \times \frac{3}{8}$ "	1.36	.61	.53
16F1350	.02	$.195 \times \frac{3}{8}$ "	1.38	.61	.53
16F1351	.022	$.195 \times \frac{3}{8}$ "	1.38	.61	.53
16F1352	.033	$.235 \times \frac{3}{8}$ "	1.38	.62	.54
16F1353	.04	$.235 \times \frac{3}{8}$ "	1.42	.64	.55
16F1354	.047	$.235 \times \frac{3}{8}$ "	1.42	.64	.55
16F1355	.05	$.235 \times \frac{3}{8}$ "	1.42	.64	.55
16F1356	.068	$.312 \times 1\frac{1}{8}$ "	1.45	.66	.56
16F1357	.1	$.312 \times 1\frac{1}{8}$ "	1.48	.67	.57
16F1358	.15	$.312 \times 1\frac{1}{8}$ "	1.49	.67	.58
16F1359	.2	$.312 \times 1\frac{1}{8}$ "	1.50	.68	.58
16F1360	.22	$.312 \times 1\frac{1}{8}$ "	1.50	.68	.58
16F1361	.25	$.312 \times 1\frac{1}{8}$ "	1.82	.73	.63
16F1362	.33	$.400 \times 1\frac{1}{8}$ "	1.62	.73	.63
16F1363	.47	$.400 \times 1\frac{1}{8}$ "	1.71	.77	.66
16F1364	.5	$.400 \times 1\frac{1}{8}$ "	1.73	.78	.67
16F1365	.68	$.500 \times 1\frac{1}{8}$ "	1.78	.81	.69
16F1366	1.0	$.562 \times 1\frac{1}{8}$ "	1.92	.87	.75
16F1367	1.5	$.562 \times 1\frac{1}{8}$ "	2.73	1.23	1.05
16F1368	2.0	$.562 \times 1\frac{1}{8}$ "	2.73	1.23	1.05

400 WVDC

Stk. No.	Mfd.	Size	1-24	25-99	100-499
16F1369	.0005	$.235 \times \frac{1}{2}$ "	1.36	.61	.53
16F1370	.001	$.235 \times \frac{1}{2}$ "	1.36	.61	.53

P123ZNG METALLIZED PAPER CAPACITORS—GROUNDED CASE

Specifications as P123ZN but with grounded cases.

200 WVDC

Stk. No.	Mfd.	Size	1-24	25-99	100-499
16F1547	.0005	$.175 \times \frac{1}{8}$ "	1.01	.45	.39
16F1548	.001	$.175 \times \frac{1}{8}$ "	1.01	.45	.39
16F1549	.005	$.175 \times \frac{1}{8}$ "	1.01	.45	.39
16F1550	.01	$.175 \times \frac{1}{8}$ "	1.01	.45	.39
16F1551	.02	$.195 \times \frac{3}{8}$ "	1.01	.45	.39
16F1552	.05	$.235 \times \frac{3}{8}$ "	1.07	.48	.41
16F1553	.1	$.312 \times \frac{3}{4}$ "	1.13	.51	.43
16F1554	.25	$.312 \times 1\frac{1}{8}$ "	1.27	.57	.49
16F1555	.5	$.400 \times 1\frac{1}{8}$ "	1.38	.62	.54
16F1556	.68	$.500 \times 1\frac{1}{8}$ "	1.43	.65	.56

600 WVDC

Stk. No.	Mfd.	Size	1-24	25-99	100-499
16F1557	2.0	$.562 \times 1\frac{1}{8}$ "	3.19	1.43	1.23
16F1558	.001	$.235 \times \frac{1}{8}$ "	1.05	.47	.40
16F1559	.005	$.235 \times \frac{1}{8}$ "	1.10	.49	.42
16F1560	.01	$.235 \times \frac{3}{8}$ "	1.10	.49	.42
16F1561	.05	$.400 \times \frac{3}{4}$ "	1.15	.52	.44
16F1562	.1	$.400 \times 1\frac{1}{8}$ "	1.28	.57	.48
16F1563	.25	$.562 \times 1\frac{1}{8}$ "	1.56	.70	.60
16F1564	.5	$.670 \times 1\frac{1}{8}$ "	1.96	.89	.77
16F1565	1.0	$.750 \times 2\frac{1}{8}$ "	2.14	.96	.83
16F1566	2.0	$1.000 \times 2\frac{1}{8}$ "	3.19	1.43	1.23



P8292ZN METALLIZED-PAPER CAPACITORS

Impregnated metallized paper.
Modified plastic tubular type
Duramite end-sealed capacitors
in paper cases. Operating temp.
-30° C to +100° C.



200 VOLTS

No.	Mfd.	D x L	1-24	25-49	50-99	100-499	500-999
16F473	.01	1/4x19/32"	.44	.26	.20	.18	.161
16F474	.02	1/4x21/32"	.44	.26	.20	.18	.162
16F475	.03	1/4x23/32"	.45	.26	.20	.18	.164
16F476	.05	1/4x25/32"	.45	.26	.20	.18	.165
16F477	.10	3/8x23/32"	.47	.28	.21	.19	.174
16F478	.25	1/2x23/32"	.68	.39	.30	.27	.248
16F479	.50	3/4x19/32"	.80	.47	.36	.32	.293
16F480	1.00	1/2x19/32"	1.07	.62	.48	.43	.392
16F481	2.00	3/4x21/32"	1.46	.85	.66	.58	.535
16F536	3.00	1/2x19/32"	1.80	1.20	1.05	.72	.680
16F537	4.00	3/4x21/32"	2.25	1.50	1.31	.90	.825
16F538	5.00	1/2x19/32"	2.70	1.80	1.58	1.08	.990
16F539	6.00	3/4x21/32"	3.45	2.30	2.01	1.38	1.285
16F540	8.00	1/2x23/32"	4.35	2.90	2.54	1.74	1.595
16F541	10.00	1x23/8"	4.80	3.20	2.80	1.92	1.760

400 VOLTS

No.	Mfd.	D x L	1-24	25-49	50-99	100-499	500-999
16F482	.01	1/4x23/32"	.44	.26	.20	.18	.162
16F483	.02	3/8x23/32"	.45	.26	.20	.18	.164
16F484	.03	3/8x24/32"	.45	.26	.20	.18	.165
16F485	.05	1/4x23/32"	.47	.28	.21	.19	.174
16F486	.10	1/4x19/32"	.51	.30	.23	.20	.188
16F487	.25	3/8x15/16"	.74	.43	.33	.30	.273
16F488	.50	3/8x15/16"	.95	.55	.43	.38	.347
16F489	1.00	1/2x19/32"	1.32	.77	.60	.53	.485
16F490	2.00	3/8x23/32"	1.86	1.09	.84	.75	.683
16F542	3.0	1x27/8"	2.64	1.76	1.54	1.08	.968
16F543	4.0	1x37/8"	3.39	2.26	1.98	1.36	1.243

600 VOLTS

No.	Mfd.	D x L	1-24	25-49	50-99	100-499	500-999
16F491	.01	3/8x23/32"	.45	.26	.20	.18	.165
16F492	.02	3/8x23/32"	.47	.28	.21	.19	.174
16F493	.03	1/4x23/32"	.50	.29	.22	.20	.182
16F494	.05	1/2x23/32"	.53	.31	.24	.21	.194
16F495	.10	1/4x19/32"	.59	.34	.26	.23	.215
16F496	.25	3/8x15/16"	.92	.54	.41	.37	.337
16F497	.50	1/2x19/32"	1.15	.67	.52	.46	.421
16F498	1.00	1/2x23/32"	1.43	.84	.64	.57	.525
16F499	2.00	1x23/8"	2.03	1.18	.91	.81	.743
16F544	3.00	1x37/8"	2.73	1.82	1.59	1.09	1.00

TYPE P95ZN MICRO-MINIATURE METALLIZED PAPER CAPACITORS

Type P95ZN. Metallized paper miniature units offer small size, rugged construction and high reliability. Special construction offers strong lead connections and dipped resinous conformal coating provides good moisture barrier. Standard tolerance $\pm 20\%$. Operating temperature -55°C to +125°C.



A—.217 x .473 B—.217 x .610 C—.256 x .610

SIZE CHART

B—.217 x .610

C—.256 x .610

200 WVDC

Stk. No.	Type	Mfd.	Size	1-24	25-49	50-99	100-499
60F814	P95ZN1	.004	A				
60F815	P95ZN2	.005	A	.40	.32	.24	.11
60F816	P95ZN3	.01	A				
60F817	P95ZN4	.02	B				
60F818	P95ZN5	.03	C	.50	.40	.30	.14
60F819	P95ZN6	.04	C				
60F820	P95ZN7	.05	C				

400 WVDC

Stk. No.	Type	Mfd.	Size	1-24	25-49	50-99	100-499
60F821	P95ZN8	.002	A	.40	.32	.24	.11
60F822	P95ZN9	.003	A	.40	.32	.24	.11
60F823	P95ZN10	.005	B	.50	.40	.30	.14
60F824	P95ZN11	.01	C	.50	.40	.30	.14

600 WVDC

Stk. No.	Type	Mfd.	Size	1-24	25-49	50-99	100-499
60F825	P95ZN12	.00005	A				
60F826	P95ZN13	.0001	A				
60F827	P95ZN14	.0002	A	.40	.32	.24	.11
60F828	P95ZN15	.00025	A				
60F829	P95ZN16	.0003	A				
60F830	P95ZN17	.0005	A				
60F831	P95ZN18	.001	A				
60F832	P95ZN19	.002	C				
60F833	P95ZN20	.003	C				
60F834	P95ZN21	.004	C	.50	.40	.30	.14
60F835	P95ZN22	.005	C				

CERAMIC CAPACITORS

Type MC91 and MC905.

These capacitors have greater volumetric efficiency and unique characteristics for inherent reliability. Units have a temperature range of -55° to +125°C. Capacitance change at 0 VDC is +10% and -15% at rated voltage +10%, and -30%. Maximum power factor is 2.5%. Gold dumet leads are standard.



Stk. No.	Type	Cap.	WVDC	Tol.	1-24	25-49	50-99	100-499
16F362	MC91C153K	15,000	100	$\pm 10\%$	2.29	2.03	1.45	1.09
16F363	MC91C223K	22,000	100	$\pm 10\%$	2.44	2.18	1.55	1.16
16F364	MC91C333K	33,000	100	$\pm 10\%$	3.15	2.80	2.01	1.50
16F365	MC91C473K	47,000	100	$\pm 10\%$	3.26	2.90	2.08	1.56
16F366	MC91C683K	68,000	100	$\pm 10\%$	3.26	2.90	2.08	1.56
16F367	MC91C104K	100,000	100	$\pm 10\%$	8.50	5.78	4.13	3.10
16F368	MC905C154K	150,000	50	$\pm 10\%$	6.50	5.78	4.13	3.10
16F369	MC905C224K	220,000	50	$\pm 10\%$	7.29	6.48	4.63	3.48
16F370	MC91C153M	15,000	100	$\pm 20\%$	1.83	1.62	1.16	.87
16F371	MC91C223M	22,000	100	$\pm 20\%$	1.95	1.74	1.24	.93
16F372	MC91C333M	33,000	100	$\pm 20\%$	2.52	2.24	1.61	1.20
16F373	MC91C473M	47,000	100	$\pm 20\%$	2.61	2.32	1.66	1.25
16F374	MC91C683M	68,000	100	$\pm 20\%$	2.61	2.32	1.66	1.25
16F375	MC91C104M	100,000	100	$\pm 20\%$	5.20	4.62	3.30	2.48
16F376	MC905C154M	150,000	50	$\pm 20\%$	5.20	4.62	3.30	2.48
16F377	MC905C224M	220,000	50	$\pm 20\%$	5.88	5.18	3.70	2.78

MINIATURE TRANSISTOR DISK CAPACITORS

Type TTD. Square miniature disk capacitors rated at 100 WVDC.



Stk. No.	Cap. Mfd.	LxW in.	1-24	25-99	100-249	250-499	500-998
16F1937	.005	.280x.280	.24	.09	.075	.054	.051
16F1938	.01	.340x.340	.24	.10	.076	.055	.052
16F1939	.02	.430x.430	.30	.14	.113	.081	.077
16F1940	.025	.465x.465	.30	.14	.113	.081	.077
16F1941	.03	.465x.465	.30	.14	.113	.081	.077
16F1942	.05	.535x.535	.36	.17	.135	.097	.082
16F1943	.1	.700x.700	.54	.33	.275	.198	.187

SUBMINIATURE THIN PLATE CAPACITORS

Units stocked with radial leads; available with axial leads of Gold Plated Dumet for soldering or welding. TPNO-temp compensating. TP25-intermediate stability. TP89-general purpose bypass or coupling. 50VDCW. Derate 50%, for 125°C. -55°C to +85°C.



TPNO $\pm 5\%$ Tol.

Stk. No.	Capacity	Cat. No.	1-49	50-99	100-499
60F727	4.7	4R7R			
60F728	6.8	6R8R			
60F729	10.0	100R			
60F730	15.0	150R			
60F731	22.0	220R	.68	.66	.52
60F732	33.0	330R			
60F733	47.0	470R			
60F734	68.0	680R			
60F735	100	101R			
60F736	150	151R	.82	.79	.63
60F737	220	221R	.82	.79	.63

TP25 $\pm 10\%$ Tol.

Stk. No.	Capacity	Cat. No.	1-49	50-99	100-499
60F738	33.0	330RK			
60F739	47.0	470RK			
60F740	68.0	680RK			
60F741	100	101RK			
60F742	150	151RK	.60	.58	.45
60F743	220	221RK			
60F744	330	331RK			
60F745	470	471RK			
60F746	680	681RK			
60F747	1000	102RK	.72	.69	.55
60F748	1500	152RK	.72	.69	.55
60F749	2200	222RK	1.45	1.38	1.10

TP89 $\pm 20\%$ Tol.

Stk. No.	Capacity	Cat. No.	1-49	50-99	100-499
60F750	470	471RM			
60F751	680	681RM			
60F752	1000	102RM			
60F753	1500	152RM	.48	.46	.36
60F754	2200	222RM			
60F755	3300	332RM			
60F756	4700	472RM			
60F757	6800	682RM	.58	.55	.44
60F758	10000	103RM	.58	.55	.44
60F759	15000	153RM	1.16	1.10	.88
60F760	20000	203RM	1.18	1.10	.88

AEROVOX Capacitors



TYPE HCB HIGH CAPACITY LOW VOLTAGE ELECTROLYTICS

Polarized aluminum electrolytics in heavy duty bakelite cases for resistance to moisture oil and dirt. Temperature range -40°C to 85°C. Units can be mounted horizontally or vertically. Shpg. wt., 5 oz.

Size		Dia. x Length		Size		Dia. x Length	
A	B	1 1/2x2 3/4		D	E	1 1/2x4 3/8	2 1/2x4 3/8
B	C	1 1/2x3 3/8					
C		1 1/2x3 3/8					

12 WVDC—18 VOLT SURGE

Stock No.	Mfd.	Size	1-9	10-24	25-49	50-99	100-249
60F491	2000	A	3.36	2.88	1.68	1.30	1.15
60F492	4000	B	4.60	3.95	2.30	1.78	1.58
60F493	6000	C	5.20	4.46	2.60	2.00	1.78
60F494	10000	D	7.82	6.70	3.90	3.02	2.68

18 WVDC—25 VOLT SURGE (Cont.)

Stock No.	Mfd.	Size	1-9	10-24	25-49	50-99	100-249
60F497	4000	C	5.37	4.61	2.69	2.07	1.84
60F498	6000	C	5.62	4.82	2.81	2.17	1.93

50 WVDC—75 VOLT SURGE

Stock No.	Mfd.	Size	1-9	10-24	25-49	50-99	100-249
60F508	500	B	3.33	2.85	1.66	1.28	1.14
60F509	1000	B	4.25	3.65	2.13	1.64	1.46
60F510	2000	C	5.06	4.34	2.53	1.95	1.73
60F511	4000	E	7.32	6.27	3.66	2.82	2.51

18 WVDC—25 VOLT SURGE

Stock No.	Mfd.	Size	1-9	10-24	15-128	1-13
60F495	1000	A	3.31	2.83	1.65	1.28
60F496	2000	A	3.47	2.97	1.74	1.34

25 WVDC—40 VOLT SURGE

Stock No.	Mfd.	Size	1-9	10-24	1-123	1-109
60F499	1000	A	3.19	2.73	1.59	1.23
60F505	2000	B	4.15	3.56	2.07	1.60
60F506	4000	C	5.58	4.79	2.79	2.15
60F507	6000	D	7.12	6.10	3.56	2.72

150 WVDC—185 VOLT SURGE

Stock No.	Mfd.	Size	1-9	10-24	1-248	1-221
60F512	1000	D	6.44	5.52	3.22	2.48

CERAFIL CERAMIC CAPACITORS

Ultraminature ceramic capacitors. Meets MIL-C-11015C. Oper. temp. -55°C to +85°C or derate 50% to +125°C. Temp. Coeff. 100 volts applied +10 -35%. Power factor 2.5% max. Leads 1 1/2 inch min. tinned copper. Below .01 mid, .25 gauge, .01 and above .22 gauge. Tolerance: ±20%. 100 VDCV. 300 VDCT. Aver. Shpg. wt., 4 oz.



MOLED AXIAL LEADS

Stk. No.	Type	Mfd.	Dia. x Lt.	1-24	25-49	50-99	100-499
16F1670	MC80V100AM	.00001	.087x.315				
16F547	MC80V120AM	.000012	.087x.315				
16F548	MC80V150AM	.000015	.087x.315				
16F549	MC80V180AM	.000018	.087x.315				
16F1671	MC80V220AM	.000022	.087x.315				
16F550	MC80V270AM	.000027	.087x.315				
16F1672	MC80V330AM	.000033	.087x.315				
16F551	MC80V390AM	.000039	.087x.315				
16F1673	MC80V470AM	.000047	.087x.315				
60F829	MC80V560AM	.000056	.087x.315				
60F830	MC80V680AM	.000068	.087x.315				
60F831	MC80V820AM	.000082	.087x.315				
16F1674	MC80V101AM	.0001	.087x.315	.47	.40	.31	.23
16F552	MC80V121AM	.00012	.087x.315				
16F553	MC80V151AM	.00015	.087x.315				
16F554	MC80V181AM	.00018	.087x.315				
16F1675	MC80V221AM	.00022	.087x.315				
16F555	MC80V271AM	.00027	.087x.315				
16F1676	MC80V331AM	.00033	.087x.315				
16F556	MC80V391AM	.00039	.087x.315				
16F1677	MC80V471AM	.00047	.087x.315				
60F632	MC80V561AM	.00056	.087x.315				
60F633	MC80V681AM	.00068	.087x.315				
60F634	MC80V821AM	.00082	.090x.320				
16F1678	MC80V102AM	.001	.087x.315	.41	.35	.28	.21
16F557	MC80V122AM	.0012	.117x.495	.68	.57	.46	.34
16F558	MC80V152AM	.0015	.117x.495	.68	.57	.46	.34

Stk. No.	Type	Mfd.	Dia. x Lt.	1-24	25-49	50-99	100-499
16F564	MC80V123AM	.012	.197x.495	1.65	1.38	1.10	.82
16F565	MC80V153AM	.015	.197x.495	1.65	1.38	1.10	.82
16F566	MC80V183AM	.018	.197x.495	1.65	1.38	1.10	.82
60F635	MC80V202AM	.002	.117x.495	.68	.57	.46	.34
16F559	MC80V182AM	.0018	.117x.495	.68	.57	.46	.34
60F636	MC80V222AM	.0022	.117x.495	.68	.57	.46	.34
16F560	MC80V272AM	.0027	.117x.495	.68	.57	.46	.34
60F637	MC80V332AM	.0033	.117x.495	.68	.57	.46	.34
16F561	MC80V392AM	.0039	.117x.495	.68	.57	.46	.34
60F638	MC80V472AM	.0047	.117x.495	.68	.57	.46	.34
16F1679	MC80V502AM	.005	.117x.495	.68	.57	.46	.34
16F562	MC80V562AM	.0056	.157x.495	.90	.81	.64	.48
16F563	MC80V822AM	.0082	.157x.495	.90	.81	.64	.48
60F639	MC80V682AM	.0068	.157x.495	.90	.81	.64	.48
16F1680	MC80V103AM	.01	.157x.495	.90	.81	.64	.48
16F1681	MC80V103AM	.02	.197x.495	1.65	1.38	1.10	.82
60F640	MC80V223AM	.022	.237x.645	2.75	2.28	1.83	1.38
16F567	MC80V273AM	.027	.237x.645				
60F641	MC80V333AM	.033	.240x.650				
16F568	MC80V393AM	.039	.237x.645	2.75	2.28	1.83	1.38
80F642	MC80V473AM	.047	.237x.645				
16F1682	MC80V503AM	.05	.237x.645				
16F569	MC80V563AM	.056	.277x.745	4.93	4.10	3.29	2.47
60F643	MC80V683AM	.068	.277x.745	4.93	4.10	3.29	2.47
16F570	MC80V823AM	.082	.277x.745	4.93	4.10	3.29	2.47
16F1683	MC80V104AM	.1	.277x.745	4.93	4.10	3.29	2.47

CK MIL TYPE AXIAL LEADS

± 10% K

Stk. No.	Type	Mfd.	Dia. x Lt.	1-24	25-49	50-99	100-499
16F571	CK12AX100K	.00001					
16F572	CK12AX220K	.000022					
16F573	CK12AX330K	.000033					
16F574	CK12AX470K	.000047	.087x.315	.59	.50	.39	.29
16F575	CK12AX101K	.0001					
16F576	CK12AX221K	.00022					
16F577	CK12AX331K	.00033					
16F578	CK12AX471K	.00047					
16F579	CK12AX102K	.001	.087x.315	.59	.50	.39	.29
16F580	CK13AX222K	.0022	.117x.495	.85	.71	.58	.43
16F581	CK13AX322K	.0033	.117x.495	.85	.71	.58	.43
16F582	CK13AX472K	.0047	.117x.495	.85	.71	.58	.43
16F583	CK14AX103K	.01	.157x.495	1.13	1.01	.80	.60
16F584	CK15AX223K	.022	.197x.495	2.06	1.73	1.38	1.03
16F585	CK16AX473K	.047	.237x.645	3.44	2.85	2.29	1.73
16F586	CK17AX104K	.1	.277x.745	6.16	5.13	4.11	3.09

± 20% M

Stk. No.	Type	Mfd.	D x L	1-24	25-49	50-99	100-499
16F587	CK12AX100M	.00001					
16F588	CK12AX220M	.000022					
16F589	CK12AX330M	.000033					
16F590	CK12AX470M	.000047	.087x.315	.47	.40	.31	.23
16F591	CK12AX101M	.0001					
16F592	CK12AX221M	.00022					
16F593	CK12AX331M	.00033					
16F594	CK12AX471M	.00047					
16F595	CK12AX102M	.001	.087x.315	.47	.40	.31	.23
16F596	CK13AX222M	.0022	.117x.495	.68	.57	.46	.34
16F597	CK13AX322M	.0033	.117x.495	.68	.57	.46	.34
16F598	CK13AX472M	.0047	.117x.495	.68	.57	.46	.34
16F599	CK14AX103M	.01	.157x.495	.90	.81	.64	.48
16F600	CK15AX223M	.022	.197x.495	1.65	1.38	1.10	.82
16F601	CK16AX473M	.047	.237x.645	2.75	2.28	1.83	1.38
16F602	CK17AX104M	.1	.277x.745	4.93	4.10	3.29	2.47

DIPPED AXIAL

Stk. No.	Type	Mfd.	D x L	1-24	25-49	50-99	100-499
16F747	C80V330AM	.000033	.090x.320				
16F748	C80V470AM	.000047	.090x.320				
16F749	C80V101AM	.0001	.090x.320	.52	.44	.34	.26
16F752	C80V471AM	.00047	.090x.320				
16F739	C80V102AM	.001	.090x.320	.46	.39	.31	.23
60F605	C80V202AM	.002	.120x.500	.76	.63	.51	.38
16F740	C80V502AM	.005	.120x.500	.76	.63	.51	.38
16F741	C80V103AM	.01	.180x.500	1.00	.90	.71	.53
16F742	C80V203AM	.02	.200x.500	1.83	1.53	1.22	.91
16F743	C80V503AM	.05	.240x.650	3.05	2.53	2.03	1.53
16F744	C80V104AM	.1	.310x.750	5.48	4.56	3.65	2.74

DIPPED RADIAL

Stk. No.	Type	Mfd.	D x L	1-24	25-49	50-99	100-499
16F1606	C80V330RM	.000033	.090x.320				
16F1607	C80V470RM	.000047	.090x.320				
60F1608	C80V101RM	.0001	.090x.320	.			

Capacitors



COMPACT ROLLED CERAMIC CAPACITORS

Type CR90 rated 100 VDCW @ 85°C and de-rated to 50 VDCW @ 125°C. Type CR89 and CR91 rated 50 VDCW @ 85°C and erated by 50% at 125°C. Av. Shpg. wt., 4 oz.



TYPE CR89—50 VDCW

Stk. No.	Type	Cap. D. max. Mid.	L. max. (in.)	1-24	25-49	50-99	100-499
16F1680	CR89W104AM	0.1	.140	.400	3.10	2.90	2.69
16F1681	CR89W254AM	0.25	.210	.495	4.13	3.86	3.58
16F1682	CR89W504AM	0.5	.260	.495	6.72	6.26	5.81
16F1683	CR89W105AM	1.0	.260	.690	10.33	9.64	8.95
16F1684	CR89W205AM	2.0	.350	.690	15.50	14.46	13.43

TYPE CR90—100 VDCW

Stk. No.	Type	Cap. D. Max (in.)	L. Max (in.)	1-24	25-49	50-99	100-499
16F1068	CR90V104AM	0.1	.210	.690	3.44	3.21	2.98
16F1069	CR90V254AM	0.25	.260	.690	4.58	4.28	3.98
16F1070	CR90V504AM	0.5	.350	.690	7.48	6.96	6.48
16F1071	CR90V105AM	1.0	.480	.690	11.48	10.71	9.85
16F1072	CR90V205AM	2.0	.400	1.440	17.21	16.07	14.92

CORDWOOD TYPE MC70 AND MC705 CERAMIC TUBULARS

Operating temp. -55°C to +85°C. Derate 50% at +125°C. Temp. Coeff. varies with capacity. Leads #26 Gauge Gold Plated Dumet 1/2" min. for soldering or welding. Size: .250 x .100. Aver. Shpg. wt., 4 oz.

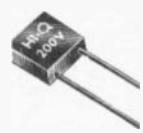


100 VDCW—Except (*) 50 VDCW

Stk. No.	Type	Cap.	1-24	25-49	50-99	100-499
60F644	MC70A100AK	10				
60F645	MC70A150AK	15				
60F646	MC70A220AK	22				
60F647	MC70A330AK	33				
60F648	MC70B470AK	47				
60F649	MC70B560AK	56				
60F650	MC70B680AK	68				
60F651	MC70B820AK	82				
60F652	MC70B101AK	100				
60F653	MC70B151AK	150	.64	.55	.44	.34
60F654	MC70B221AK	220				
60F655	MC70C331AK	330				
60F656	MC70C471AK	470				
60F657	MC70C561AK	560				
60F658	MC70C681AK	680				
60F659	MC70C821AK	820				
60F660	MC70C102AK	1000				
60F661	MC70C561AK	1500				
60F662	MC70C222AK	2200	3.38	2.89	2.25	1.68
60F663	MC70C332AK	3300	3.38	2.89	2.25	1.68
60F664	MC70C472AK	4700	3.38	2.89	2.25	1.68
60F665	MC70C562AK	5600	3.09	2.64	2.08	1.53
60F666	MC70C682AK	6800	3.09	2.64	2.08	1.53
60F667	MC70C822AK	8200	3.09	2.64	2.08	1.53
60F668	MC70C103AK*	10000	3.09	2.64	2.08	1.53
60F669	MC705C153AM*	15000	5.28	4.51	3.52	2.61
60F670	MC705C203AM*	20000	5.28	4.51	3.52	2.61

MIL-TYPE CK05-CK06 CAPACITORS

CK05 is .200 square by .100 thick. CK06 is .300 square by .100 thick. Molded for improved humidity protection and reliability. Tolerance is ±10% (K) or ±20% (M) as noted. 200VDCW. -55° to +150° to meet MIL-C-11015.



Stk. No.	Mil. No.	1-49	50-99	100-249	250-499	500-999
60F671	10 CK05CW100K	1.05	.88	.70	.67	.68
60F672	10 CK05CW100M	.87	.73	.58	.55	.49
60F673	12 CK05CW120K	1.05	.88	.70	.67	.60
60F674	15 CK05CW150K	1.05	.88	.70	.67	.60
60F675	15 CK05CW150M	.87	.73	.58	.55	.49
60F676	18 CK05CW180K	1.85	.88	.70	.67	.60
60F677	22 CK05CW220K	1.85	.88	.70	.67	.60
60F678	22 CK05CW220M	1.05	.88	.70	.55	.49
60F679	27 CK05CW270K	1.05	.88	.70	.67	.60
60F680	33 CK05CW330K	1.05	.88	.70	.67	.60
60F681	33 CK05CW330M	.87	.73	.58	.55	.49
60F682	39 CK05CW390K	1.85	.88	.70	.67	.60
60F683	47 CK05CW470K	1.85	.88	.70	.67	.60
60F684	47 CK05CW470M	.87	.73	.58	.55	.49
60F685	56 CK05CW560K	1.05	.88	.70	.67	.60
60F686	68 CK05CW680K	1.05	.88	.70	.67	.60
60F687	68 CK05CW680M	.87	.73	.58	.55	.49
60F688	82 CK05CW820K	1.05	.88	.70	.67	.60
60F689	100 CK05CW101K	1.05	.88	.70	.67	.60
60F690	100 CK05CW101M	.87	.73	.58	.55	.49
60F691	120 CK05CW121K	1.05	.88	.70	.67	.60
60F692	150 CK05CW151K	1.05	.88	.70	.67	.60
60F693	150 CK05CW151M	.87	.73	.58	.55	.49
60F694	180 CK05CW181K	1.05	.88	.70	.67	.60
60F695	220 CK05CW221K	1.05	.88	.70	.67	.60
60F696	220 CK05CW221M	.87	.73	.58	.55	.49
60F697	270 CK05CW271K	1.05	.88	.70	.67	.60
60F698	330 CK05CW331K	1.05	.88	.70	.67	.60
60F699	330 CK05CW331M	.87	.73	.58	.55	.49
60F700	390 CK05CW391K	1.05	.88	.70	.67	.60
60F701	470 CK05CW471K	1.05	.88	.70	.67	.60
60F702	470 CK05CW471M	.87	.73	.58	.55	.49
60F703	560 CK05CW561K	1.05	.88	.70	.67	.60
60F704	680 CK05CW681K	1.05	.88	.70	.67	.60
60F705	680 CK05CW681M	.87	.73	.58	.55	.49
60F706	820 CK05CW821K	1.05	.88	.70	.67	.60
60F707	1000 CK05CW102K	1.05	.88	.70	.67	.60
60F708	1000 CK05CW102M	.87	.73	.58	.55	.49
60F709	1200 CK06CW122K	1.14	.95	.76	.72	.65
60F710	1500 CK06CW152K	1.14	.95	.76	.72	.65
60F711	1500 CK06CW152M	.99	.83	.66	.63	.56
60F712	1800 CK06CW182K	1.14	.95	.76	.72	.65
60F713	2200 CK06CW222K	1.20	1.00	.80	.76	.68
60F714	2200 CK06CW222M	1.05	.88	.70	.67	.60
60F715	2700 CK06CW272K	1.20	1.00	.80	.76	.68
60F716	3300 CK06CW332K	1.20	1.00	.80	.76	.68
60F717	3300 CK06CW332M	1.05	.88	.70	.67	.60
60F718	3900 CK06CW392K	1.20	1.00	.80	.76	.68
60F719	4700 CK06CW472K	1.20	1.00	.80	.76	.68
60F720	4700 CK06CW472M	1.05	.88	.70	.67	.60
60F721	5600 CK06CW562K	1.23	1.03	.82	.78	.70
60F722	6800 CK06CW682K	1.29	1.08	.86	.82	.73
60F723	6800 CK06CW682M	1.14	.95	.76	.72	.65
60F724	8200 CK06CW822K	1.38	1.15	.92	.87	.78
60F725	10000 CK06CW103K	1.38	1.15	.92	.87	.78
60F726	10000 CK06CW103M	1.20	1.00	.80	.76	.68

GENERAL PURPOSE BYPASS COUPLING DISKS

Type IDI. Industrial ceramic disk capacitors offering small physical size with high capacity. Used mainly for bypass coupling and filter applications.

Maximum protection against humidity, voltage breakdown, vibration. Rated at 500 WVDC, flash tested at 1500 VDC.



Stk. No.	Cap. mmf.	ToL	Dia. in.	1-24	25-99	100-249	250-499	500-999
16F1800	3.3	±0.5	5/16	.15	.07	.056	.040	.038
16F1801	5.0	±10%	5/16	.15	.07	.056	.040	.038
16F1802	6.0	±10%	5/16	.15	.07	.056	.043	.040
16F1803	6.5	±10%	5/16	.15	.07	.056	.043	.040
16F1804	7.5	±10%	5/16	.15	.07	.056	.043	.040
16F1805	8.0	±10%	5/16	.15	.07	.056	.043	.040
16F1806	10	±10%	5/16	.15	.07	.056	.043	.040
16F1807	15	±10%	5/16					
16F1808	18	±10%	5/16					
16F1809	20	±10%	5/16					
16F1810	22	±10%	5/16					
16F1811	25	±10%	5/16					
16F1812	27	±10%	5/16					
16F1813	30	±10%	5/16					
16F1814	33	±10%	5/16					
16F1815	39	±10%	5/16					
16F1816	47	±10%	5/16	.15	.07	.056	.040	.038
16F1817	50	±10%	5/16					
16F1818	51	±10%	5/16					
16F1819	56	±10%	5/16					
16F1820	68	±10%	5/16					
16F1821	75	±10%	5/16					
16F1822	82	±10%	5/16					
16F1823	100	±10%	5/16					
16F1824	150	±10%	5/16					
16F1825	180	±10%	5/16					
16F1826	200	±10%	5/16					
16F1827	220	±10%	5/16					

Stk. No.	Cap. mmf.	ToL	Dia. in.	1-24	25-99	100-249	250-499	500-999
16F1828	250	±10%	5/16					
16F1829	270	±10%	5/16					
16F1830	300	±10%	5/16					
16F1831	330	±10%	5/16					
16F1832	360	±10%	5/16					
16F1833	390	±10%	5/16					
16F1834	400	±10%	5/16					
16F1835	470	±10%	5/16	.15	.07	.056	.040	.038
16F1836	500	±10%	5/16					
16F1837	560	±10%	5/16					
16F1838	600	±10%	5/16					
16F1839	680	±10%	5/16					
16F1840	820	±10%	5/16					
16F1841	1000	±10%	5/16					
16F1842	1500	±10%	5/16					



Ceramic Capacitors

INDUSTRIAL CERAMIC CAPACITORS Temperature Compensating Tubulars

Popular values in accordance with the latest revision of specification MIL-C-20 and EIA specification RS-198. Uninsulated units are furnished color code, packaged in bulk.

Insulated units are stamped with MIL part number, temperature coefficient capacity and tolerance. Voltage rated at 500 VDCW.



NPO Uninsulated Type CN

Stk. No.	Cap.	MIL. No.	1-49	50-99	100-249	250-499	500-999	Stk. No.	Cap.	MIL. No.	1-49	50-99	100-249	250-499	500-999
16F1944	.3	CC20CK0R3C	.20	.15	.124	.089	.084	16F1954	27	CC25CH270G	.39	.30	.243	.175	.165
16F1945	.5	CC20CK0R5C	.20	.15	.124	.089	.084	16F1955	33	CC25CH330G	.39	.30	.243	.175	.165
16F1946	1.0	CC20CK010C	.20	.15	.124	.089	.084	16F1956	39	CC25CH390J	.22	.16	.133	.095	.090
16F1947	2.2	CC20CK2R2C	.20	.15	.124	.089	.084	16F1957	47	CC25CH470J	.22	.16	.133	.095	.090
16F1948	3.0	CC20C030C	.20	.15	.124	.089	.084	16F1958	56	CC32CG560J	.44	.33	.270	.194	.184
16F1949	5.0	CC20C0H050C	.20	.15	.124	.089	.084	16F1959	68	CC32CG680J	.44	.33	.270	.194	.184
16F1950	7.0	CC20C0H070C	.35	.27	.218	.157	.148	16F1960	75	CC32CG750J	.44	.33	.270	.194	.184
16F1951	10.0	CC20CH100C	.35	.27	.218	.157	.148	16F1961	82	CC32CG820J	.44	.33	.270	.194	.184
16F1952	12.0	CC20CH120G	.35	.27	.218	.157	.148	16F1962	100	CC32CG101G	.62	.47	.384	.276	.261
16F1953	22.0	CC20CH202G	.35	.27	.218	.157	.148	16F1963	150	CC35CG151G	1.21	.91	.755	.544	.513

Insulated Type CI

Stk. No.	Cap.	MIL. No.	1-49	50-99	100-249	250-499	500-999	Stk. No.	Cap.	MIL. No.	1-49	50-99	100-249	250-499	500-999
16F1967	.3	CC21CK0R3C	.25	.19	.156	.113	.106	16F1977	15	CC21CH150G	.40	.30	.250	.180	.170
16F1968	.5	CC21CK0R5C						16F1978	18	CC21CH180G	.40	.30	.250	.180	.170
16F1969	.68	CC21CKR68C						16F1979	20	CC21CH200G	.40	.30	.250	.180	.170
16F1970	.75	CC21CKR75C						16F1980	27	CC26CH270G	.44	.33	.275	.198	.187
16F1971	1	CC21CK010C						16F1981	39	CC25CH390J	.27	.20	.165	.119	.112
16F1972	2.2	CC21CK2R2C						16F1982	47	CC36CH470J	.58	.44	.360	.259	.245
16F1973	3	CC21C030C	16F1983	68	CC36CG680J	.58	.44	.360	.259	.245					
16F1974	4	CC21CH040C	16F1984	82	CC36CG820J	.58	.44	.360	.259	.245					
16F1975	6	CC21CH060C	.40	.30	.250	.180	.170	16F1985	100	CC36CG101J	.58	.44	.360	.259	.245
16F1976	12	CC21CH120G	.40	.30	.250	.180	.170								

Type N750 CN Temperature Compensating Tubulars—Uninsulated

Stk. No.	Cap.	MIL. No.	1-49	50-99	100-249	250-499	500-999	Stk. No.	Cap.	MIL. No.	1-49	50-99	100-249	250-499	500-999
16F1986	.5	CC20U0R5C	.20	.15	.124	.089	.084	16F1991	75.0	CC25UJ750J	.18	.14	.111	.080	.076
16F1987	5.0	CC20U050C	.20	.15	.124	.089	.084	16F1992	100	CC25UJ101G	.22	.16	.133	.095	.090
16F1988	15.0	CC20U0150G	.35	.27	.218	.157	.148	16F1993	150	CC25UJ151G	.39	.22	.243	.175	.165
16F1989	39.0	CC20U0390J	.39	.30	.243	.175	.165	16F1994	220	CC32UJ221G	.65	.47	.384	.276	.261
16F1990	47.0	CC20U0470J	.18	.14	.111	.080	.076	16F1995	330	CC35UJ331F	2.35	1.77	1.468	1.057	.998

Type N750 CI Temperature Compensating Tubulars—Insulated

Stk. No.	Cap.	MIL. No.	1-49	50-99	100-249	250-499	500-999	Stk. No.	Cap.	MIL. No.	1-49	50-99	100-249	250-499	500-999
16F1997	24.0	CC21UJ240G	.40	.30	.250	.180	.170	16F2001	220	CC36UJ221J	1.45	1.09	.908	.650	.614
16F1998	39.0	CC21UJ390J	.23	.18	.144	.104	.098	16F2002	270	CC36UJ271J	1.45	1.09	.908	.650	.614
16F1999	51.0	CC21UJ510J	.23	.18	.144	.104	.098	16F2003	330	CC36UJ331F	1.45	1.09	.908	.650	.614
16F2000	150	CC36UJ151J	.58	.44	.360	.259	.245								



These general purpose military ceramic discs are made in accordance with MIL-C-11015-C. Rated at 530 VDCW. Units identified by letter A as fifth digit

MILITARY CERAMIC DISCS PER MIL-C-11015-C

Stock No.	MIL No.	Cap.	Tol.	1-49	50-99	100-249	250-499	500-999
60F761	CK60BX2R2K	2.2mmf.	10%					
60F762	CK60BX3R2K	3.3	10%					
60F763	CK60BX4R4K	4.7	10%					
60F764	CK60BX6R8K	6.8	10%	.17	.13	.103	.074	.070
60F765	CK60BX100K	10	10%					
60F766	CK60BX150K	15	10%					
60F767	CK60BX220K	22	10%					
60F768	CK60BX330K	33	10%					
60F769	CK60BX330M	33	20%					
60F770	CK60BX470K	47	10%					
60F771	CK60BX470M	47	20%					
60F772	CK60BX680K	68	10%					
60F773	CK60BX680M	68	20%					
60F774	CK60BX101K	100	10%					
60F775	CK60BX101M	100	20%					
60F776	CK60BX151K	150	10%					
60F777	CK60BX151M	150	20%					
60F778	CK60AX221K	220	10%					
60F779	CK60AX221M	220	20%					
60F780	CK60AX331K	330	10%					
60F781	CK60AX331M	330	20%					
60F782	CK60AX471K	470	10%					
60F783	CK60AX471M	470	20%					
60F784	CK60AW681M	680	20%	.15	.11	.092	.067	.063
60F785	CK60AW821M	820	20%					
60F786	CK60AW102M	1000	20%					
60F787	CK60AW152M	1500	20%					

are made to operate from -55° to +85°C. Those with letter B as fifth digit operate from -55°C to +125°C. Tolerances as noted in the table below. Av. shpg. wt., 2 oz.

Stock No.	MIL No.	Cap.	Tol.	1-49	50-99	100-249	250-499	500-999
60F788	CK61BX221K	220	10%	.17	.13	.103	.074	.070
60F789	CK61BX221M	220	20%	.16	.12	.097	.070	.066
60F790	CK61BX331K	330	10%	.17	.13	.103	.074	.070
60F791	CK61BX331M	330	20%	.16	.12	.097	.070	.066
60F792	CK61BX471K	470	10%	.17	.13	.103	.074	.070
60F793	CK61BX471M	470	20%	.16	.12	.097	.070	.066
60F794	CK61BX681K	680	10%	.17	.13	.103	.074	.070
60F795	CK61BX681M	680	20%	.16	.12	.097	.070	.066
60F796	CK61AW222M	2200	20%	.15	.11	.092	.067	.063
60F797	CK62BX821K	820	10%	.19	.14	.113	.082	.077
60F798	CK62BX821M	820	20%	.17	.13	.105	.075	.071
60F799	CK62BX102K	1000	10%	.19	.14	.113	.082	.077
60F800	CK62BX102M	1000	20%	.17	.13	.105	.075	.071
60F801	CK62BX152K	1500	10%	.19	.14	.113	.082	.077
60F802	CK62BX152M	1500	20%	.17	.13	.105	.075	.071
60F803	CK62AX222K	2200	10%	.19	.14	.113	.082	.077
60F804	CK62AX222M	2200	20%	.17	.13	.105	.075	.071
60F805	CK62AW332M	3300	20%	.16	.12	.100	.072	.068
60F806	CK82AW472M	4700	20%	.16	.12	.100	.072	.068
60F807	CK82AW682M	6800	20%	.16	.12	.100	.072	.068
60F808	CK62AW822M	8200	20%	.16	.12	.100	.072	.068
60F809	CK63BX222K	2200	10%	.21	.16	.128	.092	.087
60F810	CK63BX222M	2200	20%	.18	.14	.110	.079	.075
60F811	CK63BX332K	3300	10%	.21	.16	.128	.092	.087
60F812	CK63BX332M	3300	20%	.18	.14	.110	.079	.075
60F813	CK63AW103M	10000	20%	.17	.13	.105	.075	.071

BYPASS AND COUPLING GMV CAPACITORS — 1000 VDCW

Type BPD. By-pass disk capacitors designed for commercial and general purpose applications. All are 1000 VDC working. Tolerance assures that listed capacity is guaranteed minimums. Avg. shpg. wt., 2 oz.

Stk. No.	Cap.	Dia.	1-24	25-99	100-249	250-499	500-999
16F2004	001	3/8	.15	.06	.05	.036	.034
16F2005	0015	5/16					
16F2006	002	3/8					
16F2007	0022	3/8					
16F2008	0025	3/8					

Stk. No.	Cap.	Dia.	1-24	25-99	100-249	250-499	500-999
16F2009	.0033	1/16	.15	.06	.05	.036	.034
16F2010	.004	1/16	.15	.06	.05	.036	.034
16F2011	.0047	19/32	.15	.07	.06	.041	.039
16F2012	.005	19/32	.15	.07	.06	.041	.039
16F2013	.0068	19/32	.15	.07	.06	.041	.039
16F2014	.01	3/4	.18	.09	.07	.051	.048
16F2015	.015	29/32	.24	.13	.11	.081	.076
16F2016	.02	29/32	.36	.13	.11	.081	.076
16F2017	.03	29/32	.39	.13	.11	.081	.076
16F2018	.05	29/32	.42	.13	.11	.081	.076



DISK CAPACITORS



Type DI. General purpose disk ceramic capacitors with 1000 WVDC. Tolerance: $\pm 10\%$. Ideal for by-pass, filtering, coupling applications. Sealed to prevent high voltage break down.

Stk. No.	Cap. mfd	Dia. in.	1-49	50-99	100-249	250-499	500-999
16F1855	3.3	5/16					
16F1856	5	5/16					
16F1857	6.8	5/16					
16F1858	10	5/16					
16F1859	15	5/16					
16F1860	18	5/16					
16F1861	20	5/16					
16F1862	22	5/16					
16F1863	25	5/16					
16F1864	27	5/16	.15	.073	.061	.044	.041
16F1865	30	5/16					
16F1866	33	5/16					
16F1867	39	5/16					
16F1868	47	5/16					
16F1869	50	5/16					
16F1870	56	5/16					
16F1871	68	5/16					
16F1872	82	5/16					
16F1873	100	5/16					
16F1874	150	5/16					
16F1875	180	5/16					
16F1876	200	5/16					
16F1877	220	5/16					
16F1878	250	5/16					
16F1879	270	5/16					
16F1880	300	5/16					
16F1881	330	5/16					
16F1882	390	5/16					
16F1883	470	5/16	.15	.073	.061	.044	.041
16F1884	500	5/16					
16F1885	560	5/16					
16F1886	680	5/16					
16F1887	820	3/8					
16F1888	1000	3/8					
16F1889	1200	7/16					
16F1890	1500	7/16					
16F1891	2000	1 1/2	.15	.085	.071	.051	.048
16F1892	3000	1 1/2	.15	.102	.085	.061	.058
16F1893	3300	1 1/2	.15	.102	.085	.061	.058
16F1894	4700	3/4	.15	.114	.085	.068	.064
16F1895	5000	3/4	.15	.114	.085	.068	.064
16F1896	5600	3/4	.18	.114	.085	.068	.064
16F1897	7500	2 1/2	.18	.135	.113	.081	.077
16F1898	10000	2 1/2	.18	.135	.113	.081	.077

HIGH VOLTAGE DISK CAPACITORS

Type HVD. General purpose high voltage, Hi-Q disk ceramic capacitors for use in voltage supplies of television receiver, radio, Hi-h etc. Humidity proof and high voltage break down are basic characteristic. Tested under standards higher than normal usage.



1500 WVDC, $\pm 10\%$ tolerance—Type HVD-15

Stk. No.	Cap. mfd	Dia. in.	1-49	50-99	100-249	250-499	500-999
16F1899	100	7/16	.21	.11	.088	.063	.06
16F1900	220	7/16	.21	.11	.088	.063	.06
16F1901	470	9/16	.21	.14	.113	.081	.077
16F1902	1000	9/16	.21	.14	.113	.081	.077

3000 WVDC, $\pm 10\%$ tolerance—Type HVD-30

Stk. No.	Cap. mfd	Dia. in.	1-49	50-99	100-249	250-499	500-999
16F1903	47	9/16					
16F1904	56	9/16					
16F1905	68	9/16					
16F1906	82	9/16					
16F1907	100	9/16					
16F1908	120	9/16					
16F1909	150	9/16					
16F1910	180	9/16					
16F1911	220	9/16	.24	.18	.148	.106	.10
16F1912	330	9/16					
16F1913	390	9/16					
16F1914	470	9/16					
16F1915	560	9/16					
16F1916	820	9/16					
16F1917	1000	9/16					
16F1918	1500	9/16					
16F1919	2200	9/16					
16F1920	3300	1 1/16	.24	.19	.158	.113	.107

6000 WVDC, $\pm 10\%$ tolerance—Type HVD-60

Stk. No.	Cap. mfd	Dia. in.	1-49	50-99	100-249	250-499	500-999
16F1921	56	1 1/16					
16F1922	68	1 1/16					
16F1923	82	1 1/16					
16F1924	100	1 1/16	.39	.33	.275	.198	.187
16F1925	120	1 1/16					
16F1926	220	1 1/16					
16F1927	470	1 1/16					

TYPE P09—AEROVOX HYVOX

Immersion-proof units in sturdy rectangular metal can. High voltage screw type pillar terminals fitted with soldering lugs. Intended for heavy-duty continuous service in transmitters, amplifiers, etc. Type MB bracket is supplied unless otherwise specified except on units with base sizes 3 3/8" x 3 3/8" and 3 3/8" x 4 9/16" where type MS bracket is supplied. MSB bracket is available for all sizes on request. Standard tolerance $\pm 20\%$ — 10% . Average weight 5 pounds.



600 VOLT DC WORKING

Stk. No.	Mfd.	Size	1-9	10-24	25-49	50-99
16F230	.5	2 1/4 x 1 1/8 x 1 1/8"	3.53	2.97	2.40	2.04
16F231	1.0	2 3/4 x 1 3/8 x 1 3/8"	4.10	3.44	2.78	2.12
16F232	2.0	2 7/8 x 1 3/8 x 1 3/8"	5.03	4.22	3.40	2.59
16F234	4.0	3 1/2 x 2 1/2 x 1 3/8"	6.59	5.52	4.44	3.37
16F235	8.0	3 7/8 x 3 3/4 x 1 1/4"	7.64	6.39	5.14	3.89
16F236	10.0	4 3/4 x 3 3/4 x 1 1/4"	8.24	6.89	5.54	4.19
16F237	15.0	4 3/4 x 3 3/4 x 1 3/4"	12.33	10.32	8.30	6.29

1000 VOLT DC WORKING

Stk. No.	Mfd.	Size	1-9	10-24	25-49	50-99
16F238	1.0	2 1/4 x 1 1/8 x 1 1/8"	4.88	4.09	3.30	2.51
16F239	2.0	3 7/8 x 1 3/8 x 1 3/8"	5.39	4.52	3.64	2.77
16F240	4.0	4 1/4 x 2 1/2 x 1 3/8"	6.54	5.49	4.44	3.35
16F242	8.0	4 3/4 x 3 3/4 x 1 1/4"	10.44	8.74	7.04	5.34
16F243	10.0	4 3/4 x 3 3/4 x 1 3/4"	11.64	9.74	7.84	5.94

1500 VOLT DC WORKING

Stk. No.	Mfd.	Size	1-9	10-24	25-49	50-99
16F248	1.0	3 7/8 x 1 3/8 x 1 3/8"	5.24	4.39	3.54	2.69

2000 VOLT DC WORKING

Stk. No.	Mfd.	Size	1-9	10-24	25-49	50-99
16F257	.5	2 7/8 x 1 3/8 x 1 1/4"	5.36	4.49	3.62	2.75
16F258	2.0	4 1/4 x 3 3/4 x 1 1/4"	7.04	5.89	4.74	3.59
16F286	4.0	3 7/8 x 3 3/4 x 2 1/4"	9.84	8.24	6.64	5.04
16F281	8.0	4 3/4 x 3 3/4 x 3 3/8"	16.34	13.64	10.94	8.24

3000 VOLT DC WORKING

Stk. No.	Mfd.	Size	1-9	10-24	25-49	50-99
16F269	.1	2 x 2 1/2 x 1 3/8"	6.44	5.39	4.34	3.29

5000 VOLT DC WORKING

Stk. No.	Mfd.	Size	1-9	10-24	25-49	50-99
16F278	.1	2 3/4 x 3 3/4 x 2 1/4"	13.73	11.48	9.23	6.98
16F279	.25	3 7/8 x 3 3/4 x 2 1/4"	15.83	13.23	10.63	8.03
16F281	1.0	4 3/4 x 4 3/4 x 3 3/4"	25.89	21.49	17.29	13.09

TYPE P 30M BATHTUBS

High-quality bypass capacitors recommended for applications where high reliability and superior performance is required. Drawn metal cases, hermetically sealed with neoprene bakelite terminals. These units are Hyvol M impregnated for operation at temperatures from -55°C to $+25^{\circ}\text{C}$. Standard tolerances $\pm 20\%$ - 10% . Wt., 8 oz. Available on special order with terminals on top or bottom.



Single Section

Stk. No.	Mfd.	Volts	Size	1-9	10-24	25-49	50-99	100-499
16F053	.5	600	1 3/4 x 1 x 1"	1.98	1.32	1.20	.82	.73
16F055	1	600	2 x 1 3/4 x 1"	2.30	1.53	1.31	.96	.84
16F056	2	600	2 x 2 x 1 3/8"	3.06	2.04	1.74	1.27	1.12
16F067	.25	1000	1 3/4 x 1 x 7/8"	1.93	1.29	1.09	.80	.71
16F068	.5	1000	2 x 1 3/4 x 7/8"	2.06	1.38	1.17	.86	.76
16F069	.75	1000	2 x 1 3/4 x 7/8"	2.44	1.63	1.39	1.02	.90
16F070	1	1000	2 x 2 x 1 1/8"	2.82	1.89	1.60	1.19	1.04

Dual Section

Stk. No.	Mfd.	Volts	Size	1-9	10-24	25-49	50-99	100-499
16F058	1-1	600	1 3/4 x 1 3/4"	2.44	1.82	1.38	1.01	.89
16F059	.25-25	600	1 3/4 x 1 x 1"	2.51	1.67	1.42	1.05	.98

P30ZN METALLIZED BATHTUBS

Type P30ZN Aerolene impregnated metallized-paper capacitors housed in "bathtub" metal cased hermetically sealed. Operating temperature range -65°C to $+125^{\circ}\text{C}$. at full rating. Standard tolerance $\pm 20\%$. Av. shpq. wt., 4 oz.



Stock No.	Cap. Mfd.	WVDC	1-24	25-49	50-99	100-499
16F1319	3.0	150	3.29	1.92	1.48	1.32
16F1320	4.0	150	3.85	2.30	1.78	1.58
16F1321	5.0	150	4.39	2.56	1.98	1.78
16F1322	6.0	150	4.57	2.67	2.08	1.83
16F1323	8.0	150	5.29	3.09	2.38	2.12
16F1324	10.0	150	6.09	3.55	2.74	2.44
16F1325	12.0	150	6.82	3.98	3.07	2.73
16F1326	15.0	150	8.25	4.81	3.71	3.30
16F1336	2.0	400	3.74	2.18	1.68	1.49
16F1337	3.0	400	4.21	2.46	1.89	1.68
16F1338	4.0	400	4.97	2.90	2.24	1.99
16F1339	5.0	400	5.89	3.49	2.89	2.39
16F1342	5	600	2.80	1.52	1.17	1.04
16F1343	1.0	600	3.26	1.90	1.47	1.30
16F1344	2.0	600	3.85	2.24	1.73	1.54
16F1345	3.0	600	5.45	3.18	2.45	2.18
16F1346	4.0	600	6.53	3.81	2.94	2.61

SPRAGUE

THE MARK OF RELIABILITY



TVA Atom Electrolytics

The only small size electrolytic especially designed for 85°C (185°F) operation on voltages to 450 working volts D.C. Unit is engineered to

withstand extra high temperature, high ripple currents, plus high surge voltages. Metal case construction with outer insulating tube. Wt., 3 oz.

SINGLE UNITS 6 WVDC

Stock No.	TVA No.	Mid.	D. x L.	1-24	25-49	50-99	100-249	250-499
18F955	1100	50	3/8" x 1 1/4"	.57	.41	.32	.26	.21
18F956	1101	100	9/16" x 1 9/16"	.72	.50	.39	.32	.26
18F957	1102	250	5/8" x 1 9/16"	.81	.64	.50	.40	.33
18F958	1103	500	3/4" x 1 9/16"	.93	.73	.57	.46	.37
18F959	1104	1000	1 1/16" x 2 1/16"	1.14	.89	.70	.56	.47
18F960	1105	1500	1 3/16" x 2 1/16"	1.26	.98	.76	.61	.50
18F151	1106	2000	1 3/16" x 2 1/16"	1.38	1.08	.84	.67	.55

12 WVDC

18F961	1130	100	9/16" x 1 9/16"	.72	.52	.40	.32	.26
18F962	1131	250	5/8" x 1 9/16"	.87	.68	.53	.43	.35
18F153	1132	500	3/4" x 1 1/16"	1.02	.79	.62	.49	.41
18F963	1133	1000	1 1/16" x 1 1/16"	1.35	1.05	.82	.65	.54

15 WVDC

18F964	1160	100	9/16" x 1 9/16"	.75	.52	.41	.33	.27
18F965	1161	250	5/8" x 1 9/16"	.93	.74	.60	.46	.38
18F966	1162	500	1 1/16" x 1 1/16"	1.05	.83	.64	.52	.42
18F228	1163	1000	1 3/16" x 1 1/16"	1.38	1.07	.84	.67	.55
18F2132	1170	2000	1 5/16" x 2 1/16"	1.92	1.29	1.00	.81	.66

25 WVDC

18F967	1201	2	7/16" x 1 3/8"	.54	.39	.31	.25	.20
18F968	1203	5	7/16" x 1 3/8"	.60	.42	.32	.26	.21
18F154	1204	10	7/16" x 1 3/8"	.60	.42	.33	.27	.22
18F2133	1204.5	20	7/16" x 1 1/4"	.60	.43	.34	.27	.23
18F155	1205	25	7/16" x 1 3/8"	.60	.44	.35	.28	.23
18F156	1206	50	7/16" x 1 3/8"	.66	.47	.37	.30	.24
18F157	1207	100	9/16" x 1 1/2"	.81	.58	.45	.36	.30
18F969	1208	250	1 1/16" x 1 1/2"	1.02	.79	.61	.49	.40
18F159	1209	500	3/4" x 1 1/2"	1.38	1.07	.84	.67	.55
18F2134	1211	1000	1 3/16" x 2 3/16"	1.98	1.79	1.39	1.11	.91

50 WVDC

18F970	1300	1	7/16" x 1 3/8"	.54	.39	.31	.25	.20
18F971	1301	2	7/16" x 1 3/8"	.54	.39	.31	.25	.20
18F2135	1302	3	9/16" x 1 3/8"	.60	.41	.32	.26	.22
18F972	1303	5	9/16" x 1 3/8"	.60	.42	.32	.26	.21
18F163	1304	10	7/16" x 1 1/4"	.60	.42	.33	.27	.22
18F2136	1305	15	7/16" x 1 1/4"	.60	.43	.34	.27	.23
18F973	1305.5	20	7/16" x 1 1/4"	.60	.43	.34	.27	.22
18F164	1306	25	7/16" x 1 1/4"	.63	.44	.35	.28	.23
18F165	1308	50	5/8" x 1 1/2"	.72	.52	.40	.32	.27
18F166	1310	100	5/8" x 1 1/2"	.84	.60	.47	.40	.31
18F974	1311	150	3/4" x 1 1/2"	.93	.66	.51	.41	.34
18F229	1312	250	1 3/16" x 1 1/2"	1.05	.83	.64	.52	.42
18F975	1315	500	1 x 1 1/2"	1.44	1.11	.86	.69	.57

150 WVDC

18F2137	1400	1	7/16" x 1 3/8"	.57	.41	.32	.26	.22
18F976	1402	4	7/16" x 1 1/4"	.60	.43	.33	.27	.22
18F977	1403	5	7/16" x 1 1/4"	.60	.43	.34	.27	.22
18F978	1405	8	9/16" x 1 1/2"	.63	.45	.35	.28	.23
18F222	1406	10	9/16" x 1 1/2"	.63	.46	.36	.29	.24
18F979	1407	12	9/16" x 1 1/2"	.66	.47	.37	.29	.24
18F980	1409	16	9/16" x 1 1/2"	.69	.49	.38	.31	.25
18F175	1410	20	5/8" x 1 1/2"	.72	.50	.39	.32	.26
18F981	1411	25	3/4" x 1 1/2"	.75	.53	.41	.33	.27
18F167	1412	30	1 1/16" x 1 1/2"	.78	.55	.43	.35	.28
18F176	1413	40	1 1/16" x 1 1/2"	.81	.58	.45	.36	.30
18F230	1414	50	1 1/16" x 1 1/2"	.84	.60	.47	.38	.31
18F223	1415	60	1 1/16" x 1 1/2"	.90	.63	.49	.40	.33
18F168	1418	80	1 1/16" x 1 1/2"	.96	.69	.54	.43	.35
18F231	1420	100	1 1/16" x 2 1/16"	1.05	.75	.58	.47	.38
18F234	1422	150	1 1/16" x 2 1/16"	1.14	.82	.64	.48	.42
18F982	1423	200	1 1/16" x 2 1/16"	1.32	.93	.72	.58	.47
18F2138	1424	250	1 1/4" x 2 3/16"	2.16	1.60	1.25	1.00	.82
18F983	1425	300	1 1/16" x 3 3/16"	1.68	1.25	.97	.78	.64

200 WVDC

18F984	1447	150	1 3/8" x 3 3/8"	1.68	1.26	.98	.78	.65
18F985	1480	200	1 3/8" x 3 3/8"	1.89	1.42	1.10	.88	.73

250 WVDC

18F986	1501	4	9/16" x 1 9/16"	.66	.48	.30	.30	.25
18F987	1503	8	9/16" x 1 9/16"	.69	.54	.42	.34	.28
18F232	1504	10	5/8" x 1 9/16"	.72	.56	.43	.35	.29
18F988	1505	12	5/8" x 1 9/16"	.75	.57	.45	.36	.29
18F989	1507	16	1 1/16" x 1 9/16"	.78	.60	.47	.38	.31
18F233	1508	20	1 1/16" x 1 9/16"	.81	.64	.50	.40	.33
18F990	1510	30	1 3/16" x 1 13/16"	.87	.68	.53	.43	.35
18F234	1511	40	1 3/16" x 2 1/16"	.93	.74	.57	.46	.38
18F991	1512	50	1 3/16" x 1 13/16"	1.02	.81	.63	.50	.41
18F992	1513	60	1 x 1 1/2"	1.08	.84	.66	.53	.43
18F2139	1522	100	1 1/16" x 2 3/16"	1.47	.96	.75	.60	.50

300 WVDC

18F2140	1573	100	1 1/16" x 3 1/16" x 3 1/16"	1.59	.98	.77	.61	.50
18F993	1575	140	1 3/8" x 3 3/8"	2.19	1.64	1.28	1.02	.84
18F2141	1576	150	1 3/8" x 3 3/8"	1.95	1.35	1.05	.84	.69
18F2142	1578	200	1 3/8" x 4 3/8"	2.70	1.61	1.25	1.00	.72

350 WVDC

18F994	1601	4	1 1/16" x 1 9/16"	.63	.49	.38	.31	.25
18F995	1603	8	1 1/16" x 1 9/16"	.72	.55	.43	.35	.28

350 WVDC

Stock No.	TVA No.	Mid.	D. x L.	1-24	25-49	50-99	100-249	250-499
18F996	1604	10	3/4" x 1 9/16"	.75	.59	.46	.37	.30
18F997	1605	12	1 3/16" x 1 9/16"	.78	.61	.47	.38	.31
18F998	1607	16	1 3/16" x 1 9/16"	.84	.66	.51	.41	.34
18F999	1608	20	1 3/16" x 1 9/16"	.87	.68	.53	.42	.35
18F1529	1610	30	1 3/16" x 2 1/16"	.99	.77	.60	.48	.40
18F1530	1611	40	1 3/16" x 2 1/16"	1.05	.80	.62	.50	.41
18F1531	1613	60	1 1/16" x 2 1/16"	1.17	.91	.71	.57	.47
18F2144	1620	100	1 1/16" x 2 3/16"	1.86	1.11	.86	.69	.57
18F2145	1624	200	1 3/8" x 4 1/8"	3.12	1.88	1.46	1.17	.97

400 WVDC (Nonpolarized)

18F1532	1650	10	1 1/16" x 2 1/16"	1.05	.78	.61	.49	.40
18F2143	1652	20	1 1/16" x 2 3/16"	1.17	.88	.69	.55	.46

SINGLE UNITS 450 WVDC

18F1533	1700	1	9/16" x 1 9/16"	.66	.51	.40	.32	.26
18F1534	1701	2	9/16" x 1 9/16"	.66	.52	.41	.33	.27
18F1535	1702	4	1 1/16" x 1 9/16"	.69	.54	.42	.34	.28
18F2146	1703	5	1 1/16" x 1 9/16"	.72	.56	.44	.35	.29
18F225	1704	8	3/4" x 1 9/16"	.75	.60	.46	.37	.31
18F169	1705	10	1 3/16" x 1 9/16"	.78	.60	.47	.37	.31
18F1536	1706	12	1 3/16" x 1 9/16"	.81	.64	.50	.40	.33
18F187	1708	16	1 3/16" x 1 13/16"	.84	.68	.53	.42	.35
18F170	1709	20	1 3/16" x 1 13/16"	.93	.73	.57	.46	.37
18F171	1711	30	1 5/16" x 2 1/16"	1.02	.80	.63	.50	.41
18F172	1712	40	1 5/16" x 2 1/16"	1.08	.83	.65	.52	.43
18F226	1713	50	1 5/16" x 2 1/16"	1.26	.98	.76	.61	.50
18F227	1714	60	1 1/16" x 2 3/16"	1.41	1.16	.90	.72	.59
18F235	1716	80	1 1/16" x 3 1/16"	1.68	1.11	.87	.69	.57
18F1537	1718	100	1 1/8" x 4 1/8"	1.92	1.69	1.31	1.05	.86

475 WVDC

18F1538	1802	10	1 3/16" x 2 1/16"	.81	.64	.50	.40	.33
18F1539	1804	20	1 3/16" x 2 1/16"	.96	.75	.58	.47	.38

500 WVDC

18F236	1902	8	1 3/16" x 1 13/16"	.78	.61	.48	.38	.31
18F1540	1903	10	1 3/16" x 1 13/16"	.81	.64	.50	.40	.33
18F237	1905	16	1 x 2 3/16"	.90	.70	.55	.44	.36
18F238	1906	20	1 3/16" x 2 3/16"	.96	.75	.58	.47	.38
18F2144	1908	40	1 1/8" x 2 3/16"	1.35	.79	.62	.50	.41

600 WVDC

18F240	1962	8	1 x 1 3/8"	1.83	1.37	1.07	.85	.70
18F241	1963	10	1 x 1 3/8"	2.19	1.64	1.28	1.02	.84
18F242	1965	16	1 x 1 7/8"	2.49	1.87	1.46	1.17	.96
18F243	1966	20	1 x 1 7/8"	2.58	1.93	1.50	1.20	.99

DUAL UNITS (COMMON NEGATIVE) 150-150 WVDC

18F173	2428	20-20	1 3/16" x 1 9/16"	1.05	.80	.62	.50	.41
18F183	2421	30-20	1 3/16" x 1 9/16"	1.11	.82	.64	.51	.42
18F188	2434	30-30	1 3/16" x 1 9/16"	1.08	.85	.66	.53	.43
18F1546	2438							

Electrolytic Capacitors

SPRAGUE
THE MARK OF RELIABILITY

TVL TWIST-LOK ELECTROLYTICS



Withstands extremely high temperatures, ripple currents and surge voltages. Self-mounting, with twist-prong tabs that go through chassis or connect to washer for above-chassis mounting. For 85°C operation up to 450 Working Volts DC. Shpg. wt., 6 oz.

CASE SIZES			CASE SIZES		
A—1½x2"			AA—3½x4½"		
B—¾x2"	F—1x2½"	K—1½x3½"	BB—3½x4½"		
C—¾x2½"	G—1x3"	L—1x3½"	CC—1½x3½"		
D—1½x2½"	H—1½x3"	M—1½x4"	DD—3½x4½"		
E—1x2"	J—1½x4"	N—1x4"	EE—¾x1½"		

SINGLE UNITS

Stock No.	TVL No.	MF	WVDC	Size	1-24	25-49	50-99	100-249
18F550	1168	2000	15	A	2.07	1.44	1.12	.89
18F1603	1220	500	25	E	1.53	.87	.68	.54
18F552	1230	1000	25	A	2.13	1.30	1.01	.81
18F667	1317	100	50	B	.99	.58	.45	.36
18F553	1320	150	50	C	1.08	.62	.48	.39
18F554	1330	500	50	A	1.59	1.09	.85	.68
18F557	1415	50	150	E	.99	.66	.51	.41
18F558	1420	80	150	F	1.11	.71	.56	.45
18F559	1423	100	150	F	1.20	.75	.58	.47
18F688	1425	100	150	E	1.29	.78	.61	.49
18F1780	1426	120	150	D	1.29	.92	.71	.57
18F1781	1428	140	150	F	1.29	.81	.63	.51
18F689	1429	150	150	G	1.29	.89	.65	.52
18F560	1430	150	150	H	1.29	.93	.77	.62
18F561	1431	200	150	A	1.47	1.10	.86	.69
18F562	1434	300	150	A	1.68	1.25	.97	.78
18F668	1509	20	250	E	.96	.64	.50	.40
18F684	1519	40	250	E	1.08	.70	.54	.44
18F1782	1535	100	250	G	1.62	.89	.69	.55
18F1783	1540	150	250	D	1.86	1.17	.91	.73
18F690	1547	200	250	K	2.19	1.36	1.06	.85
18F1784	1578	100	300	N	1.74	.98	.76	.61
18F566	1584	150	300	N	2.10	1.34	1.05	.84
18F692	1590	250	300	J	3.33	1.74	1.35	1.08
18F669	1617	30	350	E	1.14	.72	.56	.45
18F567	1621	40	350	E	1.26	.77	.60	.48
18F568	1638	125	350	K	2.37	1.37	1.06	.85
18F693	1642	150	350	D	2.37	1.50	1.17	.93
18F569	1705	10	450	E	.93	.65	.51	.41
18F570	1714	20	450	E	1.08	.72	.56	.45
18F571	1720	30	450	F	1.17	.80	.63	.50
18F572	1725	40	450	G	1.23	.88	.68	.55
18F573	1735	80	450	D	1.83	1.31	1.02	.81
18F574	1760	125	450	J	2.31	1.69	1.31	1.05
18F576	1820	40	475	A	1.51	1.06	.82	.66
18F578	1940	10	500	E	1.02	.68	.53	.42
18F670	1947	30	500	F	1.20	.89	.69	.55
18F1604	1950	40	500	G	1.50	.99	.77	.62
18F694	1958	80	500	H	2.16	1.54	1.20	.96
18F687	1960	90	500	H	2.10	1.66	1.29	1.03

DUAL UNITS

Stock No.	TVL No.	MF	WVDC	Size	1-24	25-49	50-99	100-249	250-up
18F1605	2160	1000-1000	15-15	E	2.64	1.40	1.09	.87	
18F579	2415	20-20	150-150	E	1.02	.73	.57	.45	
18F581	2422	30-30	150-150	E	1.11	.76	.59	.47	
18F582	2425	40-20	150-150	E	1.11	.76	.59	.47	
18F583	2428	40-40	150-150	E	1.14	.80	.62	.50	
18F584	2432	50-30	150-150	E	1.20	.80	.62	.50	
18F585	2435	50-50	150-150	E	1.29	.83	.64	.52	
18F587	2442	80-40	150-150	D	1.38	1.02	.79	.63	
18F695	2442.1	80-50	150-150	F	1.44	.88	.68	.55	
18F1785	2444	200-5	150-150	A	1.62	1.24	.96	.77	
18F671	2515	20-20	250-250	E	1.14	.78	.61	.49	
18F672	2585	80-80	300-300	H	2.43	1.45	1.13	.90	



"TRANSI-LYTIC" CAPACITORS (31D)

Miniature low-cost capacitors for use in transistorized pocket and "personal portable" ra-

dios. Plastic case with thermo-setting resin end-seals results in excellent resistance to high humidity conditions. See case size table at top of page.

6 WVDC

Stock No.	Type TL	Mfd.	Size	NET EACH				
				1-24	25-49	50-99	100-249	250-up
18F2050	1084	5	AA	.42	.32	.25	.20	.17
18F2051	1086	8	AA	.42	.32	.25	.20	.17
18F2052	1087	10	BB	.42	.32	.25	.20	.17
18F2053	1091	25	CC	.42	.32	.25	.20	.17
18F2054	1100	50	DD	.42	.32	.25	.20	.17
18F2055	1102	100	EE	.45	.33	.26	.21	.17
18F2056	1103	150	EE	.60	.44	.35	.28	.23
18F2057	1103.5	175	EE	.60	.44	.35	.28	.23

12 WVDC

Stock No.	Type TL	Mfd.	Size	1-24	25-49	50-99	100-249	250-up
18F2058	1127	5	AA	.42	.32	.25	.20	.17
18F2059	1128	10	BB	.42	.32	.25	.20	.17
18F2060	1129	15	CC	.42	.32	.25	.20	.17
18F2061	1130	20	CC	.42	.32	.25	.20	.17
18F2062	1131	25	CC	.42	.32	.25	.20	.17
18F2063	1132	35	DD	.42	.32	.25	.20	.17
18F2064	1133	50	DD	.42	.32	.25	.20	.17
18F2065	1135	100	EE	.45	.34	.27	.21	.18

DUAL UNITS

Stock No.	TVL No.	MF	WVDC	Size	1-24	25-49	50-99	100-249
18F685	2628	30-30	350-350	F	1.74	.96	.75	.60
18F673	2634	80-40	350-350	H	2.46	1.41	1.10	.88
18F594	2635	80-80	350-350	I	2.82	1.63	1.27	1.01
18F1786	2641	100-100	350-350	H	3.69	1.80	1.40	1.12
18F598	2750	10-10	450-450	F	1.14	.81	.63	.50
18F599	2753	15-15	450-450	F	1.35	.89	.69	.55
18F600	2755	20-20	450-450	F	1.53	.96	.75	.60
18F601	2759	30-30	450-450	A	1.83	1.26	.98	.78
18F602	2764	40-40	450-450	D	2.07	1.42	1.10	.88
18F605	2777	80-30	450-450	J	2.52	1.66	1.29	1.03
18F674	2940	40-40	500-500	H	2.58	1.63	1.27	1.02

TRIPLE UNITS

Stock No.	TVL No.	MF	WVDC	Size	1-24	25-49	50-99	100-249
18F675	3426	40-40-20	150-150-25	E	1.44	.88	.69	.55
18F1787	3432	80-40-20	150-150-25	F	1.68	.95	.74	.59
18F1788	3437	40-20-20	150-150-150	E	1.44	.82	.64	.51
18F613	3440	40-40-40	150-150-150	E	1.56	.95	.74	.59
18F614	3442	50-50-50	150-150-150	G	1.80	.99	.77	.62
18F619	3540	40-20-20	250-250-250	L	1.74	1.00	.78	.62
18F621	3580	10-10-10	300-300-300	E	1.44	.86	.67	.53
18F622	3583	80-40-40	300-300-300	D	2.85	1.52	1.18	.95
18F686	3639.8	30-20-10	350-350-350	F	1.95	1.04	.81	.65
18F625	3620	30-30-20	350-300-25	F	1.89	1.02	.80	.64
18F627	3630	15-10-20	350-350-25	E	1.50	.88	.69	.55
18F1789	3635	20-20-20	350-350-25	E	1.74	.94	.74	.59
18F630	3640	60-40-20	350-350-350	J	2.55	1.53	1.19	.95
18F631	3642	80-60-60	350-350-350	H	3.33	1.91	1.49	1.19
18F633	3678	20-20-20	400-400-25	F	1.71	1.02	.79	.64
18F1790	3689.3	100-10-80	400-400-350	M	3.66	2.04	1.59	1.27
18F634	3731	10-10-20	450-450-25	E	1.44	.90	.70	.56
18F635	3739	20-20-20	450-450-25	G	1.83	1.05	.82	.66
18F640	3757	80-20-100	450-450-50	J	2.88	1.75	1.36	1.09
18F641	3764	40-40-100	450-450-200	H	2.97	1.75	1.37	1.09
18F642	3776	10-10-10	450-450-450	F	1.56	.97	.76	.61
18F680	3778.2	15-15-15	450-450-450	G	1.86	1.08	.84	.67
18F644	3780	20-20-20	450-450-450	D	2.18	1.34	1.04	.84
18F1791	3784	40-30-20	450-450-450	H	2.58	1.57	1.23	.98
18F646	3785	40-40-10	450-450-450	D	2.49	1.56	1.21	.97
18F647	3786	40-40-20	450-450-450	H	2.67	1.65	1.28	1.03
18F648	3787	40-40-40	450-450-450	H	2.94	1.81	1.41	1.13
18F649	3789	60-20-20	450-450-450	E	2.76	1.65	1.28	1.03
18F681	3793	80-40-20	450-450-450	J	3.24	1.97	1.53	1.22
18F1611	3842.6	40-30-10	475-475-475	H	2.70	1.60	1.25	1.00
18F652	3843	40-30-30	475-475-475	J	3.09	1.80	1.40	1.12
18F682	3952	10-10-10	500-500-500	G	1.62	1.05	.82	.66

QUADRUPLE UNITS

Stock No.	TVL No.	MF	WVDC	Size	1-24	25-49	50-99	100-249	250-up
18F664	4760	10-10-10-10	450-450-450-450	A	2.01	1.25	.98	.78	
18F665	4763	20-20-20-20	450-450-450-450	H	2.82	1.58	1.23	.98	
18F1792	4773	40-40-20-20	450-450-450-450	K	3.33	1.90	1.48	1.18	
18F699	4775	40-40-40-40	450-450-450-450	J	3.87	2.91	1.70	1.36	

SPRAGUE

THE MARK OF RELIABILITY

Miniature Capacitors

SPRAGUE TYPE TE LITTL-LYTICS (30D)



Ultra-small electrolytic capacitors made for transistor circuitry and other sub-min. applications. Temp. Range: -20°C to +85°C. Ultra-low leakage current. Clear Plastic Sleeves.

Key	Size	Key	Size	Key	Size
BA	.260x.536"	CB	.322x.723"	DC	.385x.848"
BB	.260x.723"	CC	.322x.648"	DD	.385x.973"
				DF	.385x1.286"

Stock No.	Type	Mfid	WV DC	DxL	1-24	25-49	50-99	100-249	250-up
18F500	TE1010	5	1	BA					
18F532	TE1050	1	3	BA					
18F533	TE1052	3	3	BA					
18F534	TE1052.1	4	3	BA					
18F535	TE1052.2	5	3	BA					
18F536	TE1052.3	6	3	BA	.51	.38	.29	.231	.191
18F537	TE1052.5	8	3	BA					
18F538	TE1053.5	15	3	BA					
18F539	TE1054	20	3	BA					
18F501	TE1055	25	3	BA					
18F540	TE1056	35	3	BB	.57	.42	.33	.257	.211
18F541	TE1057	40	3	BB	.72	.53	.42	.329	.271
18F542	TE1058	50	3	BB	.72	.53	.42	.329	.271
18F543	TE1059	75	3	CB	.75	.56	.43	.343	.282
18F544	TE1059.5	100	3	CB	.81	.61	.48	.378	.311
18F502	TE1060	110	3	CB	.81	.61	.48	.378	.311
18F545	TE1061	150	3	CC	.81	.61	.48	.378	.311
18F548	TE1065	250	3	DC	.81	.61	.48	.378	.311
18F547	TE1066	300	3	DD	.87	.66	.51	.406	.334
18F548	TE1068	500	3	DF	.99	.75	.58	.462	.38
18F503	TE1080	1	6	BA	.54	.39	.30	.238	.196
18F504	TE1081	2	6	BA	.54	.39	.30	.238	.196
18F505	TE1082	3	6	BA	.54	.39	.30	.238	.196
18F506	TE1083	4	6	BA	.54	.39	.30	.238	.196
18F507	TE1084	5	6	BA	.54	.39	.30	.238	.196
18F549	TE1085	6	6	BA	.54	.39	.30	.238	.196
18F508	TE1086	8	6	BA	.54	.39	.30	.238	.196
18F509	TE1087	10	6	BA	.54	.39	.30	.238	.196
18F510	TE1089	15	6	BA	.54	.39	.30	.238	.196
18F807	TE1090	20	6	BA	.54	.39	.30	.238	.196
18F511	TE1091	25	6	BB	.54	.39	.30	.238	.196
18F512	TE1092	30	6	BB	.57	.43	.33	.263	.216
18F808	TE1093	35	6	BB	.57	.43	.33	.263	.216
18F513	TE1095	40	6	BB	.57	.43	.33	.263	.216
18F514	TE1100	50	6	CB	.75	.56	.43	.343	.282
18F515	TE1101	60	6	CB	.75	.56	.43	.343	.282
18F809	TE1101.5	75	6	CB	.81	.61	.48	.378	.311
18F810	TE1103	150	6	DC	.81	.61	.48	.378	.311
18F811	TE1104	200	6	DC	.84	.63	.49	.392	.322
18F812	TE1105	250	6	DD	.87	.66	.51	.406	.334
18F813	TE1106	300	6	DF	.93	.69	.54	.428	.352
18F516	TE1116	15	10	BA	.57	.41	.32	.254	.209
18F517	TE1118	25	10	BB	.75	.56	.43	.343	.282
18F814	TE1119	50	10	CB	.81	.61	.48	.378	.311
18F815	TE1119.3	100	10	CC	.81	.61	.48	.378	.311
18F816	TE1119.6	200	10	DF	.96	.72	.56	.442	.364
18F817	TE1120	1	12	BA	.57	.41	.32	.254	.209
18F818	TE1121	2	12	BA	.57	.41	.32	.254	.209
18F819	TE1122	3	12	BA	.57	.41	.32	.254	.209
18F820	TE1123	4	12	BA	.57	.41	.32	.254	.209
18F821	TE1127.1	6	12	BA	.57	.41	.32	.254	.209
18F822	TE1127.3	8	12	BA	.57	.41	.32	.254	.209
18F823	TE1129	15	12	BA	.57	.41	.32	.254	.209
18F824	TE1130	20	12	BB	.57	.41	.32	.254	.209
18F825	TE1131	25	12	BB	.75	.56	.43	.343	.282
18F826	TE1132	35	12	CB	.75	.56	.43	.343	.282
18F827	TE1133	50	12	CB	.81	.61	.48	.378	.311

Stock No.	Type	Mfid	WV DC	DxL	1-24	25-49	50-99	100-249	250-up
18F828	TE1134	75	12	CC	.81	.61	.48	.378	.311
18F829	TE1135	100	12	CC	.81	.61	.48	.378	.311
18F830	TE1136	150	12	DD	.87	.66	.50	.399	.328
18F831	TE1137	200	12	DF	.93	.69	.53	.424	.349
18F832	TE1138	250	12	DH	.96	.72	.56	.442	.364
18F833	TE1148	1	15	BA	.57	.42	.33	.259	.214
18F834	TE1149	2	15	BA	.57	.42	.33	.259	.214
18F835	TE1150	3	15	BA	.57	.42	.33	.259	.214
18F836	TE1151	4	15	BA	.57	.42	.33	.259	.214
18F520	TE1152	5	15	BA	.57	.42	.33	.259	.214
18F837	TE1153	6	15	BA	.57	.42	.33	.259	.214
18F838	TE1154	8	15	BA	.57	.42	.33	.259	.214
18F521	TE1155	10	15	BA	.57	.42	.33	.259	.214
18F839	TE1156	15	15	BB	.57	.42	.33	.259	.214
18F522	TE1157	20	15	BB	.57	.42	.33	.259	.214
18F840	TE1157.1	25	15	BB	.75	.56	.43	.343	.282
18F523	TE1158	30	15	CB	.75	.56	.43	.343	.282
18F841	TE1159	35	15	CB	.75	.56	.43	.343	.282
18F842	TE1160	50	15	CB	.81	.61	.48	.378	.311
18F843	TE1161	75	15	CC	.81	.61	.48	.378	.311
18F837	TE1162	100	15	DC	.81	.61	.48	.378	.311
18F845	TE1163	150	15	DD	.87	.66	.51	.406	.334
18F846	TE1164	200	15	DF	.96	.72	.56	.448	.368
18F847	TE1200	1	25	BA	.54	.41	.32	.252	.207
18F848	TE1201	2	25	BA	.57	.41	.32	.252	.208
18F849	TE1201.1	3	25	BA	.57	.43	.33	.263	.217
18F850	TE1201.2	4	25	BA	.57	.43	.34	.266	.219
18F524	TE1202	5	25	BA	.57	.43	.34	.266	.219
18F525	TE1203	6	25	BA	.57	.43	.34	.266	.219
18F851	TE1203.5	8	25	BA	.60	.44	.34	.269	.222
18F526	TE1204	10	25	BB	.60	.44	.34	.271	.223
18F527	TE1205	15	25	BB	.75	.56	.43	.343	.282
18F528	TE1206	20	25	CB	.81	.61	.48	.378	.311
18F852	TE1207	25	25	CB	.81	.61	.48	.378	.311
18F853	TE1208	35	25	CB	.81	.61	.48	.378	.311
18F854	TE1209	50	25	CC	.81	.61	.48	.378	.311
18F855	TE1210	75	25	DC	.87	.65	.50	.399	.328
18F856	TE1211	100	25	DD	.90	.67	.52	.413	.340
18F857	TE1300	1	50	BA	.54	.41	.32	.252	.207
18F858	TE1301	2	50	BA	.54	.41	.32	.252	.207
18F859	TE1302	3	50	BA	.57	.43	.33	.263	.217
18F860	TE1302.1	4	50	BA	.57	.43	.34	.266	.219
18F529	TE1303	5	50	BB	.57	.43	.34	.266	.219
18F861	TE1303.1	6	50	BB	.81	.59	.46	.367	.302
18F862	TE1303.3	8	50	BB	.81	.60	.46	.368	.303
18F530	TE1304	10	50	CB	.81	.60	.47	.370	.304
18F863	TE1304.2	15	50	CB	.81	.61	.48	.377	.310
18F531	TE1305	20	50	CC	.81	.61	.48	.378	.311
18F864	TE1306	35	50	DC	.84	.63	.49	.392	.322
18F865	TE1307	50	50	DD	.87	.65	.51	.403	.332
18F866	TE1400	1	100	BA	.81	.60	.47	.370	.304
18F867	TE1401	2	100	BB	.81	.60	.47	.370	.304
18F868	TE1402	3	100	CB	.81	.60	.47	.370	.304
18F869	TE1403	4	100	CB	.81	.60	.47	.370	.304
18F870	TE1404	5	100	CC	.81	.60	.47	.371	.305
18F871	TE1405	6	100	CC	.81	.60	.47	.372	.306
18F872	TE1406	8	100	DC	.81	.61	.47	.374	.308
18F873	TE1407	10	100	DC	.81	.61	.47	.375	.309
18F874	TE1408	15	100	DD	.84	.62	.48	.382	.314
18F875	TE1409	20	100	DF	.84	.63	.49	.389	.320
18F876	TE1500	1	150	BA	.84	.63	.49	.389	.320
18F877	TE1501	2	150	BB	.84	.63	.49	.389	.320
18F878	TE1502	3	150	CB	.84	.63	.49	.389	.320
18F879	TE1503	4	150	CC	.84	.63	.49	.389	.320
18F880	TE1504	5	150	CC	.84	.63	.49	.389	.320
18F881	TE1505	6	150	DC	.84	.63	.49	.389	.320
18F882	TE1506	8	150	DC	.84	.63	.49	.391	.321
18F883	TE1507	10	150	DD	.84	.63	.49	.392	.322
18F884	TE1508	12	150	DF	.87	.65	.51	.400	.329

TYPE 192P PACER FILMITE "E" CAPACITORS

Extended foil film section terminates in end active section. Controlled dimensions. Mv caps with wire leads assuring non-conductive use automatic insertion equipment.

80 VOLT PACERS TOLERANCE ±10%—TEMP. RANGE -55°C TO +85°C

Stk. No.	Type	F	D. x L	1-24	25-49	50-99	100-249	Stk. No.	Type	F	D. x L	1-24	25-49	50-99	100-249
18F2520	192P2229R8	.0022	9/64x3/16	.36	.267	.208	.166	18F2535	192P3939R8	.039	3/16x9/16	.42	.313	.243	.195
18F2521	192P2729R8	.0027	9/64x3/16	.36	.267	.208	.166	18F2536	192P4739R8	.047	3/16x9/16	.45	.322	.250	.200
18F2522	192P3229R8	.0033	9/64x3/16	.36	.267	.208	.166	18F2537	192P5639R8	.056	15/64x3/16	.45	.333	.259	.207
18F2523	192P3929R8	.0039	9/64x3/16	.36	.267	.208	.166	18F2538	192P6839R8	.068	15/64x3/16	.48	.347	.270	.216
18F2524	192P4729R8	.0047	9/64x3/16	.36	.267	.208	.166	18F2539	192P8239R8	.082	19/64x1/2	.			

Ceramic Capacitors

SPRAGUE
THE MARK OF RELIABILITY

THE 192P PACER FILMITE 'E' CAPACITORS CONT'D. 200 VOLTS DC

Stk. No.	Type	μF	D. x L.	1-24	25-49	50-99	100-249
18F2242	192P47192	.00047	9/64x3/16	.33	.23	.18	.15
18F2243	192P56192	.00056	9/64x3/16	.30	.22	.17	.14
18F2244	192P68192	.00068	9/64x3/16	.30	.22	.17	.14
18F2245	192P82192	.00082	9/64x3/16	.30	.22	.17	.14
18F2246	192P10292	.001	9/64x3/16	.27	.19	.15	.12
18F2247	192P12292	.0012	9/64x3/16	.27	.19	.15	.12
18F2248	192P15292	.0015	9/64x3/16	.27	.19	.15	.12
18F2249	192P18292	.0018	11/64x3/16	.27	.19	.15	.12
18F2250	192P22292	.0022	11/64x3/16	.27	.19	.15	.12
18F2251	192P27292	.0027	11/64x3/16	.27	.19	.15	.12
18F2252	192P33292	.0033	11/64x3/16	.27	.19	.15	.12
18F2253	192P39292	.0039	11/64x3/16	.27	.19	.15	.12
18F2254	192P47292	.0047	11/64x3/16	.27	.20	.15	.12
18F2255	192P56292	.0056	11/64x3/16	.27	.20	.15	.12
18F2256	192P68292	.0068	11/64x3/16	.27	.20	.16	.13
18F2257	192P82292	.0082	11/64x1/2	.30	.21	.16	.13
18F2258	192P10392	.01	11/64x1/2	.30	.21	.17	.13
18F2259	192P12392	.012	7/32x1/2	.30	.22	.17	.14
18F2260	192P15392	.015	7/32x1/2	.30	.22	.17	.14
18F2261	192P18392	.018	7/32x1/2	.30	.22	.17	.14
18F2262	192P22392	.022	7/32x1/2	.30	.23	.18	.14
18F2263	192P27392	.027	15/64x3/16	.33	.24	.19	.15
18F2264	192P33392	.033	15/64x3/16	.33	.25	.20	.16
18F2265	192P39392	.039	15/64x1/2	.36	.26	.21	.17
18F2266	192P47392	.047	15/64x1/2	.39	.28	.22	.17
18F2267	192P56392	.056	15/64x3/8	.39	.29	.23	.18
18F2268	192P68392	.068	15/64x3/8	.42	.31	.24	.19
18F2269	192P82392	.082	21/64x3/8	.45	.32	.25	.20
18F2270	192P10492	.1	21/64x3/8	.45	.34	.26	.21
18F2271	192P12492	.12	21/64x3/8	.48	.35	.27	.22
18F2272	192P15492	.15	21/64x3/8	.48	.35	.27	.22
18F2273	192P18492	.18	21/64x1/2	.51	.37	.29	.23

400 VOLTS DC

Stock No.	Type	F	D. x L.	1-24	25-49	50-99	100-249
18F2586	192P47194	.00047	11/64x3/8	.33	.23	.18	.142
18F2587	192P56194	.00056	11/64x3/8	.33	.23	.18	.142
18F2588	192P68194	.00068	11/64x3/8	.30	.22	.17	.137
18F2589	192P82194	.00082	11/64x3/8	.30	.24	.18	.148
18F2590	192P10294	.001	11/64x3/8	.30	.24	.19	.148
18F2591	192P12294	.0012	11/64x3/8	.30	.24	.19	.148
18F2592	192P15294	.0015	11/64x3/8	.30	.24	.19	.148
18F2593	192P18294	.0018	11/64x1/2	.33	.24	.19	.149
18F2594	192P22294	.0022	11/64x1/2	.33	.24	.19	.149
18F2595	192P27294	.0027	7/32x1/2	.33	.24	.19	.150
18F2596	192P33294	.0033	7/32x1/2	.33	.24	.19	.150
18F2597	192P39294	.0039	7/32x1/2	.33	.24	.19	.150
18F2598	192P47294	.0047	7/32x1/2	.33	.24	.19	.150
18F2599	192P56294	.0056	15/64x3/16	.33	.24	.19	.151
18F2600	192P68294	.0068	15/64x3/16	.33	.24	.19	.151
18F2601	192P82294	.0082	15/64x3/16	.33	.24	.19	.152
18F2602	192P10394	.01	15/64x1/2	.33	.24	.19	.152
18F2603	192P12394	.012	19/64x1/2	.36	.27	.21	.165
18F2604	192P15394	.015	19/64x1/2	.39	.27	.21	.169
18F2605	192P18394	.018	19/64x3/8	.39	.29	.22	.179
18F2606	192P22394	.022	19/64x3/8	.42	.30	.23	.185
18F2607	192P27394	.027	21/64x3/8	.42	.31	.24	.195
18F2608	192P33394	.033	21/64x3/8	.45	.32	.25	.200
18F2609	192P39394	.039	21/64x3/8	.45	.33	.26	.207
18F2610	192P47394	.047	21/64x7/8	.48	.35	.27	.216
18F2611	192P56394	.056	21/64x1 1/16	.48	.36	.28	.223
18F2612	192P68394	.068	21/64x1 1/16	.51	.37	.29	.231

HYPERCON CERAMIC DISCS

Ultra-miniature ceramic discs ideal for use in transistorized circuitry. Designed for bypass and coupling applications but particularly well-suited for any low voltage use where high capacitance and low power factor are important considerations. Superior to electrolytic capacitors of similar capacitance value because of the very low power factor of Hypercon Capacitors. Capacitance Tolerance: GMV.



3 VOLTS DC

Stock No.	Mfr's. No.	Mfd.	Dia.	1-99	100-249	250-499	500-999
18F946	HY-120	.1	.225"	.39	.309	.293	.25
18F947	HY-125	.22	.275"	.24	.19	.169	.15
18F948	HY-130	.47	.400"	.24	.19	.169	.15
18F949	HY-135	1.0	.595"	.30	.238	.225	.20
18F950	HY-150	2.2	.840"	.39	.309	.281	.25

10 VOLTS DC

Stock No.	HY	Mfd.	Dia.	1-99	100-249	250-499	500-999
18F951	HY-310	.047	.275"	.15	.119	.101	.09
18F952	HY-320	.1	.400"	.15	.119	.106	.094
18F953	HY-325	.22	.550"	.24	.19	.169	.15
18F1986	HY-327	.33	.66"	.30	.238	.225	.20
18F954	HY-330	.47	.840"	.36	.285	.27	.24

HYPERCON CERAMIC DISCS CONT'D. 25 VOLTS DC

Stock No.	Mfr's. No.	Mfd.	Dia.	1-24	25-99	100-499	500-999
18F1987	HY-520	.01	.275"	.21	.166	.158	.14
18F1988	HY-525	.022	.350"	.24	.19	.173	.154
18F1989	HY-530	.033	.400"	.27	.214	.198	.176
18F1990	HY-535	.047	.490"	.30	.238	.225	.20
18F1991	HY-550	.1	.660"	.45	.356	.338	.30

HIGH-K TYPES

Designed for By-Pass and Coupling applications where additional capacitance will not affect circuit operation. Combine small electrical value with high voltage rating in smallest physical size 5HK-S15 thru 5HK-P10, 5HK-2S20 500 WVDC. All other 5HK are 1000 WVDC. Capac. Tol.: GMV. Size: 1/2x1/2x1/16".



SINGLE UNITS

Stock No.	Mfr's. No.	Capacitance μF	1-99	100-249	250-499	500-999
18F1575	5HK-D10	.001	.15	.119	.053	.047
18F1576	5HK-D15	.0015	.15	.119	.053	.047
18F1577	5HK-D20	.002	.15	.119	.053	.047
18F1578	5HK-D22	.0022	.15	.119	.053	.047
18F1579	5HK-D25	.0025	.15	.119	.064	.057
18F1580	5HK-D33	.0033	.15	.119	.053	.047
18F1581	5HK-D40	.004	.15	.119	.064	.057
18F1582	5HK-D47	.0047	.15	.119	.055	.049
18F1583	5HK-D50	.005	.15	.119	.055	.049
18F1584	5HK-D68	.0068	.15	.119	.061	.054
18F1585	5HK-S10	.01	.15	.119	.061	.054
18F1586	5HK-S15	.015	.15	.119	.079	.07
18F1587	5HK-S20	.02	.15	.119	.086	.076
18F1589	5HK-S25	.025	.15	.119	.086	.076
18F1591	5HK-S40	.04	.27	.214	.203	.18
18F1592	5HK-S50	.05	.27	.214	.203	.18
18F1593	5HK-P10	.1	.78	.618	.578	.514

DUAL UNITS

Stock No.	Mfr's. No.	Capacitance μF	1-99	100-249	250-499	500-999
18F1594	5HK-2D10	2 x .001	.15	.119	.109	.097
18F1595	5HK-2D15	2 x .0015				
18F1596	5HK-2D20	2 x .002				
18F1597	5HK-2D22	2 x .0022				
18F1598	5HK-2D40	2 x .004	.15	.119	.111	.099
18F1599	5HK-2D47	2 x .0047	.15	.119	.111	.099
18F1600	5HK-2S10	2 x .01	.27	.214	.203	.18
18F1601	5HK-2S20	2 x .02	.78	.618	.578	.514

MINIATURIZED DISC TYPES FOR TRANSISTORIZED CIRCUITRY

Tiny ceramic capacitors for by-pass and coupling application. Low self inductance and flat plate construction permits higher self-resonant frequency and high by-pass efficiency in all TV and transistorized circuitry. Good performance under severe conditions of humidity and vibration. TH dia. .335 to .905, TG dia. .275 to .655.



Stock No.	Mfr's No.	Volts	Mfd.	1-99	100-249	250-499	500-999
18F932	TG-D50	50	.005	.15	.119	.09	.08
18F933	TG-S10	50	.01	.15	.119	.083	.074
18F934	TG-S20	50	.02	.15	.119	.107	.095
18F935	TG-S25	50	.025	.15	.119	.107	.095
18F936	TG-S30	50	.03	.15	.119	.111	.099
18F937	TG-S50	50	.05	.30	.238	.212	.188
18F938	TG-P10	50	.1	.39	.309	.281	.25
18F939	TH-D50	200	.005	.15	.119	.055	.049
18F940	TH-S10	200	.01	.30	.238	.214	.19
18F941	TH-S20	200	.02	.15	.119	.101	.09
18F942	TH-S25	200	.025	.15	.119	.113	.10
18F943	TH-S30	200	.03	.18	.143	.124	.11
18F944	TH-S50	200	.05	.27	.214	.203	.18
18F945	TH-P10	200	.1	.78	.618	.578	.514

PHONE, WRITE, WIRE FOR

PRICE QUOTATION ON ALL

SPRAGUE PRODUCTS NOT LISTED

SPRAGUE

THE MARK OF RELIABILITY

Capacitors

121P METALIZED PAPER CAPACITORS



Designed to operate at 125°C without voltage derating. High insulation resistance—at 85°C minimum product of insulation resistance and capacitance is 20 megohm microfarads. Tol. ±10%. 150WVDC. *See below for case size table.

Stk. No.	Type	Mfd.	*Size	1-24	25-49	50-99	100-499	500-999
18F1410	121P15591R5S2	1.5	J	2.73	1.60	1.23	1.092	1.001
18F1411	121P20591R5S2	2.0	K	3.00	1.75	1.35	1.20	1.10
18F1412	121P25591R5S2	2.5	M	3.00	1.80	1.39	1.236	1.133
18F1413	121P30591R5S2	3.0	N	3.45	2.02	1.56	1.38	1.265
18F1414	121P35591R5S2	3.5	O	3.66	2.14	1.65	1.464	1.342
18F1415	121P40591R5S2	4.0	P	3.72	2.17	1.68	1.488	1.364
18F1416	121P50591R5S2	5.0	Q	4.09	2.38	1.84	1.632	1.496
18F1417	121P60591R5S2	6.0	T	4.44	2.59	2.00	1.776	1.628
18F1418	121P80591R5S2	8.0	U	5.16	3.01	2.33	2.064	1.892
18F1419	121P10691R5S2	10	V	5.97	3.49	2.69	2.388	2.189
18F1420	121P12691R5S2	12	W	6.75	3.94	3.04	2.70	2.475
18F1421	121P14691R5S2	14	X	7.53	4.40	3.39	3.012	2.761
18F1422	121P16691R5S2	16	Y	8.01	4.68	3.61	3.204	2.937
18F1423	121P18691R5S2	18	Z	9.12	5.32	4.11	3.648	3.344

*CASE SIZE

(J)	.562x1 1/4	(U)	.750x2 3/4
(K)	.562x1 3/4	(V)	.750x2 3/4
(M)	.562x1 5/8	(W)	1.000x1 7/8
(N)	.670x1 3/8	(X)	1.000x2 1/8
(P)	.670x1 5/8	(Y)	1.000x2 3/8
(Q)	.670x1 7/8	(Z)	1.000x2 5/8
(T)	.750x1 7/8		

TYPE 155P-156P MOLDED METALLIZED PAPER CAPACITORS
Molded phenolic case metalized paper tubular capacitors offering excellent humidity resistance. At 85°C the minimum product of insulation resistance and capacitance is 40 megohm-microfarads. Will withstand 200% of rated voltage. Operating temperature range: -40°C to +85°C. Tolerance ±20%.

155P-200 VOLTS

Stk. No.	Mfd.	D x L	1-24	25-49	50-99	100-499
18F1885	.22	3/8x1 1/4	.45	.28	.22	.20
18F1887	.33	3/8x1 1/4	.66	.39	.30	.27
18F1888	.47	3/8x1 1/4	.66	.40	.31	.28
18F1889	.5	3/8x1 1/4	.78	.60	.46	.41
18F1891	1.0	1/2x1 1/2	1.05	.63	.48	.43
18F1892	1.5	3/4x1 1/2	1.20	.70	.54	.48
18F1893	2.0	3/4x1 1/2	1.41	.85	.66	.59

156P-200 VOLTS

Stk. No.	Mfd.	D x L	1-24	25-49	50-99	100-499
18F1895	3.0	3/4x2 1/4	1.80	1.05	.81	.72
18F1897	4.0	3/4x2 1/4	2.22	1.30	1.00	.89
18F1902	6.5	7/8x2 1/2	3.15	1.84	1.42	1.26
18F1904	7.5	7/8x2 1/2	3.51	2.05	1.58	1.41
18F1908	9.5	1x2 1/2	4.20	2.45	1.89	1.68

155P-400 VOLTS

Stk. No.	Mfd.	D x L	1-24	25-49	50-99	100-499
18F1918	.05	3/8x1 1/4	.45	.28	.23	.20
18F1920	.1	1/2x1 1/4	.51	.30	.23	.21
18F1922	.2	1/2x1 1/4	.69	.44	.35	.30
18F1924	.25	1/2x1 1/2	.72	.48	.37	.33
18F1925	.33	3/8x1 7/8	.72	.48	.37	.33

156P-400 VOLTS

Stk. No.	Mfd.	D x L	1-24	25-49	50-99	100-499
18F1928	.68	3/4x2 1/4	1.05	.62	.48	.42
18F1930	1.5	7/8x2 1/2	1.59	.93	.72	.64
18F1932	2.5	1x2 1/2	2.25	1.32	1.02	.90

155P-600 VOLTS

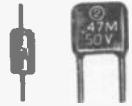
Stk. No.	Mfd.	D x L	1-24	25-49	50-99	100-499
18F1933	.01	5/8x1	.45	.27	.21	.19
18F1936	.022	3/8x1 1/4	.45	.28	.22	.19
18F1940	.047	3/8x1 1/4	.51	.31	.24	.22
18F1944	.1	1/2x1 1/2	.57	.35	.27	.24
18F1947	.22	3/8x1 7/8	.90	.54	.42	.37
18F1949	.33	3/8x1 7/8	.93	.55	.42	.38

156P-600 VOLTS

Stk. No.	Mfd.	D x L	1-24	25-49	50-99	100-499
18F1951	.5	3/4x2 1/4	1.14	.76	.59	.52
18F1954	1.5	1x2 1/2	1.89	1.10	.85	.75

FORMULATION C-23 MONOLYTHIC CERAMIC CAPACITORS

Monolithic ceramic capacitors for transistorized circuitry. C-23 formulation insures high K—these units provide high capacitance in small physical size. Solid homogeneous blocks are protected against moisture and mechanical damage by a resin dip. Well suited for use in all frequency ranges through 1000 mc.



RADIAL LEADS 25 WVDC ±20% TOLERANCE

SIZE-.390"x.202"

Stk. No.	Type	Mfd.	1-49	50-99	100-249	250-499
18F1964	3C023103X0250A3	.01	1.36	1.82	.785	.68
18F1965	3C023153X0250A3	.015	1.40	1.05	.788	.70
18F1966	3C023223X0250A3	.022	1.46	1.10	.821	.73
18F1967	3C023333X0250A3	.033	1.50	1.13	.844	.75
18F1968	3C023473X0250A3	.047	1.54	1.16	.866	.77
18F1969	3C023683X0250A3	.068	1.74	1.31	.979	.87
18F1970	3C023104X0250A3	.1	1.98	1.47	1.103	.98

SIZE-.515"x.296"

Stk. No.	Type	Mfd.	1-49	50-99	100-249	250-499
18F1971	4C023154X0250A3	.15	1.94	1.46	1.091	.97
18F1972	4C023224X0250A3	.22	2.24	1.68	1.26	1.12
18F1973	4C023334X0250A3	.33	2.74	2.06	1.541	1.37

SIZE-.535"x.340"

Stk. No.	Type	Mfd.	1-49	50-99	100-249	250-499
18F1974	4C023474X0250A3	.47	3.42	2.57	1.924	1.71
18F1975	4C023684X0250A3	.68	4.44	3.33	2.498	2.22

RADIAL LEADS 25 WVDC ±20% TOLERANCE

MAX. THICKNESS .125; SIZE .500x.500"

Stk. No.	Type	Mfd.	1-49	50-99	100-249	250-499
18F1955	5C023104X0250B3	.1	.80	.60	.45	.40
18F1956	5C023154X0250B3	.15	.92	.69	.52	.46
18F1957	5C023224X0250B3	.22	1.06	.80	.60	.53
18F1958	5C023334X0250B3	.33	1.20	.90	.68	.60
18F1959	5C023474X0250B3	.47	1.38	1.04	.78	.69
18F1960	5C023684X0250B3	.68	1.50	1.13	.85	.75
18F1961	5C023105X0250B3	1.0	2.00	1.50	1.13	1.00

MAX. THICKNESS .187; SIZE .500x.500"

18F1962	5C023155X0250B3	1.5	3.00	2.25	1.69	1.50
18F1963	5C023225X0250B3	2.2	3.96	2.97	2.23	1.98

RADIAL LEADS 50 WVDC ±20% TOLERANCE

SIZE-.500"x.500"

Stk. No.	Type	Mfd.	1-49	50-99	100-249	250-499
18F885	5C023104X0500B3	.1	1.06	.80	.60	.53
18F886	5C023154X0500B3	.15	1.20	.90	.68	.60
18F887	5C023224X0500B3	.22	1.38	1.04	.78	.69
18F888	5C023334X0500B3	.33	2.00	1.50	1.13	1.00
18F889	5C023474X0400B3	.47	2.52	1.89	1.42	1.26

AXIAL LEADS 25 WVDC ±20% TOLERANCE

SIZE-.390"x.202"

Stk. No.	Type	Mfd.	1-49	50-99	100-249	250-499
18F1976	3C023103X0250B1	.01	1.56	1.17	.878	.78
18F1977	3C023153X0250B1	.015	1.60	1.20	.90	.80
18F1978	3C023223X0250B1	.022	1.66	1.25	.934	.83
18F1979	3C023333X0250B1	.033	1.70	1.28	.956	.85
18F1980	3C023473X0250B1	.047	1.74	1.31	.979	.87
18F1981	3C023683X0250B1	.068	1.94	1.46	1.091	.97
18F1982	3C023104X0250B1	.1	2.16	1.62	1.215	1.08

SIZE-.515"x.296"

18F1988	4C023154X0250B1	.15	2.14	1.61	1.284	1.07
18F1984	4C023224X0250B1	.22	2.44	1.83	1.373	1.22
18F1985	4C023334X0250B1	.33	2.94	2.21	1.654	1.47

HYPASS SUPPRESSION CAPACITORS

Exclusive 3-terminal Network—Feed-thru capacitors assure very effective VHF current by-passing. Bypass VHF oscillation up to 150 MC. Suppress TVI from Short-Wave Transmitters, Diathermy Machines, Electronic Heating Apparatus, etc. Eliminate Interference caused by Line-conducted radiation between neighboring TV sets. Temperature operation: -40°C to +85°C. Currents up to 20 amps. *Have female screw terminals. †Bulkhead mounting.



Stk. No.	Type	Amps.	Mfd.	WVDC	Dia. x Length	NET
18F189	48P18*	40	.5	50	1x1 1/4"	2.28
18F190	48P9*	20	.1	250VAC	1 1/2"x1 1/4"	1.56
18F244	48P8*	20	.1	600	1 1/4"x1 1/4"	1.56
18F192	4/P6	20	.01	600	3/8"x1 1/4"	1.41
18F198	80P3*†	20	.1	600	1 1/4"x1 1/4"	1.77
18F193	47P12	20	.005	1000	3/8"x1 1/4"	1.44
18F195	47P14	20	.005	2500	1x1 1/4"	1.74
18F197	47P16	20	.002	5000	1x1 1/4"	1.82

Capacitors

SPRAGUE

THE MARK OF RELIABILITY

ORANGE DROP, DIFILM DIPPED TUBULARS

Dual dielectric impregnated with exclusive HCX. Produces rock-hard capacitor section. Double dipped in Bright Orange Epoxy Resin — beats heat and humidity. Shpg. Wt. 4 oz.



TYPE 225P—75 VOLTS DC

Stock No.	Mfd	Size	Type	1-24	25-49	50-99	100-249	250-up
18F2549	.12	A	225P1249R75	.21	.14	.11	.09	.071
18F2550	.15	A	225P1549R75	.21	.16	.12	.10	.077
18F2551	.18	B	225P1849R75	.24	.17	.13	.11	.085
18F2552	.22	B	225P2249R75	.27	.19	.15	.12	.094
18F2553	.27	C	225P2749R75	.30	.21	.17	.13	.106
18F2554	.33	C	225P3349R75	.33	.24	.19	.15	.120
18F2555	.39	D	225P3949R75	.36	.26	.20	.16	.131
18F2556	.47	D	225P4749R75	.39	.28	.22	.18	.142
18F2557	.56	E	225P5649R75	.54	.39	.30	.24	.196
18F2558	.68	F	225P6849R75	.54	.39	.30	.24	.196
18F2559	.82	G	225P8249R75	.60	.43	.34	.27	.219
18F2560	1.0	H	225P1059R75	.66	.49	.38	.31	.248

TYPE 225P—100 VOLTS DC

Stock No.	Mfd	Size	Type	1-24	25-49	50-99	100-249	250-up
18F2561	.001	J	225P10291	.15	.10	.08	.06	.049
18F2562	.0012	J	225P12291	.15	.10	.08	.06	.049
18F2563	.0015	J	225P15291	.15	.10	.08	.06	.049
18F2564	.0018	J	225P18291	.15	.10	.08	.06	.049
18F2565	.0022	J	225P22291	.15	.10	.08	.06	.049
18F2566	.0027	J	225P27291	.15	.10	.08	.06	.049
18F2567	.0033	J	225P33291	.15	.10	.08	.06	.049
18F2568	.0039	J	225P39291	.15	.10	.08	.06	.049
18F2569	.0047	J	225P47291	.15	.10	.08	.06	.049
18F2570	.0056	J	225P56291	.15	.10	.08	.06	.049
18F2571	.0068	J	225P68291	.15	.10	.08	.06	.049
18F2572	.0082	J	225P82291	.15	.10	.08	.06	.049
18F2573	.01	J	225P10391	.15	.10	.08	.06	.049
18F2574	.012	J	225P12391	.15	.10	.08	.07	.051
18F2575	.015	J	225P15391	.15	.10	.08	.07	.052
18F2576	.018	J	225P18391	.15	.10	.08	.07	.052
18F2577	.022	J	225P22391	.15	.11	.09	.07	.053
18F2578	.027	K	225P27391	.15	.11	.09	.07	.054
18F2579	.033	K	225P33391	.15	.11	.09	.07	.054
18F2580	.039	L	225P39391	.15	.11	.09	.07	.056
18F2581	.047	L	225P47391	.15	.12	.09	.07	.057
18F2582	.056	M	225P56391	.18	.12	.10	.08	.059
18F2583	.068	M	225P68391	.18	.12	.10	.08	.061
18F2584	.082	N	225P82391	.18	.13	.10	.08	.063
18F2585	.1	N	225P10491	.18	.13	.10	.08	.065

SIZES FOR 75 AND 100 VOLT—ORANGE DROP

	H	T	L	H	T	L
A	5/8	2 3/4	3/4	H	6 3/4	1 3/4
B	4 3/4	2 1/4	3/4	J	9 1/8	1 3/4
C	2 1/2	3 1/4	3/4	K	2 1/4	1 3/4
D	2 1/2	1 3/2	3/4	L	1 1/2	1/4
E	5/8	9/16	1 3/8	M	3/8	9/8
F	2 3/4	1 1/2	1 3/8	N	1 3/2	2 1/4
G	6 3/4	2 1/2	1 3/8			

TYPE 220P—200 VOLTS DC

Stock No.	Mfd	Size	Type	1-24	25-49	50-99	100-249	250-up
18F1612	02	3/8x 7/8	2PS-S20	.15	.11	.09	.07	.056
18F1613	022	2 3/4x 7/8	2PS-S22	.15	.11	.09	.07	.056
18F1614	.047	2 3/4x 7/8	2PS-S47	.15	.13	.10	.08	.061
18F1615	.05	1 1/2x 7/8	2PS-S50	.15	.13	.10	.08	.065
18F1616	.1	3 1/4x 1 3/8	2PS-P10	.21	.15	.12	.09	.071
18F1617	.15	8 1/4x 1 3/8	2PS-P15	.21	.17	.13	.11	.082
18F1618	.2	1 3/2x 1 1/8	2PS-P20	.24	.20	.16	.13	.099
18F1619	.22	3 3/4x 1 3/8	2PS-P22	.24	.20	.16	.13	.099
18F1620	.25	5 1/2x 1 3/8	2PS-P25	.24	.20	.16	.13	.102
18F1621	.33	5 3/8x 1 3/8	2PS-P33	.30	.23	.18	.15	.117
18F1622	.47	4 1/4x 1 3/8	2PS-P47	.36	.26	.21	.17	.133
18F1623	.5	2 3/2x 1 3/8	2PS-P50	.36	.27	.21	.17	.135

TYPE CL25—FOIL TANTALUM CAPACITORS

Designed to meet performance requirements of Military Specification MIL-C-3955B. Tubular aluminum case with leak proof TFE-fluorocarbon elastomer seal. Polarized. Military number CL25 has etched foil. Fully insulated. Sizes: (A) 1 3/4x 3/4. (B) 1 9/8x 1 3/8. (C) 2 3/4x 1 1/2. (D) 2 3/4x 2 3/8. (E) 2 3/4x 2 1/8.



Stock No.	Mil. No. CL25	Mfd.	VV DC	Ss.	1-9	10-24	25-49	50-99	100-499
18F1705	BG100UP3	10	25	A	4.24	3.37	2.46	1.74	1.23
18F1706	BG400UP3	40	25	B	7.59	4.88	3.84	2.74	1.91
18F1707	BG251UP3	250	25	D	20.59	14.15	10.87	7.74	5.35
18F1714	BH301UP3	300	30	E	27.39	18.80	14.48	10.30	7.14
18F1715	BJ4RSUP3	4.5	50	A	4.24	3.37	2.46	1.74	1.23

TYPE 220P—400 VOLTS DC

Stock No.	Mfd	Size	Type	1-24	25-49	50-99	100-249	250-up
18F1624	.01	1 3/4x 1 1/8	4PS-S10	.15	.10	.08	.07	.049
18F1625	.015	2 3/4x 1 1/8	4PS-S15	.15	.11	.08	.07	.052
18F1626	.02	1 3/4x 7/8	4PS-S20	.15	.12	.09	.07	.057
18F1627	.022	2 1/4x 7/8	4PS-S22	.18	.12	.09	.08	.057
18F1628	.025	3 1/4x 7/8	4PS-S25	.18	.12	.10	.08	.061
18F1629	.03	2 3/4x 7/8	4PS-S30	.18	.13	.10	.08	.063
18F1630	.033	1 1/2x 7/8	4PS-S33	.18	.13	.10	.08	.063
18F1631	.04	2 1/4x 1 1/8	4PS-S40	.18	.14	.11	.09	.071
18F1632	.047	2 1/4x 1 1/8	4PS-S47	.18	.14	.11	.09	.071
18F1633	.05	2 1/4x 1 1/8	4PS-S50	.18	.15	.11	.09	.072
18F1634	.056	3 1/4x 1 1/8	4PS-S56	.21	.15	.12	.10	.074
18F1635	.068	3 3/4x 1 1/8	4PS-S68	.21	.15	.12	.10	.075
18F1636	.075	3 3/4x 1 1/8	4PS-S75	.21	.16	.13	.10	.082
18F1637	.1	3 1/4x 1 1/8	4PS-P10	.21	.17	.13	.11	.085
18F1638	.15	3 1/4x 1 1/8	4PS-P15	.24	.21	.16	.13	.103
18F1639	.2	1 3/2x 1 3/8	4PS-P20	.27	.25	.20	.16	.126
18F1640	.22	2 1/4x 1 3/8	4PS-P22	.27	.25	.20	.16	.126
18F1641	.25	1 1/2x 1 3/8	4PS-P25	.30	.26	.20	.16	.129

TYPE 220P—600 VOLTS DC

Stock No.	Mfd	Size	Type	1-24	25-49	50-99	100-249	250-up
18F1642	.001	2 1/4x 1 1/8	6PS-D10	.15	.10	.08	.07	.049
18F1643	.0012	2 1/4x 1 1/8	6PS-D12	.15	.10	.08	.07	.049
18F1644	.0015	2 1/4x 1 1/8	6PS-D15	.15	.10	.08	.07	.049
18F1645	.0018	2 1/4x 1 1/8	6PS-D18	.15	.10	.08	.07	.049
18F1646	.0022	2 1/4x 1 1/8	6PS-D20	.15	.10	.08	.07	.050
18F1647	.0022	2 1/4x 1 1/8	6PS-D22	.15	.10	.08	.07	.050
18F1648	.0025	2 1/4x 1 1/8	6PS-D25	.15	.10	.08	.07	.050
18F1649	.0027	2 1/4x 1 1/8	6PS-D27	.15	.10	.08	.07	.050
18F1650	.003	1 1/2x 1 1/8	6PS-D30	.15	.10	.08	.07	.050
18F1651	.0033	2 3/4x 1 1/8	6PS-D33	.15	.10	.08	.07	.050
18F1652	.0039	3 3/8x 1 1/8	6PS-D39	.15	.10	.08	.07	.050
18F1653	.004	3 3/8x 1 1/8	6PS-D40	.15	.10	.08	.07	.050
18F1654	.0047	2 3/4x 1 1/8	6PS-D47	.15	.10	.08	.07	.051
18F1655	.005	2 3/4x 1 1/8	6PS-D50	.15	.10	.08	.07	.051
18F1656	.0056	2 3/4x 1 1/8	6PS-D56	.15	.10	.08	.07	.052
18F1657	.006	1 3/2x 1 1/8	6PS-D60	.15	.11	.08	.07	.052
18F1658	.0068	1 3/2x 1 1/8	6PS-D68	.18	.11	.08	.07	.052
18F1659	.0075	2 3/4x 7/8	6PS-D75	.18	.11	.09	.07	.053
18F1660	.008	2 3/4x 7/8	6PS-D80	.18	.11	.09	.07	.053
18F1661	.0082	3 3/8x 7/8	6PS-D82	.18	.11	.09	.07	.054
18F1662	.01	2 3/4x 7/8	6PS-S10	.18	.11	.09	.07	.056
18F1663	.012	2 3/4x 7/8	6PS-S12	.18	.11	.09	.07	.056
18F1664	.015	2 3/4x 7/8	6PS-S15	.18	.11	.09	.07	.056
18F1665	.02	3 1/4x 7/8	6PS-S20	.18	.13	.10	.08	.062
18F1666	.022	3 1/4x 7/8	6PS-S22	.18	.13	.10	.08	.062
18F1667	.025	1 1/2x 7/8	6PS-S25	.21	.13	.11	.09	.065
18F1668	.027	3 1/2x 1 3/8	6PS-S27	.21	.13	.11	.09	.065
18F1669	.033	1 1/2x 1 3/8	6PS-S30	.21	.14	.11	.09	.065
18F1670	.033	1 1/2x 1 3/8	6PS-S33	.21	.14	.11	.09	.065
18F1671	.035	1 1/2x 1 3/8	6PS-S35	.21	.14	.11	.09	.069
18F1672	.039	3 1/4x 1 3/8	6PS-S39	.21	.14	.11	.09	.069
18F1673	.04	1 1/2x 1 3/8	6PS-S40	.21	.15	.12	.10	.072
18F1674	.047	1 1/2x 1 3/8	6PS-S47	.24	.15	.12	.10	.076
18F1675	.05	1 1/2x 1 3/8	6PS-S50	.24	.15	.12	.10	.076
18F1676	.056	3 1/4x 1 3/8	6PS-S56	.24	.15	.12	.10	.076
18F1677	.06	3 1/4x 1 3/8	6PS-S60	.24	.18	.14	.11	.088
18F1678	.068	3 1/4x 1 3/8	6PS-S68	.27	.18	.14	.11	.088
18F1679	.075	3 1/4x 1 3/8	6PS-S75	.27	.18	.14	.12	.092
18F1680	.082	3 1/4x 1 3/8	6PS-S82	.27	.18	.14	.12	.092
18F1681	.1	5 3/8x 1 3/8	6PS-P10	.27	.19	.15	.12	.095
18F1682	.15	4 3/4x 1 3/8	6PS-P15	.30	.23	.18	.15	.116
18F1683	.2	3 3/4x 1 3/8	6PS-P20	.39	.27	.21	.17	.133
18F1684	.22	2 3/4x 1 3/8	6PS-P22	.42	.27	.21	.17	.133
18F1685	.25	1 1/2x 1 3/8	6PS-P25	.45	.27	.21	.17	.135

TYPE 220P—1000 VOLTS DC

Stock No.	Mfd	Size	Type	1-9	10-24	25-49	50-99	100-499
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Capacitors

BLACK BEAUTY CAPACITORS DIFILM (MYLAR PAPER) MOLDED (160P)

For high humidity and high temperature operation up to 105°C. From 220v. through 6000v. thru 12,500v. they will operate at 1600v. the units will operate at 105°C. (221°F) with no voltage derating. From 85°C. (185°F). Wt., 3 oz. Tolerance ±10%.



TYPE 2TM 200 VOLTS

Stock No.	Type	Mfd.	Size	1-24	25-49	50-99	100-249
18F088	2TMS10	.01	5/8x1"	.18	.12	.10	.08
18F130	2TMS20	.02	5/8x1 1/4"	.18	.13	.10	.08
18F131	2TMS47	.047	5/8x1 1/4"	.21	.14	.11	.09
18F132	2TMS50	.05	5/8x1 1/4"	.21	.15	.11	.09
18F133	2TMP10	.1	5/8x1 1/2"	.21	.16	.12	.10
18F134	2TMP15	.15	5/8x1 1/2"	.24	.18	.14	.11

Stock No.	Type	Mfd.	Size	1-24	25-49	50-99	100-249
18F135	2TMP22	.22	5/8x1 7/8"	.33	.24	.18	.15
18F136	2TMP25	.25	5/8x1 7/8"	.36	.25	.20	.16
18F137	2TMP47	.47	3/4x2 1/4"	.42	.31	.24	.19
18F138	2TMP50	.5	3/4x2 1/4"	.75	.54	.42	.34
18F139	2TMM1	1.0	3/4x2 1/4"	1.05	.79	.61	.49

TYPE 4TM 400 VOLTS

Stock No.	Type	Mfd.	Size	1-24	25-49	50-99	100-249
18F089	4TMS10	.01	3/4x1 1/4"	.18	.12	.10	.08
18F368	4TMS15	.015	3/4x1 1/4"	.18	.12	.10	.08
18F090	4TMS20	.02	3/4x1 1/4"	.18	.13	.10	.08
18F091	4TMS22	.022	3/4x1 1/4"	.21	.14	.11	.09
18F369	4TMS25	.025	3/4x1 1/4"	.21	.14	.11	.09
18F370	4TMS30	.03	3/4x1 1/4"	.21	.14	.11	.09
18F371	4TMS40	.040	3/4x1 1/4"	.21	.14	.11	.09
18F092	4TMS47	.047	3/4x1 1/4"	.21	.15	.12	.09
18F093	4TMS50	.05	3/4x1 1/4"	.24	.17	.13	.11

Stock No.	Type	Mfd.	Size	1-24	25-49	50-99	100-249
18F094	4TMS68	.068	1/2x1 1/2"	.24	.18	.14	.11
18F095	4TMP10	.1	1/2x1 1/2"	.24	.18	.14	.11
18F096	4TMP15	.15	5/8x1 7/8"	.33	.24	.19	.15
18F372	4TMP20	.2	5/8x1 7/8"	.36	.25	.20	.16
18F097	4TMP22	.22	5/8x1 7/8"	.36	.25	.20	.16
18F098	4TMP25	.25	3/4x2 1/4"	.54	.39	.30	.24
18F373	4TMP47	.47	3/4x2 1/4"	.63	.46	.36	.29
18F099	4TMP50	.5	3/4x2 1/4"	.75	.56	.44	.35
18F258	4TMM1	1.0	1x2 1/2"	1.26	.93	.72	.58

TYPE 6TM 600 VOLTS

Stock No.	Type	Mfd.	Size	1-24	25-49	50-99	100-249
18F140	6TMT10	.0001	5/8x1"	.18	.12	.10	.08
18F141	6TMT25	.00025	5/8x1"	.18	.12	.10	.08
18F142	6TMT40	.0004	5/8x1"	.18	.12	.10	.08
18F143	6TMT50	.0005	5/8x1"	.18	.12	.10	.08
18F100	6TMD10	.001	5/8x1"	.18	.12	.10	.08
18F144	6TMD15	.0015	5/8x1"	.18	.12	.10	.08
18F101	6TMD20	.002	5/8x1"	.18	.13	.10	.08
18F145	6TMD22	.0022	5/8x1"	.18	.13	.10	.08
18F374	6TMD25	.0025	5/8x1"	.18	.13	.10	.08
18F102	6TMD30	.003	5/8x1"	.18	.13	.10	.08
18F375	6TMD33	.0033	5/8x1"	.18	.13	.10	.08
18F103	6TMD40	.004	3/4x1 1/4"	.18	.14	.11	.09
18F146	6TMD47	.0047	3/4x1 1/4"	.18	.14	.11	.09
18F104	6TMD50	.005	3/4x1 1/4"	.21	.14	.11	.09
18F105	6TMD60	.006	3/4x1 1/4"	.21	.14	.11	.09
18F147	6TMD68	.0068	3/4x1 1/4"	.21	.14	.11	.09
18F376	6TMD80	.008	3/4x1 1/4"	.21	.14	.11	.09
18F106	6TMS10	.01	3/4x1 1/4"	.18	.14	.11	.08

Stock No.	Type	Mfd.	Size	1-24	25-49	50-99	100-249
18F148	6TMS15	.015	3/4x1 1/4"	.21	.14	.11	.09
18F107	6TMS20	.02	3/4x1 1/4"	.21	.15	.12	.09
18F377	6TMS22	.022	3/4x1 1/4"	.21	.15	.12	.09
18F108	6TMS30	.03	3/4x1 1/4"	.21	.16	.12	.10
18F378	6TMS33	.033	3/4x1 1/4"	.21	.16	.12	.10
18F149	6TMS35	.035	3/4x1 1/4"	.24	.17	.13	.11
18F109	6TMS40	.04	1/2x1 1/2"	.24	.17	.13	.11
18F379	6TMS47	.047	1/2x1 1/2"	.24	.17	.13	.11
18F110	6TMS50	.05	1/2x1 1/2"	.27	.20	.15	.12
18F111	6TMS60	.06	1/2x1 1/2"	.27	.20	.15	.12
18F380	6TMS68	.068	1/2x1 1/2"	.27	.20	.15	.12
18F112	6TMP10	.1	5/8x1 7/8"	.33	.23	.18	.14
18F381	6TMP15	.15	5/8x1 7/8"	.45	.33	.25	.20
18F382	6TMP20	.2	3/4x2 1/4"	.60	.44	.34	.27
18F383	6TMP22	.22	3/4x2 1/4"	.60	.44	.34	.27
18F113	6TMP25	.25	3/4x2 1/4"	1.02	.75	.58	.46
18F384	6TMP50	.5	1x2 1/2"	1.05	.77	.60	.48
18F385	6TM-M1	1.0	1x2 1/2"	1.38	1.02	.79	.63

TYPE MB 1600 VOLTS Designed for buffer operations

Stock No.	Type	Mfd.	Size	1-24	25-49	50-99	100-249
18F406	MB-D7	.007	1/2x1 1/2"	.30	.22	.17	.14
18F407	MB-D8	.008	3/4x1 7/8"	.30	.22	.17	.14
18F409	MB-S15	.015	5/8x1 7/8"	.45	.33	.26	.20
18F800	MB-D1	.001	3/4x1 1/4"	.21	.14	.11	.09
18F801	MB-D2	.002	3/4x1 1/4"	.30	.22	.17	.14
18F802	MB-D3	.003	3/4x1 1/4"	.30	.22	.17	.14

Stock No.	Type	Mfd.	Size	1-24	25-49	50-99	100-249
18F803	MB-D4	.004	1/2x1 1/2"	.30	.22	.17	.14
18F804	MB-D5	.005	1/2x1 1/2"	.30	.22	.17	.14
18F408	MB-S1	.01	3/4x2 1/4"	.39	.28	.22	.18
18F805	MB-S2	.02	3/4x1 7/8"	.45	.33	.26	.20
18F806	MB-S4	.04	3/4x2 1/4"	.69	.51	.40	.32

TYPE TVM 6000 VOLTS *10,000 Volts

Stock No.	Type	Mfd.	Size	1-24	25-49	50-99	100-249
18F126	TVM356	.0005	9/16x1 7/8"	.81	.47	.37	.29
18F127	TVM216	.001	9/16x1 7/8"	.81	.40	.38	.30

Stock No.	Type	Mfd.	Size	1-24	25-49	50-99	100-249
18F128	TVM256	.005	1 1/16x2 1/4"	.81	.52	.40	.32
18F129	TVM351	.0005	1 1/16x2 1/4"	.90	.52	.41	.33

Unique dual dielectric rated for operation at 125°C without voltage derating. High insulation resistance—at 125°C, minimum product of insulation resistance and capacitance is 10 megohm-microfarads for 200 V units or 40 megohm-microfarads for 400

and 600 V units. Hermetically sealed, with glass to metal solder seal terminals. Tolerance: ±10%.



200 VOLTS

* See Following Pages for Case Sizes

200 VOLTS

Stock No.	Type	Mfd.	Sz.	1-24	25-49	50-99	100-499				
18F1286	118P10392S2	.01	YY	1.95	1.14	.88	.780				
18F1287	118P12392S2	.012	ZZ								
18F1288	118P15392S2	.015	ZZ								
18F1289	118P18392S2	.018	FF								
18F1290	118P22392S2	.022	FF								
18F1291	118P27392S2	.027	FF								
18F1292	118P33392S2	.033	FF								
18F1293	118P39392S2	.039	GG					1.96	1.15	.88	.784
18F1294	118P47392S2	.047	GG					1.97	1.15	.89	.787
18F1295	118P56392S2	.056	GG					1.98	1.16	.90	.792
18F1296	118P68392S2	.068	GG	2.02	1.18	.91	.806				
18F1297	118P82392S2	.082	GG	2.03	1.18	.92	.810				
18F1298	118P10492S2	.1	GG	2.04	1.19	.92	.814				
18F1299	118P12492S2	.12	HH	2.04	1.19	.92	.816				
18F1300	118P15492S2	.15	HH	2.07	1.21	.94	.828				
18F1301	118P22492S2	.22	JJ	2.07	1.21	.94	.828				
18F1302	118P27492S2	.27	KK	2.15	1.26	.97	.858				
18F1303	118P33492S2	.33	KK	2.22	1.30	1.00	.888				
18F1304	118P39492S2	.39	LL	2.28	1.33	1.03	.912				
18F1305	118P47492S2	.47	LL	2.33	1.36	1.05	.930				
18F1306	118P56492S2	.56	LL	2.37	1.38	1.07	.948				
18F1307	118P68492S2	.68	LL	2.40	1.40	1.08	.960				
18F1308	118P82492S2	.82	J	2.48	1.45	1.12	.990				
18F1309	118P10592S2	1.0	J	2.55	1.49	1.15	1.020				
18F1310	118P15592S2	1.5	M	3.62	2.11	1.63	1.446				
18F1311	118P20592S2	2.0	P	4.29	2.51	1.94	1.716				
18F1312	118P30592S2	3.0	O	4.50	2.63	2.03	1.800				
18F1313	118P40592S2	4.0	T	4.80	2.80	2.16	1.920				
18F1314	118P50592S2	5.0	W	5.25	3.07	2.37	2.100				

Stock No.	Type	Mfd.	*Size	1-24	25-49	50-99	100-499
18F1315	118P60592S2	6.0	W	6.00	3.50	2.70	2.400
18F1316	118P80592S2	8.0	W	6.15	3.59	2.77	2.460
18F1317	118P10692S2	10.0	Y	6.57	3.84	2.96	2.628
18F1318	118P12692S2	12.0	Z	7.41	4.33	3.34	2.964

400 VOLTS

Stock No.	Type	Mfd.	Size	1-24	25-49	50-99	100-249
18F1319	118P22394S2	.022	GG	2.01	1.17	.91	.802
18F1320	118P15494S2	.15	LL	2.37	1.39	1.07	.948
18F1321	118P10594S2	1.0	T	3.40	1.98	1.53	1.357
18F1322	118P20594S2	2.0	W	4.95	2.89	2.23	1.980
18F1323	118P30594S2	3.0	Z	5.85	3.42	2.64	2.340

600 VOLTS

Stock No.	Type	Mfd.	*Size	1-24	25-49	50-99	100-499
18F1324	118P10396S2	.01	GG	2.01	1.18	.91	.804
18F1325	118P15396S2	.015	GG	2.03	1.19	.92	.810
18F1326	118P22396S2	.022	HH	2.04	1.19	.92	.816
18F1327	118P33396S2	.033	HH	2.04	1.19	.92	.816
18F1328	118P47396S2	.047	KK	2.07	1.21	.93	.826
18F1329	118P68396S2	.068	KK	2.16	1.28	.98	.864
18F1330	118P10496S2	.1	LL	2.34	1.37	1.06	.936</

36D "POWERLYTIC" ALUMINUM ELECTROLYTICS

For applications requiring maximum capacitance in a given case size. Low ESR and leakage current; extremely long shelf life. Withstands military environmental conditions including -55°C storage tests. Tol. 3-50v, +75% to -10%; 75-450v, +50% to -10%. Av. shgp. wt., 4 oz. With plastic outer tube.

SIZES FOR 36D CAPACITORS

D. x L. Including plastic outer case	
AA, 1 1/8 x 2 3/16	CC, 2 1/8 x 4 1/16
AB, 1 1/8 x 3 3/16	CD, 2 1/8 x 4 1/16
AC, 1 1/8 x 4 3/16	DC, 3 1/8 x 4 3/16
BB, 2 1/8 x 3 1/16	DD, 3 1/8 x 4 1/16
BC, 2 1/8 x 4 3/16	DF, 3 1/8 x 5 1/16
CB, 2 1/8 x 3 3/16	

3 WORKING VOLTS DC

Stk. No.	Type	Mfd.	Size	1-24	25-49	50-99
18F2433	36D274G003DF2A	270,000	DF	10.97	9.60	7.41

6 WORKING VOLTS DC

18F2434	36D124G006DC2A	120,000	DC	8.20	7.17	5.54
18F2435	36D194G006DF2A	190,000	DF	11.04	9.66	7.46

10 WORKING VOLTS DC

18F2436	36D602G010AA2A	6,000	AA	1.85	1.62	1.25
18F2437	36D123G010AB2A	12,000	AB	2.23	1.95	1.51
18F2438	36D183G010AC2A	18,000	AC	2.57	2.25	1.74
18F2439	36D283G010BB2A	28,000	BB	3.43	3.00	2.32
18F2440	36D423G010BC2A	42,000	BC	4.15	3.64	2.81
18F2441	36D483G010CB2A	48,000	CB	4.66	4.08	3.15
18F2442	36D104G010DC2A	100,000	DC	8.27	7.24	5.58
18F2443	36D164G010DF2A	160,000	DF	11.10	9.71	7.49

15 WORKING VOLTS DC

18F2444	36D462G015AA2A	4,600	AA	1.85	1.62	1.25
18F2445	36D922G015AB2A	9,200	AB	2.24	1.96	1.51
18F2446	36D133G015AC2A	13,000	AC	2.58	2.26	1.74
18F2447	36D213G015BB2A	21,000	BB	3.45	3.02	2.33
18F2448	36D313G015BC2A	31,000	BC	4.16	3.64	2.81
18F2449	36D363G015CB2A	36,000	CB	4.68	4.10	3.16
18F2450	36D543G015CC2A	54,000	CC	6.14	5.37	4.14
18F2451	36D833G015CD2A	83,000	CD	6.87	6.01	4.64
18F2452	36D803G015DC2A	80,000	DC	7.97	6.98	5.38

25 WORKING VOLTS DC

18F2453	36D272G025AA2A	2,700	AA	1.85	1.62	1.25
18F2454	36D552G025AB2A	5,500	AB	2.24	1.96	1.51
18F2455	36D822G025AC2A	8,200	AC	2.59	2.26	1.75
18F2456	36D183G025BC2A	18,000	BC	4.18	3.66	2.82
18F2457	36D323G025CC2A	32,000	CC	6.18	5.41	4.17
18F2458	36D473G025DC2A	47,000	DC	7.99	7.00	5.40
18F2459	36D553G025DD2A	55,000	DD	8.51	8.33	6.42
18F2460	36D713G025DF2A	71,000	DF	10.99	9.62	7.42

30 WORKING VOLTS DC

18F2461	36D363G030DC2A	36,000	DC	8.05	7.05	5.44
18F2462	36D423G030DD2A	42,000	DD	9.56	8.36	6.45

40 WORKING VOLTS DC

18F2463	36D552G040AC2A	5,500	AC	2.60	2.28	1.76
18F2464	36D842G040BB2A	8,400	BB	3.50	3.06	2.36
18F2465	36D123G040BC2A	12,000	BC	4.26	3.73	2.88
18F2466	36D213G040CC2A	21,000	CC	6.22	5.45	4.20
18F2467	36D253G040DC2A	25,000	DC	7.02	6.14	4.74

50 WORKING VOLTS DC

18F2468	36D132G050AA2A	1,300	AA	1.86	1.63	1.26
18F2469	36D262G050AB2A	2,600	AB	2.26	1.98	1.53
18F2470	36D392G050AC2A	3,900	AC	2.61	2.29	1.76
18F2471	36D602G050BB2A	6,000	BB	3.53	3.08	2.38
18F2472	36D902G050BC2A	9,000	BC	4.27	3.74	2.88
18F2473	36D153G050CC2A	15,000	CC	6.24	5.46	4.22
18F2474	36D223G050DC2A	22,000	DC	8.09	7.08	5.47

75 WORKING VOLTS DC

18F2475	36D252F075AC2A	2,500	AC	2.62	2.29	1.77
18F2476	36D392F075BB2A	3,900	BB	3.53	3.09	2.38
18F2477	36D592F075BC2A	5,900	BC	4.28	3.74	2.89
18F2478	36D113F075CD2A	11,000	CD	7.08	6.20	4.78
18F2479	36D143F075DD2A	14,000	DD	8.14	7.12	5.49
18F2480	36D223F075DF2A	22,000	DF	11.52	10.08	7.78

100 WORKING VOLTS DC

18F2481	36D451F100AA2A	450	AA	1.86	1.63	1.26
18F2482	36D132F100AC2A	1,300	AC	2.60	2.28	1.76
18F2483	36D302F100BC2A	3,000	BC	4.24	3.71	2.86
18F2484	36D532F100CC2A	5,300	CC	6.22	5.45	4.20
18F2485	36D782F100DC2A	7,800	DC	8.50	7.44	5.74

150 WORKING VOLTS DC

18F2486	36D301F150AA2A	300	AA	1.86	1.63	1.25
18F2487	36D901F150AC2A	900	AC	2.58	2.26	1.74
18F2488	36D142F150BB2A	1,400	BB	3.45	3.02	2.33
18F2489	36D212F150BC2A	2,100	BC	4.18	3.66	2.82
18F2490	36D362F150CC2A	3,600	CC	6.24	5.46	4.22
18F2491	36D532F150DC2A	5,300	DC	8.42	7.37	5.68
18F2492	36D782F150DF2A	7,800	DF	11.39	9.97	7.69

200 WORKING VOLTS DC

Stk. No.	Type	Mfd.	Size	1-24	25-24	50-99
18F2493	36D251F200AA2A	250	AA	1.85	1.62	1.25
18F2494	36D431F200AB2A	430	AB	2.22	1.94	1.50
18F2495	36D641F200AC2A	640	AC	2.56	2.24	1.73
18F2496	36D142F200BC2A	1,400	BC	4.11	3.60	2.78
18F2497	36D162F200CB2A	1,600	CB	4.70	4.11	3.17
18F2498	36D372F200DC2A	3,700	DC	8.21	7.18	5.54
18F2499	36D552F200DF2A	5,500	DF	11.35	9.93	7.66

250 WORKING VOLTS DC

18F2500	36D531F250AC2A	530	AC	2.55	2.23	1.72
18F2501	36D122F250BC2A	1,200	BC	4.09	3.58	2.76
18F2502	36D302F250DC2A	3,000	DC	8.19	7.16	5.53
18F2503	36D452F250DF2A	4,500	DF	11.29	9.88	7.62

300 WORKING VOLTS DC

18F2504	36D241F300AB2A	240	AB	2.20	1.92	1.49
18F2505	36D821F300BC2A	820	BC	4.07	3.56	2.75
18F2506	36D212F300DC2A	2,100	DC	8.16	7.14	5.51

350 WORKING VOLTS DC

18F2507	36D950F350AA2A	95	AA	1.84	1.61	1.24
18F2508	36D191F350AB2A	190	AB	2.17	1.90	1.47
18F2509	36D421F350BB2A	420	BB	3.17	2.78	2.14
18F2510	36D651F350BC2A	650	BC	4.04	3.53	2.73
18F2511	36D112F350CC2A	1,100	CC	5.91	5.17	3.99
18F2512	36D162F350DC2A	1,600	DC	8.05	7.05	5.44
18F2513	36D252F350DF2A	2,500	DF	11.08	9.69	7.48

400 WORKING VOLTS DC

18F2514	36D421F400BC2A	420	BC	4.02	3.52	2.71
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450 WORKING VOLTS DC

18F2515	36D500F450AA2A	50	AA	1.80	1.58	1.22
18F2516	36D141F450AC2A	140	AC	2.51	2.20	1.69
18F2517	36D221F450BB2A	220	BB	3.23	2.82	2.18
18F2518	36D331F450BC2A	330	BC	3.99	3.49	2.70
18F2519	36D861F450DC2A	860	DC	8.37	7.33	5.65

TYPE 132D "CUP TYPE" TANTALEX CAPACITORS



Stable in performance characteristics over entire temperature range: -55°C to 85°C operation at full rating, 100°C operation with 15% derating. Extremely low leakage. Large capacitance in small physical size. -15, +20% tolerance. *Case sizes (D.x.L.): PP-2.18x1.54; RR-2.28x1.14; SS-3.75x4.64.

6 WORKING VOLTS DC

Stk. No.	Type	Mfd.	*Sz.	1-24	25-49	50-99	100-499	500-999
18F1500	132D306C2006U0	30	PP	1.78	1.42	1.20	1.02	.84
18F1501	132D147C2006V0	140	RR	2.74	2.19	1.85	1.58	1.29
18F1502	132D327C2006T0	320	SS	4.30	3.44	2.90	2.47	2.04

8 WORKING VOLTS DC

18F1503	132D256C2008U0	25	PP	1.78	1.42	1.20	1.02	.84
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10 WORKING VOLTS DC

18F1504	132D206C2010U0	20	PP	1.78	1.42	1.20	1.02	.84
18F1505	132D107C2010V0	100	RR	2.74	2.19	1.85	1.58	1.29
18F1506	132D257C2010T0	250	SS	4.30	3.44	2.90	2.47	2.04

15 WORKING VOLTS DC

18F1507	132D156C2015U0	15	PP	1.78	1.42	1.20	1.02	.84
18F1508	132D706C2015V0	70	RR	2.74	2.19	1.85	1.58	1.29
18F1509	132D177C2015T0	170	SS	4.30	3.44	2.90	2.47	2.04

25 WORKING VOLTS DC

18F1510	132D106C2025U0	10	PP	1.78	1.42	1.20	1.02	.84
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30 WORKING VOLTS DC

18F1511	132D805C2030U0	8	PP	1.78	1.42	1.20	1.02	.84
18F1512	132D406C2030V0	40	RR	2.74	2.19	1.85	1.58	1.29
18F1513	132D107C2030T0	100	SS					

POWERLYTIC ALUMINUM ELECTROLYTICS

Type 39D. Type 39D capacitors supplement the original Type 36D Poterlytic by offering lower capacitance values in smaller cases with axial leads. The end seals are made of an approved molded phenolic, which is an important feature in establishing the long life of the Type 39D capacitors. These capacitors are designed for operation at temperatures up to 85°C. Type 39D capacitors have very low effective series resistance and leakage current.

3 WVDC

Stk. No.	Type	Mfd.	DxL	1-24	25-49	50-99
18F2613	39D138G003EL4	1,300	EL	1.67	.98	.75
18F2614	39D218G003HE4	2,100	HE	1.74	1.02	.79
18F2615	39D308G003JE4	3,000	JE	1.89	1.11	.85
18F2616	39D578G003GP4	5,700	GP	2.01	1.18	.91
18F2617	39D109G003HS4	10,000	HS	2.52	1.48	1.14
18F2618	39D189G003JT4	18,000	JT	3.15	1.84	1.42

6 WVDC

Stk. No.	Type	Mfd.	DxL	1-24	25-49	50-99
18F2619	39D607G006JE4	600	EJ	1.62	.95	.73
18F2620	39D108G006GE4	1,000	GE	1.68	.99	.76
18F2621	39D208G006GJ4	2,000	GJ	1.79	1.05	.81
18F2622	39D408G006GP4	4,000	GP	2.01	1.18	.91
18F2623	39D608G006HP4	6,000	HP	2.07	1.21	.94
18F2624	39D109G006JS4	10,000	JS	2.91	1.70	1.31

10 WVDC

Stk. No.	Type	Mfd.	DxL	1-24	25-49	50-99
18F2625	39D507G01EJ4	500	EJ	1.62	.95	.73
18F2626	39D108G010FJ4	1,000	FJ	1.71	1.00	.77
18F2627	39D158G010FL4	1,600	FL	1.77	1.04	.80
18F2628	39D258G010GL4	2,500	GL	1.95	1.14	.88
18F2629	39D508G010HP4	5,000	HP	2.07	1.21	.94
18F2630	39D109G010JT4	10,000	JT	3.15	1.84	1.42

15 WVDC

Stk. No.	Type	Mfd.	DxL	1-24	25-49	50-99
18F2631	39D607G015EL4	600	EL	1.67	.98	.75
18F2632	39D128G015FL4	1,200	FL	1.77	1.04	.80
18F2633	39D258G015GP4	2,500	GP	2.01	1.18	.91
18F2634	39D408G015JL4	4,000	JL	2.43	1.42	1.10
18F2635	39D808G015JT4	8,000	JT	3.15	1.84	1.42

25 WVDC

Stk. No.	Type	Mfd.	DxL	1-24	25-49	50-99
18F2636	39D207G025EJ4	200	EJ	1.62	.95	.73
18F2637	39D507G025HE4	500	HE	1.74	1.02	.79
18F2638	39D108G025GL4	1,000	GL	1.95	1.14	.88
18F2639	39D228G025HP4	2,200	HP	2.07	1.21	.94
18F2640	39D408G025JT4	4,000	JT	3.15	1.84	1.42

30 WVDC

Stk. No.	Type	Mfd.	DxL	1-24	25-49	50-99
18F2641	39D756G030EE4	75	EE	1.59	.93	.72
18F2642	39D157G030EJ4	150	EJ	1.62	.95	.73
18F2643	39D257G030EL4	250	EL	1.67	.98	.75

CERAMIC CAPACITORS

Series 5 GA. Tiny, tough, dependable in every application. Low self-inductance of silvered flat-plate design means very high by-pass efficiency in all TV circuits. Designed for 85°C (185°F) continuous operation. Flat plate construction permits higher self-resonant frequency than tubular ceramic or molded mica capacitors. Tough moisture proof coating. Tol. ±20%. 1000 WVDC.

Stk. No.	Type	Mmfd.	1-99	100-249	250-499	500-UP
18F2675	5GA-V50	5	.15	.119	.066	.059
18F2676	5GA-V75	7.5	.15	.119	.066	.059
18F2677	5GA-Q10	10	.15	.119	.066	.059
18F2678	5GA-Q12	12	.15	.119	.066	.059
18F2679	5GA-Q15	15	.15	.119	.066	.059
18F2680	5GA-Q20	20	.15	.119	.066	.059
18F2681	5GA-Q22	22	.15	.119	.066	.059
18F2682	5GA-Q25	25	.15	.119	.066	.059
18F2683	5GA-Q27	27	.15	.119	.066	.059
18F2684	5GA-Q30	30	.15	.119	.066	.059
18F2685	5GA-Q33	33	.15	.119	.066	.059
18F2686	5GA-Q39	39	.15	.119	.066	.059
18F2687	5GA-Q47	47	.15	.119	.066	.059
18F2688	5GA-Q50	50	.15	.119	.066	.059
18F2689	5GA-Q56	56	.15	.119	.066	.059
18F2690	5GA-Q68	68	.15	.119	.066	.059
18F2691	5GA-Q75	75	.15	.119	.066	.059
18F2692	5GA-Q82	82	.15	.119	.066	.059
18F2693	5GA-T10	100	.15	.119	.066	.059
18F2694	5GA-T12	120	.15	.119	.066	.059
18F2695	5GA-T15	150	.15	.119	.055	.049
18F2696	5GA-T18	180	.15	.119	.066	.059
18F2697	5GA-T20	200	.15	.119	.066	.059
18F2698	5GA-T22	220	.15	.119	.055	.049
18F2699	5GA-T25	250	.15	.119	.066	.059
18F2700	5GA-T27	270	.15	.119	.066	.059
18F2701	5GA-T30	300	.15	.119	.066	.059
18F2702	5GA-T33	330	.15	.119	.055	.049

SIZE KEY CHART FOR TYPE 39D

Key	DxL	Key	DxL	Key	DxL	Key	DxL
EE	1/2ex1 1/4	FP	1 1/2ex2 3/4	HE	1 1/2ex1 1/4	JL	1 1/2ex2 1/4
EJ	3/4ex1 3/4	GE	1 1/2ex1 1/4	HL	1 1/2ex2 1/4	JP	1 1/2ex2 3/4
EL	3/4ex2 1/4	GJ	1 1/2ex1 3/4	HP	1 1/2ex2 3/4	JS	1 1/2ex3 3/4
FJ	1 1/2ex1 3/4	GL	1 1/2ex2 1/4	HS	1 1/2ex3 1/4	JT	1 1/2ex3 3/4
FL	1 1/2ex2 1/4	GP	1 1/2ex2 3/4	JE	1 1/2ex1 1/4		

30 WVDC (Continued)

Stk. No.	Type	Mfd.	DxL	1-24	25-49	50-99
18F2644	39D507G030FL4	500	FL	1.77	1.04	.80
18F2645	39D118G030GP4	1,100	GP	2.01	1.18	.91
18F2646	39D218G030HS4	3,000	HS	2.52	1.48	1.14

50 WVDC

Stk. No.	Type	Mfd.	DxL	1-24	25-49	50-99
18F2647	39D506G050EE4	50	EE	1.59	.93	.72
18F2648	39D107G050EJ4	100	EJ	1.62	.95	.73
18F2649	39D157G050EL4	150	EL	1.67	.98	.75
18F2650	39D257G050HE4	250	HE	1.74	1.02	.79
18F2651	39D507G050GL4	500	GL	1.95	1.14	.88
18F2652	39D118G050HP4	1,100	HP	2.07	1.21	.94
18F2653	39D238G050JT4	2,300	JT	3.15	1.84	1.42

150 WVDC

Stk. No.	Type	Mfd.	DxL	1-24	25-49	50-99
18F2654	39D256F150EJ4	25	EJ	1.62	.95	.73
18F2655	39D506F150FJ4	50	FJ	1.71	1.00	.77
18F2656	39D107F150FP4	100	FP	1.92	1.13	.87
18F2657	39D257F150HP4	250	HP	2.07	1.21	.94
18F2658	39D537F150JT4	530	JT	3.15	1.84	1.42

250 WVDC

Stk. No.	Type	Mfd.	DxL	1-24	25-49	50-99
18F2659	39D206F250EL4	20	EL	1.67	.98	.75
18F2660	39D506F250EJ4	50	EJ	1.89	1.11	.85
18F2661	39D107F250HL4	100	HL	2.06	1.20	.93
18F2662	39D207F250JP4	200	JP	2.58	1.51	1.16
18F2663	39D307F250JT4	300	JT	3.15	1.84	1.42

350 WVDC

Stk. No.	Type	Mfd.	DxL	1-24	25-49	50-99
18F2664	39D206F350FL4	20	FL	1.77	1.04	.80
18F2665	39D306F350FP4	30	FP	1.92	1.13	.87
18F2666	39D406F350GL4	40	GL	1.95	1.14	.88
18F2667	39D506F350GP4	50	GP	2.01	1.18	.91
18F2668	39D107F350HS4	100	HS	2.52	1.48	1.14
18F2669	39D167F350JT4	160	JT	3.15	1.84	1.42

450 WVDC

Stk. No.	Type	Mfd.	DxL	1-24	25-49	50-99
18F2670	39D505F450EL4	5	EL	1.67	.98	.75
18F2671	39D106F450FL4	10	FL	1.77	1.04	.80
18F2672	39D206F450GL4	20	GL	1.95	1.14	.88
18F2673	39D506F450JP4	50	JP	2.58	1.51	1.16
18F2674	39D756F450JT4	75	JT	3.15	1.84	1.42

Stk. No.	Type	Mmfd.	1-99	100-249	250-499	500-UP
18F2703	5GA-T36	360	.15	.119	.066	.059
18F2704	5GA-T39	390	.15	.119	.066	.059
18F2705	5GA-T47	470	.15	.119	.055	.049
18F2706	5GA-T50	500	.15	.119	.055	.049
18F2707	5GA-T56	560	.15	.119	.055	.049
18F2708	5GA-T68	680	.15	.119	.055	.049
18F2709	5GA-T75	750	.15	.119	.055	.049
18F2710	5GA-T82	820	.15	.119	.055	.049

Stk. No.	Type	Mfd.	1-99	100-249	250-499	500-up
18F2711	5GA-D10	.001	.15	.119	.055	.049
18F2712	5GA-D12	.0012	.15	.119	.055	.049
18F2713	5GA-D13	.0013	.15	.119	.055	.049
18F2714	5GA-D15	.0015	.15	.119	.055	.049
18F2715	5GA-D18	.0018	.15	.119	.055	.049
18F2716	5GA-D20	.002	.15	.119	.055	.049
18F2717	5GA-D22	.0022	.15	.119	.055	.049
18F2718	5GA-D25	.0025	.15	.119	.066	.059
18F2719	5GA-D27	.0027	.15	.119	.066	.059
18F2720	5GA-D30	.003	.15	.119	.066	.059
18F2721	5GA-D33	.0033	.15	.119	.055	.049
18F2722	5GA-D39	.0039	.15	.119	.055	.049
18F2723	5GA-D40	.004	.15	.119	.066	.059
18F2724	5GA-D43	.0043	.15	.119	.066	.059
18F2725	5GA-D47	.0047	.15	.119	.057	.051
18F2726	5GA-D50	.005	.15	.119	.057	.051
18F2727	5GA-S10	.01	.15	.119	.072	.064
18F2728	5GA-S15	.015	.27	.214	.191	.170
18F2729	5GA-S20	.02	.39	.309	.281	.250
18F2730	5GA-S25	.025	.39	.309	.281	.250
18F2731	5GA-S40	.04	.39	.309	.281	.250
18F2732	5GA-S50	.05	.39	.309	.281	.250
18F2733	5GA-P10	.1	.84	.665	.619	.550

NEWARK Saves You Time and Money

Capacitors



SUBMINIATURE—TYPE 96P—VITAMIN Q

Inserted tab construction. Glass-to-metal hermetically sealed. Operates from -55°C to $+125^{\circ}\text{C}$. Terminals are insulated from metal case. Impregnated with vitamin Q. Tolerance of $\pm 10\%$. Meets "latest" MIL-C-25 specs. Section insulated from can.



CASE SIZES FOR TYPES BELOW

A: .175x3/4" E: .400x 7/8" H: .562x1 1/8" L: .670x1 7/8"
 B: .195x3/4" F: .400x1 1/8" J: .562x1 1/8" M: .750x2 1/8"
 C: .235x3/4" G: .400x1 1/8" K: .562x1 1/8" N: 1.000x1 7/8"
 D: .312x3/4"

100 WVDC — $\pm 10\%$ TOLERANCE

Stk. No.	Type	Mfd.	Sz.	1-9	10-24	25-49	50-99	100-499
18F1000	96P10291S2	.001	A					
18F1004	96P15291S2	.0015	A	1.65	1.24	.93	.619	.495
18F1009	96P22291S2	.0022	A					
18F1013	96P33291S2	.0033	A					
18F1018	96P47291S2	.0047	A					
18F1022	96P68291S2	.0068	A	1.68	1.26	.95	.627	.502
18F475	96P10391S2	.01	A					
18F1027	96P15391S2	.015	A					
18F1032	96P22391S2	.022	B					
18F1034	96P33391S2	.033	C	1.63	1.23	.92	.611	.488
18F1039	96P47391S2	.047	D	1.63	1.23	.92	.611	.488
18F1040	96P68391S2	.068	D	1.72	1.29	.97	.644	.515
18F900	96P10491S2	.1	E	1.76	1.32	.99	.66	.528
18F1044	96P15491S2	.15	E	1.85	1.39	1.04	.693	.554
18F1049	96P22491S2	.22	F	1.85	1.39	1.04	.693	.554
18F1051	96P33491S2	.33	F	2.12	1.59	1.19	.792	.634
18F901	96P47491S2	.47	H	2.25	1.69	1.27	.842	.673
18F1056	96P68491S2	.68	I	2.34	1.75	1.32	.875	.700
18F471	96P10591S2	1.00	K	2.82	2.12	1.59	1.056	.845

200 WVDC — $\pm 10\%$ TOLERANCE

Stk. No.	Type	Mfd.	Sz.	1-9	10-24	25-49	50-99	100-499
18F1001	96P10292S2	.001	C	1.59	1.19	.90	.594	.475
18F1005	96P15292S2	.0015	C					
18F1010	96P22292S2	.0022	C					
18F1014	96P33292S2	.0033	C	1.63	1.23	.92	.611	.488
18F1019	96P47292S2	.0047	C					
18F1023	96P68292S2	.0068	C	1.63	1.23	.92	.611	.488
18F476	96P10392S2	.01	C					
18F1028	96P15392S2	.015	C	1.65	1.24	.93	.619	.495
18F477	96P22392S2	.022	D	1.65	1.24	.93	.619	.495
18F1035	96P33392S2	.033	D	1.68	1.26	.95	.627	.502
18F478	96P47392S2	.047	D	1.72	1.29	.97	.644	.515
18F1041	96P68392S2	.068	D	1.76	1.32	.99	.66	.528
18F902	96P10492S2	.1	E	1.81	1.36	1.02	.677	.541
18F1045	96P15492S2	.15	F	1.83	1.37	1.03	.685	.548
18F479	96P22492S2	.22	G	2.01	1.51	1.13	.751	.601
18F1052	96P33492S2	.33	H	2.16	1.62	1.22	.809	.647
18F903	96P47492S2	.47	I	2.29	1.72	1.29	.858	.686
18F1057	96P68492S2	.68	K	2.42	1.82	1.37	.908	.726
18F480	96P10592S2	1.00	L	2.91	2.12	1.64	1.089	.871

400 WVDC — $\pm 10\%$ TOLERANCE

Stk. No.	Type	Mfd.	Sz.	1-9	10-24	25-49	50-99	100-499
18F1003	96P10294S2	.001	C	1.65	1.24	.93	.619	.495
18F1007	96P15294S2	.0015	C	1.65	1.24	.93	.619	.495
18F1012	96P22294S2	.0022	C	1.65	1.24	.93	.619	.495
18F1016	96P33294S2	.0033	C	1.70	1.28	.96	.635	.508
18F1021	96P47294S2	.0047	C	1.70	1.28	.96	.635	.508
18F1025	96P68294S2	.0068	C	1.70	1.28	.96	.635	.508
18F481	96P10394S2	.01	C	1.72	1.29	.97	.644	.515
18F1030	96P15394S2	.015	D	1.76	1.32	.99	.66	.528
18F482	96P22394S2	.022	D	1.79	1.34	1.01	.668	.535
18F1037	96P33394S2	.033	D	1.79	1.34	1.01	.668	.535
18F483	96P47394S2	.047	E	1.85	1.39	1.04	.693	.554
18F1043	96P68394S2	.068	F	1.90	1.42	1.07	.710	.568
18F304	96P10494S2	.1	G	1.94	1.46	1.09	.726	.581
18F1047	96P15494S2	.15	H	2.12	1.59	1.19	.792	.634
18F905	96P22494S2	.22	I	2.25	1.69	1.27	.842	.673
18F1054	96P33494S2	.33	J	2.29	1.72	1.29	.858	.686
18F306	96P47494S2	.47	L	2.73	2.05	1.54	1.023	.818
18F1059	96P68494S2	.68	M	3.63	2.73	2.05	1.361	1.089
18F486	96P10594S2	1.00	N	3.77	2.83	2.12	1.411	1.129

600 WVDC — $\pm 10\%$ TOLERANCE

Stk. No.	Type	Mfd.	Sz.	1-9	10-24	25-49	50-99	100-499
18F307	96P10296S2	.001	C	1.68	1.26	.95	.627	.502
18F1008	96P15296S2	.0015	C	1.68	1.26	.95	.627	.502
18F308	96P22296S2	.0022	C	1.68	1.26	.95	.627	.502
18F1017	96P33296S2	.0033	C	1.72	1.29	.97	.644	.515
18F309	96P47296S2	.0047	C	1.72	1.29	.97	.644	.515
18F310	96P68296S2	.0068	C	1.72	1.29	.97	.644	.515
18F311	96P10396S2	.01	D	1.76	1.32	.99	.66	.528
18F1031	96P15396S2	.015	D	1.81	1.36	1.02	.677	.541
18F312	96P22396S2	.022	D	1.81	1.36	1.02	.677	.541
18F1038	96P33396S2	.033	E	1.87	1.41	1.06	.702	.561
18F313	96P47396S2	.047	F	1.90	1.42	1.07	.710	.568
18F314	96P68396S2	.068	G	1.98	1.49	1.12	.743	.594
18F315	96P10496S2	.1	H	2.12	1.59	1.19	.792	.634
18F1048	96P15496S2	.15	I	2.20	1.65	1.24	.825	.660
18F316	96P22496S2	.22	J	2.28	1.79	1.34	.891	.713
18F1055	96P33496S2	.33	L	2.64	1.98	1.49	.990	.792
18F317	96P47496S2	.47	M	2.97	2.23	1.68	1.114	.891
18F1060	96P68496S2	.68	N	3.70	2.78	2.08	1.386	1.109

MIL-C-25C CAPACITORS

Inserted tab construction. Positive hermetic seal assured by glass-to-metal solder-seal terminals. Vitamin Q impregnant. Will exceed latest Mil Specs. Temperature Range -55°C to $+125^{\circ}\text{C}$. Tolerance $\pm 10\%$. Bare metal case. Vibration grade 3 CP04. Mil C-25C capacitors.



600 WVDC

Stock No.	Type	Mfd.	Sz.	1-9	10-24	25-49	50-99	100-499	500-999
18F2734	CP04A1KF473K3	.047	G	1.90	1.42	1.07	.71	.57	.52
18F1152	CP04A1KF104K3	.1	H	2.12	1.59	1.19	.80	.64	.59

400 WVDC

Stk. No.	Type	Mfd.	Sz.	1-9	10-24	25-49	50-99	100-499	500-999
18F2735	CP04A1KE103K3	.01	A	1.72	1.29	.97	.65	.52	.48
18F2736	CP04A1KE473K3	.047	D	1.85	1.39	1.04	.70	.56	.51
18F1155	CP04A1KE104K3	.1	L	1.94	1.46	1.09	.73	.59	.54

200 WVDC

Stk. No.	Type	Mfd.	Sz.	1-9	10-24	25-49	50-99	100-499	500-999
18F1158	CP04A1KC223K3	.022	A	1.65	1.24	.93	.62	.50	.46
18F1159	CP04A1KC473K3	.047	C	1.82	1.29	.97	.65	.52	.48
18F2737	CP04A1KB224K3	.22	G	1.85	1.39	1.04	.70	.56	.51

CP05 MIL C-25C CAPACITORS

The same capacitor as CP04 except supplied with insulating sleeve.

600 WVDC

Stock No.	Type	Mfd.	Sz.	1-9	10-24	25-49	50-99	100-499	500-999
18F2738	CP05A1KF103K3	.01	E	1.88	1.41	1.06	.71	.57	.52
18F2739	CP05A1KF223K3	.022	E	1.92	1.44	1.08	.72	.58	.53

400 WVDC

Stk. No.	Type	Mfd.	Sz.	1-9	10-24	25-49	50-99	100-499	500-999
18F2740	CP05A1KE103K3	.01	B	1.83	1.38	1.03	.69	.55	.51
18F1168	CP05A1KE473K3	.047	F	1.99	1.50	1.12	.75	.60	.55
18F2741	CP05A1KE104K3	.1	M	2.08	1.56	1.17	.78	.63	.58
18F2742	CP05A1KE474K3	.47	S	2.95	2.22	1.66	1.11	.89	.82

200 WVDC

Stk. No.	Type	Mfd.	Sz.	1-9	10-24	25-49	50-99	100-499	500-999
18F2743	CP05A1KC153K3	.015	B	1.77	1.33	1.00	.67	.53	.49
18F2744	CP05A1KC223K3	.022	B	1.77	1.33	1.00	.67	.53	.49
18F2745	CP05A1KC104K3	.1	F	1.95	1.46	1.10	.73	.59	.54
18F2746	CP05A1KC224K3	.22	M	2.15	1.61	1.21	.81	.65	.59

100 WVDC

Stk. No.	Type	Mfd.	Sz.	1-9	10-24	25-49	50-99	100-499	500-999
18F2747	CP05A1KB104K3	.1	E	1.88	1.41	1.06	.71	.57	.52
18F2748	CP05A1KB474K3	.47	K	2.44	1.83	1.37	.92	.74	.67
18F2749	CP05A1KB105K3								



Type 150D and CS13 Solid Tantalums

STANDARD SERIES 150D & MILITARY TYPE CS13

Type CS13. Hermetically sealed solid tantalum capacitors to Mil-C-26655 Revision 2D. Plastic insulating sleeves. Extremely low leakage current and stability with both temperature and time. Temperature range: -80°C to +85°C; +125°C with 1/2 voltage derating. Combines true miniaturization with characteristics previously unobtainable in electrolytic capacitors. Type 150D same as above except commercial series.

SIZE & PRICE LOCATOR CHART

Size & Price Key	Sizes	1-24	25-49	50-99	100-499	500-999
A	.135"x.322"L.	1.31	1.05	.72	.59	.50
B	.135"x.322"L.	1.34	1.09	.75	.62	.53
C	.135"x.322"L.	1.82	1.54	1.30	1.11	1.00
D	.135"x.322"L.	2.48	1.95	1.68	1.45	1.31
E	.185"x.510"L.	1.54	1.24	.74	.61	.51
F	.185"x.510"L.	1.57	1.27	.77	.64	.54
G	.185"x.510"L.	2.02	1.62	1.37	1.17	1.07
H	.185"x.510"L.	2.62	2.10	1.77	1.52	1.39
I	.289"x.722"L.	2.20	1.99	1.33	1.09	.91
J	.289"x.722"L.	2.23	2.01	1.36	1.12	.94
K	.289"x.722"L.	2.54	2.04	1.39	1.13	.95

New Size & Price Key	Sizes	1-24	25-49	50-99	100-499	500-999
M	.289"x.722"L.	2.57	2.07	1.42	1.16	.96
N	.289"x.722"L.	3.30	2.64	2.24	1.91	1.75
P	.289"x.722"L.	4.28	3.43	2.90	3.47	2.26
R	.351"x.822"L.	4.47	3.53	2.31	1.88	1.57
S	.351"x.822"L.	4.50	3.56	2.34	1.91	1.60
T	.351"x.822"L.	4.57	3.63	2.03	2.03	1.70
U	.351"x.822"L.	4.60	3.66	2.53	2.08	1.73
V	.351"x.822"L.	4.72	3.78	2.26	2.26	1.88
W	.351"x.822"L.	4.75	3.81	2.81	2.29	1.91
X	.351"x.822"L.	6.14	4.92	4.16	3.54	3.24

6 WVDC

STANDARD		MIL-C-26655B		Mfd	Tol	Price & Size Key
Stk. No.	150D	Stk. No.	CS13			
18F1354	565X900A2	18F2258	BB565K	5.6	10	B
18F1355	685X900E2	18F2259	BB685K	6.8	10	B
18F1356	476X900E2	18F2261	BB476K	4.7	10	F
18F1357	566X900E2	18F2263	BB566K	5.6	10	F
18F1821	606X000E2	.....	.....	60	10	F
18F1822	157X900E2	18F2264	BB157K	150	10	K
18F1823	187X900E2	18F2266	BB187K	180	10	K
18F1824	277X900E2	18F2267	BB277K	270	10	S
18F1825	337X900E2	18F2268	BB337K	330	10	S
18F770	685X000E2	18F2260	BB685M	6.8	20	A
18F1210	106X000E2	.....	.....	10	20	A
18F1211	336X000E2	.....	.....	33	20	E
18F1212	476X000E2	18F2262	BB476M	47	20	E
18F1236	606X000E2	.....	.....	60	20	E
18F1213	157X000E2	18F2265	BB157M	150	20	J
18F1214	187X000E2	.....	.....	180	20	J
18F1839	277X000E2	.....	.....	270	20	R
18F1237	337X000E2	18F2269	BB337M	330	20	R

10 WVDC

STANDARD		MIL-C-26655B		Mfd	Tol	Price & Size Key
Stk. No.	150D	Stk. No.	CS13			
18F1358	395X9010A2	18F2270	BC395K	3.9	10	B
18F1359	475X9010A2	18F2271	BC475K	4.7	10	B
18F1360	276X9010B2	18F2273	BC276K	27	10	F
18F1361	336X9010B2	18F2274	BC336K	33	10	F
18F1362	396X9010B2	18F2276	BC396K	39	10	F
18F1244	406X9010B2	.....	.....	40	10	F
18F1245	826X9010R2	18F2277	BC826K	82	10	K
18F1246	107X9010R2	18F2278	BC107K	100	10	K
18F1247	127X9010R2	18F2280	BC127K	120	10	K
18F1248	187X9010S2	18F2281	BC187K	180	10	S
18F1249	227X9010S2	18F2282	BC227K	220	10	S
18F772	475X0010A2	18F2272	BC475M	4.7	20	A
18F773	336X0010B2	18F2275	BC336M	33	20	E
18F774	406X0010B2	.....	.....	40	20	E
18F1215	107X0010R2	18F2279	BC107M	100	20	J
18F1216	127X0010R2	.....	.....	120	20	J
18F1238	227X0010S2	18F2283	BC227M	220	20	R

15 WVDC

STANDARD		MIL-C-26655B		Mfd	Tol	Price & Size Key
Stk. No.	150D	Stk. No.	CS13			
18F1363	275X9015A2	18F2284	BD275K	2.7	10	B
18F1826	335X9015A2	18F2285	BD335K	3.3	10	B
18F1364	186X9015B2	18F2287	BD186K	18	10	F
18F1365	226X9015B2	18F2288	BD226K	22	10	F
18F1827	566X9015R2	18F2290	BD566K	56	10	K
18F1828	686X9015R2	18F2291	BD686K	68	10	K
18F1829	127X9015S2	18F2292	BD127K	120	10	S
18F1830	157X9015S2	18F2293	BD157K	150	10	S
18F775	335X0015A2	18F2286	BD335M	3.3	20	A
18F776	226X0015B2	18F2289	BD226M	22	20	E
18F1217	686X0015R2	18F2295	BD686M	68	20	J
18F1239	157X0015S2	18F2294	BD157M	150	20	R

20 WVDC

STANDARD		MIL-C-26655B		Mfd	Tol	Price & Size Key
Stk. No.	150D	Stk. No.	CS13			
18F1366	125X9020A2	18F2296	BE125K	1.2	10	B
18F1367	155X9020A2	18F2297	BE155K	1.5	10	B
18F1368	185X9020A2	18F2299	BE185K	1.8	10	B
18F1369	225X9020A2	18F2300	BE225K	2.2	10	B
18F1370	825X9020B2	18F2302	BE825K	8.2	10	F
18F1371	106X9020B2	18F2303	BE106K	10	10	F
18F1372	126X9020B2	18F2305	BE126K	12	10	F
18F1373	156X9020B2	18F2306	BE156K	15	10	F
18F1831	276X9020R2	18F2308	BE276K	27	10	K
18F1832	336X9020R2	18F2309	BE336K	33	10	K
18F1833	396X9020R2	18F2311	BE396K	39	10	K
18F1834	476X9020R2	18F2312	BE476K	47	10	K
18F1835	566X9020S2	18F2314	BE566K	56	10	S
18F1836	686X9020S2	18F2315	BE686K	68	10	S
18F1837	826X9020S2	18F2317	BE826K	82	10	S
18F1838	107X9020S2	18F2318	BE107K	100	10	S
18F777	334X0020A2	.....	.....	33	20	A
18F778	474X0020A2	.....	.....	47	20	A
18F779	684X0020A2	.....	.....	68	20	A
18F780	105X0020A2	.....	.....	1.0	20	A
18F781	155X0020A2	18F2298	BE155M	1.5	20	A

20 WVDC

STANDARD		MIL-C-26655B		Mfd	Tol	Price & Size Key
Stk. No.	150D	Stk. No.	CS13			
18F782	225X0020A2	18F2301	BE225M	2.2	20	A
18F783	335X0020B2	.....	.....	3.3	20	E
18F784	475X0020B2	.....	.....	4.7	20	E
18F785	565X0020B2	.....	.....	6.8	20	E
18F786	106X0020B2	18F2304	BE106M	10	20	E
18F1218	156X0020B2	18F2307	BE156M	15	20	E
18F1219	226X0020R2	.....	.....	22	20	L
18F1220	336X0020R2	18F2310	BE336M	33	20	J
18F1221	476X0020R2	18F2313	BE476M	47	20	J
18F1240	686X0020S2	18F2316	BE686M	68	20	R
18F1243	107X0020S2	18F2319	BE107M	100	20	R

35 WVDC

STANDARD		MIL-C-26655B		Mfd	Tol	Price & Size Key
Stk. No.	150D	Stk. No.	CS13			
18F1840	472X9035A2	.....	.....	.0047	10	B
18F1841	562X9035A2	.....	.....	.0056	10	B
18F1842	682X9035A2	.....	.....	.0068	10	B
18F1374	822X9035A2	.....	.....	.0082	10	B
18F1375	103X9035A2	.....	.....	.01	10	B
18F1376	123X9035A2	.....	.....	.012	10	B
18F1377	153X9035A2	.....	.....	.015	10	B
18F1378	183X9035A2	.....	.....	.018	10	B
18F1379	223X9035A2	.....	.....	.022	10	B
18F1380	273X9035A2	.....	.....	.027	10	B
18F1381	333X9035A2	.....	.....	.033	10	B
18F1382	393X9035A2	.....	.....	.039	10	B
18F1383	473X9035A2	.....	.....	.047	10	B
18F1384	563X9035A2	.....	.....	.056	10	B
18F1385	683X9035A2	.....	.....	.068	10	B
18F1386	823X9035A2	.....	.....	.082	10	B
18F1387	104X9035A2	.....	.....	.10	10	B
18F1388	124X9035A2	.....	.....	.12	10	B
18F1389	154X9035A2	.....	.....	.15	10	B
18F1390	184X9035A2	.....	.....	.18	10	B
18F1391	224X9035A2	.....	.....	.22	10	B
18F1392	274X9035A2	.....	.....	.27	10	B
18F1393	334X9035A2	18F2320	BF334K	33	10	B
18F1843	394X9035A2	18F2322	BF394K	39	10	B
18F1394	474X9035A2	18F2323	BF474K	47	10	B
18F1395	564X9035A2	18F2325	BF564K	56	10	B
18F1396	684X9035A2	18F2326	BF684K	68	10	B
18F1397	824X9035A2	18F2328	BF824K	82	10	B
18F1398	105X9035A2	18F2329	BF105K	1.0	10	B
18F1399	125X9035B2	18F2331	BF125K	1.2	10	F
18F1400	155X9035B2	18F2332	BF155K	1.5	10	F
18F1401	185X9035B2	18F2334	BF185K	1.8	10	F
18F1402	225X9035B2	18F2335	BF225K	2.2	10	F
18F1403	275X9035B2	18F2337	BF275K	2.7	10	F
18F1404	335X9035B2	18F2338	BF335K	3.3	10	F
18F1405	395X9035B2	18F2340	BF395K	3.9	10	F
18F1406	475X9035B2	18F2341	BF475K	4.7	10	F
18F1407	565X9035B2	18F2343	BF565K	5.6	10	F
18F1408	685X9035B2	18F2344	BF685K	6.8	10	F
18F1844	825X9035R2	18F2346	BF825K	8.2	10	F
18F1845	106X9035R2	18F2347	BF106K	10	10	M
18F1846	126X9035R2	18F2349	BF126K	12	10	M
18F1847	156X9035R2	18F2350	BF156K	15	10	M
18F1848	186X9035R2	18F2352	BF186K	18	10	M
18F1849	226X9035R2	18F2353	BF226K	22	10	M
18F1850	276X9035S2	18F2355	BF276K	27	10	U
18F1851	336X9035S2	18F2356	BF336K	33	10	U
18F1852	396X9035S2	18F2358	BF396K	39	10	W
18F1853	476X9035S2	18F2359	BF476K	47	10	W
18F787	472X0035A2	.....	.....	.0		

Capacitors and Electrolytics



150D and CS13 Types Continued From Previous Page

35 WVDC

Standard		Mil-C-2665B		Mfd.	Tol ±%	Price & Size Key
Stk. No.	150D	Stk. No.	CS13			
18F1225	474X0035A2	18F2324	BF474M	.47	20	A
18F1226	684X0035A2	18F2327	BF684M	.68	20	A
18F1227	105X0035A2	18F2330	BF105M	1.0	20	A
18F1228	155X0035B2	18F2333	BF155M	1.5	20	E
18F1229	225X0036B2	18F2336	BF225M	2.2	20	E
18F1230	335X0035B2	18F2339	BF335M	3.3	20	E
18F1231	475X0035B2	18F2342	BF475M	4.7	20	E
18F1232	685X0035B2	18F2345	BF685M	6.8	20	E
18F1233	106X0035R2	18F2348	BF106M	10	20	L
18F1234	156X0035R2	18F2351	BF156M	15	20	L
18F1235	226X0035R2	18F2354	BF226M	22	20	L
18F1241	336X0035S2	18F2357	BF336M	33	20	T
18F1242	476X0035S2	18F2360	BF476M	47	20	V

50 WVDC

Stk. No.	150D	Mfd.	Tol ±%	Price & Size Key
18F1855	273X9050A2	.018	10	D
18F1856	393X9050A2	.027	10	D
18F1857	563X9050A2	.039	10	D
18F1858	823X9050A2	.056	10	D
18F1859	124X9050A2	.082	10	D
18F1860	184X9050A2	.12	10	D
18F1861	274X9050A2	.18	10	D
18F1862	394X9050A2	.27	10	D
18F1863	564X9050A2	.39	10	D
18F1864	824X9050A2	.56	10	D
18F1865	125X9050B2	.82	10	D
18F1866	185X9050B2	1.2	10	H

50 WVDC (CON'T.)

Standard		Mil-C-2665B		Mfd.	TO-1 ±%	Price & Key Size
Stk. No.	150D	Stk. No.	CS13			
18F1867	123X9050A2	18F2366	BG185K	1.8	10	H
18F1868	275X9050B2	18F2369	BG275K	2.7	10	H
18F1869	395X9050B2	18F2370	BG395K	3.9	10	H
18F1870	565X9050R2	18F2373	BG565K	5.6	10	H
18F1871	825X9050R2	18F2378	BG825K	8.2	10	H
18F1872	126X9050R2	18F2381	BG126K	12	10	H
18F1873	186X9050R2	18F2384	BG186K	18	10	H
18F1800	103X0050A2	.....	.....	.01	20	.....
18F1801	153X0050A2	.....	.....	.015	20	.....
18F1802	223X0050A2	.....	.....	.022	20	.....
18F1803	333X0050A2	.....	.....	.033	20	.....
18F1804	473X0050A2	.....	.....	.047	20	.....
18F1805	683X0050A2	.....	.....	.068	20	.....
18F1806	104X0050A2	.....	.....	.1	20	.....
18F1807	154X0050A2	.....	.....	.15	20	.....
18F1808	224X0050A2	.....	.....	.22	20	.....
18F1809	334X0050A2	.....	.....	.33	20	.....
18F1810	474X0050A2	.....	.....	.47	20	.....
18F1811	684X0050A2	.....	.....	.68	20	.....
18F1812	105X0050A2	18F2362	BG105M	1.0	20	.....
18F1813	155X0050B2	18F2365	BG155M	1.5	20	.....
18F1814	225X0050B2	18F2368	BG225M	2.2	20	.....
18F1815	335X0050B2	18F2371	BG335M	3.3	20	.....
18F1816	475X0050B2	18F2374	BG475M	4.7	20	.....
18F1817	685X0050R2	18F2377	BG685M	6.8	20	.....
18F1818	106X0050R2	18F2380	BG106M	10	20	.....
18F1819	156X0050R2	18F2383	BG156M	15	20	.....
18F1820	226X0050S2	18F2386	BG226M	22	20	.....

HIGH-VOLTAGE DOORKNOB CERAMICS

Capacitor body has female threads for interchangeable screw-in terminals. Molded in non-flammable, moisture-resistant, thermosetting plastic. Guard rings lengthen the surface creepage path.

Type 20DK-T5. Complete with 7 terminals. 1" dia. x 3/4".

Type 30DK-T5. Complete with 2 terminals. 1 1/16" dia. x 1 1/4".



Stk. No.	Type	µF	KV	NET
18F2762	20DK-T5	500	20	1.65
18F2763	30DK-T5	500	30	2.40

J-135 "CERAMICENTER" CERAMIC ASSORTMENT KIT

- Handy metal drawers — Save Time and Effort



710 capacitors of 57 different values in handy reusable "Kleer-Pak" plastic boxes. Kit includes: 290 Type 5 GA, 1000 WVDC ceramic disc capacitors in 31 different values from 5 mm to 20,000 mmf; 145 Type 5HK "High K" bypass and coupling capacitors in 7 different values from .001 mfd. to .01 mfd. @ 1000 WVDC and .02 mfd. to .1 mfd. @ 500 WVDC; 100 Type 10 TS, 1000 WVDC temperature stable capacitors in 12 different values from 100 mmf to 20,000 mmf; and 175 Type TG, 50 WVDC disc capacitors in 7 different values from .005 to .1 mfd. Cabinet, 30 3/4" x 5 1/2" x 1 3/4". Ship. wt., 29 lbs. **172.50**

DEPEND ON NEWARK FOR THE LATEST TOP-QUALITY EQUIPMENT

TYPE 600D HIGH GRADE ALUMINUM ELECTROLYTICS — PLASTIC INSULATING SLEEVE



Offer combination of extended temperature range and high voltage rating. Dual rated, may be used for 85°C or 125°C operation. Withstands 2000-hour life test at either temperature, and corresponding working voltage. And vibration from 10 to 2000 cycles at 15 g. Features excellent capacitance stability, dissipation factor and

DC leakage current after high temperature shelf testing. Closely approximate electrical requirements of MIL-C-3965 tantalum foil capacitors, at about half the cost. Compact size, weighs only about one-third as much as equivalent tantalum types. Tolerance is -10%, +75%, up to 75 WVDC; -10%, +50% for 100 WVDC up. Sizes shown in chart are for bare can only; add 1/4" to dia. and 1/16" to length for insulating sleeve. Avg. shpg. wt., 3 oz.

PRICE AND SIZE CHART

Case Size	Dia. x Len.	1-9	10-24	25-49	50-99	100-499
A	3/8 x 1 3/4"	2.86	2.14	1.44	1.26	.899
B	3/8 x 1 1/2"	3.88	2.29	1.54	1.34	.962
C	3/8 x 1 1/8"	3.88	2.88	2.00	1.75	1.254
D	3/8 x 1 3/8"	5.88	4.48	3.00	2.62	1.874
E	3/8 x 1 5/8"	6.14	4.60	3.08	2.69	1.924
F	3/8 x 1 3/4"	6.58	4.93	3.30	2.88	2.064

Stock No.	Type 600D-	WVDC@		Size Pr. Key
		85° C	125° C	
18F2765	147G07DDC4	140	7	5 A
18F2766	217G07DDA4	210	7	5 B
18F2767	287G07DEA4	280	7	5 C
18F2768	427G07DGA4	420	7	5 D
18F2769	567G07DJ4	560	7	5 E
18F2770	857G07DLA4	850	7	5 F
18F2771	956G015DC4	95	15	10 A
18F2772	147G015DD4	140	15	10 B
18F2773	197G015DE4	190	15	10 C
18F2774	297G015DG4	290	15	10 D
18F2775	397G015DJ4	390	15	10 E
18F2776	587G015DL4	580	15	10 F
18F2777	706G02DDC4	70	20	15 A
18F2778	107G02DDA4	100	20	15 B
18F2779	147G02DDA4	140	20	15 C
18F2780	227G02DDG4	220	20	15 D
18F2781	297G02DDJ4	290	20	15 E
18F2782	447G02DDL4	440	20	15 F
18F2783	506G025DC4	50	25	20 A
18F2784	756G025DD4	75	25	20 B
18F2785	107G025DE4	100	25	20 C
18F2786	157G025DG4	150	25	20 D

Stock No.	Type 600D-	WVDC@		Size Pr. Key
		85° C	125° C	
18F2787	217G025DJ4	210	25	20 E
18F2788	317G025DL4	310	25	20 F
18F2789	306G04DDC4	30	40	30 A
18F2790	506G04DDA4	50	40	30 B
18F2791	706G04DEA4	70	40	30 C
18F2792	107G04DDG4	100	40	30 D
18F2793	147G04DDJ4	140	40	30 E
18F2794	217G04DDL4	210	40	30 F
18F2795	206G05DDC4	20	50	40 A
18F2796	356G05DDA4	35	50	40 B
18F2797	506G05DEA4	50	50	40 C
18F2798	756G05DDG4	75	50	40 D
18F2799	107G05DDJ4	100	50	40 E
18F2800	157G05DDL4	150	50	40 F
18F2801	186G06DDC4	18	60	50 A
18F2802	256G06DDA4	25	60	50 B
18F2803	406G06DEA4	40	60	50 C
18F2804	606G06DDG4	60	60	50 D
18F2805	806G06DDJ4	80	60	50 E
18F2806	127G06DDL4	120	60	50 F
18F2807	156G07DDC4	15	70	60 A
18F2808	206G07DDA4	20	70	60 B

Stock No.	Type 600D-	WVDC@		Size Pr. Key
		85° C	125° C	
18F2809	306G070DE4	30	70	60 C
18F2810	506G070DG4	50	70	60 D
18F2811	656G070DJ4	65	70	60 E
18F2812	107G070DL4	100	70	60 F
18F2813	805G100DC4	8	100	75 A
18F2814	136G100DD4	13	100	75 B
18F2815	176G100DE4	17	100	75 C
18F2816	256G100DG4	25	100	75 D
18F2817	356G100DJ4	35	100	75 E
18F2818	506G100DL4	50	100	75 F
18F2819	605F150DC4	6	150	100 A
18F2820	905F150DD4	9	150	100 B
18F2821	126F150DE4	12	150	100 C
18F2822	186F150DG4	18	150	100 D
18F2823	256F150DJ4	25	150	100 E
18F2824	376F150DL4	37	150	100 F
18F2825	405F200DC4	4	200	150 A
18F2826	605F200DD4	6	200	150 B
18F2827	805F200DE4	8	200	150 C
18F2828	136F200DG4	13	200	150 D
18F2829	176F200DJ4	17	200	150 E
18F2830	266F200DL4	26	200	150 F

Buy at Factory Competitive Prices at NEWARK



Cornell-Dubilier Capacitors



TYPES TJU, TJL, TJH DYKANOL TRANSMITTING CAPACITORS

DC PAPER CAPACITORS TYPE T

• Similar to CP70 specifications

For power supply filter specifications. Solder seam styles, rectangular cased. Operating temp: -55°C to +85°C. CDE reserves the right to

supply type T with a 1/8" variation in case height from that shown in the listing. Ship. wt., 5 lbs. Order Brackets separately from table below: *2 needed per condenser.

600 WORKING VOLTS DC UNIVERSAL MTG. BRACKET *SPADE BRACKET

Stock No.	Type	Mtd.	H. x W. x D.	1-9	10-24	25-49	50-99	100-499	500 up	Stk. No.	Type	Net Each	Stk. No.	Type	Net Each
15F549	6005	5	2 1/4 x 1 1/4 x 1 1/8	2.67	1.34	1.20	1.11	1.02	.98	15F2000	01	.16	15F2020	SA2	.08
15F550	6010	1	2 1/4 x 1 1/4 x 1 1/8	3.00	1.50	1.35	1.25	1.15	1.10	15F2000	01	.16	15F2020	SA2	.08
15F551	6020	2	2 7/8 x 1 1/4 x 1 1/8	3.51	1.76	1.58	1.46	1.35	1.28	15F2000	01	.16	15F2021	SA3	.08
15F552	6040	4	3 1/2 x 2 1/2 x 1 3/16	4.71	2.36	2.12	1.96	1.81	1.73	15F2001	02	.16	15F2024	SB3	.08
15F548	6060	6	4 3/4 x 2 1/2 x 1 3/16	5.70	2.85	2.57	2.38	2.19	2.09	15F2001	02	.16	15F2027	SB6	.08
15F553	6080	8	3 7/8 x 3 3/4 x 1 1/4	6.84	3.42	3.07	2.85	2.62	2.51	15F2002	03	.16	15F2028	SC2	.08
15F554	6100	10	4 3/4 x 3 3/4 x 1 1/4	7.89	3.95	3.55	3.29	3.02	2.89	15F2002	03	.16	15F2030	SC4	.08

1000 WORKING VOLTS DC

15F541	10001	.1	2 x 1 1/2 x 1 1/8	2.94	1.47	1.32	1.23	1.13	1.08	15F2000	01	.16	15F2020	SA2	.08
15F542	00025	.25	2 1/4 x 1 1/4 x 1 1/8	3.00	1.50	1.35	1.25	1.15	1.10	15F2000	01	.16	15F2020	SA2	.08
15F586	10005	5	2 1/4 x 1 1/4 x 1 1/8	3.06	1.53	1.38	1.28	1.17	1.12	15F2000	01	.16	15F2020	SA2	.08
15F555	10010	1	2 1/4 x 1 1/4 x 1 1/8	3.30	1.65	1.49	1.38	1.27	1.21	15F2000	01	.16	15F2020	SA2	.08
15F556	10020	2	3 3/8 x 1 1/4 x 1 1/8	4.02	2.01	1.81	1.68	1.54	1.47	15F2000	01	.16	15F2022	SA5	.08
15F557	10040	4	4 3/4 x 2 1/2 x 1 3/16	5.28	2.64	2.38	2.20	2.02	1.94	15F2001	02	.16	15F2027	SB6	.08
15F558	10080X	8	3 7/8 x 3 3/4 x 1 1/4	7.83	3.92	3.52	3.26	3.00	2.87	15F2003	05	.27	15F2032	SD2	.14
15F559	10100	10	4 3/4 x 3 3/4 x 1 1/4	9.15	4.58	4.12	3.81	3.51	3.36	15F2003	05	.27	15F2033	SD5	.14
15F587	10150	15	4 3/4 x 3 3/4 x 2 1/2	12.90	6.45	5.81	5.38	4.95	4.73	15F2005	08	.58	15F2038	SF1	.29

1500 WORKING VOLTS DC

15F580	15005	.5	2 7/8 x 1 3/4 x 1 1/8	3.09	1.55	1.39	1.29	1.18	1.13	15F2000	01	.16	15F2021	SA3	.08
15F560	15010	1	3 7/8 x 2 1/2 x 1 3/16	3.63	1.82	1.63	1.51	1.39	1.33	15F2000	01	.16	15F2022	SA5	.08
15F561	15020X	2	4 1/4 x 2 1/2 x 1 3/16	4.80	2.40	2.16	2.00	1.84	1.76	15F2001	02	.16	15F2026	SB5	.08
15F562	15040X	4	4 3/4 x 3 3/4 x 1 1/4	7.11	3.56	3.20	2.96	2.73	2.61	15F2002	03	.16	15F2030	SC4	.08
15F563	15080	8	4 3/4 x 3 3/4 x 2 1/2	11.82	5.91	5.32	4.93	4.53	4.33	15F2005	08	.58	15F2038	SF1	.29
15F564	15100X	10	4 3/4 x 3 3/4 x 3 1/8	13.95	6.98	6.29	5.81	5.35	5.12	15F2006	09	.58	15F2040	SG2	.29

2000 WORKING VOLTS DC

15F589	20001	.1	2 1/4 x 1 1/4 x 1 1/8	4.02	2.01	1.81	1.68	1.54	1.47	15F2000	01	.16	15F2020	SA2	.08
15F590	20025	.25	2 1/4 x 1 1/4 x 1 1/8	4.32	2.16	1.94	1.80	1.66	1.58	15F2000	01	.16	15F2020	SA2	.08
15F591	20005	5	2 7/8 x 1 1/4 x 1 1/8	4.65	2.33	2.09	1.94	1.78	1.71	15F2000	01	.16	15F2021	SA3	.08
15F565	20010	1	3 1/4 x 2 1/2 x 1 3/16	5.49	2.60	2.47	2.29	2.10	2.01	15F2001	02	.16	15F2024	SB3	.08
15F566	20020	2	3 7/8 x 3 3/4 x 1 1/4	6.99	3.50	3.15	2.91	2.68	2.56	15F2002	03	.16	15F2029	SC3	.18

2000 WORKING VOLTS DC

15F567	20040	4	3 7/8 x 3 3/4 x 2 1/4	10.44	5.22	4.70	4.35	4.00	3.83	15F2004	07	.27	15F2035	SE3	.14
15F593	20080	8	4 3/4 x 3 3/4 x 3 1/8	15.18	7.59	6.83	6.33	5.82	5.57	15F2006	09	.58	15F2041	SG3	.29

2500 WORKING VOLTS DC

15F543	25005	.5	3 1/2 x 3 3/4 x 1 1/4	6.66	3.33	3.00	2.78	2.55	2.44	15F2001	02	.16	15F2024	SB3	.08
15F569	25010	1	3 1/4 x 3 3/4 x 1 3/4	8.16	4.08	3.67	3.40	3.13	2.99	15F2003	05	.27	15F2031	SD1	.14
15F571	25040*	4	3 7/8 x 3 3/4 x 4 9/16	15.21	7.61	6.84	6.34	5.83	5.58	15F2007	10	.58	15F2042	SJ1	.29
15F572	25100*	10	5 1/2 x 3 3/4 x 4 9/16	30.51	15.26	13.73	12.71	11.70	11.19	15F2007	10	.58	15F2047	SJ7	.29

3000 WORKING VOLTS DC

15F574	300025	.25	2 1/2 x 2 1/2 x 1 3/16	8.91	4.46	4.01	3.71	3.42	3.27	15F2001	02	.16	15F2023	SB2	.08
15F575	30005	5	3 7/8 x 2 1/2 x 1 3/16	9.57	4.79	4.31	3.99	3.67	3.51	15F2001	02	.16	15F2025	SB4	.08
15F576	30010	1	3 7/8 x 3 3/4 x 2 1/4	11.97	5.99	5.35	4.99	4.59	4.39	15F2004	07	.27	15F2035	SE3	.14
15F577	30020	2	4 1/4 x 3 3/4 x 3 1/8	14.73	7.37	6.63	6.14	5.65	5.40	15F2006	09	.58	15F2039	SG1	.29
15F578	30040	4	4 3/4 x 3 3/4 x 4 9/16	21.57	10.79	9.71	8.99	8.27	7.91	15F2007	10	.58	15F2044	SJ3	.29

4000 WORKING VOLTS DC

15F545	40025	.25	2 3/4 x 3 3/4 x 2 1/4	9.72	4.86	9.37	4.05	3.73	3.56	15F2004	07	.27	15F2034	SE1	.14
15F546	40005	.5	3 7/8 x 3 3/4 x 2 1/4	11.04	5.52	4.97	4.60	4.23	4.05	15F2004	07	.27	15F2035	SE3	.14
15F579	40010	1	5 1/4 x 3 3/4 x 2 1/4	13.92	6.96	6.26	5.80	5.34	5.10	15F2004	07	.27	15F2037	SE8	.14
15F580	40020	2	5 1/2 x 3 3/4 x 4 9/16	18.63	9.32	8.26	7.76	7.14	6.83	15F2007	10	.58	15F2048	SJ10	.29
15F581	40040	4	6 x 3 3/4 x 4 9/16	28.38	14.19	12.77	11.83	10.88	10.40						

5000 WORKING VOLTS DC

15F582	50005	.5	4 3/8 x 3 3/4 x 2 1/4	11.78	5.90	5.31	4.91	4.52	4.32	15F2004	07	.27	15F2034	SE1	.14
15F583	50010	1	4 3/8 x 3 3/4 x 4 9/16	16.80	8.40	7.58	7.00	6.44	6.16	15F2007	10	.58	15F2045	SJ4	.29
15F584	50020	2	6 x 3 3/4 x 2 1/4	25.65	12.81	11.53	10.67	9.82	9.39	152004	07	.27	15F2036	SE4	.14

6000 WORKING VOLTS DC

15F547	60001X	.1	2 3/4 x 3 3/4 x 2 1/4	13.05	6.53	5.87	5.44	5.00	4.79	15F2007	10	.58	15F2043	SJ2	.29
15F585	600010X	1	5 1/4 x 3 3/4 x 4 9/16	23.16	11.58	10.47	9.65	8.88	8.49	15F2007	10	.58	15F2046	SJ6	.29

TYPE DYR OIL FILLED BATHTUBS

Widely used in military, communications, and industrial electronic equipment. All types are drawn case "bathtub" configurations provided with integral drilled mounting flange. Available in F (-55°C to +85°C). All styles supplied with terminal style B, non-removable soldered lug. Single, dual and triple capacitance units available.



600 VOLTS DC WORKING

Stk. No.	Type	Mtd.	L. x W. x T.	1-9	10-24	25-49	50-99	100-499	500-999
15F500	6005	.05	1 1/8 x 1 x 3/4	1.71	1.14	1.00	.71	.66	.63
15F501	6010	.1	1 1/8 x 1 x 3/4	1.80	1.20	1.05	.75	.69	.66
15F502	6025	.25	1 1/8 x 1 x 3/4	1.83	1.22	1.07	.76	.70	.67
15F503	6050	.5	1 1/8 x 1 x 7/8	1.92	1.28	1.12	.80	.74	.70
15F504	6100	1	2 x 1 3/4 x 7/8	2.19	1.46	1.28	.91	.84	.80
15F505	6200	2	2 x 2 x 1 1/8	2.91	1.94	1.70	1.21	1.12	1.07

Stk. No.	Type	Mtd.	L. x W. x T.	1-9	10-24	25-49	50-99	100-499	500-999
15F506	60055	.05-.05	1 1/8 x 1 x 3/4	2.28	1.52	1.33	.95	.87	.84
15F507	60111	.1-.1	1 1/8 x 1 x 3/4	2.34	1.56	1.37	.98	.90	.86
15F508	60221	.25-.25	1 1/8 x 1 x 7/8	2.40	1.60	1.40	1.00	.92	.88
15F508	6055	5-.5	2 x 1 3/4 x 7/8	2.76	1.84	1.61	1.15	1.06	1.01
15F510	6110	1-.1	2 x 2 x 1 1/8	3.39	2.26	1.98	1.41	1.30	1.24
15F511	6111	3x.1	1 1/8 x 1 x 3/4	2.67	1.78	1.56	1.11	1.02	.98
15F513	6555	3x.5	2 x 2 x 1 1/8	3.78	2.52	2.21	1.58	1.45	1.39

1000 VDC WORKING

15F515

Cornell-Dubilier Capacitors **CDE**

DIPPED MICA DIELECTRIC CAPACITORS

Type CD10. Silvered mica capacitor with a plastic coating. Combines excellent stability, dielectric strength, "Q", dielectric constant, chemical inertness, moisture resistance and puncture resistance. Oper. temp. -50°C to 125°C. Tolerance $\pm 5\%$ except (**) 20% and (**) 10%. Aver. shpg. wt., 1 oz.



CM SERIES DIPPED MICA CAPACITORS

Multi-coated to meet rigid humidity requirements. Oper. temp.: -55°C to 125°C. Tolerance: $\pm 5\%$ except (**) $\pm 10\%$. Types listed below are old CD numbers as follows:

CD15.....CM05. CD19.....CM06.
CD30.....CM07. CD42.....CM08.

Stk. No.	Type	Mml.	1-24	25-99	100-499	500-999
15F1338	CD10C050K**	5	.18	.13	.12	.092
15F1339	CD10C100J	10	.21	.14	.13	.099
15F1340	CD10C120J	12				
15F1341	CD10C150J	15				
15F1342	CD10C180J	18				
15F1343	CD10E200J	20				
15F1344	CD10E220J	22				
15F1345	CD10E240J	24	.24	.14	.13	.099
15F1346	CD10E270J	27				
15F1347	CD10E300J	30				
15F1348	CD10E330J	33				
15F1349	CD10E360J	36				
15F1350	CD10E390J	39				
15F1351	CD10E430J	43				
15F1352	CD10E470J	47				
15F1353	CD10E510J	51				
15F1354	CD10E560J	56				
15F1355	CD10E620J	62				
15F1356	CD10E680J	68	.27	.14	.13	.099
15F1357	CD10E750J	75				
15F1358	CD10E820J	82				
15F1359	CD10E910J	91				
15F1360	CD10E101J	100				
15F1361	CD10E111J	110				
15F1362	CD10E121J	120	.30	.23	.14	.106
15F1363	CD10E131J	130	.30	.25	.15	.113
15F1364	CD10E151J	150	.33	.27	.16	.125
15F1365	CD10E161J	160	.36	.28	.17	.117
15F1366	CD10E181J	180	.39	.31	.19	.141
15F1367	CD10E201J	200	.45	.32	.20	.148
15F1368	CD10E221J	220	.45	.32	.20	.148
15F1369	CD10E241J	240	.45	.32	.20	.148

CD-TYPE MOLDED MIDGET MICAS CM15—Tolerance $\pm 5\%$ except (*) $\pm 10\%$.

Stk. No.	Mil. No.	Type	Mml.	1-24	25-99	100-499	500-999
15F1300	CM15B100KN3*	22R5Q1K	10	.18	.15	.10	.074
15F1301	CM15C220N3	22R5Q22J	22				
15F1302	CM15C270N3	22R5Q27J	27				
15F1303	CM15C330N3	22R5Q33J	33				
15F1304	CM15C390N3	22R5Q39J	39				
15F1305	CM15C470N3	22R5Q47J	47	.18	.15	.11	.083
15F1306	CM15C510N3	22R5Q51J	51				
15F1307	CM15C560N3	22R5Q56J	56				
15F1308	CM15C680N3	22R5Q68J	68				
15F1309	CM15C620N3	22R5Q82J	82				
15F1310	CM15F101N3	22R5T1J	100				
15F1311	CM15F151N3	22R5T15J	150	.24	.18	.127	.097
15F1312	CM15F201N3	22R5T21J	200	.30	.20	.127	.097
15F1313	CM15F271N3	22R5T27J	270	.30	.25	.145	.111
15F1314	CM15F301N3	22R5T31J	300	.30	.25	.151	.115
15F1315	CM15F331N3	22R5T33J	330	.33	.28	.155	.118
15F1316	CM15F391N3	22R5T39J	390	.39	.32	.158	.120
15F1317	CM15F471N3	22R5T47J	470	.45	.34	.191	.146
15F1318	CM15F511N3	22R5T51J	510	.48	.36	.197	.150

CM20—Tolerance $\pm 5\%$.

Stk. No.	Type	Mml.	1-24	25-99	100-499	500-999	
15F1319	CM20FD561N3	35R5T56J	560	.33	.19	.155	.118
15F1320	CM20FD621N3	35R5T62J	620	.36	.23	.155	.118
15F1321	CM20FD681N3	35R5T68J	680	.36	.23	.155	.118
15F1322	CM20FD821N3	35R5T82J	820	.42	.25	.184	.140
15F1323	CM20FD102N3	35R5D11J	1000	.45	.25	.184	.140

CM30—Tolerance $\pm 5\%$.

Stk. No.	Type	Mml.	1-24	25-99	100-499	500-999	
15F1324	CM30FD152N3	1R5D11J	1000	.45	.27	.17	.126
15F1325	CM30FD152N3	1R5D15J	1500	.51	.35	.21	.158
15F1326	CM30FD202N3	1R5D21J	2000	.60	.42	.25	.193
15F1327	CM30FD222N3	1R5D22J	2200	.66	.45	.28	.210
15F1328	CM30FD272N3	1R5D27J	2700	.78	.49	.32	.230
15F1329	CM30FD302N3	1R5D31J	3000	.84	.56	.33	.232
15F1330	CM30FD332N3	1R5D33J	3300	.90	.60	.35	.247

CM35—Tolerance $\pm 5\%$.

Stk. No.	Type	Mml.	1-24	25-99	100-499	500-999	
15F1331	CM35FD392N3	1DR5D39J	3900	1.02	.67	.39	.277
15F1332	CM35FD472N3	1DR5D47J	4700	1.14	.78	.45	.322
15F1333	CM35FD512N3	1DR5D51J	5100	1.20	.81	.47	.335
15F1334	CM35FD622N3	1DR5D62J	6200	1.32	.95	.56	.395
15F1335	CM35FC822N3	1DR3D82J	8200	1.56	1.24	.72	.514
15F1336	CM35FC103N3	1DR3S15J	10000	1.83	1.27	.74	.529

Stk. No.	CD No.	Mml.	1-24	25-99	100-499	500-999
15F1203	CD15C050K**	5				
15F1204	CD15C100K**	10	.15	.12	.098	.074
15F1205	CD15C120K**	12				
15F1207	CD15C180K**	18				
15F1208	CD15E200J	20				
15F1209	CD15E220J	22				
15F1210	CD15E240J	24				
15F1211	CD15E270J	27				
15F1212	CD15E300J	30				
15F1213	CD15E330J	33				
15F1214	CD15E360J	36				
15F1215	CD15E390J	39				
15F1216	CD15E430J	43	.18	.15	.109	.083
15F1217	CD15E470J	47				
15F1219	CD15E510J	51				
15F1220	CD15E560J	56				
15F1221	CD15E620J	62				
15F1222	CD15E680J	68				
15F1223	CD15E750J	75				
15F1224	CD15F820J	82	.18	.15	.109	.083
15F1225	CD15F910J	91	.18	.15	.109	.083
15F1226	CD15F101J	100	.18	.15	.109	.083
15F1227	CD15F111J	110	.21	.17	.127	.097
15F1228	CD15F121J	120	.21	.17	.127	.097
15F1229	CD15F131J	130	.21	.17	.127	.098
15F1230	CD15F151J	150	.21	.17	.127	.098
15F1231	CD15F161J	160	.24	.20	.127	.098
15F1232	CD15F181J	180	.27	.22	.127	.098
15F1233	CD15F201J	200	.27	.22	.127	.098
15F1234	CD15F221J	220	.27	.22	.129	.098
15F1235	CD15F241J	240	.27	.22	.129	.098
15F1237	CD15F271J	270	.30	.25	.145	.111
15F1238	CD15F301J	300	.30	.25	.151	.115
15F1239	CD15F331J	330	.33	.28	.155	.118
15F1240	CD15F361J	360	.33	.28	.158	.120
15F1241	CD15F391J	390	.36	.30	.158	.120
15F1242	CD19F431J	430	.30	.30	.167	.127
15F1243	CD19F471J	470	.39	.32	.191	.146
15F1245	CD19F511J	510	.39	.32	.197	.150
15F1246	CD19F561J	560	.36	.32	.16	.122
15F1247	CD19F621J	620	.36	.32	.18	.136
15F1248	CD19F681J	680	.36	.32	.18	.136
15F1249	CD19F751J	750	.39	.25	.18	.136
15F1250	CD19F821J	820	.42	.27	.18	.136
15F1251	CD19F911J	910	.42	.27	.21	.157
15F1252	CD19F102J	1000	.45	.29	.22	.162
15F1253	CD19F112J	1100	.45	.31	.24	.179
15F1254	CD19F122J	1200	.48	.33	.24	.165
15F1255	CD19F132J	1300	.51	.35	.26	.199
15F1256	CD19F152J	1500	.54	.39	.29	.221
15F1257	CD19F162J	1600	.57	.39	.29	.221
15F1258	CD19F182J	1800	.66	.44	.31	.238
15F1259	CD19F202J	2000	.72	.48	.33	.252
15F1260	CD19F222J	2200	.78	.51	.35	.266
15F1261	CD19F242J	2400	.84	.54	.39	.294
15F1263	CD19F272J	2700	.90	.64	.41	.315
15F1264	CD19F302J	3000	.99	.69	.44	.336
15F1265	CD19F332J	3300	1.05	.74	.48	.364
15F1266	CD19F362J	3600	1.11	.81	.51	.385
15F1267	CD19F392J	3900	1.17	.86	.55	.420
15F1268	CD19F432J	4300	1.23	.96	.59	.451
15F1269	CD19F472J	4700	1.32	1.03	.63	.480
15F1271	CD30F512J	5100	1.14	.81	.49	.375
15F1272	CD30F562J	5600	1.17	.88	.54	.407
15F1273	CD30F622J	6200	1.23	.95	.58	.441
15F1274	CD30F682J	6800	1.38	1.06	.65	.491
15F1275	CD30F752J	7500	1.50	1.13	.69	.524
15F1276	CD30F822J	8200	1.65	1.24	.75	.574
15F1277	CD30F912J	9100	1.77	1.35	.82	.624
15F1278	CD30F103J	10000	1.98	1.49	.91	.689
15F1375	CD30F113J	11000	2.16	1.59	.97	.741
15F1376	CD30F123J	12000	2.31	1.74	1.06	.805
15F1377	CD30F133J	13000	2.46	1.88	1.15	.874
15F						



Cornell-Dubilier Capacitors

MINIATURE DIPPED MICA-DIELECTRIC CAPACITORS



Types CD6 and CD7 are micro-miniature, radial lead, dipped silvered mica capacitors. Operate within temperature range -55°C to +125°C. Excellent for applications not critical with regard to extreme conditions of humidity. Have phenolic coating with epoxy impregnation; affords protection for one cycle of the moisture resistance test of EIA Specification RS153. Meets MIL-C-5B. Capacitance tolerance: ±20% (M), ±10% (K), ±5% (J), ±2% (G). The last three figures of the type number indicate the DC working voltage.

DIMENSIONS

CD6 — .265" x .135" x .095" CD7 — .320" x .270" x .160"

Stk. No.	Type	1-24	25-99	100-499	500-999
15F1700	CD6C030K500	.36	.21	.14	.096
15F1701	CD6C050K500	.36	.21	.14	.096
15F1702	CD6C100J500	.39	.22	.15	.105
15F1703	CD6C120J500				
15F1704	CD6C180J500				
15F1705	CD6C200J500				
15F1706	CD6C220J500				
15F1707	CD6C240J500				
15F1708	CD6C270G500	.48	.27	.23	.159
15F1709	CD6C300G500	.48	.27	.23	.159
15F1710	CD6C330G500	.51	.28	.24	.169
15F1711	CD6C360G500				
15F1712	CD6C390G500				
15F1713	CD6C430G500				
15F1714	CD6C470G500				
15F1715	CD6C510G500	.57	.32	.27	.190
15F1716	CD6C560G500				
15F1717	CD6C620G500				
15F1718	CD6C680G500				
15F1719	CD6C750G500				
15F1720	CD6F820G500	.66	.37	.32	.223
15F1721	CD6F101G300	.66	.37	.32	.223
15F1722	CD6F101G300	.66	.37	.32	.223
15F1723	CD6F111G300	.72	.40	.35	.243
15F1724	CD6F121G300	.72	.40	.35	.243
15F1725	CD7F131G500	.63	.36	.32	.225
15F1726	CD7F151G500	.63	.36	.32	.225
15F1727	CD7F161G500	.63	.36	.32	.225
15F1728	CD7F181G500	.63	.36	.32	.225
15F1729	CD7F201G300	.69	.38	.34	.239
15F1730	CD7F221G300	.69	.38	.34	.239
15F1731	CD7F241G300	.69	.38	.34	.239
15F1732	CD7F271G300	.69	.38	.36	.249
15F1733	CD7F301G300	.69	.40	.36	.249
15F1734	CD7F331G100	1.05	.59	.53	.368
15F1735	CD7F361G100	1.08	.60	.55	.380
15F1736	CD7F391G100	1.29	.73	.66	.458
15F1737	CD7F431G100	1.14	.65	.59	.406
15F1738	CD7F471G100	1.17	.75	.75	.416
15F1739	CD7F511G100	1.20	.68	.62	.428
15F1740	CD7F561G100	1.23	.69	.63	.438
15F1741	CD7F621G100	1.29	.72	.66	.455
15F1742	CD7F681G100	1.65	.93	.84	.581
15F1743	CD7F751G100	1.74	.97	.88	.613
15F1744	CD7F821G100	1.80	1.01	.91	.635
15F1745	CD7F911G100	1.89	1.06	.96	.669
15F1746	CD7F102G100	2.13	1.19	1.08	.750
15F1747	CD7F112G100	2.31	1.29	1.17	.810
15F1748	CD7F122G100	2.37	1.32	1.20	.831
15F1749	CD7F132G100	2.70	1.50	1.36	.948
15F1750	CD7F152G100	2.82	1.57	1.43	.990

"BLACK CAT" MOLDED TUBULAR CAPACITORS



Dual, dielectric, molded tubular capacitors made of DuPont Mylar and Kraft assuring high temperature operation, exceptional moisture resistance, and high reliability. CDE's "FIXFIL" impregnant (a solid thermosetting compound) and a rugged plastic case make these capacitors ideal for the most rugged usage. For operation at temperatures from -40°C to +125°C without derating. Tolerance: ±10%. Shpg. wt., 3 oz.

TYPE PKM 400 WVDC

Stk. No.	Type	Mfd.	D x L	1-24	25-49	50-99	100-499	500-999						
15F1189	4D47	.0047	3/8x1"	.21	.16	.11	.09	.08						
15F693	4S1	.01												
15F697	4S33	.033	3/8x1 1/4"											
15F698	4S47	.047	1/2x1 1/4"											
15F640	4S68	.068												
15F641	4P1	.10	1/2x1 1/2"											
15F642	4P15	.15												
15F1279	4P18	.18	9/16x1 9/16"						.24	.19	.16	.13	.12	
15F643	4P22	.22	3/4x1 7/8"						.27	.21	.18	.14	.12	
15F1280	4P27	.27	3/4x1 7/8"						.33	.26	.21	.18	.14	
15F645	4P33	.33	1 1/4x1 15/16"	.36	.28	.23	.19	.15						
15F1281	4P39	.39	1 1/4x1 15/16"	.39	.30	.25	.20	.17						
15F646	4P47	.47	1 1/4x1 15/16"	.45	.35	.31	.25	.18						
15F1282	4P56	.56	3/4x2 1/4"	.48	.39	.34	.32	.24						
15F648	4P68	.68	3/4x2 1/4"	.54	.43	.38	.37	.30						
15F649	4W1	1.0	1x2 1/8"	.75	.60	.52	.48	.36						
15F1751	4D5	.005	3/8x1 1/4"	.21	.16	.11	.09	.08						
15F1752	4S25	.025												
15F1753	4S5	.050												
15F1754	4P5	.50												
15F1755	4P25	.25												
15F361	6D15	.0015							5/16x1"	.21	.15	.11	.09	.08
15F362	6D22	.0022												
15F363	6D33	.0033												
15F365	6D68	.0068							3/8x1 1/4"					
15F366	6S1	.01												
15F367	6S15	.015												
15F1756	6D25	.0025	1/2x1 1/2"											
15F1757	6D5	.005												
15F368	6S22	.022												
15F1291	6S27	.027	3/8x1 1/4"	.21	.15	.11	.09	.08						
15F369	6S33	.033	1/2x1 1/4"											
15F1292	6S39	.039	1/2x1 1/2"	.21	.15	.11	.09	.08						
15F370	6S47	.047												
15F1293	6S56	.056												
15F371	6S68	.068												
15F1294	6S82	.082							9/16x1 9/16"	.27	.18	.14	.12	.10
15F372	6P1	.10							9/16x1 9/16"	.27	.20	.16	.13	.11
15F373	6P15	.15							3/4x1 7/8"	.30	.23	.20	.18	.14
15F374	6P22	.22							1 1/4x1 15/16"	.42	.33	.29	.24	.17
15F1297	6P27	.27							1 1/4x1 15/16"	.48	.38	.34	.28	.21
15F375	6P33	.33							3/4x2 1/4"	.54	.43	.38	.33	.23
15F1298	6P39	.39	3/4x2 1/4"	.60	.48	.45	.40	.25						
15F376	6P47	.47	1x2 1/8"	.75	.60	.52	.42	.30						
15F1758	6S25	.025	3/8x1 1/4"	.21	.15	.11	.09	.08						
15F1759	6S5	.050	1/2x1 1/2"	.24	.15	.12	.10	.09						
15F1760	6P25	.25	1 1/4x1 15/16"	.48	.38	.34	.28	.21						
15F1761	6P5	.50	1x2 1/8"	.78	.63	.55	.44	.32						

TYPE PKM 600 WVDC

Stk. No.	Type	Mfd.	D x L	1-24	25-49	50-99	100-499	500-999						
15F361	6D15	.0015	5/16x1"	.21	.15	.11	.09	.08						
15F362	6D22	.0022												
15F363	6D33	.0033												
15F365	6D68	.0068	3/8x1 1/4"											
15F366	6S1	.01												
15F367	6S15	.015												
15F1756	6D25	.0025	1/2x1 1/2"											
15F1757	6D5	.005												
15F368	6S22	.022												
15F1291	6S27	.027	3/8x1 1/4"						.21	.15	.11	.09	.08	
15F369	6S33	.033	1/2x1 1/4"											
15F1292	6S39	.039	1/2x1 1/2"	.21	.15	.11	.09	.08						
15F370	6S47	.047												
15F1293	6S56	.056												
15F371	6S68	.068												
15F1294	6S82	.082							9/16x1 9/16"	.27	.18	.14	.12	.10
15F372	6P1	.10							9/16x1 9/16"	.27	.20	.16	.13	.11
15F373	6P15	.15							3/4x1 7/8"	.30	.23	.20	.18	.14
15F374	6P22	.22							1 1/4x1 15/16"	.42	.33	.29	.24	.17
15F1297	6P27	.27							1 1/4x1 15/16"	.48	.38	.34	.28	.21
15F375	6P33	.33							3/4x2 1/4"	.54	.43	.38	.33	.23
15F1298	6P39	.39	3/4x2 1/4"	.60	.48	.45	.40	.25						
15F376	6P47	.47	1x2 1/8"	.75	.60	.52	.42	.30						
15F1758	6S25	.025	3/8x1 1/4"	.21	.15	.11	.09	.08						
15F1759	6S5	.050	1/2x1 1/2"	.24	.15	.12	.10	.09						
15F1760	6P25	.25	1 1/4x1 15/16"	.48	.38	.34	.28	.21						
15F1761	6P5	.50	1x2 1/8"	.78	.63	.55	.44	.32						

TYPE 1000 WVDC

Stk. No.	Type	Mfd.	D x L	1-24	25-49	50-99	100-499	500-999					
15F1446	10D1	.001	5/16x1"	.30	.21	.16	.13	.09					
15F1448	10D15	.0015											
15F1540	10D33	.0033											
15F061	10D5	.005	3/8x1 1/4"										
15F064	10S1	.01	3/8x1 1/4"						.30	.21	.16	.13	.09
15F065	10S15	.015	1/2x1 1/2"										
15F1546	10S33	.033											
15F070	10S47	.047							9/16x1 9/16"	.30	.25	.19	.16	.11
15F072	10S68	.068	3/4x1 7/8"						.42	.27	.21	.17	.14
15F073	10P1	.10	1 1/4x1 15/16"						.45	.35	.31	.26	.18

TYPE PKM 1600 WVDC

Stk. No.	Type	Mfd.	D x L	1-24	25-49	50-99	100-499	500-999
15F1599	16D1	.001	3/8x1 1/4"	.39	.30	.24	.19	.15
15F1625	16D47	.0047	3/8x1 1/4"	.39	.30	.25	.20	.16
15F030	16S1	.01	1/2x1 1/2"	.42	.33	.26	.21	.16
15F031	16S15	.015	1/2x1 1/2"	.42	.33	.29	.23	.19

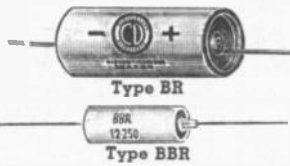
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Everything in Industrial Electronics

Cornell-Dubilier Capacitors



TYPE BBR AND BR "BLUE BEAVER" ELECTROLYTIC CAPACITORS



Compact aluminum cased, cardboard insulated DC electrolytics. Type BR section tabs and leads are riveted. Type BBR negative lead is riveted and positive lead is solidly crimped to an aluminum stud. Voltage ratings up to and including 150 volts feature etched cathodes. Operating temperature range is -20C to +85C up to 450 volts and to +65C for higher voltage.

6 DC W. VOLTS

Stock No.	Type	Mfd.	D x L	1-24	25-49	50-99	100-499	500-999
15F310	BBR5-6	5	3/8x1 1/16"	.48	.35	.27	.22	.19
15F311	BBR25-6	25	3/8x1 1/16"	.51	.37	.29	.23	.20
15F312	BBR50-6	50	3/8x1 1/16"	.57	.41	.32	.26	.22
15F313	BR100-6	100	1/2x1 1/16"	.72	.50	.39	.31	.27
15F315	BR250-6	250	1/2x1 1/16"	.81	.64	.50	.40	.34
15F193	BR500-6	500	1/2x1 3/16"	.93	.73	.57	.45	.39
15F153	BR1000-6	1000	3/4x2"	1.14	.89	.69	.55	.48
15F154	BR2000-6	2000	3/4x2"	1.38	1.04	.84	.67	.58
15F181	BR3000-6	3000	7/8x2"	1.71	1.35	1.04	.84	.72
15F182	BR4000-6	4000	1x2 3/16"	1.95	1.54	1.20	.95	.82

15 DC W. Volts

Stock No.	Type	Mfd.	D x L	1-24	25-49	50-99	100-499	500-999
15F316	BR100-15	100	1/2x1 1/16"	.75	.52	.41	.33	.28
15F159	BR250-15	250	3/8x1 1/16"	.93	.73	.57	.46	.40
15F160	BR500-15	500	3/8x1 1/16"	1.05	.82	.64	.51	.44
15F165	BR1000-15	1000	3/8x1 1/16"	1.38	1.07	.83	.67	.58
15F168	BR2000-15	2000	3/4x2"	1.92	1.26	.97	.78	.68
15F194	BR3000-15	3000	7/8x2 3/16"	2.37	1.82	1.42	1.14	.98
15F195	BR4000-15	4000	7/8x2 3/16"	2.91	2.25	1.75	1.40	1.20
15F198	BR5000-15	5000	1x3"	3.15	2.45	1.91	1.53	1.31

25 DC W. Volts

Stock No.	Type	Mfd.	D x L	1-24	25-49	50-99	100-499	500-999
15F317	BBR10-25	10	3/8x1 1/16"	.68	.42	.33	.26	.23
15F318	BBR20-25	20	3/8x1 1/16"	.60	.43	.34	.27	.23
15F319	BBR25-25	25	3/8x1 1/16"	.60	.44	.35	.28	.24
15F320	BR50-25	50	1/2x1 1/16"	.66	.47	.37	.30	.25
15F321	BR100-25	100	1/2x1 1/16"	.81	.57	.45	.36	.31
15F162	BR250-25	250	1/2x1 3/16"	1.02	.79	.62	.49	.42
15F163	BR500-25	500	3/8x1 1/16"	1.38	1.07	.83	.67	.57
15F112	BR1000-25	1000	3/4x2"	2.37	1.82	1.42	1.14	.97
15F113	BR2000-25	2000	7/8x2 1/2"	2.91	2.25	1.76	1.41	1.21

50 DC W. Volts

Stock No.	Type	Mfd.	D x L	1-24	25-49	50-99	100-499	500-999
15F322	BBR1-50	1	3/8x1 1/16"	.54	.39	.31	.24	.21
15F323	BBR2-50	2	3/8x1 1/16"	.54	.39	.31	.24	.21
15F324	BBR4-50	4	3/8x1 1/16"	.60	.42	.32	.26	.22
15F325	BBR5-50	5	3/8x1 1/16"	.60	.42	.32	.26	.22
15F326	BBR10-50	10	3/8x1 1/16"	.60	.42	.33	.27	.23
15F327	BR25-50	25	1/2x1 1/16"	.63	.44	.35	.28	.24
15F131	BR50-50	50	1/2x1 3/16"	.72	.51	.40	.32	.28
15F164	BR100-50	100	1/2x1 3/16"	.84	.59	.46	.37	.32
15F199	BR150-50	150	3/8x1 1/16"	.93	.66	.51	.41	.36
15F198	BR250-50	250	3/8x1 1/16"	1.05	.87	.64	.51	.44
15F197	BR500-50	500	7/8x1 1/16"	1.44	1.11	.86	.69	.59
15F114	BR1000-50	1000	1x2 1/16"	2.52	1.93	1.49	1.20	1.03
15F536	BR1500-50	1500	1 1/8x2 3/16"	3.00	2.26	1.76	1.41	1.26
15F537	BR2000-50	2000	1 1/8x2 3/16"	3.48	2.60	2.02	1.61	1.38

150 DC W. VOLTS

Stock No.	Type	Mfd.	D x L	1-24	25-49	50-99	100-499	500-999
15F330	BBR4-150	4	3/8x1 1/16"	.60	.43	.33	.27	.23
15F331	BBR8-150	8	1/2x1 1/16"	.63	.45	.34	.28	.24
15F332	BBR10-150	10	1/2x1 1/16"	.63	.46	.35	.29	.25
15F333	BBR12-150	12	1/2x1 1/16"	.66	.42	.36	.29	.25
15F334	BR16-150	16	1/2x1 1/16"	.69	.49	.38	.31	.26
15F313	BR20-150	20	1/2x1 1/16"	.72	.50	.39	.31	.27
15F302	BR25-150	25	3/4x1 1/16"	.75	.53	.41	.33	.29
15F862	BR30-150	30	3/4x1 1/16"	.78	.55	.43	.34	.30

(Con't. on next col.)

WIDE-RANGE ELECTROLYTIC TYPE ESS7515

Type ESS wide range printed circuit electrolytic is an exact replacement for eight original standard electrolytics used in home receivers. A replacement for units of 150 V; 50-30 mfd.; 70-30 mfd.; 75-30 mfd.; 80-40 mfd.; 80-50 mfd.; 70-50 mfd.; 80-50 mfd. A good replacement for many single and dual units within the ratings indicated. Size: 1" D. x 2 1/2" L.



Stock No.	Type	1-24	25-49	50-99	100-499	500-999
15F538	ESS	1.20	.80	.73	.58	.52

150 DCV (Con't.)

Stock No.	Type	Mfd.	D x L	1-24	25-49	50-99	100-499	500-999
15F124	BR40-150	40	3/4x1 1/16"	.81	.58	.45	.36	.31
15F125	BR50-150	50	3/4x1 1/16"	.84	.59	.46	.37	.32
15F303	BR60-150	60	7/8x1 1/16"	.90	.63	.49	.39	.34
15F126	BR80-150	80	7/8x1 1/16"	.96	.68	.54	.43	.37
15F167	BR100-150	100	7/8x2"	1.05	.74	.56	.46	.40
15F168	BR150-150	150	1x2 3/16"	1.14	.82	.63	.51	.44
15F098	BR200-150	200	1x3"	1.32	.98	.77	.62	.53
15F118	BR250-150	250	1x3 3/16"	1.53	1.17	.90	.73	.63
15F099	BR300-150	300	1x3 3/16"	1.77	1.35	1.04	.84	.72

250 DC W. Volts

Stock No.	Type	Mfd.	D x L	1-24	25-49	50-99	100-499	500-999
15F993	BBR4-250	4	1/2x1 1/16"	.60	.47	.37	.30	.26
15F994	BBR8-250	8	1/2x1 1/16"	.69	.54	.41	.33	.29
15F995	BBR12-250	12	1/2x1 1/16"	.75	.57	.44	.36	.31
15F115	BR16-250	16	3/4x1 1/16"	.78	.60	.47	.38	.32
15F116	BR20-250	20	3/4x1 1/16"	.81	.64	.49	.40	.34
15F304	BR30-250	30	3/4x1 1/16"	.87	.68	.53	.42	.37
15F117	BR40-250	40	3/4x2"	.93	.73	.57	.46	.39
15F305	BR50-250	50	7/8x1 1/16"	1.02	.80	.62	.50	.43
15F906	BR60-250	60	7/8x1 1/16"	1.08	.84	.65	.52	.44
15F119	BR100-250	100	1x2 3/16"	1.47	.96	.75	.60	.52
15F120	BR150-250	150	1 1/8x3"	1.89	1.12	.87	.70	.60
15F309	BR200-250	200	1 1/8x3 3/16"	2.10	1.28	1.00	.80	.69

350 DC W. Volts

Stock No.	Type	Mfd.	D x L	1-24	25-49	50-99	100-499	500-999
15F886	BR4-350	4	5/8x1 1/16"	.63	.47	.38	.30	.26
15F887	BR8-350	8	5/8x1 1/16"	.72	.55	.43	.34	.30
15F888	BR12-350	12	5/8x1 1/16"	.78	.60	.47	.38	.32
15F890	BR20-350	20	3/4x1 1/16"	.87	.68	.52	.42	.36
15F123	BR30-350	30	3/4x2"	.99	.77	.60	.48	.41
15F892	BR40-350	40	7/8x2"	1.05	.81	.62	.51	.43
15F893	BR50-350	50	1x2"	1.11	.87	.68	.54	.47
15F894	BR60-350	60	1x2"	1.17	.91	.71	.57	.49
15F895	BR80-350	80	1x3"	1.28	.98	.78	.63	.54
15F896	BR100-350	100	1x3"	1.53	1.11	.86	.69	.60
15F121	BR150-350	150	1 1/8x3"	2.37	1.36	1.05	.85	.73
15F122	BR200-350	200	1 1/8x4 1/16"	2.70	1.72	1.34	1.11	.92

450 DC W. Volts

Stock No.	Type	Mfd.	D x L	1-24	25-49	50-99	100-499	500-999
15F102	BR1-450	1	3/8x1 1/16"	.66	.51	.39	.32	.27
15F103	BR2-450	2	3/8x1 1/16"	.66	.52	.40	.32	.28
15F104	BR4-450	4	3/8x1 1/16"	.69	.53	.42	.34	.29
15F105	BR6-450	6	3/8x1 1/16"	.75	.59	.46	.37	.32
15F106	BR10-450	10	3/8x1 1/16"	.78	.62	.47	.38	.32
15F107	BR12-450	12	3/8x1 1/16"	.81	.64	.50	.40	.34
15F108	BR16-450	16	3/4x1 1/16"	.84	.65	.53	.42	.36
15F109	BR20-450	20	3/4x1 1/16"	.93	.73	.56	.45	.39
15F110	BR30-450	30	1x2"	1.02	.80	.62	.50	.43
15F111	BR40-450	40	1x2 3/16"	1.08	.83	.64	.52	.45
15F147	BR60-450	60	1x3"	1.41	1.08	.83	.67	.58
15F148	BR80-450	80	1x3 3/16"	1.68	1.28	.99	.79	.68
15F189	BR100-450	100	1x3 1/16"	1.92	1.48	1.15	.92	.80
15F127	BR150-450	150	1 1/8x3 3/16"	2.85	2.00	1.55	1.27	1.07
15F128	BR200-450	200	1 1/8x4 1/16"	3.00	2.50	1.85	1.56	1.34

500 DC W. Volts

Stock No.	Type	Mfd.	D x L	1-24	25-49	50-99	100-499	500-999
15F307	BR4-500	4	3/8x1 1/16"	.72	.56	.43	.35	.30
15F100	BR8-500	8	3/8x1 1					



Cornell-Dubilier Capacitors

NLW ELECTROLYTIC CAPACITORS



Type NLW. Rugged physical construction. Hermetically sealed aluminum foil electrolytic capacitors. Low leakage currents; freedom from shorts. Long shelf and operating life. Suitable for printed circuits. Tinned copper leads with plastic sleeves. Temperature range, -40°C to +85°. Tol. -10% to +150%.

Stk. No.	Type	Cap. Mid.	VV DC	DxL	1-24	25-49	50-99	100-499	500-999
15F1003	NLW25-3	25	3	1/4x1/2	.75	.53	.30	.24	.21
15F1005	NLW50-3	50	3	1/4x3/8	.75	.53	.41	.33	.28
15F1042	NLW100-3	100	3	3/8x3/8	.84	.61	.47	.38	.32
15F1007	NLW200-3	200	3	3/8x7/8	.90	.61	.47	.38	.32
15F1014	NLW10-6	10	6	3/16x1/2	.84	.56	.40	.28	.24
15F1018	NLW30-6	30	6	1/4x3/8	.84	.51	.30	.24	.21
15F1025	NLW25-15	25	10	1/4x3/8	.87	.55	.43	.34	.29
15F1026	NLW50-10	50	10	1/4x3/8	.93	.61	.47	.38	.32
15F1059	NLW100-12	100	12	3/8x3/8	1.05	.61	.47	.38	.32
15F1060	NLW200-12	200	12	3/8x1 1/4	1.23	.68	.53	.42	.36
15F1085	NLW4-15	4	15	3/16x1/2	.78	.51	.32	.26	.22
15F1028	NLW5-15	5	15	3/16x1/2	.90	.51	.37	.30	.26
15F1029	NLW10-15	10	15	1/4x1/2	.84	.53	.34	.27	.23
15F1062	NLW15-15	15	15	1/4x3/8	.87	.53	.34	.27	.23
15F1030	NLW20-15	20	15	1/4x3/8	.87	.53	.34	.27	.23
15F1087	NLW25-15	25	15	3/8x3/8	.87	.55	.43	.34	.29
15F1762	NLW20-25	20	25	3/8x3/8	.90	.56	.44	.35	.30
15F1763	NLW25-25	25	25	3/8x3/8	.93	.61	.47	.38	.32
15F1764	NLW40-25	40	25	3/8x3/8	1.02	.61	.47	.38	.32
15F1765	NLW50-25	50	25	3/8x3/8	1.08	.61	.47	.38	.32

MPY METALLIZED PAPER CAPACITORS



Epoxy end seal triacid case. Oper. temp. range: -40°C to 125°C. ±20% tol. Av. shpg. wt. 3 oz.

200 WVDC

Stk. No.	Type	Mid.	Size	1-24	25-49	50-99	100-499	500-999
15F828	MPY2S22	.022	1/4x3/8"	.45	.34	.26	.21	.18
15F829	MPY2S33	.033	1/4x3/8"	.45	.34	.26	.21	.18
15F830	MPY2S47	.047	1/4x3/8"	.45	.34	.26	.21	.18
15F831	MPY2S68	.068	3/8x3/8"	.48	.36	.28	.22	.19
15F865	MPY2P1	.1	3/8x3/8"	.54	.38	.30	.24	.20
15F832	MPY2P15	.15	3/8x3/8"	.60	.43	.33	.27	.23
15F833	MPY2P22	.22	1/2x2x3/8"	.66	.47	.37	.29	.25
15F834	MPY2P33	.33	3/8x1 1/8"	.72	.52	.40	.32	.28
15F835	MPY2P47	.47	3/8x1 1/8"	.78	.56	.44	.35	.30
15F836	MPY2P68	.68	1/2x2x1 1/8"	.90	.68	.53	.42	.36
15F868	MPY2W1	1.0	9/16x1 1/8"	1.08	.81	.63	.50	.43
15F837	MPY2W1P5	1.5	9/16x1 1/8"	1.26	.95	.74	.59	.50
15F869	MPY2W2	2.0	9/8x1 1/8"	1.50	1.10	.86	.69	.59

400 WVDC

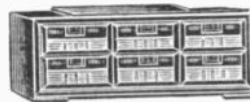
Stk. No.	Type	Mid.	Size	1-24	25-49	50-99	100-499	500-999
15F838	MPY4S15	.015	1/4x3/8"	.45	.34	.26	.21	.18
15F839	MPY4S22	.022	3/8x3/8"	.45	.34	.26	.21	.18
15F840	MPY4S33	.033	3/8x3/8"	.45	.34	.26	.21	.18
15F841	MPY4S47	.047	3/8x3/8"	.48	.36	.28	.22	.19
15F842	MPY4S68	.068	1/2x2x3/8"	.54	.38	.30	.24	.20
15F874	MPY4P1	.1	3/8x1 1/8"	.60	.43	.33	.27	.23
15F843	MPY4P15	.15	3/8x1 1/8"	.66	.47	.37	.29	.25
15F844	MPY4P22	.22	1/2x1 1/8"	.72	.54	.42	.34	.29
15F845	MPY4P33	.33	3/8x1 1/8"	.84	.63	.48	.39	.34
15F846	MPY4P47	.47	3/8x1 1/8"	.96	.72	.56	.45	.38
15F847	MPY4P68	.68	3/8x1 1/8"	1.14	.86	.67	.53	.46
15F877	MPY4W1	1.0	1 1/16x1 1/8"	1.32	.99	.77	.62	.53
15F848	MPY4W1P5	1.5	2 3/16x2 3/16"	1.56	1.15	.89	.71	.61
15F849	MPY4W2	2.0	1 3/16x2 3/16"	1.74	1.31	1.01	.81	.70

600 WVDC

Stk. No.	Type	Mid.	Size	1-24	25-49	50-99	100-499	500-999
15F878	MPY6S1	.01	1/4x3/8"	.45	.34	.26	.21	.18
15F850	MPY6S15	.015	3/8x3/8"	.48	.36	.28	.22	.19
15F851	MPY6S22	.022	3/8x3/8"	.48	.36	.28	.22	.19
15F852	MPY6S33	.033	3/8x3/8"	.54	.38	.30	.24	.20
15F853	MPY6S47	.047	1 1/2x3/8"	.54	.41	.32	.25	.22
15F854	MPY6S68	.068	3/8x1 1/8"	.60	.43	.33	.27	.23
15F882	MPY6P1	.1	3/8x1 1/8"	.60	.45	.35	.28	.24
15F855	MPY6P15	.15	1 1/2x1 1/8"	.78	.56	.44	.35	.30
15F856	MPY6P22	.22	9/16x1 1/8"	.81	.61	.47	.38	.32
15F857	MPY6P33	.33	3/8x1 1/8"	1.08	.79	.61	.49	.42
15F858	MPY6P47	.47	3/8x1 1/8"	1.14	.86	.67	.53	.46
15F859	MPY6P68	.68	3/8x1 1/8"	1.26	.95	.74	.59	.50
15F885	MPY6W1	1.0	2 1/2x2 3/16"	1.44	1.08	.84	.67	.58
15F860	MPY6W1P5	1.5	1 1/2x2 3/16"	1.80	1.35	1.05	.84	.72
15F861	MPY6W2	2.0	2 3/16x2 3/16"	2.10	1.58	1.23	.98	.84

Stk. No.	Type	Mid.	Size	1-24	25-49	50-99	100-499	500-999
15F1063	NLW50-15	50	15	3/8x3/8	.96	.61	.47	.38
15F1089	NLW75-15	75	15	3/8x3/8	1.02	.61	.47	.38
15F1064	NLW100-15	100	15	3/8x3/8	1.08	.61	.47	.38
15F1033	NLW6-25	6	25	1/4x1/2	.84	.53	.34	.27
15F1092	NLW8-25	8	25	1/4x1/2	.87	.56	.40	.28
15F1034	NLW10-25	10	25	1/4x3/8	.87	.56	.40	.28
15F1035	NLW15-25	15	25	3/8x3/8	.87	.55	.43	.34
15F1094	NLW35-25	35	25	3/8x3/8	.96	.61	.47	.38
15F1096	NLW1-50	1	50	3/16x1/2	.87	.59	.40	.28
15F1097	NLW2-50	2	50	3/16x1/2	.81	.53	.32	.26
15F1037	NLW5-50	5	50	1/4x1/2	.87	.53	.34	.27
15F1038	NLW10-50	10	50	1/4x3/8	.90	.59	.46	.37
15F1144	NLW15-50	15	50	3/8x3/8	.90	.61	.47	.38
15F1039	NLW20-50	20	50	3/8x3/8	.90	.61	.47	.38
15F1145	NLW25-50	25	50	3/8x3/8	.93	.61	.47	.38
15F1066	NLW30-50	30	50	3/8x3/8	.96	.61	.47	.38
15F1147	NLW40-50	40	50	3/8x1 1/2	1.05	.64	.50	.40
15F1067	NLW75-50	75	50	3/8x1 1/2	1.20	.65	.51	.41
15F1040	NLW2-100	2	100	1/4x3/8	.84	.59	.46	.37
15F1045	NLW10-100	10	100	3/8x3/8	.93	.60	.47	.38
15F1047	NLW20-100	20	100	3/8x1 1/2	.96	.63	.49	.39
15F1148	NLW2-150	2	150	3/16x3/8	.87	.63	.49	.39
15F1049	NLW5-150	5	150	3/8x3/8	.93	.63	.49	.39
15F1051	NLW8-150	8	150	3/8x3/8	.96	.63	.49	.39
15F1052	NLW10-150	10	150	3/8x1 1/2	.96	.63	.49	.39
15F1149	NLW15-150	15	150	3/8x1 1/2	.96	.65	.51	.41
15F1766	NLW100-25	100	25	3/8x1 1/2	1.26	.66	.52	.41
15F1767	NLW4-50	4	50	1/4x1/2	.81	.53	.34	.27
15F1768	NLW50-50	50	50	3/8x1 1/2	1.11	.64	.50	.40
15F1769	NLW18-150	18	150	3/8x1 1/2	.96	.66	.51	.41

TUBULAR ELECTROLYTIC ASSEMBLY KIT



Assortment of tubular electrolytics widely used in entertainment repair. Single and dual sections—plus one wide-range printed circuit unit for 8 standard 150V capacitors and covers a multitude of service replacements. Types are: BBR, BR, BBRD, and ESS.

Type	Mid.	Qty.	Type	Mid.	Qty.	Type	Mid.	Qty.
BBR	10-50	1	BR	10-450	2	BR	80-450	1
BR	25-50	1	BR	20-450	1	BBRD	50-30/150	1
BR	50-50	1	BR	40-450	2	BBRD	80-50/150	1
BR	100-50	1						

15F1950. NET. 12.87

WMF 100 VOLT KIT

For maintenance of industrial equipment and engineering lab stock.

ID1	.001	5	IS15	.015	5	IP1	.1	5
1d22	.0022	5	IS22	.022	5	IP22	.22	5
1d47	.0047	5	IS33	.033	5	IP47	.47	5
IS1	.01	5	IS47	.047	5			

15F1951. NET 15.30

DPMS-KIT ALL600 VOLTS

Dipped paper Mylar by-pass types. Tolerance ±10%. High temp. operation. High insulation resistance. Compact.

6D1	.001	5	6D68	.0068	5	6S33	.033	5
6D22	.0022	10	6S1	.01	10	6S47	.047	10
6D33	.0033	5	6S22	.022	10	6P1	.1	10
6D47	.0047	10	6S27	.027	5	6P22	.22	5

15F1952. NET 18.75

PKM KIT ALL600 VOLTS

In Molded Mylar by-pass capacitor with axial leads, ±10% tol.

6D1	.001	10	6D68	.0068	5	6S33	.033	5
6D22	.0022	10	6S1	.01	10	6S47	.047	10
6D33	.0033	5	6S22	.022	10	6P1	.1	10
6D47	.0047	10	6S27	.027	5	6P22	.22	5

15F1953. NET 18.90

"KR" ALUMINUM CAN CAPACITOR



Single hole inverted mounting aluminum can electrolytics. Ideal for replacement of 1" diameter wet type electrolytics in older equipment. Shipping wt., 6 oz.

Stk. No.	Type	VDC	Mid.	DxL	1-24	25-49	50-99	100-499	500-999
15F450	604C	600	4	1 3/8x3 1/2"	1.77	1.32	1.02	.80	.86
15F451	608C	600	8	1 3/8x4 3/8"	1.89	1.50	1.15	1.08	.98
15F452	616C	600	16	1 3/8x4 3/8"	2.25	1.68	1.28	1.14	1.10

15F459 | 540 | 450 | 40 | 1 3/8x4 3/8" | 1.89 | 1.08 | .83 | .74 | .71

DUAL SEPARATE SECTION UNITS

Stk. No.	Type	Mid.	DxL	1-24	25-49	50-99	100-499	500-999
15F460	KR588A	8-8	1 3/8x3"	2.25	1.16	.90	.80	.77

Cornell-Dubilier Capacitors



COMPUTER GRADE HIGH CAPACITANCE TYPE FAH

Designed for use in computer power supplies and other applications where banks of high capacitance filters are required. Low leakage current, minimum ESR, high 120cps ripple currents, molded terminal block with safety vent seal, provided with screw terminals, plastic insulating sleeve. Dual rated as shown, minimum operating temperature 20°C.



65C: 10V DCW, 15VS; 85C: 8V DCW, 10VS

Stock No.	Type FAH	Cap. Mid.	Size	ESR Ohms	1-49	50-99	100-249	250-up
15F1807	353-10	35,000	2x5 1/2	.043	4.50	4.06	3.60	3.30
15F1808	503-10	50,000	2 1/2 x 4 1/2	.036	6.15	5.52	4.92	4.61

65C: 15V DCW, 20VS; 85C: 10V DCW, 15VS

Stock No.	Type FAH	Cap. Mid.	Size	ESR Ohms	1-49	50-99	100-249	250-up
15F1809	143-15	14,000	1 3/4 x 4 1/8	.067	3.30	2.90	2.58	2.37
15F1810	253-15	25,000	2x5 1/2	.051	4.55	4.11	3.66	3.36
15F1811	403-15	40,000	3x4 1/8	.040	5.90	5.29	4.68	4.29

65C: 25V DCW, 35VS; 85C: 20V DCW, 30VS

Stock No.	Type FAH	Cap. Mid.	Size	ESR Ohms	1-49	50-99	100-249	250-up
15F1812	152-25	15,000	1 3/4 x 2 1/8	.17	1.50	1.35	1.20	1.10
15F1813	103-25	10,000	2x4 1/8	.066	3.40	3.04	2.70	2.48
15F1814	203-25	20,000	2 1/2 x 4 1/8	.047	4.95	4.46	3.96	3.63
15F1815	323-25	32,000	3x4 1/8	.037	6.18	5.55	4.92	4.51

65C: 50V DCW, 65VS; 85C: 40V DCW, 55VS

Stock No.	Type FAH	Cap. Mid.	Size	ESR Ohms	1-49	50-99	100-249	250-up
15F1816	801-50	800	1 3/8 x 2 1/8	.35	1.55	1.42	1.26	1.16
15F1817	252-50	2,500	1 3/8 x 4 1/8	.15	1.90	1.69	1.50	1.38
15F1818	402-50	4,000	1 3/4 x 4 1/8	.115	2.55	2.30	2.04	1.87
15F1819	502-50	5,000	2x4 1/8	.099	3.30	3.00	2.64	2.42
15F1820	103-50	10,000	2 1/2 x 4 1/8	.07	5.30	4.80	4.26	3.91
15F1821	203-50	20,000	3x5 1/8	.047	7.35	6.64	5.88	5.41

MYLAR DIELECTRIC FILM ENCASED

Type WMF. Ultra compact Mylar dielectric tubular capacitor encased in a thin, tough Mylar film wrapping and end sealed with a high density thermosetting plastic. A most desirable unit where a metal case unit

is not indicated. Extremely small in size, has high resistance to humidity and excellent capacitance stability with temp. and life. Temperature range: -55°C to +125°C. Tolerance: 10%.



100 WVDC

Stk. No.	Type	Mid.	DxL (in.)	1-24	25-49	50-99	100-499	500-999
15F1450	WMF1D1	.001	1.56x 1/2	.21	.15	.12	.10	.09
15F1451	WMF1D15	.0015	1.56x 1/2	.21	.15	.12	.10	.09
15F1452	WMF1D22	.0022	2.55x 1/2	.21	.15	.12	.10	.09
15F1453	WMF1D33	.0033	2.55x 1/2	.21	.15	.12	.10	.09
15F1454	WMF1D47	.0047	2.55x 1/2	.21	.15	.12	.10	.09
15F1455	WMF1D68	.0068	1.75x 1/2	.21	.15	.12	.10	.09
15F1456	WMF1S1	.01	2.00x 1/2	.21	.15	.12	.10	.09
15F1457	WMF1S15	.015	2.35x 1/2	.21	.15	.12	.10	.09
15F1458	WMF1S22	.022	2.75x 1/2	.24	.16	.13	.11	.10
15F1459	WMF1S33	.033	3.00x 1/2	.24	.16	.13	.11	.10
15F1460	WMF1S47	.047	2.65x 3/4	.27	.18	.14	.12	.10
15F1461	WMF1S68	.068	2.80x 3/4	.27	.18	.14	.12	.10
15F1462	WMF1P1	.1	2.90x 3/4	.36	.23	.18	.13	.11
15F1463	WMF1P15	.15	3.35x 3/4	.36	.23	.18	.13	.11
15F1464	WMF1P22	.22	3.85x 1	.39	.26	.20	.14	.12
15F1465	WMF1P33	.33	4.15x 1 1/8	.45	.29	.22	.17	.14
15F1466	WMF1P47	.47	4.75x 1 1/4	.47	.30	.24	.20	.17
15F1467	WMF1P68	.68	5.70x 1 1/2	.57	.38	.30	.26	.22
15F1468	WMF1W1	1.0	6.25x 1 1/2	.87	.56	.44	.38	.32
15F1469	WMF1W1P25	1.25	6.90x 1 1/2	1.05	.68	.53	.46	.38
15F1470	WMF1W1P5	1.5	7.70x 1 3/4	1.23	.81	.63	.54	.45
15F1471	WMF1W2	2.0	9.95x 1 3/4	1.50	.98	.76	.66	.55
15F1837	WMF1D12	.0012	1.56x 1/2	.21	.15	.12	.10	.09
15F1838	WMF1D18	.0018	1.56x 1/2	.21	.15	.12	.10	.09
15F1839	WMF1D27	.0027	1.56x 1/2	.21	.15	.12	.10	.09
15F1840	WMF1D39	.0039	1.56x 1/2	.21	.15	.12	.10	.09
15F1841	WMF1D5	.005	1.56x 1/2	.21	.15	.12	.10	.09
15F1842	WMF1D56	.0056	1.56x 1/2	.21	.15	.12	.10	.09
15F1843	WMF1D82	.0082	1.75x 1/2	.21	.15	.12	.10	.09
15F1844	WMF1S12	.012	2.15x 1/2	.21	.15	.12	.10	.09
15F1845	WMF1S18	.018	2.55x 1/2	.21	.15	.12	.10	.09
15F1846	WMF1S27	.027	3.00x 1/2	.24	.16	.13	.11	.09
15F1847	WMF1S39	.039	2.45x 3/4	.24	.16	.13	.11	.10
15F1848	WMF1S5	.05	2.65x 3/4	.27	.18	.14	.12	.10
15F1849	WMF1S56	.056	2.65x 3/4	.27	.18	.14	.12	.10
15F1850	WMF1S82	.082	2.70x 3/4	.36	.23	.18	.13	.11

200 WVDC

Stk. No.	Type	Mid.	DxL (in.)	1-15	16-30	31-60	61-120	121-250
15F1472	WMF2D1	.001	1.56x 1/2	.21	.15	.12	.10	.09
15F1473	WMF2D15	.0015	1.56x 1/2	.21	.15	.12	.10	.09
15F1474	WMF2D22	.0022	2.540x 1/2	.21	.15	.12	.10	.09
15F1475	WMF2D33	.0033	1.60x 1/2	.21	.15	.12	.10	.09
15F1476	WMF2D47	.0047	1.70x 1/2	.21	.15	.12	.10	.09
15F1477	WMF2D68	.0068	2.00x 1/2	.21	.15	.12	.10	.09
15F1478	WMF2S1	.01	2.30x 1/2	.21	.15	.12	.10	.09
15F1479	WMF2S15	.015	2.90x 1/2	.21	.15	.12	.10	.09
15F1480	WMF2S22	.022	2.75x 3/4	.24	.18	.13	.11	.10
15F1481	WMF2S33	.033	2.70x 3/4	.24	.18	.13	.11	.10
15F1482	WMF2S47	.047	3.20x 3/4	.27	.17	.14	.12	.10
15F1483	WMF2S68	.068	3.50x 3/4	.27	.18	.14	.12	.10
15F1484	WMF2P1	.1	4.10x 3/4	.36	.23	.18	.13	.11
15F1485	WMF2P15	.15	5.00x 3/4	.38	.24	.19	.14	.11
15F1486	WMF2P22	.22	5.00x 1 1/8	.39	.26	.20	.14	.12

65C: 100V DCW, 135VS; 85C: 75V DCW, 100VS

Stock No.	Type FAH	Cap. Mid.	Size	ESR Ohms	1-49	50-99	100-249	250-up
15F1822	102-100	1,000	1 3/8 x 4 1/8	.225	2.05	1.83	1.62	1.49
15F1823	402-100	4,000	2 1/2 x 4 1/8	.112	4.65	4.19	3.72	3.41
15F1824	532-100	5,300	3x4 1/8	.093	5.20	4.65	4.14	3.80

65C: 150V DCW, 185VS; 85C: 125V DCW, 150VS

Stock No.	Type FAH	Cap. Mid.	Size	ESR Ohms	1-49	50-99	100-249	250-up
15F1825	751-150	750	1 3/8 x 4 1/8	.375	2.05	1.82	1.62	1.49
15F1826	202-150	2,000	2x4 1/8	.128	3.90	3.52	3.12	2.86
15F1827	602-150	6,000	3x5 1/8	.072	7.15	6.40	5.70	5.23

65C: 200V DCW, 250VS; 85C: 150V DCW, 200VS

Stock No.	Type FAH	Cap. Mid.	Size	ESR Ohms	1-49	50-99	100-249	250-up
15F1828	501-200	500	1 3/8 x 4 1/8	.56	1.85	1.74	1.58	1.43
15F1829	202-200	2,000	2 1/2 x 4 1/8	.127	4.30	3.85	3.42	3.14

65C: 250V DCW, 300VS; 85C: 200V DCW, 250VS

Stock No.	Type FAH	Cap. Mid.	Size	ESR Ohms	1-49	50-99	100-249	250-up
15F1830	102-250	1,000	2x4 1/8	.28	4.50	4.05	3.60	3.30
15F1831	152-250	1,500	2 1/2 x 4 1/8	.15	5.05	4.60	4.08	3.74

65C: 350V DCW, 400VS; 85C: 300V DCW, 350VS

Stock No.	Type FAH	Cap. Mid.	Size	ESR Ohms	1-49	50-99	100-249	250-up
15F1832	351-350	350	1 3/4 x 4 1/8	.56	2.55	2.30	2.04	1.87
15F1833	102-350	1,000	3x4 1/8	.198	5.40	4.85	4.32	3.96

65C: 450V DCW, 525VS; 85C: 400V DCW, 475VS

Stock No.	Type FAH	Cap. Mid.	Size	ESR Ohms	1-49	50-99	100-249	250-up
15F1834	251-450	250	1 3/4 x 4 1/8	.782	2.80	2.50	2.22	2.04
15F1835	501-450	500	2x5 1/8	.392	3.75	3.40	3.00	2.75
15F1836	861-450	860	3x4 1/8	.215	6.45	5.80	5.16	4.78

Stk. No.	Type	Mid.	DxL (in.)	1-24	25-49	50-99	100-499	500-999
15F1487	WMF2P33	.33	550x1 1/8	.45	.29	.22	.17	.14
15F1488	WMF2P47	.47	600x1 1/4	.51	.33	.26	.21	.17
15F1489	WMF2P68	.68	650x1 1/2	.57	.38	.30	.26	.22
15F1490	WMF2W1	1.0	750x1 3/4	.87	.56	.44	.38	.32
15F1491	WMF2W1P25	1.25	825x1 3/4	1.05	.68	.53	.46	.38
15F1492	WMF2W1P5	1.5	900x1 3/4	1.23	.81	.63	.54	.45
15F1493	WMF2W2	2.0	980x1 7/8	1.50	.98	.78	.66	.55

Stk. No.	Type	Mid.	DxL (in.)	1-24	25-49	50-99	100-499	500-999
15F1494	WMF4D1	.001	1.56x 5/8	.27	.18	.14	.13	.10
15F1495	WMF4D15	.0015	1.56x 5/8	.27	.18	.14	.13	.10
15F1496	WMF4D22	.0022	1.56x 5/8	.27	.18	.14	.13	.10
15F1497	WMF4D33	.0033	1.90x 5/8	.27	.18	.14	.13	.10
15F1498	WMF4D47	.0047	2.00x 5/8	.27	.18	.14	.13	.10
15F1499	WMF4D68	.0068	2.50x 5/8	.27	.18	.14	.13	.10
15F1500	WMF4S1	.01	3.00x 5/8	.27	.17	.13	.12	.10
15F1501	WMF4S15	.015	3.60x 5/8	.27	.18	.14	.13	.11
15F1502	WMF4S22	.022	3.20x 3/4					



Cornell-Dubilier Capacitors

DPMS DIELECTRIC SIDE-LEAD TUBULARS CAPACITORS



Type DPMS has two dielectrics—Mylar Polyester Film and a film of high grade paper. Features a "dipped" rock-hard casing which holds wire leads rigidly at fixed spacings. High humidity resistance. Crimped side leads for uniform mounting. -55°C to +125°C. Derate working voltage 25% for +125°C operation.

200 VDCW ± 10% Tol.

Stk. No.	Type	Cap. Mid.	Size	1-24	25-49	50-99	100-499	500-999
15F1600	DPMS2S22	.022	.350x.855	.15	.12	.09	.07	.063
15F1601	DPMS 2S47	.047	.450x.855	.18	.13	.10	.08	.072
15F1603	DPMS 2P1	.1	.470x1.180	.21	.15	.11	.09	.081
15F1604	DPMS 2P15	.15	.540x1.180	.24	.17	.13	.11	.099
15F1605	DPMS 2P22	.22	.590x1.300	.27	.20	.16	.13	.117
15F1607	DPMS 2P47	.47	.730x1.600	.36	.26	.21	.17	.153

TYPE MFP SPACE-SAVER FLAT-OVAL POLYESTER FILM CAPACITORS



Type MFP is similar in construction to the type WMF. It is designated however, with a flat, pressed section to give an oval configuration that finds widespread use in many applications requiring the space saving characteristics of this form factor. In ratings of 0.01 mfd. and above, the MFP is frequently used as an alternative to the type WMF of the military grade type CTM. The WFP and epoxy end seals bonded to the wrapper end leads. The unit is highly moisture and humidity resistant. Maximum operating temperature range is -55° to 125° C—85°C at full rated voltage with deratings of 10% and 50% at 100°C and 125°C respectively. Standard tolerance is ±20%. 1/2" minimum copperweld leads. Thickness and width (W) tolerances are: up to and incl. .484", ±.032"; .500" to and incl. 1.000", ±.062"; larger than 1.000", ±.093".

100 VOLTS DCW

Stk. No.	Type	Cap. Mid.	Size LxW.	1-24	25-49	50-99	100-499	500-999
15F1851	MFP-1S22	.022	.625x.343"	.24	.18	.14	.12	.10
15F1852	MFP-1S33	.033	.625x.312"	.27	.20	.16	.14	.11
15F1853	MFP-1S47	.047	.750x.312"	.27	.20	.16	.14	.11
15F1854	MFP-1S68	.068	.750x.343"	.27	.20	.16	.14	.11
15F1855	MFP-1P1	.10	.875x.343"	.33	.25	.19	.17	.14
15F1856	MFP-1P15	.15	.875x.406"	.36	.27	.21	.18	.15
15F1857	MFP-1P22	.22	1.000x.468"	.39	.29	.23	.20	.16
15F1858	MFP-1P33	.33	1.125x.500"	.42	.32	.25	.21	.18
15F1859	MFP-1P47	.47	1.250x.531"	.45	.34	.26	.23	.19
15F1860	MFP-1P68	.68	1.250x.687"	.51	.38	.30	.26	.21
15F1881	MFP-1W1	1.00	1.500x.718"	.72	.54	.42	.36	.30
15F1862	MFP-1W1P25	1.25	1.500x.718"	.90	.68	.53	.45	.38
15F1863	MFP-1W1P5	1.50	1.750x.843"	1.02	.77	.60	.51	.43
15F1864	MFP-1W2	2.00	1.750x1.062"	1.23	.92	.72	.62	.51

200 VOLTS DCW

Stk. No.	Type	Cap. Mid.	Size LxW.	1-24	25-49	50-99	100-499	500-999
15F1865	MFP-2S15	.015	.500x.312"	.24	.18	.14	.12	.10
15F1866	MFP-2S22	.022	.625x.343"	.24	.18	.14	.12	.10
15F1867	MFP-2S33	.033	.750x.343"	.27	.20	.16	.14	.11
15F1868	MFP-2S47	.047	.750x.375"	.27	.20	.16	.14	.11
15F1869	MFP-2S68	.068	.750x.437"	.27	.20	.16	.14	.11
15F1870	MFP-2P1	.10	.875x.500"	.33	.25	.19	.17	.14
15F1871	MFP-2P15	.15	.875x.562"	.36	.27	.21	.18	.15
15F1872	MFP-2P22	.22	1.125x.562"	.39	.29	.23	.20	.16
15F1873	MFP-2P33	.33	1.125x.625"	.42	.32	.25	.21	.18
15F1874	MFP-2P47	.47	1.250x.656"	.45	.34	.26	.23	.19
15F1875	MFP-2P68	.68	1.625x.718"	.51	.38	.30	.26	.21
15F1876	MFP-2W1	1.00	1.750x.812"	.72	.54	.42	.36	.30
15F1877	MFP-2W1P25	1.25	1.750x.906"	.90	.68	.53	.45	.38
15F1878	MFP-2W1P5	1.50	1.750x1.000"	1.02	.77	.60	.51	.43
15F1879	MFP-2W2	2.00	1.875x1.062"	1.23	.92	.72	.62	.51

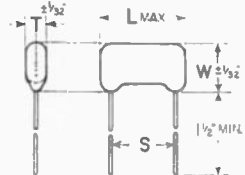
400 VOLTS DCW

Stk. No.	Type	Cap. Mid.	Size LxW.	1-24	25-49	50-99	100-499	500-999
15F1880	MFP-4S15	.015	.625x.437"	.27	.20	.16	.14	.11
15F1881	MFP-4S22	.022	.750x.375"	.27	.20	.16	.14	.11
15F1882	MFP-4S33	.033	.875x.406"	.27	.20	.16	.14	.11
15F1883	MFP-4S47	.047	.875x.500"	.30	.23	.18	.15	.13
15F1884	MFP-4S68	.068	1.000x.437"	.30	.23	.18	.15	.13
15F1885	MFP-4P1	.10	1.000x.531"	.33	.25	.19	.17	.14
15F1886	MFP-4P15	.15	1.250x.562"	.33	.25	.19	.17	.14
15F1887	MFP-4P22	.22	1.375x.625"	.39	.29	.23	.20	.16
15F1888	MFP-4P33	.33	1.625x.656"	.57	.43	.33	.29	.24
15F1889	MFP-4P47	.47	1.625x.781"	.69	.52	.40	.35	.29
15F1890	MFP-4P68	.68	1.750x.875"	.81	.61	.47	.41	.34
15F1891	MFP-4W1	1.00	2.000x.937"	.99	.74	.58	.50	.41
15F1892	MFP-4W1P25	1.25	2.000x1.062"	1.14	.86	.67	.57	.48
15F1893	MFP-4W1P5	1.50	2.259x1.062"	1.26	.95	.74	.63	.53
15F1894	MFP-4W2	2.00	2.250x1.312"	1.65	1.24	.96	.83	.69

600 VDCW ± 10% Tol.

Stk. No.	Type	Cap. Mid.	Size	1-24	25-49	50-99	100-499	500-999
15F1609	DPMS 6D1	.001	.340x.690	.15	.10	.08	.07	.063
15F1610	DPMS 6D2	.002	.340x.690	.15	.10	.08	.07	.063
15F1611	DPMS 6D25	.0025	.350x.690	.15	.10	.08	.07	.063
15F1612	DPMS 6D33	.033	.370x.690	.15	.10	.08	.07	.063
15F1613	DPMS 6D5	.005	.400x.690	.15	.10	.08	.07	.063
15F1614	DPMS 6S1	.01	.340x.870	.18	.11	.09	.07	.063
15F1615	DPMS 6S2	.02	.445x.870	.18	.13	.10	.08	.072
15F1616	DPMS 6S3	.03	.415x1.150	.21	.13	.11	.09	.081
15F1617	DPMS 6S47	.047	.490x1.150	.21	.15	.12	.10	.09
15F1618	DPMS 6S5	.05	.490x1.150	.24	.15	.12	.10	.09
15F1619	DPMS 6S68	.068	.540x1.300	.27	.18	.14	.11	.099
15F1620	DPMS 6P1	.1	.640x1.300	.27	.21	.16	.13	.117
15F1622	DPMS 6P22	.22	.750x1.560	.42	.28	.22	.19	.171
15F1623	DPMS 6P25	.25	.830x1.560	.42	.28	.22	.20	.183

MINIATURE RADIAL-LEAD POLYESTER FILM CAPACITORS



A flat space saving configuration, excellent for ultracompact assemblies. MYLAR dielectric. Dipping process assures high moisture and humidity resistance. Epoxy impregnated casting. Fix-til-impregnated capacitor section—no impregnation leakage even at maximum operating temperatures. Uniform dip coating control assures protection of capacitor section—no possibility of shorts caused by contact of an uncoated case to chassis. Max. operating temperature is 125°C-85°C at full rated voltage. 10% derated at 100°C and 50% derated at 125°C. Leads are #22 AWG including 0.068/100V; 0.047/200V; 0.022/400V, and 0.068 at 600V. Above these ratings, leads are #20 AWG. Tol. ±20% or ±10%. Wire lead spacing: 9/16" for 3/4" dim. L and 3/16" for 1/8" dim. L.

100 VOLTS DCW

Stk. No.	Type	Cap. Mid.	Size T.xW.xL.	1-24	25-49	50-99	100-449	500-999
15F1895	DMF-1S15	.015	3/16x3/16x3/4"	.18	.12	.10	.08	.069
15F1896	DMF-1S22	.022	3/16x3/16x3/4"	.18	.12	.10	.08	.069
15F1897	DMF-1S33	.033	3/16x1/2x3/4"	.18	.13	.10	.09	.074
15F1898	DMF-1S47	.047	3/16x1/2x3/4"	.18	.14	.11	.10	.080
15F1899	DMF-1S68	.068	1/4x3/8x3/4"	.21	.16	.13	.11	.090
15F1900	DMF-1P1	.10	3/16x1/2x3/4"	.24	.17	.13	.12	.096
15F1901	DMF-1P15	.15	3/16x1/2x3/4"	.27	.21	.16	.14	.118
15F1902	DMF-1P22	.22	3/16x3/4x3/4"	.33	.25	.19	.17	.138
15F1903	DMF-1P33	.33	3/16x3/4x3/4"	.36	.28	.22	.19	.156
15F1904	DMF-1P47	.47	3/16x3/4x1 1/8"	.42	.33	.25	.22	.181
15F1905	DMF-1P-66	.66	1/4x27/32x1 1/8"	.51	.38	.30	.26	.213
15F1906	DMF-1W1	1.00	3/16x1 1/2x1 1/8"	.69	.51	.40	.34	.285

200 VOLTS DCW

Stk. No.	Type	Cap. Mid.	Size T.xW.xL.	1-24	25-49	50-99	100-499	500-999
15F1907	DMF-2S1	.01	3/16x3/16x3/4"	.18	.12	.10	.08	.069
15F1908	DMF-2S15	.015	3/16x1/2x3/4"	.18	.12	.10	.08	.069
15F1909	DMF-2S22	.022	1/4x3/8x3/4"	.18	.12	.10	.08	.069
15F1910	DMF-2S33	.033	1/4x3/8x3/4"	.18	.13	.10	.09	.074
15F1911	DMF-2S47	.047	1/4x3/8x3/4"	.18	.14	.11	.10	.080
15F1912	DMF-2S68	.068	3/16x1/2x3/4"	.21	.16	.13	.11	.090
15F1913	DMF-2P1	.10	3/16x23/32x3/4"	.24	.17	.13	.12	.096
15F1914	DMF2P15	.15	3/16x23/32x3/4"	.27	.21	.16	.14	.118
15F1915	DMF-2P22	.22	1/4x27/32x3/4"	.33	.25	.19	.17	.138
15F1916	DMF-2P33	.33	1/4x27/32x3/4"	.36	.28	.22	.19	.156
15F1917	DMF-2P47	.47	1/2x3/8x1 1/8"	.42	.33	.25	.22	.181
15F1918	DMF-2P68	.68	3/16x3/4x1 1/8"	.51	.38	.30	.26	.213

400 VOLTS DCW

Stk. No.	Type	Cap. Mid.	Size T.xW.xL.	1-24	25-49	50-99	100-499	500-999
15F1919	DMF-4D47	.0047	3/16x3/16x3/4"	.18	.12	.10	.08	.069
15F1920	DMF-4D68	.0068	3/16x3/16x3/4"	.18	.12	.10	.08	.069
15F1921	DMF-4S1	.01	3/16x1/2x3/4"	.18	.12	.10	.08	.069
15F1922	DMF-4S15	.015	1/4x3/8x3/4"	.18	.12	.10	.08	.069
15F1923	DMF-4S22	.022	3/16x1/2x3/4"	.18	.12	.10	.08	.069
15F1924	DMF-4S33	.033	3/16x1/2x3/4"	.18	.14	.10	.09	.076
15F1925	DMF-4S47	.047	1/4x27/32x3/4"	.21	.15	.12	.10	.083
15F1926	DMF-4S68	.068	1/4x27/32x3/4"	.21	.16	.13	.11	.091
15F1927	DMF-4P1	.10	1/4x27/32x3/4"	.27	.19	.15	.13	.105
15F1928	DMF-4P15	.15	1/4x27/32x3/4"	.30	.22	.17	.15	.124
15F1929	DMF-4P22	.22</						

Electrolytic Capacitors



WIDE APPLICATION RANGE TWIST-PRONG ELECTROLYTIC CAPACITORS

Wide application range Twist-Prongs provide proper replacement for any electrolytic marked with a capacitance within range on wide application label. Proper replacement instantly available. Highest purity materials.

Tolerance from nominal rated capacitance:

Rated DC Voltage	Capacitance Tolerance
3-50 volts, inclusive	-10% to +150%
51-350 volts, inclusive	-10% to +100%
351-450 volts, inclusive	-10% to +50%



Convert code-letter to size using this table.

Code Letter	Size	Code Letter	Size	Code Letter	Size
A	1x1 1/2	E	1 x3	I	1 1/2x3 1/2
B	1x1 3/4	F	1 1/2x2	J	1 1/2x3 3/4
C	1x2	G	1 3/4x2 1/2	K	1 1/2x4
D	1x2 1/2	H	1 3/4x3		

SINGLE-SECTION TWIST-PRONG ELECTROLYTICS (AA)

10-16 VDCW

STOCK NO.	Type AA—	CAP. MFD.	Size	1-24	25-49	50-99	100-499	500-999
15F215	0060	500-1000	A	1.26	.93	.73	.540	.477
15F216	0070	1000-2000	F	1.92	1.43	1.11	.824	.729
15F277	0080	1500-3000	F	2.40	1.78	1.39	1.031	.912

10-25 VDCW

Stock No.	Type AA—	Cap. MFD.	Size	1-24	25-49	50-99	100-499	500-999
15F1681	0120	250-500	A	1.17	.87	.68	.502	.444
15F213	0130	500-1000	F	1.74	1.29	1.01	.748	.661

10-50 VDCW

Stock No.	Type AA—	Cap. MFD.	Size	1-24	25-49	50-99	100-499	500-999
15F279	0160	250-500	F	1.44	1.07	.83	.620	.549
15F262	0174	750-1500	F	2.46	1.83	1.42	1.056	.934

10-150 VDCW

Stock No.	Type AA	Cap. MFD.	Size	1-24	25-49	50-99	100-499	500-999
15F1682	0200	30-50	A	.90	.66	.51	.380	.336
15F261	0241	60-100	A	.99	.74	.57	.425	.376
15F260	0261	100-150	C	1.11	.82	.64	.473	.419
15F288	0263	200-300	F	1.59	1.19	.93	.688	.608
15F475	0264	120-200	E	1.23	.90	.70	.523	.462

10-250 VDCW

Stock No.	Type AA—	Cap. MFD.	Size	1-24	25-49	50-99	100-499	500-999
15F1683	0267	80-125	E	1.29	.96	.74	.553	.489
15F210	0316	100-160	G	1.65	1.17	.91	.680	.600

10-300 VDCW

Stock No.	Type AA—	Cap. MFD.	Size	1-24	25-49	50-99	100-499	500-999
15F1684	0350	60-100	D	1.29	.96	.75	.556	.492
15F211	0357	120-200	G	2.01	1.49	1.16	.861	.761

10-350 VDCW

Stock No.	Type AA	Cap. MFD.	Size	1-24	25-49	50-99	100-499	500-999
15F1685	0390	30-50	C	1.11	.82	.64	.473	.419
15F1686	0401	60-80	F	1.47	1.10	.85	.633	.560
15F207	0415	100-150	G	1.95	1.44	1.12	.833	.737
15F1687	0417	250-300	K	2.97	2.21	1.72	1.279	1.132

10-450 VDCW

Stock No.	Type AA—	Cap. MFD.	Size	1-24	25-49	50-99	100-499	500-999
15F1688	0490	35-50	D	1.26	.94	.73	.543	.481
15F206	0510	60-80	G	1.74	1.30	1.01	.753	.666
15F465	0512	70-100	H	1.98	1.46	1.14	.846	.749
15F1689	0514	100-125	I	2.22	1.67	1.30	.962	.851

10-500 VDCW

Stock No.	Type AA—	Cap. MFD.	Size	1-24	25-49	50-99	100-499	500-999
15F200	0520	7-10	A	.90	.68	.53	.390	.345
15F204	0530	15-20	C	1.05	.78	.60	.449	.391
15F205	0550	30-40	D	1.32	.97	.76	.563	.498
15F202	0560	60-80	H	2.07	1.53	1.19	.885	.783

DUAL-SECTION TWIST-PRONG ELECTROLYTICS (BB)

10-150 VDCW

STOCK NO.	TYPE BB	CAP. MFD.	Size	1-24	25-49	50-99	100-499	500-999
15F293	0141	20-40						
		20-40	A	1.11	.79	.61	.454	.401
15F231	0150	30-50						
		15-30	A	1.11	.79	.61	.454	.401
15F232	0171	50-80						
		50-80	C	1.29	.92	.71	.530	.469
15F273	0181	50-80						
		20-40	B	1.20	.85	.66	.490	.434

DUAL-SECTION TWIST-PRONG ELECTROLYTICS (CON'T.)

10-350 VDCW

Stock No.	Type BB	Cap. MFD.	Size	1-24	25-49	50-99	100-499	500-999
15F225	0300	15-20						
		15-20	C	1.20	.86	.67	.494	.437
		20-30						
15F226	0310	20-30	D	1.38	.95	.74	.550	.486

10-450 VDCW

Stock No.	Type BB	Cap. MFD.	Size	1-24	25-49	50-99	100-499	500-999
15F220	0400	15-20						
		15-20	D	1.38	.95	.74	.551	.488
15F447	0410	20-30						
		7-10	E	1.38	.96	.75	.554	.490
15F221	0430	20-30						
		20-30	F	1.77	1.24	.96	.716	.634
15F222	0440	30-40						
		15-20	F	1.77	1.24	.96	.716	.634
15F224	0480	60-80						
		30-40	J	2.43	1.72	1.34	.992	.877

10-500 VDCW

Stock No.	Type BB	Cap. MFD.	Size	1-24	25-49	50-99	100-499	500-999
15F219	0490	7-10						
		7-10	C	1.17	.86	.67	.498	.440
15F217	0500	15-20						
		15-20	F	1.71	1.20	.93	.694	.614
15F223	0530	30-40						
		30-40	G	2.28	1.61	1.25	.930	.822

TRIPLE-SECTION TWIST-PRONG ELECTROLYTICS (CC)

10-150 WVDC

Stock No.	Type AA—	Cap. MFD.	Size	1-24	25-49	50-99	100-499	500-999
15F249	CC0090	20-40						
		20-40						
		20-40	B	1.47	.93	.72	.536	.474
15F229	CC0105	30-50						
		30-50	C	1.53	.98	.76	.567	.501
		30-50						

10-450 WVDC

Stock No.	Type AA—	Cap. MFD.	Size	1-24	25-49	50-99	100-499	500-999
15F269	CC0350	30-40						
		30-40						
		30-40	H	2.76	1.79	1.39	1.032	.913
15F228	CC0370	50-80						
		30-40						
		15-20	H	2.97	1.93	1.50	1.115	.987

10-500 VDCW

Stock No.	Type	Cap. MFD.	Size	1-24	25-49	50-99	100-499	500-999
15F234	CC0380	7-10						
		7-10						
		7-10	E	1.62	1.05	.81	.605	.535
15F268	CC0390	20-30						
		15-20						
		15-20	H	2.43	1.61	1.25	.930	.822

QUADRUPLE-SECTION TWIST-PRONG ELECTROLYTICS (DD)

10-475 VDCW

Stock No.	Type	Cap. MFD.	Size	1-24	25-49	50-99	100-499	500-999
15F253	DD0179.5	15-20						
		15-20						
		15-20						
		15-20	G	2.67	1.66	1.29	.957	.846

10-500 VDCW

Stock No.	Type	Cap. MFD.	Size	1-24	25-49	50-99	100-499	500-999
15F252	DD0180	7-10						
		7-10						
		7-10						
		7-10	F	2.10	1.36	1.05	.784	.693

10-450 VDCW

Stock No.	Type	Cap. MFD.	Size	1-24	25-49	50-99	100-499	500-999
15F254	DD0480	7-10						
		7-10						
		7-10						
		15-20*	F	1.89	1.19	.93	.688	.608

*This section 10-25 WVDC.

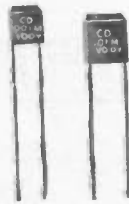
Capacitors

CORNELL-DUBILIER

CERAMIC CAPACITORS

Models CK05 and CK06. Ultra-miniature rectangular case ceramic capacitors which meet the requirements of MIL-C-11015. They are rated at 200V DCW over the entire operating temperature range which ranges from -55C to +150C. The capacitors may be described as high reliability packaged in small sizes. The tempera-

ture characteristic is MIL CW specified as maximum capacitance change of -2%, or +56% when the temperature cycled is per MIL-C-11015. Units are stocked and are available in the latest revision of MIL-C-11015 with a tolerance of ±10%. These tiny capacitors come in a premolded case. Size: CK05, .2x.2x.1. CK06, .3x.3x.1.



CERAMIC CAPACITORS STYLE CK05

Stock No.	Type	Cap. Pl.	1-99	100-499	500-999
15F1770	05CW100K	10			
15F1771	05CW120K	12			
15F1772	05CW150K	15			
15F1773	05CW180K	18			
15F1774	05CW220K	22			
15F1775	05CW270K	27			
15F1776	05CW330K	33	.65	.53	.42
15F1777	05CW390K	39			
15F1778	05CW470K	47			
15F1779	05CW560K	56			
15F1780	05CW680K	68			
15F1781	05CW820K	82			
15F1782	05CW101K	100			

Stock No.	Type	Cap. Pl.	1-99	100-499	500-999
15F1783	05CW121K	120			
15F1784	05CW151K	150			
15F1785	05CW181K	180			
15F1786	05CW221K	220			
15F1787	05CW271K	270			
15F1788	05CW331K	330	.65	.53	.42
15F1789	05CW391K	390			
15F1790	05CW471K	470			
15F1791	05CW561K	560			
15F1792	05CW681K	680			
15F1793	05CW821K	820			
15F1794	05CW102K	1000			

CERAMIC CAPACITORS STYLE CK06

Stock No.	Type	Cap. Pl.	1-99	100-499	500-999
15F1801	06CW122K	1200	.85	.67	.53
15F1802	06CW152K	1500	.85	.67	.53
15F1803	06CW182K	1800	.85	.67	.53
15F1804	06CW222K	2200	.85	.67	.53
15F1805	06CW272K	2700	.85	.67	.53
15F1806	06CW332K	3300	.85	.67	.53

Stock No.	Type	Cap. Pl.	1-99	100-499	500-999
15F1795	06CW392K	3900	.85	.67	.53
15F1796	06CW472K	4700	.85	.67	.53
15F1797	06CW562K	5600			
15F1798	06CW682K	6800	2.19	1.74	1.40
15F1799	06CW822K	8200			
15F1800	06CW103K	10000			

PLASTIC CAPACITORS, INC.

TYPE AM METAL CLAD MINIATURE CAPACITORS

Type AM metal clad miniature capacitors utilize metallized mylar film as the solid dielectric and are hermetically sealed. High performance exceeding the most rigid tests for humidity and temperature. Windings are extended foil (non-inductive) construction. The capacitors are self healing and non-sparking. Tolerance is 20%. Sizes shown are for diameter and length. Power factor is less than 1% at 25°C.



TYPE "OF" HIGH V. GLASS CAPACITORS

Plastic film dielectric. Useful for high voltage power filter. Mount in any position. Temperature range -55°C. to +85°C. Tolerance ±10%. 1/8x8-32 screw terminals except * marked have tinned copper pigtails. Heavy wall, hard glass case.



200 WORKING VOLTS DC

Stk. No.	Type	Mfd.	Size	1-24	25-49	50-99	100-249
19F1558	AM2-223	.022	.187x3/16	1.08	.83	.77	.68
19F1559	AM2-333	.033	.235x3/16	1.15	.88	.82	.72
19F1560	AM2-473	.047	.235x3/16	1.16	.89	.83	.73
19F1561	AM2-683	.068	.235x3/16	1.16	.90	.83	.73
19F1562	AM2-104	.1	.235x3/16	1.17	.90	.84	.74
19F1563	AM2-154	.15	.312x3/16	1.18	.91	.84	.74
19F1564	AM2-224	.22	.312x3/16	1.21	.93	.86	.76
19F1565	AM2-334	.33	.400x3/16	1.36	1.05	.97	.86
19F1566	AM2-474	.47	.400x3/16	1.40	1.08	1.00	.88
19F1567	AM2-684	.68	.400x3/16	1.46	1.13	1.04	.92
19F1568	AM2-105	1.0	.562x3/16	1.70	1.31	1.21	1.07
19F1569	AM2-205	2.0	.670x3/16	2.31	1.79	1.65	1.46
19F1570	AM2-405	4.0	.670x3/16	2.93	2.26	2.09	1.84
19F1571	AM2-505	5.0	.750x3/16	3.08	2.38	2.20	1.94
19F1572	AM2-805	8.0	1.000x3/16	4.52	3.49	3.23	2.85
19F1573	AM2-106	10.0	1.000x3/16	5.81	4.49	4.15	3.66

300 WORKING VOLTS DC

Stk. No.	Type	Mfd.	Size	1-24	25-49	50-99	100-249
19F1580	AM3-104	.10	.312x3/16	1.19	.92	.85	.75
19F1581	AM3-154	.15	.400x3/16	1.29	1.00	.92	.81
19F1582	AM3-224	.22	.400x3/16	1.32	1.02	.95	.83
19F1583	AM3-334	.33	.400x3/16	1.38	1.07	.99	.87
19F1584	AM3-474	.47	.562x3/16	1.65	1.27	1.18	1.04
19F1585	AM3-684	.68	.562x3/16	1.75	1.35	1.25	1.10
19F1586	AM3-105	1.0	.562x3/16	1.90	1.47	1.36	1.20
19F1587	AM3-205	2.0	.750x3/16	2.93	2.26	2.09	1.84
19F1588	AM3-405	4.0	1.000x3/16	4.06	3.13	2.90	2.55
19F1589	AM3-505	5.0	1.000x3/16	4.56	3.52	3.26	2.87

Stk. No.	Type	Cap. Mfd.	Volts	Size	1-9	10-24	25-49	50-99	100-249
*19F700	20-103	.01	2000	1 1/2 x 1 1/2	2.10	2.10	1.93	1.73	1.51
19F701	20-503	.05	2000	1 3/4 x 3/4	2.28	2.28	2.09	1.87	1.64
19F702	20-104	.10	2000	2 1/4 x 3/4	2.33	2.33	2.14	1.91	1.67
19F703	20-254	.25	2000	2 3/4 x 3/4	2.69	2.69	2.58	2.30	2.02
*19F704	30-103	.01	3000	1 1/2 x 1 1/2	2.46	2.46	2.30	2.13	1.62
19F705	30-203	.02	3000	1 3/4 x 3/4	2.64	2.64	2.46	2.28	1.73
19F706	30-503	.05	3000	2 1/4 x 3/4	2.70	2.70	2.51	2.33	1.77
19F707	30-104	.10	3000	1 3/4 x 1 1/8	3.19	3.19	2.97	2.75	2.09
19F1290	30-254	.25	3000	2 1 x 3/8	3.75	3.75	3.48	3.21	2.55
19F1291	30-504	.50	3000	2 3/4 x 1 1/8	4.70	4.70	4.37	4.03	3.02
19F708	50-103	.01	5000	1 3/4 x 3/4	3.54	3.54	3.14	2.93	2.53
19F709	50-203	.02	5000	2 1/4 x 3/4	3.61	3.61	3.20	2.99	2.58
19F710	50-503	.05	5000	2 3/4 x 3/4	4.17	4.17	3.70	3.45	2.98
19F711	50-104	.10	5000	2 1/4 x 1 1/8	4.84	4.84	4.53	4.22	3.62
19F1292	50-102	.001	5000	1 1/2 x 1 1/2	3.25	3.25	2.88	2.70	2.33
19F1293	50-502	.005	5000	1 3/4 x 1 1/2	3.30	3.30	2.91	2.72	2.35
19F1294	50-254	.25	5000	3 x 1 1/8	5.72	5.72	5.35	4.97	4.20
19F1295	50-504	.50	5000	6 x 1 1/8	7.73	7.73	7.22	6.71	5.68
19F1296	80-502	.005	8000	1 3/4 x 3/4	4.12	4.12	3.60	3.29	2.57
*19F1297	80-103	.01	8000	2 1/4 x 3/4	4.20	4.20	3.68	3.25	3.05
19F1298	80-104	.10	8000	3 3/8 x 1 1/8	7.76	6.63	6.22	5.58	4.77
*19F712	100-102	.001	10KV	1 5/8 x 1 1/2	4.18	3.64	3.23	3.02	2.60
19F713	100-502	.005	10KV	1 3/4 x 1 1/4	4.76	4.17	3.69	3.45	2.98
19F714	100-103	.01	10KV	2 1/4 x 2 1/4	5.28	4.62	4.09	3.83	3.30
19F715	100-203	.02	10KV	2 3/4 x 1 1/2	5.76	5.05	4.40	4.17	3.60
19F1299	150-103	.01	15KV	3 3/4 x 1 1/8	7.72	7.06	6.39	5.88	5.21
19F716	200-102	.001	20KV	3 1/2 x 3/4	8.63	7.85	7.09	6.47	5.47
19F717	200-202	.002	20KV	3 1/2 x 1 1/4	9.18	8.37	7.54	6.89	5.83
19F718	200-502	.005	20KV	3 1/2 x 1 1/2	11.16	10.14	9.15	8.37	7.17
19F719	200-103	.01	20KV	4 1/2 x 1 1/8	11.20	10.20	9.20	8.40	7.20
*19F720	300-501	.0005	30KV	4 1/2 x 1 1/2	10.13	9.28	8.19	7.65	6.55
19F722	300-202	.002	30KV	5 x 2 3/8	13.10	11.92	10.52	9.83	8.42
19F723	300-502	.005	30KV	5 x 1 3/4	15.85	14.30	13.05	12.12	10.27
19F724	600-501	.0005	60KV	10 x 3 1/4	14.45	13.25	12.03	11.13	9.33
19F725	600-102	.001	60KV	10 x 2 3/4	17.48	16.00	14.55	13.47	11.28
19F726	600-202	.002	60KV	10 x 1 3/4	18.77	17.20	15.65	14.47	12.12

To Serve You Better — Seven Stocking Warehouses from Coast-to-Coast

Use the Services of the Facility Nearest You — See Front Cover

Texas Instruments Solid Tantalum Capacitors



No. 22 (0.025 ± 0.005) No. 24 (0.020 ± 0.005)
-0.001

AWG SOLDERABLE LEADS

Parent Device System. Established to simplify your ordering and stocking procedures. Parent device types can be used for any working voltage equal to or less than those listed in tables below.

6 WORKING VOLTS DC ± 20% TOLERANCE

Stock No.	Type-SCM	Cap.	Dia.	L.	1-24	25-49	50-99	100-499	500-999
17F025	476BP006D4	47	0.175	0.438	1.53	1.23	.73	.60	.45
17F026	157GP006D4	150	0.279	0.650	2.19	1.97	1.32	1.08	.81
17F027	337HP006D4	330	0.341	0.750	4.46	3.52	2.30	1.87	1.41

10 WORKING VOLTS DC ± 20% TOLERANCE

Stock No.	Type-SCM	Cap.	Dia.	L.	1-24	25-49	50-99	100-499	500-999
17F028	475FP010D4	4.7	0.125	0.250	1.30	1.04	.71	.58	.43
17F030	336BP010D4	33	0.175	0.438	1.53	1.23	.73	.60	.45
17F033	107GP010D4	100	0.279	0.650	2.19	1.97	1.32	1.08	.81
17F034	227HP010D4	220	0.341	0.750	4.46	3.52	2.30	1.87	1.41

15 WORKING VOLTS DC ± 20% TOLERANCE

Stock No.	Type-SCM	Cap.	Dia.	L.	1-24	25-49	50-99	100-499	500-999
17F007	226BP015D4	22	0.175	0.438	1.53	1.23	.73	.60	.45
17F079	686GP015D4	68	0.279	0.650	2.19	1.97	1.32	1.08	.81
17F039	157HP015D4	150	0.341	0.750	4.46	3.52	2.30	1.87	1.41

20 WORKING VOLTS DC ± 20% TOLERANCE

Stock No.	Type-SCM	Cap.	Dia.	L.	1-24	25-49	50-99	100-499	500-999
17F040	155FP020D4	1.5	0.125	0.250	1.30	1.04	.71	.58	.43
17F041	225FP020D4	2.2	0.125	0.250	1.30	1.04	.71	.58	.43
17F044	106BP020D4	10	0.175	0.438	1.53	1.23	.73	.60	.45
17F045	156BP020D4	15	0.175	0.438	1.53	1.23	.73	.60	.45
17F047	336GP020D4	33	0.279	0.650	2.19	1.97	1.32	1.08	.81
17F048	476GP020D4	47	0.175	0.650	2.19	1.97	1.32	1.08	.81
17F049	686GP020D4	68	0.341	0.750	4.46	3.52	2.30	1.87	1.41
17F050	107HP020D4	100	0.341	0.750	4.46	3.52	2.30	1.87	1.41

35 WORKING VOLTS DC ± 20% TOLERANCE

Stock No.	Type-SCM	Cap.	Dia. x Lt.	1-24	25-49	50-99	100-499	500-999
17F1134	472FP035D4	.0047	.125x.250	1.30	1.04	.71	.58	.43
17F1135	682FP035D4	.0068						
17F1136	103FP035D4	.010						
17F1137	153FP035D4	.015						
17F1138	223FP035D4	.022						
17F1139	333FP035D4	.033	.125x.250	1.30	1.04	.71	.58	.43
17F1140	473FP035D4	.047						
17F1141	683FP035D4	.068						
17F1142	104FP035D4	.10						
17F1143	154FP035D4	.15						
17F1144	224FP035D4	.22						
17F1145	334FP035D4	.33						
17F1146	474FP035D4	.47						
17F1147	684FP035D4	.68						
17F051	105FP035D4	1.0						
17F052	155BP035D4	1.5	.175x.438	1.53	1.23	.73	.60	.45
17F053	225BP035D4	2.2						
17F054	335BP035D4	3.3						
17F055	475BP035D4	4.7						
17F058	685BP035D4	6.8						
17F057	106GP035D4	10	.279x.650	2.53	2.03	1.38	1.12	.85
17F058	156GP035D4	15						
17F059	226GP035D4	22						
17F060	336HP035D4	33						
17F061	476HP035D4	47						

6 WORKING VOLTS DC ± 10% TOLERANCE

Stock No.	Type-SCM	Cap.	Dia.	L.	1-24	25-49	50-99	100-499	500-999
17F1009	565FP035D2	5.6	125x.250	1.33	1.07	.74	.61	.46	
17F1010	685FP006D2	6.8	125x.250	1.33	1.07	.74	.61	.46	
17F1020	476BP006D2	47	175x.438	1.56	1.26	.76	.63	.48	
17F1021	566BP006D2	56	175x.438	1.56	1.26	.76	.63	.48	
17F1026	157GP006D2	150	279x.650	2.22	2.00	1.35	1.11	.84	
17F1027	187GP006D2	180	279x.650	2.22	2.00	1.35	1.11	.84	
17F1029	277HP006D2	270	341x.750	4.49	3.55	2.33	1.90	1.44	
17F1030	377HP006D2	330	341x.750	4.49	3.55	2.33	1.90	1.44	

10 WORKING VOLTS DC ± 10% TOLERANCE

Stock No.	Type-SCM	Cap.	Dia.	L.	1-24	25-49	50-99	100-499	500-999
17F1038	395FP010D2	3.9	125x.250	1.33	1.07	.74	.61	.46	
17F1039	475FP010D2	4.7	125x.250	1.33	1.07	.74	.61	.46	
17F1048	276BP010D2	27	175x.438	1.56	1.26	.76	.63	.48	
17F1049	336BP010D2	33	175x.438	1.56	1.26	.76	.63	.48	
17F1050	396BP010D2	39							
17F1054	826GP010D2	82	279x.650	2.22	2.00	1.35	1.11	.84	
17F1055	107GP010D2	100	279x.650	2.22	2.00	1.35	1.11	.84	
17F1056	127GP010D2	120							
17F1058	187HP010D2	180	341x.750	4.49	3.55	2.33	1.90	1.44	
17F1059	227HP010D2	220	341x.750	4.49	3.55	2.33	1.90	1.44	

Type SCM. A capacitor of completely dry construction (no liquid or paste is used), offering the chemical stability of tantalum and its oxides. All available from Newark stock with Mylar insulating sleeves.



Case Size	D ±0.010 -0.005	L 0.031	C Max.	Wire Size Avg.	D ±0.010	L ±0.031	C Max.	Avg. Wt. gms
F	0.125	0.250	0.422	24	0.135	0.286	0.422	0.4
B	0.173	0.438	0.610	24	0.185	0.474	0.610	1.2
G	0.279	0.650	0.822	22	0.289	0.686	0.822	2.0
H	0.341	0.750	0.922	22	0.351	0.786	0.922	3.4

15 WORKING VOLTS DC ± 10% TOLERANCE

Stock No.	Type-SCM	Cap.	Dia.xLt.	1-24	25-49	50-99	100-499	500-999
17F1065	275FP015D2	2.7	.125x.250	1.33	1.07	.74	.61	.46
17F1066	335FP015D2	3.3	.125x.250	1.33	1.07	.74	.61	.46
17F1075	186BP015D2	18	175x.438	1.56	1.26	.76	.63	.48
17F1076	226BP015D2	22	175x.438	1.56	1.26	.76	.63	.48
17F1081	566GP015D2	56	279x.650	2.22	2.00	1.35	1.11	.84
17F1082	686GP015D2	68	341x.650	2.22	2.00	1.35	1.11	.84
17F1086	157HP015D2	150	279x.750	4.49	3.55	2.33	1.90	1.44

20 WORKING VOLTS DC ± 10% TOLERANCE

Stock No.	Type-SCM	Cap.	Dia.xLt.	1-24	25-49	50-99	100-499	500-999
17F1088	125FP020D2	1.2	.125x.250	1.33	1.07	.74	.61	.46
17F1089	155FP020D2	1.5						
17F1090	185FP020D2	1.8						
17F1091	225FP020D2	2.2	.173x.438	1.56	1.26	.76	.63	.48
17F1098	325BP020D2	3.2						
17F1099	106BP020D2	10						
17F1100	126BP020D2	12						
17F1101	156BP020D2	15						
17F1104	276GP020D2	27	.279x.650	2.22	2.00	1.35	1.11	.84
17F1105	336GP020D2	33						
17F1106	396GP020D2	39						
17F1107	476GP020D2	47						
17F1108	566HP020D2	56	.341x.750	4.49	3.55	2.33	1.90	1.44
17F1109	686HP020D2	68						
17F1110	826HP020D2	82						
17F1111	107HP020D2	100						
17F1112	127HP020D2	120						

35 WORKING VOLTS DC ± 10% TOLERANCE

Stock No.	Type-SCM	Cap.	Dia.	L.	1-24	25-49	50-99	100-499	500-999
17F1150	475BP035D2	.0047	.125x.250	1.30	1.04	.71	.58	.43	
17F1151	685BP035D2	.0056							
17F1152	685BP035D2	.0068							
17F1153	825GP035D2	.0082							
17F1154	103FP035D2	.010							
17F1155	123FP035D2	.012							
17F1156	153FP035D2	.015							
17F1157	183FP035D2	.018							
17F1158	223FP035D2	.022							
17F1159	273FP035D2	.027							
17F1160	333FP035D2	.033	.125x.250	1.33	1.07	.74	.61	.46	
17F1161	393FP035D2	.039							
17F1162	473FP035D2	.047							
17F1163	563FP035D2	.056							
17F1164	683FP035D2	.068							
17F1165	823FP035D2	.082							
17F1166	104FP035D2	.10							
17F1167	124FP035D2	.12							
17F1168	154FP035D2	.15							
17F1169	184FP035D2	.18							
17F1170	224FP035D2	.22	.279x.650	2.53	2.03	1.38	1.12	.85	
17F1171	274FP035D2	.27							
17F1172	334FP035D2	.33							
17F1173	394FP035D2	.39							
17F1174	474FP035D2	.47							
17F1175	564FP035D2	.56							
17F1176	684FP035D2	.68							
17F1177	824FP035D2	.82							
17F1178	105FP035D2	1.0							
17F1179	125FP035D2	1.2							.173x.438
17F1180	155BP035D2	1.5							
17F1181	185BP035D2	1.8							
17F1182	225BP035D2	2.2							
17F1183	275BP035D2	2.7							
17F1184	335BP035D2	3.3							
17F1185	395BP035D2	3.9							
17F1186	475BP035D2	4.7							
17F1187	565BP035D2	5.6							
17F1188	685BP035D2	6.8							
17F1189	825BP035D2	8.2	.279x.650	2.56	2.06	1.41	1.15	.88	
17F1190	106GP035D2	10							



Capacitors

WSR GLASS ENCASED MONOBLOC CAPACITORS



These capacitors are hermetically sealed in glass and have a

wide range of capacitance values, characteristics, and sizes; combine inherent stability with monolithic structure. They enjoy long life and are available to established Reliability, standard Military, and Commercial specifications. Type 8005: 290 Length. Type 8025: 390 length. Lead length 1.50 min. 24 AWG tinned copper leads.

GENERAL PURPOSE TYPE 8005-000 — 100 DCWV, WSR CHAR., 10% TOL.

Stk. No.	Type Suffix	Cap (pt.)	1-49	50-99	100-249	250-499	500-999
19F2449	WSRO 121K	120	1.10	.99	.83	.72	.66
19F2464	WSRO 151K	150					
19F2465	WSRO 181K	180					
19F2466	WSRO 221K	220					
19F2467	WSRO 271K	270					
19F2468	WSRO 331K	330					
19F2469	WSRO 391K	390					
19F2470	WSRO 471K	470					
19F2471	WSRO 561K	560					

Stk. No.	Type Suffix	Cap (pt.)	1-49	50-99	100-249	250-499	500-999
19F2472	WSRO 681K	680	1.10	.99	.83	.72	.66
19F2473	WSRO 821K	820	1.10	.99	.83	.72	.66
19F2474	WSRO 102K	1000	1.10	.99	.83	.72	.66
19F2475	WSRO 122K	1200	1.20	1.08	.90	.78	.72
19F2476	WSRO 152K	1500	1.20	1.08	.90	.78	.72
19F2477	WSRO 182K	1800	1.30	1.17	.98	.85	.78
19F2478	WSRO 222K	2200	1.30	1.17	.98	.85	.78
19F2479	WSRO 272K	2700	1.40	1.26	1.05	.91	.84

HIGH STABILITY TYPE 8005-000 — 100 DCWV, NPO CHAR., 10% TOL.

(Max. change 30 PM/°C from -55°C to +125°C)

Stk. No.	Type Suffix	Cap (pt.)	1-49	50-99	100-249	250-499	500-999
19F2480	COGO 100K	10	1.10	.99	.83	.72	.66
19F2481	COGO 120K	12	1.10	.99	.83	.72	.66
19F2482	COGO 150K	15	1.10	.99	.83	.72	.66
19F2483	COGO 180K	18	1.10	.99	.83	.72	.66
19F2484	COGO 220K	22	1.20	1.08	.90	.78	.72
19F2485	COGO 270K	27	1.20	1.08	.90	.78	.72
19F2486	COGO 330K	33	1.20	1.08	.90	.78	.72

Stk. No.	Type Suffix	Cap (pt.)	1-49	50-99	100-249	250-499	500-999
19F2487	COGO 390K	39	1.20	1.08	.90	.78	.72
19F2488	COGO 470K	47	1.30	1.17	.98	.85	.78
19F2489	COGO 560K	56	1.30	1.17	.98	.85	.78
19F2490	COGO 680K	68	1.30	1.17	.98	.85	.78
19F2491	COGO 820K	82	1.40	1.26	1.05	.91	.84
19F2492	COGO 101K	100	1.40	1.26	1.05	.91	.84

GENERAL PURPOSE TYPE 8025-000 — 100 DCWV, WSR CHAR., 10% TOL.

Stk. No.	Type Suffix	Cap (pt.)	1-49	50-99	100-249	250-499	500-999
19F2494	WSRO 332K	3300	1.50	1.35	1.13	.98	.90
19F2495	WSRO 392K	3900	1.50	1.35	1.13	.98	.90
19F2496	WSRO 472K	4700	1.60	1.44	1.20	1.04	.96
19F2497	WSRO 562K	5600	1.70	1.53	1.28	1.11	1.02
19F2498	WSRO 682K	6800	1.80	1.62	1.35	1.17	1.08
19F2499	WSRO 822K	8200	1.90	1.71	1.43	1.24	1.14

Stk. No.	Type Suffix	Cap (pt.)	1-49	50-99	100-249	250-499	500-999
19F2500	WSRO 103K	10000	2.00	1.80	1.50	1.30	1.20
19F2501	WSRO 123K	12000	2.10	1.89	1.58	1.37	1.26
19F2502	WSRO 153K	15000	2.10	1.89	1.58	1.37	1.26
19F2503	WSRO 183K	18000	2.20	1.98	1.65	1.45	1.32
19F2504	WSRO 223K	22000	2.20	1.98	1.65	1.45	1.32

HIGH STABILITY TYPE 8025-000 — 100 DCWV, NPO CHAR., 10% TOL.

Stk. No.	Type Suffix	Cap (pt.)	1-49	50-99	100-249	250-499	500-999
19F2505	COGO 121K	120	1.60	1.44	1.20	1.04	.96
19F2506	COGO 151K	150	1.70	1.53	1.28	1.11	1.02
19F2507	COGO 181K	180	1.80	1.62	1.35	1.17	1.08
19F2508	COGO 221K	220	1.90	1.71	1.43	1.24	1.14
19F2510	COGO 271K	270	2.00	1.80	1.50	1.30	1.20

Stk. No.	Type Suffix	Cap (pt.)	1-49	50-99	100-249	250-499	500-999
19F2511	COGO 331K	330	2.10	1.89	1.58	1.37	1.26
19F2512	COGO 391K	390	2.30	2.07	1.73	1.50	1.38
19F2513	COGO 471K	470	2.40	2.16	1.80	1.56	1.44
19F2514	COGO 561K	560	2.60	2.34	1.95	1.69	1.56
19F2515	COGO 681K	680	2.70	2.43	2.03	1.76	1.62

MIL C-11015 TYPE CK-12 100 WVDC — STYLE 8005

Stk. No.	Mil. No.	Cap (pt.)	Tol. ±%	1-49	50-99	100-249	250-499	500-999
19F2516	CK12AX100K	10	±10%	1.20	1.08	.90	.78	.72
19F2517	CK12AX100M	10	±10%	1.10	.99	.83	.72	.66
19F2518	CK12AX220K	22	±10%	1.30	1.17	.98	.85	.78
19F2519	CK12AX220M	22	±10%	1.20	1.08	.90	.78	.72
19F2520	CK12AX330K	33	±10%	1.30	1.17	.98	.85	.78
19F2521	CK12AX330M	33	±10%	1.20	1.08	.90	.78	.72
19F2522	CK12AX470K	47	±10%	1.40	1.26	1.05	.91	.84
19F2523	CK12AX470M	47	±10%	1.30	1.17	.98	.85	.78
19F2524	CK12AX101K	100	±10%	1.50	1.35	1.13	.98	.90

Stk. No.	Mil. No.	Cap (pt.)	Tol. ±%	1-49	50-99	100-249	250-499	500-999
19F2525	CK12AX101M	100	±10%	1.40	1.26	1.05	.91	.84
19F2526	CK12AX221K	220	±10%	1.20	1.08	.90	.78	.72
19F2527	CK12AX221M	220	±10%	1.10	.99	.83	.72	.66
19F2528	CK12AX331K	330	±10%	1.20	1.08	.90	.78	.72
19F2529	CK12AX331M	330	±10%	1.10	.99	.83	.72	.66
19F2530	CK12AX471K	470	±10%	1.20	1.08	.90	.78	.72
19F2531	CK12AX471M	470	±10%	1.10	.99	.83	.72	.66
19F2532	CK12AX102K	1000	±10%	1.20	1.08	.90	.78	.72
19F2533	CK12AX102M	1000	±10%	1.10	.99	.83	.72	.66

SUBMINIATURE MOLDED CAPACITORS — STYLE 390

Meets Military specifications MIL-C-11015 with a capacitance range up to 330 pt ±10%, 20%; 390-580 pt ±20%+100-0% (GMV); 820 and above +100-0% (GMV). Working voltage of 100 volts DC. at 85° C or 50 volts at 125° C. Constructed of

high quality molded plastic to assure resist ance against moisture and humidity. Dia.: .095, L: .250, Lead L.: 1.25 min. #22 AWG (.025) tinned copper leads.



Stk. No.	Type	Mmf.	Tol.	1-49	50-99	100-249	250-499	500-999
19F1709	390-000 X5PO 569K	5.6	±10%	.58	.44	.363	.261	.247
19F1710	390-000 X5PO 689K	6.8	±10%	.58	.44	.363	.261	.247
19F1711	390-000 X5PO 829K	8.2	±10%	.58	.44	.363	.261	.247
19F1712	390-000 X5PO 100K	10	±10%	.58	.44	.363	.261	.247
19F1713	390-000 X5PO 120K	12	±10%	.58	.44	.363	.261	.247
19F1714	390-000 X5PO 150K	15	±10%	.58	.44	.363	.261	.247
19F1715	390-000 X5PO 180K	18	±10%	.58	.44	.363	.261	.247
19F1716	390-000 X5PO 220K	22	±10%	.58	.44	.363	.261	.247
19F1717	390-000 X5PO 270K	27	±10%	.58	.44	.363	.261	.247
19F1718	390-000 X5PO 330K	33	±10%	.58	.44	.363	.261	.247
19F1719	390-000 X5PO 390K	39	±10%	.58	.44	.363	.261	.247
19F1720	390-000 X5PO 470K	47	±10%	.58	.44	.363	.261	.247
19F1721	390-000 X5PO 560K	56	±10%	.58	.44	.363	.261	.247
19F1722	390-000 X5PO 680K	68	±10%	.58	.44	.363	.261	.247
19F1723	390-000 X5PO 820K	82	±10%	.58	.44	.363	.261	.247

Stk. No.	Type	Mmf.	Tol.	1-49	50-99	100-249	250-499	500-999
19F1724	390-000 X5PO 101K	100	±10%	.58	.44	.363	.261	.247
19F1725	390-000 X5PO 121K	120	±10%	.58	.44	.363	.261	.247
19F1726	390-000 X5PO 151K	150	±10%	.58	.44	.363	.261	.247
19F1727	390-000 X5PO 181K	180	±10%	.58	.44	.363	.261	.247
19F1728	390-000 X5TO 221K	220	±10%	.58	.44	.363	.261	.247
19F1729	390-000 X5TO 271K	270	±10%	.58	.44	.363	.261	.247
19F1730	390-000 X5TO 331K	330	±10%	.58	.44	.363	.261	.247
19F1731	390-000 X5UO 391M	390	±20%	.54	.41	.338	.243	.230
19F1732	390-000 X5UO 471M	470	±20%	.54	.41	.338	.243	.230
19F1733	390-000 X5UO 561M	560	±20%	.54	.41	.338	.243	.230
19F1734	390-000 X5UO 681M	680	±20%	.54	.41	.338	.243	.230
19F1735	390-000 X5VO 821P	820	GMV	.50	.38	.313	.225	.213
19F1736	390-000 X5VO 102P	1000	GMV	.50	.38	.313	.225	.213
19F1737	390-000 X5VO 122P	1200	GMV	.50	.38	.313	.225	.213

Capacitors



SUBMINIATURE MONOBLOC CERAMIC CAPACITORS

Monobloc construction allows volumetric efficiency up to 20ml/cu. in. Tolerance within $\pm 10\%$ for capacitance from 10 pf to 100 pf when measured at 1mc with .5 to 1 VRMS across the capacitor including COG dielectric. For values greater than 100pf tol-

erance is within $\pm 10\%$ —when measured at 1kc with .5 to 1 VRMS across the capacitor. Maximum capacitance change $\pm 15\%$ of the 25°C value over the temperature range -55°C to 125°C .

W5RO GENERAL PURPOSE TYPE 8003 — 100 VDCW @ 125°C

Stock No.	Type	Cap. (pf.)	1-49	50-99	100-249	250-499	500-999
19F2534	8003-000 W5RO 181K	180					
19F2535	8003-000 W5RO 221K	220					
19F2536	8003-000 W5RO 271K	270					
19F2537	8003-000 W5RO 331K	330					
19F2538	8003-000 W5RO 391K	390					
19F2539	8003-000 W5RO 471K	470	1.30	1.17	.98	.85	.78
19F2540	8003-000 W5RO 561K	560					
19F2541	8003-000 W5RO 681K	680					
19F2542	8003-000 W5RO 821K	820					
19F2543	8003-000 W5RO 102K	1000					
19F2544	8003-000 W5RO 122K	1200	1.40	1.26	1.05	.91	.84
19F2545	8003-000 W5RO 152K	1500	1.40	1.26	1.05	.91	.84
19F2546	8003-000 W5RO 182K	1800	1.40	1.26	1.05	.91	.84

Stock No.	Type	Cap. (pf.)	1-49	50-99	100-249	250-499	500-999
19F2547	8003-000 W5RO 222K	2200	1.50	1.35	1.13	.98	.90
19F2548	8003-000 W5RO 272K	2700	1.50	1.35	1.13	.98	.90
19F2549	8003-000 W5RO 332K	3300	1.60	1.44	1.20	1.04	.96
19F2550	8003-000 W5RO 392K	3900	1.60	1.44	1.20	1.04	.96
19F2551	8003-000 W5RO 472K	4700	1.70	1.53	1.28	1.11	1.02
19F2552	8003-000 W5RO 562K	5600	1.80	1.62	1.35	1.17	1.08
19F2553	8003-000 W5RO 682K	6800	1.80	1.62	1.35	1.17	1.08
19F2554	8003-000 W5RO 822K	8200	1.90	1.71	1.43	1.24	1.14
19F2555	8003-000 W5RO 103K	10000	2.00	1.80	1.50	1.30	1.20
19F2556	8003-000 W5RO 123K	12000	2.40	2.16	1.80	1.56	1.44
19F2557	8003-000 W5RO 153K	15000	2.60	2.34	1.95	1.69	1.56
19F2558	8003-000 W5RO 183K	18000	2.70	2.43	2.03	1.76	1.62
19F2559	8003-000 W5RO 223K	22000	2.90	2.61	2.18	1.89	1.73

NPO HIGH STABILITY TYPE 8003 — 100 VDCW @ 125°C

Stock No.	Type	Cap. (pf.)	1-49	50-99	100-249	250-499	500-999
19F2560	8003-000 COGO 100K	10					
19F2561	8003-000 COGO 120K	12					
19F2562	8003-000 COGO 150K	15	1.30	1.17	.98	.85	.78
19F2563	8003-000 COGO 180K	18					
19F2564	8003-000 COGO 220K	22					
19F2565	8003-000 COGO 270K	27					
19F2566	8003-000 COGO 330K	33	1.40	1.26	1.05	.91	.84

Stock No.	Type	Cap. (pf.)	1-49	50-99	100-249	250-499	500-999
19F2567	8003-000 COGO 390K	39	1.40	1.26	1.05	.91	.84
19F2568	8003-000 COGO 470K	47	1.50	1.35	1.13	.98	.90
19F2569	8003-000 COGO 560K	56	1.50	1.35	1.13	.98	.90
19F2570	8003-000 COGO 680K	68	1.50	1.35	1.13	.98	.90
19F2571	8003-000 COGO 820K	82	1.60	1.44	1.20	1.04	.96
19F2572	8003-000 COGO 101K	100	1.50	1.35	1.13	.98	.90
19F2573	8003-000 COGO 121K	120	1.71	1.53	1.28	1.11	1.02
19F2574	8003-000 COGO 151K	150	1.71	1.53	1.28	1.11	1.02

W5R GENERAL PURPOSE TYPE 8123 & 8133 — 100 VDCW @ 125°C

Stock No.	Type	Cap. (pf.)	1-49	50-99	100-249	250-499	500-999
19F2575	8123-000 W5RO 271K	270					
19F2576	8123-000 W5RO 331K	330					
19F2577	8123-000 W5RO 391K	390					
19F2578	8123-000 W5RO 471K	470	.42	.38	.32	.28	.25
19F2579	8123-000 W5RO 561K	560					
19F2580	8123-000 W5RO 681K	680					
19F2581	8123-000 W5RO 821K	820					
19F2582	8123-000 W5RO 102K	1000					
19F2583	8133-000 W5RO 122K	1200					
19F2584	8133-000 W5RO 152K	1500	.50	.45	.38	.33	.30
19F2585	8133-000 W5RO 182K	1800					
19F2586	8133-000 W5RO 222K	2200					
19F2587	8133-000 W5RO 272K	2700	.54	.49	.41	.35	.32
19F2588	8133-000 W5RO 332K	3300	.54	.49	.41	.35	.32
19F2589	8133-000 W5RO 392K	3900	.56	.50	.42	.36	.34
19F2590	8133-000 W5RO 472K	4700	.56	.50	.42	.36	.34

Stock No.	Type	Cap. (pf.)	1-49	50-99	100-249	250-499	500-999
19F2591	8133-000 W5RO 562K	5600	.72	.65	.54	.47	.43
19F2592	8133-000 W5RO 682K	6800	.72	.65	.54	.47	.43
19F2593	8133-000 W5RO 822K	8200	.72	.65	.54	.47	.43
19F2594	8133-000 W5RO 103K	10000	.72	.65	.54	.47	.43
19F2595	8133-000 W5RO 123K	12000	1.60	1.44	1.20	1.04	.96
19F2596	8133-000 W5RO 153K	15000	1.70	1.53	1.28	1.11	1.02
19F2597	8133-000 W5RO 183K	18000	1.80	1.62	1.35	1.17	1.08
19F2598	8133-000 W5RO 223K	22000	2.00	1.80	1.50	1.30	1.20
19F2599	8133-000 W5RO 273K	27000	2.20	1.98	1.65	1.45	1.32
19F2600	8133-000 W5RO 333K	33000	2.40	2.16	1.80	1.56	1.44
19F2601	8133-000 W5RO 393K	39000	2.60	2.34	1.95	1.69	1.56
19F2602	8133-000 W5RO 473K	47000	2.70	2.43	2.03	1.76	1.62
19F2603	8133-000 W5RO 563K	56000	2.80	2.52	2.10	1.82	1.68
19F2604	8133-000 W5RO 683K	68000	3.00	2.70	2.25	1.95	1.80
19F2605	8133-000 W5RO 823K	82000	3.10	2.79	2.33	2.02	1.86
19F2606	8133-000 W5RO 104K	100000	3.30	2.97	2.48	2.15	1.98

NPO HIGH STABILITY TYPE 8123 & 8133 — 100 VDCW @ 125°C

Stock No.	Type	Cap. (pf.)	1-49	50-99	100-249	250-499	500-999
19F2607	8123-000 COGO 100K	10					
19F2608	8123-000 COGO 120K	12					
19F2609	8123-000 COGO 150K	15					
19F2610	8123-000 COGO 180K	18					
19F2611	8123-000 COGO 220K	22					
19F2612	8123-000 COGO 270K	27					
19F2613	8123-000 COGO 330K	33	.42	.38	.32	.28	.25
19F2614	8123-000 COGO 390K	39					
19F2615	8123-000 COGO 470K	47					
19F2616	8123-000 COGO 560K	56					
19F2617	8123-000 COGO 680K	68					
19F2618	8123-000 COGO 820K	82					
19F2619	8123-000 COGO 101K	100					

Stock No.	Type	Cap. (pf.)	1-49	50-99	100-249	250-499	500-999
19F2620	8123-000 COGO 121K	120	.42	.38	.32	.28	.25
19F2621	8123-000 COGO 151K	150	.42	.38	.32	.28	.25
19F2622	8123-000 COGO 181K	180	.42	.38	.32	.28	.25
19F2623	8123-000 COGO 221K	220	.42	.38	.32	.28	.25
19F2624	8133-000 COGO 271K	270	1.80	1.62	1.35	1.17	1.08
19F2625	8133-000 COGO 331K	330	1.90	1.71	1.43	1.24	1.14
19F2626	8133-000 COGO 391K	390	2.10	1.89	1.58	1.37	1.26
19F2627	8133-000 COGO 471K	470	2.10	1.89	1.58	1.37	1.26
19F2628	8133-000 COGO 561K	560	2.30	2.07	1.73	1.50	1.38
19F2629	8133-000 COGO 681K	680	2.30	2.07	1.73	1.50	1.38
19F2630	8133-000 COGO 821K	820	2.50	2.25	1.88	1.63	1.50
19F2631	8133-000 COGO 102K	1000	2.60	2.34	1.95	1.69	1.56

MIL-C-11015-C TYPES 8133 & 8123 — 200 VDCW @ 150°C

Stock No.	Mil. Type	Cap. (pf.)	1-49	50-99	100-249	250-499	500-999
19F2632	CKO5CW 100K	10					
19F2633	CKO5CW 120K	12					
19F2634	CKO5CW 150K	15					
19F2635	CKO5CW 180K	18					
19F2636	CKO5CW 220K	22					
19F2637	CKO5CW 270K	27					
19F2638	CKO5CW 330K	33					
19F2639	CKO5CW 390K	39					
19F2640	CKO5CW 470K	47					
19F2641	CKO5CW 560K	56	.42	.38	.32	.28	.25
19F2642	CKO5CW 680K	68					
19F2643	CKO5CW 820K	82					
19F2644	CKO5CW 101K	100					
19F2645	CKO5CW 121K	120					
19F2646	CKO5CW 151K	150					
19F2647	CKO5CW 181K	180					
19F2648	CKO5CW 221K	220					
19F2649	CKO5CW 271K	270					
19F2650	CKO5CW 331K	330					

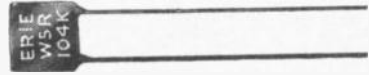
Stock No.	Mil. Type	Cap. (pf.)	1-49	50-99	100-249	250-499	500-999
19F2651	CKO5CW 391K	390					
19F2652	CKO5CW 471K	470					
19F2653	CKO5CW 561K	560	.42	.38	.32	.28	.25
19F2654	CKO5CW 681K	680					
19F2655	CKO5CW 821K	820					
19F2656	CKO5CW 102K	1000					
19F2657	CKO6CW 122K	1200					
19F2658	CKO6CW 152K	1500	.50	.45	.38	.33	.30
19F2659	CKO6CW 182K	1800					
19F2660	CKO6CW 222K	2200					
19F2661	CKO6CW 272K	2700	.54	.49	.41	.35	.32
19F2662	CKO6CW 332K	3300	.54	.49	.41	.35	.32
19F2663	CKO6CW 392K	3900	.56	.50	.42	.36	.34
19F2664	CKO6CW 472K	4700	.56	.50	.42	.36	.34
19F2665	CKO6CW 562K	5600	.72	.65	.54	.47	.43
19F2666	CKO6CW 682K	6800	.72	.65	.54	.47	.43
19F2667	CKO6CW 822K	8200	.72	.65	.54	.47	.43
19F2668	CKO6CW 103K	10000	.72	.65	.54	.47	



Ceramicon

WEECON CERAMIC CAPACITORS

The square shape saves space. Made from same materials and with same manufacturing techniques as Erie's tubular and disc capacitors, used



and proven by years of testing. Flash test: 100% tested @ 3 x DCWV. Capacitors listed are 10% tol., except (*) ±5 pf. (**) ±.25 pf, (†) ±5%, (‡) ±20%.

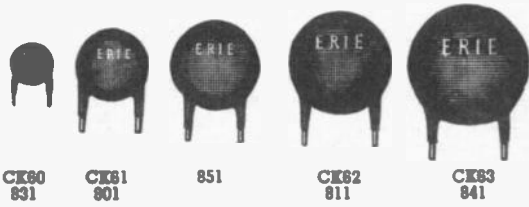
Type	Width	Height	Lead Spacing
8101	.100	.100	.100
8111	.150	.150	.100
8121	.200	.200	.100
8131	.300	.300	.200

Stk. No.	Type	Cap. (pf.)	1-49	50-99	100-249	250-499	500-999
19F2891	8101-026 COGO 479D	*4.7	.44	.33	.275	.198	.187
19F2892	8111-026 COGO 689D	*6.8	.44	.33	.275	.198	.187
19F2669	8111-026 COGO 100K	10	.44	.33	.275	.198	.187
19F2670	8111-026 U2JO 150K	15	.44	.33	.275	.198	.187
19F2671	8111-026 U2JO 220K	22	.44	.33	.275	.198	.187
19F2672	8111-026 U2JO 330K	33	.44	.33	.275	.198	.187
19F2673	8111-026 X5RO 331K	330	.44	.33	.275	.198	.187
19F2674	8111-026 X5RO 471K	470	.44	.33	.275	.198	.187

Stk. No.	Type	Cap. (pf.)	1-49	50-99	100-249	250-499	500-999
19F2875	8111-026 X5RO 681K	680	.44	.33	.275	.198	.187
19F2676	8121-026 X5RO 102K	1000	.40	.30	.25	.18	.17
19F2677	8131-026 X5RO 152K	1500	.44	.33	.275	.198	.187
19F2678	8131-026 X5RO 222K	2200	.44	.33	.275	.198	.187
19F2679	8131-026 X5UO 332M	3300†	.44	.33	.275	.198	.187
19F2680	8131-026 X5UO 472M	4700†	.44	.33	.275	.198	.187
19F2681	8131-026 Z5UO 682M	6800†	.44	.33	.275	.198	.187
19F2682	8131-026 Z5UO 103M	10,000†	.44	.33	.275	.198	.187

GENERAL PURPOSE CERAMICONS

A flat ceramic dielectric with silver fired onto the dielectric. 1000 DCWV, 1500 VDC test; ±10% Tolerance. Shpg. wt. 1 oz.



Stk. No.	Type	Cap. (pf.)	1-49	50-99	100-249	250-499	500-999	1000-4999
19F2683	831-000 COGO 509C	5.0**	.10	.08	.063	.045	.043	.025
19F2684	831-000 COGO 829C	8.2*	.10	.08	.063	.045	.043	.025
19F2685	831-000 COGO 100I	10.2*	.10	.08	.063	.045	.043	.025
19F2686	831-000 COGO 120I	12.0†	.10	.08	.063	.045	.043	.025
19F2687	801-000 COGO 150I	15.0†	.10	.08	.063	.045	.043	.025
19F2688	801-000 COGO 180I	18.0†	.10	.08	.063	.045	.043	.025
19F2689	801-000 COGO 200I	20.0†	.10	.08	.063	.045	.043	.025
19F2690	801-000 COGO 220I	22.0†	.10	.08	.063	.045	.043	.025
19F2691	851-000 COGO 270I	27.0†	.10	.08	.063	.045	.043	.025
19F2692	851-000 COGO 330I	33.0†	.10	.08	.063	.045	.043	.025
19F2693	851-000 COGO 470I	47.0†	.10	.08	.063	.045	.043	.025
19F2710	811-000 COGO 680I	69.0†	.12	.09	.078	.056	.053	.031
19F2711	811-000 COGO 750I	75.0†	.12	.09	.078	.056	.053	.031
19F2712	841-000 COGO 820I	82.0†	.12	.09	.078	.056	.053	.031
19F2713	841-000 COGO 101I	100.0†	.12	.09	.078	.056	.053	.031
19F2694	831-000 U2JO 100D	10.0†	.10	.08	.063	.045	.043	.025
19F2695	831-000 U2JO 120I	12.0†	.10	.08	.063	.045	.043	.025
19F2696	831-000 U2JO 150I	15.0†	.10	.08	.063	.045	.043	.025
19F2697	831-000 U2JO 180I	18.0†	.10	.08	.063	.045	.043	.025
19F2698	831-000 U2JO 200I	20.0†	.10	.08	.063	.045	.043	.025
19F2699	831-000 U2JO 220I	22.0†	.10	.08	.063	.045	.043	.025
19F2700	831-000 U2JO 270I	27.0†	.10	.08	.063	.045	.043	.025
19F2701	831-000 U2JO 330I	33.0†	.10	.08	.063	.045	.043	.025
19F2702	801-000 U2JO 390I	39.0†	.10	.08	.063	.045	.043	.025
19F2703	801-000 U2JO 470I	47.0†	.10	.08	.063	.045	.043	.025
19F2704	801-000 U2JO 500I	50.0†	.10	.08	.063	.045	.043	.025
19F2705	801-000 U2JO 560I	56.0†	.10	.08	.063	.045	.043	.025
19F2706	851-000 U2JO 680I	68.0†	.10	.08	.063	.045	.043	.025
19F2707	851-000 U2JO 750I	75.0†	.10	.08	.063	.045	.043	.025
19F2708	851-000 U2JO 820I	82.0†	.10	.08	.063	.045	.043	.025
19F2709	851-000 U2JO 101I	100.0†	.10	.08	.063	.045	.043	.025
19F2718	831-000 X5FO 470K	47.0	.15	.11	.095	.068	.065	.038
19F2719	831-000 X5FO 560K	56.0	.15	.11	.095	.068	.065	.038
19F2720	831-000 X5FO 680K	68.0	.15	.11	.095	.068	.065	.038
19F2721	831-000 X5FO 101K	100.0	.15	.11	.095	.068	.065	.038
19F2722	831-000 X5FO 151K	150.0	.15	.11	.095	.068	.065	.038
19F2723	831-000 X5FO 201K	200.0	.15	.11	.095	.068	.065	.038
19F2724	831-000 X5FO 221K	220.0	.15	.11	.095	.068	.065	.038
19F2725	831-000 X5FO 271K	270.0	.15	.11	.095	.068	.065	.038
19F2726	831-000 X5FO 331K	330.0	.15	.11	.095	.068	.065	.038
19F2727	831-000 X5FO 391K	390.0	.15	.11	.095	.068	.065	.038
19F2728	831-000 X5FO 471K	470.0	.15	.11	.095	.068	.065	.038
19F2729	831-000 X5FO 501K	500.0	.15	.11	.095	.068	.065	.038
19F2730	801-000 X5FO 681K	680.0	.15	.11	.095	.068	.065	.038
19F2731	801-000 X5FO 102K	1,000.0	.15	.11	.095	.068	.065	.038
19F2732	851-000 X5FO 152K	1,500.0	.15	.11	.095	.068	.065	.038
19F2733	871-000 X5FO 202K	2,000.0	.16	.12	.099	.071	.067	.04
19F2734	811-000 X5FO 222K	2,200.0	.16	.12	.10	.072	.068	.04
19F2735	811-000 X5FO 332K	3,300.0	.16	.12	.10	.072	.068	.04
19F2736	811-000 X5RO 472K	4,700.0	.12	.09	.075	.054	.051	.03
19F2737	811-000 X5RO 502K	5,000.0	.12	.09	.075	.054	.051	.03
19F2738	811-000 Z5UO 103M	10,000.0†	.13	.10	.080	.058	.054	.03
19F2739	841-000 Z5UO 153M	15,000.0†	.16	.12	.099	.071	.067	.04
19F2740	841-000 X5UO 203M	20,000.0†	.16	.12	.099	.071	.067	.04

MIL-C-11015B DISC CERAMICS

MIL-C-1105C capacitors meet requirements for TV, industrial electronics and military equipment at 85°C. All .156" thick. Style 831: .290 disc. dia., .250 lead spacing. Style 801: .360 disc. dia., .250 lead spacing. Style 811: .359 disc. dia., .357 lead spacing. Style 841: .675 disc. dia., .375 lead spacing. 600 VDC. 1500 VDC Flash Test. Shpg. Wt., 1 oz.

Stk. No.	Mil. No.	Cap. (pf.)	1-49	50-99	100-249	250-499	500-999	1000-4999
19F2745	CK60BX100K	10.0	.23	.18	.146	.105	.099	.059
19F2746	CK60BX150K	15.0	.23	.18	.146	.105	.099	.059
19F2747	CK60BX220K	22.0	.23	.18	.146	.105	.099	.059
19F2750	CK60BX470K	47.0	.23	.18	.146	.105	.099	.059
19F2754	CK60BX101K	100.0	.23	.18	.146	.105	.099	.059
19F2755	CK60BX101M	100.0†	.23	.17	.141	.102	.096	.057
19F2756	CK60BX151K	150.0	.23	.18	.146	.102	.096	.059
19F2762	CK60AX471K	470.0	.19	.15	.121	.087	.082	.049
19F2763	CK60AX471M	470.0†	.19	.14	.116	.084	.079	.047
19F2764	CK60AW471M	470.0	.18	.14	.114	.082	.077	.046
19F2765	CK60AW681M	680.0†	.18	.14	.114	.082	.077	.046
19F2766	CK60AW821M	820.0†	.18	.14	.114	.082	.077	.046
19F2767	CK60AW102M	1,000.0†	.18	.14	.114	.082	.077	.046
19F2768	CK60AW152M	1,500.0†	.18	.14	.114	.082	.077	.046
19F2769	CK61BX221K	220.0	.23	.18	.146	.105	.099	.059
19F2773	CK61BX471K	470.0	.23	.18	.146	.105	.099	.059
19F2774	CK61BX471M	470.0†	.23	.17	.141	.102	.096	.057
19F2775	CK61BX681K	680.0	.23	.18	.146	.105	.099	.059
19F2776	CK61BX681M	680.0†	.23	.17	.141	.102	.096	.057
19F2777	CK61AW222M	2,200.0†	.18	.14	.114	.082	.077	.046
19F2778	CK62AY220M	220.0†	.21	.16	.130	.094	.088	.052
19F2779	CK62AY470M	470.0†	.21	.16	.130	.094	.088	.052
19F2780	CK62AY101M	100.0†	.21	.16	.130	.094	.088	.052
19F2781	CK62AY221M	220.0†	.21	.16	.130	.094	.088	.052
19F2782	CK62AY471M	470.0†	.21	.16	.130	.094	.088	.052
19F2783	CK62BX821K	820.0	.24	.18	.149	.107	.101	.060
19F2785	CK62BX102K	1,000.0	.24	.18	.149	.107	.101	.060
19F2787	CK62BX152K	1,500.0	.24	.18	.149	.107	.101	.060
19F2789	CK62AX222K	2,200.0	.20	.15	.124	.089	.084	.050
19F2791	CK62AW332M	3,300.0†	.21	.16	.13	.094	.088	.052
19F2792	CK62AW472M	4,700.0†	.21	.16	.13	.094	.088	.052
19F2794	CK62AW822M	8,200.0†	.21	.16	.13	.094	.088	.052
19F2795	CK63BX222K	2,200.0	.26	.19	.16	.115	.109	.064
19F2797	CK63BX332K	3,300.0	.26	.19	.16	.115	.109	.064
19F2800	CK63AY103X	10,000.0	.22	.17	.138	.099	.094	.055
19F2801	CK63AY103M	10,000.0†	.24	.18	.149	.107	.101	.060

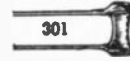
GENERAL PURPOSE CERAMICONS—

Capacitors



TYPE NPO CERAMICONS

Tubular capacitors. For frequency determining applications. Frequently used as temp. compensating elements in circuits which must be temp. stabilized. Type 301, .4" l. x .2" d. Type 315, .562" l. x .250" d. Type 316, .812" l. x .250" d. Wt. 1 oz.



± .25 PF TOL.

Stk. No.	Type	T. Co NPO	Cap. pf	1-49	50-99	100-249	250-499	500-999
19F1092	301-000 COKO 508C	±250	0.5					
19F1093	301-000 COKO 688C	±250	0.68					
19F1094	301-000 COKO 109C	±250	1.0	.11	.08	.068	.049	.046
19F500	301-000 COKO 159C	±250	1.5					
19F2823	301-000 COKO 209C	±250	2.0					
19F1096	301-000 COJO 229C	±120	2.2	.10	.08	.064	.046	.043
19F501	301-000 COJO 309C	±120	3.0					
19F502	301-000 COJO 339C	±120	3.3					
19F503	301-000 COHO 479C	±60	4.7	.11	.08	.068	.049	.046
19F504	301-000 COHO 509C	±60	5.0					
19F505	301-000 COHO 689C	±60	6.8					
19F506	301-000 COHO 829C	±60	8.2	.22	.16	.135	.097	.092
19F507	301-000 COHO 100C	±60	10.0					

± 5% TOL.

Stk. No.	Type	f. Co NPO	Cap. pf	1-49	50-99	100-249	250-499	500-999
19F2824	301-000 COGO 120J	±30	12.0					
19F2825	301-000 COGO 150J	±30	15.0					
19F2826	301-000 COGO 180J	±30	18.0	.11	.08	.068	.049	.046
19F2827	301-000 COGO 200J	±30	20.0					
19F2828	301-000 COGO 220J	±30	22.0					
19F2829	301-000 COGO 240J	±30	24.0					
19F2830	315-000 COHO 100D	±60	10.0					
19F2832	315-000 COGO 150J	±30	15.0					
19F508	315-000 COGO 200J	±30	20.0	.21	.16	.132	.095	.090
19F2833	315-000 COGO 220J	±30	22.0					
19F2834	315-000 COGO 240J	±30	24.0					

TYPE N750 TUBULAR CERAMICONS

Have negative temperature coefficient of 750×10^6 mml/°C. Tolerance at working voltage 600 volts D.C. is ±5%.

Stk. No.	Type	Temp. Coeff.	Cap. pf	Tol.	Size	1-49	50-99	100-249	250-499	500-999
19F540	301-000 U2JO 509C	N750±120	5.0	±.25 pf	1/2 x 1/4"	.11	.08	.068	.049	.046
19F541	301-000 U2JO 100C	N750±120	10.0	±5%	1/2 x 1/4"	.22	.16	.135	.097	.092
19F544	316-000 U2JO 101J	N750±120	100.0	±5%	3/16 x 1/4"	.22	.16	.138	.099	.094

MIL C-20-D TUBULARS

Ideally suited for applications where temperature coefficient is not important, such as nonfrequency determining circuits. These

ceramicons meet performance specifications of EIA Standard RS109 for class 1; temp. comp. class 2 HI-K.

Stk. No.	Mil. Type	Mmf.	Body Style	1-49	50-99	100-249	250-499	500-999
19F2200	CC20 CH 040C	4	301					
19F2201	CC20 CH 050C	5	301	.27	.20	.168	.121	.114
19F2202	CC20 CH 060C	6	301					
19F1203	CC20 CH 070C	7	301					
19F2204	CC20 CH 080C	8	301	.38	.28	.235	.169	.160
19F2205	CC20 CH 090C	9	301					
19F2206	CC20 CH 100C	10	301					
19F2835	CC20 CH 120G	12	301					
19F2836	CC20 CH 150G	15	301					
19F2837	CC20 CH 180G	18	301	.42	.31	.26	.187	.177
19F2838	CC20 CH 200G	20	301					
19F2839	CC20 CH 220G	22	301					
19F2840	CC20 CI 030C	3	301					
19F2841	CC20 CK 010C	1	301	.27	.20	.168	.121	.114
19F2197	CC20 CK 1R5C	1.5	301					
19F2198	CC20 CK 020C	2	301	.26	.20	.164	.118	.111
19F2195	CC20 CK 0R5C	0.5	301	.27	.20	.168	.121	.114
19F2196	CC20 CK 8R75C	0.75	301					
19F2161	CC20 UJ 100C	10	301	.38	.28	.235	.169	.160

Stk. No.	Mil. Type	Mmf.	Body Style	1-49	50-99	100-249	250-499	500-999
19F2842	CC20 UJ 120J	12	301					
19F2843	CC20 UJ 150J	15	301					
19F2154	CC20 UJ 030C	3	301	.27	.20	.168	.121	.114
19F2155	CC20 UJ 040C	4	301					
19F2156	CC20 UJ 050C	5	301					
19F2157	CC20 UJ 060C	6	301					
19F2158	CC20 UJ 070C	7	301	.38	.28	.235	.169	.160
19F2159	CC20 UJ 080C	8	301					
19F2160	CC20 UJ 090C	9	301					
19F2153	CC20 UK 020C	2	301	.26	.20	.164	.118	.111
19F2448	CC21 CH 100C	10	315	.49	.37	.308	.221	.209
19F2207	CC21 CH 120J	12	315					
19F2208	CC21 CH 150J	15	315					
19F2209	CC21 CH 180J	18	315	.37	.28	.233	.168	.158
19F2210	CC21 CH 220J	22	315					
19F2211	CC21 CH 240J	24	315					
19F2844	CC21 CH 040C	4	315	.39	.29	.243	.175	.165
19F2845	CC21 CH 050C	5	315	.39	.29	.243	.175	.165
19F2846	CC21 UJ 100C	10	315	.49	.37	.308	.221	.209

100V TRANSISTOR CAPACITORS

Ultra miniature. Capacitance Tolerance 80% to 20%. Style 835, 805, & 855 have a thickness of .125 and lead spacing of .250. Style 845 has a thickness of .125 and lead spacing of .375. Style *815 and *845 have a thickness of .172 and lead spacing of .375 with a duel Ceramicon. Shpg. wt., 1 oz.



25-VOLT TRANSCAPS

Thin-film ceramic capacitor combines high capacitance with small size. +80%, -20% capacitance tolerance.

Stk. No.	Type	Mf.	Dia.	Thickness	Lead Spc.	1-49	50-99	100-249	250-499	500-999	1000-4999
19F2085	5835-000-Y5U0-103Z	.01	.290	.156	.250	.20	.15	.125	.09	.085	.050
19F2086	5835-000-Y5U0-203Z	.02	.290	.156	.250	.24	.18	.15	.108	.102	.060
19F2087	5835-000-Y5U0-503Z	.05	.437	.156	.250	.30	.23	.189	.136	.128	.076
19F2088	5815-000-Y5U0-104Z	.22	.895	.156	.375	.48	.36	.30	.216	.204	.120
19F2089	5815-000-Y5U0-204Z	.47	.895	.200	.375	.94	.71	.588	.423	.40	.235
19F1707	5865-000-Y5U0-224Z	.1	.593	.156	.375	.32	.24	.20	.144	.136	.080
19F1708	5865-000-Y5U0-474Z	.2	.593	.200	.375	.62	.47	.388	.279	.264	.155

12-VOLT TRANSCAPS

For use in transistorized, filtering and by-pass applications. .156" thick. All char. Y5F. PF maximum is 8%. IR(min)ohms, is 1,000,000 for 5655 and 5615. Life, at 85°C. and rated voltage, is 500 hours. All are rated at ± 20% tol. Shpg. wt., 1 oz. approx.

Stk. No.	Type	Diam.	Lead Spac.	Mf	1-49	50-99	100-249	250-499	500-999	1000-4999
19F2802	5635-000 Y5FO 503M	.275	.250	.05	.22	.16	.135	.097	.092	.054
19F2803	5655-000 Y5FO 104M	.420	.250	.1	.22	.17	.140	.101	.095	.056
19F2804	5615-000 Y5FO 224M	.550	.375	.22	.34	.25	.21	.151	.143	.084
19F2805	5645-000 Y5FO 334M	.660	.375	.33	.44	.33	.275	.198	.187	.110
19F2806	5685-000 Y5FO 474M	.800	.375	.47	.55	.41	.345	.248	.235	.138

**Make NEWARK Your One Dependable Source for Everything in Electronics
To Serve You Better — Seven Stocking Warehouses from Coast-to-Coast**



Capacitors

NEW MINIATURE BUSHING CERAMIC CAPACITORS



A



C



B



D

FEED-THRU CERAMICONS

Types 363 and 327 have tie-point terminals; provide point to point wiring. 20% Tol. 500 WVDC. Size: 321 (.625x $\frac{3}{16}$) 327 (1 $\frac{1}{4}$ x $\frac{3}{16}$) 357 & 363 (.625x $\frac{3}{16}$), 2404 (.375x.150). Nuts included *. Lock washers available on request. Shpg. wt., 1 oz.

Stk. No.	Type	Fig.	Mmf.	1-49	50-99	100-249	250-499	500-999
19F1780	327-005-X5U0-102M	D	1000	1.34	1.00	.836	.602	.569
19F1781	327-005-X5U0-152M	D	1500	1.34	1.00	.836	.602	.569
19F1783	357-000-X5U0-102M	C	1000	.93	.70	.579	.417	.394
19F1784	357-000-X5U0-152M	C	1500	.93	.70	.579	.417	.394
19F1785	362-000-X5U0-102M	A	1000	.93	.70	.579	.417	.394
19F1786	362-000-X5U0-152M	A	1500	.93	.70	.579	.417	.394
19F1787	2404-000-U2M0-500M	B	50	.19	.14	.116	.084	.079
19F1788	2404-000-X5U0-101M	B	100	.19	.14	.116	.084	.079
19F1789	2404-000-X5U0-102P	B	1000	.19	.14	.116	.084	.079
19F1790	2404-014-X5U0-501M	.....	500	.15	.11	.093	.067	.063
19F1791	2404-014-X5U0-102P	.....	1000	.15	.11	.093	.067	.063
19F2857	2443-000-X5S0-102M	.....	1000	1.12	.84	.703	.506	.478
19F2858	2443-000-X5S0-152M	.....	1500	1.12	.84	.703	.506	.478
19F2859	2443-001-X5S0-102M	.....	1000	1.18	.88	.735	.529	.50
19F2860	2443-001-X5S0-152M	.....	1500	1.18	.88	.735	.529	.50
19F2861	2499-003-X5S0-102M	.....	1000	1.26	.95	.788	.567	.536
19F2862	2499-003-X5S0	.....	1500	1.26	.95	.788	.567	.536

Fig. D—CK-70 Series Mil-C-11015C Feed-Thru Ceramicons. Body style 327. Size 1.25Hx $\frac{3}{16}$ ".

Stk. No.	Mil. Type	Mmf.	Tol.	1-49	50-99	100-249	250-499	500-999
19F2149	CK70 AW 102M	1000	±20	1.56	1.17	.974	.701	.682
19F2150	CK70 AW 152M	1500	±20	1.56	1.17	.974	.701	.682

CK-80 SERIES MIL-C 11015-C STAND-OFF CERAMICONS

Used for by-passing R.F. current to ground and supporting other circuit elements. .641Hx $\frac{3}{16}$, 1/4-28 thread. 500 WVDC. Body type 326. Average shipping weight, 1 oz.

19F2151	CK80 AW 102M	1000	±20	1.34	1.00	.836	.602	.569
19F2152	CK80 AW 152M	1500	±20	1.34	1.00	.836	.602	.569

STAND-OFF CERAMICONS

Used for by-passing R.F. current to ground ±20% tolerance. 500 WVDC. Hex nuts included. Lockwasher available on request. Ceramicons mount directly on chassis. Av. Shpg. wt., 1 oz.

Stk. No.	Type	Mmf.	Size	1-49	50-99	100-249	250-499	500-999
19F1778	319-000-X5U0-102M	1000	520x $\frac{1}{4}$ "	1.37	1.03	.855	.616	.581
19F878	326-000-X5U0-102M	1000	641x $\frac{3}{16}$ "	1.12	.84	.699	.503	.475
19F879	326-000-X5U0-152M	1500	641x $\frac{3}{16}$ "	1.12	.84	.699	.503	.475

STYLE 503—CERAMIC DISC TRIMMERS—MI-C-81A

Stk. No.	Mil. Type	Cap. Range.	Temp. Coef.	1-49	50-99	100-249	250-499	500-999
19F1072	CV11A070	1.5-7	NPO	1.18	.94	.810	.627	.527
19F1073	CV11A120	3-12	NPO	1.18	.94	.810	.627	.527
19F1074	CV11A250	4.5-25	NPO	1.18	.94	.810	.627	.527
19F1075	CV11B130	3-13	N300	1.18	.94	.810	.627	.527
19F1076	CV11B200	5-20	N300	1.18	.94	.810	.627	.527
19F1077	CV11C300	4-30	N500	1.18	.94	.810	.627	.527
19F1078	CV11C450	7-45	N500	1.18	.94	.810	.627	.527
19F1079	CV11D300	4-30	N650	1.18	.94	.810	.627	.527
19F1080	CV11D450	7-45	N650	1.18	.94	.810	.627	.527



TYPE 539. Miniaturized for maximum component density. Designed for point-to-point wiring and printed circuit. Secure mount assured by 0.068" diameter mounting holes that accept #0 screws. A conservative rating from -55°C to +125°C

Stk. No.	Type	Cap. Range.	Temp. Coef.	1-49	50-99	100-249	250-499	500-999
19F2281	539-000 COP0 98R	1.5-8	NPO	1.78	1.43	1.19	.713	.594
19F2282	539-000 COP0 144R	4-15	NPO	1.78	1.43	1.19	.713	.594
19F2283	539-000 E2P0 137R	4-20	N650	1.78	1.43	1.19	.713	.594
19F2284	539-000 E2P0 142R	8-35	N650	1.78	1.43	1.19	.713	.594
19F2285	539-000 P3P0 112R	15-60	N1500	2.07	1.67	1.38	.825	.684
19F2286	539-002 COP0 98R	1.5-8	NPO	1.78	1.43	1.19	.713	.594
19F2287	539-002 COP0 144R	4-15	NPO	1.78	1.43	1.19	.713	.594
19F2288	539-002 E2P0 137R	4-20	N650	1.78	1.43	1.19	.713	.594
19F2289	539-002 E2P0 142R	8-35	N650	1.78	1.43	1.19	.713	.594
19F2290	539-002 P3P0 112R	15-60	N1500	2.07	1.67	1.38	.824	.684



Feed-Thru



Stand-Off

Type 2425. Capacitance of +80% -20%=100, 500, 1000 pf. Power factor 3.5%. Hex nut mounting. Types 2425-001 and 2425-061 operating temperature: -55° to 85°C. Types 2425-003 and 2425-063 operating temperature: -55° to 125°C.

FEED-THRU TYPES

Stock No.	Type No.	WVDC	1-49	50-99	100-249	250-499	500-999
19F2418	2425 001 X5U 0101AA	200	2.03	1.52	1.270	.914	.864
19F2419	2425 001 X5U 0102AA	200	2.03	1.52	1.270	.914	.864
19F2420	2425 001 X5U 0152AA	200	2.03	1.52	1.270	.914	.864
19F2421	2425 001 X5U 0202AA	200	2.03	1.52	1.270	.914	.864
19F2422	2425 001 X5U 0501AA	200	2.03	1.52	1.270	.914	.864
19F2423	2425 001 X5V 0502AA	200	2.03	1.52	1.270	.914	.864
19F2424	2425 003 W5U 0101AA	100	2.17	1.63	1.358	.977	.923
19F2425	2425 003 W5U 0102AA	100	2.17	1.63	1.358	.977	.923
19F2426	2425 003 W5U 0152AA	100	2.17	1.63	1.358	.977	.923
19F2427	2425 003 W5U 0202AA	100	2.17	1.63	1.358	.977	.923
19F2428	2425 003 W5U 0202AA	100	2.17	1.63	1.358	.977	.923
19F2429	2425 003 W5W 0502AA	100	2.17	1.63	1.358	.977	.923

STAND-OFF TYPES

Stock No.	Type	WVDC	1-49	50-99	100-249	250-499	500-999
19F2430	2425 061 X5U 0101AA	200	2.03	1.52	1.270	.914	.864
19F2431	2425 061 X5U 0102AA	200	2.03	1.52	1.270	.914	.864
19F2432	2425 061 X5U 0152AA	200	2.03	1.52	1.270	.914	.864
19F2433	2425 061 X5U 0202AA	200	2.03	1.52	1.270	.914	.864
19F2434	2425 061 X5U 0501AA	200	2.03	1.52	1.270	.914	.864
19F2435	2425 061 X5V 0502AA	200	2.03	1.52	1.270	.914	.864
19F2436	2425 063 W5U 0101AA	100	2.17	1.63	1.358	.977	.923
19F2437	2425 063 W5U 0102AA	100	2.17	1.63	1.358	.977	.923
19F2438	2425 063 W5U 0152AA	100	2.17	1.63	1.358	.977	.923
19F2439	2425 063 W5U 0202AA	100	2.17	1.63	1.358	.977	.923
19F2440	2425 063 W5U 0501AA	100	2.17	1.63	1.358	.977	.923
19F2441	2425 063 W5W 0502AA	100	2.17	1.63	1.358	.977	.923

CERAMIC TRIMMERS

Provide maximum stability and ease of adjustment. Capacity change constant per degree of rotation. Silver electrodes are fired onto ceramic rotor and base. Dust-proof. Stellite base, 500 wkg. volts DC. .843" x .656". 1 oz. (*Indicates bent leads.)



Stock No.	Type	Mmf. Range	1-49	50-99	100-249	250-499	500-999
19F520	503-000-COP0-10R	1.5-7	1.10	.87	.735	.552	.452
19F1746	503-000-COP0-17R	3-12	1.10	.87	.735	.552	.452
19F522	503-000-D2P0-24R	4-30	1.10	.87	.735	.552	.452
19F1747	503-000-B2P0-28R	5-20	1.10	.87	.735	.552	.452
19F523	503-000-D2P0-33R	7-45	1.10	.87	.735	.552	.452
19F1748	503-000-E2P0-33R*	5-50	1.10	.87	.735	.552	.452
19F2896	503-000-B2P0-19R	3-16	1.10	.87	.735	.552	.452
19F2897	503-000-COP0-25R	4.5-20	1.10	.87	.735	.552	.452
19F2898	503-000-COP0-37R	4.5-25	1.10	.87	.735	.552	.452
19F2899	503-000-E2P0-24R	4-30	1.10	.87	.735	.552	.452
19F2900	503-000-E2P0-33R	7-45	1.10	.87	.735	.552	.452
19F2901	503-000-P3P0-62R	11-110	1.10	.87	.735	.552	.452
19F2267	503-001-COP0-10R*	1.5-7	1.10	.87	.735	.552	.452
19F2268	503-001-COP0-17R*	3-12	1.10	.87	.735	.552	.452
19F2269	503-001-D2P0-24R*	4-30	1.10	.87	.735	.552	.452
19F2270	503-001-B2P0-28R*	5-20	1.10	.87	.735	.552	.452
19F2271	503-001-D2P0-33R*	7-45	1.10	.87	.735	.552	.452
19F2272	503-001-E2P0-33R*	5-50	1.10	.87	.735	.552	.452
19F2902	503-001-B2P0-19R*	3-16	1.10	.87	.735	.552	.452
19F2903	503-001-COP0-25R*	4.5-20	1.10	.87	.735	.552	.452
19F2904	503-001-COP0-37R*	4.5-25	1.10	.87	.735	.552	.452
19F2905	503-001-E2P0-24R*	4-30	1.10	.87	.735	.552	.452
19F2906	503-001-E2P0-33R*	7-45	1.10	.87	.735	.552	.452
19F2907	503-001-P3P0-62R*	11-110	1.10	.87	.735	.552	.452

MINIATURE CERAMIC TRIMMER

insures inherent reliability. Heart of the 539 is optically smooth bearing surface which exists between

MINIATURE CERAMIC DISC TRIMMERS

Stable under the most exacting conditions. The top of the base and the underside of the titanium dioxide rotor are lapped optically flat, eliminating air space variation with temperature changes. Capacity is changed by varying the amount of the overlap. Capacitance change per degree of rotation is approximately constant. .300" high x .375" wide in the body.



(Following trimmers mfg'd. to app. req. of MIL-C-81)

Stk. No.	Type	Fig.	Mfm. Range	1-49	50-99	100-249	250-499	500-999
19F2090	538-000-C0P0-89R	A	2-8	1.69	1.35	1.125	.675	.563
19F2091	538-000-C0P0-92R	A	5.5-18	1.69	1.35	1.125	.675	.563
19F2092	538-000-B2P0-90R	A	2.5-11	1.69	1.35	1.125	.675	.563
19F2093	538-000-B2P0-93R	A	7-25	1.69	1.35	1.125	.675	.563
19F2094	538-000-D2P0-91R	A	3-10	1.69	1.35	1.125	.675	.563
19F2095	538-000-D2P0-99R	A	8-25	1.69	1.35	1.125	.675	.563
19F2096	538-000-E2P0-110R	A	3-15	1.69	1.35	1.125	.675	.563
19F2097	538-000-E2P0-94R	A	9-35	1.69	1.35	1.125	.675	.563
19F2893	538-000-P3P0-112R	A	15-60	1.98	1.59	1.317	.787	.653
19F2098	538-002-C0P0-89R	B	2-8	1.69	1.35	1.125	.675	.563
19F2099	538-002-C0P0-92R	B	5.5-18	1.69	1.35	1.125	.675	.563
19F2100	538-002-B2P0-90R	B	2.5-11	1.69	1.35	1.125	.675	.563
19F2101	538-002-B2P0-93R	B	7-25	1.69	1.35	1.125	.675	.563
19F2102	538-002-D2P0-91R	B	3-10	1.69	1.35	1.125	.675	.563
19F2103	538-002-D2P0-99R	B	8-25	1.69	1.35	1.125	.675	.563
19F2104	538-002-E2P0-110R	B	3-15	1.69	1.35	1.125	.675	.563
19F2105	538-002-E2P0-94R	B	9-35	1.69	1.35	1.125	.675	.563
19F2894	538-002-P3P0-112R	B	15-60	1.98	1.59	1.317	.787	.653
19F2219	538-006-C0P0-89R	D	2-8	1.86	1.49	1.240	.743	.619
19F2220	538-006-C0P0-92R	D	5.5-18	1.86	1.49	1.240	.743	.619
19F2221	538-006-B2P0-90R	D	2.5-11	1.86	1.49	1.240	.743	.619
19F2222	538-006-B2P0-93R	D	7-25	1.86	1.49	1.240	.743	.619
19F2223	538-006-D2P0-91R	D	3-10	1.86	1.49	1.240	.743	.619
19F2224	538-006-D2P0-99R	D	8-25	1.86	1.49	1.240	.743	.619
19F2225	538-006-E2P0-110R	D	3-15	1.86	1.49	1.240	.743	.619
19F2226	538-006-E2P0-94R	D	9-35	1.86	1.49	1.240	.743	.619
19F2444	538-006-P3P0-112R	D	15-60	2.15	1.73	1.432	.853	.709
19F1738	538-011-C0P0-89R	C	2-8	2.05	1.64	1.365	.819	.683
19F1739	538-011-C0P0-92R	C	5.5-18	2.05	1.64	1.365	.819	.683
19F1740	538-011-B2P0-90R	C	2.5-11	2.05	1.64	1.365	.819	.683
19F1741	538-011-B2P0-93R	C	7-25	2.05	1.64	1.365	.819	.683
19F1742	538-011-D2P0-91R	C	3-10	2.05	1.64	1.365	.819	.683
19F1743	538-011-D2P0-99R	C	8-25	2.05	1.64	1.365	.819	.683
19F1744	538-011-E2P0-110R	C	3-15	2.05	1.64	1.365	.819	.683
19F1745	538-011-E2P0-94R	C	9-35	2.05	1.64	1.365	.819	.683
19F2895	538-011-P3P0-112R	C	15-60	2.34	1.88	1.557	.931	.773
19F2235	538-003-C0P0-89R	B	2-8	1.97	1.58	1.315	.788	.656
19F2236	538-003-C0P0-92R	B	5.5-18	1.97	1.58	1.315	.788	.656
19F2237	538-003-B2P0-90R	B	2.5-11	1.97	1.58	1.315	.788	.656
19F2238	538-003-B2P0-93R	B	7-25	1.97	1.58	1.315	.788	.656
19F2239	538-003-D2P0-91R	B	3-10	1.97	1.58	1.315	.788	.656
19F2240	538-003-D2P0-99R	B	8-25	1.97	1.58	1.315	.788	.656
19F2241	538-003-E2P0-110R	B	3-15	1.97	1.58	1.315	.788	.656
19F2242	538-003-E2P0-94R	B	9-35	1.97	1.58	1.315	.788	.656
19F2443	538-003-P3P0-112R	B	15-60	2.26	1.82	1.507	.90	.746
19F2243	538-007-C0P0-89R	D	2-8	2.16	1.73	1.440	.863	.719
19F2244	538-007-C0P0-92R	D	5.5-18	2.16	1.73	1.440	.863	.719
19F2245	538-007-B2P0-90R	D	2.5-11	2.16	1.73	1.440	.863	.719
19F2246	538-007-B2P0-93R	D	7-25	2.16	1.73	1.440	.863	.719
19F2247	538-007-D2P0-91R	D	3-10	2.16	1.73	1.440	.863	.719
19F2248	538-007-D2P0-99R	D	8-25	2.16	1.73	1.440	.863	.719
19F2249	538-007-E2P0-110R	D	3-15	2.16	1.73	1.440	.863	.719
19F2258	538-007-E2P0-94R	D	9-35	2.16	1.73	1.440	.863	.719
19F2445	538-007-P3P0-112R	D	15-60	2.44	1.97	1.632	.975	.809
19F2259	538-016-C0P0-89R	C	2-8	2.33	1.86	1.553	.932	.776
19F2260	538-016-C0P0-92R	C	5.5-18	2.33	1.86	1.553	.932	.776
19F2261	538-016-B2P0-90R	C	2.5-11	2.33	1.86	1.553	.932	.776
19F2262	538-016-B2P0-93R	C	7-25	2.33	1.86	1.553	.932	.776
19F2263	538-016-D2P0-91R	C	3-10	2.33	1.86	1.553	.932	.776
19F2264	538-016-D2P0-99R	C	8-25	2.33	1.86	1.553	.932	.776
19F2265	538-016-E2P0-110R	C	3-15	2.33	1.86	1.553	.932	.776
19F2266	538-016-E2P0-94R	C	9-35	2.33	1.86	1.553	.932	.776
19F2446	538-016-P3P0-112R	C	15-60	2.62	2.10	1.745	1.044	.866

PLASTIC TRIMMERS

Ideal for applications calling for a low minimum capacity and a high ratio of maximum to minimum capacity. Types 532 and 535 have molded plastic dielectrics with a minimum of leakage.



Stk. No.	Type	Mfm. Range	1-49	50-99	100-249	250-499	500-999
19F2969	532-000-8R	1-8	.33	.28	.22	.14	.125
19F2970	532-001-3R	0.5-5	.42	.35	.281	.164	.146
19F3031	535-000-4R	0.7-3	.42	.35	.281	.164	.146

CERAMIC TRIMMERS — PHENOLIC BASE — TYPE 557

Excellent stability and high maximum to minimum capacitance ratio. The basic 557 type with its many variations features a .500" dia. ceramic rotor, lapped and silvered on the underside, and a silvered ceramic dielectric stator disc with lapped

bearing surface. Temperature coefficient and nominal capacitance range are stamped on the rotor. Maximum capacitance is indicated when arrow molded into rotor points toward the stator terminal. Exclusive ERIE design.



Stk. No.	Type	Mfm. Range	Temp. Coef.	1-49	50-99	100-249	250-499	500-999
19F2971	557-000-C0P0-10R	1.5-7	NPO	.90	.75	.60	.353	.315
19F2972	557-000-C0P0-17R	3-12	NPO	.90	.75	.60	.353	.315
19F2973	557-000-C0P0-39R	5-25	NPO	.90	.75	.60	.353	.315
19F2974	557-000-P3P0-109R	10-75	N1500	1.06	.89	.71	.416	.371
19F2975	557-000-S2P0-28R	5-20	N330	.90	.75	.60	.353	.315
19F2976	557-000-U2P0-29R	5-30	N750	.90	.75	.60	.353	.315
19F2977	557-000-U2P0-34R	8-50	N750	.90	.75	.60	.353	.315
19F2978	557-006-C0P0-10R	1.5-7	NPO	.90	.75	.60	.377	.336
19F2979	557-006-C0P0-17R	3-12	NPO	.90	.75	.60	.377	.336
19F2980	557-006-C0P0-39R	5-25	NPO	.90	.75	.60	.377	.336
19F2981	557-006-P3P0-109R	10-75	N1500	1.06	.89	.71	.44	.392
19F2982	557-006-S2P0-28R	5-20	N330	.90	.75	.60	.377	.336
19F2983	557-006-U2P0-29R	5-30	N750	.90	.75	.60	.377	.336
19F2984	557-006-U2P0-34R	8-50	N750	.90	.75	.60	.377	.336
19F2985	557-013-C0P0-10R	1.5-7	NPO	.90	.75	.60	.332	.296
19F2986	557-013-C0P0-17R	3-12	NPO	.90	.75	.60	.332	.296
19F2987	557-013-C0P0-39R	5-25	NPO	.90	.75	.60	.332	.296
19F2988	557-013-P3P0-109R	10-75	N1500	1.06	.89	.71	.395	.352
19F2989	557-013-S2P0-28R	5-20	N330	.90	.75	.60	.332	.296
19F2990	557-013-U2P0-29R	5-30	N750	.90	.75	.60	.332	.296
19F2991	557-013-U2P0-34R	8-50	N750	.90	.75	.60	.332	.296
19F2992	557-051-C0P0-10R	1.5-7	NPO	1.05	.88	.70	.496	.443
19F2993	557-051-C0P0-17R	3-12	NPO	1.05	.88	.70	.496	.443
19F2994	557-051-C0P0-39R	5-25	NPO	1.05	.88	.70	.496	.443
19F2995	557-051-P3P0-109R	10-75	N1500	1.21	1.01	.81	.559	.499
19F2996	557-051-S2P0-28R	5-20	N330	1.05	.88	.70	.496	.443
19F2997	557-051-U2P0-29R	5-30	N750	1.05	.88	.70	.496	.443
19F2998	557-051-U2P0-34R	8-50	N750	1.05	.88	.70	.496	.443
19F2999	557-091-C0P0-10R	1.5-7	NPO	1.02	.85	.68	.391	.349
19F3000	557-091-C0P0-17R	3-12	NPO	1.02	.85	.68	.391	.349
19F3001	557-091-C0P0-39R	5-25	NPO	1.02	.85	.68	.391	.349
19F3002	557-091-P3P0-109R	10-75	N1500	1.18	.99	.788	.454	.405
19F3003	557-091-S2P0-28R	5-20	N330	1.02	.85	.68	.391	.349
19F3004	557-091-U2P0-29R	5-30	N750	1.02	.85	.68	.391	.349
19F3005	557-091-U2P0-34R	8-50	N750	1.02	.85	.68	.391	.349
19F3006	3192-000-C0P0-15R	2.5-7	NPO	1.20	1.00	.80	.478	.427
19F3007	3192-000-C0P0-20R	4-12	NPO	1.20	1.00	.80	.478	.427
19F3008	3192-000-C0P0-32R	6-25	NPO	1.20	1.00	.80	.478	.427
19F3009	3192-000-P3P0-120R	11-75	N1500	1.20	1.00	.80	.478	.427
19F3010	3192-000-U2P0-47R	9-50	N750	1.20	1.00	.80	.478	.427
19F3011	3192-000-U2P0-77R	6-30	N750	1.20	1.00	.80	.478	.427
19F3012	3192-000-S2P0-81R	6-20	N330	1.20	1.00	.80	.478	.427

CERAMIC TRIMMERS — PHENOLIC BASE — TYPE 3192

Stk. No.	Type	Mfm. Range	Temp. Coef.	1-49	50-99	100-249	250-499	500-999
19F3006	3192-000-C0P0-15R	2.5-7	NPO	1.20	1.00	.80	.478	.427
19F3007	3192-000-C0P0-20R	4-12	NPO	1.20	1.00	.80	.478	.427
19F3008	3192-000-C0P0-32R	6-25	NPO	1.20	1.00	.80	.478	.427
19F3009	3192-000-P3P0-120R	11-75	N1500	1.20	1.00	.80	.478	.427
19F3010	3192-000-U2P0-47R	9-50	N750	1.20	1.00	.80	.478	.427
19F3011	3192-000-U2P0-77R	6-30	N750	1.20	1.00	.80	.478	.427
19F3012	3192-000-S2P0-81R	6-20	N330	1.20	1.00	.80	.478	.427

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Capacitors and Filters

GLASS & QUARTZ TRIMMER CAPACITORS



Meet or exceed applicable requirements of MIL-C-14409. 1000 VDCW from -55°C to 125°C. Life test: 1500VDC for 250 hours @ 125°C. "Q" minimum at IMC: 500.

GLASS PANEL MOUNT

Stk. No.	Type	Fig.	Mmf.	1-24	25-49	50-99	100-299	300-499	500-999
19F1755	560-013	A	.8-4.5	3.20	2.95	2.50	2.10	2.00	1.70
19F1756	562-013	A	.8-8.5	3.40	3.05	2.70	2.25	2.15	1.80
19F1757	564-013	A	.7-12	3.75	3.40	2.95	2.45	2.35	2.00

Stk. No.	Type	Fig.	Mmf. Range	1-24	25-49	50-99	100-299	300-499	500-999
19F1758	566-013	A	.8-18	4.35	3.95	3.40	2.85	2.70	2.35
19F1759	568-013	A	1.0-30.0	4.55	4.15	3.60	3.05	2.90	2.40

GLASS PRINTED CIRCUIT MOUNT

19F1760	561-013	B	.8-4.5	2.80	2.60	2.20	1.85	1.75	1.50
19F1761	563-013	B	.8-8.5	3.00	2.75	2.40	2.00	1.90	1.65
19F1762	565-013	B	.8-12	3.35	3.05	2.65	2.20	2.10	1.80
19F1763	567-013	B	.8-18	3.95	3.60	3.10	2.60	2.45	2.10
19F1764	569-013	B	.8-30	4.15	3.80	3.30	2.80	2.65	2.25

19F1765	561-023	C	.8-4.5	2.80	2.60	2.20	1.85	1.75	1.50
19F1766	563-023	C	.8-8.5	3.00	2.75	2.40	2.00	1.90	1.65
19F1767	565-023	C	.8-12	3.35	3.05	2.65	2.20	2.10	1.80
19F1768	567-023	C	.8-18	3.95	3.60	3.10	2.60	2.45	2.10
19F1769	569-023	C	.8-30	4.15	3.80	3.30	2.80	2.65	2.25

QUARTZ PANEL MOUNT

19F3019	560-053	A	.6-1.8	4.35	4.05	3.60	3.15	3.00	2.90
19F3020	562-053	A	.6-5.5	4.75	4.45	4.00	3.55	3.40	3.25

19F3021	566-053	A	6-9.5	6.15	5.75	5.15	4.55	4.40	4.20
19F3022	568-053	A	8-16.0	7.35	6.95	6.35	5.75	5.60	5.40

QUARTZ PRINTED CIRCUIT MOUNT

19F3023	561-053	B	.6-1.8	4.05	3.80	3.40	3.00	2.90	2.75
19F3024	563-053	B	.6-5.5	4.55	4.25	3.80	3.35	3.20	3.05
19F3025	567-053	B	.6-9.5	5.70	5.35	4.90	4.35	4.20	4.00
19F3026	569-053	B	8-16.0	7.00	6.65	6.10	5.50	5.40	5.20

19F3027	561-054	B	.6-1.8	4.05	3.80	3.40	3.00	2.90	2.75
19F3028	563-054	B	.6-5.5	4.55	4.25	3.80	3.35	3.20	3.05
19F3029	567-054	B	.6-9.5	5.70	5.35	4.90	4.35	4.20	4.00
19F3030	569-054	B	8-16.0	7.00	6.65	6.10	5.50	5.40	5.20

MILITARY APPROVED TYPES

19F3013	PC40H120	A	.8-12	2.75	3.40	2.95	2.45	2.35	2.00
19F3014	PC40H180	A	.8-18	4.35	3.95	3.40	2.85	2.70	2.35
19F3015	PC40H300	A	1-30	4.55	4.15	3.60	3.05	2.90	2.40
19F3016	PC41H120	B	.8-12	3.35	3.05	2.65	2.20	2.10	1.80
19F3017	PC41H180	B	.8-18	3.95	3.60	3.10	2.60	2.45	2.10

19F3018	PC41H300	B	.1-30	4.15	3.80	3.30	2.80	2.65	2.27
19F1794	PC40J4R5	A	.8-4.5	3.20	2.95	2.50	2.10	2.00	1.70
19F1795	PC40J8R5	A	.8-8.5	3.40	3.05	2.70	2.25	2.15	1.80
19F1796	PC41J4R5	B	.8-4.5	2.30	2.60	2.20	1.85	1.75	1.50
19F1797	PC41J8R5	B	.8-8.5	3.00	2.75	2.40	2.00	1.90	1.65

GLASS TRIMMER CAPACITOR — EXTERNAL SPLIT BUSHING



For applications allowing extension of the adjustment screw. Suited for high volume, economic usage in electronic equipment. Linear, non-reversing capacitance change with rotation. Maintains proper screw torque under varying conditions of vibration and shock. Insul. Res: 10¹³ ohms mm. at 25°C. Op. Temp.: -55°C to 125°C.

Stk. No.	Type	Wkg. V. (VDC)	Cap. Rang. (pf)	1-24	25-49	50-99	100-299	300-499	500-999
19F3099	582-000	1250	.7-9	2.62	2.25	1.88	1.54	1.49	1.38
19F3100	582-003	1250	.7-9	2.70	2.33	1.95	1.62	1.52	1.45
19F3033	586-000	750	.7-17	2.70	2.33	1.95	1.62	1.52	1.45
19F3034	586-003	750	.8-17	2.77	2.40	2.03	1.69	1.61	1.53
19F3035	588-003	750	2.0-30	3.00	2.63	2.25	1.95	1.84	1.75

BROAD BAND EMI FILTERS



Miniature filter for low voltage circuits. High capacitor with a ferrite enclosed lead provides an L section filter. Non-polar for use in either low voltage DC or AC

lines. Four mtg. arrangements. Temp. mg.: -55°C. Working volt. 50VDC at 105°C, 28 VDC at 125°C. Dielectric strength: 110VDC at 25°C. (50 ma. max. charging current.) Meets applicable requirements of MIL-F-15733.

Stk. No.	Type	Max. DC Resist. at 25°C	Max. DC Curr.	1-49	50-99	100-249	250-499	500-999
19F3036	1200-003	70 ohms	60 ma	16.24	14.21	13.20	12.18	11.17
19F3037	1200-002	12 ohms	150 ma	13.73	12.01	11.15	10.30	9.44
19F3038	1200-004	4 ohms	250 ma	13.73	12.01	11.15	10.30	9.44
19F3039	1200-001	2.3 ohms	300 ma	13.73	12.01	11.15	10.30	9.44
19F3040	1200-000	1.2 ohms	450 ma	14.64	12.81	11.99	10.98	10.07
19F3041	1200-005	.01 ohms	10 amps	13.73	12.01	11.15	10.30	9.44
19F3042	1200-013	70 ohms	60 ma	16.24	14.21	13.20	12.18	11.17
19F3043	1200-012	12 ohms	150 ma	13.73	12.01	11.15	10.30	9.44
19F3044	1200-014	4 ohms	250 ma	13.73	12.01	11.15	10.30	9.44
19F3045	1200-011	2.3 ohms	300 ma	13.73	12.01	11.15	10.30	9.44
19F3046	1200-010	1.2 ohms	450 ma	14.64	12.81	11.99	10.98	10.07
19F3047	1200-015	.01 ohms	10 amps	13.73	12.01	11.15	10.30	9.44

Stk. No.	Type	Max. DC Resist. at 25°C	Max. DC Curr.	1-49	50-99	100-249	250-499	500-999
19F3048	1200-028	70 ohms	60 ma	16.24	14.21	13.20	12.18	11.17
19F3049	1200-023	12 ohms	150 ma	13.73	12.01	11.15	10.30	9.44
19F3050	1200-024	4 ohms	250 ma	13.73	12.01	11.15	10.30	9.44
19F3051	1200-021	2.3 ohms	300 ma	13.73	12.01	11.15	10.30	9.44
19F3052	1200-022	1.2 ohms	450 ma	14.64	12.81	11.99	10.98	10.07
19F3053	1200-025	.01 ohms	10 amps	13.73	12.01	11.15	10.30	9.44
19F3054	1200-016	70 ohms	60 ma	17.04	14.91	13.58	12.79	11.72
19F3055	1200-017	12 ohms	150 ma	14.48	12.67	11.77	10.87	9.96
19F3056	1200-018	4 ohms	250 ma	14.48	12.67	11.77	10.87	9.96
19F3057	1200-019	2.3 ohms	300 ma	14.48	12.67	11.77	10.87	9.96
19F3058	1200-020	1.2 ohms	450 ma	15.36	13.44	12.48	11.52	10.56
19F3059	1200-027	.01 ohms	10 amps	14.48	12.67	11.77	10.87	9.96



1201

Specifications for 1201 & 1202 are: Capacitance, 1000 mmf. at 1 KC., .5 to 5 VRMS, 25°C, working voltage: 200VDC, operating temperature range: -55°C to +125°C. DC resistance 0.01 ohms max. DC and low frequency current 5 amperes max. RF current 0.25 amperes max.

Type 1201 is a bushing type. Lockwashers and hexnuts supplied. L. .812x250 Dia.

Type 1202. Same as Type 1201 but size is .999 L.x.375 Dia. Hex nuts and lockwashers are supplied.



1202

Stk. No.	Type	1-49	50-99	100-249	250-499	500-999
19F2451	1201-050	3.40	2.92	2.38	2.21	2.04
19F2452	1201-051	3.44	2.92	2.41	2.24	2.06
19F2110	1201-052	3.44	1.36	2.41	2.24	2.06
19F2459	1202-050	1.80	1.53	1.26	1.17	1.08

LOW PASS, HIGH FREQUENCY FILTERS

Type 1280-001 and 1270-001. Minimum attenuation: 50 db from 10 Mc to 2000 Mc over temp. range of -55° to +85°C. Capacitance: 2000 pf min. Working voltage 15000 VDC for 1 sec.

Stock No.	Type	atten.	1-49	50-99	100-249	250-499	500-999
19F2454	1280-001	.....	3.50	2.98	2.45	2.28	2.10
19F2455	1270-009	40 db.	2.20	1.87	1.54	1.43	1.32
19F2456	1270-016	40 db.	2.40	2.04	1.68	1.56	1.44
19F2457	1270-024	50 db.	2.16	1.89	1.62	1.51	1.40
19F2458	1270-025	50 db.	2.95	2.36	1.92	1.77	1.53

Specifications for 1203 & 1204 are: Minimum attenuation 50db from 100 MC to 2000MC over a temperature range of -55°C to +125°C. Capacitance: 2000 mmf. min. at 1 KC., .5 to 5VRMS, 25°C. Working voltage: 500VDC. DC resistance: 0.10 ohms max. DC and low frequency current: 5 amps. max. RF current: 0.25 amperes max.

Type 1203 is a miniaturized eyelet type Size: Overall L. .718x.218 Dia

Type 1204 is an eyelet type similar to type 1202. But size is 1.187 L.x.328 Dia.

Stk. No.	Type	1-49	50-99	100-249	250-499	500-999
19F2460	1202-051	1.84	1.56	1.29	1.20	1.10
19F2112	1202-052	1.84	1.56	1.29	1.20	1.10
19F2111	1203-050	1.60	2.89	1.12	1.04	.96
19F2113	1204-050	1.20	1.02	.84	.78	.72



1203



1204

SUBMINIATURE EMI FILTER

Featured improved volumetric efficiency. Long-lasting and easy to mount. Supplied with lock washer and hex nut as standard. Min. Attenuation per Mil.-Std. 220A; 50 db from 200 MC to 2000 MC over range from -55°C to 125°C. Working Voltage: 100VDC.

Stk. No.

Filters and Capacitors



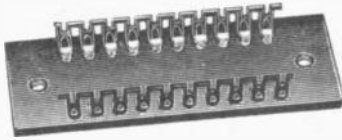
MINIATURE R.F.I. FILTERS—MINIATURE 6 & 12 CHANNEL R.F.I. FILTERS

Minimum attenuation: 45 db from 100-200 Mc, 50 db from 200 Mc to 2000 Mc, over the temp. range of -55°C to $+125^{\circ}\text{C}$ measured in accordance with Mil-Std.-220A. Capacitance: 2500 pf min. at 1 Kc, 0.5 to 5 Vrms, 25°C . Working voltage: 350 VDC. Insulation resistance: 20K megohms min. at 100 VDC, 25°C (50 ma max. charging current). D.C. resistance: .01 ohms per section. D.C. and Low Frequency current: 5 amps max. per section.



Stk. No.	Type	1-49	50-99	100-249	250-499	500-999
19F3066	1212-501	20.69	19.21	17.00	16.26	15.52
19F3067	1212-502	20.69	19.21	17.00	16.26	15.52
19F2462	1212-552	18.06	16.77	14.84	14.19	13.55
19F3063	1212-554	18.06	16.77	14.84	14.19	13.55
19F3064	1206-501	16.11	14.96	13.24	12.66	12.09
19F3065	1206-502	16.11	14.96	13.24	12.66	12.09
19F2463	1206-552	14.14	13.13	11.62	11.11	10.61
19F3068	1206-554	14.14	13.13	11.62	11.11	10.61

TRIP PACKAGE SYSTEM



Provides quick, more efficient assembly than with piece-by-piece construction. Features automatic clip assembly, connector cutting, component insertion and component soldering. Tolerance: $\pm .005$.

Stk. No.	Type	Stk.	Overall Length	Dist. bwtn. Mtg. Cntrs.	1-49	50-99	100-249	250-499	500-999
19F3069	3976-205-1	5	1.875	1.362	.21	.20	.15	.13	.11
19F545	3976-205-2	10	2.875	2.362	.24	.22	.17	.16	.12
19F546	3976-205-3	15	3.875	3.362	.30	.28	.215	.20	.15
19F547	3976-205-4	20	4.875	4.362	.36	.33	.255	.24	.18
19F548	3976-205-5	25	5.875	5.362	.48	.44	.34	.32	.24
19F549	3976-205-6	30	6.875	6.362	.54	.50	.385	.36	.27
19F3070	3976-228-1	5	1.875	.800	.30	.28	.235	.215	.195
19F1770	3976-228-2	10	2.875	1.800	.33	.31	.26	.25	.21
19F1771	3976-228-3	15	3.875	2.800	.40	.37	.31	.295	.245
19F1772	3976-228-4	20	4.875	3.800	.46	.43	.36	.34	.29
19F1773	3976-228-5	25	5.875	4.800	.59	.54	.445	.425	.345
19F1774	3976-228-6	30	6.875	5.800	.65	.60	.495	.47	.38



Midget, silvered-mica capacitors. Designed for use where compact size, minimum series inductance, and high leakage resistance are essential. Offer stability of capacitors over the full

BUTTON MICA CAPACITORS

temperature range -55°C to $+125^{\circ}\text{C}$. Unmatched for VHF and UHF work. "Q" limits as specified in MIL-C-10950. 500 WVDC.



Stk. No.	Mil No.	Cap. (pf)	Cap. Tol.	1-49	50-99	100-249	250-499	500-999
19F3071	CB21PD150K	15	$\pm 10\%$					
19F3072	CB21PD250K	25	$\pm 10\%$					
19F3074	CB21PD10K	100	$\pm 10\%$	.84	.70	.56	.42	.308
19F3075	CB21PD151K	150	$\pm 10\%$					
19F3076	CB21PD201K	200	$\pm 10\%$					
19F3077	CB21PD251K	250	$\pm 10\%$					
19F3078	CB21PD501K	500	$\pm 10\%$	1.01	.84	.67	.502	.369
19F3079	CB21PD501J	500	$\pm 5\%$	1.26	1.05	.84	.63	.462
19E3800	CB21PD102K	1000	$\pm 10\%$	1.70	1.41	1.13	.848	.622
19F3081	CB21PD102J	1000	$\pm 5\%$	2.12	1.76	1.41	1.06	.776

Stk. No.	Mil. No.	Cap. (pf)	Cap. Tol.	1-49	50-99	100-249	250-499	500-999
19F3082	CB11RD150K	15	$\pm 10\%$					
19F3083	CB11RD250K	25	$\pm 10\%$					
19F3085	CB11RD101K	100	$\pm 10\%$	.86	.71	.57	.428	.314
19F3086	CB11RD151K	150	$\pm 10\%$					
19F3087	CB11RD201K	200	$\pm 10\%$					
19F3088	CB11RD251K	250	$\pm 10\%$					
19F3089	CB11RD501K	500	$\pm 10\%$	1.01	.84	.67	.503	.369
19F3090	CB11RD501J	500	$\pm 5\%$	1.28	1.06	.85	.638	.468
19F3091	CB11RD102K	1000	$\pm 10\%$	1.71	1.43	1.14	.855	.627
19F3092	CB11RD102J	1000	$\pm 5\%$	2.13	1.78	1.42	1.065	.781

New button mica capacitors exceed requirements of MIL-C-10950 for life test and temperature cycling at 200°C . All-welded hermetic glass seal plus gold-plated exterior metal provides extremely high resistance to moisture. All have a capacitance tolerance of $\pm 10\%$. All are MIL-C-10950 designation.



GOLD SEAL CAPACITORS

Stk. No.	Type	Mil. No.	1-49	50-99	100-249	250-499	500-999
19F3093	2921-604 501K	CB 55R	3.72	3.10	2.48	1.86	1.364
19F3094	2921-604 102K	CB 56R	4.26	3.55	2.84	2.13	1.562
19F3095	2922-615 501K	CB 65P	2.61	2.18	1.74	1.305	.957
19F3096	2922-615 102K	CB 66P	3.14	2.61	2.09	1.568	1.15
19F3097	2923-609 501K	CB 60R	4.05	3.38	2.70	2.025	1.485
19F3098	2923-609 102K	CB 61R	4.58	3.81	3.05	2.288	1.678

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FP AND WP CAPACITORS SINGLE SECTION

Stock No.	Type	Mfd.	Wkg. Volts	Size Dia. x L.	1-9	10-24	25-49	50-99	100-249
60F2100	FP030.8	5000	6	1x2 1/2"	3.07	2.36	1.77	1.38	1.10
60F2101	FP030.8	10000	6	1 3/8x2 1/2"	5.36	4.13	3.09	2.41	1.93
60F2102	FP031.6	5000	10	1x3"	3.59	2.76	2.07	1.61	1.29
60F2103	FP031.8	10000	10	1 3/8x3"	6.44	4.96	3.72	2.89	2.31
14F216	WP039A	1000	15	1x1 1/2"	1.56	1.20	0.90	0.70	0.56
14F217	WP041A	2000	15	1 3/8x2"	2.36	1.82	1.36	1.06	.85
14F243	WP042A	3000	15	1 3/8x2"	2.92	2.25	1.69	1.31	1.05
60F2104	FP042.6	5000	15	1 3/8x2 1/2"	4.06	3.12	2.34	1.82	1.46
60F2105	FP042.8	10000	15	1 3/8x2 1/2"	6.94	5.34	4.00	3.12	2.45
14F213	WP055A	100	25	1x1 1/2"	1.09	0.81	0.63	0.49	0.39
14F214	WP057A	500	25	1x1 1/2"	1.35	1.04	0.78	0.61	0.48
14F215	WP059	1000	25	1 3/8x2"	1.90	1.46	1.10	0.85	0.68
60F2106	FP060.2	2000	25	1 3/8x2 1/2"	2.95	2.27	1.70	1.32	1.06
60F2107	FP060.4	4000	25	1 3/8x3"	3.93	3.02	2.27	1.76	1.41
60F2108	FP060.6	5000	25	1 3/8x3 1/2"	4.63	3.56	2.67	2.08	1.66
60F2109	FP060.8	7500	25	1 3/8x4 1/2"	4.99	3.84	2.88	2.24	1.79
14F211	WP065	500	50	1 3/8x2"	1.74	1.34	1.00	0.78	0.62
14F245	WP068	1500	50	1 3/8x3"	2.70	2.08	1.56	1.21	0.97
60F2110	FP070	2000	50	1 3/8x3 1/2"	3.22	2.48	1.86	1.44	1.16
14F210	FP115A	50	150	1x1 1/2"	1.19	0.92	0.69	0.54	0.43
14F211	FP116A	100	150	1x1 1/2"	1.34	1.03	0.77	0.60	0.48
14F970	FP116.5A	120	150	1x2"	1.40	1.07	0.81	0.63	0.50
14F247	FP117A	150	150	1x2"	1.49	1.14	0.86	0.67	0.53
14F971	FP118A	200	150	1 3/8x2"	1.88	1.45	1.09	0.85	0.68
14F248	FP119A	300	150	1 3/8x2"	2.17	1.67	1.25	0.97	0.78
14F972	FP140.6A	150	350	1 3/8x2 1/2"	2.64	2.03	1.52	1.18	0.95
14F251	FP137A	50	350	1x2"	1.49	1.15	0.86	0.67	0.53
14F252	FP138A	80	350	1 3/8x2"	2.00	1.54	1.16	0.90	0.72
14F209	FP140A	125	350	1 3/8x2 1/2"	2.41	1.86	1.39	1.08	0.87
14F203	FP142	10	450	3/4x2"	1.05	0.81	0.61	0.47	0.38
14F205	FP144	20	450	1x1 3/4"	1.31	1.01	0.76	0.59	0.47
14F206	FP145	30	450	1x2 1/2"	1.45	1.12	0.84	0.65	0.52
14F207	FP146	40	450	1x2 1/2"	1.58	1.22	0.91	0.71	0.57
60F2111	FP147	50	450	1x3"	1.73	1.33	1.00	0.78	0.62
14F208	FP149	80	450	1 3/8x2 1/2"	2.37	1.82	1.37	1.06	0.85
14F973	FP150	100	450	1 3/8x2 1/2"	2.64	2.03	1.52	1.18	0.95
14F974	FP171A	10	500	1x1 1/2"	1.23	0.95	0.71	0.55	0.44
14F975	FP175	30	500	1x2 1/2"	1.60	1.23	0.92	0.72	0.58
14F976	FP177	40	500	1x3"	1.79	1.38	1.03	0.80	0.64
14F291	FP187	90	500	1 3/8x2 1/2"	2.94	2.26	1.70	1.32	1.06

DUAL SECTION

14F229	WP200	1000-1000	15-15	1 3/8x2"	2.48	1.91	1.43	1.11	0.89
14F241	FP208A	20-20	150-150	1x1 1/2"	1.32	1.01	0.76	0.59	0.47
14F255	FP210A	40-20	150-150	1x1 1/2"	1.38	1.06	0.79	0.62	0.49
14F242	FP212A	40-40	150-150	1x1 1/2"	1.44	1.10	0.83	0.64	0.52
14F286	FP213A	50-30	150-150	1x1 1/2"	1.44	1.10	0.83	0.64	0.52
14F977	FP216.2A	80-40	150-150	1x1 3/4"	1.55	1.19	0.90	0.70	0.56
14F282	FP216.4A	200-200	150-150	1 3/8x2 1/2"	2.66	2.05	1.54	1.20	0.96
14F226	FP217A	20-20	250-250	1x1 1/2"	1.42	1.09	0.82	0.64	0.51
14F227	FP221A	40-40	250-250	1x1 3/4"	1.64	1.26	0.95	0.72	0.58
14F256	FP227A	20-20	350-350	1x2"	1.55	1.19	0.90	0.70	0.56
14F219	FP231	10-10	450-450	1x1 3/4"	1.47	1.23	0.85	0.66	0.53
14F220	FP234A	20-20	450-450	1x2 1/2"	1.74	1.34	1.00	0.78	0.62
14F222	FP238A	40-40	450-450	1 3/8x2 1/2"	2.55	1.96	1.47	1.14	0.91
14F223	FP240	50-50	450-450	1 3/8x3"	2.99	2.31	1.73	1.35	1.08
14F225	FP245	80-10	450-450	1 3/8x2 1/2"	2.70	2.08	1.56	1.21	0.97
14F980	FP258	15-15	475-475	1x2 1/2"	1.68	1.29	0.97	0.75	0.60
14F262	FP288	40-40	500-500	1 3/8x2 1/2"	2.97	2.28	1.71	1.33	1.07
60F2112	FP200.19	1000-200	16-16	1x2"	1.85	1.43	1.06	0.82	0.65

TRIPLE SECTION

14F981	FP310A	40-40-20	150-150-25	1x1 1/4"	1.60	1.23	0.92	0.72	0.57
14F983	FP311A	50-50-20	150-150-25	1x1 3/8"	1.85	1.27	0.95	0.74	0.59
14F267	FP311.2A	20-20-20	150-150-150	1x1 1/2"	1.51	1.17	0.88	0.68	0.54
14F268	FP311.5A	40-40-40	150-150-150	1x1 3/4"	1.69	1.30	0.98	0.76	0.61
14F986	FP311.7	80-40-20	150-150-150	1 3/8x2"	2.03	1.56	1.17	0.91	0.73
14F269	FP345.2	10-10-20	450-450-25	1x2"	1.62	1.25	0.94	0.73	0.58
14F270	FP345.8	20-20-20	450-450-25	1x2 1/2"	1.91	1.47	1.10	0.86	0.69
14F271	FP346A	40-40-20	450-450-25	1 3/8x3"	2.75	2.12	1.59	1.24	0.99
14F274	FP375A	40-40-100	450-450-200	1 3/8x3 1/2"	3.17	2.44	1.83	1.42	1.14
14F275	FP375.8	10-10-10	450-450-450	1x2 1/2"	1.75	1.35	1.01	0.79	0.63
14F277	FP376.3	20-10-10	450-450-450	1x3"	1.89	1.46	1.09	0.85	0.68
14F278	FP376.5	20-20-20	450-450-450	1 3/8x2"	2.44	1.88	1.41	1.10	0.88
14F279	FP376.8	40-40-10	450-450-450	1 3/8x3"	2.86	2.20	1.65	1.28	1.03
14F234	FP377.1	40-40-40	450-450-450	1 3/8x3"	3.28	2.53	1.89	1.47	1.18
14F235	FP378	80-40-20	450-450-450	1 3/8x4"	3.58	2.75	2.07	1.61	1.29
14F231	FP394	10-10-10	475-475-475	1x3"	1.83	1.41	1.06	0.82	0.66
14F280	FP398	10-40-40	450-450-450	1 3/8x2 1/2"	2.91	2.24	1.68	1.31	1.05

QUADRUPLE SECTION

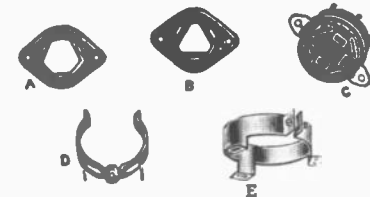
14F982	FP406	60-40-20-200	150-150-150-10	1 3/8x2"	2.21	1.70	1.28	0.99	0.79
14F994	FP411.32A	80-40-40-40	150-150-150-25	1 3/8x2"	2.26	1.74	1.30	1.01	0.81
14F996	FP428.4A	40-40-30-30	450-450-350-350	1 3/8x3 1/2"	3.42	2.63	1.98	1.54	1.23
14F239	FP434	10-10-10-10	450-450-450-450	1 3/8x2"	2.27	1.75	1.31	1.02	0.82
14F289	FP434.5	20-10-10-10	450-450-450-450	1 3/8x2"	2.41	1.85	1.39	1.08	0.87
14F240	FP444	20-20-20-20	450-450-450-450	1 3/8x2 1/2"	2.86	2.21	1.65	1.29	1.03
14F282	FP444.8	30-30-20-20	450-450-450-450	1 3/8x3"	3.13	2.41	1.81	1.41	1.12
14F283	FP447A	40-40-20-20	450-450-450-450	1 3/8x3 1/2"	3.43	2.64	1.98	1.54	1.23
14F990	FP447.5	40-40-30-30	450-450-450-450	1 3/8x3 1/2"	3.72	2.86	2.14	1.67	1.33

FP AND WP CAPACITORS

Vertical mounting dry electrolytics for all filter and audio by-pass circuits, and TV applications. All types include deep etched anodes and etched cathodes. All hermetically sealed in aluminum cases. Can be negative; separate positive terminals provided for each section. With mounting washers. Shipping weight, 6 oz.



HARDWARE FOR MALLORY CAPACITORS



For FP or WP types, use MP, BP, PS and MW-100 units; for all upright tubulars, use VR brackets or TH Spring clips. BP-4A is for mounting 1" FP's in chassis punches for 1 3/8" water. *Metal. †Phenolic. Average weight, 3 ounces.

Stk. No.	Type	Fig.	Size, in.	NET
14F400	MP2	A*	3/4	.03
14F401	MP4	A*	1	
14F402	MP6	A*	1 3/8	
14F403	BP2	B†	3/4	
14F404	BP4	B†	1	
14F405	BP4A	B†	1	
14F406	BP6	B†	1 3/8	
14F407	PS4	C	1	.42
14F408	PS6	C	1 3/8	.54
14F409	VR1	E	1 - 1 1/2	.11
14F410	VR3	E	1 3/8 - 1 1/2	.09
14F411	VR4	E	1 1/2 - 1 3/4	.14
14F412	VR6	E	1 3/4 - 1 3/8	.14
14F413	VR8	E	2 - 2 1/2	.17
14F414	TH13	D	3/8	.03
14F415	TH15	D	1/2 - 5/16	
14F416	TH17	D	5/8 - 11/16	
14F417	TH19	D	3/4 - 13/16	
14F418	TH21	D	7/8 - 15/16	
14F419	TH23	D	1 - 1 1/16	
14F420	TH25	D	1 3/8 - 1 1/8	.06

14F421. MW-100. Mtg. wrench for FP & WP Types 1.05

INSULATING SLEEVES

Fiber insulating sleeves for FP type capacitors. Closed end. Weight, 2 oz.

Stk. No.	Type	Size	NET
14F422	CE-1	3/4x2"	.06
14F423	CE-3	1 x2"	
14F424	CE-4	1 x3"	
14F425	CE-5	1 3/8x2"	
14F426	CE-6	1 3/8x3"	
14F427	CE-7	1 x2 1/2"	
14F428	CE-8	1 x4"		.09
14F429	CE-9	1 3/8x2 1/2"	.06
60F2110	CE-10	1 3/8x4"	.09
14F430	CE-11	1 x3 1/2"	.09
60F2115	CE-12	1 3/8x3 1/2"	.09
60F2116	CE-13	1 x1 3/4"	.06
60F2117	CE-14	3/4x1 1/2"	.06

**NEWARK Can Supply
the Complete Line of
Mallory Capacitors
at OEM Prices.**

Tantalum Capacitors MALLORY

MALLORY SERIES MTP

Available in 43 sizes with a capacitance greater than other conventional wet or solid foil capacitor. Oper. temp. —55 to 85°C Tol. ±20%. Size: A, .115D x .400L; B, .145D x .590L; C, .225D x .775L; D, .115D x .312L.



Stock No.	Catalog Number	Mfd.	WVDC	Size	1-9	10-24	25-49	50-99	100-499	500-999
13F314	MTP187M 006P1B	180	6	B	3.11	2.74	2.30	2.06	1.64	1.51
13F315	MTP457M 006P1C	450	6	C	3.62	3.18	2.78	2.39	1.91	1.75
13F316	MTP127M 010P1B	120	10	B	3.11	2.74	2.39	2.06	1.64	1.51
13F317	MTP307M 010P1C	300	10	C	3.62	3.18	2.78	2.39	1.91	1.75
13F318	MTP806M 015P1B	80	15	B	3.11	2.74	2.39	2.06	1.64	1.51
13F319	MTP207M 015P1C	200	15	C	3.62	3.18	2.78	2.39	1.91	1.75
13F320	MTP606M 020P1B	60	20	B	3.11	2.74	2.39	2.06	1.64	1.51
13F321	MTP605M 030P1C	6	30	D	2.57	2.26	1.97	1.69	1.35	1.23
13F322	MTP106M 030P1A	10	30	A	2.59	2.28	1.99	1.71	1.37	1.25
13F323	MTP456M 030P1B	45	30	B	3.11	2.74	2.39	2.06	1.64	1.51
13F324	MTP127M 030P1C	120	30	C	3.62	3.18	2.78	2.39	1.91	1.75
13F325	MTP405M 050P1D	4	50	D	2.57	2.26	1.97	1.69	1.35	1.23
13F326	MTP685M 050P1A	6.8	50	A	2.59	2.28	1.99	1.71	1.37	1.25
13F327	MTP306M 050P1B	30	50	B	3.11	2.74	2.39	2.06	1.64	1.51
13F328	MTP786M 050P1C	78	50	C	3.62	3.18	2.78	2.39	1.91	1.75
60F2136	MTP476M 006P1A	47	6	A	2.59	2.28	1.99	1.71	1.37	1.25
60F2137	MTP477M 006P1C	470	6	C	3.62	3.18	2.78	2.39	1.91	1.75
60F2138	MTP227M 015P1C	220	15	C	3.62	3.18	2.78	2.39	1.91	1.75
60F2139	MTP106M 035P1A	10	35	A	2.59	2.28	1.99	1.71	1.37	1.25
60F2140	MTP107M 035P1C	100	35	C	3.62	3.18	2.78	2.39	1.91	1.75
60F2141	MTP336M 050P1B	33	50	B	3.11	2.74	2.39	2.06	1.64	1.51
60F2142	MTP226M 060P1B	22	60	B	3.11	2.74	2.39	2.06	1.64	1.51
60F2143	MTP336M 060P1C	33	60	C	3.62	3.18	2.78	2.39	1.91	1.75
60F2144	MTP476M 060P1C	47	60	C	3.62	3.18	2.78	2.39	1.91	1.75
60F2260	MTC156M 006P1D	15	6	D	2.57	2.26	1.97	1.69	1.35	1.23
60F2261	MTP157M 006P1B	150	6	B	3.11	2.74	2.39	2.06	1.64	1.51
60F2262	MTP106M 010P1D	10	10	D	2.57	2.26	1.97	1.69	1.35	1.23
60F2263	MTP336M 010P1A	33	10	A	2.59	2.28	1.99	1.71	1.37	1.25
60F2264	MTP107M 010P1B	100	10	B	3.11	2.74	2.39	2.06	1.64	1.51
60F2265	MTP337M 010P1C	330	10	C	3.92	3.18	2.78	2.39	1.91	1.75
60F2266	MTP226M 015P1A	22	15	A	2.59	2.28	1.99	1.71	1.37	1.25
60F2267	MTP686M 015P1B	68	15	B	3.11	2.74	2.39	2.06	1.64	1.51
60F2268	MTP685M 020P1D	6.8	20	D	2.57	2.26	1.97	1.69	1.35	1.23
60F2269	MTP156M 020P1A	15	20	A	2.59	2.28	1.99	1.71	1.37	1.25
60F2270	MTP476M 020P1B	47	20	B	3.11	2.74	2.39	2.06	1.64	1.51
60F2271	MTP157M 020P1C	150	20	C	3.62	3.18	2.78	2.39	1.91	1.75
60F2272	MTP475M 035P1D	4.7	35	D	2.57	2.26	1.97	1.69	1.35	1.23
60F2273	MTP686M 050P1C	68	50	C	3.62	3.18	2.78	2.39	1.91	1.75
60F2274	MTP335M 060P1D	3.3	60	A	2.57	2.26	1.97	1.69	1.35	1.23
60F2275	MTP475M 060P1A	4.7	60	A	2.59	2.28	1.99	1.71	1.37	1.25
60F2276	MTP685M 060P1A	6.8	60	A	2.59	2.28	1.99	1.71	1.37	1.25
60F2277	MTP106M 060P1B	10	60	B	3.11	2.74	2.39	2.06	1.64	1.51
60F2278	MTP156M 060P1B	15	60	A	3.11	2.74	2.39	2.06	1.64	1.51

TYPE MTPH

Sintered anodes housed in special silver cases with elastomer end seal; completely insulated. Operating temp.; —50°C to +85°C. Tolerance ± 20%. DCL is extrem. low.

Stock No.	Catalog No.	Mfd.	WVDC	Size	1-9	10-24	25-49	50-99	100-499	500-999
60F2279	MTPH12	180	6	B	8.04	6.70	5.36	4.02	3.49	2.94
60F2280	MTPH13	450	6	C	8.34	6.95	5.56	4.17	3.62	3.06
60F2281	MTPH10	120	10	B	8.04	6.70	5.36	4.02	3.49	2.94
60F2282	MTPH11	300	10	C	8.34	6.95	5.56	4.17	3.62	3.06
60F2283	MTPH8	80	15	B	8.04	6.70	5.36	4.02	3.49	2.94
60F2284	MTPH9	200	15	C	8.34	6.95	5.56	4.17	3.62	3.06
60F2285	MTPH7	60	20	B	8.04	6.70	5.36	4.02	3.49	2.94
60F2286	MTPH4	10	30	A	7.68	6.40	5.12	3.84	3.33	2.81
60F2287	MTPH5	45	30	B	8.04	6.70	5.36	4.02	3.49	2.94
60F2288	MTPH6	120	30	C	8.34	6.95	5.56	4.17	3.62	3.06
60F2289	MTPH1	6.8	50	A	7.68	6.40	5.12	3.84	3.33	2.81
60F2290	MTPH2	30	50	B	8.04	6.70	5.36	4.02	3.49	2.94
60F2291	MTPH3	78	50	C	8.34	6.95	5.56	4.17	3.62	3.06

TANTALUM CAPACITORS



Type TAP. Tantalum Capacitors possess extremely long operational life, double seal construction, and excellent low temperature characteristics. Operating temp. —55° to +85°C. DC leakage is less than 1 microamp after 10 min. of rated voltage. Tol., —15% to +75%. Terminals: Axial leads 1½" long, tinned for easy soldering. Sizes: *, .238"L x .500"Dia.; †, .238"L x .660"Dia. Type TNT Subminiature Tantalum Capacitors have the largest capacity per unit volume available. Usable in both military and commercial aircraft control and communications. Also for hearing aids, printed circuits, etc. Operat. temp. —55°C to +85°C. Double case silver cases withstands 40 hr. salt spray test. Leads withstand 5 sec., 3 lb. axial pull. Sizes: ** 500"L x .165"Dia. †† .350"L x .165"Dia. Tol. —15% to +75%. Wt., 2 oz.

Stock No.	Type	Cap. Mfd.	VDC	1-24	25-49	50-99	100-499	500-999
14F432	TAP205U090POA*	2	90	1.46	1.17	.99	.84	.766
14F434	TAP405U060POA*	4	60	1.46	1.17	.99	.84	.766
14F435	TAP505U050POA*	5	50	1.46	1.17	.99	.84	.766
14F436	TAP605U040POA*	6	40	1.46	1.17	.99	.84	.766
13F871	TAP705U035POA*	7	35	1.46	1.17	.99	.84	.766
14F437	TAP805U030POA*	8	30	1.46	1.17	.99	.84	.766
14F438	TAP106U025POA*	10	25	1.46	1.17	.99	.84	.766
14F441	TAP206U010POA*	20	10	1.46	1.17	.99	.84	.766
14F442	TAP306U006POA*	30	6	1.46	1.17	.99	.84	.766
14F083	TAP116U090POB†	11	90	2.46	1.97	1.66	1.45	1.29
14F085	TAP206U060POB†	20	60	2.46	1.97	1.66	1.45	1.29
14F086	TAP256U050POB†	25	50	2.46	1.97	1.66	1.45	1.29
14F087	TAP306U040POB†	30	40	2.46	1.97	1.66	1.45	1.29
14F088	TAP406U030POB†	40	30	2.46	1.97	1.66	1.45	1.29
14F089	TAP706U015POB†	70	15	2.46	1.97	1.66	1.45	1.29
14F090	TAP107U010POB†	100	10	2.46	1.97	1.66	1.45	1.29
14F091	TAP147U006POB†	140	6	2.46	1.97	1.66	1.45	1.29
14F449	TNT806U033POB**	80	3	1.46	1.17	.99	.84	.766
14F448	TNT506U006POB**	50	6	1.46	1.17	.99	.84	.766
13F869	TNT356U012POB**	35	12	1.46	1.17	.99	.84	.766
14F447	TNT256U015POB**	25	15	1.46	1.17	.99	.84	.766
14F446	TNT156U030POB**	15	30	1.46	1.17	.99	.84	.766
13F870	TNT126U035POB**	12	35	1.46	1.17	.99	.84	.766
14F445	TNT805U050POB**	8	50	1.46	1.17	.99	.84	.766
14F494	TNT406U003POA††	40	3	1.24	.99	.84	.714	.651
14F495	TNT256U006POA††	25	6	1.24	.99	.84	.714	.651
14F496	TNT126U015POA††	12	15	1.24	.99	.84	.714	.651
14F497	TNT605U035POA††	6	35	1.24	.99	.84	.714	.651
14F498	TNT405U050POA††	4	50	1.24	.99	.84	.714	.651
14F499	TNT205U050POA††	2	50	1.24	.99	.84	.714	.651

MINIATURE TYPE TANTALUM CAPACITORS



Miniaturized versions of XT units. Outstanding in both military and commercial uses! Extra rugged. Operative —55°C to +175°C. Excellent low-temp. characteristics. "Axial lead construction" of solderable heavy wire bonded to term. stops lead connection breakage. High voltages in single small case avoid interconnecting separate units. Double sealed corrosion-resistant case. True metal-to-glass hermetic seal. Long shelf and operating life. 0.65" diam. Aver. Shpg. Wt., 2 oz.

Stock No.	Type	Mfd.	DCV 175°C	Hgt. In.	1-24	25-49	50-99
14F393	XTM256T060POA	25	38	9/16	6.56	6.12	5.68
14F394	XTM166T090POA	16	60	9/16	6.56	6.12	5.68
14F395	XTM805T170POA	8	120	15/16	9.30	9.24	8.56

MALLORY Capacitors

SOLID TANTALUM—MIL-C-26655B-CS13

New solid electrolytic tantalum capacitors made to meet or exceed MIL-C-26655A and MIL-C-26655B requirements. Provide stable operation over a very wide temperature range. Made especially for use in computers, printed circuits, battery powered equipment, etc. Have metal case

hermetically sealed. With mylar sleeve. Tolerances on all capacitors. $\pm 10\%$. WVDC for CS13 type are at $+65^\circ\text{C}$. WVDC for TAS type are at $+85^\circ\text{C}$. Operating range of all capacitor types is -80°C . to $+125^\circ\text{C}$.



Stk. No.	Mid.	WV DC	Type	1-24	49	99	100-499	500-999
17F1400	5.6	6	CS13BB565K	1.34	1.07	.75	.62	.53
17F1401	6.8	6	CS13BB685K	1.34	1.07	.75	.62	.53
17F1402	47	6	CS13BB476K	1.55	1.25	.77	.64	.54
17F1403	56	6	CS13BB566K	1.55	1.25	.77	.64	.54
17F1404	150	6	CS13BB157K	2.23	1.79	1.35	1.12	.94
17F1405	180	6	CS13BB187K	2.23	1.79	1.35	1.12	.94
17F1406	270	6	CS13BB277K	4.50	3.55	2.34	1.91	1.60
17F1407	330	6	CS13BB337K	4.50	3.55	2.34	1.91	1.60
17F1408	3.9	10	CS13BC395K	1.34	1.07	.75	.62	.53
17F1409	4.7	10	CS13BC475K	1.34	1.07	.75	.62	.53
17F1410	27	10	CS13BC276K	1.55	1.25	.77	.64	.54
17F1411	33	10	CS13BC336K	1.55	1.25	.77	.64	.54
17F1412	39	10	CS13BC396K	1.55	1.25	.77	.64	.54
17F1413	82	10	CS13BC826K	2.23	1.79	1.35	1.12	.94
17F1414	100	10	CS13BC107K	2.23	1.79	1.35	1.12	.94
17F1415	120	10	CS13BC127K	2.23	1.79	1.35	1.12	.94
17F1416	180	10	CS13BC187K	4.50	3.55	2.34	1.91	1.60
17F1417	220	10	CS13BC227K	4.50	3.55	2.34	1.91	1.60
17F1418	2.7	15	CS13BD275K	1.34	1.07	.75	.62	.53
17F1419	3.3	15	CS13BD335K	1.34	1.07	.75	.62	.53
17F1420	18	15	CS13BD186K	1.55	1.25	.77	.64	.54
17F1421	22	15	CS13BD226K	1.55	1.25	.77	.64	.54
17F1422	56	15	CS13BD566K	2.23	1.79	1.35	1.12	.94
17F1423	68	15	CS13BD686K	2.23	1.79	1.35	1.12	.94
17F1424	120	15	CS13BD127K	4.50	3.55	2.34	1.91	1.60
17F1425	150	15	CS13BD157K	4.50	3.55	2.34	1.91	1.60
17F1426	1.2	20	CS13BE125K	1.34	1.07	.75	.62	.53
17F1427	1.5	20	CS13BE155K	1.34	1.07	.75	.62	.53
17F1428	1.8	20	CS13BE185K	1.34	1.07	.75	.62	.53
17F1429	2.2	20	CS13BE225K	1.34	1.07	.75	.62	.53
17F1430	8.2	20	CS13BE825K	1.55	1.25	.77	.64	.54
17F1438	56	20	CS13BE566K	4.50	3.55	2.34	1.91	1.60
17F1439	68	20	CS13BE686K	4.50	3.55	2.34	1.91	1.60
17F1440	82	20	CS13BE826K	4.50	3.55	2.34	1.91	1.60

Stk. No.	Mid.	WV DC	Type	1-24	49	99	100-499	500-999
17F1441	100	20	CS13BE107K	4.50	3.55	2.34	1.91	1.60
17F1442	.33	35	CS13BF334K	1.34	1.07	.75	.62	.53
17F1443	.39	35	CS13BF394K	1.34	1.07	.75	.62	.53
17F1444	.47	35	CS13BF474K	1.34	1.07	.75	.62	.53
17F1445	.56	35	CS13BF564K	1.34	1.07	.75	.62	.53
17F1446	.68	35	CS13BF684K	1.34	1.07	.75	.62	.53
17F1447	.82	35	CS13BF824K	1.34	1.07	.75	.62	.53
17F1448	1.0	35	CS13BF105K	1.34	1.07	.75	.62	.53
17F1449	1.5	35	CS13BF155K	1.55	1.25	.77	.64	.54
17F1450	1.8	35	CS13BF185K	2.62	2.10	1.77	1.52	1.39
17F1451	2.7	35	CS13BF275K	1.55	1.25	.77	.64	.54
17F1452	3.9	35	CS13BF395K	1.55	1.25	.77	.64	.54
17F1453	4.7	35	CS13BF475K	1.55	1.25	.77	.64	.54
17F1454	5.6	35	CS13BF565K	1.55	1.25	.77	.64	.54
17F1455	6.8	35	CS13BF685K	1.55	1.25	.77	.64	.54
17F1456	10	35	CS13BF106K	2.55	2.05	1.42	1.16	.97
17F1457	15	35	CS13BF156K	2.55	2.05	1.42	1.16	.97
17F1458	22	35	CS13BF226K	2.55	2.05	1.42	1.16	.97
17F1459	27	35	CS13BF276K	4.50	3.55	2.34	1.91	1.60
17F1460	39	35	CS13BF396K	4.75	3.80	2.80	2.29	1.91
17F1492	18	35	CS13BF186K	2.55	2.05	1.42	1.16	.97
17F1493	1.2	35	CS13BF125K	1.55	1.25	.77	.64	.54
17F1494	1.8	35	CS13BF185K	1.55	1.25	.77	.64	.54
17F1495	8.2	35	CS13BF825K	2.55	2.05	1.42	1.16	.97
17F1496	12	35	CS13BF126K	2.55	2.05	1.42	1.16	.97
17F1497	1.2	50	CS13BG125K	2.62	2.10	1.77	1.52	1.39
17F1498	1.5	50	CS13BG155K	2.62	2.10	1.77	1.52	1.39
17F1499	2.7	50	CS13BG275K	2.62	2.10	1.77	1.52	1.39
17F1500	3.9	50	CS13BG395K	2.62	2.10	1.77	1.52	1.39
17F1501	5.6	50	CS13BG565K	4.27	3.42	2.88	2.47	2.26
17F1502	6.8	50	CS13BG685K	4.27	3.42	2.88	2.47	2.26
17F1503	8.2	50	CS13BG825K	4.27	3.42	2.88	2.47	2.26
17F1504	12	50	CS13BG126K	4.27	3.42	2.88	2.47	2.26

COMPUTER GRADE ELECTROLYTIC CAPACITORS

• Pressure sensitive safety vent construction. Computer grade capacitors; may be operated -40°C to $+85^\circ\text{C}$. Max. DC leakage current is .0-v square root of CV, where C=measured capacity, V=rated DC voltage. Dissipation factor = ESR/Xc. Tolerance: -10 , $+75\%$ for 0-150 volt units; -10 , $+50\%$ for 151-450 volt

• May be operated -20° to $+85^\circ\text{C}$. units. Supplied with Mylar insulating sleeve and $\frac{1}{32}$ " long post terminals with #10-32 screws. Sizes do not include terminals or sleeve; Lug terminals, special capacitances, working voltages, and sizes available on special order.



Stk. No.	Type	mfd	WV DC	DxL in.	ESR Ohms	1-49	50-99	100-Up
26F624	CG41T450A1	40	450	1 3/8x2 1/4	6.0	1.80	1.41	1.16
60F2121	CG12T350A1	100	350	1 3/8x2 1/4	2.4	2.43	1.91	1.57
26F625	CG111T450C1	110	450	1 3/8x4 1/8	2.2	2.73	2.15	1.76
60F2120	CG141T250A1	140	250	1 3/8x2 1/4	1.7	2.41	1.90	1.55
26F626	CG181T400C1	150	400	1 3/8x4 1/8	1.6	2.96	2.33	1.90
60F2119	CG181T200A1	180	200	1 3/8x2 1/4	1.4	2.02	1.59	1.30
26F409	CG241T450D1	240	450	2x4 1/8	1.1	3.42	2.69	2.20
60F2118	CG251T350C1	250	350	2x4 1/8	1.0	2.96	2.33	1.90
26F627	CG2750U150A1	275	150	1 3/8x2 1/4	1.05	1.63	1.29	1.05
26F410	CG3250T400D1	325	400	2x4 1/8	.78	3.80	2.99	2.44
60F2122	CG3750U250C1	375	250	1 3/8x4 1/8	.68	2.98	2.35	1.92
60F2123	CG42U100A1	400	100	1 3/8x2 1/4	.96	2.01	1.58	1.30
60F2124	CG42T350K1	400	350	2x3 1/8	.63	3.57	2.60	2.30
60F2125	CG451T200C1	450	200	1 3/8x4 1/8	.57	2.58	2.03	1.66
26F411	CG551T350D1	550	350	2x4 1/8	.46	5.10	4.01	3.28
26F628	CG62U75A1	600	75	1 3/8x2 1/4	.67	2.01	1.58	1.30
26F629	CG72U150C1	700	150	1 3/8x4 1/8	.43	2.40	1.89	1.54
26F412	CG72T300D1	700	300	2x4 1/8	.36	4.74	3.72	3.05
26F630	CG82U50A1	800	50	1 3/8x2 1/4	.50	1.74	1.37	1.12
26F413	CG82T50D1	800	250	2x4 1/8	.31	4.72	3.71	3.04
26F414	CG13T200D1	1000	200	2x4 1/8	.25	4.51	3.54	2.90
60F2126	CG13U100C1	1000	100	1 3/8x4 1/8	.40	2.73	2.15	1.76
60F2127	CG112U150K1	1100	150	2x3 1/8	.28	3.13	2.46	2.01
26F415	CG132T300F1	1300	300	3x4 1/8	.20	8.59	6.75	5.52
26F631	CG152U25A1	1500	25	1 3/8x2 1/4	.33	1.72	1.35	1.11
26F632	CG152U75C1	1500	75	1 3/8x4 1/8	.27	2.84	2.23	1.82
26F416	CG155U150D1	1550	150	2x4 1/8	.24	4.01	3.15	2.58
60F2128	CG165U100K1	1650	100	2x3 1/8	.24	3.17	2.49	2.04
26F417	CG165U1300F1	1650	300	3x4 1/8	.19	8.48	6.65	5.44
26F418	CG192T50F1	1900	250	3x4 1/8	.16	7.68	5.97	4.89
26F633	CG23U50C1	2000	50	1 3/8x4 1/8	.20	2.29	1.80	1.47
26F634	CG23T350G1	2000	350	3x5 1/8	.15	10.63	8.35	6.84
26F419	CG25U100D1	2250	100	2x4 1/8	.19	4.12	3.23	2.64
26F420	CG245U1200F1	2450	200	3x4 1/8	.13	6.83	5.37	4.39
26F635	CG252U15A1	2500	15	1 3/8x2 1/4	.24	1.97	1.55	1.27

Stock No.	Type	mfd	WV DC	DxL in.	ESR Ohms	1-49	50-99	100-Up
26F636	CG252U75K1	2500	75	2x3 1/8	.18	3.70	2.90	2.38
26F637	CG262T300G1	2600	300	3x5 1/8	.12	10.63	8.35	6.84
60F2130	CG33T250G1	3000	250	3x5 1/8	.10	10.16	8.00	6.53
60F2130	CG332U50K1	3300	50	2x3 1/8	.16	3.25	2.56	2.09
26F421	CG345U175D1	3450	75	1 3/8x4 1/8	.16	4.03	3.17	2.59
26F422	CG362U150F1	3600	150	2x4 1/8	.15	7.08	5.56	4.55
26F639	CG382U25C1	3800	25	1 3/8x4 1/8	.14	2.60	2.05	1.67
26F423	CG382T200G1	3800	200	3x5 1/8	.09	12.26	9.64	7.88
26F424	CG452U50D1	4500	50	2x4 1/8	.16	3.47	2.72	2.23
26F425	CG532U100F1	5300	100	2x4 1/8	.16	6.74	5.30	4.33
60F2131	CG562U150G1	5600	150	3x5 1/8	.13	9.87	7.76	6.35
26F426	CG63U25K1	6000	25	2x3 1/8	.10	3.23	2.54	2.08
26F427	CG642U15C1	6400	15	1 3/8x4 1/8	.09	2.89	2.11	1.73
26F428	CG822U10C1	8200	10	1 3/8x4 1/8	.10	2.84	2.23	1.82
26F429	CG822U75F1	8200	75	3x4 1/8	.14	7.25	5.70	4.66
26F426	CG832U100G1	8300	100	3x5 1/8	.14	9.68	7.61	6.23
26F427	CG852U25D1	8500	25	2x4 1/8	.071	3.90	3.07	2.51
60F2133	CG14U50F1	10000	50	2x4 1/8	.11	6.70	5.27	4.30
26F644	CG1052U15K1	10500	15	3x3 1/8	.064	3.38	2.66	2.17
60F2132	CG1252U75G1	12500	75	3x5 1/8	.09	9.45	7.42	6.08
26F428	CG1352U10							

Capacitors MALLORY

MTA MOLDED TUBULARS



High quality aluminum electrolytic type capacitors. Specially formulated polypropylene material for the case. New material provides humidity protection by excluding molecules of water

10 WVDC									
Stk. No.	Type	Cap. Mid.	Surge VDC	Size	1-24	25-49	50-99	100-249	250-499
26F950	MTA40D10	40	12	D	.36	.30	.25	.200	.187
26F951	MTA400F10	400	12	F	.54	.43	.35	.294	.275

15 WVDC									
Stk. No.	Type	Cap. Mid.	Surge VDC	Size	1-24	25-49	50-99	100-249	250-499
26F952	MTA30D15	30	18	D	.36	.30	.25	.200	.187
26F953	MTA35D15	35	18	D	.36	.30	.25	.200	.187
26F954	MTA80E15	80	18	E	.39	.32	.26	.218	.204
26F955	MTA90E15	90	18	E	.39	.32	.26	.218	.204
26F956	MTA100E15	100	18	E	.39	.32	.26	.218	.204
26F957	MTA300F15	300	18	F	.63	.50	.41	.343	.321
26F958	MTA350F15	350	18	F	.63	.50	.41	.343	.321

20 WVDC									
Stk. No.	Type	Cap. Mid.	Surge VDC	Size	1-24	25-49	50-99	100-249	250-499
26F959	MTA25D20	25	25	D	.36	.30	.25	.200	.187
26F960	MTA60E20	60	25	E	.39	.32	.26	.218	.204
26F961	MTA70E20	70	25	E	.39	.32	.26	.218	.204
26F962	MTA250F20	250	25	F	.63	.50	.41	.343	.321

25 WVDC									
Stk. No.	Type	Cap. Mid.	Surge VDC	Size	1-24	25-49	50-99	100-249	250-499
26F963	MTA50E25	50	30	E	.39	.32	.26	.218	.204
26F964	MTA175F25	175	30	F	.54	.43	.35	.294	.275
26F965	MTA200F25	200	30	F	.63	.50	.41	.343	.321

HC CAPACITORS



Plastic case electrolytics for high-capacity, low-voltage applications such as dry disc rectifier filters, movie equipment, etc. All are polarized. Two screw terminals. 10 oz.

Stk. No.	Type	Mid. WV	Size	1-9	10-24	25-49	50-99	100-249
14F100	HC1020A	2000	10 1 1/2 x 2 3/4	3.36	2.88	1.68	1.30	1.049
14F101	HC1040A	4000	10 1 1/2 x 3 3/8	4.60	3.85	2.30	1.78	1.436
14F102	HC1060A	6000	10 1 1/2 x 4 1/8	5.20	4.46	2.60	2.00	1.621
14F103	HC10100	10000	10 2 1/2 x 4 3/8	7.82	6.70	3.90	3.02	2.592
14F107	HC1520A	2000	15 1 1/2 x 2 3/4	3.47	2.97	1.74	1.34	1.081
14F104	HC1540A	4000	15 1 1/2 x 3 3/8	5.37	4.61	2.69	2.07	1.681
14F105	HC1560A	6000	15 1 1/2 x 4 1/8	5.62	4.82	2.81	2.17	1.747
14F294	HC2060	6000	20 2 1/2 x 4 3/8	6.60	5.66	3.30	2.55	2.470
14F295	HC2060A	6000	20 1 1/2 x 4 3/8	6.11	5.24	3.05	2.36	2.287
14F106	HC2510A	1000	25 1 1/2 x 2 3/4	3.19	2.73	1.59	1.23	.994
14F107	HC2520A	2000	25 1 1/2 x 3 3/8	4.15	3.58	2.07	1.60	1.294
14F108	HC2540A	4000	25 1 1/2 x 4 1/8	5.58	4.79	2.79	2.15	1.741
14F296	HC4040	4000	40 2 1/2 x 4 3/8	7.54	6.48	3.77	2.91	2.352
14F297	HC4040A	4000	40 1 1/2 x 4 3/8	6.98	6.00	3.49	2.69	2.178
14F298	HC5004	4000	50 2 1/2 x 4 3/8	7.32	6.27	3.66	2.82	2.282
14F109	HC5005A	500	50 1 1/2 x 2 3/4	3.33	2.85	1.66	1.28	1.038
14F110	HC5010A	1000	50 1 1/2 x 3 3/8	4.25	3.65	2.13	1.64	1.327
14F111	HC5020A	2000	50 1 1/2 x 4 1/8	5.06	4.34	2.53	1.95	1.578
14F997	HC15010	1000	150 2 1/2 x 4 3/8	6.89	5.96	3.45	2.68	2.170
14F112	HC15010A	1000	150 1 1/2 x 4 3/8	6.44	5.52	3.22	2.48	2.009
14F113	HC20005A	500	200 1 1/2 x 3 3/8	5.53	4.74	2.77	2.13	1.726
14F114	HC45003	300	450 2 1/2 x 4 3/8	8.47	7.26	4.24	3.27	2.642

TYPE NP NON-POLARIZED HIGH CAP ELECTROLYTICS

Stk. No.	Type	Mid. WV	Size	1-9	10-24	25-49	50-99	100-249
14F135	NP1225A	200	125 1 1/2 x 3 3/8	4.04	3.47	2.02	1.56	1.462
14F137	NP1235A	300	125 1 1/2 x 3 3/8	4.87	4.17	2.43	1.88	1.851
14F136	NP1255A	500	125 1 1/2 x 4 1/8	6.30	5.40	3.15	2.42	1.897
14F138	NP3003A	15	300 1 1/2 x 2 3/4	2.87	2.46	1.44	1.11	.860
26F990	NP3008	50	300 1 1/2 x 2 3/4	5.25	4.50	2.63	2.03	1.756
14F134	NP3025	200	300 1 1/2 x 3 3/8	7.00	6.00	3.50	2.70	2.104
14F131	NP4505	50	450 1 1/2 x 3 3/8	6.30	5.40	3.15	2.42	1.872
14F132	NP4510	100	450 2 1/2 x 4 3/8	7.70	6.80	3.85	2.97	2.640

TANTALUM CAPACITORS TYPE TAM

Plastic encapsulated, solid electrolyte, sintered tantalum pellet anode. Temperature range: -80° to +85°C or 125° if derated. 33 1/3% Ht. .3125", Dia. .175". Aver. Shpg. Wt. 2 oz.

Stock No.	Type	Mid. WV	1-24	25-49	50-99	100-499	500-999
14F128	TAM665M025P5C	6.8 25	1.20	.96	.82	.69	.63
14F127	TAM1061M025P5C	10 25					
14F130	TAM1568M025P5C	15 25					

30 WVDC									
Stk. No.	Type	Cap. Mid.	Surge VDC	Size	1-24	25-49	50-99	100-249	250-499
26F968	MTA20D30	20	35	D	.36	.30	.25	.200	.187
26F967	MTA40E30	40	35	E	.39	.32	.26	.218	.204

35 WVDC									
Stk. No.	Type	Cap. Mid.	Surge VDC	Size	1-24	25-49	50-99	100-249	250-499
26F968	MTA25E35	25	40	E	.39	.31	.26	.215	.202
26F969	MTA30E35	30	40	E	.39	.32	.26	.218	.204
26F970	MTA35E35	35	40	E	.39	.32	.26	.218	.204
26F971	MTA90F35	90	40	F	.51	.40	.33	.278	.261
26F972	MTA100F35	100	40	F	.51	.40	.33	.278	.261
26F973	MTA125F35	125	40	F	.54	.43	.35	.294	.275
26F974	MTA150F35	150	40	F	.63	.50	.41	.343	.321

50 WVDC									
Stk. No.	Type	Cap. Mid.	Surge VDC	Size	1-9	10-24	25-49	50-99	100-249
26F975	MTA1D50	1	60	D	.36	.29	.24	.200	.187
26F976	MTA2D50	2	60	D	.36	.29	.24	.200	.187
26F977	MTA5D50	5	60	D	.36	.29	.24	.200	.187
26F978	MTA10E50	10	60	E	.39	.31	.26	.215	.202
26F979	MTA15E50	15	60	E	.39	.31	.26	.215	.202
26F980	MTA20E50	20	60	E	.39	.31	.26	.215	.202
26F981	MTA25E50	25	60	F	.45	.36	.30	.249	.233
26F982	MTA30E50	30	60	F	.45	.36	.30	.249	.233
26F983	MTA35E50	35	60	F	.45	.36	.30	.249	.233
26F984	MTA40E50	40	60	F	.45	.36	.30	.249	.233
26F985	MTA50E50	50	60	F	.45	.36	.30	.249	.233
26F986	MTA60E50	60	60	F	.51	.40	.33	.278	.261
26F987	MTA70E50	70	60	F	.51	.40	.33	.278	.261
26F988	MTA80E50	80	60	F	.54	.43	.35	.294	.275

METAL TUBULAR DRY ELECTROLYTIC CAPACITORS



Type TC is single-section capacitor with insul. sleeve. Up to 150 WV, DC, cap. tolerance is -10% +100%. Above 150 WV, DC, cap. tolerance is -10% +50%. Rated 85°C. Av. Shipping Wt., 4 oz.

Stk. No.	Type	Mid. DC	Size	1-9	10-24	25-49	50-99	100-249
14F150	TC310A	1000	3 .640x1 1/8	1.02	1.02	.82	.64	.510
14F151	TC605A	500	6 .421x1 1/16	.93	.93	.75	.59	.468
14F152	TC610A	1000	6 .640x1 3/8	1.14	1.14	.92	.71	.569
14F153	TC1505A	500	15 .640x1 3/8	1.05	1.05	.85	.66	.527
14F443	TC1501A	1000	15 .640x1 3/8	1.38	1.38	1.10	.85	.693
14F154	TC22A	10	25 .275x1 1/16	.60	.56	.42	.33	.261
14F155	TC26A	25	25 .322x1 1/16	.80	.59	.44	.34	.273
14F156	TC29A	50	25 .385x1 1/16	.66	.62	.47	.36	.291
14F157	TC2501A	100	25 .385x1 1/16	.81	.76	.57	.45	.356
14F158	TC2505B	500	25 .765x1 3/8	1.38	1.38	1.10	.85	.693
14F159	TC302	2	50 .275x1 1/16	.54	.52	.39	.30	.242
14F160	TC30A	5	50 .275x1 1/16	.60	.55	.41	.32	.256
14F161	TC31	1	50 .275x1 1/16	.54	.52	.39	.30	.242
14F162	TC32A	10	50 .322x1 1/16	.60	.56	.42	.33	.261
14F163	TC36A	25	50 .385x1 1/16	.63	.59	.44	.34	.273
14F164	TC39A	50	50 .385x1 1/16	.72	.72	.54	.42	.336
14F165	TC3501A	100	50 .640x1 3/8	.84	.79	.80	.46	.370
14F166	TC40A	5	150 .385x1 1/16	.60	.57	.43	.33	.266
14F167	TC41A	8	150 .385x1 1/16	.63	.59	.44	.35	.278
14F185	TC50025A	250	50 .765x1 3/8	1.05	1.05	.85	.66	.529
14F188	TC42A	10	150 .385x1 1/16	.60	.61	.45	.35	.263
14F170	TC45A	20	150 .385x1 1/16	.72	.70	.53	.41	.327
14F171	TC47A	30	150 .640x1 3/8	.78	.77	.57	.45	.357
14F172	TC48A	40	150 .640x1 3/8	.81	.81	.61	.47	.376

Capacitors

MALLORY PVC MYLAR CAPACITORS



Constructed of aluminum foil and 100% DuPont Mylar. Has radial leads for adaptability to printed circuit applications. Encapsulated in moisture-proof, flexible polyvinyl chloride allowing leads to be bent

in any manner to accommodate mounting without danger of cracking. Unaffected by soldering iron heat. Can be operated at 105°C and at two times rated voltage with no performance derating. Exceptionally low capacitance drift characteristics. Temp. range: -40°C to +105°C. Tolerance ±10%. Shpg. wt., 2 oz.

100 WVDC

Stk. No.	Type	Mfd.	L. x H. x T.	1-24	25-49	50-99	100-up
60F2145	PVC1118	.018	.63x.38x.22	.15	.12	.09	.07
60F2146	PVC1122	.022	.63x.38x.22	.15	.12	.09	.07
60F2147	PVC1133	.033	.63x.38x.22	.15	.12	.09	.076
60F2148	PVC114	.04	.63x.38x.22	.15	.12	.10	.077
60F2149	PVC1147	.047	.63x.38x.22	.15	.12	.10	.079
60F2150	PVC1156	.056	.75x.38x.22	.16	.13	.10	.081
60F2151	PVC1168	.068	.81x.41x.25	.17	.14	.10	.084
60F2152	PVC101	.10	.81x.44x.31	.18	.15	.12	.093
60F2153	PVC1015	.15	.94x.47x.34	.21	.17	.13	.107
60F2154	PVC1022	.22	1.09x.50x.34	.24	.20	.15	.123
60F2155	PVC1025	.25	1.22x.50x.34	.24	.20	.16	.129
60F2156	PVC1033	.33	1.22x.56x.41	.28	.23	.18	.143
60F2157	PVC1047	.47	1.34x.59x.44	.31	.26	.20	.163
60F2158	PVC105	.5	1.34x.63x.44	.33	.27	.21	.169
60F2159	PVC1056	.56	1.46x.63x.46	.34	.29	.22	.178
60F2160	PVC1068	.68	1.46x.69x.50	.38	.32	.24	.195
60F2161	PVC11	1.0	1.75x.72x.53	.46	.38	.29	.239
60F2162	PVC11P5	1.5	1.75x.88x.63	.58	.49	.37	.303
60F2163	PVC12	2.0	1.78x1.00x.78	.72	.61	.47	.381

200 WVDC

Stk. No.	Type	Mfd.	L. x H. x T.	1-24	25-49	50-99	100-up
13F790	PVC-211	.01	.63x.38x.22	.15	.12	.09	.07
13F791	PVC-2115	.015	.63x.38x.22	.15	.12	.09	.07
13F792	PVC-212	.02	.63x.38x.22	.15	.12	.09	.07
13F793	PVC-2133	.033	.81x.41x.25	.15	.12	.10	.08
13F794	PVC214	.04	.81x.41x.25	.15	.12	.10	.08
13F795	PVC-215	.05	.81x.44x.28	.15	.12	.10	.08
13F796	PVC-2168	.068	.94x.46x.28	.18	.15	.12	.09
13F797	PVC-201	.10	1.10x.50x.31	.21	.16	.12	.09
60F2243	PVC2122	.022	.63x.38x.22	.15	.12	.09	.07
60F2244	PVC2147	.047	.81x.41x.28	.15	.12	.10	.08
60F2245	PVC2015	.15	1.22x.50x.34	.21	.17	.13	.110
60F2246	PVC2022	.22	1.22x.56x.41	.24	.20	.16	.130
60F2247	PVC2025	.25	1.34x.56x.41	.24	.20	.16	.130
60F2248	PVC2033	.33	1.46x.63x.44	.30	.25	.18	.150
60F2249	PVC2047	.47	1.63x.66x.46	.35	.28	.21	.170
60F2250	PVC205	.5	1.63x.69x.50	.35	.29	.21	.170
60F2251	PVC21	1.0	1.75x.88x.63	.55	.43	.33	.282
60F2252	PVC22	2.0	1.78x1.15x.94	.85	.75	.58	.509

400 WVDC

Stk. No.	Type	Mfd.	L. x H. x T.	1-24	25-49	50-99	100-up
13F799	PVC-4222	.0022	.63x.31x.22	.15	.11	.08	.07
13F888	PVC-411	.01	.63x.38x.22	.15	.11	.08	.07
13F890	PVC-412	.02	.75x.41x.25	.15	.12	.09	.07
13F893	PVC415	.05	.94x.46x.31	.18	.15	.11	.09
13F705	PVC404	.40	1.75x.75x.56	.41	.32	.25	.216
13F706	PVC-405	.5	1.75x.81x.63	.46	.37	.28	.245
60F2253	PVC4247	.0047	.63x.38x.22	.15	.11	.08	.07

Stk. No.	Type	Mfd.	L. x H. x T.	1-24	25-49	50-99	100-249
60F2254	PVC4147	.047	.94x.46x.28	.18	.15	.11	.09
60F2255	PVC401	.1	1.22x.53x.38	.21	.17	.13	.11
60F2256	PVC4022	.22	1.46x.66x.46	.27	.23	.18	.16
60F2257	PVC4025	.25	1.63x.66x.46	.30	.25	.20	.16
60F2258	PVC4047	.47	1.75x.78x.59	.45	.35	.27	.236
60F2259	PVC4056	.56	1.78x.84x.66	.49	.39	.30	.281

GULTON "GLENCO" MINIATURE CERAMIC CAPACITORS



MIL-C-11015 TYPE CK05 & CK06
Ceramic capacitors exceeding all military MIL-Type CK05 & CK06 requirements. -55° to 150°C without derating. Power factor less than 2.5% at 1 KC. Insulation resistance at 25°C greater than 100,000 megohms. Capacitance tolerance: ±10%. Leads #22 AWG tinned copper. Molded plastic case.

CASE SIZE (Length x Width x Thickness)

Case	L	W	T	Case	L	W	T
B	.190	.190	.090	C	.290	.290	.090
	±.010	±.010	±.010		±.010	±.010	±.010

200 WVDC

Stock No.	Military Part No.	Case Size	Cap. pt	1-49	50-99	100-249	250-499
59F600	CK05CW100K	B	10				
59F601	CK05CW120K	B	12				
59F602	CK05CW150K	B	15				
59F603	CK05CW180K	B	18				
59F604	CK05CW220K	B	22	.41	.37	.33	.28
59F605	CK05CW270K	B	27				
59F606	CK05CW330K	B	33				
59F607	CK05CW390K	B	39				
59F608	CK05CW470K	B	47				
59F609	CK05CW560K	B	56				
59F610	CK05CW680K	B	68				
59F611	CK05CW820K	B	82				
59F612	CK05CW101K	B	100				
59F613	CK05CW121K	B	120				
59F614	CK05CW151K	B	150				
59F615	CK05CW181K	B	180				
59F616	CK05CW221K	B	220	.41	.37	.33	.28
59F617	CK05CW271K	B	270				
59F618	CK05CW331K	B	330				
59F619	CK05CW391K	B	390				
59F620	CK05CW471K	B	470				
59F621	CK05CW561K	B	560				
59F622	CK05CW681K	B	680				
59F623	CK05CW821K	B	820				
59F624	CK05CW102K	B	1000				
59F625	CK06CW122K	C	1200	.71	.64	.57	.49
59F626	CK06CW152K	C	1500				
59F627	CK06CW182K	C	1800				

Continued in next column

200 WVDC (Continued)

Stock No.	Military Part No.	Case Size	Cap. pt	1-49	50-99	100-249	250-499
59F628	CK06CW222K	C	2200				
59F629	CK06CW272K	C	2700				
59F630	CK06CW332K	C	3300	.71	.64	.57	.49
59F631	CK06CW392K	C	3900				
59F632	CK06CW472K	C	4700				
59F633	CK06CW562K	C	5600				
59F634	CK06CW682K	C	6800	1.52	1.26	1.03	.93
59F635	CK06CW822K	C	8200				
59F636	CK06CW103K	C	10,000				

75 WVDC NPO CERAMIC THIN PLATE



Miniature plastic coated. Leads: #26 AWG tinned copper. Tol: ±5% except (°) ±5 pl. -55° to 85°C.

Stock No.	Type No.	Cap. pt	Max. Dimensions			1-99	100-499	500-999
			L	W	T			
59F637	MIN-C-4-3-D*	4.3	.150	.150	.080			
59F638	MIN-C-5-6-D*	5.6	.150	.150	.080			
59F639	MIN-C-6-8-D*	6.8	.150	.150	.080			
59F640	MIN-C-7-5-D*	7.5	.150	.150	.080			
59F641	MIN-C-8-2-D*	8.2	.150	.150	.080			
59F642	MIN-C-9-1-D*	9.1	1.55	.155	.080			
59F643	MIN-C-10-K	10	1.65	.165	.080			
59F644	MIN-C-12-K	12	1.75	.175	.080			
59F645	MIN-C-15-K	15	.190	.190	.080			
59F646	MIN-C-18-K	18	.195	.195	.080			
59F647	MIN-C-20-K	20	.205	.205	.080			
59F648	MIN-C-22-K	22	.210	.210	.080			
59F649	MIN-C-24-K	24	.220	.220	.080			
59F650	MIN-C-27-K	27	.230	.230	.080			
59F651	MIN-C-30-K	30	.240	.240	.080			
59F652	MIN-C-33-K	33	.245	.245	.080			
59F653	MIN-C-36-K	36	.255	.255	.080			
59F654	MIN-C-39-K	39	.265	.265	.080			
59F655	MIN-C-43-K	43	.275	.275	.080			
59F656	MIN-C-47-K	47	.285	.285	.080			
59F657	MIN-C-51-K	51	.295	.295	.080			
59F658	MIN-C-56-K	56	.305	.305	.100			
59F659	MIN-C-62-K	62	.320	.320	.100			
59F660	MIN-C-68-K	68	.330	.330	.100			
59F661	MIN-C-75-K	75						

Write Newark for Glulon Caps Not Listed.

Capacitors CORNING

MIL-C-11272B CYFM GLASS CAPACITORS

Completely frozen in glass with a true glass to metal seal at the 106A) conditions for over 1200 hrs. Immersed in boiling salt water for 450 hrs. and saturated in steam at 15 lbs. gage press, for 150 hrs. without altering

their performance. Highly resistant to nuclear radiation. Exposures to radiation levels of 10^{18} NVT result in no significant changes in properties. VDCW is 300v & 500v from -55° to $+125^{\circ}$ C. Std. Tol. is $\pm 5\%$ or $-0.25\mu\text{uf}$ whichever is greater.

CYFM10C

Stk. No.	Type	Cap.	1-49	50-99	100-249	250-499	500-999
58F050	0R5C	.5					
58F051	1R0C	1.0	3.78	3.47	2.67	2.52	1.89
58F052	1R5C	1.5					
58F053	2R2C	2.2					
58F054	2R7C	2.7					
58F055	3R0C	3.0					
58F056	3R3C	3.3					
58F057	3R6C	3.6	3.63	3.33	2.57	2.42	1.82
58F058	3R9C	3.9					
58F059	4R3C	4.3					
58F060	4R7C	4.7					
58F061	5R1C	5.1					
58F062	5R6	5.6					
58F063	6R2	6.2					
58F064	6R8	6.8					
58F065	7R5	7.5	2.25	2.06	1.59	1.50	1.13
58F066	8R2	8.2					
58F067	9R1	9.1					
58F068	10	10					
58F069	11	11					
58F070	12	12					
58F071	13	13					
58F072	15	15					
58F073	16	16	1.20	1.10	.85	.80	.60
58F074	18	18					
58F075	20	20					
58F076	22	22					

Stk. No.	Type	Cap.	1-49	50-99	100-249	250-499	500-999
58F077	24	24					
58F078	27	27	1.20	1.10	.85	.80	.60
58F079	30	30					
58F080	33	33					
58F081	36	36					
58F082	39	39					
58F083	43	43					
58F084	47	47					
58F085	51	51	1.35	1.24	.95	.90	.68
58F086	56	56					
58F087	62	62					
58F088	68	68					
58F089	75	75					
58F090	82	82					
58F091	91	91					
58F092	100	100					
58F093	110	110	2.16	1.98	1.53	1.44	1.08
58F094	120	120					
58F095	130	130					
58F096	150	150					
58F097	160	160					
58F098	180	180	2.40	2.20	1.70	1.60	1.20
58F099	200	200					
58F100	220	220					
58F101	240	240	2.82	2.59	1.99	1.88	1.41
58F102	270	270					
58F103	300	300					

CYFM15C

Stk. No.	Type	Cap.	1-49	50-99	100-249	250-499	500-999
58F104	220	220					
58F105	240	240	1.50	1.38	1.06	1.00	.75
58F106	270	270					
58F107	300	300					
58F108	330	330					
58F109	360	360	1.74	1.60	1.23	1.16	.87
58F110	390	390					
58F111	430	430					
58F112	470	470	2.10	1.93	1.48	1.40	1.05

Stk. No.	Type	Cap.	1-49	50-99	100-249	250-499	500-999
58F113	510	510					
58F114	560	560	2.10	1.93	1.48	1.40	1.05
58F115	620	620					
58F116	680	680					
58F117	750	750					
58F118	820	820	2.40	2.20	1.70	1.60	1.20
58F119	910	910					
58F120	1000	1000					
58F121	1200	1200	3.00	2.75	2.12	2.00	1.50

CYFM20C

Stk. No.	Type	Cap.	1-49	50-99	100-249	250-499	500-999
58F122	560	560					
58F123	620	620	2.25	2.06	1.59	1.50	1.13
58F124	680	680					
58F125	750	750					
58F126	820	820					
58F127	910	910	2.40	2.20	1.70	1.60	1.20
58F128	1000	1000					
58F129	1100	1100					
58F130	1200	1200					
58F131	1300	1300	2.70	2.48	1.91	1.80	1.35
58F132	1500	1500					
58F133	1600	1600					

Stk. No.	Type	Cap.	1-49	50-99	100-249	250-499	500-999
58F134	1800	1800	3.00	2.75	2.12	2.00	1.50
58F135	2000	2000	3.00	2.75	2.12	2.00	1.50
58F136	2200	2200					
58F137	2400	2400	3.30	3.03	2.33	2.20	1.65
58F138	2700	2700					
58F139	3000	3000					
58F140	3300	3300	3.75	3.44	2.65	2.50	1.88
58F141	3600	3600					
58F142	4300	4300	4.20	3.85	2.97	2.80	2.10
58F143	4700	4700					
58F144	5100	5100					

CYFM30C

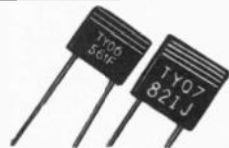
Stk. No.	Type	Cap.	1-49	50-99	100-249	250-499	500-999
58F145	3600	3600					
58F146	3900	3900	3.90	3.58	2.76	2.60	1.95
58F147	4300	4300					
58F148	4700	4700					
58F149	5100	5100	4.50	4.13	3.18	3.00	2.25
58F150	5600	5600	4.50	4.13	3.18	3.00	2.25

Stk. No.	Type	Cap.	1-49	50-99	100-249	250-499	500-999
58F151	6200	6200	4.50	4.13	3.18	3.00	2.25
58F152	6800	6800	4.85	4.54	3.50	3.30	2.48
58F153	7500	7500	4.85	4.54	3.50	3.30	2.48
58F154	8200	8200	5.40	4.85	3.82	3.60	2.70
58F155	9100	9100	5.40	4.85	3.82	3.60	2.70
58F158	10,000	10,000	6.00	5.50	4.24	4.00	3.00

TYO CAPACITORS

For printed circuit or point to point wiring. Permits upright or flush mounting on circuit boards. Has $1\frac{1}{4}$ " gold-plated Dumet leads. Proven glass dielectric and foil are fused together to form single monolithic capacitive element to achieve unexcelled electrical and dimensional stability. These capacitors meet the

environmental and electrical requirements of MIL-C-11272B. Range: at 25° C IR is greater than 100,000 megohms. Voltage rating is 300 WVDC from -55° C to $+125^{\circ}$ C.



TYPE TYO6

Stock No.	Type No.	Cap. pf	Tolerance \pm	1-49	50-99	100-249	250-499	500-999
58F202	TYO6-5R1C	5.1	.25 pf	3.45	3.16	2.44	2.30	1.73
58F203	TYO6-100C	10	.25 pf	2.52	2.31	1.78	1.68	1.26
58F205	TYO6-150J	15	5%					
58F206	TYO6-200J	20	5%					
58F207	TYO6-300J	30	5%					
58F209	TYO6-390J	39	5%					
58F210	TYO6-470J	47	5%					
58F211	TYO6-510J	51	5%	1.29	1.18	.92	.86	.65
58F212	TYO6-560J	56	5%					
58F214	TYO6-680J	68	5%					
58F215	TYO6-820J	82	5%					
58F216	TYO6-910J	91	5%					

Stock No.	Type No.	Cap. pf	Tolerance \pm	1-49	50-99	100-249	250-499	500-999
58F217	TYO6-101J	100	5%	1.29	1.18	.92	.86	.65
58F219	TYO6-121J	120	5%					
58F221	TYO6-151J	150	5%					
58F222	TYO6-201J	200	5%	1.44	1.32	1.02	.96	.72
58F223	TYO6-221J	220	5%					
58F225	TYO6-271J	270	5%					
58F226	TYO6-301J	300	5%					
58F237	TYO6-361J	360	5%					
58F228	TYO6-391J	390	5%	1.62	1.48	1.14	1.08	.81
58F229	TYO6-471J	470	5%					
58F230	TYO6-511J	510	5%					

JFD Trimmers

JFD precision bore solid dielectric Piston Trimmer Capacitors with special anti corrosion metalizing. Meets or exceeds MIL-C-14409B. Glass operate from -55°C to +125°C; quartz, -55°C to +150°C with no derating. Standard, miniature and subminiature sizes for panel mtg. and prt. ct. mtg.

Features: Six patented precision antibacklash drive mechanisms: Hi-Life, Standard panel mount, MCD, Miniature Telescoping, sliding piston and direct traverse. Five dielectric materials and matched metalizing for homogeneous bond of metalizing to dielectric. Low T.C., low loss and inductance. All

have highest level shock and vibration resistance. Highest reliability is assured through industry's most exacting quality control program.

Green Glass "N" prefix units with higher Q increase delta C's 50% over other comparable sized units. Low cost "Y" suffix units combine Hi-Life adjustment mechanism with standard glass dielectric are physically interchangeable with corresponding standard units.

JFD Trimmers have been exclusively selected for the Apollo, Gemini, Minuteman and L.E.M. Programs among a multitude of others.

PANEL MOUNT MINIATURE TANK CIRCUITS

Precision miniature piston capacitor across an air core coil. Patented telescopic tuning for more space economy and faster assembly. Low temperature coefficient, low loss and inductance due to superior construction. High levels of shock and vibration resistance. Size $\frac{9}{16} \times \frac{1}{2} \times \frac{1}{4}$ " with 10-32 x $\frac{1}{4}$ " bushing.



MINIATURE SERIES

JFD Miniature Trimmer Series features exclusive telescoping tuning assembly for miniaturization. Up to 50% savings in length for a given capacitance range. Mechanical stops at both ends of adjustment. Available in glass dielectric and electrically

superior quartz dielectric. $\frac{3}{16}$ " Dia. VC are glass dielectric, MQ are same physical dimensions with quartz dielectric. (*) Panel mount types. (**) Panel mount quartz; (†) Printed ckt. quartz; (‡) Printed ckt. board. PC No.'s available from Newark.

Stock No.	Type	Capacity Range	1-	25-	50-	100-	200-	300-
			24	49	99	199	299	499
19F3161	NVC20G*	8-11.0	4.20	3.80	3.40	3.00	3.00	2.70
19F3162	NVC21G*	8- 5.5	5.80	3.40	3.05	2.65	2.65	2.40
19F3163	NVC22G*	8-18.0	4.80	4.30	3.85	3.35	3.35	3.05
19F3164	NVC23G*	8-23.0	5.40	4.85	4.35	3.80	3.80	3.45
19F3165	NVC24G*	1.0-38.0	6.00	5.40	4.85	4.25	4.25	3.80
19F950	VC20G*	8- 8.5	3.60	3.24	3.24	3.00	2.70	.....
19F951	VC21G*	8- 4.5	3.75	3.37	3.37	3.12	2.81	.....
19F952	VC22G*	8-12.0	4.35	3.91	3.91	3.62	3.26	.....
19F953	VC23G*	8-18.0	4.85	4.18	4.18	3.87	3.49	.....
19F954	VC24G*	1.0-30.0	5.25	4.72	4.72	4.38	3.94	.....
19F1461	VC20GY*	8- 8.5	3.40	3.05	2.70	2.25	2.25	2.15
19F1462	VC21GY*	8- 4.5	3.20	2.95	2.50	2.10	2.10	2.00
19F1463	VC22GY*	8-12.0	3.75	3.40	2.95	2.45	2.45	2.35
19F1464	VC23GY*	8-18.0	4.35	3.95	3.40	2.85	2.85	2.70
19F1465	VC24GY*	1.0-30.0	4.55	4.15	3.60	3.05	3.05	2.90
19F3166	NMQ101**	6- 1.8	5.00	4.50	4.05	3.55	3.55	3.25
19F3167	NMQ103**	6- 5.5	5.60	5.05	4.55	4.00	4.00	3.65
19F3168	NMQ106**	6- 9.5	7.40	6.65	6.00	5.25	5.25	4.75
19F3169	NMQ109**	8-18.0	9.20	8.30	7.45	6.55	6.55	5.85
19F1400	MQ101**	6- 1.8	5.55	4.99	4.99	4.62	4.16	.....
19F1401	MQ103**	6- 5.5	6.15	5.53	5.53	5.12	4.61	.....
19F1402	MQ106**	6- 9.5	7.95	7.15	7.15	6.62	5.96	.....
19F1403	NVC9G‡	8-11.0	3.80	3.40	3.05	2.65	2.65	2.40
19F3171	NVC10G‡	8- 5.5	3.40	3.05	2.75	2.40	2.40	2.15
19F3172	NVC31G‡	8-16.0	4.40	3.95	3.55	3.10	3.10	2.80
19F3173	NVC32G‡	8-23.0	5.00	4.50	4.05	3.55	3.55	3.25
19F3174	NVC43G‡	8-38.0	5.60	5.05	4.55	4.00	4.00	3.65
19F977	VC9G‡	8- 8.5	3.15	2.83	2.83	2.62	2.36	.....
19F979	VC10G‡	8- 4.5	3.45	3.10	3.10	2.87	2.59	.....
19F986	VC31G‡	8-12.0	4.05	3.64	3.64	3.37	3.04	.....

Stk. No.	Type	Cap. mmF		1-24	25-99	100-199	200-299
		min.	max.				
19F1452	LC372	290	850	4.05	3.64	3.37	3.04
19F1453	LC373	230	650				
19F1455	LC375	165	425				

Stock No.	Type	Capacity Range	1-	25-	50-	100-	200-	300-
			24	49	99	199	299	499
19F987	VC32G‡	8-18.0	4.20	3.78	3.78	3.50	3.15	.....
19F988	VC43G‡	8-30.0	4.80	4.32	4.32	4.00	3.60	.....
19F1459	VC9GY‡	.....	3.00	2.75	2.40	2.00	2.00	1.90
19F1460	VC10GY‡	8- 4.5	2.80	2.60	2.20	1.85	1.85	1.75
19F1466	VC31GY‡	8-12.0	3.35	3.05	2.65	2.20	2.20	2.10
19F1468	VC43GY‡	.....	4.15	3.80	3.30	2.80	2.60	2.65
19F3175	NVC9GW‡	8-11.0	3.80	3.40	3.05	2.65	2.65	2.40
19F3176	NVC10GW‡	8- 5.0	3.40	3.05	2.75	2.40	2.40	2.15
19F3177	NVC31GW‡	8-16.0	4.40	3.95	3.55	3.10	3.10	2.80
19F3178	NVC32GW‡	8-23.0	5.00	4.50	4.05	3.55	3.55	3.25
19F3179	NVC43GW‡	8-38.0	5.60	5.05	4.55	4.00	4.00	3.65
19F978	VC9GW‡	8- 8.5	3.15	2.83	2.83	2.62	2.36	.....
19F980	VC10GW‡	8- 4.5	3.45	3.10	3.10	2.87	2.59	.....
19F985	VC31GW‡	8-12.0	4.05	3.64	3.64	3.37	3.04	.....
19F986	VC32GW‡	8-18.0	4.20	3.78	3.78	3.50	3.15	.....
19F987	VC43GW‡	8-30.0	4.80	4.32	4.32	4.00	3.60	.....
19F1469	VC9GWY‡	8- 8.5	3.00	2.75	2.40	2.00	2.00	1.90
19F1470	VC10GWY‡	8- 4.5	2.80	2.60	2.20	1.85	1.85	1.75
19F1471	VC31GWY‡	8-12.0	3.35	3.05	2.65	2.20	2.20	2.10
19F1473	VC43GWY‡	8-30.0	4.15	3.80	3.30	2.80	2.60	2.65
19F3180	NMQ11‡	6- 1.8	4.60	4.15	3.75	3.30	3.30	2.95
19F3181	NMQ113‡	6- 5.5	5.20	4.70	4.20	3.70	3.70	3.35
19F3182	NMQ116‡	6- 9.5	7.00	6.30	5.65	4.95	4.95	4.45
19F3183	NMQ119‡	8-16.0	8.80	7.90	7.10	6.20	6.20	5.60
19F1405	MQ113‡	6- 5.5	5.85	5.26	5.26	4.87	4.39	.....
19F1406	MQ116‡	6- 9.5	7.65	6.88	6.88	6.37	5.74	.....
19F3184	NMQ121‡	6- 1.8	4.60	4.15	3.75	3.30	3.30	2.95
19F3185	NMQ123‡	6- 5.5	5.20	4.70	4.20	3.70	3.70	3.35
19F3186	NMQ126‡	6- 9.5	7.00	6.30	5.65	4.95	4.95	4.45
19F3187	NMQ129‡	8-16.0	8.80	7.90	7.10	6.20	6.20	5.60
19F1408	MQ121‡	6- 1.8	5.25	4.72	4.72	4.37	3.94	.....

PIN-TRIM SERIES



Features sub-miniature design with very high sensitivity. It delivers more capacitance per cubic inch than any other conventional variable piston capacitor plus the advantages of premium reliability and unique adaptability. Special adjustment features 102 turns per inch. Ultra linear tuning assures absolute repeatability. Low inductance for high frequency use with Q factor of 500. In stand-

ard glass (PT) and Green Glass (NPT). A sub-miniature $\frac{1}{8}$ inch diameter unit offering ultra sensitive tuning. Panel Mount types have 3-48 mounting bushings. NPT panel types have 4-48 bushings. Operating temperature -55° to +125°C. Working volts, 500 volts DC. Insulation resistance 10 megohms. Meets MIL-C-14409A Specs. Shpg. wt., 5 oz.

Stock No.	Type	Mmi Max.	L	1-	25-	50-	100-	200-	300-
				24	49	99	199	299	499
19F3188	NPT901	3.0	$\frac{1}{16}$	3.60	3.25	2.90	2.55	2.55	2.30
19F3189	NPT902	4.5	$\frac{1}{16}$	4.00	3.60	3.25	2.85	2.85	2.55
19F3190	NPT903	7.5	$\frac{1}{16}$	4.60	4.15	3.75	3.30	3.30	2.95
19F3191	NPT904	10.5	$\frac{1}{16}$	5.20	4.70	4.20	3.70	3.70	3.35

Stock No.	Type	Mmi Max.	L	1-	25-	50-	100-	200-	300-
				24	49	99	199	299	499
19F3192	NPT911	3.0	$\frac{9}{64}$	3.60	3.25	2.90	2.55	2.55	2.30
19F3193	NPT912	4.5	$\frac{4}{32}$	4.00	3.60	3.25	2.85	2.85	2.55
19F3194	NPT913	7.5	$\frac{5}{64}$	4.60	4.15	3.75	3.30	3.30	2.95
19F3195	NPT914	10.5	$\frac{11}{64}$	5.20	4.70	4.20	3.70	3.70	3.35

PANEL MOUNTING MODELS

Stock No.	Type	Cap. Min.	Mmi Max.	L	1-	25-	50-	100-	200-
					24	49	99	199	299
19F1875	PT901	0.5	2.0	$\frac{1}{16}$	2.55	2.29	2.29	2.12	1.91
19F1876	PT902	0.5	3.0	$\frac{1}{16}$	2.85	2.56	2.56	2.37	2.14

Stock No.	Type	Cap. Min.	Mmi Max.	L	1-	25-	50-	100-	200-
					24	49	99	199	299
19F1877	PT903	0.5	5.0	$\frac{1}{16}$	3.00	2.78	2.70	2.50	2.25
19F1878	PT904	0.5	7.0	$\frac{1}{16}$	3.15	2.83	2.83	2.62	2.36

PRINTED CIRCUIT MODELS

Stock No.	Type	Cap. Min.	Mmi Max.	L	1-	25-	50-	100-	200-
					24	49	99	199	299
19F1879	PT911	0.5	2.0	$\frac{1}{16}$	2.55	2.29	2.29	2.12	1.91
19F1880	PT912	0.5	3.0	$\frac{1}{16}$	2.85	2.56	2.56	2.37	2.14

Stock No.	Type	Cap. Min.	Mmi Max.	L	1-	25-	50-	100-	200-
					24	49	99	199	299
19F1881	PT913	0.5	5.0	$\frac{1}{16}$	3.00	2.78	2.70	2.50	2.25
19F1882	PT914	0.5	7.0	$\frac{1}{16}$	3.15	2.83	2.83	2.62	2.36

Tuners, Capacitors, Inductors JFD

SPLIT STATOR STANDARD PANEL MOUNT SERIES

Designed for application in push-pull R.F. circuits and similar applications. This balanced electrode construction is available in quartz and invar for zero temperature coefficient

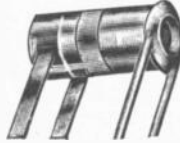


types. The VC-16G, VC-17G and VC18G group are glass dielectric. JFD quality construction throughout. Wt. 5 oz.

Stock No.	Mfg's Type	Plate to Bushing	Plate to Plate	1-24	25-49	50-99	100-199	200-299
19F955	VC17G	0.6-8.5	1.1-4.5	3.60	3.24	3.24	3.00	2.70
19F956	VC18G	0.7-14.0	1.8-7.5	4.65	3.64	3.64	3.38	3.04

MINIATURE SPLIT STATOR SERIES

For use in push-pull radio frequency circuit. Telescoping adjust mechanism allows continuous capacitor tuning with negligible change in size. Meets MIL-C-14409A Specs. Positive mechanical stops at both



ends of adjustment range. Temperature range, -55°C to +125°C. Working voltage 750 V DC. Insulation resistance 10 megohms. Diam. 1/4". Shpg. wt., 5 oz. Panel Mount.

Stock No.	Type	Cap. Min.	Cap. Max.	1-24	25-99	100-199	200-299
19F1904	SP86G	.8	4.2	4.20	3.78	3.50	3.15
19F1905	SP87G	.8	9.0	5.25	4.73	4.38	3.94

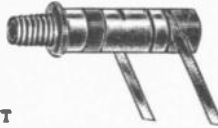
ADJUSTMENT TOOLS

Stk. No.	Type	Application	NET
19F1448	5284	All hex and screw adjustments.	.85
19F1456	7104-1	Screw adjustments. With ferrule.	2.50

Stk. No.	Type	Application	NET
19F1457	7104-4	Hex for sealed units. .50 T/P	2.50
19F1458	7104-5	Screw adjustments.	2.50

JFD LC TUNERS

Combine precision variable piston capacitor with metallized inductor, to provide compact, tunable LC circuit. Offer more circuit in less space, economy, and faster assembly.



PANEL MOUNT

Stk. No.	Type	Min. MC	Max. MC	Size	1-24	25-99	100-199	200-299
19F1427	LC-303	400	725	.640x1/4"	4.65	4.19	3.88	3.49
19F1428	LC-304	275	550	.850x1/4"	4.80	4.32	4.00	3.80
19F1429	LC-306	200	500	1.109x1/4"	4.95	4.46	4.13	3.71

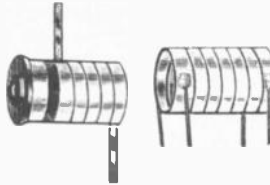
Stk. No.	Type	Min. MC	Max. MC	Size	1-24	25-99	100-199	200-299
19F1430	LC-309	125	375	1.696x1/4"	5.40	4.86	4.50	4.05
19F1869	LC-333	400	725	1.142x1/4"	3.80	3.24	3.00	2.70
19F1870	LC-334	275	550	1.272x1/4"	3.75	3.38	3.13	2.81
19F1871	LC-336	200	500	1.402x1/4"	4.05	3.65	3.38	3.04
19F1872	LC-339	125	375	1.112x1/4"	4.20	3.78	3.50	3.15

PRINTED CIRCUIT

Stk. No.	Type	Min. MC	Max. MC	Size	1-24	25-99	100-199	200-299
19F1433	LC-316	200	500	1.1/2x1/4"	4.80	4.32	4.00	3.60
19F1434	LC-319	125	375	1.456x1/4"	5.25	4.73	4.38	3.94

FIXED METALLIZED INDUCTORS

Precision metallized miniature inductors feature large space economy, fast assembly and reduced weight. The inductor employs a silver film bonded to the glass dielectric. This construction results in a low temperature coefficient of inductance and low distributed capacitance. All leads are made of silver plated copper. High Q over a broad frequency range. All inductors are available in panel or printed circuit types. Temperature: -55°C to +125°C (*)—Q measured at 75.0 MC. (**)—Q measured at 25 MC.



Stock No.	Type	uh ±5%	Q Min.	1-24	25-99	100-199	200-299
19F1894	LF-1P100	1.00	135**	1.95	1.76	1.63	1.46
19F1896	LF-1P200	2.00	180**	2.25	2.02	1.87	1.69

LF-3P SERIES—PANEL MOUNT

19F1474	LF-3P005	.05	170	1.95	1.75	1.62	1.46
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LF-2W SERIES—PRINTED CIRCUIT MOUNT

19F1824	LF-2W010	.10	165	1.89	1.70	1.58	1.42
19F1829	LF-2W020	.20	170				

LF4W SERIES—PRINTED CIRCUIT MOUNT

19F1480	LF-4W005	.05	170				
19F1481	LF-4W016	.16	160	1.89	1.70	1.57	1.42
19F1482	LF-4W025	.25	160				
19F1483	LF-4W050	.50	140				
19F1484	LF-4W080	.80	125				

TYPE SC SEALCAPS

Designed to meet military specs. for missiles, communications, telemetry and test equipment. JFD trimmer, capacitors meet or exceed applicable requirements of spec. MIL-C-14409. Compact-

Ideal for space applications. SC-SCY (glass) QS-NQS (quartz) NSC (0483 Green Glass) miniature (SC, QS) or new Hi-Life design (NSC, NQS, SCY) in (†) panel mount or (*) printed circuit versions. Hi-Life adjustment mechanism has exclusive anti-backlash features and a 500 cycle adjustment life, exceeding Mil-C-

ness. Tuning Sensitivity—multi-turn adjustment. Tuning Linearity—no reversals. Stability.

14409B by 600%.
"Y" series SC interchangeable with SC series with the added feature (Hi-Life mechanism).
NSC has approximately 50% greater delta C than SC series, superior Q and long life adjustment mechanism.

Stock No.	Type	Capacity Range	1-24	25-49	50-99	100-199	200-299	300-499
19F3240	NSC131†	.8-5.5	4.60	4.15	3.75	3.30	3.30	2.95
19F3241	NSC133†	.8-11.0	5.00	4.50	4.05	3.55	3.55	3.25
19F3242	NSC134†	.7-16.0	5.60	5.05	4.55	4.00	4.00	3.65
19F3243	NSC136†	.8-28.0	6.20	5.60	5.05	4.45	4.45	4.05
19F3244	NSC139†	1.0-38.0	6.80	6.10	5.50	4.80	4.80	4.35
19F1412	SC131†	.8-4.5	4.95	4.45	4.45	4.12	3.71	.....
19F1413	SC133†	.8-8.5	4.80	4.32	4.32	4.00	3.60	.....
19F1414	SC134†	.7-12.0	5.40	4.86	4.86	4.50	4.05	.....
19F3245	SC131Y†	.8-4.5	3.80	3.40	3.05	2.65	2.65	2.40
19F3246	SC133Y†	.8-8.5	4.00	3.60	3.25	2.85	2.85	2.55
19F3247	SC134Y†	.7-12.0	4.40	3.95	3.55	3.10	3.10	2.80
19F3248	SC136Y†	.8-18.0	5.00	4.50	4.05	3.55	3.55	3.25
19F3249	SC139Y†	1.0-30.0	5.20	4.70	4.20	3.70	3.70	3.35
19F3250	NQS171†	.6-1.8	7.00	6.30	5.65	4.95	4.95	4.45

Stock No.	Type	Capacity Range	1-24	25-49	50-99	100-199	200-299	300-499
19F3251	NQS173†	.6-5.5	7.60	6.80	6.10	5.30	5.30	4.80
19F3252	NQS176†	.6-9.5	9.40	8.45	7.65	6.70	6.70	6.10
19F3253	NQS179†	.8-16.0	11.20	10.10	9.10	8.00	8.00	7.30
19F1855	QS171†	.6-1.8	7.65	6.88	6.88	6.37	5.74	.....
19F1856	QS173†	.6-5.5	8.25	7.42	7.42	6.87	6.19	.....
19F3254	NQS181*	.6-1.8	7.00	6.70	6.65	6.45	6.45	4.95
19F3255	NQS183*	.6-5.5	7.63	6.80	6.10	5.30	5.30	4.80
19F3256	NQS186*	.6-9.5	9.40	8.45	7.65	6.70	6.70	6.10
19F3257	NQS189*	.8-16.0	11.20	10.10	9.10	8.00	8.00	7.30
19F3258	NQS191*	.6-1.8	7.00	6.30	5.65	4.95	4.95	4.45
19F3259	NQS193*	.6-5.5	7.60	6.80	6.10	5.30	5.30	4.80
19F3260	NQS196*	.6-9.5	9.40	8.45	7.65	6.70	6.70	6.10
19F3261	NQS199*	.8-16.0	11.20	10.10	9.10	8.00	8.00	7.30
19F1864	QS193*	.6-5.5	7.80	7.02	7.02	6.50	5.85	.....

JFD Capacitors

(Continued) — SC SEALCAP SERIES

Stock No.	Type	Capacity Range	1-24	25-49	50-99	100-199	200-299	300-499
19F3100	NSC141*	.8- 5.5	4.60	4.15	3.75	3.30	3.30	2.95
19F3101	NSC143*	.8-11.0	5.00	4.50	4.05	3.55	3.55	3.25
19F3102	NSC144*	.8-16.0	5.60	5.05	4.55	4.00	4.00	3.65
19F3103	NSC146*	.8-23.0	6.20	5.60	5.05	4.45	4.45	4.05
19F3104	NSC149*	.8-38.0	6.80	6.10	5.50	4.80	4.80	4.35
19F3105	NSC151*	.8- 5.5	4.60	4.15	3.75	3.30	3.30	2.95
19F3106	NSC153*	.8-11.0	5.00	4.50	4.05	3.55	3.55	3.25
19F3107	NSC154*	.8-16.0	5.60	5.05	4.55	4.00	4.00	3.65
19F3108	NSC156*	.8-23.0	6.20	5.60	5.05	4.45	4.45	4.05
19F3109	NSC159*	.8-38.0	6.80	6.10	5.50	4.80	4.80	4.35
19F1422	SC151*	.8- 4.5	4.95	4.45	4.45	4.12	3.71	.....
19F1423	SC153*	.8- 8.5	4.80	4.32	4.32	4.00	3.60	.....
19F1424	SC154*	.8-12.0	5.40	4.86	4.86	4.50	4.05	.....

Stock No.	Type	Capacity Range	1-24	25-49	50-99	100-199	200-299	300-499
19F1426	SC159*	.8-30.0	6.60	5.94	5.94	5.50	4.95	.....
19F3110	SC151Y*	.8- 4.5	3.80	3.40	3.05	2.65	2.65	2.40
19F3111	SC153Y*	.8- 8.5	4.00	3.60	3.25	2.85	2.85	2.55
19F3112	SC154Y*	.8-12.0	4.40	3.95	3.55	3.10	3.10	2.80
19F3113	SC156Y*	.8-18.0	5.00	4.50	4.05	3.55	3.55	3.25
19F3114	SC159Y*	.8-30.0	5.20	4.70	4.20	3.70	3.70	3.35
19F1417	SC141*	.8- 4.5	4.95	4.45	4.45	4.12	3.71	.....
19F1419	SC144*	.8-12.0	5.48	4.86	4.86	4.50	4.05	.....
19F1421	SC149*	.8-30.0	6.60	5.94	5.94	5.50	4.95	.....
19F3115	SC141Y*	.8- 4.5	3.80	3.40	3.05	2.65	2.65	2.40
19F3116	SC143Y*	.8- 8.5	4.00	3.60	3.25	2.85	2.85	2.55
19F3117	SC144Y*	.8-12.0	4.40	3.95	3.55	3.10	3.10	2.80
19F3118	SC146Y*	.8-18.0	5.00	4.50	4.05	3.55	3.55	3.25
19F3119	SC149Y*	.8-30.0	5.20	4.70	4.20	3.70	3.70	3.35

MAX-C SEALED CAP CAPACITORS—MIL-C 14409B

Max-C embedded electrode technique gives three times more capacity than standard metalizing in standard glass. Sealed cap construction for (*) Panel Mount or (†) Printed Circuit types † is available in three series: MC, "Y" series and NMC.

Stock No.	Type	Capacity Range	1-24	25-49	50-99	100-199	200-299	300-499
19F3120	NMC601*	1.0- 16.0	10.20	9.20	8.30	7.30	7.30	6.60
19F3121	NMC603*	1.0- 36.0	10.50	9.45	8.50	7.45	7.45	6.75
19F3122	NMC604*	1.0- 52.0	10.80	9.70	8.70	7.60	7.60	6.90
19F3123	NMC606*	1.0- 14.0	11.40	10.25	9.25	8.10	8.10	7.40
19F3124	NMC609*	1.0-120.0	12.60	11.35	10.20	8.95	8.95	8.10
19F1840	MC601*	1.0- 14.0	10.20	9.18	8.18	7.50	7.65	.....
19F1841	MC603*	1.0- 28.0	10.50	9.45	8.45	7.75	7.87	.....
19F1842	MC604*	1.0- 42.0	10.80	9.72	8.72	9.00	8.10	.....
19F1843	MC606*	1.0- 60.0	11.40	10.26	9.26	9.50	8.55	.....
19F1844	MC609*	1.0- 90.0	12.60	11.34	11.34	10.50	9.45	.....
19F3125	MC601Y*	1.0- 14.0	6.20	5.60	5.05	4.45	4.45	4.05
19F3126	MC603Y*	1.0- 28.0	6.50	5.85	5.25	4.60	4.60	4.20
19F3127	MC604Y*	1.0- 42.0	6.80	6.10	5.50	4.80	4.80	4.35
19F3128	MC606Y*	1.0- 60.0	7.40	6.65	6.00	5.25	5.25	4.75
19F3129	MC609Y*	1.0- 90.0	8.60	7.75	7.00	6.15	6.15	5.50
19F3130	MC611Y*	1.0- 14.0	6.20	5.60	5.05	4.45	4.45	4.05
19F3131	MC613Y†	1.0- 28.0	6.50	5.85	5.25	4.60	4.60	4.20
19F3132	MC614Y†	1.0- 42.0	6.80	6.10	5.50	4.80	4.80	4.35
19F3133	MC616Y†	1.0- 60.0	7.40	6.65	6.00	5.25	5.25	4.75
19F3134	MC619Y†	1.0- 90.0	8.60	7.75	7.00	6.15	6.15	5.50
19F3135	NMC621†	1.0- 16.0	10.20	9.20	8.30	7.30	7.30	6.60
19F3136	NMC623†	1.0- 36.0	10.50	9.45	8.50	7.45	7.45	6.75

NOTE: The above capacitance ranges are also available in Super Max-C design: MCD and NMCD types. MCD drive mechanism with 10,000 cycle adjustment life is a precision, direct traverse mechanism wherein the screw rotates, re-

"Y" series reduces Max-C, has added advantage of Hi-Life mechanism. "N" series has approximately 30% greater Δ C and Hi-Life mechanism.

Stock No.	Type	Capacity Range	1-24	25-49	50-99	100-199	200-299	300-499
19F3137	NMC624†	1.0- 52.0	10.80	9.70	8.70	7.60	7.60	6.90
19F3138	NMC626†	1.0- 75.0	11.40	10.25	9.25	8.10	8.10	7.40
19F3139	NMC629†	1.0-120.0	12.60	11.35	10.20	8.95	8.95	8.10
19F1850	MC621†	1.0- 14.0	10.20	9.18	8.18	8.50	7.65	.....
19F1851	MC623†	1.0- 28.0	10.50	9.45	8.45	7.75	7.87	.....
19F1852	MC624†	1.0- 42.0	10.80	9.72	8.72	9.00	8.10	.....
19F1853	MC626†	1.0- 60.0	11.40	10.26	9.26	9.50	8.55	.....
19F1854	MC629†	1.0- 90.0	12.60	11.34	11.34	10.50	9.45	.....
19F3140	MC621Y†	1.0- 14.0	6.20	5.60	5.05	4.45	4.45	4.05
19F3141	MC623Y†	1.0- 28.0	6.50	5.85	5.25	4.60	4.60	4.20
19F3142	MC624Y†	1.0- 42.0	6.80	6.10	5.50	4.80	4.80	4.35
19F3143	MC626Y†	1.0- 60.0	7.40	6.65	6.00	5.25	5.25	4.75
19F3144	MC629Y†	1.0- 90.0	8.60	7.76	7.00	6.15	6.15	5.50
19F3145	NMC611†	1.0- 16.0	10.20	9.20	8.30	7.30	7.30	6.60
19F3146	NMC613†	1.0- 36.0	10.50	9.45	8.50	7.45	7.45	6.75
19F3147	NMC614†	1.0- 52.0	10.80	9.70	8.70	7.60	7.60	6.90
19F3148	NMC616†	1.0- 75.0	11.40	10.25	9.25	8.10	8.10	7.40
19F3149	NMC619†	1.0-120.0	12.60	11.35	10.20	8.95	8.95	8.10
19F1845	MC611†	1.0- 14.0	10.20	9.18	8.18	8.50	7.65	.....
19F1846	MC613†	1.0- 28.0	10.50	9.45	8.45	7.75	7.87	.....
19F1847	MC614†	1.0- 42.0	10.80	9.72	8.72	9.00	8.10	.....

maining in a fixed position throughout adjustment range. MCD and NMCD670 series with extended shaft are ideally suited for knob tuning. Same electrical characteristics as above.

STANDARD PANEL MOUNT SERIES



JFD Precision capacitor for all panel mounting purposes. Available in glass, quartz and new green glass "N" prefin with new improved long life adjustment. VC99 is designed for high voltage and power RF applications. Has closed end to prevent

arcing at high altitudes. Rated at 2500 WV, DC. Test 5 KVDS. All units 1/4"—Quartz 5/16" Dia. by approximately 2" long. *Standard panel mount. †Standard panel mt. quartz.

Stock No.	Mfg's Type	Mmf Min.	Max. Mmf	1-24	25-49	50-99	100-199	200-299	300-499
19F1959	VC25G*	.5	3	1.74	1.55	1.35	1.14	1.14	1.09
19F973	VC1G*	.7	9	2.55	2.29	2.29	2.12	1.91	.....
19F1953	VC1GC*	.7	9	1.66	1.50	1.34	1.12	1.12	1.07
19F1954	VC28G*	.7	9	1.74	1.55	1.35	1.14	1.14	1.09
19F981	VC11G	.6	14	2.85	2.56	2.56	2.37	2.14	.....
19F1956	VC27G*	.8	18	1.80	1.60	1.42	1.20	1.20	1.12
19F1955	VC4G*	.8	18	1.70	1.53	1.35	1.13	1.13	1.08
19F963	VC5G*	.8	18	3.00	2.70	2.70	2.50	2.25	.....
19F1957	VC28G*	.8	30	2.00	1.80	1.55	1.30	1.30	1.22
19F983	VC30G*	.8	30	3.45	3.11	3.11	2.88	2.59	.....

LOW COST DIRECT TRAVERSE TRIMMERS

Direct Traverse Trimmers by JFD are designed for use in high quality commercial or instrument applications and communications equipment. Uses direct traverse mechanism with expanding self-aligning spring-clip piston. Also features standard panel

Stock No.	Type	Mmf Min.	Max. Mmf	1-24	25-49	50-99	100-199	200-299	300-499
19F3150	NVC25G*	0.5	4.5	2.50	2.25	2.00	1.75	1.75	1.60
19F3151	NVC26G*	0.8	13.0	2.60	2.35	2.10	1.85	1.85	1.65
19F3152	NVC27G*	1.0	24.0	3.00	2.70	2.40	2.10	2.10	1.85
19F3153	NVC28G*	1.0	40.0	3.40	3.05	2.75	2.40	2.40	2.15
19F961	VC2†	0.7	4.5	4.35	3.91	3.91	3.62	3.26	.....
19F970	VC5†	0.6	6.0	5.25	4.72	4.72	4.37	3.94	.....
19F971	VC11†	0.8	10.0	6.00	5.40	5.40	5.00	4.50	.....
19F972	VC12†	9.0	21.0	7.95	7.15	7.15	6.62	5.90	.....
19F3154	VC99†	0.8	10.0	8.55	7.69	7.69	7.12	6.41	.....

mount drive mechanism. With glass or ceramic dielectric.

*Indicates printed circuit types. †Ceramic dielectric.

Stk. No.	Type	Cap. Mmf. Max. Min.	1-24	25-99	100-199	200-299
19F1948	VC54G	0.8-13.0	1.85	1.48	1.37	1.24
19F1949	VC55G†	5.0-50.0	1.95	1.73	1.62	1.48

MINIATURE PANEL MOUNT SERIES

Standard Panel Mount using smaller diameter glass (3/4").

Stock No.	Type	L	1-24	25-49	50-99	100-199	200-299
19F3155	VC74	19/32	2.40	2.16	2.16	2.00	1.80
19F3262	VC75	19/32	2.40	2.16	2.16	2.00	1.80

Available for Panel Mount or Printed Circuit Board.

Stock No.	Type	L	1-24	25-49	50-99	100-199	200-299
19F3156	NVC74	49/64	3.00	2.70	2.40	2.40	2.10
19F3263	NVC75	49/64	3.00	2.70	2.40	2.40	2.10

SUBMINIATURE VC900 SERIES

Larger range of capacity adjustment in a smaller size than previously available with ±50 parts/million Temp. Coefficient.

Stock No.	Type	Cap. Mmf. Max. Min.	L	1-24	25-49	50-99	100-199	200-299	300-499
19F3157	VC950	1-10.0 PF	27/64	4.20	3.80	3.40	3.00	2.70	.....
19F3158	VC951	1-16.0 PF	15/32	6.20	5.60	5.05	4.45	4.55	.....

VC960-961 green glass dielectric higher "Q"—expanded range 1 1/4" Dia. all units.

Stock No.	Type	Cap. Mmf. Max. Min.	L	1-24	25-49	50-99	100-199	200-299	300-499
19F3159	VC960	1-10 PF	17/64	3.80	3.40	3.05	2.65	2.40	.....
19F3160	VC961	1-16 PF	5/16	5.80	5.22	4.70	4.15	3.70	.....

Capacitors ARCO - ELMENCO



DUR-MICA CAPACITORS

The Dur-Mica is a silvered mica capacitor with a plastic coating. It combines excellence in stability, dielectric strength, "Q", dielectric constant, chemical inertness, moisture resistance and puncture resistance. Operating temperature range -55°C to 150°C. Standard tolerance ±5% except (*) Min. tolerance ±1.0 Pf and (**) Min. tolerance ±0.5.

Shpg. wt., 1 oz. except DM-10, 1/2 ounce.

All ELMENCO dipped mica capacitors meet or exceed requirements set forth in MIL-C-5C specifications. Portions of the ELMENCO DM series are the specific values and case sizes tabulated in the MIL-C-5/18 detail specification.

MIL Type	Cap. Mmf	Elmenco
CM05	5-300	DM15
CM06	430-4700	DM19
CM07	5,100-20,000	DM30
CM08	22,000-62,000	DM42

TYPE DM-10 DCWV 500

Stk. No.	Type	Mmf	1-24	25-99	100-499	500-999	1000-up
14F1150	DM10-010	1*					
14F1151	DM10-020	2*	.18	.16	.11	.09	.081
14F1152	DM10-030	3*					
14F1153	DM10-050K	5**					
14F1154	DM10-100	10					
14F1155	DM10-120	12	.27	.24	.16	.135	.121
14F1156	DM10-150	15					
14F1157	DM10-180	18					
14F1158	DM10-200	20					
14F1159	DM10-220	22					
14F1160	DM10-240	24					
14F1161	DM10-270	27					
14F1162	DM10-300	30	.23	.21	.14	.117	.105
14F1163	DM10-330	33					
14F1164	DM10-360	36					
14F1165	DM10-390	39					
14F1166	DM10-430	43					
14F1167	DM10-470	47					
14F1168	DM10-500	50					
14F1169	DM10-510	51					
14F1170	DM10-560	56					
14F1171	DM10-620	62					
14F1172	DM10-680	68	.26	.24	.16	.132	.119
14F1173	DM10-750	75					
14F1174	DM10-820	82					
14F1175	DM10-910	91					
14F1176	DM10-101	100					
14F1177	DM10-111	110					
14F1178	DM10-121	120	.30	.27	.18	.15	.135
14F1179	DM10-131	130	.30	.27	.18	.15	.135
14F1180	DM10-151	150	.33	.30	.20	.185	.149
14F1182	DM10-181	180	.40	.36	.24	.198	.179
14F1183	DM10-201	200	.40	.36	.24	.198	.179
14F1184	DM10-221	220	.43	.39	.26	.216	.195
14F1185	DM10-241	240	.46	.42	.28	.231	.208
14F1186	DM10-251	250	.46	.42	.28	.231	.208

TYPE DM-10 DCWV 300

14F1187	DM10-271	270	.46	.42	.28	.231	.208
14F1188	DM10-301	300	.50	.45	.30	.249	.225

TYPE DM-10 DCWV 100

14F1189	DM10-331	330	.50	.45	.30	.249	.225
14F1190	DM10-361	360	.53	.48	.32	.264	.238
14F1200	DM10-391	390	.56	.51	.34	.282	.254

TYPE DM-15 DCWV 500 except (†) 100 (‡) 300

14F549	DM15-010	1*					
14F550	DM15-020	2*					
14F551	DM15-030	3*					
14F552	DM15-050	5*					
14F553	DM15-100	10					
14F554	DM15-120	12					
14F555	DM15-150	15					
14F556	DM15-180	18					
14F557	DM15-200	20					
14F558	DM15-220	22					
14F559	DM15-240	24					
14F560	DM15-270	27					
14F561	DM15-300	30					
14F562	DM15-330	33	.17	.15	.10	.084	.076
14F563	DM15-360	36					
14F564	DM15-390	39					
14F565	DM15-430	43					
14F566	DM15-470	47					
14F567	DM15-500	50					
14F568	DM15-510	51					
14F569	DM15-560	56					
14F570	DM15-620	62					
14F571	DM15-680	68					
14F572	DM15-750	75					
14F573	DM15-820	82					
14F574	DM15-910	91					
14F575	DM15-101	100					
14F576	DM15-111	110	.20	.18	.12	.099	.09
14F577	DM15-121	120	.20	.18	.12	.099	.09
14F578	DM15-131	130	.20	.18	.12	.099	.09
14F579	DM15-151	150	.20	.18	.12	.099	.09
14F580	DM15-161	160	.23	.21	.14	.117	.105
14F581	DM15-181	180	.23	.21	.14	.117	.105

(Continued on next Column)

TYPE DM-15 DCWV 500 (Continued)

Stk. No.	Type	Mmf	1-24	25-99	100-499	500-999	1000-up
14F582	DM15-201	200	.23	.21	.14	.117	.105
14F583	DM15-221	220	.26	.24	.16	.132	.119
14F584	DM15-241	240	.26	.24	.16	.132	.119
14F585	DM15-251	250	.28	.24	.16	.132	.119
14F586	DM15-271	270	.30	.27	.18	.15	.135
14F587	DM15-301	300	.30	.27	.18	.15	.135
14F588	DM15-331	330	.33	.30	.20	.165	.149
14F589	DM15-361	360	.33	.30	.20	.165	.149
14F590	DM15-391	390	.37	.33	.22	.183	.165
14F591	DM15-431	430	.37	.33	.22	.183	.165
14F592	DM15-471	470	.40	.36	.24	.198	.179
14F593	DM15-501	500	.40	.36	.24	.198	.179
14F594	DM15-511	510	.40	.36	.24	.198	.179
14F595	DM15-561	560†	.43	.39	.26	.216	.195
14F596	DM15-621	620†	.46	.42	.28	.231	.208
14F597	DM15-681	680†	.50	.45	.30	.249	.225
14F598	DM15-751	750†	.53	.48	.32	.264	.238
14F599	DM15-821	820†	.56	.51	.34	.282	.254
14F1116	DM15-911	910†	.63	.57	.38	.315	.284
14F1117	DM15-102	1000†	.66	.59	.40	.33	.297

TYPE DM-19 DCWV 500

Stk. No.	Type	Mmf	1-24	25-99	100-499	500-999	1000-up
14F450	DM19-101	100	.17	.15	.10	.084	.076
14F452	DM19-121	120					
14F457	DM19-201	200	.20	.18	.12	.099	.09
14F458	DM19-221	220					
14F459	DM19-241	240	.23	.21	.14	.117	.105
14F460	DM19-251	250	.23	.21	.14	.117	.105
14F461	DM19-271	270	.26	.24	.16	.132	.119
14F462	DM19-301	300	.26	.24	.16	.132	.119
14F463	DM19-331	330	.26	.24	.16	.132	.119
14F464	DM19-361	360	.30	.27	.18	.15	.135
14F465	DM19-391	390	.30	.27	.18	.15	.135
14F466	DM19-431	430	.30	.27	.18	.15	.135
14F467	DM19-471	470	.33	.30	.20	.165	.149
14F468	DM19-501	500	.33	.30	.20	.165	.149
14F469	DM19-511	510	.33	.30	.20	.165	.149
14F470	DM19-561	560	.37	.33	.22	.183	.165
14F471	DM19-621	620	.37	.33	.22	.183	.165
14F472	DM19-681	680	.40	.36	.24	.198	.179
14F473	DM19-751	750	.40	.36	.24	.198	.179
14F474	DM19-821	820	.40	.36	.24	.198	.179
14F477	DM19-112	1100	.46	.42	.28	.231	.208
14F478	DM19-122	1200	.50	.45	.30	.249	.225
14F479	DM19-132	1300	.53	.48	.32	.264	.238
14F480	DM19-152	1500	.56	.51	.34	.282	.254
14F481	DM19-162	1600	.59	.54	.36	.297	.268
14F482	DM19-182	1800	.66	.59	.40	.33	.297
14F483	DM19-202	2000	.73	.65	.44	.363	.327
14F484	DM19-222	2200	.79	.71	.48	.396	.357
14F1201	DM19-242	2400	.86	.78	.52	.429	.387
14F1202	DM19-252	2500	.89	.81	.54	.447	.403
14F1203	DM19-272	2700	.92	.83	.54	.462	.416
14F1204	DM19-302	3000	.99	.89	.59	.495	.448
14F1205	DM19-332	3300	1.06	.95	.63	.528	.478
14F1206	DM19-362	3600	1.12	1.01	.67	.561	.505
14F1207	DM19-392	3900	1.19	1.07	.71	.594	.535
14F1208	DM19-432	4300	1.25	1.13	.75	.627	.565
14F1209	DM19-472	4700	1.32	1.19	.79	.66	.596
14F1210	DM19-502	5000	1.39	1.25	.83	.693	.624
14F1211	DM19-512	5100	1.39	1.25	.83	.693	.624

TYPE DM-20 DCWV 500

14F601	DM20-751	750	.33	.30	.20	.165	.149
14F603	DM20-911	910	.37	.33	.22	.183	.165
14F604	DM20-102	1000	.40	.36	.24	.198	.179
14F607	DM20-132	1300	.46	.42	.28	.231	.208
14F608	DM20-152	1500	.50	.45	.30	.249	.225
14F610	DM20-182	1800	.59	.54	.36	.297	.26

ARCO - ELMENCO Capacitors

TYPE CM-15 MINIATURE SILVER MICAS



Smallest molded silver micas made. In low-loss phenolic cases, $\frac{1}{2}$ by $\frac{1}{2}$ by $\frac{3}{16}$ in. Standard tolerance $\pm 5\%$; tolerances of $\pm 2\%$

and $\pm 1\%$ available on special order. All are 500 volts DC working. *Closest tolerance ± 5 mmf. Wt., 1 oz.

Stk. No.	Mil. No.	Mmf.	1-24	25-99	100-499	500-999	1000-up
14F650*	C010M	1					
14F651*	C020M	2					
14F652*	C030M	3					
14F653*	C050K	5					
14F654	C100	10					
14F655	C120J	12					
14F656	C150J	15					
14F657	C180J	18					
14F658	C200J	20					
14F659	C220J	22					
14F660	E240J	24					
14F661	E270J	27					
14F662	E300J	30	.18	.16	.11	.09	.081
14F663	E330J	33					
14F664	E360J	36					
14F665	E390J	39					
14F666	E430J	43					
14F667	E470J	47					
14F668	E500J	50					
14F669	E510J	51					
14F670	E560J	56					
14F671	E620J	62					
14F672	E680J	68					

Stk. No.	Mil.No.	Mmf.	1-24	25-99	100-499	500-999	1000-up
14F673	E750J	75	.18	.16	.12	.090	.081
14F674	E820J	82	.18	.16	.12	.090	.081
14F675	E910J	91	.18	.16	.12	.090	.081
14F676	E101J	100	.18	.16	.12	.090	.081
14F677	E111J	110	.21	.19	.13	.105	.095
14F678	E121J	120	.21	.19	.13	.105	.095
14F679	E131J	130	.21	.19	.13	.105	.095
14F680	E151J	150	.21	.19	.13	.105	.095
14F681	E161J	160	.24	.22	.14	.120	.108
14F682	E181J	180	.24	.22	.14	.120	.108
14F683	E201J	200	.24	.22	.14	.120	.108
14F684	E221J	220	.27	.24	.16	.140	.112
14F685	E241J	240	.27	.24	.16	.140	.112
14F686	E251J	250	.27	.24	.16	.140	.112
14F687	E271J	270	.30	.27	.18	.150	.135
14F688	E301J	300	.30	.27	.18	.150	.135
14F689	E331J	330	.33	.30	.20	.165	.149
14F690	E361J	360	.36	.32	.22	.180	.162
14F691	E391J	390	.39	.35	.23	.195	.176
14F692	E431J	430	.39	.35	.24	.195	.176
14F693	E471J	470	.42	.38	.25	.210	.189
14F694	E501J	500	.42	.38	.25	.210	.189
14F695	E511J	510	.42	.38	.25	.210	.189

MOLDED SILVERED MICA CAPACITORS

Manufactured in accordance with MIL-C-5 specifications and EIA Specification RS-153. Color coded in accordance

with MIL-C-5. Temp. Range: -55°C to 85°C . Vibration frequency: 10 to 2000 cps. $\pm 5\%$ tolerance.

SILVERED TYPE CM19 & CM20 500 VDCW 25/32x7/16x7/32 in.

Stk. No.	MIL No.	Mmf.	1-24	25-99	100-499	500-999	1000-up
14F865	C101J	100					
14F866	C111J	110					
14F867	C121J	120					
14F868	C131J	130					
14F869	C151J	150	.21	.19	.13	.105	.095
14F870	C161J	160					
14F871	C181J	180					
14F872	D201J	200					
14F873	D221J	220					
14F874	D241J	240	.24	.22	.14	.120	.108
14F875	D251J	250	.24	.22	.14	.120	.108
14F876	D271J	270	.24	.22	.14	.120	.108
14F877	D301J	300	.24	.22	.14	.120	.108
14F878	D331J	330	.24	.22	.14	.120	.108
14F879	D361J	360	.24	.22	.14	.120	.108
14F880	D391J	390	.27	.24	.16	.135	.122
14F881	D431J	430	.27	.24	.16	.135	.122
14F882	D471J	470	.27	.24	.16	.135	.122
14F883	D501J	500	.30	.27	.18	.150	.135
14F884	D511J	510	.30	.27	.18	.150	.135
14F885	D561J	560	.30	.27	.18	.150	.135
14F886	D621J	620	.33	.30	.20	.165	.149
14F887	D681J	680	.36	.32	.22	.180	.162
14F888	D751J	750	.36	.32	.22	.180	.162
14F889	D821J	820	.39	.35	.23	.195	.176
14F890	D911J	910	.42	.38	.25	.210	.189
14F891	E102J	1000	.42	.38	.25	.210	.189
14F892	E112J	1100	.45	.41	.27	.225	.203
14F893	E122J	1200	.48	.43	.29	.24	.216
14F894	E132J	1300	.48	.43	.29	.24	.216
14F895	E152J	1500	.51	.46	.31	.255	.230
14F896	E162J	1600	.51	.46	.31	.255	.230
14F897	E182J	1800	.54	.49	.32	.27	.243
14F898	E202J	2000	.58	.53	.33	.285	.255

SILVERED TYPE CM30 13/16 x 13/16 x 9/32

Stk. No.	Mil.No.	Mmf.	1-24	25-99	100-499	500-999	1000-up
14F903	E511J	510	.33	.30	.20	.165	.149
14F904	E561J	560	.36	.32	.22	.18	.162
14F905	E621J	620	.36	.32	.22	.18	.162
14F906	E681J	680	.39	.35	.23	.195	.176
14F907	E751J	750	.39	.35	.23	.195	.176
14F908	E821J	820	.42	.38	.25	.21	.189
14F910	E911J	910	.42	.38	.25	.21	.189
14F911	E102J	1000	.45	.41	.27	.225	.203
14F912	E112J	1100	.45	.41	.27	.225	.203
14F914	E132J	1300	.48	.42	.29	.24	.216
14F915	E152J	1500	.51	.46	.31	.255	.230
14F916	E162J	1600	.51	.46	.31	.255	.230
14F918	E202J	2000	.60	.54	.36	.30	.270
14F919	E222J	2200	.66	.59	.40	.33	.297
14F920	E242J	2400	.72	.65	.43	.36	.324
14F921	E252J	2500	.72	.65	.43	.36	.324
14F922	E272J	2700	.78	.70	.47	.39	.351
14F923	E302J	3000	.84	.76	.50	.42	.378
14F924	E332J	3300	.90	.81	.54	.45	.405
14F925	E362J	3600	.96	.86	.58	.48	.432
14F926	E392J	3900	1.02	.92	.61	.51	.459
14F927	E432J	4300	1.08	.97	.72	.54	.486
14F929	E502J	5000	1.20	1.08	.72	.60	.54
14F930	E512J	5100	1.20	1.08	.72	.60	.54
14F931	E562J	5600	1.26	1.13	.78	.66	.597

TYPE 30 MICA PADDERS



Made of the finest quality clear India ruby mica. Phosphor bronze adjusting plates assure permanent resilience and freedom from mechanical fatigue. All parts are heavily plated; mica film completely enclosed. Rated 500 volts DC flash. 250 WVDC. Size $\frac{7}{8} \times 1\frac{1}{8}$ in. Shpg. wt., 3 oz.

Stk. No.	Type	Plates	Range Mmf.	1-24	25-99	100-499
14F804	302	2	130-15	.63	.58	.376
14F805	303	3	340-65	.66	.60	.40
14F806	304	4	550-100	.72	.65	.432
14F807	305	5	760-190	.78	.76	.47
14F808	306	6	970-275	.84	.71	.504
14F809	307	7	1180-350	.90	.81	.54
14F810	308	8	1390-450	.96	.86	.576
14F811	309	9	1600-550	1.02	.92	.612
14F812	310	10	1890-650	1.08	.98	.648
14F813	311	11	2110-780	1.17	1.05	.702
14F815	313	13	2605-1150	1.29	1.16	.774
14F816	314	14	2830-1300	1.38	1.24	.828
14F817	315	15	3055-1400	1.47	1.32	.882

ARCO DUR-MICA KITS

Individual clear plastic boxes, labeled for easy handling. Type CM-15. Kit # 1. Contains one each of 46 capacitors. Values: 1 mmf.—510 mmf. Shpg. wt. $\frac{1}{4}$ lbs. **14F830. NET 45.00**
Type DM-15. Kit # 10. Five each of 51 capacitors. Values: 1 mmf.—820 mmf. Tol. $\pm 5\%$. Shpg. wt., $\frac{1}{2}$ lbs. **14F840. NET 57.00**

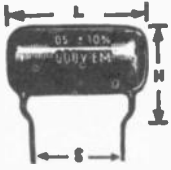
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Capacitors ARCO - ELMENCO

DP TUBULARS

DP Tubulars are Mylar paper dielectric non-inductively wound and vacuum dipped to obtain solid impregnation and rugged moisture-resistant coat. Leads are radial and crimped to facilitate use in printed circuits. Will operate at 125°C at full rated voltage. Leads are tinned copper #20 gauge and are 1 1/2" min. below the crimp. Standard tolerance is ±10%.



100 DCWV

Stk. No.	Type	Mid.	1-24	25-99	100-499	500-999	1000-up
14F1000	1DP-1-502	.005					
14F1001	1DP-1-602	.006					
14F1002	1DP-1-682	.0068					
14F1003	1DP-1-752	.0075					
14F1004	1DP-1-103	.01	.18	.16	.108	.09	.081
14F1005	1DP-1-153	.015					
14F1006	1DP-1-203	.02					
14F1007	1DP-1-223	.022					
14F1008	1DP-1-253	.025					
14F1009	1DP-1-303	.03					
14F1010	1DP-1-333	.033					
14F1011	1DP-1-403	.04					
14F1012	1DP-2-473	.047					
14F1013	1DP-2-503	.05					
14F1014	1DP-2-563	.056	.21	.19	.126	.105	.095
14F1015	1DP-2-683	.068					
14F1016	1DP-2-753	.075					
14F1017	1DP-2-104	.1					
14F1018	1DP-3-154	.15	.24	.22	.144	.12	.108
14F1019	1DP-3-204	.2	.27	.24	.162	.135	.122
14F1020	1DP-3-224	.22	.27	.24	.162	.135	.122
14F1021	1DP-3-254	.25	.30	.27	.18	.15	.135

200 DCWV

14F1022	2DP-3-104	.1	.21	.19	.126	.105	.095
14F1023	2DP-3-154	.15	.24	.22	.144	.12	.108
14F1024	2DP-4-204	.2	.27	.24	.162	.135	.122
14F1025	2DP-4-224	.22	.27	.24	.162	.135	.122
14F1026	2DP-4-254	.25	.30	.27	.18	.15	.135
14F1027	2DP-5-334	.33	.36	.32	.216	.18	.162
14F1028	2DP-5-474	.47	.45	.41	.27	.225	.203
14F1029	2DP-5-504	.5	.45	.41	.27	.225	.203

400 DCWV

14F1030	4DP-1-103	.01	.15	.14	.09	.075	.068
14F1031	4DP-1-153	.015					
14F1032	4DP-2-203	.02					
14F1033	4DP-2-223	.022					
14F1034	4DP-2-253	.025					
14F1035	4DP-2-303	.03	.18	.16	.108	.09	.081
14F1036	4DP-2-333	.033					
14F1037	4DP-3-403	.04					
14F1038	4DP-3-473	.047					
14F1039	4DP-3-503	.05	.21	.19	.126	.105	.095
14F1040	4DP-3-563	.056					
14F1041	4DP-3-683	.068	.24	.22	.144	.12	.108
14F1042	4DP-3-753	.075					
14F1043	4DP-3-104	.1					
14F1044	4DP-4-154	.15	.27	.24	.162	.135	.122
14F1045	4DP-4-204	.2	.33	.30	.198	.165	.149
14F1046	4DP-5-224	.22	.33	.30	.198	.165	.149
14F1047	4DP-5-254	.25	.36	.32	.216	.18	.162
14F1048	4DP-5-274	.27	.36	.32	.216	.18	.162

600 DCWV

14F1049	6DP-1-102	.001	.15	.14	.09	.075	.068
14F1050	6DP-1-122	.0012					
14F1051	6DP-1-152	.0015					
14F1052	6DP-1-202	.002					
14F1053	6DP-1-222	.0022					
14F1054	6DP-1-252	.0025					



TYPE 48 MICA TRIMMERS

Stk. No.	Type	Pts.	Range Mmf.	1-24	25-99	100-up
14F818	480	1 1/4	15-1.5	.30	.27	.18
14F819	461	1 3/4	30-2.7	.30	.27	.18
14F820	462	2	80-5	.30	.27	.18
14F821	463	3	180-9	.33	.30	.20
14F822	464	4	280-25	.39	.36	.24
14F823	465	5	380-50	.42	.38	.26
14F824	466	6	480-80	.48	.44	.29
14F825	467	7	580-110	.54	.49	.33
14F826	468	8	680-140	.57	.52	.35
14F827	469	9	780-170	.63	.57	.38

QUALITY TRIMMERS

Treated for resistance to humidity and for permanence of cap. setting. Low dielectric loss bases, micas are clear India ruby. Voltage 350 VDCV-175 VDCV. Shipping weight 3 ounces.

TYPE 42 MIDGET TRIMMERS

Stk. No.	Type	Pts.	Range Mmf.	1-24	25-99	100-up
14F960	420	1 1/2	12-1	.30	.27	.18
14F961	421	1 3/4	25-2	.30	.27	.18
14F962	422	2	40-4	.30	.27	.18
14F963	423	3	100-7	.33	.30	.20
14F964	424	4	150-14	.39	.36	.24
14F965	425	5	200-24	.42	.38	.26
14F966	426	6	250-37	.48	.44	.29
14F967	427	7	300-55	.54	.49	.33
14F968	428	8	350-70	.57	.52	.35
14F969	429	9	400-90	.63	.57	.38

DIMENSIONS FOR DP TYPE CAPACITORS

Type	L	H	W	S
1-DP	3/8"	1 1/8"	1/8"	1/4"
2-DP	3/4"	1 3/8"	1/8"	1/4"
3-DP	1 1/4"	1 7/8"	1/8"	3/8"
4-DP	1 1/2"	1 7/8"	1/8"	3/8"
5-DP	1 3/4"	1 7/8"	1/8"	3/8"

600 DCWV CONTINUED

Stk. No.	Type	Mid.	1-24	25-99	100-499	500-999	1000-up
14F1055	6DP-1-272	.0027					
14F1056	6DP-1-302	.003					
14F1057	6DP-1-332	.0033					
14F1058	6DP-1-392	.0039	.15	.14	.09	.075	.068
14F1059	6DP-1-402	.004					
14F1060	6DP-1-472	.0047					
14F1061	6DP-1-502	.005					
14F1062	6DP-1-562	.0056					
14F1063	6DP-1-602	.006					
14F1064	6DP-1-682	.0068					
14F1065	6DP-2-752	.0075					
14F1066	6DP-2-802	.008					
14F1067	6DP-2-822	.0082	.18	.16	.108	.09	.081
14F1068	6DP-2-103	.01					
14F1069	6DP-2-123	.012					
14F1070	6DP-2-153	.015					
14F1071	6DP-2-203	.02					
14F1072	6DP-2-223	.022					
14F1073	6DP-2-253	.025					
14F1074	6DP-2-273	.027					
14F1075	6DP-3-303	.03	.21	.19	.126	.105	.095
14F1076	6DP-3-333	.033					
14F1077	6DP-3-333	.039					
14F1078	6DP-3-403	.04					
14F1079	6DP-3-473	.047					
14F1080	6DP-3-503	.05	.24	.22	.144	.12	.108
14F1081	6DP-3-563	.056					
14F1082	6DP-3-603	.06					
14F1083	6DP-4-683	.068					
14F1084	6DP-4-753	.075	.27	.24	.162	.135	.122
14F1085	6DP-4-823	.082					
14F1086	6DP-4-104	.1					
14F1087	6DP-5-154	.15	.36	.32	.216	.18	.162
14F1088	6DP-5-204	.2	.42	.38	.252	.21	.189
14F1089	6DP-5-224	.22	.42	.38	.252	.21	.189
14F1090	6DP-5-254	.25	.45	.41	.27	.225	.203

1600 DCWV

14F1091	16DP-2-102	.001	.24	.22	.144	.12	.108
14F1092	16DP-2-152	.0015					
14F1093	16DP-2-182	.0018					
14F1094	16DP-2-202	.002					
14F1095	16DP-2-222	.0022					
14F1096	16DP-2-252	.0025					
14F1097	16DP-2-302	.003					
14F1098	16DP-2-332	.0033	.27	.24	.162	.135	.122
14F1099	16DP-2-402	.004					
14F1100	16DP-2-472	.0047					
14F1101	16DP-2-502	.005					
14F1102	16DP-3-602	.006					
14F1103	16DP-3-702	.007	.30	.27	.18	.15	.135
14F1104	16DP-3-752	.0075					
14F1105	16DP-3-802	.008					
14F1106	16DP-3-103	.01					
14F1107	16DP-4-153	.015	.33	.30	.198	.165	.149
14F1108	16DP-4-200	.02	.36	.32	.216	.18	.162
14F1109	16DP-5-223	.022	.42	.38	.252	.21	.189
14F1110	16DP-5-253	.025					
14F1111	16DP-5-303	.03					
14F1112	16DP-5-333	.033					
14F1113	16DP-5-403	.04	.45	.41	.27	.225	.203
14F1114	16DP-5-473	.047	.48	.43	.288	.24	.216
14F1115	16DP-5-503	.05	.48	.43	.288	.24	.216

TYPE 42 MOUNTING BRACKETS

Stk. No.	For	1-24	25-99	100-up
14F831	2	.11	.10	.085
14F832	3	.13	.11	.076
14F833	4	.14	.13	.060
14F834	5	.16	.15	.098
14F835	6	.18	.16	.108

TYPE 40 MINIATURE TRIMMERS

Stk. No.	Type	Pts.	Range Mmf.	1-24	25-99	100-499
14F836	400	1 1/2	7-0.9	.30	.27	.18
14F837	402	2	20-1.5	.30	.27	.18
14F838	403	3	35-3	.36	.33	.22
14F839	404	4	60-8	.39	.36	.24

Disc Capacitors

TYPE UK ULTRA-KAPS

For transistor circuit applications, ideal for any low voltage use requiring extremely high capacities and low power factors. TOL: (GMV) Guaranteed Minimum Value Rated: 3 VDC Working.



Stk. No.	Type	Mid.	Diam.	1-4 Each	Pkg. of 100			
					Pkg. of 5	100	200-400	500-1000
19F395	UK-104	.1	.220	.48	.42	.333	.21	.158
19F396	UK-224	.22	.290	.35	.30	.238	.15	.113
19F397	UK-474	.47	.408	.35	.30	.238	.15	.113
19F398	UK-105	1.0	.590	.42	.36	.285	.18	.135
19F399	UK-225	2.2	.840	.49	.42	.333	.21	.158

TYPE UK10—10 VDCW (Tot. +80 —20%)

Stk. No.	Type	Mid.	Diam.	1-4 Each	Pkg. of 5	100	200-400	500-1000
19F276	UK10-503	.05	.290	.21	.18	.143	.08	.068
19F277	UK10-104	.10	.408	.21	.18	.143	.09	.068
19F278	UK10-204	.20	.590	.35	.30	.238	.15	.113
19F279	UK10-474	.47	.840	.49	.42	.333	.21	.158

TYPE UK20—20 VDCW (Tot. +80 —20%)

Stk. No.	Type	Mid.	Diam.	1-4 Each	Pkg. of 5	100	200-400	500-1000
19F1278	UK20-503	.05	.408	.21	.18	.143	.09	.068
19F1279	UK20-104	.1	.590	.24	.21	.166	.105	.079
19F1280	UK20-204	.2	.840	.45	.39	.31	.195	.146

TYPE DF FLAT PLATE HI-KAPS
Ideal for use in bypass or filter applications. New extremely thin design has high capacity and low mass weight. Uses new Centralab ceramic for stability and permanence. No. 20 tinned wire leads. 600 VDCW, 1200 VDC test. Size: $1\frac{1}{2} \times 1 \times \frac{1}{2}$ " except * $1\frac{3}{4}$ ". Shpg. wt., 3 oz.



Stk. No.	Type	Mid.	Tol.	Each	Pkg. of 50			
					Pkg. of 2	50	150	500
19F362	DF-503	.05	GMV	.88	.75	.594	.375	.28
19F364	DF-104*	.1	+80-20%	1.23	1.05	.83	.525	.394



Primarily intended for by-pass coupling or filter service where high capacity is necessary and controlled stability is secondary. Disc ceramic capacitors have a higher dielectric constant, greater voltages, and higher capacities in less space than paper or mica types. Construction enables these units to operate for long periods of time under extreme moisture, temperature, and vibration. 1000 volts DC working except #, which are 600 volts DC working. Tol. $\pm 10\%$ except #, $\pm 20\%$, ± 5 mmf, \pm GMV; ** $-80-20\%$ (A) $\frac{1}{4} \times \frac{1}{2}$ "; (B) $\frac{3}{8} \times \frac{3}{8}$ "; (C) $9\frac{1}{2} \times \frac{3}{8}$ "; (D) $1\frac{1}{2} \times \frac{3}{8}$ "; (E) $\frac{3}{4} \times \frac{3}{8}$ "; (F) $\frac{7}{8} \times \frac{3}{8}$ "; (G) $2\frac{3}{8} \times 1\frac{1}{4}$ ".

Stk. No.	Type	Mmf	Size	1-4 Each	Pkg. of 100			Pkg. of M
					Pkg. of 5	100	200-400		500-1000
19F300	DD-3R3	3.3 $\frac{1}{2}$	A				.042	
19F301	DD-050	5	A				.042	
19F341	DD-060	6	A				.042	
19F302	DD-6R8	6.8	A				.042	
19F342	DD-7R5	7.5	A				.042	
19F343	DD-080	8	A				.042	
19F303	DD-100	10	A				.033	
19F344	DD-120	12	A				.033	
19F304	DD-150	15	A				.033	
19F345	DD-180	18	A				.033	
19F305	DD-200	20	A				.033	
19F346	DD-220	22	A				.033	
19F347	DD-240	24	A				.033	
19F306	DD-250	25	A				.033	
19F348	DD-270	27	A				.033	
19F349	DD-300	30	A				.033	
19F307	DD-330	33	A				.033	
19F308	DD-390	39	A				.033	
19F309	DD-470	47	A				.043	
19F310	DD-500	50	A				.043	
19F516	DD-510	51	A				.033	
19F311	DD-560	56	A				.033	
19F312	DD-680	68	A				.033	
19F313	DD-750	75	A				.033	
19F358	DD-820	82	A				.033	
19F359	DD-910	91	A				.033	
19F314	DD-101	100	A				.033	
19F315	DD-121	120	A				.033	
19F365	DD-131	130	A				.033	
19F316	DD-151	150	A				.033	
19F317	DD-181	180	A				.033	
19F318	DD-201	200	A				.033	
19F319	DD-221	220	A				.033	
19F366	DD-241	240	A				.033	
19F320	DD-251	250	A				.045	
19F321	DD-271	270	A				.035	
19F322	DD-301	300	A				.035	
19F323	DD-331	330	A				.035	
19F368	DD-351	350	A				.035	
19F369	DD-361	360	A				.035	
19F324	DD-391	390	A				.035	
19F379	DD-401	400	A				.035	
19F325	DD-471	470	A				.035	

.18 .15 .119 .075 .056

LOW VOLTAGE CAPACITORS FOR TRANSISTOR CIRCUITS



TYPE DA TYPE DDA TYPE DM

High capacity, low voltage ceramic capacitors designed especially for such sub-miniature applications as transistor circuits. Type DA. $\frac{1}{2} \times \frac{1}{2} \times \frac{1}{16}$ ". Cap. Tolerance: -20% , $+100\%$. Rated 30 VDCW.

Stk. No.	Type	Mid.	1-4 Each	Pkg. of 100			
				Pkg. of 5	100	200-400	500-1000
19F1100	DA-203	.02	.42	.36	.285	.18	.135
19F1101	DA-503	.05	.95	.81	.641	.405	.304
19F1102	DA-104	.1	1.58	1.35	1.07	.675	.508

Type DDA. Disc type $\frac{5}{8}$ " diam. x $\frac{1}{32}$ " thk. Cap. tolerance -30% , $+80\%$. Rated 75 VDCW.

Stk. No.	Type	Mid.	1-4 Each	Pkg. of 5	100	200-400	500-1000
19F1103	DDA-503	.05	.35	.30	.238	.15	.119
19F1104	DDA-104	.1	.70	.60	.475	.30	.225

Type DM. Plate type $1\frac{1}{2} \times 1 \times \frac{1}{4}$ " thk. Cap. Tolerance: -20% , $+50\%$ up to .002 higher cap. -20% , $+80\%$. Rated 150 VDCW.

Stk. No.	Type	Mid.	1-4 Each	Pkg. of 5	100	200-400	500-1000
19F1105	DM-101	.0001					
19F1106	DM-201	.0002					
19F1107	DM-301	.0003					
19F1108	DM-501	.0005					
19F1109	DM-102	.001					
19F1110	DM-202	.002					
19F1111	DM-302	.003					
19F1112	DM-502	.005					
19F1113	DM-103	.01					
19F1114	DM2-502	2x.005					

.105 .90 .72 .45 .338

CENTRALAB TYPE DD DISC CERAMIC CAPACITORS

ate for long periods of time under extreme moisture, temperature, and vibration. 1000 volts DC working except #, which are 600 volts DC working. Tol. $\pm 10\%$ except #, $\pm 20\%$, ± 5 mmf, \pm GMV; ** $-80-20\%$ (A) $\frac{1}{4} \times \frac{1}{2}$ "; (B) $\frac{3}{8} \times \frac{3}{8}$ "; (C) $9\frac{1}{2} \times \frac{3}{8}$ "; (D) $1\frac{1}{2} \times \frac{3}{8}$ "; (E) $\frac{3}{4} \times \frac{3}{8}$ "; (F) $\frac{7}{8} \times \frac{3}{8}$ "; (G) $2\frac{3}{8} \times 1\frac{1}{4}$ ".

Stk. No.	Type	Mmf	Size	1-4 Each	Pkg. of 100			Pkg. of M
					Pkg. of 5	100	200-400		500-1000
19F517	DD-471G	470 $\frac{1}{2}$	A				.036	
19F326	DD-501	500	A				.041	
19F518	DD-511	510	A				.041	
19F327	DD-561	560	A				.041	
19F519	DD-601	600	A				.041	
19F328	DD-681	680	A				.041	
19F329	DD-751	750	A				.041	
19F330	DD-801	800 $\frac{1}{2}$	A				.036	
19F380	DD-821	820	A				.041	
19F531	DD-911	910	A				.041	
19F331	DD-102	1000	B				.043	
19F532	DD-102G	1000 $\frac{1}{2}$	A				.036	
19F381	DD-122	1200	B				.044	
19F533	DD-122C	1200 $\frac{1}{2}$	A				.036	
19F382	DD-132	1300	B				.044	
19F332	DD-152	1500	B				.044	
19F534	DD-152C	1500 $\frac{1}{2}$	A				.036	
19F383	DD-162	1600	B				.044	
19F384	DD-182	1800	B				.044	
19F333	DD-202	2000 $\frac{1}{2}$	B				.038	
19F385	DD-222	2200 $\frac{1}{2}$	B				.038	
19F386	DD-252	2500 $\frac{1}{2}$	B				.038	
19F387	DD-272	2700 $\frac{1}{2}$	B				.038	
19F334	DD-302	3000 $\frac{1}{2}$	B				.038	
19F388	DD-332	3300 $\frac{1}{2}$	C				.044	
19F389	DD-392	3900 $\frac{1}{2}$	C				.044	
19F390	DD-402	4000 $\frac{1}{2}$	C				.044	
19F391	DD-432	4300 $\frac{1}{2}$	C				.044	
19F335	DD-472	4700 $\frac{1}{2}$	C				.046	
19F535	DD-472C	4700 $\frac{1}{2}$	C				.044	
19F336	DD-5022	5000*	C				.046	
19F337	DD-502	5000 $\frac{1}{2}$	C				.044	
19F392	DD-562	5600 $\frac{1}{2}$	C				.044	
19F393	DD-682	6800 $\frac{1}{2}$	C				.044	
19F394	DD-752	7500 $\frac{1}{2}$	C				.044	
19F536	DD-822	8200 $\frac{1}{2}$	D				.054	
19F339	DD-103	10000 $\frac{1}{2}$	D	.28	.24	.19	.12	.09
19F338	DD-1032	10000*	D	.28	.24	.19	.12	.09
19F340	DD-203#	20000**	D	.53	.45	.356	.225	.169
19F537	DD-303#	30000**	F	.53	.45	.356	.225	.169
19F538	DD-403#	40000**	F	.53	.45	.356	.225	.169
19F539	DD-503#	50000**	G	.53	.45	.356	.225	.169

.18 .15 .119 .075 .056

NEW CERAMIC CAPACITOR KIT

MODEL DDK-200 KIT. Contains a carefully balanced inventory of 200 disc capacitors required most in replacement applications. All are 1000 WVDC except (*) 600 WVDC. Value desired can easily be located and removed from labeled, reusable clear plastic packages. Housed in one drawer, heavy gauge steel 6x4x1" cabinet finished with durable blue enamel.



18F2406. NET **34.10**

Cap. Mmf.	Qty.	Type	Cap. Mmf.	Qty.	Type	Cap. Mmf.	Qty.	Type
5	5	DD-050	200	10	DD-201	.001	15	DD-102
10	5	DD-100	220	5	DD-221	.0015	5	DD-152
25	5	DD-250	250	5	DD-251	.003	5	DD-302
33	5	DD-330	270	5	DD-271	.0047	5	DD-472
47	5	DD-470	300	5	DD-301	.005	5	DD-5022
50	5	DD-500	330	5	DD-331	.005	10	DD-502
88	5	DD-680	390	5	DD-391	.01	5	*DD6-103
100	10	DD-101	470	5	DD-471	.01	15	DD-103
120	5	DD-121	500	5	DD-501	.01	5	DD-1032
150	5	DD-151	680	5	DD-681	.02	15	*DD-203
180	5	DD-181						

3000-6000 V HI-VO DISC CAPACITORS

Highly efficient for by-pass-coupling in high frequency circuits under conditions of extreme humidity or temperature. Maintain performance at temperatures up to 85° C. Tested at twice rated working voltage before shipment. Leads #22 tinned copper wire 1½" min. length. Insul.: Double coating phenolic resin "DUREZ"

and high temp. vacuum wax impregnation. Tol. ±20%. Volt. DD30 series, 3000 VDCW, 6000 VDC test; DD60 series, 6000 VDCW, 12,000 test. Sizes: (A) .290" dia.; (R) .385" dia.; (C) .590" dia.; (D) .690" dia.; (E) .840" dia.; (F) .969" dia.; (G) 1.0" dia.



TYPE DD30-3000 VDCW-6000 VDC TEST

Stk. No.	Type	Mmf	Size	Pkg. of 50					Stk. No.	Type	Mmf	Size	Pkg. of 50				
				1-4 Ea.	5 Pk.	50-100	150-450	500-1M					1-4 Ea.	5 Pk.	50-100	150-450	500-1M
19F200	4R7	4.7	A						19F230	501	500	B					
19F203	180	10	A						19F232	681	680	A	.28	.24	.19	.12	.09
19F212	500	50	A						19F233	751	750	A					
19F217	101	100	A						19F234	102	1,000	B					
19F219	151	150	A	.28	.24	.19	.12	.09	19F236	152	1,500	C					
19F222	221	220	A						19F237	202	2,000	C	.35	.30	.238	.25	.113
19F225	301	300	A						19F238	222	2,200	C					
19F228	401	400	A						19F241	302	3,000	C					
19F229	471	470	B						19F242	502	5,000	F					

TYPE DD60-6000 VDCW-12,000 VDC TEST

Stk. No.	Type	Mmf	Size	Pkg. of 50					Stk. No.	Type	Mmf	Size	Pkg. of 50				
				1-4 Ea.	5 Pk.	50-100	150-450	500-1M					1-4 Ea.	5 Pk.	50-100	150-450	500-1M
19F473	500	50	C						19F488	471	470	C					
19F481	181	180	C						19F491	501	500	C	.42	.36	.285	.18	.135
19F482	201	200	C	.42	.36	.285	.18	.135	19F493	681	680	C					
19F483	221	220	C						19F495	102	1,000	E	.70	.60	.475	.30	.225
19F485	271	270	C						19F498	202	2,000	G	.70	.60	.475	.30	.225

POLYSTYRENE CAPACITORS

Sealed polystyrene foil-capacitors, ideal for applications in TV and radio where they can be used as direct replacements for mica and mylars. Voltage rating 500

VDCW; 1500 VDC test. Tolerance ±5%. 20-250mm: .394" L, .157" to .276" Dia.; 251-3000mm: .591" L, .197" to .413" Dia.; 3001-10000mm: .787" L, .335" to .531" Dia.



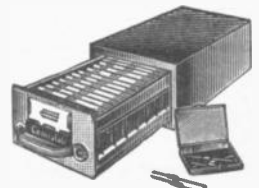
Stk. No.	Type	Mmf.	Pkg. of 50					Stk. No.	Type	Mmf.	Pkg. of 50					
			1-4 Ea.	5 Pk.	50-100	150-450	500-1M				1-4 Ea.	5 Pk.	50-100	150-450	500-1M	
19F2337	CPR-201	20						19F2371	CPR-5601	560						
19F2338	CPR-221	22						19F2372	CPR-6201	620						
19F2339	CPR-241	24						19F2373	CPR-6801	680	.18	.15	.119	.075	.056	
19F2340	CPR-271	27						19F2374	CPR-7501	750						
19F2341	CPR-301	30						19F2375	CPR-8201	820						
19F2342	CPR-331	33						19F2376	CPR-9101	910						
19F2343	CPR-361	36						19F2377	CPR-10001	1000						
19F2344	CPR-391	39						19F2378	CPR-11001	1100						
19F2345	CPR-431	43						19F2379	CPR-12001	1200						
19F2346	CPR-471	47						19F2380	CPR-13001	1300						
19F2347	CPR-561	56						19F2381	CPR-15001	1500						
19F2348	CPR-621	62						19F2382	CPR-16001	1600						
19F2349	CPR-681	68						19F2383	CPR-18001	1800	.21	.18	.143	.09	.068	
19F2350	CPR-751	75						19F2384	CPR-20001	2000						
19F2351	CPR-821	82						19F2385	CPR-22001	2200						
19F2352	CPR-911	91	.18	.15	.119	.075	.056	19F2386	CPR-24001	2400						
19F2353	CPR-1001	100						19F2387	CPR-25001	2500						
19F2354	CPR-1101	110						19F2388	CPR-27001	2700						
19F2355	CPR-1201	120						19F2389	CPR-30001	3000						
19F2356	CPR-1301	130						19F2390	CPR-33001	3300						
19F2357	CPR-1501	150						19F2391	CPR-36001	3600						
19F2358	CPR-1601	160						19F2392	CPR-39001	3900						
19F2359	CPR-1801	180						19F2393	CPR-43001	4300						
19F2360	CPR-2001	200						19F2394	CPR-47001	4700						
19F2361	CPR-2201	220						19F2395	CPR-50001	5000	.25	.21	.166	.105	.079	
19F2362	CPR-2401	240						19F2396	CPR-51001	5100						
19F2363	CPR-2701	270						19F2397	CPR-56001	5600						
19F2364	CPR-3001	300						19F2398	CPR-62001	6200						
19F2365	CPR-3301	330						19F2399	CPR-68001	6800						
19F2366	CPR-3601	360						19F2400	CPR-75001	7500						
19F2367	CPR-3901	390						19F2401	CPR-82001	8200						
19F2368	CPR-4301	430						19F2402	CPR-91001	9100						
19F2369	CPR-4701	470						19F2403	CPR-100001	10000						
19F2370	CPR-5101	510														

Model CPK-150 Kit. Contains 150 sealed polystyrene foil capacitors, rated at 500VDCW and with a ±5% tolerance. Included are 17 selected values in a range from 22 pF to 10,000 pF. There are 5 to 20 pieces per value, based on estimated frequency of use. The polystyrene film dielectric of these units permits use in place of mica, Mylar, paper, and ceramic capacitors. They not only substitute for the above types of capacitors but generally outperform them. Capacitance drift: 0.3% or less

POLYSTYRENE CAPACITOR KIT

after temperature cycling of +25, -25, +70, and +25°C. Insulation resistance is 5,000 Meg. /mf or 500,000 Meg., whichever is lower at 100 VDC, +25°C., 80% R.H. "Q" factor is over 2,000 at 1 mc, +25°C., and operating temp. range is from -10°C., to +70°C.

The assortment in this kit is packaged in a 1-drawer Equipito cabinet finished in blue baked enamel. Contents are fully labeled. **18F2404. NET 25.55**



Capacitors



TYPE CK—50 VDC

Type CK capacitors are designed for high capacity low voltage demands of transistor circuitry. Proven for use in transistor radios. Working voltage: 50 VDC. Leakage resistance initial: over 7500 megohms. Leakage resistance after humidity: over 1000 megohms. Leads: #22

tinned copper, 1 1/2" minimum length. Max. thickness .235". Power factor: 2% max. at 1 KC. Insulation: Phenolic vacuum wax impregnated. Tolerance: all +80 -20%. Max. capacity change: +25°C to +45°C = ±30%.

Stk. No.	Cap. Mid.	CRL. No.	Diam.	Pkg. of 100				
				1-4 Each	5-95	100	200-400	500-1000
19F1223	.005	CK-502	3/8"	.25	.21	.166	.105	.079
19F1224	.01	CK-103	3/8"					
19F1225	.02	CK-203	19/32"					

Stk. No.	Cap. Mid.	CRL. No.	Diam.	Pkg. of 100				
				1-4 Each	5-95	100	200-400	500-1000
19F1226	.025	CK-253	19/32"	.25	.21	1.68	.105	.079
19F1228	.05	CK-503	1 1/8"					
19F1229	.1	CK-104	25/32"					

TEMPERATURE STABLE "K" AND SEMI-STABLE "K" DISC HI-KAPS

Types CE & CF Hi-Kaps used for applications requiring a min. capacity change as temperature varies between -55°C and +85°C. Working voltage: 500 VDC. Phenolic insulation impregnated with high temp. wax. ±10% Tolerance. Leads: 1 1/2" min. lengths; .290" dia., .390" dia., .490" dia., .590" dia., .690" dia., .790" dia. Average shipping weight, 1 oz



STABLE

Stk. No.	Mmf.	CRL. No.	1-95 Each	Pkg. of 100			
				100	200-400	500-1000	
19F1235	150	CE-151*	.18	.143	.09	.068	
19F1236	220	CE-221*					
19F1237	330	CE-331*					
19F1238	470	CE-471*					
19F1239	500	CE-501**					
19F1240	560	CE-561**					
19F1241	680	CE-681**	.21	.166	.105	.079	
19F1242	750	CE-751**					
19F1243	800	CE-801**					
19F1244	1000	CE-102†					

SEMI-STABLE

Stk. No.	Mmf.	CRL. No.	1-95 Each	Pkg. of 100			
				100	200-400	500-1000	
19F1245	1200	CF-122**	.18	.143	.09	.068	
19F1246	1500	CF-152**					
19F1247	1800	CF-182**					
19F1248	2000	CF-202†	.21	.166	.105	.079	
19F1249	2200	CF-222†					
19F1250	3300	CF-332†					
19F1251	3900	CF-392†					
19F1252	4700	CF-472†					
19F1253	5000	CF-502†					
19F1256	10000	CF-103#	.24	.19	.12	.09	

CENTRALAB TEMPERATURE COMPENSATING TUBULAR CAPACITORS

Designed especially to limit frequency drift in r.f. circuits where temperature variations are prevalent. Ceramic body changes capacities as the temperature varies. 1,200 volts DC test; 600 volts DC working. Weight, 2 oz.



TYPE TCN ±.5 MMF TOLERANCE

Stk. No.	Mmf.	Size	Each	Pkg. of 50			
				2-48	50-100	150-450	500-1000
19F048	3.3	A	.35	.30	.238	.15	.13
19F049	5.0	A					
19F050	10.	A					

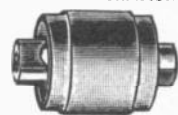
TYPE TCN ±2% TOLERANCE

Stk. No.	Mmf.	Size	Each	Pkg. of 50			
				2-48	50-100	150-450	500-1000
19F051	12.	A	.35	.30	.238	.15	.13
19F052	15.	A					
19F053	18.	A					
19F054	20.	A					
19F057	27.	A					
19F059	33.	A					
19F061	39.	A	.35	.30	.238	.15	.13
19F063	47.	A					
19F047	50.	A					
19F068	75.	B					
19F071	100.	C					

TYPE TCZ ±.25 MMF TOLERANCE

Stk. No.	Mmf.	Size	Each	Pkg. of 50			
				2-48	50-100	150-450	500-1000
19F000	.5	A	.35	.30	.238	.15	.13
19F001	.68	A					
19F002	1.0	A					
19F003	1.5	A					
19F004	2.2	A					
19F005	3.3	A					

TRANSMITTING CAPACITORS TYPE 857



7.5 KV and 15KV axial screw terminals that are fully threaded to 1/4" with 10-32 thread. All 15,000 volts DC, except †, which work at 7,500 volts DC. Negative 750 temperature coefficients, except †, which are NPO zero temperature coefficients. The tolerance is ±10%. Size: 1 9/32" diameter by 1 5/16" long.

Stk. No.	Type	Mmf.	RF Load at 30MC	Pkg. of 5			
				Each	10-25	30-100	105-250
19F454	857-252†	25	12 amps	2.70	2.43	2.14	1.92
19F455	857-502†	50	12 amps				
19F456	857-100N	100	14.4 amps				
19F457	857-200N*	200	18.2 amps				

CAPACITOR SIZE CHART		
See Listings Below		
A .400"x.200"	B .460"x.225"	C .860"x.225"

TYPE TCZ ±.5 MMF TOLERANCE

Stk. No.	Mmf.	Size	Each	Pkg. of 50			
				2-48	50-100	150-450	500-1000
19F006	4.7	A	.35	.30	.238	.15	.13
19F007	6.8	A					
19F008	10.	A					

TYPE TCZ ±2% TOLERANCE

Stk. No.	Mmf.	Size	Each	Pkg. of 50			
				2-48	50-100	150-450	500-1000
19F009	12.	A	.35	.30	.238	.15	.13
19F010	15.	A					
19F011	18.	A					
19F012	20.	A					
19F013	22.	A					
19F015	27.	B					
19F016	30.	B	.35	.30	.238	.15	.13
19F018	36.	B					
19F019	39.	C					
19F020	43.	C					
19F021	47.	C					
19F022	51.	C					
19F024	62.	D	.35	.30	.238	.15	.13
19F025	68.	D					
19F029	100.	D					

CENTRALAB CERAMIC TRANSMITTING CAPACITORS



Type 858—7.5 KV and 5 KV transmitting capacitors. All 7500 VDC working except (*) 5000 VDC working. 850S tol.: ±10%, 858S tol.: ±20% † HI-K material, variable T.C. Body 1 9/16" diameter x 3/8" long. Screw Terminals.

Stk. No.	Type	Mmf.	RF Load at 30MC	Pkg. of 5			
				Each	10-25	30-100	105-250
19F248	850S-25Z	25	7 amps	2.70	2.43	2.14	1.92
19F254	850S-50Z	50	10 amps				
19F250	850S-50N	50	8.8 amps				
19F251	850S-75N	75	10 amps				
19F252	850S-100N*	100	9.8 amps				
19F253	858S-500†	500		2.70	2.43	2.14	1.92
19F249	858S-1000†	1000					

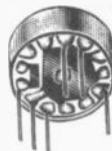
NEWARK STOCKS THE WORLD'S MOST COMPLETE INVENTORY OF INDUSTRIAL ELECTRONICS EQUIPMENT

NEW PACKAGED TRANSISTOR AMPLIFIER

Type TA-12-B. Ultra-miniature, high-gain audio amplifier is a perfect example of component density, having over half a million components per cubic foot. The TA-12-B four-stage amplifier features patented layered construction techniques. Base Plate: Grade L-5A low loss stearite as per JAN-1-10. Non-hygroscopic, it is unaffected by heat, humidity, vibration, or common acid. Transistors: Employing high gain, low noise hermetically sealed miniaturized transistors. Gain: 73 db. min. at 1-KC. Input impedance: 2,500 ohms nominal. Signal to noise

ratio: Maximum noise 30db. below signal for signal input of 25 micro-volt at 1-KC. Input shorted to ground for no signal noise. Power output: Up to .5 mw. Volume control: 25,000 ohms. Frequency characteristics: ± 5 db. from 300 to 20,000 CPS. Leads: A.W.G. No. 28 gauge wire, min. length $1\frac{1}{2}$ ".

Stock No.	Type No.	1-4	5-9	10-24	25-99
19F2405	TA-12-B	45.00	37.50	33.75	30.00



CENTRALAB CERAMIC TRANSMITTING CAPACITORS



High voltage applications. 5000 Volts D.C.W., tested to 7500 volts DC. $\pm 10\%$ tolerance. Available in either wire lead or axial screw terminal types. NPO temperature coefficients except * which are N750. Dimensions: Type 853— $\frac{1}{2}$ " dia. x $\frac{3}{16}$ " L; Type 854— $\frac{3}{8}$ " dia. x $\frac{3}{8}$ " L; Type 855— $\frac{1}{4}$ " dia. x $1\frac{1}{32}$ " L; Type 853A— $\frac{3}{16}$ " dia. x $\frac{3}{16}$ " L; Type 854A— $\frac{7}{16}$ " dia. x $\frac{7}{16}$ " L; Type 855A— $\frac{1}{8}$ " dia. x $\frac{3}{16}$ " L.

Stk. No.	Type	Mmf.	RF Load at 30MC	NET EACH			
				1-9	10-24	25-99	100-249
19F268	855-3Z	3	1.8 amps	1.80	1.62	1.43	1.28
19F270	854-10Z	10	1.8 amps				
19F271	855-10N*	10	3.2 amps				
19F272	853-20Z	20	2.8 amps				
19F274	853-40N*	40	5.6 amps				

WIRE LEAD

CENTRALAB CERAMIC TRIMMERS

Centralab ceramic trimmers are highly stable, small in size, and light weight. Light-weight rotor under constant spring pressure provides excellent vibration stability. All units 500 VDC working. Power factor less than 0.2%.

CRL TYPE 822 TRIMMERS

Type 822. Steatite body trimmers. Silver rotor and stator plates. 500 VDC working 1500 VDC test. $\frac{4}{64} \times \frac{5}{64}$ ". Mtg. holes take No. 4 screws. All are zero temp. coeff. except * neg. T.C. Shpg. wt., 2 oz.



Stk. No.	Type	Mmf.	Each	Pkgs. of 1			
				1-9	10-25	30-100	105-250
19F163	AN*	8.0-50	1.14	1.14	.95	.90	.76
19F164	BN*	7-45					
19F165	CN*	4.5-25					
19F166	DN*	2-6					
19F167	AZ	4.5-25					
19F168	BZ	2.5-13					
19F169	CZ	2-7.5					
19F185	DZ	1.5-3					
19F186	EZ	1.5-7					
19F188	EN*	4-30					
19F189	FZ	3-12					

CRL TYPE 825 MIL-C-81A TRIMMER CAPACITORS

Ceramic trimmer caps. Size $\frac{5}{64}$ " L x $\frac{1}{64}$ " W. Mtg. hole takes No. 4 screws. 500 VDC working. Shpg. wt., 2 oz. CVII Series meet MIL-C-81A specifications. Low loss steatite base and silver fired base for stator plate. Temp. Coeffs: DN, BN—N650; AN, FN—N300; CN, GN—N500; EZ, FZ, AZ—0.

Stk. No.	Type	Mmf.	MIL No.	1-24	Pkgs. of 25			
					25-100	125-475	500-1000	
19F1217	825-EZ	1.5-7	CV11A070	1.17	.98	.93	.78	
19F1218	825-FZ	3-12	CV11A120					
19F1219	825-AZ	4.5-25	CV11A250					
19F1220	825-DN	2-6	CV11D080					
19F1222	825-BN	7-45	CV11D450					
19F1230	825-AN	3-13.0	CV11B130					
19F1231	825-GN	7-45.0	CV11D450					
19F1232	825-FN	5-20.0	CV11B200					
19F1233	825-CN	4-30.0	CV11C300					

CRL TYPE FT FEED-THRU CAPACITORS

Bushing type ceramic feed-thru capacitors rated 500 VDC working, 1000 VDC test. Bushing 12-28 thread hex nut .281" lg. Overall size $\frac{1}{8}$ " hex x $1\frac{1}{2}$ " lg. Tolerance $\pm 20\%$ except when marked by an asterisk, indicates a tolerance of $\pm 50\%$, -20% . Shpg. wt., 2 oz.



Stk. No.	Type	Mmf.	Each	Pkgs. of 2		Pkgs. of 100		
				2-98	100	200-400	500-1000	
19F1115	FT-500	508	.88	.75	.594	.375	.28	
19F1116	FT-1000	1000*						
19F1117	FT-1500	1500*						
19F1118	FT-1800	1800*						
19F1119	FT-2300	2300*						

CRL TYPE MFT FEED-THRU CAPACITORS

Miniature eyelet type, rated 500 VDC working, 1000 VDC test. Mounts on $\frac{1}{4}$ " flange on eyelet inserted in .180" hole in chassis Body diam. $.135 \times 1\frac{1}{4}$ " L. overall. Shipping wt., 1 oz.



Stk. No.	Type	Mmf.	Each	Pkgs. of 2		Pkgs. of 100		
				2-98	100	200-400	500-1000	
19F1120	MFT-50	50 $\pm 10\%$.35	.30	.238	.15	.113	
19F1121	MFT-100	100 $\pm 10\%$						
19F1122	MFT-500	500 $\pm 20\%$						
19F1123	MFT-1000	1000 GMV						

CRL TYPE 827 TRIMMER

Sturdy, moisture-resistant ceramic trimmers. Ceramic molded phenolic body. Maintain stability under vibration, due to light weight rotor construction that is always in balance under heavy spring pressure. 500 volts DC working, 1000 volts DC test. Initial insulation resistance, 10,000 mega minimum. Power factor is less than 0.2% at one MC. Size: $1\frac{1}{2} \times \frac{3}{4}$ ". Wt., 2 oz.



Stk. No.	Type	Mmf.	Each	Pkgs. of 1		Pkgs. of 5			
				1-9	10-25	30-100	105-250		
19F094	827A	2.5-7	.90	.90	.75	.71	.60		
19F095	827R	3.5-12							
19F096	827C	6.0-30							
19F097	827D	7.0-35							

CRL TYPE 829 TUBULAR TRIMMER

Tiny tubular high-voltage trimmers for TV and FM applications. Have ceramic bodies. .225" in diameter. Length as shown. Mount by means of lock-nut. Full capacity range obtained in 180° rotation. Power factor: .25% at 1 mc. 500 volts DC working. 1000 VDC test. Shpg. wt. 1 oz.



Stk. No.	Type	Mmf.	Length	Each	Pkgs. of 1		Pkgs. of 25		
					1-24	25-100	125-475	500-1000	
19F170	829-3	5-3	$\frac{1}{2}$ "	.30	.30	.238	.15	.113	
19F171	829-4	1-4	$\frac{1}{2}$ "						
19F172	829-6	1-6	$\frac{3}{8}$ "						
19F173	829-7	1-7.5	$\frac{3}{4}$ "						
19F174	829-10	1.5-10	$\frac{3}{4}$ "						

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OHMITE Adjustable Dividohms



"Dividohm" Vitreous Enameled Resistors make ideal voltage dividers for original equipment and replacement in transmitters, rectifiers and other apparatus. Handy for obtaining odd resistance values, for adjusting circuits and for use on equipment which must be set to meet various line voltages. Tolerance: 10%. Avg. Shipping wt.: 10-50 Watts, 4.0 oz.; 100-200 Watts, 1 lb.

STYLE 210-12—12 WATT—1 1/4" x 5/16"

Stock No.	Type	Resis. Ohms	Max Amps.	1-9	10-24	25-99	100-249
13F500	1001	1	3.46				
13F501	1002	2	2.45				
13F502	1003	3	2.00	1.14	.97	.80	.68
13F503	1004	5	1.54				
13F504	1005	7.5	1.26				
13F505	1006	10	1.09				
13F506	1007	15	.89				
13F507	1008	20	.77	1.14	.97	.80	.68
13F508	1009	25	.69				
13F509	1010	50	.49				
13F510	1011	75	.40				
13F511	1012	100	.34				
13F512	1013	150	.28	1.14	.97	.80	.68
13F513	1014	200	.24				
13F514	1015	250	.22				
13F515	1016	300	.20				
13F516	1017	350	.18				
13F517	1018	400	.17				
13F518	1019	500	.15				
13F519	1020	600	.14	1.14	.97	.80	.68
13F520	1021	750	.13				
13F521	1022	800	.12				
13F522	1023	1,000	.11				
13F523	1024	1,250	.098				
13F524	1025	1,500	.089				
13F525	1026	2,000	.077				
13F526	1027	2,250	.073				
13F527	1028	2,500	.069				
13F528	1029	3,000	.063	1.18	1.00	.83	.71
13F529	1030	3,500	.058				
13F530	1031	4,000	.055				
13F531	1032	4,500	.052				
13F532	1033	5,000	.049				
13F533	1034	6,000	.045				
13F534	1035	7,000	.042				
13F535	1036	7,500	.040				
13F536	1037	8,000	.039	1.27	1.08	.89	.76
13F537	1038	8,500	.037				
13F538	1039	9,000	.036				
13F539	1040	10,000	.035				

STYLE 210-25—25 WATT—2" x 9/16"

Stock No.	Type	Resis. Ohms	Max Amps.	1-9	10-24	25-99	100-249
13F550	0360	1	5.00				
13F551	0360B	2	3.54				
13F552	0361	3	2.88	1.29	1.10	.90	.77
13F553	0362	5	2.24				
13F554	0362B	7.5	1.82				
13F555	0363	10	1.58				
13F556	0364	15	1.29				
13F557	0364B	20	1.12	1.29	1.10	.90	.77
13F558	0365	25	1.00				
13F559	0366	50	.71				
13F560	0367	75	.58				
13F561	0368	100	.50				
13F562	0369	150	.41	1.29	1.10	.90	.77
13F563	0370	200	.35				
13F564	0371	250	.32				
13F565	0371B	300	.29				
13F566	0371C	400	.25				
13F567	0372	500	.22				
13F568	0373	750	.18	1.29	1.10	.90	.77
13F569	0374	800	.17				
13F570	0375	1,000	.16				
13F571	0375B	1,250	.14				
13F572	0376	1,500	.13				
13F573	0377	2,000	.12				
13F574	0377B	2,250	.11				
13F575	0378	2,500	.10				
13F576	0379	3,000	.091	1.32	1.12	.92	.79
13F577	0380	3,500	.084				
13F578	0381	4,000	.079				
13F579	0381B	4,500	.074				
13F580	0382	5,000	.070				
13F581	0383	6,000	.064				
13F582	0383B	7,000	.060				
13F584	0384	7,500	.057				
13F585	0384B	8,000	.055	1.42	1.21	.99	.85
13F586	0384C	9,000	.052				
13F587	0385	10,000	.050				
13F588	0386	12,000	.042	1.47	1.25	1.03	.88
13F589	0387	15,000	.036	1.47	1.25	1.03	.88
13F590	0388	20,000	.031	1.47	1.25	1.03	.88
13F591	0389	25,000	.028	1.61	1.37	1.13	.97

STYLE 210-50—50 WATT—4" x 9/16"

Stock No.	Type	Resis. Ohms	Max Amps.	1-9	10-24	25-99	100-249
13F600	0560	5	3.16				
13F601	0561	10	2.23				
13F602	0562	25	1.41	1.68	1.43	1.18	1.01
13F603	0563	50	1.00				
13F604	0564	75	.82				
13F605	0565	100	.71				
13F606	0566	150	.58				
13F607	0567	200	.50	1.68	1.43	1.18	1.01
13F608	0568	250	.45				
13F609	0568B	300	.41				
13F610	0568C	400	.35				
13F611	0569	500	.32				
13F612	0570	750	.26	1.68	1.43	1.18	1.01
13F639	0571	800	.25				
13F613	0572	1,000	.22				
13F614	0572B	1,250	.20				
13F615	0573	1,500	.18				
13F618	0574	2,000	.16				
13F617	0575	2,500	.14				
13F618	0576	3,000	.13	1.71	1.45	1.20	1.03
13F619	0576B	3,500	.12				
13F620	0577	4,000	.11				
13F621	0577B	4,500	.10				
13F622	0578	5,000	.10				
13F623	0578B	6,000	.091				
13F624	0578C	7,000	.084				
13F625	0579	7,500	.081	1.80	1.53	1.26	1.08
13F626	0580	8,000	.079				
13F627	0580B	9,000	.074				
13F628	0581	10,000	.071				
13F629	0582	12,000	.064	1.92	1.63	1.34	1.15
13F630	0583	15,000	.057	1.92	1.63	1.34	1.15
13F631	0584	20,000	.050	1.92	1.63	1.34	1.15
13F632	0585	25,000	.045	2.11	1.78	1.48	1.27
13F633	0586	30,000	.036	2.11	1.78	1.48	1.27
13F634	0587	40,000	.029	2.11	1.79	1.48	1.27
13F635	0588	50,000	.026	2.29	1.95	1.60	1.37
13F636	0589	60,000	.024	2.29	1.95	1.60	1.37
13F637	0590	80,000	.021	2.54	2.16	1.78	1.52
13F638	0591	100,000	.018	2.70	2.30	1.89	1.62

STYLE 210-100—100 WATT—6 1/2" x 3/4"

Stock No.	Type	Resis. Ohms	Max Amps.	1-9	10-24	25-99	100-249
13F670	0956A	1	10.0	2.73	2.32	1.91	1.64
13F671	0956B	2	7.07	2.73	2.32	1.91	1.64
13F672	0956C	3	5.77	2.73	2.32	1.91	1.64
13F673	0956D	4	5.00				
13F650	0956	5	4.47				
13F651	0957	10	3.16				
13F652	0958	25	2.00				
13F653	0959	50	1.41	2.11	1.79	1.48	1.27
13F654	0960	100	1.00				
13F655	0960B	250	.63				
13F656	0961	500	.45				
13F657	0962	1,000	.32				
13F658	0962B	1,500	.26	2.17	1.84	1.52	1.30
13F659	0963	2,500	.20	2.17	1.84	1.52	1.30
13F660	0964	5,000	.14	2.17	1.84	1.52	1.30
13F661	0965	10,000	.10	2.30	1.96	1.61	1.38
13F662	0966	15,000	.081	2.44	2.07	1.71	1.46
13F663	0967	20,000	.071	2.44	2.07	1.71	1.46
13F664	0968	25,000	.063	2.70	2.30	1.89	1.62
13F665	0969	30,000	.058	2.70	2.30	1.89	1.62
13F666	0970	40,000	.050	2.70	2.30	1.89	1.62
13F667	0971	50,000	.045	2.78	2.36	1.95	1.67
13F668	0972	75,000	.032	3.02	2.57	2.11	1.81
13F669	0973	100,000	.028	3.32	2.82	2.32	1.99

ADJUSTABLE LUGS

For Dividohms—Bakelite knob type

Stock No.	Type	Description	1-9	10-24	25-99
13F710	0359	For 25, 50 Watt	.31	.26	.22
13F711	1959	For 100 Watt	.31	.26	.22
13F712	2159	For 200 Watt	.40	.34	.28

For Dividohms—Screw driver type

Stock No.	Type	Description	1-9	10-24	25-99
13F713	1058	For 10 Watt	.14	.12	.10
13F714	0358	For 25, 50 Watt	.14	.12	.10
13F715	1958	For 100 Watt	.14	.12	.10
13F716	2158	For 200 Watt	.23	.20	.16

Industrial Resistors OHMITE

OHMITE ADJUSTABLE DIVIDOHMS (Continued) STYLE 210-225 225 WATT—10½" x 1½"

Stock No.	Type	Resis. Ohms	Max. Amps.	1-9	10-24	25-99	100-249	Stock No.	Type	Resis. Ohms	Max. Amps.	1-9	10-24	25-99	100-249
13F676	1356A	1	15.00	4.32	3.67	3.02	2.59	13F688	1362B	1,500	.39	3.41	2.90	2.39	2.05
13F677	1356B	2	10.60					13F689	1363	2,500	.30	3.41	2.90	2.39	2.05
13F678	1356C	3	8.67					13F690	1364	5,000	.21	3.41	2.90	2.39	2.05
13F679	1356D	4	7.50					13F691	1365	10,000	.15	3.59	3.05	2.51	2.15
13F680	1356	5	6.72					13F692	1366	15,000	.13	3.77	3.20	2.64	2.26
13F681	1357	10	4.74	3.34	2.84	2.34	2.00	13F693	1367	20,000	.11	3.77	3.20	2.64	2.26
13F682	1358	25	3.00					13F694	1368	25,000	.095	3.86	3.28	2.70	2.32
13F683	1359	50	2.12					13F695	1369	30,000	.087	3.86	3.28	2.70	2.32
13F684	1360	100	1.50					13F696	1370	40,000	.075	3.86	3.28	2.70	2.32
13F685	1360B	250	.95					13F697	1371	50,000	.067	3.96	3.37	2.77	2.38
13F686	1361	500	.67					13F698	1372	75,000	.055	4.14	3.52	2.90	2.48
13F687	1362	1,000	.47					13F699	1373	100,000	.047	4.34	3.69	3.04	2.60

TYPE 200 "BROWN DEVIL" RESISTORS

High quality, compact wire-wound resistors for voltage-dropping, bias units, bleeders, etc. Extra-sturdy all-ceramic vitreous enameled. Protected against shock, vibration, heat and humidity. Have

standard resistance tolerance of ±5%. 8-watt units have 1x⁵/₁₆" cores; 12-watt units, 1³/₄x³/₁₆" cores; 20-watt units, 2x³/₁₆" cores. All have 1¹/₂" leads. Average shipping weight, 3 ounces.



13F150-8 WATT "BROWN DEVIL" RESISTORS—STYLE 200-8

Type	Ohms	1-9	10-24	25-99	100-249	Type	Ohms	1-9	10-24	25-99	100-249	Type	Ohms	1-9	10-24	25-99	100-249
1500	1	.52	.44	.36	.31	1519	200	.52	.44	.36	.31	1539	2,250	.58	.49	.41	.35
1500B	1.5					1520	225					1540	2,500				
1501	2					1521	250					1541	3,000				
1502	3					1522	300					1542	3,500				
1503	4					1523	350					1543	4,000				
1504	5					1524	400					1544	4,500				
1505	7.5					1525	450					1545	5,000				
1506	10					1526	500					1546	6,000				
1507	12					1527	600					1547	7,000				
1508	15					1528	700					1548	7,500				
1509	20	1529	750	1549	8,000												
1510	25	1530	800	1550	9,000												
1511	30	1531	900	1551	10,000												
1512	35	1532	1,000	1552	12,500												
1513	40	1533	1,100	1553	15,000												
1514	50	1534	1,200	1554	17,500												
1515	75	1535	1,250	1555	20,000												
1516	100	1536	1,500	1556	22,500												
1517	125	1537	1,750	1557	25,000												
1518	150	1538	2,000														

13F155-12 WATT "BROWN DEVIL" RESISTORS—STYLE 200-12

Type	Ohms	1-9	10-24	25-99	100-249	Type	Ohms	1-9	10-24	25-99	100-249	Type	Ohms	1-9	10-24	25-99	100-249
1701	1	.57	.48	.40	.34	1726	300	.61	.52	.43	.37	1749	5,000	.79	.67	.55	.47
1704	1.5					1727	350					1750	6,000				
1705	2					1728	400					1751	7,000				
1706	3					1729	450					1752	7,500				
1707	4					1730	500					1753	8,000				
1708	5					1731	600					1754	8,500				
1709	7.5					1732	700					1754A	9,000				
1710	10					1733	750					1755	10,000				
1711	12					1734	800					1756	11,000				
1712	15					1735	900					1757	12,000				
1713	20					1736	1,000					1758	12,500				
1714	25					1737	1,100					1759	13,500				
1715	30	1738	1,200	1761	15,000												
1716	35	1739	1,250	1762	16,000												
1717	40	1740	1,500	1763	17,500												
1718	50	1741	1,750	1764	18,000												
1719	75	1742	2,000	1765	20,000												
1720	100	1743	2,250	1766	22,500												
1721	125	1744	2,500	1767	25,000												
1722	150	1745	3,000	1768	30,000												
1723	200	1746	3,500	1769	35,000												
1724	225	1747	4,000	1770	40,000												
1725	250	1748	4,500	1771	45,000												
				1772	50,000												

13F160-20 WATT "BROWN DEVIL" RESISTORS—STYLE 200-20

Type	Ohms	1-9	10-24	25-99	100-249	Type	Ohms	1-9	10-24	25-99	100-249	Type	Ohms	1-9	10-24	25-99	100-249
1802A	1	.68	.58	.48	.41	1819	800	.70	.60	.49	.42	1840A	9,000	.99	.84	.69	.59
1802B	2					1820A	900					1841	10,000				
1802C	3					1821	1,000					1842	12,500				
1802D	4					1822	1,200					1843	15,000				
1803	5					1823	1,250					1844	20,000				
1804	10					1824	1,500					1845	25,000				
1805	25					1825	1,750					1846	30,000				
1806	50					1827	2,000					1847	35,000				
1807	75					1828	2,250					1848	40,000				
1808	100					1830	2,500					1849	45,000				
1809	150	1831	2,750	1850	50,000												
1810	200	1832	3,000	1851	55,000												
1811	250	1833	3,500	1852	60,000												
1812	300	1834	4,000	1853	65,000												
1813	350	1835	4,500	1854	70,000												
1814	400	1836	5,000	1855	75,000												
1815	500	1837	6,000	1856	80,000												
1816	650	1838	7,000	1857	85,000												
1817	700	1839	7,500	1858	90,000												
1818	750	1840	8,000	1859	95,000												
				1860	100,000												

OHMITE Fixed Resistors



Lug type, wire-wound with vitreous enamel. Wire of the finest alloy and largest possible size is used for each resistance. The original uniform close spacing of the turns is maintained by the anchoring effect of the vitreous enamel. The wire is securely welded to the terminal lugs. Tolerance: 5%. Shpg. wt.: 10-50 watts, 4.0 oz.; 100-200 watts, 1 lb.

STYLE 270-12 — 12 WATT— $1\frac{1}{4}$ "x $5\frac{1}{16}$ "

Stock No.	Type	Resis. Ohms	Max. Amps.	1-9	10-24	25-99	100-249
13F1200	3723	.51	4.86				
13F1201	3730	1.0	3.46				
13F1202	3734	1.5	2.83				
13F1203	3738	2.2	2.34				
13F1204	3742	3.3	1.91				
13F1205	3746	4.7	1.60				
13F1206	3750	6.8	1.33				
13F1207	3754	10	1.10				
13F1208	3756	12	1.00				
13F1209	3758	15	.89				
13F1210	3760	18	.82				
13F1211	3762	22	.74				
13F1212	3764	27	.67				
13F1213	3766	33	.60				
13F1214	3768	39	.55				
13F1215	3770	47	.53				
13F1216	3772	56	.46	.57	.48	.40	.34
13F1217	3774	68	.42				
13F1218	3776	82	.38				
13F1219	3778	100	.35				
13F1220	3780	120	.32				
13F1221	3782	150	.28				
13F1222	3784	180	.26				
13F1223	3786	220	.23				
13F1224	3788	270	.21				
13F1225	3790	330	.19				
13F1226	3792	390	.18				
13F1227	3794	470	.16				
13F1228	3796	560	.15				
13F1229	3798	680	.13				
13F1230	3800	820	.12				
13F1231	3802	1,000	.11				
13F1232	3804	1,200	.10				
13F1233	3806	1,500	.089				
13F1234	3808	1,800	.082				
13F1235	3810	2,200	.074	.61	.52	.43	.37
13F1236	3812	2,700	.067				
13F1237	3814	3,300	.060				
13F1238	3816	3,900	.055				
13F1239	3818	4,700	.053				
13F1240	3820	5,600	.046				
13F1241	3822	6,800	.042	.70	.60	.49	.42
13F1242	3824	8,200	.038				
13F1243	3826	10,000	.035				
13F1244	3828	12,000	.032				
13F1245	3830	15,000	.028	.79	.67	.55	.47
13F1246	3832	18,000	.026				
13F1247	3834	22,000	.023				
13F1248	3836	27,000	.021	.83	.71	.58	.50
13F1249	3838	33,000	.019				
13F1250	3840	39,000	.018				
13F1251	3842	47,000	.016	.93	.79	.65	.56
13F1252	3843	51,000	.015	.93	.79	.65	.56

STYLE 270-25 — 25 WATT—2"x $9\frac{1}{16}$ "

Stock No.	Type	Resis. Ohms	Max. Amps.	1-9	10-24	25-99	100-249
13F720	0200J	1	5.00				
13F721	0200K	2	3.54				
13F722	0200L	3	2.88				
13F723	0200A	5	2.24				
13F724	0200B	10	1.58				
13F725	0200R	15	1.29				
13F726	0200C	25	1.00				
13F727	0200D	50	.71	.72	.61	.50	.43
13F728	0200E	75	.58				
13F729	0200F	100	.50				
13F730	0200G	150	.41				
13F731	0200H	200	.35				
13F732	0201	250	.32				
13F733	0202	500	.22				
13F734	0203	750	.18				
13F735	0204	800	.17				
13F736	0205	1,000	.16				
13F737	0206	1,500	.13				
13F738	0207	2,000	.12				
13F739	0208	2,500	.10				
13F740	0209	3,000	.091	.75	.64	.53	.45
13F741	0210	3,500	.084				
13F742	0211	4,000	.079				
13F743	0212	5,000	.070				
13F744	0213	6,000	.064				
13F745	0214	7,500	.057	.85	.72	.60	.51
13F746	0215	10,000	.050				
13F747	0216	12,000	.042				
13F748	0217	15,000	.036	.90	.77	.63	.54
13F749	0218	20,000	.031				
13F750	0219	25,000	.028				
13F754	0220	30,000	.026	1.04	.88	.73	.62
13F755	0221	35,000	.024				
13F751	0222	40,000	.022				
13F752	0224	50,000	.020	1.21	1.03	.85	.73
13F756	0226	70,000	.014	1.42	1.21	.99	.85
13F753	0229	100,000	.010	1.64	1.39	1.15	.98

STYLE 270-50 — 50 WATT—4"x $9\frac{1}{16}$ "

Stock No.	Type	Resis. Ohms	Max. Amps.	1-9	10-24	25-99	100-249
13F760	0400A	5	3.16				
13F761	0400B	10	2.23				
13F762	0400C	25	1.41				
13F763	0400D	50	1.00				
13F764	0400E	75	.82				
13F765	0400F	100	.71				
13F766	0400G	150	.58	1.11	.94	.78	.67
13F767	0400H	200	.50				
13F768	0401	250	.45				
13F769	0402	500	.32				
13F770	0403	750	.26				
13F769	0404	800	.25				
13F771	0405	1,000	.22				
13F772	0406	1,500	.18				
13F773	0407	2,000	.16				
13F774	0408	2,500	.14	1.14	.97	.80	.68
13F775	0409	3,000	.13				
13F776	0410	4,000	.11				
13F777	0411	5,000	.10				
13F778	0412	7,500	.081	1.23	1.05	.86	.74
13F779	0413	8,000	.079	1.23	1.05	.86	.74
13F780	0414	10,000	.071	1.23	1.05	.86	.74
13F781	0415	12,000	.064	1.35	1.15	.95	.81
13F782	0416	15,000	.057	1.35	1.15	.95	.81
13F783	0417	20,000	.050	1.35	1.15	.95	.81
13F784	0418	25,000	.045	1.54	1.31	1.08	.92
13F785	0419	35,000	.032	1.54	1.31	1.08	.92
13F786	0420	50,000	.026	1.72	1.46	1.20	1.03
13F787	0421	75,000	.021	1.97	1.67	1.38	1.18
13F788	0422	100,000	.018	2.13	1.81	1.49	1.28

STYLE 270-100 — 100 WATT— $6\frac{1}{2}$ "x $3\frac{1}{4}$ "

Stock No.	Type	Resis. Ohms	Max. Amps.	1-9	10-24	25-99	100-249
13F800	0600A	5	4.47				
13F801	0600B	10	3.16				
13F802	0601	25	2.00				
13F803	0602	50	1.41				
13F804	0603	75	1.15				
13F805	0604	100	1.00	1.54	1.31	1.08	.92
13F806	0605	150	.82				
13F807	0606	250	.63				
13F808	0607	500	.45				
13F809	0608	750	.37				
13F810	0609	1,000	.32				
13F811	0610	1,500	.26				
13F812	0611	2,000	.22				
13F813	0612	2,500	.20	1.60	1.36	1.12	.96
13F814	0613	3,000	.18				
13F815	0614	5,000	.14				
13F816	0615	7,500	.12	1.73	1.47	1.21	1.04
13F817	0616	10,000	.10	1.73	1.47	1.21	1.04
13F818	0617	15,000	.081	1.87	1.58	1.31	1.12
13F819	0618	20,000	.071	1.87	1.58	1.31	1.12
13F820	0619	25,000	.063	2.13	1.81	1.49	1.28
13F821	0620	30,000	.058	2.13	1.81	1.49	1.28
13F822	0621	40,000	.050	2.13	1.81	1.49	1.28
13F823	0622	50,000	.045	2.21	1.88	1.55	1.33
13F825	0624	75,000	.032	2.45	2.08	1.72	1.47
13F826	0625	100,000	.028	2.75	2.34	1.93	1.65

STYLE 270-225 — 225 WATT— $10\frac{1}{2}$ "x $1\frac{1}{8}$ "

Stock No.	Type	Resis. Ohms	Max. Amps.	1-9	10-24	25-99	100-249
13F830	0900A	5	6.72	3.44	2.82	2.41	2.08
13F831	0900B	10	4.74				
13F832	0901	25	3.00				
13F833	0902	50	2.12				
13F834	0903	75	1.73	2.46	2.09	1.72	1.48
13F835	0904	100	1.50				
13F836	0905	150	1.25				
13F837	0906	250	.95				
13F838	0907	500	.67				
13F839	0908	750	.55				
13F840	0909	1,000	.47				
13F841	0910	1,500	.39				
13F842	0911	2,000	.34	2.53	2.15	1.77	1.52
13F843	0912	2,500	.30				
13F844	0913	3,000	.27				
13F845	0914	5,000	.21				
13F846	0915	7,500	.17	2.71	2.30	1.90	1.63
13F847	0916	10,000	.15	2.71	2.30	1.90	1.63
13F848	0917	15,000	.13	2.89	2.46	2.02	1.73
13F849	0918	20,000	.11	2.89	2.46	2.02	1.73
13F850	0919	25,000	.095	2.98	2.53	2.09	1.79
13F851	0920	30,000	.087	2.98	2.53	2.09	1.79
13F852	0921	40,000	.075	2.98	2.53	2.09	1.79
13F853	0922	50,000	.067	3.08	2.62	2.16	1.85
13F854	0923	60,000	.061	3.08	2.62	2.16	1.85
13F855	0924	75,000	.055	3.26	2.77	2.28	1.98
13F856	0925	100,000	.047	3.46	2.94	2.42	2.08

Resistors-Kits-Calculators OHMITE

OHMITE "LITTLE DEVIL" RESISTORS

Molded composition resistors meet all requirements for MIL-R-11E, except *. Minimum resistance under MIL spec is 2.7 ohms for 1/2 watt and 10 ohms for 1/4 watt. Meets salt water and high humidity requirements. Unexcelled for low noise level. Dissipate heat rapidly—can be used at their full wattage ratings at 158°F. ambient temp. 1 1/2" leads. WT., 2 oz. Figures in large, bold type are 10% EIA values. All values available in ±5% tolerance.



Ohms				Megohms					
1.0	6.2	39	240	1500	9100	56000	0.24	1.1	5.1
1.1	6.8	43	270	1600	10000	62000	0.27	1.2	5.6
1.2	7.5	47	300	1800	11000	68000	0.30	1.3	6.2
1.3	8.2	51	330	2000	12000	75000	0.33	1.5	6.8
1.5	9.1	56	360	2200	13000	82000	0.36	1.6	7.5
1.6	10	62	390	2400	15000	91000	0.39	1.8	8.2
1.8	11	68	430	2700	16000	100000	0.43	2.0	9.1
2.0	12	75	470	3000	18000	110000	0.47	2.2	10.0
2.2	13	82	510	3300	20000	120000	0.51	2.4	11.0
2.4	15	91	560	3600	22000	130000	0.56	2.7	12.0
2.7	16	100	620	3900	24000	150000	0.62	3.0	13.0
3.0	18	110	680	4300	27000	160000	0.68	3.3	15.0
3.3	20	120	750	4700	30000	180000	0.75	3.6	16.0
3.6	22	130	820	5100	33000	200000	0.82	3.9	18.0
3.9	24	150	910	5600	36000	220000	0.91	4.3	20.0
4.3	27	160	1000	6200	39000		1.0	4.7	22.0
4.7	30	180	1100	6800	43000				
5.1	33	200	1200	7500	47000				
5.6	36	220	1300	8200	51000				

1/2 WATT UNITS

Voltage Rating: 150 volts r.m.s. Size: .145" x .062". Mil. RC-05.

Stock No.	Tol.	Resist. Range	1-4	5-49	50-99	100-249	250-499	500-999	1000-up
13F048	5%	2.7 ohms to 9.1 ohms*	.37	.31	.25	.218	.190	.175	.164
		10 ohms to 22 Meg.	.34	.28	.23	.198	.173	.159	.149
13F046	10%	2.7 ohms to 8.2 ohms*	.27	.22	.18	.156	.134	.123	.116
		10 ohms to 22 Meg.	.24	.20	.16	.140	.122	.112	.105

1/4 WATT UNITS

Voltage Rating: 250 volts r.m.s. Size: .25x.090". Mil. RC-07.

Stock No.	Tol.	Resist. Range	1-4	5-49	50-99	100-249	250-499	500-999	1000-up
12F205	± 5%	2.7 ohms to 9.1 ohms*	.29	.24	.15	.105	.10	.08	.068
		10 ohms to 22 Meg.	.26	.22	.14	.095	.091	.073	.062
12F200	± 10%	2.7 ohms to 8.2 ohms*	.14	.12	.08	.055	.055	.044	.037
		10 ohms to 22 Meg.	.13	.11	.07	.05	.05	.04	.034

1/2 WATT UNITS

Voltage rating: 350 volts r.m.s. Size: .375 x .1404". Mil. RC-20.

Stock No.	Tol.	Resist. Range	1-4	5-49	50-99	100-249	250-499	500-999	1000-up
13F065	± 5%	1 ohm to 2.4 ohms*	.26	.22	.14	.095	.091	.073	.062
		2.7 ohms to 22 Meg.	.24	.20	.12	.075	.073	.065	.056
13F050	± 10%	1 ohm to 2.2 ohms*	.13	.11	.07	.05	.05	.04	.034
		2.7 ohms to 22 Meg.	.12	.10	.06	.04	.04	.032	.03

1 WATT UNITS

Voltage Rating: 500 volts r.m.s. Size: .5625x.218". Mil. RC-32.

Stock No.	Tol.	Resist. Range	1-4	5-49	50-99	100-249	250-499	500-999	1000-up
13F070	± 5%	2.7 ohms to 22 Meg.	.36	.30	.18	.125	.123	.11	.09
13F055	± 10%	2.7 ohms to 22 Meg.	.18	.15	.09	.06	.055	.050	.045

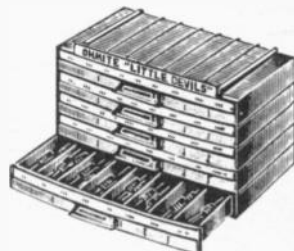
2 WATT UNITS

Voltage Rating: 750 volts r.m.s. Size: .6875x.3125". Mil. RC-42.

Stock No.	Tol.	Resist. Range	1-4	5-49	50-99	100-249	250-499	500-999	1000-up
13F075	± 5%	10 ohms to 22 Meg.	.48	.40	.24	.19	.185	.175	.16
13F080	± 10%	10 ohms to 22 Meg.	.24	.20	.15	.11	.098	.088	.082

OHMITE "LITTLE DEVIL" KITS

Most commonly used resistors with a plastic cabinet included at no extra cost. Cabinet has 5 drawers and 40 compartments. 9x4 1/4x5 1/4". Wt., 7 lbs.



Model CAB-4. 1/4 watt ± 10% assortment with 150 resistors in values below.
13F164. NET19.50

Model CAB-10. 1/2-watt ± 10% assortment with 150 resistors in values listed below.
13F165. NET18.00

Model CAB-2. 1-watt ± 10% assortment with 125 resistors in values below.
13F166. NET22.50

Model CAB-3. 2-watt ± 10% assortment with 125 resistors in values below.
13F167. NET30.00

Quantities				Quantities			
CAB-4	CAB-10	CAB-2	Ohms	CAB-4	CAB-10	CAB-2	Ohms
....	1	1	10	3	3	1	33,000
....	1	1	15	3	5	5	39,000
....	1	1	27	5	10	10	47,000
5	1	1	47	3	3	1	68,000
5	5	1	100	2	1	1	82,000
1	1	1	150	10	10	10	.1 meg
3	3	1	270	3	5	5	.15 meg
1	1	1	330	3	3	1	.22 meg
3	3	1	470	3	10	10	.27 meg
1	1	1	680	3	3	1	.33 meg
10	5	3	1,000	5	10	10	.47 meg
5	1	1	1,500	1	1	1	.68 meg
10	1	1	2,200	10	10	10	1.0 meg
5	3	3	2,700	1	1	1	1.5 meg
10	10	5	4,700	1	1	1	2.2 meg
5	1	1	6,800	1	3	1	2.7 meg
10	10	10	10,000	1	1	1	3.9 meg
5	3	3	15,000	1	1	1	4.7 meg
5	5	5	22,000	1	1	1	6.8 meg
5	10	10	27,000	1	1	1	10.0 meg

"LITTLE DEVIL" COLOR CODER

Type #5190. Set dial to resistor's EIA color code . . . read resistance directly. Gives MIL equivalents and chart showing availability of various resistances. Shpg. wt., 2 oz.

51F989. NET10c

OHM'S LAW CALCULATOR

Type #5182. Easy-to-use rapid calculator. Solve electrical problems involving various applications of Ohm's Law—has a parallel-resistance calculator. Made of vinyl. Slide-rule scales. Size: 9x3". Shpg. wt., 3 oz.

51F982. NET1.50

Type #5180. As above, but on cardboard. Shpg. wt., 2 oz.

51F983. NET25c

CAPACITOR CALCULATOR

Type #5184. Provides quick answers on capacitance problems. With one setting of slide, capacitor calculator gives the solution to problems involving frequency, reactance, power factor, dissipation factor, equivalent series resistance, impedance and phase angle. Incorporates A, B, C, D, slide rule scales. Includes important capacitance formulae and comparison chart. 7"x2 1/2". Durable, heavy, varnished cardboard. Shpg. wt., 2 oz.

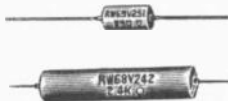
51F985. NET25c

Depend on NEWARK for the Latest Top-Quality Equipment. Complete On-the-Shelf Stocks • Lowest Prices • Fast Service

Resistors

OHMITE MOLDED VITREOUS ENAMELED RESISTORS—SERIES 99

TYPE 991 MILITARY AXIAL LEAD POWER RESISTORS



Meets the requirements of MIL-R-26C insulated styles RW67V, RW68V, RW69V. Tolerance $\pm 5\%$ 1000VAC insl. brkdwn. Vitrified, permanent markings. Leads $1\frac{1}{2}$ in. long. Resistors utilize a single layer winding of high grade resistance alloy on a ceramic core.

Axial type terminal leads and the resistance wire are both welded to metal end-caps which fit snugly over the core ends. A jacket of tough, moisture-resistant, vitreous enamel material is molded around the resistor. The use of the molding technique provides the advantages of a uniformly thick, dense, smooth covering. Av. Shpg. wt., 4 oz.

Stock Resistances—Ohms

1.0	18	36	68	180	360	680	1300	2700	5100
2.0	20	39	75	200	390	750	1500	3000	5600
3.0	22	43	82	220	430	820	1600	3300	6200
5.1	24	47	91	240	470	910	1800	3600	6800
10	27	51	100	270	510	1000	2000	3900	7500
12	30	56	120	300	560	1100	2200	4300	8200
15	33	62	150	330	620	1200	2400	4700	

TYPE 995 "MOLDED VITREOUS" AXIAL-LEAD RESISTORS



All welded vitreous enamel resistor with 1000VAC insulation. Resists chipping, breaking, and protects against moisture, salt spray, and salt immersion. Vitrified markings resist high temperatures, solvents, and abrasions. Standard resistance tolerance: $\pm 5\%$. Leads tinned, $1\frac{1}{2}$ L. All sizes 20 gauge except $1\frac{1}{2}$ w.: 24 gauge. Leads can be bent sharply at the body. Uniform dimensions permit use in automated assembly insertion equipment.

RESISTOR SIZE

$1\frac{1}{2}$ Watt: 0.422" L. x 0.125" D. $3\frac{1}{4}$ Watt: 0.547" L. x 0.203 D. $2\frac{1}{4}$ Watt: 0.375" L. x 0.188 D. 5 Watt: 0.938" L. x 0.203" D. 11 Watt: 1.781" L. x 0.313" D.

Stock Resistances—Ohms

1.0	22	82	400	1200	5000	18000
1.5	25	100	470	1500	5600	20000
2.0	27	120	500	1800	6000	22000
3.0	30	150	560	2000	6800	25000
4.0	33	180	600	2200	7000	27000
5.0	39	200	680	2500	7500	30000
7.5	40	220	700	2700	8000	33000
10	47	250	750	3000	8200	39000
12	50	270	800	3300	9000	40000
15	56	300	820	3900	10000	47000
18	68	330	900	4000	12000	50000
20	75	390	1000	4700	15000	

Specify Stock No. and Resistance when ordering.

DALE RESISTORS

TYPE RS—MIL—R-26C MIL-R-23379



Type RS. These should be specified when space is at a premium and when precision and power are needed. They are of the conventional type with pigtail mounting leads. They are completely protected and silicone sealed. Surpasses MIL-R-26C.

RS-1B $\pm 1\%$ —1 WATT

Stock No.	Resistance in Ohms	1-24	25-49	50-99	100-249	250-499
13F137	1 - 1K	.68	.77	.73	.68	.63
	1.1K-4K	1.08	.86	.81	.75	.69
	4.1K-15K	1.21	.85	.80	.69	.77

RS-2B $\pm 1\%$ —3 WATT

Stock No.	Resistance in Ohms	1-24	25-49	50-99	100-249	250-499
13F142	1 - 1K	.75	.58	.56	.52	.48
	1.1K-5K	.83	.66	.62	.57	.53
	5.1K-10K	.86	.68	.64	.59	.56
	10.1K-15K	.88	.70	.66	.62	.57
	15.1K-20K	.92	.74	.69	.65	.59
	20.1K-24.5K	.98	.78	.74	.68	.64

Resistance values not listed are available. \$7.50 minimum order. Prices as listed below:

- For $\pm 0.5\%$ tolerance add 100% to listed prices.
- For $\pm 0.25\%$ tolerance add 150% to listed prices.
- For $\pm 0.10\%$ tolerance add 200% to listed prices.
- For $\pm 0.05\%$ tolerance add 300% to listed prices.

Type RW69V—3 Watts

To replace RW59V and RW59G. OHMITE STYLE 991-3. Size 0.203 in. Dia. by 0.547 in. L.

Stk. No.	Stock res. in ohms	NET EACH			
		1-9	10-24	25-99	100-249
13F310	1.0 to 910	.71	.60	.50	.43

Type RW67V—6.5 Watts

To replace RW57V and RW57G. OHMITE STYLE 991-6.5. Size: 0.313 in. dia. x 0.922 in. L.

13F311	1.0 to 1000	.74	.63	.52	.44
	1100 to 3600	.79	.67	.55	.47

Type RW68V—11 Watts

To replace RW58V, RW58G, RW55V, RW55G and RW56G. OHMITE STYLE 991-11. Size: 0.313 in. dia. by 1.781 in. L.

13F312	1.0 to 1000	.82	.70	.57	.49
	1100 to 4700	.88	.75	.62	.53
	5100 to 8200	1.01	.86	.71	.61

1 1/2 WATT UNITS—STYLE 995-1A

Stk. No.	Value in Ohms	1-9	10-24	25-99	100-249
		13F168	1 to 1,000	.62	.53	.43	.37
	1,100 to 3,000	.68	.56	.46	.40

2 1/4 WATT UNITS—STYLE 995-2A

13F169	1 to 1,000	.60	.51	.42	.36
	1,100 to 3,000	.64	.54	.45	.38

3 1/4 WATT UNITS—STYLE 995-3A

13F145	1 to 1,000	.59	.50	.41	.35
	1,200 to 5,000	.62	.53	.43	.37
	5,600 to 10,000	.66	.56	.46	.40

5 WATT UNITS—STYLE 995-5B

13F146	1 to 1000	.62	.53	.43	.37
	1,200 to 5,000	.66	.56	.46	.40
	5,600 to 10,000	.70	.60	.49	.42
	12,000 to 20,000	.78	.66	.55	.47
	22,000 and 25,000	.82	.70	.57	.49

11 WATT UNITS—STYLE 995-10A

13F147	1 to 1,000	.68	.58	.48	.41
	1,200 to 5,000	.73	.62	.51	.44
	5,600 to 10,000	.84	.71	.59	.50
	12,000 to 20,000	.95	.81	.67	.57
	22,000 to 40,000	1.00	.85	.70	.60
	47,000 and 50,000	1.12	.95	.78	.67

RS-5 $\pm 1\%$ —5 WATT—MIL. NO. RW-67 & RWP-21

Stock No.	Resistance in Ohms	1-24	25-49	50-99	100-249	250-499
13F143	1 - 1K	.75	.59	.56	.52	.48
	1.1K-5K	.83	.66	.62	.57	.53
	5.1K-10K	.86	.68	.64	.59	.56
	10.1K-15K	.88	.70	.66	.62	.57
	15.1K-20K	.92	.74	.69	.65	.59
	20.1K-40K	.98	.78	.74	.68	.64
	40.1K-55K	1.05	.85	.79	.74	.68
	55.1K-75K	1.16	.92	.87	.81	.75
	75.1K-95.2K	1.28	1.02	.96	.89	.83

RS-10 $\pm 1\%$ —10 WATT—MIL. NO. RW-68 & RWP-23

Meets precision power req. in advanced electronic circuits where space is at a premium. Silicone coating maintains stable performance under adverse environmental conditions.

Stock No.	Resistance in Ohms	1-24	25-49	50-99	100-249	250-499
13F136	1 - 1K	.75	.59	.56	.52	.48
	1.1K-5K	.83	.66	.62	.57	.53
	5.1K-10K	.86	.68	.64	.59	.56
	10.1K-15K	.88	.70	.66	.62	.57
	15.1K-20K	.92	.74	.69	.65	.59
	20.1K-40K	.98	.78	.74	.68	.64
	40.1K-55K	1.05	.85	.79	.74	.68
	55.1K-75K	1.16	.92	.87	.81	.75
	75.1K-100K	1.28	1.02	.96	.89	.83
	100.1K-125K	1.40	1.11	1.05	.98	.91
	125.1K-150K	1.53	1.21	1.14	1.07	.99
	150.1K-175K	1.67	1.33	1.25	1.17	1.08
	175.1K-225K	1.82	1.46	1.37	1.29	1.20
	225.1K-273K	2.00	1.61	1.51	1.42	1.33

See Next Page for Standard Resistance Values.

Precision Resistors

DALE

TYPE RH-MIL-R-18546



Resistors are wire wound type with special resistance-temperature characteristics and housing configurations designed to meet MIL-R-18546 specifications. Constructed to provide a flat surface and

recommended for chassis mounting to assure proper heat dissipation. Molded construction in a die-cast, gold anodized-radiator finned aluminum housing. 100% impervious to moisture and salt spray. Heavy duty leads.

RH-10 ±1% — 12.5 WATT MIL. NO. RE65

Stock No.	Resistance in Ohms	1-24	25-49	50-99	100-249	250-499
13P139	1.0-1K	1.82	1.45	1.36	1.27	1.18
	1.1K-5K	1.91	1.53	1.44	1.34	1.24
	5.1K-10K	2.08	1.66	1.56	1.45	1.35
	10.1K-12K	2.24	1.79	1.69	1.56	1.45
	12.1K-15K	2.44	1.95	1.83	1.71	1.58
	15.1K-25K	2.62	2.39	2.18	1.95	1.74
	25.1K-40K	2.90	2.65	2.41	2.17	1.93
	40.1K-50K	3.19	2.91	2.64	2.42	2.11

RH-25 ±1% — 25 WATT MIL. NO. RE70

Stock No.	Resistance in Ohms	1-24	25-49	50-99	100-249	250-499
13P140	1.0-1K	1.82	1.45	1.36	1.27	1.18
	1.1K-5K	1.91	1.53	1.44	1.34	1.24
	5.1K-10K	2.08	1.66	1.56	1.45	1.35
	10.1K-12K	2.24	1.79	1.69	1.56	1.45
	12.1K-15K	2.44	1.95	1.83	1.71	1.58
	15.1K-25K	2.62	2.39	2.18	1.95	1.74
	25.1K-40K	2.90	2.65	2.41	2.17	1.93
	40.1K-50K	3.19	2.91	2.64	2.42	2.11
	50.1K-60K	3.48	3.17	2.87	2.54	2.28
	60.1K-75K	3.79	3.45	3.10	2.76	2.48
75.1K-95.2K	4.17	3.79	3.41	3.07	2.73	

RH-50 ±1% — 50 WATT MIL. NO. RE75

Stock No.	Resis., Ohms	1-24	25-49	50-99	100-249	250-499
13P141	1.0-5.9	3.23	2.59	2.42	2.26	2.10
	6.0-1K	2.23	1.78	1.67	1.56	1.45
	1.1K-5K	2.34	1.87	1.76	1.64	1.52
	5.1K-10K	2.53	2.02	1.89	1.77	1.64
	10.1K-20K	2.75	2.20	2.06	1.93	1.78
	20.1K-55K	3.00	2.40	2.24	2.10	1.95
	55.1K-75K	3.26	2.61	2.44	2.28	2.11
	75.1K-100K	3.50	2.79	2.63	2.45	2.28
	100.1K-125K	3.80	3.04	2.85	2.66	2.46
	125.1K-150K	4.09	3.28	3.07	2.86	2.66
	150.1K-175K	4.38	3.50	3.29	3.07	2.85
175.1K-225K	4.85	3.67	3.52	3.24	3.05	
225.1K-273K	5.02	3.95	3.80	3.45	3.28	

STANDARD RESISTANCE VALUES — RH & RS ONLY

Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms
1	15	65	330	900	4.2K	14K	70K
1.5	16	70	350	950	4.3K	15K	75K
2	17.5	75	375	1K	4.5K	15.5K	80K
2.5	20	80	390	1.1K	4.7K	17.5K	90K
3	21	85	400	1.2K	5K	20K	100K
4	22.5	90	425	1.25K	5.3K	22.5K	110K
4.5	25	100	450	1.3K	6K	25K	120K
5	27.5	110	470	1.4K	6.2K	27.5K	130K
5.5	30	125	500	1.5K	6.3K	30K	140K
6	31	130	510	1.6K	6.8K	35K	150K
7	33	150	560	1.75K	7K	40K	160K
7.5	35	160	600	1.8K	7.5K	42K	170K
8	37	175	620	2K	8K	45K	175K
9	40	180	650	2.2K	8.2K	46K	182K
10	42	200	700	2.5K	9K	47K	191K
11	45	220	725	3K	10K	50K	200K
12	47	225	750	3.1K	11K	55K	221K
12.5	50	250	760	3.5K	12K	60K	232K
13	55	270	800	3.75K	12.5K	65K	243K
14	60	300	850	4K	13K	68K	257K

CARBON-FILM PRECISION RESISTORS



Type DC and DCS. Low cost miniature resistors designed for excellent protection from moisture, salt spray and other environmental conditions. Ideal for applications requiring high stability and accuracy combined with long reliable load life. Pure crystalline carbon film (no binder or filler). Excellent high frequency characteristics. Tolerance 1%. Full power to 70°C, derating at 0 at 165°C. Sizes: DC-1/4—Dia. .109 x Lt. .468 DCS-1/2 Dia. .171 x Lt. .562.

Stock No.	Range Resist.	Type	Watt	1-24	25-99	100-499	500-999
13P148	10 ohm-2 meg.	DC-1/4 (RN-10)	1/4	.48	.19	.11	.10
	2.01 meg.-5 meg.	(RN-10X)		.58	.23	.13	.12
13P152	10-2.5 meg.	DCS-1/2 (RN-200)	1/2	.48	.19	.11	.10
	2.51-5 meg.			.58	.23	.13	.12

STANDARD RESISTANCE VALUES FOR DC-1/4 AND DCS-1/2 RESISTORS

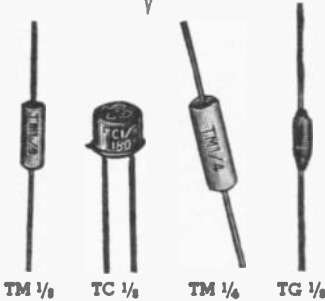
Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Meg	Meg
10.0	22.1	48.7	107	237	523	1150	2550	5620	12.4K	27.4K	60.4K	138K	294K	649K	1.37	3.01	
10.2	22.6	49.9	110	243	536	1180	2610	5760	12.7K	28.0K	61.9K	137K	301K	665K	1.40	3.09	
10.5	23.2	51.1	113	249	549	1210	2670	5900	13.0K	28.7K	63.4K	140K	309K	681K	1.43	3.16	
10.7	23.7	52.3	115	255	562	1240	2740	6040	13.3K	29.4K	64.9K	143K	316K	698K	1.47	3.24	
11.0	24.3	53.6	118	261	576	1270	2800	6190	13.7K	30.1K	66.5K	147K	324K	715K	1.50	3.32	
11.3	24.9	54.9	121	267	590	1300	2870	6340	14.0K	30.9K	68.1K	150K	332K	732K	1.54	3.40	
11.5	25.5	56.2	124	274	604	1330	2940	6490	14.3K	31.6K	69.8K	154K	340K	750K	1.58	3.48	
11.8	26.1	57.6	127	280	619	1370	3010	6650	14.7K	32.4K	71.5K	158K	348K	768K	1.62	3.57	
12.1	26.7	59.0	130	287	634	1400	3090	6810	15.0K	33.2K	73.2K	162K	357K	787K	1.65	3.65	
12.4	27.4	60.4	133	294	649	1430	3160	6980	15.4K	34.0K	75.0K	165K	365K	806K	1.69	3.74	
12.7	28.0	61.9	137	301	665	1470	3240	7150	15.8K	34.8K	76.8K	169K	374K	825K	1.74	3.83	
13.0	28.7	63.4	140	309	681	1500	3320	7320	16.2K	35.7K	78.7K	174K	383K	845K	1.78	3.92	
13.3	29.4	64.9	143	316	698	1540	3400	7500	16.5K	36.5K	80.6K	178K	392K	866K	1.82	4.02	
13.7	30.1	66.5	147	324	715	1580	3480	7680	16.9K	37.4K	82.5K	182K	402K	887K	1.87	4.12	
14.0	30.9	68.1	150	332	732	1620	3570	7870	17.4K	38.3K	84.5K	187K	412K	909K	1.91	4.22	
14.3	31.6	69.8	154	340	750	1650	3650	8060	17.8K	39.2K	86.6K	191K	422K	931K	1.96	4.32	
14.7	32.4	71.5	158	348	768	1690	3740	8250	18.2K	40.2K	88.7K	196K	432K	953K	2.00	4.42	
15.0	33.2	73.2	162	357	787	1740	3830	8450	18.7K	41.2K	90.9K	200K	442K	976K	2.05	4.53	
15.4	34.0	75.0	165	365	806	1780	3920	8660	19.1K	42.2K	93.1K	205K	453K		2.10	4.64	
15.8	34.8	76.8	169	374	825	1820	4020	8870	19.6K	43.2K	95.3K	210K	464K		2.15	4.75	
16.2	35.7	78.7	174	383	845	1870	4120	9090	20.0K	44.2K	97.6K	215K	475K		2.21	4.87	
16.5	36.5	80.6	178	392	866	1910	4220	9310	20.5K	45.3K	100K	221K	487K		2.26	4.99	
16.9	37.4	82.5	182	402	887	1960	4320	9530	21.0K	46.4K	102K	226K	499K		2.05	2.32	
17.4	38.3	84.5	187	412	909	2000	4420	9760	21.5K	47.5K	105K	232K	511K		2.07	2.37	
17.8	39.2	86.6	191	422	931	2050	4530	10.0K	22.1K	48.7K	107K	237K	523K		1.10	2.43	
18.2	40.2	88.7	196	432	953	2100	4640	10.2K	22.6K	49.9K	110K	243K	536K		1.13	2.49	
18.7	41.2	90.9	200	442	976	2150	4750	10.5K	23.2K	51.1K	113K	249K	549K		1.15	2.55	
19.1	42.2	93.1	205	453	1000	2210	4870	10.7K	23.7K	52.3K	115K	255K	562K		1.18	2.61	
19.6	43.2	95.3	210	464	1020	2260	4990	11.0K	24.3K	53.6K	118K	261K	576K		1.21	2.67	
20.0	44.2	97.6	215	475	1050	2320	5110	11.3K	24.9K	54.9K	121K	267K	590K		1.24	2.74	
20.5	45.3	100	221	487	1070	2370	5230	11.5K	25.5K	56.2K	124K	274K	604K		1.27	2.80	
21.0	46.4	102	226	499	1100	2430	5360	11.8K	26.1K	57.6K	127K	280K	619K		1.30	2.87	
21.5	47.5	105	232	511	1130	2490	5490	12.1K	26.7K	59.0K	130K	287K	634K		1.33	2.94	

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Texas Instruments Resistors

sensistor®



TEXAS INSTRUMENTS SENSISTOR® SILICON RESISTORS

All are solid state temperature sensing resistors. Temperature compensating, temperature sensing. Positive temperature coefficient thermistors. TM $\frac{1}{8}$, TM $\frac{1}{4}$, and TC $\frac{1}{8}$ feature large positive temperature coefficient of resistance (approx. 0.7°C). TM $\frac{1}{4}$ & TM $\frac{1}{8}$. Molded case. Tolerance of $\pm 10\%$. Axial leads, Full lead at 100°C. Derated linearly to 150°C. Size: $\frac{1}{8}$ " dia. x $\frac{1}{2}$ " length. TG $\frac{1}{8}$. Features round welded case. Has glass-to-metal hermetic seal between case and leads. $\pm 10\%$ tolerance. Full load at 125°C. Derated linearly to 200°C. Size: $\frac{3}{8}$ " dia. x $\frac{1}{4}$ " height. TG $\frac{1}{8}$. Hermetically sealed, designed to meet or exceed all electrical requirements of MIL-T-23648A for positive-TC thermistors $\pm 10\%$ tolerance. Ambient and Storage Temp. Range: -65°C to 150°C. Power dis. (at 25°C)—250 mW; at 100°C—125mW. Wt. 1 oz.

Stk. No.	Type	Watts	Resistance Range	1-49	50-249	250-499	500-999
12F055	TM- $\frac{1}{8}$	$\frac{1}{8}$	10 ohms to 10 K	4.00	3.50	3.00	2.50
12F052	TM- $\frac{1}{4}$	$\frac{1}{8}$	10 ohms to 5.6 K	5.00	4.50	4.00	3.20
12F050	TC- $\frac{1}{8}$	$\frac{1}{8}$	10 ohms to 5.6 K	5.00	4.50	4.00	3.20
12F075	TG- $\frac{1}{8}$	$\frac{1}{8}$	10 ohms to 2.7 K	5.00	4.50	4.00	3.20

RESISTANCE TABLE FOR SENSISTORS

10	18	33	56	100	180	330	500	820	1500	2700	4700	6900
12	22	39	68	120	220	390	560	1000	1800	3300	5000	8200
15	27	47	82	150	270	470	680	1200	2200	3900	5600	10000

METAL FILM RESISTORS

Stock No.	Type No.	Mil Type	Resistance Range	Watts	1-24	25-99	100-249	250-499	500-999	1000-4999
12F120	MC55-T0*	RN55D	28 ohms-100K	$\frac{1}{8}$	.85	.44	.30	.17	.16	.14
12F125	MC55-T2†	RN55C	49.9 ohms-100K	$\frac{1}{8}$	1.31	.70	.39	.35	.31	.30
12F130	MC60-T0*	RN60D	49.9 ohms-499K	$\frac{1}{4}$	.85	.44	.30	.17	.13	.14
12F135	MC60-T2†	RN60C	49.9 ohms-499K	$\frac{1}{4}$	1.31	.70	.39	.35	.31	.30
12F140	MC65-T0*	RN60D	15 ohms-1 meg	$\frac{1}{2}$	.85	.44	.30	.17	.13	.14
12F145	MC65-T2†	RN65C/F	49.9 ohms-1 meg	$\frac{1}{2}$	1.31	.70	.39	.35	.31	.30

*Temperature coefficient: ± 150 PPM †Temperature coefficient: ± 50 PPM

Resistors provide long-term stability over a wide range of operating temperatures. Low resistance, low noise connections. Conformal construction features larger core with larger film area for heat dissipation. Unaffected by load and environmental conditions. Resistor leads tinned copper. Rugged cap type construction. Buffing is limited. Withstands 20 pounds axial pull. Shipping weight: 1 oz. 1% tolerance.



● TYPE CR "EPOXY-PLUS" CARBON FILM RESISTORS

High moisture resistance. Insulation res. over 100,000 meg. Operate at full rated power at 70°C. amb., derated linearly to zero at 165°C. for characteristic B, 150°C. for characteristic C, to MIL-R-10509D. Size: CR- $\frac{1}{8}$, .25" Lx. .095" dia.; CR- $\frac{1}{4}$, .375" Lx. .105" dia.; CR- $\frac{1}{2}$, .6" Lx. .175" dia. 1% tolerance.

Stock No.	Type No.	Mil Type	Resistance Range	Watts	1-24	25-99	100-249	250-499	500-999	1000-4999
60F500	CR- $\frac{1}{8}$	RN55D,B	10 ohms-301K	$\frac{1}{8}$	.80	.32	.18	.17	.16	.136
60F501	CR- $\frac{1}{4}$	RN60D,B	10 ohms-1 meg	$\frac{1}{4}$	.51	.20	.11	.10	.09	.085
60F502	CR- $\frac{1}{2}$	RN65D,B	10 ohms-2 meg	$\frac{1}{2}$	.51	.20	.11	.10	.09	.085
60F502	CR- $\frac{1}{2}$	.....	2.55 meg-4.99 meg	$\frac{1}{2}$	.75	.38	.27	.18	.15	.135

GLASS HERMETIC RESISTORS

Hermetically sealed in hard glass for stability and reliability. Impervious to moisture. 1% ohmic tolerance. Meets or exceeds all requirements of Specification MIL-R-10509C for Character-

istic B. Alloy end caps high-temperature sealed to glass shell. Size: CG $\frac{1}{8}$ -0.240 Length x 0.125 dia. CG $\frac{1}{4}$ -0.360 Length x 0.140 diameter.

Stk. No.	Type	Watts	Tl	Mil	Mil Type	Resis. Range	Volts	1-24	25-99	100-249	250-499	500-999	1000-4999
12F110	CG $\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{10}$	$\frac{1}{10}$	RN55G,D	10 ohms-24.9 ohms	250	1.88	1.02	.77	.54	.50	.43
12F110	CG $\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{10}$	$\frac{1}{10}$	RN55G,D	25.5 ohms-49.9 ohms	250	1.40	.75	.58	.39	.36	.31
12F110	CG $\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{10}$	$\frac{1}{10}$	RN55G,D	51.1 ohms-100K ohms	250	1.22	.66	.40	.30	.28	.22
12F115	CG $\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{8}$	$\frac{1}{8}$	RN60D,	10 ohms-24.9 ohms	350	1.88	1.02	.77	.54	.50	.43
12F115	CG $\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{8}$	$\frac{1}{8}$	RN60G	25.5 ohms-49.9 ohms	350	1.40	.75	.58	.39	.36	.31
12F115	CG $\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{8}$	$\frac{1}{8}$	RN60G	51.1 ohms-1 meg	350	1.22	.66	.40	.30	.28	.22

Meet or exceed all requirements of Specification MIL-R-10509D for characteristic C. Full rated load at 125°C. amb., derated linearly to zero at 175°C. Fully insulated molded coating. Temp. coeff. T-2, ± 50 ppm/°C. Size: MM60, .40" L. x .135" dia.; 1% tolerance. Axial leads.

TYPE MM MOLDED METAL-FILM RESISTORS

Stock No.	Type	Mil Type	Resistance Range	Watts	1-24	25-99	100-249	250-499	500-999	1000-4999
60F503	MM60	RN60C	49.9 ohms-499K	$\frac{1}{8}$	1.32	.71	.49	.36	.32	.31

Meet or exceed all requirements of MIL-R-10509 specifications for characteristic X. High degree of stability $\pm 1\%$ resistance tolerance. $\pm 2\%$ tol. Will withstand moisture, shock environment and abrasion. Full rated load at 70°C. Insulation resistance greater than 50,000 megohms. Negligible noise level.

MIL LINE CARBON FILM RESISTORS

Stock No.	Type	Mil Type	Resistance Range	Watts	1-24	25-99	100-249	250-499	500-999	1000-4999
12F088	CD $\frac{1}{2}$ MR	RN60K	10 ohms to 2.49 meg	$\frac{1}{2}$	.51	.20	.11	.10	.09	.08
			2.55 meg-4.99 meg	$\frac{1}{2}$	.75	.38	.27	.18	.15	.13
			5.11 meg to 10 meg*	$\frac{1}{2}$	1.10	.80	.59	.36	.31	.27

* $\pm 2\%$ tolerance.

Resistance values for units above shown below.

DECADE TABLE FOR DETERMINING MIL-BELL STANDARD RESISTANCE VALUES

Standard Resistance Values are obtained from the Decade Table by multiplying by multiples of 10. As an example, 1.33 can represent 13.3 ohms; 133 ohms, 1.33 K, 13.3 K, 133 K, 1.33 megohms.

1.00	1.21	1.47	1.78	2.15	2.61	3.16	3.83	4.64	5.62	6.81	8.25
1.02	1.24	1.50	1.82	2.21	2.67	3.24	3.92	4.75	5.76	6.98	8.45
1.05	1.27	1.54	1.87	2.26	2.74	3.32	4.02	4.87	5.90	7.15	8.66
1.07	1.30	1.58	1.91	2.32	2.80	3.40	4.12	4.99	6.04	7.32	8.87
1.10	1.33	1.62	1.96	2.37	2.87	3.48	4.22	5.11	6.19	7.50	9.09
1.13	1.37	1.65	2.00	2.43	2.94	3.57	4.32	5.23	6.34	7.68	9.31
1.15	1.40	1.69	2.05	2.48	3.01	3.65	4.42	5.36	6.49	7.87	9.53
1.18	1.43	1.74	2.10	2.55	3.09	3.74	4.53	5.49	6.65	8.06	9.76

Precision Metal Film Resistors



Precision metal film resistors for all industrial or military requirements. The application of metal film "across the board" for all film resistor types means it is possible to reduce the numerous classes of film resistors to just four. The four classes cover all requirements from the most

precise (1%, 100 PPM/°C) down through the types formerly covered by carbon film and thin oxide. Temperature cycling is less critical when metal film resistors are used throughout the circuit. Performance and Price encroach on composition resistor applications.

Mil Standard Resistance Values

Specify Stock Number and Resistance.

Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Meg
30.1	59.0	115	226	442	866	1690	3320	6490	12.7K	24.9K	48.7K	95.3K	187K	365K	715K	1.00	
30.9	60.4	118	232	453	887	1740	3400	6650	13.0K	25.5K	49.9K	97.6K	191K	374K	732K	1.02	
31.6	61.9	121	237	464	909	1780	3480	6810	13.3K	26.1K	51.1K	100K	196K	383K	750K	1.05	
32.4	63.4	124	243	475	931	1820	3570	6980	13.7K	26.7K	52.3K	102K	200K	392K	768K	1.07	
33.2	64.9	127	249	487	953	1870	3650	7150	14.0K	27.4K	53.6K	105K	205K	402K	787K	1.10	
34.0	66.5	130	255	499	976	1910	3740	7320	14.3K	28.0K	54.9K	107K	210K	412K	806K	1.13	
34.8	68.1	133	261	511	1000	1960	3830	7500	14.7K	28.7K	56.2K	110K	215K	422K	825K	1.15	
35.7	69.8	137	267	523	1020	2000	3920	7680	15.0K	29.4K	57.6K	113K	221K	432K	845K	1.18	
36.5	71.5	140	274	536	1050	2050	4020	7870	15.4K	30.1K	59.0K	115K	226K	442K	866K	1.21	
37.4	73.2	143	280	549	1070	2100	4120	8060	15.8K	30.9K	60.4K	118K	232K	453K	887K	1.24	
38.3	75.0	147	287	562	1100	2150	4220	8250	16.2K	31.6K	61.9K	121K	237K	464K	909K	1.27	
39.2	76.8	150	294	576	1130	2210	4320	8450	16.5K	32.4K	63.4K	124K	243K	475K	931K	1.30	
40.2	78.7	154	301	590	1150	2260	4420	8660	16.9K	33.2K	64.9K	127K	249K	487K	953K	1.33	
41.2	80.6	158	309	604	1180	2320	4530	8870	17.4K	34.0K	66.5K	130K	255K	499K	976K	1.37	
42.2	82.5	162	316	619	1210	2370	4640	9090	17.8K	34.8K	68.1K	133K	261K	511K	1000	1.40	
43.2	84.5	165	324	634	1240	2430	4750	9310	18.2K	35.7K	69.8K	137K	267K	523K	1020	1.43	
44.2	86.6	169	332	649	1270	2490	4870	9530	18.7K	36.5K	71.5K	140K	274K	536K	1050	1.47	
45.3	88.7	174	340	665	1300	2550	4990	9760	19.1K	37.4K	73.2K	143K	280K	549K	1070	1.50	
46.4	90.9	178	348	681	1330	2610	5110	10.0K	19.6K	38.3K	75.0K	147K	287K	562K	1100		
47.5	93.1	182	357	698	1370	2670	5230	10.2K	20.0K	39.2K	76.8K	150K	294K	576K	1130		
48.7	95.3	187	365	715	1400	2740	5360	10.5K	20.5K	40.2K	78.7K	154K	301K	590K	1150		
49.9	97.6	191	374	732	1430	2800	5490	10.7K	21.0K	41.2K	80.6K	158K	309K	604K	1180		
51.1	100	196	383	750	1470	2870	5620	11.0K	21.5K	42.2K	82.5K	162K	316K	619K	1210		
52.3	102	200	392	768	1500	2940	5760	11.3K	22.1K	43.2K	84.5K	165K	324K	634K	1240		
53.6	105	205	402	787	1540	3010	5900	11.5K	22.6K	44.2K	86.6K	169K	332K	649K	1270		
54.9	107	210	412	806	1580	3090	6040	11.8K	23.2K	45.3K	88.7K	174K	340K	665K	1300		
56.2	110	215	422	825	1620	3160	6190	12.1K	23.7K	46.4K	90.9K	178K	348K	681K	1330		
57.6	113	221	432	845	1650	3240	6340	12.4K	24.3K	47.5K	93.1K	182K	357K	698K	1370		

TYPE T-O MFC CONFORMALLY COATED



High temp., high impact epoxy compound impervium "X" gives a MIL level moisture barrier. 1% tolerance. New cap type termination. Temp. coefficients: ± 100 PPM/°C. Wt., 1 oz.

1/20 WATT MF3C .152" L X .065" D.

Stock No.	Resistance Range	1-24	25-99	100-249	250-499	500-999	1000-9999
58F012	30.1 ohms-100K	2.29	1.89	1.00	.94	.90	.87

1/10 WATT MF4C .250" L X .093" D.

Stock No.	Resistance Range	1-24	25-99	100-249	250-499	500-999	1000-9999
58F013	49.9 ohms-301K	1.34	.50	.30	.22	.188	.143

1/4 WATT MF5C .312" L X .093" D.

Stock No.	Resistance Range	1-24	25-99	100-249	250-499	500-999	1000-9999
58F018	49.9 ohms-499K	1.06	.40	.24	.15	.125	.085

1/4 WATT MF6C .495" L X .146" D.

Stock No.	Resistance Range	1-24	25-99	100-249	250-499	500-999	1000-9999
58F017	49.9 ohms-1 meg	1.06	.40	.24	.15	.125	.095

1/2 WATT MF7C .611" L X .165" D.

Stock No.	Resistance Range	1-24	25-99	100-249	250-499	500-999	1000-9999
58F018	49.9 ohms-1.5 meg	1.06	.40	.24	.15	.125	.085

TYPE T-O MF MOLDED



Equal or surpass wire wound resistors in accuracy, reliability and stability. 1% tolerance, miniature size. Low capacitance and inductance. Mil. Spec. MIL-R-10509E.

1/10 WATT MF4 .260" L X .125" D.

Stock No.	Resistance Range	1-24	25-99	100-249	250-499	500-999	1000-9999
58F019	49.9 ohms-301K	1.39	.55	.35	.27	.238	.183

1/4 WATT MF5 .400" L X .135" D.

Stock No.	Resistance Range	1-24	25-99	100-249	250-499	500-999	1000-9999
58F009	49.9 ohms-499K	1.11	.45	.29	.20	.175	.145

1/4 WATT MF6 .595" L X .210" D.

Stock No.	Resistance Range	1-24	25-99	100-249	250-499	500-999	1000-9999
58F010	49.9 ohms-1 meg	1.11	.45	.29	.20	.175	.145

1/2 WATT MF7 .750" L X .260" D.

Stock No.	Resistance Range	1-24	25-99	100-249	250-499	500-999	1000-9999
58F011	49.9 ohms-1.5 meg	1.11	.45	.29	.20	.175	.145

TYPE MF-7 MOLDED METAL FILM RESISTORS

1/2 Watt T-2. (RN70 C). .750" L. x .285" dia.

Molded metal film resistors equal or surpass precision wire wound resistors in accuracy, reliability and stability, yet are smaller in size and offer better RF performance. 1% tolerance. Negligible voltage coefficient. Low capacitance and inductance. Temperature coefficients T-2: ± 50 PPM/°C.

Stock No.	Resistance Range	1-24	25-99	100-249	250-499	500-999	1000-9999
58F008	49.9 ohms-500K 501K-1.5 Meg.	1.31	.70	.39	.39	.39	.30

FOR VALUES NOT LISTED

All types and values of Electra resistors are available from NEWARK on Special Order. Minimum order for any value not listed above is \$15.00.

CORNING Resistors

SERIES-C FILM RESISTORS MIL-R-22684B

RL42S C-42 2 Watt

Large variety of small size metallic oxide film resistors. Combine small size with excellent thermal, frequency, and stability characteristics. These low-power resistors are expressly designed for TV, Radio, and allied products, where high-quality, low cost applications are required. PYREX brand glass core insulator with a very thin film of metallic oxide. Load Life Resistance change of

C-4 2%—1/4 Watt Mil Type RL07S

Stock No.	Type	Resis. Ohms	1-24	25-99	100-199	200-999	1000-9999
58F034	C-4	51-150K	.35	.27	.205	.126	.102

C-4 5%—1/4 Watt Mil Type RL07S

Stock No.	Type	Resis. Ohms	1-24	25-99	100-199	200-999	1000-9999
58F035	C-4	50-150K	.39	.28	.180	.110	.09

RL20S C-5 5%—1/2 WATT (Dia. .138", Length .375±.041")

Stock No.	Type	Resis. Ohms	1-99	100-249	250-499	500-999	1000-4999
58F025	C-5	10-51 ohms	.32	.25	.195	.12	.108
		52-150K	.25	.22	.15	.09	.085
		151K-470K	.28	.22	.17	.12	.085

RL32S C-32 1 Watt

1.5-3% after 1,000 hours of operation at 70°C. Operating Temperature from -55°C to 175°C. Moisture Resistance: Change in ohmic value 0.3-2%. Lead wire 1/2"L. Tol: C-5, C-32 ±5%; C-42 ±5 and 10%. Copper leads are standard. Mil-R-22684B.

C42S 5%—2 WATT (Dia. .318", Length .688 ± .031") RL42

Stock No.	Type	Resis. Ohms	1-99	100-249	250-499	500-999	1000-4999
12F005	C-42	10 ohms to 1.5 meg.	.30	.275	.225	.16	.118

C-42 ±10%—2 WATT (Dia. .318", Length .688 ± .031")

Stock No.	Type	Resis. Ohms	1-99	100-249	250-499	500-999	1000-4999
58F087	C-42	10 ohms to 1.5 meg.	.20	.14	.12	.09	.057

C-32 ±5%—1 WATT (Dia. .190", Length .562 ± .031") RL32

Stock No.	Type	Resis. Ohms	1-99	100-249	250-499	500-999	1000-4999
58F026	C-32	10 ohms to 51 ohms	.32	.25	.195	.12	.108
		52-470K	.25	.20	.15	.10	.085
		471K-1Meg	.28	.22	.17	.12	.085

STANDARD RESISTANCE VALUES FOR C-FILM RESISTORS

10% tolerance values in bold face. All values available in 5% and 2% tolerance.

Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Megohms	Megohms
10	27	68	180	470	1200	3300	8200	22000	56000	150000	0.24	0.62
11	30	75	200	510	1300	3600	9100	24000	62000	160000	0.27	0.68
12	33	82	220	560	1500	3900	10000	27000	68000	180000	0.30	0.75
13	36	91	240	620	1600	4300	11000	30000	75000	200000	0.33	0.82
15	39	100	270	680	1800	4700	12000	33000	82000	220000	0.36	0.91
16	43	110	300	750	2000	5100	13000	36000	91000	240000	0.39	1.0
18	47	120	330	820	2200	5600	15000	39000	100000	270000	0.43	1.1
20	51	130	360	910	2400	6200	16000	43000	110000	290000	0.47	1.2
22	56	150	390	1000	2700	6800	18000	47000	120000	320000	0.51	1.3
24	62	160	430	1100	3000	7500	20000	51000	130000	350000	0.56	1.5

NA SERIES RESISTOR



Types NA55, NA60, NA65, NA70. Has glass body with tin oxide coating temp. coef., ±0.01%/°C on NA55, NA60, NA65 and NA70 over -55° to +165°C. Overload change less than 0.5% and noise level less than 0-1 uv/v. Non-insulation, wattage: 1/8, 1/4, 1/2, 3/4 @ 70°C., tolerance: 1%. Meets MIL-R-10509E, characteristic D. Copper leads are standard.

Stk. No.	Mil. Type	Mil Type	Range Ohms	1-24	25-99	100-199	200-999	1000-9999
58F033	NA55	RN55D	51-150K	.78	.30	.17	.16	.11
58F030	NA60	RN60D	10-49.9	.99	.46	.32	.24	.19
			50-249K	.49	.19	.105	.10	.08
58F031	NA65	RN65D	10-49.9	.99	.46	.32	.24	.19
			50-499K	.49	.19	.105	.10	.08
58F032	NA70	RN70D	51-1Meg	.52	.24	.13	.12	.10

"S" TYPE RESISTORS



Type S. These resistors are made to meet the problems of small space and high ambient temperatures. Ideal for miniature power units, high-gain, low-signal amplifiers, computers, missiles, aircraft instruments. Meets MIL-R-11804D, char. P specs. Full rating at 130°C ambient. Extremely low noise level. Less than 0.1% resistance change under one year of aging. 1/2 watt rating. Voltage rating, 350 volts. Dimensions: 1/2" long x 1/16" diameter. Terminal length, 1/4". A temperature coefficient of ±0.03% per degree C. These high quality, accurate resistors provide excellent performance at temperatures up to 200°C. 1% Tol.

Stock No.	Mil. Type	MIL Type	Resis. Ohms	1-49	50-99	100-249	250-499	500-999
12F000	S-20	RD60P	10-49	1.05	.96	.74	.70	.52
			50-500K	.75	.69	.53	.50	.37

MIL. STANDARD RESISTANCE VALUES FOR NA & "S" SERVICE RESISTORS

Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms
10.0	21.0	44.2	93.1	196	412	866	1820	3830	8060	16.9K	35.7K	75.0K	159K	332K	698K
10.2	21.5	45.3	95.3	200	422	887	1870	3920	8250	17.4K	36.5K	76.8K	162K	340K	715K
10.5	22.1	46.4	97.6	205	432	909	1910	4020	8450	17.8K	37.4K	78.7K	165K	348K	732K
10.7	22.6	47.5	100	210	442	931	1960	4120	8660	18.2K	38.3K	80.6K	169K	357K	750K
11.0	23.2	48.7	102	215	453	953	2000	4220	8870	18.7K	39.2K	82.5K	174K	365K	768K
11.3	23.7	49.9	105	221	464	976	2050	4320	9090	19.1K	40.2K	84.5K	178K	374K	787K
11.5	24.3	51.1	107	226	475	1000	2100	4420	9310	19.6K	41.2K	86.6K	182K	383K	806K
11.8	24.9	52.3	110	232	487	1020	2150	4530	9530	20.0K	42.2K	88.7K	187K	392K	825K
12.1	25.5	53.6	113	237	499	1050	2210	4640	9760	20.5K	43.2K	90.9K	191K	402K	845K
12.4	26.1	54.9	115	243	511	1070	2260	4750	10.0K	21.0K	44.2K	93.1K	196K	412K	866K
12.7	26.7	56.2	118	249	523	1100	2320	4870	10.2K	21.5K	45.3K	95.3K	200K	422K	887K
13.0	27.4	57.6	121	255	536	1130	2370	4990	10.5K	22.1K	46.4K	97.6K	205K	432K	909K
13.3	28.0	59.0	124	261	549	1150	2430	5110	10.7K	22.6K	47.5K	100K	210K	442K	931K
13.7	28.7	60.4	127	267	562	1180	2490	5230	11.0K	23.2K	48.7K	102K	215K	453K	953K
14.0	29.4	61.9	130	274	576	1210	2550	5360	11.3K	23.7K	49.9K	105K	221K	464K	976K
14.3	30.1	63.4	133	280	590	1240	2610	5490	11.5K	24.3K	51.1K	107K	226K	475K	1 meg
14.7	30.9	64.9	137	287	604	1270	2670	5620	11.8K	24.9K	52.3K	110K	232K	487K	
15.0	31.6	66.5	140	294	619	1300	2740	5760	12.1K	25.5K	53.6K	113K	237K	499K	
15.4	32.4	68.1	143	301	634	1330	2800	5900	12.4K	26.1K	54.9K	115K	243K	511K	
15.8	33.2	69.8	147	309	649	1370	2870	6040	12.7K	26.7K	56.2K	118K	249K	523K	
16.2	34.0	71.5	150	316	665	1400	2940	6190	13.0K	27.4K	57.6K	121K	255K	536K	
16.5	34.8	73.2	154	324	681	1430	3010	6340	13.3K	28.0K	59.0K	124K	261K	549K	
16.9	35.7	75.0	158	332	698	1470	3090	6490	13.7K	28.7K	60.4K	127K	267K	562K	
17.4	36.5	76.8	162	340	715	1500	3160	6650	14.0K	29.4K	61.9K	130K	274K	576K	
17.8	37.4	78.7	165	348	732	1540	3240	6810	14.3K	30.1K	63.4K	133K	280K	590K	
18.2	38.3	80.6	169	357	750	1580	3320	6980	14.7K	30.9K	64.9K	137K	287K	604K	
18.7	39.2	82.5	174	365	768	1620	3400	7150	15.0K	31.6K	66.5K	140K	294K	619K	
19.1	40.2	84.5	178	374	787	1650	3480	7320	15.4K	32.4K	68.1K	143K	301K	634K	
19.6	41.2	86.6	182	383	806	1690	3570	7500	15.8K	33.2K	69.8K	147K	309K	649K	
20.0	42.2	88.7	187	392	825	1740	3650	7680	16.2K	34.0K	71.5K	150K	316K	665K	
20.5	43.2	90.9	191	402	845	1780	3740	7870	16.5K	34.8K	73.2K	154K	324K	681K	

AEROVOX RESISTORS

Complete Listing of Aerovox Resistor Units. Meets MIL-R-10509B

CPX 1/2—1/2 WATT (1.260"D x 23/32"L)



Carbon deposit type. For test equipment and lab. instruments. Sizes and resistance values listed below. All ±1% tol. except (*) 2% tol. Aeroglaze coating will meet all moisture in requirements of MIL-R-10509B. Shipping weight, 2 oz.

Stk. No.	Ohms	1-24	25-49	50-99	100-249	250-499	500-999
13F120	2.21 meg-5 meg	.83	.44	.32	.28	.20	.17

CPX 1/2—1/2 WATT (1.260"D x 1"L)

13F125	5.01 meg-7.5 meg	.90	.50	.40	.35	.29	.24
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CPX-1—1 WATT (Equiv. Mil. Type RN25 .328"x15/16")

13F130	10 ohms-99.9 ohms	.94	.47	.36	.31	.25	.21
13F130	100 ohms-5 meg	.81	.43	.31	.25	.19	.18
13F130	5.01 meg-10 meg	.89	.47	.36	.30	.24	.22
13F130	10.1 meg-15 meg	1.03	.54	.41	.34	.27	.25

CPX-2—2 WATT (Mil. Type RN30 .328"x2-1/16")

13F135	50 ohms-199 ohms	1.20	.64	.48	.40	.31	.28
13F135	200 ohms-10 meg	.97	.51	.38	.32	.25	.23
13F135	10.1 meg-30 meg	1.13	.59	.46	.40	.33	.28
13F135	30.1 meg-50 meg	1.25	.68	.55	.48	.41	.34
13F135	*100 meg	1.62	.88	.66	.57	.48	.41

CPSX 1/2—1/2 WATT (Equiv. Mil. Type RN20X .203"D x 19/32"L)

Stk. No.	Ohms	1-24	25-49	50-99	100-249	250-499	500-999
13F120	10 ohms-49.9 ohms	.84	.34	.27	.28	.20	.16
13F120	50 ohms-2.2 meg.	.54	.28	.21	.17	.13	.11

Specify stock number and resistance values.

Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Mega.	Mega.	Mega.	
10.0	33	70	200	560	1500	4450	8950	25000	68000	220000	600000	1.6	5.1	15.0
11.0	35	74.5	220	600	1600	4500	9000	27000	70000	225000	620000	1.8	5.5	16.0
12.0	36	75	225	620	1750	4700	9100	30000	75000	240000	650000	2.0	5.6	18.0
12.5	39	80	240	650	1800	5000	9950	33000	80000	250000	680000	2.2	6.0	20.0
13.0	40	82	250	680	2000	5100	10000	35000	82000	270000	700000	2.225	6.2	22.0
14.5	43	85	270	700	2200	5500	11000	36000	85000	300000	750000	2.4	6.5	25.0
15.0	44.5	89.5	300	750	2250	5600	12000	39000	90000	330000	800000	2.5	6.8	27.0
16.0	45	90	330	800	2400	5950	12500	40000	91000	350000	820000	2.7	7.0	30.0
17.5	47	91	350	820	2500	6000	13000	43000	100000	360000	850000	3.0	7.5	33.0
18.0	50	99.5	360	850	2700	6200	13500	45000	110000	390000	900000	3.3	8.0	36.0
20	51	100	390	900	2950	6500	15000	47000	120000	400000	910000	3.5	8.2	39.0
22.0	55	110	400	910	3000	6800	16000	50000	125000	430000	950000	3.6	8.5	43.0
22.5	56	120	430	1000	3300	7000	17500	51000	130000	450000	1.0	3.9	9.0	47.0
24.0	59.5	130	450	1100	3500	7450	18000	55000	150000	470000	1.1	4.0	9.1	50.0
25.0	60	150	470	1200	3600	7500	20000	56000	160000	500000	1.2	4.3	10.0	100.0*
27.0	62	160	500	1250	3900	8000	22000	60000	175000	510000	1.25	4.5	12.0	
29.5	65	175	510	1300	4000	8200	22500	62000	180000	550000	1.3	4.7	12.5	
30	68	180	550	1450	4300	8500	24000	65000	200000	560000	1.5	5.0	13.0	

MIL Values Available in All Aerovox Resistors on Special Order

SPRAGUE RESISTORS

SPRAGUE AXIAL-LEAD "BLUE JACKET" POWER WIREWOUND RESISTORS



Designed for industrial applications demanding utmost stability under extreme operating conditions. Well suited for printed circuits, terminal boards, and point-to-point wiring applications. Unique all-welded end-cap construction eliminated

moisture paths along the leads and anchors the leads securely to the resistor. Power rating is based on a max. temperature rise of 300°C above a 40° ambient at full rated wattage. Will meet electrical performance characteristics of MIL-R-26C. Available only in values shown.

TYPE 242E—3 WATT ± 5% TOLERANCE

Size: 13/64" dia. x 17/32" L.

Stk. No.	Range (ohms)	1-9	10-24	25-99	100-249	250-499
60F290	1 thru 10	.53	.46	.38	.32	.28
	12 thru 1000 except 35, 350, 450, 750	.52	.44	.36	.31	.27
	1200 thru 5000 except 3.5K, 4.5K.	.55	.47	.38	.33	.27
	5600 thru 10K except 7K	.58	.49	.41	.35	.29

TYPE 243E—5 WATT ± 5% TOLERANCE

Size: 13/64" dia. x 15/16" L.

Stk. No.	Range (ohms)	1-9	10-24	25-99	100-249	250-499
60F291	1 thru 10	.56	.49	.40	.35	.29
	12 thru 1000 except 18, 22, 27, 33, 39, 47, 56, 68, 82, 180, 270, 330, 390, 450, 560, 680, 820	.55	.47	.38	.33	.27
	1100 thru 5000 except 2700, 3300, 3900, 4700	.58	.49	.41	.35	.29
	6000 thru 10K except 6800, 8200	.62	.53	.43	.37	.31
	12K thru 20K except 16K, 17K	.69	.58	.49	.41	.34
	22K thru 30K	.75	.65	.53	.46	.39

TYPE 247E—10 WATT ± 5% TOLERANCE

Size: 5/18" dia. x 1 1/4" L.

Stk. No.	Range (ohms)	1-9	10-24	25-99	100-249	250-499
60F292	1 thru 10	.62	.53	.44	.38	.32
	12 thru 1000 except 18, 22, 27, 33, 39, 47, 56, 68, 82, 180, 270, 330, 390, 450, 470, 560, 680, 820	.60	.51	.42	.36	.30
	1100 thru 5000 except 2.7K, 4.7K	.65	.54	.45	.39	.32
	6000 thru 10K except 6.8K, 8.2K	.74	.63	.52	.44	.37
	11K thru 20K except 17K	.84	.71	.59	.50	.42
	22K thru 40K	.93	.80	.66	.57	.48
	45K thru 50K	.99	.84	.69	.59	.50

TABLE OF RESISTANCE VALUES

1	12	33	75	250	470	820	2000	4000	7500	15K	35K
1.5	15	35	82	270	500	900	2200	4500	8000	16K	40K
2	18	39	100	300	560	1000	2500	4700	8200	17K	45K
3	20	40	120	330	600	1100	2700	5000	9000	18K	50K
4	22	47	150	350	680	1200	3000	5600	10K	20K	
5	25	50	180	390	700	1400	3300	6000	11K	22K	
7.5	27	56	200	400	750	1500	3500	6800	12K	25K	
10	30	68	220	450	800	1800	3900	7000	14K	30K	

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Resistors

RPC PRECISION WIREWOUND RESISTORS

MIL-R-93C — ±1% Tolerance

High precision top quality unsealed wire-wound resistors, in all standard sizes. Wound on statite forms on specially developed machines which maintain correct wire tension at all times to minimize inductance. Thermally aged and stabilized to insure long service life within the guaranteed resistance tolerance. Ideal for use where tolerance specifications are restricted. Available in 1/3, 1/2, 1 and 2 watt sizes. Meets MIL-R-93C Spec.



RPC Type AFB Equivalent to IRC type WW8J 1/2 Watt—Mil. Type RB15B—1/2" dia. x 1 1/2" long

Stk. No.	Ohms	1-24	25-49	50-99
13F1389	.1	1.42	.85	.76
13F1390	.2	1.42	.85	.76
13F1391	.5	1.25	.75	.67
13F1392	1.			
13F1393	5.			
13F1394	10			
13F1395	25			
13F1396	50			
13F1397	100			
13F1398	200	1.17	.67	.61
13F1399	250			
13F1400	300			
13F1401	500			
13F1402	1000			
13F1403	1500			
13F1404	2000			

Stk. No.	Ohms	1-24	25-49	50-99
13F1405	2500	1.17	.67	.61
13F1406	3000			
13F1407	3500			
13F1408	4000	1.25	.75	.67
13F1409	5000			
13F1410	7500			
13F1411	10K			
13F1412	12.5K			
13F1413	15K	1.42	.85	.76
13F1414	20K			
13F1415	22.5K			
13F1416	25K			
13F1417	30K	1.84	1.07	.97
13F1418	35K			
13F1419	40K			
13F1420	50K			

Stk. No.	Ohms	1-24	25-49	50-99
13F1421	60K	2.09	1.22	1.10
13F1422	75K	2.09	1.22	1.10
13F1423	100K	2.17	1.30	1.17
13F1424	125K	2.42	1.42	1.28
13F1425	150K	2.42	1.42	1.28
13F1426	175K	2.67	1.57	1.42
13F1427	200K	2.67	1.57	1.42
13F1428	225K	2.92	1.72	1.55
13F1429	250K	2.92	1.72	1.55
13F1430	300K	3.17	1.90	1.71
13F1431	400K	3.59	2.15	1.99
13F1432	500K	4.18	2.50	2.25
13F1433	600K	4.84	2.87	2.59
13F1434	700K	5.01	3.00	2.70

RPC Type AFF—Equivalent to IRC WW4J 1 Watt—Mil. Type RB17B—1/2" dia. x 1" long

Stk. No.	Ohms	1-24	25-49	50-99
13F1435	.1	1.72	1.02	.92
13F1436	.2	1.72	1.02	.92
13F1437	.5	1.47	.87	.79
13F1438	1			
13F1439	5			
13F1440	10			
13F1441	25			
13F1442	50			
13F1443	100			
13F1444	200	1.34	.80	.72
13F1445	250			
13F1446	300			
13F1447	500			
13F1448	1000			
13F1449	1500			
13F1450	2000			
13F1451	2500			
13F1452	3000	1.47	.87	.79

Stk. No.	Ohms	1-24	25-49	50-99
13F1453	3500			
13F1454	4000			
13F1455	5000	1.47	.87	.79
13F1456	7500			
13F1457	10K			
13F1458	12.5K			
13F1459	15K	1.72	1.02	.92
13F1460	20K			
13F1461	22.5K			
13F1462	25K			
13F1463	30K	2.05	1.22	1.10
13F1464	35K			
13F1465	40K			
13F1466	50K			
13F1467	60K	2.25	1.35	1.21
13F1468	75K	2.25	1.35	1.21
13F1469	100K	2.42	1.45	1.30
13F1470	125K	2.67	1.60	1.44

Stk. No.	Ohms	1-24	25-49	50-99
13F1471	150K	2.67	1.60	1.44
13F1472	175K	2.89	1.72	1.55
13F1473	200K	2.89	1.72	1.55
13F1474	225K	3.26	1.95	1.75
13F1475	250K	3.26	1.95	1.75
13F1476	300K	3.56	2.12	1.91
13F1477	400K	3.92	2.35	2.11
13F1478	500K	4.51	2.70	2.43
13F1479	600K	5.09	3.05	2.74
13F1480	700K	5.59	3.32	2.99
13F1481	800K	5.93	3.55	3.19
13F1482	900K	6.35	3.77	3.40
13F1483	1 Meg	6.76	4.05	3.64
13F1484	1.25 Meg	7.43	4.45	4.00
13F1485	1.5 Meg	8.18	4.90	4.41
13F1486	2 Meg	10.94	6.55	5.89

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YSI Thermistors



PRECISION THERMISTORS

Thermistors which match a published resistance-temperature curve and thus each other to $\pm 1\%$ not only at 25°C but over most of their useable range of -80°C to $+150^\circ\text{C}$. Each thermistor is provided with resistance-temperature data for each degree C and with tolerance curves both in resistance variation and temperature sensing interchangeability. Base resistance from 100 ohms to 1 Megohm at 25°C available to ease circuit design impedance matching problems. Useful as transducers for measurement and control circuits where precision of YSI thermistors allow interchanging of transducers and multiple monitoring from single circuits. In control circuitry direct dialing of set points is possible as is trigger action at a specific temperature since resistance at any useable temperature is known to close tolerances. Also useful as temperature compensating devices for transistors, meters, circuits, etc. Physical size: .09" in diameter; .09" thick #32 solid tinned copper leads, 3" long. Thermistors are epoxy encapsulated for ruggedness and long life. Each thermistor supplied with data and with dissipation information, time constant, and instructions. Rated at 25°C .

- Low Cost Precision Thermistors
- Matches Standard Curves— 80°C to 150°C



Stock No.	Type	Ohms	Res. Tol.	Temp. Tol.	1-9	10-29	30-99
29F200	44001	100	1.0%	.3°C	4.90	4.15	3.50
29F201	44002	300	1.0%	.3°C	4.90	4.15	3.50
29F202	44003	1K	1.0%	.3°C	4.90	4.15	3.50
29F203	44005	3K	.8%	.2°C	4.90	4.15	3.50
29F204	44006	10K	.8%	.2°C	4.90	4.15	3.50
29F205	44008	30K	.8%	.2°C	4.90	4.15	3.50
29F206	44011	100K	.8%	.2°C	4.90	4.15	3.50
29F214	44014	300K	1.0%	.3°C	4.90	4.15	3.50
29F215	44015	1 Meg	1.0%	.3°C	4.90	4.15	3.50

TEFLON® PRECISION THERMISTOR PROBES

YSI interchangeable thermistors in chemically impervious form for sensing or control use. The interchangeable precision thermistors listed above, but additionally encased in a 2" length of chemically impervious Teflon, 3" leads extend 1" beyond the probe for convenience in attaching leads. Leads are insulated from each other by a smaller Teflon tube around one lead. Probes can be used straight or can be bent by finger pressure to exact configuration required for placing the thermistor where you want it. .11" max. in diameter.

Can be assorted for quantity prices.



- Precision — $\pm 1\%$ at 25°C .
- Easily bent to required shape
- Chemically impervious Teflon casing

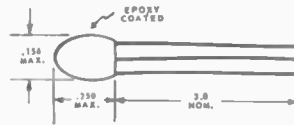
Stock No.	Type	Ohms	Res. Tol.	Temp. Tol.	1-9	10-29	30-99
29F207	44101	100	1.0%	.3°C	9.90	8.90	7.75
29F208	44102	300	1.0%	.3°C	9.90	8.90	7.75
29F209	44103	1K	1.0%	.3°C	9.90	8.90	7.75
29F210	44105	3K	.8%	.2°C	9.90	8.90	7.75
29F211	44106	10K	.8%	.2°C	9.90	8.90	7.75

Stock No.	Type	Ohms	Res. Tol.	Temp. Tol.	1-9	10-29	30-99
29F212	44108	30K	.8%	.2°C	9.90	8.90	7.75
29F213	44111	100K	.8%	.2°C	9.90	8.90	7.75
29F216	44114	300K	1.0%	.3°C	9.90	8.90	7.75
29F217	44115	1 Meg	1.0%	.3°C	9.90	8.90	7.75

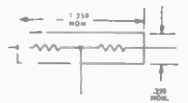
THERMILINEAR® THERMISTOR DEVICES

Linear Output Thermistor Networks

A composite precision thermistor device which, in conjunction with the precision resistors supplied, provides linear voltage output or linear resistance change with change of temperature. Sensitivities of 20 mv/°C. and more are common, 400 times the sensitivity of an IC thermocouple. Linearity deviation is as little as 2 parts in 1000 from 0 to 100°C . Combined absolute accuracy, linearity and interchangeability specifications of as little as 3 parts in 1000 from 0 to 100°C . Greater accuracies, interchangeabilities, and linearities available for shorter standard ranges. Parts guaranteed to stay within tolerances for three years. Useful for direct digital temperature indication with DVM or linear recorder. Provides linear temperature compensation with thermistor sensitivity. Time constant: 1 second, in well-stirred oil bath. Parts consist of composite thermistor and resistor assembly. Thermistor composites are manufactured to absolute accuracy tolerances of $\pm 0.15^\circ\text{C}$ from -30 to $+100^\circ\text{C}$. For complete information and technical data, write Newark. Type 44018: additional thermistor composites for replacement or multiple input work.

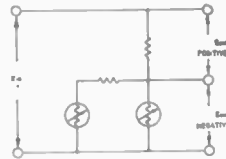


Thermistor Composite

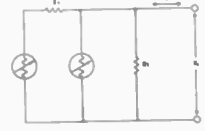


Resistor Composite

Stock No.	Type	Range	Linearity	1-9	10-29	30-99
29F218	44201	0° to 100°C	$\pm 0.2^\circ\text{C}$	19.70	18.25	16.80
29F219	44202	-5 to +45°C	$\pm 0.1^\circ\text{C}$			
29F220	44203	-30 to +50°C	$\pm 0.2^\circ\text{C}$			
29F221	44204	+30 to 100°F	$\pm 0.075^\circ\text{F}$			
29F222	44018	see text	14.90	13.70	12.60



Linear Voltage vs. Temperature



Linear Resistance vs. Temperature

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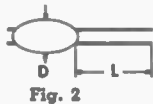
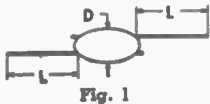
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Thermistors

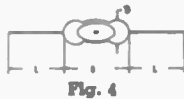


GENERAL PURPOSE BEAD THERMISTORS

Max. oper. temp. 300°C for exceptional stability. Satisfactory operation at 500°C. Dissipation constant @ 25°C .7mw/°C. Time constant: 2 secs. Ro Tol. ±20% (Fig 1), except (*) ±15% (Fig. 2). (†) ±25%. Bead dia. .043 in. Leads are .004" dia. platinum-iridium. Values are approximate unless specified.

Stk. No.		Cold Res. Ro @ 25°C (ohms)	Temp. Coeff. @ 25°C (%/°C)	Ld. L.	1-10	11-24	25-99
29F150	21A2	100	-3.2	5/16	3.00	2.40	1.95
29F100	31A2	1000	-3.9	1/4	2.00	1.60	1.30
29F151	32A7*	2000	-3.4	5/16	2.80	2.24	1.82
29F152	32A13	2000	-3.9	1/4	2.10	1.68	1.37
29F101	32A12	2000	-3.9	1/4	1.95	1.56	1.27
29F102	35A1	5000	-4.0	1/4	2.30	1.84	1.50
29F103	41A2	10000	-4.4	5/16	2.30	1.84	1.50
29F104	45A2	50000	-4.4	5/16	2.30	1.84	1.50
29F153	45A23†	5000	-4.0	1/4	3.40	2.72	2.21
29F105	51A2*	100000	-4.6	1/4	1.85	1.56	1.27

BEAD THERMISTORS FOR HIGH FREQUENCY POWER MEASUREMENT



Subject to additional D.C. voltage and current tests. Ro Tol. 2000±20% @ 25°C. Disp. const. 0.1 MW/°C @ 25°C.

Stk. No.	Type	Fig.	Body Lth.	Dia.	Lead Lth.	1-10	11-24	25-99
29F109	32A5	3	.....	.013	3/8	3.00	2.40	2.10
29F110	32A3	1	0.4	.012	1/8	4.80	3.68	3.22

GENERAL PURPOSE BEAD THERMISTOR IN GLASS PROBES AND RODS



Dissipation Constant @ 25°C (MW/°C)			Time Constant		
Still Air	Still Oil	Still Water	Still Air	Still Oil	Still Water
1	3.5	5	25	2	1

Stk. No.	Type	Cold Res. Ro @ 25°C (ohms)	Temp. Coeff. @ 25°C (%/°C)	1-10	11-24	25-99
29F123	31A11	1000	-3.9	1.95	1.56	1.27
29F124	32A1	2000	-3.9	2.25	1.80	1.46
29F154	32A129	2000	-3.9	2.30	1.84	1.50
29F125	34A3†	3500	-3.9	2.40	1.92	1.56
29F126	41A11	10000	-4.4	2.25	1.80	1.46
29F129	51A1*	100000	-4.6	2.30	1.84	1.50
29F130	51A11	100000	-4.6	1.95	1.56	1.27
29F155	61A11	1 Meg.	-5.0	2.70	2.16	1.76

Ro ± 20% except (*) ± 15% and (†) ± 30%.

BEAD THERMISTORS IN SPECIAL ENCLOSURES



Type 46A2. Ro @ 25°C: 60500 ohms ± 29%. Dissipation constant .3 MW/°C. Type 65A1. Ro @ 25°C: 5.4 Meg ± 32%. Dissipation constant .01 MW/°C. Type 46A2: 1 1/4" body length x 1/4" dia. x 1 3/8" min. lead length. Type 65A1: 1 1/2" body length x .3" max. dia. x 1 1/4" min. lead length.

Stk. No.	Type	Fig.	Lead Dia. and Material	1-10	11-24	25-99
29F132	46A2	8	.016 Dumet (T)	2.60	2.08	1.82
29F133	65A1	9	.016 Dumet (T)	6.00	4.80	4.20

GENERAL PURPOSE DISC THERMISTOR

Temperature limits: 100°C painted or coated units, 150°C discs with leads. 200°C plain discs, washers, and rods. Lead material: tinned copper.—Discs 0.1 dia.=.013 (28AWG)x1"Lg. Discs 0.2 dia.=.020 (24AWG)x1 1/4"Lg. Discs 0.3 dia.=.020 (24AWG)x1 1/2"Lg. Discs 0.4 dia.=.025 (22AWG)x3/4"Lg. The dissipation constants are for discs with leads. Nominal temperature coefficient @ 25°C: "E" type=-3.8%/°C, "D" type=-4.4%/°C. Resistance tolerance @ 25°C ± 10%.

DISCS WITH RADIAL LEADS (Fig. 5)

0.1 Disc Diameter									
Stk. No.	Type	Cold Res. Ro @ 25°C	Disp. Const. @ 25°C	T Dim.	1-10	11-24	25-99		
29F117	25E2	500	3.5	.035					
29F156	31E2	1000	3.5	.029	.80	.64	.52		
29F118	35D2	5000	3.5	.048					
29F119	41D2	10000	3.5	.095					

0.2 Disc Diameter									
Stk. No.	Type	Cold Res. Ro @ 25°C	Disp. Const. @ 25°C	T Dim.	1-10	11-24	25-99		
29F120	33D10	1000	7.0	.038	.80	.64	.52		

0.3 Disc Diameter									
Stk. No.	Type	Cold Res. Ro @ 25°C	Disp. Const. @ 25°C	T Dim.	1-10	11-24	25-99		
29F121	21E21	100	8.0	.063	.85	.68	.55		

0.4 Disc Diameter									
Stk. No.	Type	Cold Res. Ro @ 25°C	Disp. Const. @ 25°C	T Dim.	1-10	11-24	25-99		
29F122	21E2	100	10	.110	.85	.68	.55		

0.770 Disc Diameter									
Stk. No.	Type	Cold Res. Ro @ 25°C	Disp. Const. @ 25°C	T Dim.	1-10	11-24	25-99		
29F157	21D2	100	16	.056	.85	.68	.55		

DISCS WITH AXIAL LEADS (Fig. 6)

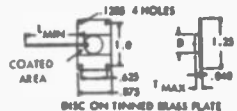
0.2 Disc Diameter									
Stk. No.	Type	Cold Res. Ro @ 25°C	Disp. Const. @ 25°C	T Dim.	1-10	11-24	25-99		
29F158	21E25	100	7.0	.028					
29F159	22E8	200	7.0	.056					
29F160	23E14	250	7.0	.070	.80	.64	.52		
29F161	23E18	300	7.0	.083					
29F138	31D4	1000	7.0	.038					
29F162	33D2	3000	7.0	.103					

0.3 Disc Diameter									
Stk. No.	Type	Cold Res. Ro @ 25°C	Disp. Const. @ 25°C	T Dim.	1-10	11-24	25-99		
29F163	21E28	100	8.0	.063	.80	.64	.52		
29F164	23E7	300	9.0	.189	.80	.64	.52		

0.4 Disc Diameter									
Stk. No.	Type	Cold Res. Ro @ 25°C	Disp. Const. @ 25°C	T Dim.	1-10	11-24	25-99		
29F165	21E30	100	10.0	.110					
29F166	22E12	200	11.0	.220					
29F167	23E24	250	11.0	.275	.85	.68	.55		
29F168	23D16	250	9.0	.038					
29F169	23D20	300	10.0	.046					
29F170	32D14	2000	11.0	.300					

Discs with Axial Leads (Fig. 6X)

Stk. No.	Type	Cold Res. Ro @ 25°C	Disp. Const. @ 25°C	T Dim.	1-10	11-24	25-99
29F171	21D1	100	16	.056	.80	.48	.39



TYPICAL MOUNTED, COATED AND CLOSE TOLERANCE DISCS

*Cycleweld Coated (Fig. 10). †Disc on Plate (Fig. 11).

Stk. No.	Type	Ro @ 25°C	Dissip. Const.	Time Const.	T	1-10	11-24	25-99
29F139	31D7*	1200±10%	7	19	3/16"	1.00	.80	.65
29F140	27D1†	725±5%	150	80	.040	2.60	2.08	1.69
29F141	28D1†	760±5%	150	80	.040	2.60	2.08	1.69

NEWARK Can Supply All Veco Thermistors. Write, Phone or Wire Our Industrial Dept. for Prices or Quotations.

Thermistors & Potentiometers

VECO THERMISTORS



GENERAL PURPOSE WASHER THERMISTORS

Stock No.	Type	Ro @ 25°C	Dissip. Const.	Size	1-10	11-24	25-99
29F142	14X2	38±10%	420	.77Dx.281Hx.13T	1.20	.96	.78

SPECIAL PURPOSE VARISTOR

Power rating of 3 watts; .78Dx.3Hx.145D

Stk. No.	Type	1-10	11-24	25-99
29F172	023W1	1.80	1.44	1.28



GENERAL PURPOSE ROD THERMISTORS ROD WITH RADIAL LEADS (Fig. 13)

B, 5/8"; D, 1/8"

Stock No.	Type	Ro @ 25°C	Dissip. Const.	Time Constant	1-10	11-24	25-99
29F143	41S2	10000	3	16	1.35	1.08	.95

ROD WITH AXIAL LEADS (Fig. 14)

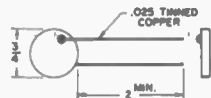
All-Dia. 3/32"

Stock No.	Type	Ro @ 25°C	Dissip. Const.	Time Constant	B	1-10	11-24	25-99
29F144	33S1	3150	6	50	29 3/32"	1.10	.88	.77
29F145	41R1	10000	5	35	10 3/32"	1.10	.88	.77
29F148	43R1	31500	5.5	50	15 3/32"	1.10	.88	.77
29F173	45R1	50000	6	65	1 1/8"	1.10	.88	.77

GENERAL PURPOSE VARISTOR

Exp. 1 KV of 3; 6 volt at 5Ma Dc

Stk. No.	Type	1-10	11-24	25-99
29F174	023L9	1.00	.80	.70



THERMISTOR AND VARISTOR DESIGNER'S KITS

Each of the kits below provides a wide range of resistances and physical sizes of thermistors and varistors.

KW125 THERMISTOR WASHER KIT

Includes mounting kit A828 plus two each of the following: 11X1; 12X15; 14X4; 21W1; 22W6; 24W6. Shpg. wt. 1 lb.

29F111. NET 13.50

KP50 THERMISTOR PROBE KIT

Contains one each of the following thermistors: 21A3; 31A11; 41A11; 51A11; 61A11; 71A11. Shpg. wt. 1 lb.

28F112. NET 14.50

KR75 THERMISTOR ROD KIT

Contains one each of the following thermistors: 33S1; 36S1; 41R1; 41S2; 43R1; 51R1; 51R2. Shpg. wt. 1 lb.

29F113. NET 8.75

VECO EXPERIMENTER KIT

Veco Experimenter Kits are designed to acquaint personnel with the various types of thermistors and varistor applications and preparations of prototype models.

M-168. Contains: 2 each type thermistor, bead, disc and washer. 1 varistor washer.

29F114. NET 5.00

M168A. 2 each type thermistor, probe and rod. 2 each washer (varistor) 1 set mounting hardware.

29F115. NET 10.00

PACKING GLAND

Type A819. Made for use with Veco bead thermistors in glass probe units. Made of stainless steel. All steel parts are zinc plated and chromate dipped. Has neoprene sealant. Has effective temperature range of -40°F to +200°F.

Stock No.	Type	1-10	11-24	25-49	50-99
29F116	A819	4.00	3.20	3.00	2.80

Technical characteristics and schematics to assist in the solution of circuitry design problems are also included.

KD25 THERMISTOR DISC KIT

Includes one each of the following: 11E2; 12E2; 15D1; 18E2; 21E2; 22E6; 23D34; 25D4; 31E2; 32D12; 33D10; 35D6; 41D2. Shpg. wt. 1 lb.

29F134. NET 10.50

KTBI THERMISTOR BEAD KIT

Kit includes tweezers for handling thermistors plus one each of the following thermistors: 32A48; 43A2; 51A30; 21A2; 31A2; 41A2; 51A2; 61A2. Shpg. wt. 1 lb.

29F135. NET 19.50

KV100 VARISTOR KIT

Contains A818 mounting kit plus the following Varistors: 023L4; 023W1; 063L4; 114L1; 124W1; 143W1; 155L2; 165W2. Shpg. wt. 1 lb.

29F136. NET 14.50

KV1001 VARISTOR DISC KIT

Includes one each of the following: 023L9; 063L9; 114L2; 124L1; 124L2; 134L1; 155L3; 175L1; 195L1. Shpg. wt. 1 lb.

29F137. NET 7.50

VECO V42 DATA BOOK

An explanation of the function of various types of thermistors and varistors with voltage current characteristics and resistance temperature tables.

29F149. Postpaid in USA. 1.00

MOUNTING KITS

Stock No.	Type	Description	1-10	11-24	25-49	50-99
29F176	A-815	Mtg 1 washer	1.00	.80	.75	.70
29F175	A-828	Mtg 3 washers	1.75	1.40	1.32	1.23

DALE ELECTRONICS

TRIMMER - WIRE WOUND - MINIATURE POTENTIOMETER

Trimmer potentiometer. Rated at 0.8 watt up to 70°C ambient temp. ±5% tolerance. Operating temp. -65°C. to +135°C. Insulation resistance: Per MIL-R-27208, Par.4.6.7; Min. resistance: 1000 megohms. Shaft torque—8.0 oz./in. max. Self-locking adjustment. Size: .220x.312x1.250 inches. Wt. 2.25 grams.

TYPE 195

28 AWG Stranded Vinyl leads emerging separately.

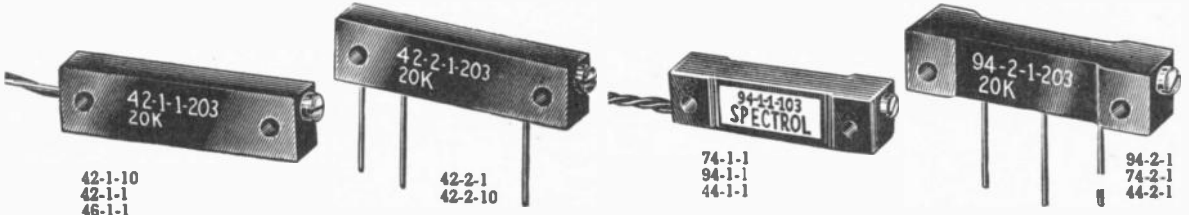
Stk. No.	Type	Ohms	1-9	10-24	25-49	50-99	100-249
13F365	195-10	10					
13F366	195-20	20					
13F367	195-50	50					
13F368	195-100	100					
13F369	195-200	200	6.55	6.16	5.78	5.39	5.00
13F370	195-500	500					
13F371	195-1K	1K					
13F372	195-2K	2K					
13F373	195-5K	5K					
13F374	195-10K	10K					
13F375	195-15K	15K					
13F376	195-20K	20K	7.05	6.64	6.23	5.81	5.40
13F377	195-25K	25K					
13F378	195-50K	50K	7.48	7.04	6.60	6.16	5.72
13F379	195-100K	100K	8.67	8.16	7.65	7.14	6.63



TYPE 199 (Replaces A10W) SOLDER LUG

Stk. No.	Type	Ohms	1-9	10-24	25-49	50-99	100-249
13F450	199-10	10					
13F451	199-20	20					
13F452	199-50	50					
13F453	199-100	100					
13F454	199-200	200	5.05	4.75	4.46	4.16	3.86
13F455	199-500	500					
13F456	199-1K	1000					
13F457	199-2K	2000					
13F459	199-5K	5000					
13F460	199-10K	10000					
13F492	199-15K	15000	5.56	5.23	4.91	4.58	4.25
13F461	193-20K	20000	5.56	5.23	4.91	4.58	4.25
13F462	193-25K	25000	5.56	5.23	4.91	4.58	4.25
13F478	199-100K	100000	7.23	6.80	6.38	5.95	5.53

To Serve You Better—Seven Stocking Warehouses from Coast-to-Coast
Use the Services of the NEWARK Facility Nearest You—See Front Cover.



42-1-10
42-1-1
46-1-1

42-2-1
42-2-10

74-1-1
94-1-1
44-1-1

94-2-1
74-2-1
44-2-1

MODEL 42

Rectangular wirewound type. Resistance tolerance $\pm 5\%$. Tempco 50 ppm. Power rating 1.0 watt at 70°C. Operating temperature -65°C to 175°C. Meets MIL specs. Number of turns 22 ± 5 . 42-1-1 has 12" teflon leads. 42-2-1 has PC pins. Size .190 x .315 x 1.250. Mtg. hole centers 1 inch. Wt. 4.3 grams max.

Type 42-1-1 Stock No.	Type 42-2-1 Stock No.	Ohms	1-9	10-24	25-99	100-249	250-499
12F2500	12F2511	50	6.46	5.90	5.13	4.75	4.37
12F2501	12F2512	100					
12F2502	12F2513	200					
12F2503	12F2514	500					
12F2504	12F2515	1K					
12F2505	12F2516	2K					
12F2506	12F2517	5K					
12F2507	12F2518	10K					
12F2508	12F2519	20K	7.75	7.07	6.15	5.70	5.25
12F2509	12F2520	50K	8.70	7.93	6.90	6.40	5.89
12F2510	12F2521	100K	11.01	10.04	8.75	8.10	7.45

MODEL 44

Rectangular wirewound type. Resistance tolerance $\pm 5\%$. Tempco 50 ppm. Power rating 1.0 watt at 70°C. Operating temperature -65°C to 175°C. Meets MIL specs. Number of turns 22 ± 5 . 44-1-1 has 12" teflon leads. 44-2-1 has PC pins. Size .280 x .315 x 1.250. Mtg. hole centers 1 inch. Wt. 4.5 grams max.

Type 44-1-1 Stock No.	Type 44-2-1 Stock No.	Ohms	1-9	10-24	25-99	100-249	250-499
12F2522	12F2533	50	6.46	5.90	5.13	4.75	4.37
12F2523	12F2534	100					
12F2524	12F2535	200					
12F2525	12F2536	500					
12F2526	12F2537	1K					
12F2527	12F2538	2K					
12F2528	12F2539	5K					
12F2529	12F2540	10K					
12F2530	12F2541	20K	7.75	7.07	6.15	5.70	5.25
12F2531	12F2542	50K	8.70	7.93	6.90	6.40	5.89
12F2532	12F2543	100K	11.01	10.04	8.75	8.10	7.45

MODEL 46

Rectangular wirewound type. Resistance tolerance $\pm 5\%$. Tempco 50 ppm. Power rating 1.0 watt at 70°C. Operating temperature -65°C to 175°C. Meets MIL specs. Number of turns 15 ± 3 . 46-1-1 has 6" teflon leads. 46-2-1 and 46-4-1 have PC pins. Size .180 x .315 x 1 in. Mtg. hole centers .750. Wt. 3.6 grams max.

Type 46-1-1 Stock No.	Ohms	1-9	10-24	25-99	100-249	250-999
12F2544	50	7.45	6.79	5.91	5.48	5.04
12F2545	100					
12F2546	200					
12F2547	500					
12F2548	1K					
12F2549	2K					
12F2550	5K					
12F2551	10K					
12F2552	20K	8.94	8.15	7.10	6.58	6.05
12F2553	50K	10.50	9.58	8.35	7.73	7.10

MODEL 74

Rectangular wirewound type. Resistance tolerance $\pm 10\%$. Tempco 50 ppm. Power rating 1 watt at 70°C. Operating temperature -65°C to 125°C. Meets MIL specs. Number of turns 22 ± 5 . 74-1-1 has 12" teflon leads. 74-2-1 has PC pins. Size .280 x .315 x 1.250. Mtg. hole centers 1 inch. Wt. 4.5 grams max.

Type 74-1-1 Stock No.	Type 74-2-1 Stock No.	Ohms	1-9	10-24	25-99	100-249	250-499
12F2554	12F2565	50	5.61	5.12	4.46	4.13	3.80
12F2555	12F2566	100					
12F2556	12F2567	200					
12F2557	12F2568	500					
12F2558	12F2569	1K					
12F2559	12F2570	2K					
12F2560	12F2571	5K					
12F2561	12F2572	10K					
12F2562	12F2573	20K					
12F2563	12F2574	50K	6.73	6.14	5.35	4.95	4.55
12F2564	12F2575	100K	7.58	6.91	6.02	5.58	5.13

MIL STYLE RT 12

Meets MIL-R-27208A. Resistance tolerance $\pm 5\%$. Tempco 50 ppm. Power rating 1.0 watt at 70°C. Operating temperature -65°C to 175°C. Number of turns 22 ± 5 . Size .190 x .315 x 1.250. Mtg. hole centers 1 inch. Wt. 4.3 grams max.

Type 42-1-10 RT12C2L Stock No.	Type 42-2-10 RT12C2P Stock No.	Ohms	1-9	10-24	25-99	100-249	250-499
12F2822	12F2831	50	6.63	6.05	5.26	4.88	4.49
12F2823	12F2832	100					
12F2824	12F2833	200					
12F2825	12F2834	500					
12F2826	12F2835	1K					
12F2827	12F2836	2K					
12F2828	12F2837	5K					
12F2829	12F2838	10K					
12F2830	12F2839	20K	7.95	7.25	6.32	5.85	5.38

MIL STYLE RT 11

Meets MIL-R-27208A. Resistance tolerance $\pm 5\%$. Tempco 50 ppm. Power rating 1.0 watt at 70°C. Operating temperature -65°C to 175°C. Number of turns 22 ± 5 . Size .280 x .315 x 1.250. Mtg. hole centers 1 inch. Wt. 4.5 grams max.

Type 44-1-10 RT11C2L Stock No.	Type 44-2-10 RT11C2P Stock No.	Ohms	1-9	10-24	25-99	100-249	250-499
12F2840	12F2849	50	6.63	6.05	5.26	4.88	4.49
12F2841	12F2850	100					
12F2842	12F2851	200					
12F2843	12F2852	500					
12F2844	12F2853	1K					
12F2845	12F2854	2K					
12F2846	12F2855	5K					
12F2847	12F2856	10K					
12F2848	12F2857	20K	7.75	7.07	6.15	5.70	5.25

MIL STYLE RT 10

Meets MIL-R-27208A. Resistance tolerance $\pm 5\%$. Tempco 50 ppm. Power rating 1.0 watt at 70°C. Operating temperature -65°C to 175°C. Number of turns 15 ± 3 . Size .180 x .315 x 1 in. Mtg. hole centers .750. Wt. 3.6 grams max.

Type 46-1-10 RT10C2L Stock No.	Type 46-4-10 RT10C2P Stock No.	Ohms	1-9	10-24	25-99	100-249	250-499
12F2858	12F2865	100	7.62	6.94	6.05	5.60	5.15
12F2859	12F2866	200					
12F2860	12F2867	500					
12F2861	12F2868	1K					
12F2862	12F2869	2K					
12F2863	12F2870	5K					
12F2864	12F2871	10K					

MODEL 94

Rectangular wirewound type. Resistance tolerance $\pm 10\%$. Tempco 100 ppm. Power rating 0.5 watt at 70°C. Operating temperature -65°C to 105°C. Number of turns 22 ± 5 . 94-1-1 has 12" teflon leads. 94-2-1 has PC pins. Size .280 x .315 x 1.250. Mtg. hole centers 1 inch. Wt. 4.5 grams.

Type 94-1-1 Stock No.	Type 94-2-1 Stock No.	Ohms	1-9	10-24	25-99	100-249	250-499
12F2576	12F2584	50	3.23	2.95	2.57	2.83	2.19
12F2577	12F2585	100					
12F2578	12F2586	200					
12F2579	12F2587	500					
12F2580	12F2588	1K					
12F2581	12F2589	2K					
12F2582	12F2590	5K					
12F2583	12F2591	10K					

PANEL MOUNTING

All Spectrol trimmers can be furnished with panel mounts on special order. Add the following charge to the regular trimmer price.

1-9	10-24	25-99	100-249	250-499
.80	.72	.65	.60	.56

Trimming Potentiometers

SPECTROL

● **NEW MIL STYLE RT 22**

Meets MIL-R-27208A. Power rating 1.5 watts at 70°C. Tempco 50 ppm. Resistance tolerance ±5%. Operating temperature -65°C to 150°C. Case size: 1/2x1/2x3/16". Weight: 2.5 grams. Type 55-1-10 has leads. Type 55-4-10 has PC pins.

Type 55-1-10 RT22C2L (leads) Stock No.	Type 55-4-10 RT22C2P (PC pins) Stock No.	Ohms	1-9	10-24	25-99	100-249	250-499
12F2960	12F2969	50	6.25	5.67	5.28	4.89	4.50
12F2961	12F2970	100					
12F2962	12F2971	200					
12F2963	12F2972	500					
12F2964	12F2973	1K					
12F2965	12F2974	2K	7.40	6.70	6.24	5.78	5.32
12F2966	12F2975	5K					
12F2967	12F2976	10K					
12F2968	12F2977	20K					

MODEL 55

Meets or exceeds all applicable military and commercial specifications. Power rating 1.5 watts at 70°C. Tempco 50 ppm. Resistance tolerance ±5%. Operating tem-

perature -65°C to 150°C. Models 55-1-8 with stops/clutch, 25 turns. Models 55-1-12, continuous rotation, 42 turns. Case size 1/2x1/2x3/16. Wt. 2.5 grams.

TEFLON INSULATED LEADS

Type 55-1-8 Stock No.	Type 55-1-12 Stock No.	Ohms	1-9	10-24	25-99	100-249	250-499
12F2622	12F2781	50	6.04	5.50	4.80	4.44	4.08
12F2623	12F2782	100					
12F2624	12F2783	200					
12F2625	12F2784	500					
12F2626	12F2785	1K					
12F2627	12F2786	2K	7.24	6.60	5.75	5.32	4.90
12F2628	12F2787	5K					
12F2629	12F2788	10K					
12F2630	12F2789	20K					
12F2631	12F2790	50K					

PRINTED CIRCUIT PINS

Type 55-4-8 Stk. No.	Type 55-4-12 Stk. No.	Type 55-3-8 Stk. No.	Type 55-3-12 Stk. No.	Ohms	1-9	10-24	25-99	100-249	250-499
12F2632	12F2801	12F2791	12F2642	50	6.04	5.50	4.80	4.44	4.08
12F2633	12F2802	12F2792	12F2643	100					
12F2634	12F2803	12F2793	12F2644	200					
12F2635	12F2804	12F2794	12F2645	500					
12F2636	12F2805	12F2795	12F2646	1K					
12F2637	12F2806	12F2796	12F2647	2K	7.24	6.60	5.75	5.32	4.90
12F2638	12F2807	12F2797	12F2648	5K					
12F2639	12F2808	12F2798	12F2649	10K					
12F2640	12F2809	12F2799	12F2650	20K					
12F2641	12F2810	12F2800	12F2651	50K					

MODEL 50

Meets or exceeds all applicable military and commercial specifications. Power rating 1.0 watt at 50°C. Tempco 50 ppm. Re-

sistance tolerance ±5%. Operating temperature -65°C to 150°C. Number of turns 23±2. Case size 3/8x3/8x3/16. Wt. 1.5 grams.

TEFLON INSULATED LEADS

Type 50-1-1 Stock No.	Ohms	1-9	10-24	25-99	100-249	250-499
12F2592	50	7.14	6.51	5.67	5.25	4.83
12F2593	100					
12F2594	200					
12F2595	500					
12F2596	1K					
12F2597	2K	8.57	7.81	6.80	6.31	5.80
12F2598	5K					
12F2599	10K					
12F2600	20K					
12F2601	50K					

PRINTED CIRCUIT PINS

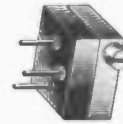
Type 50-3-1 Stock No.	Type 50-4-1 Stock No.	Ohms	1-9	10-24	25-99	100-249	250-499
12F2602	12F2612	50	7.14	6.51	5.67	5.25	4.83
12F2603	12F2613	100					
12F2604	12F2614	200					
12F2605	12F2615	500					
12F2606	12F2616	1K					
12F2607	12F2617	2K	8.57	7.81	6.80	6.31	5.80
12F2608	12F2618	5K					
12F2609	12F2619	10K					
12F2610	12F2620	20K					
12F2611	12F2621	50K					



50-1-1



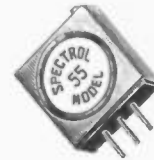
50-3-1



50-4-1



55-1-12
55-1-8
55-1-10



55-3-8
55-3-12
55-4-10



55-4-8
55-4-12

MINIATURE ROTARY SWITCHES



88-3-8



88-3-10



88-5-6

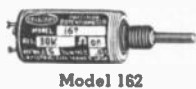
Makes practical many printed circuit board switching applications. Unique "lift off/drop on" cam-actuated wiper action reduces switch arcing and noise. Militarized design withstands severe environments per MIL-STD-202B. Single pole with 10 active non-shorting positions. Contact current rating 250 ma at 28 VDC. Continuous rotation. Temperature range: -65°C to 150°C.

Type 88-3-8. Screwdriver adjust, PC pin. Size: .18 x .50" dia.

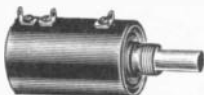
Type 88-3-10. Knob adjust., PC pins. Size: .27 x .55" diameter.

Type 88-5-6. Screwdriver adjust, solder hooks, panel bushing mount. Size: .455 x .50" diameter.

Stk. No.	12F2925	12F2930	12F2931
Type No.	88-3-8	88-3-10	88-5-6
1-9	3.40	4.08	5.27
10-24	3.10	3.72	4.80
25-99	2.70	3.24	4.18
100-249	2.50	3.00	3.88
250-499	2.30	2.76	3.56



Model 162



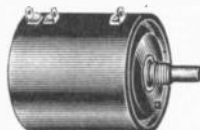
Model 510



Model 810



Model 830



Model 860



Model 500



Model 530

MODEL 162 10 TURN—1/2" DIAMETER

Small size with rear terminals allows use where space is at a premium. Power rating 2 watts at 40°C. Tempco 20 ppm. Operating temperature -55°C to 125°C. Resistance tolerance ±5%. Linearity tolerance 0.2%. Max. start torque 0.8 oz. in. One inch long. .0935 slotted shaft, 1/4-32 bushing. Shipping wt. 1.0 oz.

Stk. No.	Ohms	1-9	10-24	25-49	50-99	100-249	250-499
12F2899	100						
12F2900	200						
12F2901	500						
12F2902	1K						
12F2903	2K	10.00	9.50	9.00	8.50	8.00	7.50
12F2904	5K						
12F2905	10K						
12F2906	20K						
12F2907	30K						
12F2908	50K						

MODEL 500 10 TURN—7/8" DIAMETER

Power rating 3.0 watts at 40°C. Tempco 20 ppm except 100 ohms at 180 ppm. Operating temperature -55°C to 125°C. Resistance tolerance ±3%. Linearity ±.25%. Max. start torque .5 oz. in. 1.5" long. 7/8" shaft. 1/2-32 bushing. Shipping wt. 1.1 oz.

Stk. No.	Ohms	1-9	10-24	25-49	50-99	100-249	250-499
12F2709	100						
12F2710	500						
12F2711	1K						
12F2712	2K	15.00	14.25	13.50	12.75	12.00	11.25
12F2713	5K						
12F2714	10K						
12F2715	20K						
12F2716	30K						
12F2717	50K						
12F2718	100K						

MODEL 510 10 TURN—7/8" DIAMETER

Power rating 3.0 watts at 40°C. Tempco 20 ppm except 100 ohms at 180 ppm. Operating temperature -55°C to 105°C. Resistance tolerance ±3%. Linearity ±.25%. Max. start torque .5 oz. in. 1.5" long. 7/8" shaft. 3/8-32 bushing. Shipping weight 1.5 oz.

Stk. No.	Ohms	1-9	10-24	25-49	50-99	100-249	250-499
12F2719	100						
12F2720	200						
12F2721	500						
12F2722	1K						
12F2723	2K	10.00	9.50	9.00	8.50	8.00	7.50
12F2724	5K						
12F2725	10K						
12F2726	20K						
12F2727	20K						
12F2728	50K						
12F2729	100K						

MODEL 530 10 TURN—7/8" DIAMETER

Power rating 3.0 watts at 40°C. Tempco 20 ppm. Operating temperature -55°C to 105°C. Resistance tolerance ±5%. Linearity ±.25%. Max. start torque .5 oz. in. 1.4" long. 1/4" slotted shaft. 3/8-32 bushing. Shipping weight 1.5 oz.

Stk. No.	Ohms	1-9	10-24	25-49	50-99	100-249	250-499
12F2890	500						
12F2891	1K						
12F2892	2K	7.00	6.65	6.30	5.95	5.60	5.25
12F2893	5K						
12F2894	10K						
12F2895	20K						
12F2896	30K						
12F2897	50K						
12F2898	100K						

MODEL 810 10-TURN—1-13/16" DIAMETER

Power rating 8 watts at 40°C. Operating temperature -55°C to 105°C. Meets or exceeds military and industrial specifications. Resistance tolerance ±3%. Linearity tolerance ±.25%. Max. start torque 1.75 oz. in. 2" long. 1/4" shaft. 3/8-32 bushing. Shipping weight 5.0 oz.

Stk. No.	Ohms	1-9	10-24	25-49	50-99	100-249	250-499
12F2730	25						
12F2731	50						
12F2732	100						
12F2733	200						
12F2734	500						
12F2735	1K						
12F2736	2K	12.00	11.40	10.80	10.20	9.60	9.00
12F2737	5K						
12F2738	10K						
12F2739	20K						
12F2740	30K						
12F2741	50K						
12F2742	100K						
12F2743	200K						
12F2744	250K						
12F2745	300K						

MODEL 830 3-TURN—1-13/16" DIAMETER

Power rating 3 watts at 40°C. Operating temperature -55°C to 105°C. Meets or exceeds military and industrial specifications. Resistance tolerance ±3%. Linearity tolerance ±.25%. Max. start torque 1.75 oz. in. 1.220" long. 1/4" shaft. 3/8-32 bushing. Shipping weight 3.0 oz.

Stk. No.	Ohms	1-9	10-24	25-49	50-99	100-249	250-499
12F2746	100						
12F2747	500						
12F2748	1K						
12F2749	2K	10.00	9.50	9.00	8.75	8.50	8.00
12F2750	5K						
12F2751	10K						
12F2752	20K						
12F2753	30K						
12F2754	50K						

MODEL 860 10-TURN—1-13/16" DIAMETER

Power rating 8 watts at 40°C. Operating temperature -55°C to 105°C. Resistance tolerance ±3%. Linearity tolerance ±.25%. Max. start torque 1.75 oz. in. 2" long. 1/4" shaft. 3/8-32 bushing. Shipping weight 4.5 oz.

Stk. No.	Ohms	1-9	10-24	25-49	50-99	100-249	250-499
12F2755	25						
12F2756	50						
12F2757	100						
12F2758	200						
12F2759	500						
12F2760	1K						
12F2761	2K	10.00	9.50	9.00	8.50	8.00	7.50
12F2762	5K						
12F2763	10K						
12F2764	20K						
12F2765	30K						
12F2766	50K						
12F2767	100K						
12F2768	200K						
12F2769	300K						
12F2770	400K						

Newark can supply most Spectrol Potentiometers. Write phone or wire Newark Chicago for prices on Potentiometers not listed in this Catalog.

SINGLE TURN TRIMMING POTENTIOMETERS



84-3-8



84-3-10



84-5-6

MODEL 84 SINGLE TURN

Meets or exceeds MIL specs. Power rating 1.5 watts at 70°C. Tempco 50 ppm. Temperature range -65°C to 175°C. Case diameter 1/2". Model 84-3-8, screwdriver adjust, PC pins. Model 84-3-10, knob adjust, PC pins. Model 84-5-6, panel bushing mount, solder hooks.

TYPE 84-3-8

Type 84-3-8 Stock No.	Ohms	1-9	10-24	25-99	100-249	250-499
12F2958	10	3.40	3.10	2.70	2.50	2.30
12F2959	20					
12F2680	50					
12F2681	100					
12F2682	200					
12F2683	500					
12F2684	1K					
12F2685	2K					
12F2686	5K					
12F2687	10K					
12F2688	20K	4.08	3.72	3.24	3.00	2.76
12F2689	50K	4.59	4.19	3.64	3.38	3.10
12F2690	100K	5.78	5.27	4.59	4.25	3.91

TYPE 84-3-10

Type 84-3-10 Stock No.	Ohms	1-9	10-24	25-99	100-249	250-499
12F2932	10	4.08	3.72	3.24	3.00	2.76
12F2933	20					
12F2934	50					
12F2935	100					
12F2936	200					
12F2937	500					
12F2938	1K					
12F2939	2K					
12F2940	5K					
12F2941	10K					
12F2942	20K	4.76	4.34	3.78	3.50	3.22
12F2943	50K	5.27	4.81	4.19	3.88	3.57
12F2944	100K	6.46	5.89	5.13	4.75	4.37

TYPE 84-5-6

Type 84-5-6 Stock No.	Ohms	1-9	10-24	25-99	100-249	250-499
12F2945	10	5.27	4.80	4.18	3.88	3.56
12F2946	20					
12F2947	50					
12F2948	100					
12F2949	200					
12F2950	500					
12F2951	1K					
12F2952	2K					
12F2953	5K					
12F2954	10K					
12F2955	20K	5.95	5.43	4.73	4.38	4.03
12F2956	50K	6.46	5.89	5.13	4.75	4.37
12F2957	100K	7.65	6.97	6.07	5.63	5.18



80-3-1
80-3-4



130



140

MODEL 80 SINGLE TURN

Ultraminiature TO-9 size. Terminal spacing per standard MIL grid. High power rating 1 watt at 50°C. Resistance tolerance ±5%. Tempco 50 ppm. 80-3-4: 320° elec. travel with end stops. 80-3-1: cont. rotation with 335° elec. travel. Temperature range -65°C to 150°C. Size .241 x .345 dia.

Type 80-3-4 Stk. No.	Type 80-3-1 Stk. No.	Ohms	1-9	10-24	25-99	100-249	250-499					
12F2652	12F2662	50	4.42	4.03	3.51	3.25	2.99					
12F2653	12F2663	100										
12F2654	12F2664	200										
12F2655	12F2665	500										
12F2656	12F2666	1K										
12F2657	12F2667	2K										
12F2658	12F2668	5K										
12F2659	12F2669	10K										
12F2660	12F2670	20K						5.53	5.04	4.39	4.06	3.74
12F2661	12F2671	50K						6.36	5.80	5.05	4.68	4.30

MODEL 130 SINGLE-TURN 1-5/16" DIAMETER

High reliability at low cost. Terminals at rear. Bushing mount. Power rating 2.75 watts at 40°C. Temperature range (operating) -55°C to 105°C. Resistance tolerance ±3%. 360° mech. rotation, 352° elec. rot. Body length 5/8". Shaft diameter 1/4". Shpg. wt. 1.5 oz.

Stock No.	Ohms	1-9	10-24	25-49	50-99	100-249	250-499
12F2691	100	9.00	8.55	8.10	7.65	7.20	6.75
12F2692	1K						
12F2693	2K						
12F2694	5K						
12F2695	10K						
12F2696	20K						
12F2697	30K						

MODEL 140 SINGLE TURN 1/2" DIAMETER

Small diameter, rear terminals for maximum package density. Linearity tolerance 1%. Power rating 2 watts at 40°C. Operating temperature range -55°C to 125°C. 330° mech. rotation, 320° elec. rot. Body length .305". Shaft diameter 1/8". Shpg. wt. 0.1 oz.

Stock No.	Ohms	1-9	10-24	25-49	50-99	100-249	250-499
12F2698	50	8.65	8.22	7.80	7.37	6.93	6.50
12F2699	100						
12F2700	200						
12F2701	500						
12F2702	1K						
12F2703	2K						
12F2704	5K						
12F2705	10K						
12F2706	20K						
12F2707	50K						

MAKE NEWARK YOUR DEPENDABLE SOURCE FOR ALL ELECTRONIC COMPONENTS

Whether ordering in quantity for production or in small lots for specialized use, make Newark your headquarters for every electronic component. — Get the exact part you need from an inventory of over 70,000 units! Top Quality, Lowest Prices, Fastest Service.

Multidial—Turns Counting Dials

SPECTROL



Model 10



Model 11



12



14



Model 25



Model 30

PRECISION TURNS COUNTING DIALS

Accuracy of better than 0.1% when used with 10-turn pot. Fast numeral transfer takes place in less than one division. Unique

PRECISION TURNS-COUNTING DIALS

Model 10. Ten turns. Registers 999 total count. Black anodized, white numerals. One inch diameter.

Stock No.	Type	Shaft Diameter	1-9	10-24	25-49	50-99	100-249	250-499
12F2771	10-1-11	1/4"	8.75	8.31	7.88	7.44	7.00	6.56
12F2772	10-3-11	1/8"	9.75	9.26	8.78	8.29	7.80	7.31

Model 11. Eleven turns. Registers 1099 total count. Satin chrome, black markings. 1" diameter.

Stock No.	Type	Shaft Diameter	1-9	10-24	25-49	50-99	100-249	250-499
12F2773	11-1-11	1/4"	7.75	7.36	6.98	6.59	6.20	5.81
12F2774	11-3-11	1/8"	8.35	7.93	7.52	7.10	6.68	6.26

Model 12. Ten turns. Registers 999 total count. Brake lever close to body for use in restricted panel space. Black anodized, white markings. 1" diameter.

Stk. No.	Type	Shaft Dia.	1-9	10-24	25-49	50-99	100-249	250-499
12F2926	12-1-11	1/4"	8.75	8.31	7.88	7.44	7.00	6.56
12F2927	12-3-11	1/8"	9.75	9.26	8.78	8.29	7.80	7.31

Model 14. Ten turns. Registers 999 total count. Housing squared off sides and bottom for use where space is severely restricted. Black anodized, white markings. 1 3/16" wide x 2 9/32" high.

Stk. No.	Type	Shaft Dia.	1-9	10-24	25-49	50-99	100-249	250-499
12F2928	14-1-11	1/4"	8.75	8.31	7.88	7.44	7.00	6.56
12F2929	14-3-11	1/8"	9.75	9.26	8.78	8.29	7.80	7.31

one-finger brake lever prevents dial creepage or loss of setting no matter how severe vibration or shock encountered.

DIGITAL DIAL

Model 25-1-13. Three digit dial reads to 1099 in 11 turns. Fine calibrations allow settings to 1/10 of a digit accuracy. 2 to 1 gear ratio between setting knob and device shaft for extremely fine settings. Mounts directly to panel. Satin chrome finish with black plastic turn-knob. 1 13/16" dia. 1 5/8" protrusion from panel.

Stock No.	Type	Shaft Diameter	1-9	10-24	25-49	50-99	100-249	250-499
12F2777	25-1-13	1/4"	14.75	13.54	12.83	12.11	11.40	10.69

Model 25-4-11. 4-digit dial unit similar to above reads to 9999 in 100 turns.

Stock No.	Type	Shaft Diameter	1-9	10-24	25-49	50-99	100-249	250-499
12F2778	25-4-13	1/4"	19.75	18.76	17.78	16.79	15.80	14.81

PRECISION TURNS-COUNTING DIAL

Model 20. Ten turns. Registers 999 total count. Black anodized, white markings. 1 3/16" diameter.

Stock No.	Type	Shaft Diameter	1-9	10-24	25-49	50-99	100-249	250-499
12F2775	20-1-11	1/4"	7.50	7.13	6.75	6.38	6.00	5.63
12F2776	20-3-11	1/8"	8.10	7.70	7.29	6.89	6.48	6.08

Model 30. Ten turns. Registers 999 total count. Satin chrome, black markings. 1 3/16" diameter.

Stock No.	Type	Shaft Diameter	1-9	10-24	25-49	50-99	100-249	250-499
12F2779	30-1-11	1/4"	5.75	5.46	5.18	4.89	4.60	4.31
12F2780	30-3-11	1/8"	6.35	6.03	5.72	5.40	5.08	4.76

AMPHENOL

1" MICRODIAL® WITH BRAKE

Series 3000. Ten-turn, precision counting dial provide maximum accuracy and convenience with Amphenol Micropot potentiometers. Concentric scale Microdial with finger tip brake ideal for the series 205 and 111B Micropots and for all potentiometers having ten turn adjustment and 1/4" diameter shaft. White numerals on black scale. Smooth, silent gear action. Size 1 1/4" with finger grip. Shpg. wt. 10 oz.



Stock No.	Type	Description	1-9	10-24	25-99	100-199
12F875	3041-2	Black Brake Knob	7.75	7.30	6.95	6.55
12F876	3041-4	Dark-Gray Br. Knob				
12F877	3041-5	Light-Gray Br. Knob				

SERIES 1360 CONCENTRIC SCALE MICRODIALS®

Numbers Molded—Resist Wear

New concentric scale dial for use with Amphenol Micropots. Manufactured of molded plastic with numbers and graduations molded in depth to resist wear. Similar in operation to the 1320 series except outer knob actuates the dial. Available in five combinations of red, gray and black. Turns dial: White with black numbers. With brake. Wt., 8 oz.



No.	Type	Color Large Dial	Color Cover	1-9	10-24	25-99	100-199
12F870	1361	Dark Gray	Dark Gray	5.82	5.46	5.09	4.85
12F871	1362	White Nos. Light Gray Black Nos.					
12F872	1363	Black White Nos.					
12F873	1364	Dark Gray White Nos.					
12F874	1365	Light Gray Black Nos.					

NEW SERIES 1350 MICRODIAL COUNTING DIAL

Counting dial features 2 concentrically mounted dials; larger counts shaft rev. in 100 equal increments; inner — full rev. Smooth epi-cyclic motion. Eliminates reading inaccuracies. Indexing accuracy: 1000:1. 1 3/16" diameter. Ten turns. Shaft dia: 1/4". Housing: clear anodized alum. Wt: 4.4 oz.



Stk. No.	Type	1-9	10-24	25-99	100-199
12F878	1350	5.75	5.46	5.18	4.89

CONCENTRIC SCALE MICRODIALS®

Composed of 2 concentrically mounted dials: Smaller counts up to 10 turns; larger counts increments of turn. (100 equal divisions). Attachment to actuation shaft eliminates backlash. Accelerating turn-counting dial removes confusion. Cont. operation in either direction. No stops in dial itself. Finger tip brake. #6 Allen wrench packed with each unit. Dia: 1 3/16". Depth: 1 3/16". Shaft Dia.: 0.252". Shpg. wt: 8 oz.



Stk. No.	Type	Description	1-9	10-24	25-99	100-199
12F833	1320	Bright chrome coversatin chrome dials	5.82	5.46	5.09	4.85
12F834	1321	Bright chrome coversgloss black dials				
12F835	1322	Satin chrome coversatin chrome dials				
12F836	1323	Satin chrome coversgloss black dials				
12F837	1324	Gloss black coversatin chrome dials				
12F838	1325	Gloss black coversgloss black dials				
12F839	1326	Dull black coversatin chrome dials				
12F840	1327	Dull black coversdull black dials				

Amphenol Microdials-Trimmers Potentiometers



3141 DIGITAL MICRODIAL

Remarkably accurate (1000:1 indexing accuracy). Measures only $1\frac{1}{2} \times 1\frac{1}{2}$ " and protrudes only $\frac{3}{32}$ " from a panel. Digits are magnified by convex lens in recessed window. Three-digit, ten-turn dial rotates continuously forward or backward with push-pull fingertip brake to lock settings. Will mount on panels $\frac{1}{16}$ - $\frac{3}{16}$ " thick. Natural brushed aluminum finish. Shaft dia. $\frac{1}{4}$ ". Shpg. wt. 2.75 oz.



DIRECT-READING MICRODIALS®

- Inline Digital Presentation
- Control Knob Mounted Directly on Shaft

Inline digital presentation provides greatest accuracy of perception when forced fast reading and setting are required. Rugged, sealed construction. Control knob mounted directly on the shaft to provide greatest sensitivity and accuracy. Packed with #6 Allen Set Screw Wrench, 1 adapter ring for use when panel thickness exceeds $\frac{1}{8}$ ". Depth $1\frac{1}{2}$ ". Panel face dia. $2\frac{1}{16}$ ". Panel face dia. $1\frac{1}{16}$ ", depth $1\frac{1}{32}$ ". Finger tip braking on some models. *Has anodized aluminum control knob (meets 50 hour salt spray test). Shpg. wt., 8 oz.



Stk. No.	1-9	10-24	25-99	100-199
12F879	10.00	9.50	9.00	8.50

NEW 2901 METAL FILM TRIMMERS

The Amphenol 2901 is the only infinite resolution trimmer offering a temperature coefficient as low as 50 ppm/°C and zero noise level at the trimmed position. You just set it and forget it. This half-inch square trimmer is humidity-proof, vibration proof, and shock-proof. Designed for high temperatures. Entire case is insulator. Meets MIL-R-22097B. Color coded wire lead type is $0.5 \times 0.187 \times 0.5$ ". Gold plated printed circuit pin type is $0.5 \times 0.220 \times 0.5$ ". Wt., 3 qms.



Type 2901P

TYPE 2901L WITH COLOR CODED WIRE LEADS

Stk. No.	Ohms	1-9	10-24	25-49	50-99	1000-249	250-499
12F1682	50						
12F1683	100						
12F1684	200						
12F1685	500	7.35	6.95	6.60	6.25	5.85	5.50
12F1686	1K						
12F1687	2K						
12F1688	5K						
12F1689	10K						

TYPE 2901P WITH GOLD PLATED PRINTED CIRCUIT PINS

Stk. No.	Ohms	1-9	10-24	25-49	50-99	100-249	250-499
12F1690	50						
12F1691	100						
12F1692	200						
12F1693	500	7.35	6.95	6.60	6.25	5.85	5.50
12F1694	1K						
12F1695	2K						
12F1696	5K						
12F1697	10K						

2201B PRECISION 10-TURN LINEAR MICROPOTS

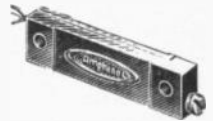


Model 2201B. A high resolution ten-turn precision potentiometer for use in commercial instrument applications. Specifications include Mechanical Rotation: $3600^\circ \pm 4^\circ - 0^\circ$. Temperature Range: -55°C to $+105^\circ\text{C}$. Torque: 2 oz/in running 3 oz/in starting. Stop Strength: 160 oz/in. Shaft Dia: .250". Front Shaft ext. $\frac{7}{8}$ ". Power Dissipation: 5 watts at 40°C . Wt. 4.2 oz.

Stock No.	Ohms	Std. Linearity	1-9	10-24	25-49	50-99	100-199
12F885	25	$\pm .5\%$					
12F886	50	$\pm .5\%$					
12F887	100	$\pm .25\%$					
12F888	200	$\pm .25\%$					
12F889	500	$\pm .25\%$					
12F890	1K	$\pm .25\%$					
12F891	2K	$\pm .25\%$	10.00	9.50	9.00	8.50	8.00
12F892	5K	$\pm .25\%$					
12F893	10K	$\pm .25\%$					
12F894	20K	$\pm .25\%$					
12F895	30K	$\pm .25\%$					
12F896	50K	$\pm .25\%$					
12F897	100K	$\pm .25\%$					
12F898	200K	$\pm .25\%$					

2750 SERIES (RT 12)

Designed to withstand the specifications detailed in MIL-R-27208A, style RT 12. Leadscrew actuated, wirewound, humidity-proof, high temperature type. Operating temperature is -65°C to $+175^\circ\text{C}$. Stranded copper wire leads, color coded, teflon insulated. $1\frac{1}{2}$ " minimum length. Total resistance tolerance is $\pm 5\%$. Power rating is 1 watt at 70°C derated to 0 at 175°C . The leadscrew provides complete range of adjustment in just 22 turns nominal. Size, $1.25" \times 0.19" \times 0.32"$.



Type 2750 L

Type 2750 L Stock No.	Ohms	Resolution No. of Trns.	1-9	10-24	25-49	50-99	100-249	250-499
12F1657	10	77						
12F1658	20	97						
12F1659	50	126						
12F1660	100	154						
12F1661	200	192	5.60	5.20	4.87	4.58	4.36	4.05
12F1662	500	256						
12F1663	1000	237						
12F1664	2000	288						
12F1665	5000	398						
12F1666	10000	475						
12F1667	20000	605	6.10	5.66	5.30	4.97	4.75	4.40
12F1668	50000	715	6.50	6.05	5.66	5.31	5.07	4.70
12F1669	100000	1180	7.75	7.21	6.75	6.35	6.35	5.60

2900 SERIES (RT 22)

Trimmers are $\frac{1}{2}$ " square, humidity-proof, wirewound. Conforms to MIL-R-27208A. Ambient temp. range, -65°C to $+175^\circ\text{C}$. Power dissipation, 1 watt at 70°C derated to 0 at 175°C . Complete adjustment is achieved in 25 turns of the leadscrew. Teflon insulated color-coded wire leads 6" long. Total resistance tolerance is $\pm 5\%$.



Type 2900 L

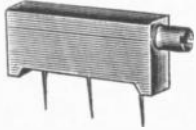
Type 2900 L Stock No.	Ohms	Resolution No. of Trns.	1-9	10-24	25-49	50-99	100-249	250-499
12F1670	10	100						
12F1671	20	130						
12F1672	50	185						
12F1673	100	233						
12F1674	200	286	5.43	5.05	4.72	4.43	4.22	3.92
12F1675	500	286						
12F1676	1000	322						
12F1677	2000	477						
12F1678	5000	625						
12F1679	10000	714						
12F1680	20000	910	6.01	5.60	5.23	4.90	4.68	4.35
12F1681	50000	1190	7.10	6.60	6.16	5.80	5.53	5.03

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Amphenol Trimmers and Potentiometers



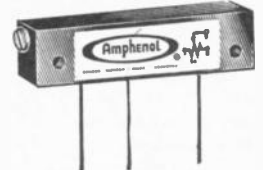
2600P-2610P



992L-994L-2850L



992SL



992P

AMPHENOL WIREWOUND TRIMMERS

Micro-Minature Trimmers. —65° to +125°C. 1 watt at 40°C. .75 x .16 x .31". Up to 52% higher resolution than many trimmers selling up to six times the price. Silver brazed terminations virtually eliminate end resistance. Self-locking leadscrew, and low mass contact design permits the 2600 to withstand acceleration and shock up to 50 g's. T.C., 30 ppm nominal. Damage proof clutch. Rated one full watt at 40°C, derated to zero at 125°C. Factory tested. 2610P is humidity-proof version.

2600P SERIES WIREWOUND

Stock No.	Ohms	% Reso- lution	Res. No. of Turns	Resolution					
				1-9	10-24	25-49	50-99	100-249	250-499
12F1627	100	.95	104						
12F1628	200	.72	135						
12F1629	500	.64	156						
12F1630	1000	.53	190						
12F1631	2000	.47	211	1.75	1.62	1.46	1.39	1.30	1.23
12F1632	5000	.32	314						
12F1633	10000	.24	403						
12F1634	20000	.22	454						

2610P HUMIDITY PROOF WIREWOUND

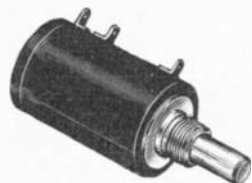
Stock No.	Ohms	% Reso- lution	Res. No. of Turns	Resolution					
				1-9	10-24	25-49	50-99	100-249	250-499
12F1636	100	.95	104						
12F1637	200	.72	135						
12F1638	500	.64	156						
12F1639	1000	.53	190						
12F1640	2000	.47	211	2.45	2.27	2.04	1.95	1.82	1.72
12F1641	5000	.32	314						
12F1642	10000	.24	403						
12F1643	20000	.22	454						

999 TRIMMER MOUNTING BRACKET

For any .28" W x 1.25" L Trimmer; Models 992, 993, 994, and 2850 series. Easily adjusted—no special tools needed. Self-locking. Aluminum with gold anodized finish.

Stk. No.	Type	Size	1-9	10-24	25-49
12F1635	999	1.19 ₃₂ " L x 1.4 ₃₂ " W x .5 ₁₆ " H	.81	.75	.88

General purpose wirewound Series 992 available in resistance ranges of 50 ohms to 10K. Resistance tolerance: ±10% to 100 ohms; ±5% 100 ohms and over. Power rating: 1 watt @ 40°C, 0 watt @ 105°C. 100% continuity checked. 100% noise tested. Dust proof; O-ring seal. Usable potentiometer range: 93% to 100%. Insulation: 0.2" double amplitude 2-30 cps, 20 g's, 30-2000 cps. Acceleration 100 g's. Shock: 50 g's. Load life: 500 hours operation. Dielectric strength: 1 minute at 1100V rms, 60 cycles. Gang mountable.



2151B WIREWOUND POTENTIOMETERS

Type 2151B. For industrial-commercial use. 7/8" diameter. Wirewound. Dual slip-ring commutator insures accurate voltage. Metal wiper contact "hugs" insure precise setting stability. No backlash. Rotational life: over 2,000,000 revolutions. Strap terminations welded direct to terminal lugs. High temperature thermosetting.

Plastic does not change size or shape under humidity or moisture variations. Molded phenolic case meets MIL-R-12934D. Temp. range: —65°C to +85°C. Wt. 1 oz.

2850 SERIES (RT 11)

Meets Mil-R-27208A, STYLE RT 11. Rated one full watt at 110°C, the 2850 is a high temperature (—65°C to 175°C), humidity proof, wirewound precision trimmer. Silver brazed internal terminations minimize end resistance to one ohm or 0.25% of total resistance. Total resistance tolerance is ±5%. Extra long ceramic mandrel provides more turns of resistance element, superior resolution. 12" tinned teflon insulated leads.

Type 2850L Stock No.	Ohms	Resolution No. of Turns	Resolution					
			1-9	10-24	25-49	50-99	100-249	250-499
12F1644	10	61						
12F1645	20	77						
12F1646	50	102						
12F1647	100	154						
12F1648	200	192	5.43	5.05	4.72	4.43	4.23	3.92
12F1649	500	176						
12F1650	1K	238						
12F1651	2K	287						
12F1652	5K	343						
12F1653	10K	570						
12F1654	20K	675	6.03	5.60	5.25	4.92	5.70	4.35
12F1655	50K	915	6.55	6.07	5.67	5.33	5.08	4.71
12F1656	100K	1100	7.55	7.20	6.74	6.31	6.04	5.60

994 SERIES

General purpose, wire-wound model with resistance range of 50 to 10,000 ohms, ±5% from 100 to 10,000 ohms, Temperature range, —55°C to +105°C. Acceleration is up to 100 G's. Humidity-proof; meets military salt spray test as well as sand and dust specifications. Power rating is 1 watt @ 40°C. Size: .36"H x .28"W x 1.25"L.

Type 994L Stock No.	Ohms	Resolution No. of Turns	Resolution					
			1-9	10-24	25-49	50-99	100-249	250-499
12F1531	50	108						
12F1532	100	108						
12F1533	200	107						
12F1534	500	167						
12F1535	1000	225	3.10	2.87	2.58	2.45	2.30	2.18
12F1536	2000	273						
12F1537	5000	378						
12F1538	10000	448						

992 SERIES

Type 992L Stock No.	Type 992P Stock No.	Type 992SL Stock No.	Ohms	Resolution No. of Turns	Resolution					
					1-9	10-24	25-49	50-99	100-249	250-499
12F941	12F956	12F1512	50	108						
12F942	12F957	12F1513	100	108						
12F943	12F958	12F1514	200	107						
12F944	12F959	12F1515	500	167						
12F945	12F960	12F1516	1K	225	2.95	2.73	2.46	2.33	2.18	2.07
12F946	12F961	12F1517	2K	273						
12F948	12F963	12F1518	5K	378						
12F949	12F964	12F1519	10K	448						

Stock No.	Ohms	Res. No. of turns	1-9	10-24	25-49	50-99	100-249
12F1800	25	1,820					
12F1801	50	2,080					
12F1802	100	1,850					
12F1803	200	2,143					
12F1804	500	2,745					
12F1805	1,000	3,180	10.00	9.50	9.00	8.50	8.00
12F1806	2,000	4,040					
12F1807	5,000	5,200					
12F1808	10,000	4,800					
12F1809	20,000	5,900					
12F1810	30,000	6,500					
12F1811	50,000	9,150					
12F1812	100,000	11,300					

**NEWARK — Your One Dependable Source
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Potentiometers



STYLE AS 1/2 WATT MINIATURE POTENTIOMETERS

The smallest, high-quality, molded, composition potentiometer available. Only 1/2" in diameter. Locking type shaft is standard. Max. continuous voltage across entire element—350v. 1/2-watt at 70°C. Derate

linearly to zero at 120°C ambient. Can be used throughout range from -55°C to +120°C. Type AS potentiometers meet the 200 hour salt spray test of QQ-M-151 and exceed the performance requirements of MIL-R-94A as E.I.A. requirements. Shipping weight, 4 ounces. Tol. $\pm 10\%$. * $\pm 20\%$.

Stk. No.	Type	MIL-R-94	Ohms	1-9	10-49	50-99	100-up
9F950	AS3601	RV6LAYS A101A	100	5.10	4.59	4.23	3.58
9F951	AS3602	RV6LAYS A251A	250	5.10	4.59	4.23	3.58
9F952	AS3603	RV6LAYS A501A	500	5.10	4.59	4.23	3.58
9F953	AS3604	RV6LAYS A102A	1,000	5.10	4.59	4.23	3.58
9F954	AS3605	RV6LAYS A252A	2,500	5.10	4.59	4.23	3.58
9F963	AS3606	RV6LAYS A502A	5,000	5.10	4.59	4.23	3.58
9F964	AS3607	RV6LAYS A103A	10,000	5.10	4.59	4.23	3.58
9F955	AS3608	RV6LAYS A253A	25,000	5.10	4.59	4.23	3.58

Stk. No.	Type	MIL-R-94	Ohms	1-9	10-49	50-99	100-up
9F956	AS3609	RV6LAYS A503A	50,000	5.10	4.59	4.23	3.58
9F957	AS3610	RV6LAYS A104A	.1 meg	5.10	4.59	4.23	3.58
9F958	AS3611	RV6LAYS A254A	.25 meg	5.10	4.59	4.23	3.58
9F959	AS3612	RV6LAYS A504A	.50 meg	5.10	4.59	4.23	3.58
9F960	AS3613	RV6LAYS A105B	1 meg*	5.10	4.59	4.23	3.58
9F949	AS3684	RV6LAYS A205B	2.0 meg*	5.10	4.59	4.23	3.58
9F961	AS3614	RV6LAYS A255B	2.5 meg*	5.10	4.59	4.23	3.58
9F962	AS3615	RV6LAYS A505B	5.0 meg*	5.10	4.59	4.23	3.58

STYLE ASM POTENTIOMETERS

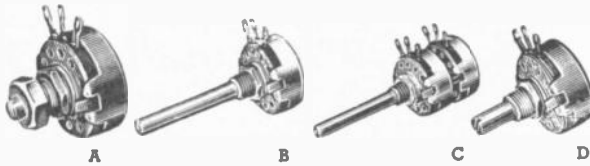
1/2 watt potentiometers. Same as Type AS above, except that Type ASM has straight bushing and shafts that extend 7/8" L.

from the mounting surface. Shafts are slotted. Tolerance: $\pm 10\%$. except * $\pm 20\%$.

Stk. No.	Type	MIL-R-94	Ohms	1-9	10-49	50-99	100-up
9F1800	ASM6661	RV6NAYS D101A	100	5.10	4.59	4.23	3.58
9F1801	ASM6662	RV6NAYS D251A	250	5.10	4.59	4.23	3.58
9F1802	ASM6663	RV6NAYS D501A	500	5.10	4.59	4.23	3.58
9F1803	ASM6664	RV6NAYS D102A	1,000	5.10	4.59	4.23	3.58
9F1804	ASM6665	RV6NAYS D252A	2,500	5.10	4.59	4.23	3.58
9F1805	ASM6666	RV6NAYS D502A	5,000	5.10	4.59	4.23	3.58
9F1806	ASM6667	RV6NAYS D103A	10,000	5.10	4.59	4.23	3.58
9F1807	ASM6668	RV6NAYS D253A	25,000	5.10	4.59	4.23	3.58

Stk. No.	Type	MIL-R-94	Ohms	1-9	10-49	50-99	100-up
9F1808	ASM6669	RV6NAYS D503A	50,000	5.10	4.59	4.23	3.58
9F1809	ASM6670	RV6NAYS D104A	.1 meg	5.10	4.59	4.23	3.58
9F1810	ASM6671	RV6NAYS D254A	.25 meg	5.10	4.59	4.23	3.58
9F1811	ASM6672	RV6NAYS D504A	.5 meg	5.10	4.59	4.23	3.58
9F1812	ASM6673	RV6NAYS D105B	1.0 meg*	5.10	4.59	4.23	3.58
9F1813	ASM6674	RV6NAYS D205B	2.0 meg*	5.10	4.59	4.23	3.58
9F1814	ASM6675	RV6NAYS D255B	2.5 meg*	5.10	4.59	4.23	3.58
9F1815	ASM6676	RV6NAYS D505B	5.0 meg*	5.10	4.59	4.23	3.58

TYPE AB 2-WATT POTENTIOMETERS



Molded composition 2-watt variable resistance control units. Type CMU (Fig. D) has 7/8" L x 1/4" slotted shaft. Type CLU (Fig. A) has locking nut, 3/8" L x 1/4" slotted shaft mounts in 3/8" hole on panels up to 1/8". Types CA, CB and CU (Fig. B), and Type CCU dual (Fig. C) have 2" long, 1/4" shafts. Mount in 3/8" hole on panels up to 1/4". All are $\pm 10\%$ tolerance, except * $\pm 20\%$. Types CU, CCU, CMU, and CLU are linear taper; Type CA clockwise log; Type CB counter-clockwise log; size 3/8" x 1 1/2" diameter. Type CCU size, 1 1/4" x 1 3/8" dia. With lock washer and mtg. nut. Shpg. wt., 4 oz.

Stock Potentiometers-Mil Units Are Stamped With Mil And Commercial Designations.

STYLE CLU (3/8" SHAFT) FIG. A

Stk. No.	Type	MIL-R-94	Ohms	1-9	10-49	50-99	100-up
9F916	CLU5001	RV4LAYS A500A	50	2.55	2.29	2.12	1.90
9F917	CLU1011	RV4LAYS A101A	100	2.55	2.29	2.12	1.90
9F918	CLU1511	RV4LAYS A151A	150	2.55	2.29	2.12	1.90
9F558	CLU2511	RV4LAYS A251A	250	2.55	2.29	2.12	1.90
9F559	CLU3511	RV4LAYS A351A	350	2.55	2.29	2.12	1.90
9F919	CLU5011	RV4LAYS A501A	500	2.55	2.29	2.12	1.90
9F560	CLU7511	RV4LAYS A751A	750	2.55	2.29	2.12	1.90
9F920	CLU1021	RV4LAYS A102A	1,000	2.55	2.29	2.12	1.90
9F561	CLU1521	RV4LAYS A152A	1,500	2.55	2.29	2.12	1.90
9F921	CLU2521	RV4LAYS A252A	2,500	2.55	2.29	2.12	1.90
9F562	CLU3521	RV4LAYS A352A	3,500	2.55	2.29	2.12	1.90
9F922	CLU5021	RV4LAYS A502A	5,000	2.55	2.29	2.12	1.90
9F563	CLU7521	RV4LAYS A752A	7,500	2.55	2.29	2.12	1.90
9F923	CLU1031	RV4LAYS A103A	10,000	2.55	2.29	2.12	1.90
9F564	CLU1531	RV4LAYS A153A	15,000	2.55	2.29	2.12	1.90
9F924	CLU2531	RV4LAYS A253A	25,000	2.55	2.29	2.12	1.90

Stk. No.	Type	MIL-R-94	Ohms	1-9	10-49	50-99	100-up
9F565	CLU3531	RV4LAYS A353A	35,000	2.55	2.29	2.12	1.90
9F925	CLU5031	RV4LAYS A503A	50,000	2.55	2.29	2.12	1.90
9F566	CLU7531	RV4LAYS A753A	75,000	2.55	2.29	2.12	1.90
9F926	CLU1041	RV4LAYS A104A	100,000	2.55	2.29	2.12	1.90
9F567	CLU1541	RV4LAYS A154A	150,000	2.55	2.29	2.12	1.90
9F927	CLU2541	RV4LAYS A254A	250,000	2.55	2.29	2.12	1.90
9F568	CLU3541	RV4LAYS A354A	350,000	2.55	2.29	2.12	1.90
9F928	CLU5041	RV4LAYS A504A	500,000	2.55	2.29	2.12	1.90
9F569	CLU7542	RV4LAYS A754B	750,000*	2.55	2.29	2.12	1.90
9F929	CLU1052	RV4LAYS A105B	1 meg*	2.55	2.29	2.12	1.90
9F570	CLU1552	RV4LAYS A155B	1.5 meg*	2.55	2.29	2.12	1.90
9F948	CLU2052	RV4LAYS A205B	2.0 meg*	2.55	2.29	2.12	1.90
9F930	CLU2552	RV4LAYS A255B	2.5 meg*	2.55	2.29	2.12	1.90
9F571	CLU3552	RV4LAYS A355B	3.5 meg*	2.55	2.29	2.12	1.90
9F931	CLU5052	RV4LAYS A505B	5 meg*	2.55	2.29	2.12	1.90

STYLE CMU (1/2" SHAFT) FIG. D

Stk. No.	Type	MIL-R-94	Ohms	1-9	10-49	50-99	100-up
9F1350	CMU5001	RV4NAYS D500A	50	1.95	1.75	1.61	1.46
9F1351	CMU1011	RV4NAYS D101A	100	1.95	1.75	1.61	1.46
9F1352	CMU1511	RV4NAYS D151A	150	1.95	1.75	1.61	1.46
9F1353	CMU2511	RV4NAYS D251A	250	1.95	1.75	1.61	1.46
9F1354	CMU3511	RV4NAYS D351A	350	1.95	1.75	1.61	1.46
9F1355	CMU5011	RV4NAYS D501A	500	1.95	1.75	1.61	1.46
9F1356	CMU7511	RV4NAYS D751A	750	1.95	1.75	1.61	1.46
9F1357	CMU1021	RV4NAYS D102A	1,000	1.95	1.75	1.61	1.46
9F1358	CMU1521	RV4NAYS D152A	1,500	1.95	1.75	1.61	1.46
9F1359	CMU2521	RV4NAYS D252A	2,500	1.95	1.75	1.61	1.46
9F1360	CMU3521	RV4NAYS D352A	3,500	1.95	1.75	1.61	1.46
9F1361	CMU5021	RV4NAYS D502A	5,000	1.95	1.75	1.61	1.46
9F1362	CMU7521	RV4NAYS D752A	7,500	1.95	1.75	1.61	1.46
9F1363	CMU1031	RV4NAYS D103A	10,000	1.95	1.75	1.61	1.46
9F1364	CMU1531	RV4NAYS D153A	15,000	1.95	1.75	1.61	1.46
9F1365	CMU2531	RV4NAYS D253A	25,000	1.95	1.75	1.61	1.46

Stk. No.	Type	MIL-R-94	Ohms	1-9	10-49	50-99	100-up
9F1366	CMU3531	RV4NAYS D353A	35,000	1.95	1.75	1.61	1.46
9F1367	CMU5031	RV4NAYS D503A	50,000	1.95	1.75	1.61	1.46
9F1368	CMU7531	RV4NAYS D753A	75,000	1.95	1.75	1.61	1.46
9F1369	CMU1041	RV4NAYS D104A	1 meg.	1.95	1.75	1.61	1.46
9F1370	CMU1541	RV4NAYS D154A	1.5 meg.	1.95	1.75	1.61	1.46
9F1371	CMU2541	RV4NAYS D254A	2.5 meg.	1.95	1.75	1.61	1.46
9F1372	CMU3541	RV4NAYS D354A	.35 meg.	1.95	1.75	1.61	1.46
9F1373	CMU5041	RV4NAYS D504A	.5 meg.	1.95	1.75	1.61	1.46
9F1374	CMU7542	RV4NAYS D754B	1.75 meg*	1.95	1.75	1.61	1.46
9F1375	CMU1052	RV4NAYS D105B	1.0 meg*	1.95	1.75	1.61	1.46
9F1376	CMU1552	RV4NAYS D155B	1.5 meg*	1.95	1.75	1.61	1.46
9F1377	CMU2052	RV4NAYS D205B	2.0 meg*	1.95	1.75	1.61	1.46
9F1378	CMU2552	RV4NAYS D255B	2.5 meg*	1.95	1.75	1.61	1.46
9F1379	CMU3552	RV4NAYS D355B	3.5 meg*	1.95	1.75	1.61	1.46
9F1380	CMU5052	RV4NAYS D505B	5.0 meg*	1.95	1.75	1.61	1.46

STYLE CU—FIG. B

Stk. No.	Type	Ohms	1-9	10-49	50-99	100-up
9F900	CU5001	50	1.95	1.75	1.62	1.46
9F901	CU1011	100	1.95	1.75	1.62	1.46
9F572	CU1511	150	1.95	1.75	1.62	1.46
9F902	CU2511	250	1.95	1.75	1.62	1.46
9F573	CU3511	350	1.95	1.75	1.62	1.46
9F903	CU5011	500	1.95	1.75	1.62	1.46
9F574	CU7511	750	1.95	1.75	1.62	1.46
9F904	CU1021	1,000	1.95	1.75	1.62	1.46
9F575	CU1521	1,500	1.95	1.75	1.62	1.46
9F905	CU2521	2,500	1.95	1.75	1.62	1.46
9F576	CU3521	3,500	1.95	1.75	1.62	1.46
9F906	CU5021	5,000	1.95	1.75	1.62	1.46

Stk. No.	Type	Ohms	1-9	10-49	50-99	100-up
9F577	CU7521	7,500	1.95	1.75	1.62	1.46
9F907	CU1031	10,000	1.95	1.75	1.62	1.46
9F578	CU1531	15,000	1.95	1.75	1.62	1.46
9F908	CU2531	25,000	1.95	1.75	1.62	1.46
9F579	CU3531	35,000	1.95	1.75	1.62	1.46
9F909	CU5031	50,000	1.95	1.75	1.62	1.46
9F580	CU7531	75,000	1.95	1.75	1.62	1.46
9F910	CU1041	100,000	1.95	1.75	1.62	1.46
9F581	CU1541	150,000	1.95	1.75	1.62	1.46
9F911	CU2541	250,000	1.95	1.75	1.62	1.46
9F582	CU3541	350,000	1.95	1.75	1.62	1.46
9F912	CU5041	500,000	1.95	1.75	1.62	1.46

OHMITE Potentiometers

TYPE AB 2-WATT POTENTIOMETERS (Cont.)

STYLE CU — FIG. B (Continued)

Stk. No.	Type	Ohms	1-9	10-49	50-99	100-up
9F983	CU7542	750,000*				
9F913	CU1052	1 meg*				
9F984	CU1552	1.5 meg*	1.95	1.75	1.62	1.46
9F986	CU2052	2.0 meg*				
9F914	CU2552	2.5 meg*				
9F985	CU3552	3.5 meg*				
9F915	CU5052	5 meg*				

STYLE CA and CB—Fig. B.

Stk. No.	Type	Ohms	1-9	10-49	50-99	100-up
9F932	CB1031	10,000				
9F933	CB2531	25,000				
9F934	CB5031	50,000	2.25	2.02	1.87	1.69
9F935	CA1041	100,000				
9F936	CA2541	250,000				
9F937	CA5041	500,000				
9F938	CA1052	1 meg*				
9F939	CA2552	2.5 meg*				

STYLE CCU Dual—Fig. C

Stk. No.	Type	Ohms	1-9	10-49	50-99	100-up
9F941	CCU1031	10,000				
9F945	CCU2531	25,000				
9F942	CCU5031	50,000	5.85	5.26	5.06	4.40
9F946	CCU1041	100,000				
9F943	CCU2541	250,000				
9F947	CCU5041	500,000				
9F944	CCU1052	1.0 meg*				

TYPE CS-1 SWITCH

SPST Switch for Ohmite Potentiometers listed above and on preceding page — except Dual Style CCU.

Stock No.	Type	1-9	10-49	50-99	100-up
9F940	CS-1	.66	.62	.59	.55

1 1/2 WATT MINIATURE RHEOSTATS

Model E. 1 1/2-Watt Miniature Rheostat. (Rating on metal panel.) Smaller than many 1- or 2-watt potentiometers. Rugged, all-ceramic and metal construction. Use where 1 1/2 watts dissipation is needed but space is limited. Operates at a maximum hot spot temperature rise of 300°C at an ambient of 40°C, but also useful for operating at high military em-

bients, derated linearly to zero at 340°C. Specifications: Overall diam.: 3/8". Shaft diam.: 1/16". Resistance range: Up to 5000 ohms with vitreous enamel; higher values available with Ohmicone inorganic coating. Resistance tol.: ±10%. Standard Mounting: for panels up to 1/4", 1/4"-32 threaded Bushing. With non-turn washer. Rotation: 300° ±5°. Shpg. wt., 1 1/2 oz. † Silicone-ceramic coating.



Stock No.	Type	Ohms	Max. Amps.	1-4	5-9	10-24	25-49
9F965	0101	1	3.53				
9F966	0102	2	2.50				
9F967	0103	3	2.04	4.63	3.94	3.10	2.55
9F968	0104	6	1.44				
9F969	0105	8	1.25				
9F970	0106	10	1.12				
9F971	0107	15	.91				
9F972	0108	25	.71	4.11	3.49	2.75	2.26
9F973	0109	35	.60				
9F974	0110	50	.50				
9F975	0111	75	.41				
9F976	0112	100	.35				
9F977	0113	125	.32				
9F978	0114	175	.27				

Stock No.	Type	Ohms	Max. Amps.	1-4	5-9	10-24	25-49
9F979	0115	250	.22				
9F980	0116	350	.19	4.11	3.49	2.75	2.26
9F981	0117	500	.16				
9F982	0118	750	.13				
9F983	0119	1,000	.11	4.63	3.94	3.10	2.55
9F984	0120	1,500	.091				
9F985	0121	2,500	.071				
9F986	0122	3,500	.060	4.90	4.17	3.28	2.70
9F987	0123	5,000	.050	4.90	4.17	3.28	2.70
9F988	4190†	7,500	.041	5.06	4.30	3.39	2.78
9F989	4191†	10,000	.035	5.06	4.30	3.39	2.78
9F990	4192†	12,500	.031	5.50	4.68	3.69	3.03
9F991	4193†	15,000	.029	5.50	4.68	3.69	3.03

WIRE WOUND POWER RHEOSTATS

ALL RHEOSTATS SUPPLIED LESS KNOBS. SEE NEXT PAGE FOR KNOB LISTING

All ceramic vitreous enameled construction. Wire wound over ceramic core. Shunt pitical carries current to slip-ring. High strength ceramic hub insulates the shaft and bushing. Tempered steel contact arm. Models H, J, K, L, N, when made without additional features are listed by UL and are marked Series A except (*) Silicone Ceramic Coating are not UL listed. Aver. shpg. wt.: Models H, J, K: 8 oz.—Models L, N: 3 lbs.—Model R: 4 lbs.



MODEL H—25 WATT

Mounts on panels up to 1/4" by 3/8"—32 Bushing with No. 5050 Non-turn washer. Shaft Dia. 1/4". 300° rotation. Dia. 1 1/8".

Stk. No.	Type	Ohms	1-4	5-9	10-24	25-49
11F000	0140	1				
11F001	0141	2				
11F002	0142	3	4.63	3.94	3.10	2.55
11F003	0143	6				
11F004	0144	8				
11F005	0145	10				
11F006	0146	15				
11F007	0147	25	4.11	3.49	2.75	2.26
11F008	0148	35				
11F009	0149	50				
11F010	0150	75				
11F011	0151	100				
11F012	0152	125				
11F013	0153	175				
11F014	0154	250				
11F015	0155	350				
11F016	0156	500				
11F017	0157	750				
11F018	0158	1,000	4.63	3.94	3.10	2.55
11F019	0159	1,500				
11F020	0160	2,500				
11F021	0161	3,500				
11F022	0162	5,000	4.90	4.17	3.28	2.70
11F023	0163	7,500	4.17	3.28	2.70	
11F024	*4200	7,500	5.06	4.30	3.39	2.78
11F027	*4201	10,000	5.06	4.30	3.39	2.78
11F028	*4202	15,000	5.50	4.68	3.69	3.03
11F029	*4203	20,000	6.16	5.24	4.13	3.39
11F030	*4204	25,000	6.82	5.80	4.57	3.75

MODEL J—50 WATT

Mounts on panels up to 1/4" by 3/8"—32 Bushing with No. 5050 Non-turn washer. Shaft Dia. 1/4". 300° rotation. Dia. 2 1/8".

Stk. No.	Type	Ohms	1-4	5-9	10-24	25-49
11F040	0308	0.5				
11F041	0309	1				
11F042	0310	2	5.15	4.38	3.45	2.83
11F043	0311	4				
11F044	0312	6				
11F045	0313	8				
11F046	0314	12	4.63	3.94	3.10	2.55
11F047	0315	16				
11F048	0316	22				
11F049	0317	35				
11F050	0318	50				
11F051	0319	80	4.90	4.17	3.28	2.70
11F052	0320	125				
11F053	0321	150				
11F054	0322	225				
11F055	0323	300				
11F056	0324	500				
11F057	0325	800				
11F058	0326	1,000				
11F059	0327	1,600				
11F060	0328	2,500				
11F061	0329	3,500	5.15	4.38	3.45	2.83
11F062	0330	5,000				
11F063	0331	8,000				
11F064	0332	10,000				
11F066	*4210	15,000	5.83	4.96	3.91	3.21
11F067	*4211	20,000	6.60	5.61	4.42	3.63
11F068	*4212	25,000	7.26	6.17	4.86	3.99
11F069	*4213	30,000	8.03	6.83	5.38	4.42
11F070	*4214	40,000	9.35	7.95	6.26	5.14
11F071	*4215	50,000	10.23	8.70	6.85	5.63

MAKE NEWARK YOUR ONE DEPENDABLE SOURCE FOR EVERYTHING IN INDUSTRIAL ELECTRONICS

SEE NEXT PAGE FOR ADDITIONAL RHEOSTATS AND ACCESSORIES

Rheostats OHMITE

WIRE WOUND POWER RHEOSTATS ALL RHEOSTATS SUPPLIED LESS KNOBS

MODEL K—100 WATT

Mounts on panels up to 1/4" by 3/8"—32 Bushing with No. 5050 Non-turn washer. Shaft Diameter 1/4". 300° rotation. Rheostat diameter 3/8"

Stk. No.	Type	Ohms	1-4	5-9	10-24	25-49
11F076	0440	0.5				
11F077	0441	1				
11F078	0442	2				
11F079	0443	3	7.72	6.56	5.17	4.25
11F080	0444	5				
11F081	0445	7.5				
11F082	0446	10				
11F083	0447	16				
11F084	0448	25	7.21	6.13	4.83	3.97
11F085	0449	50				
11F086	0450	75				

MODEL L—150 WATT

Mounts on panels up to 1/4" by 3/8"—32 Bushing or by two No. 10-32x3/4" long flat head screws which are supplied. Shaft diameter 1/4" 300° Rotation. Rheostat diameter 4".

Stk. No.	Type	Ohms	1-4	5-9	10-24	25-49
11F100	0524	0.5				
11F101	0525	1	9.78	8.31	6.55	5.38
11F102	0528	5				
11F103	0530	10				
11F104	0532	25				
			9.26	7.87	6.20	5.09

MODEL N—300 WATT

Mounts on panels up to 1/4", by two 1/4"—20 by 1 1/2" flat head screws supplied. Shaft dia. 3/8". 320° Rotation. Dia. 6".

Stk. No.	Type	Ohms	No.	Type	Ohms	1-2	3-4
11F130	0650	1	11F141	0661	100	15.29	13.00
11F131	0651	2	11F142	0662	150		
11F132	0652	3	11F143	0663	200		
11F133	0653	4	11F144	0664	300		
11F134	0654	5	11F145	0665	400		
11F135	0655	7.5	11F146	0666	700		
11F136	0656	10	11F147	0667	900		
11F137	0657	15	11F148	0668	1,200		
11F138	0658	25	11F149	0669	1,500		
11F139	0659	50	11F150	0670	1,750		
11F140	0660	75	11F151	0671	2,500		

Stk. No.	Type	Ohms	1-4	5-9	10-24	25-49
11F087	0451	100	7.21	6.13	4.83	3.97
11F088	0452	200				
11F089	0453	300				
11F090	0454	400				
11F091	0455	500				
11F092	0456	750				
11F093	0457	1,000	7.72	6.56	5.17	4.25
11F094	0458	1,500				
11F095	0459	2,000				
11F096	0460	2,500				
11F097	0461	5,000				
11F098	0462	7,500	8.24	7.00	5.52	4.53
11F099	0463	10,000	8.76	7.45	5.87	4.82
			9.26	7.87	6.20	5.09

Stk. No.	Type	Ohms	1-4	5-9	10-24	25-49
11F105	0534	50	9.26	7.87	6.20	5.09
11F106	0536	100				
11F107	0537	150				
11F108	0538	200				
11F109	0539	250				
11F110	0541	500				
11F111	0543	1,250	9.78	8.31	6.55	5.38
11F112	0545	2,250	10.30	8.76	6.90	5.67
11F113	0547	4,500	10.81	9.19	7.24	5.95
11F114	0549	10,000	12.35	10.50	8.27	6.79

MODEL R—500 WATT

Mounts on panels up to 1/4" by two 1/4"—20 by 1 1/2" flat head screws supplied. Shaft diameter 3/8". 325° Rotation. Dia. 8".

Stk. No.	Type	Ohms	No.	Type	Ohms	1-2	3-4
11F170	0849	1.0	11F182	0872	50	22.09	18.78
11F171	0850	1.5	11F183	0861	80		
11F172	0851	2	11F184	0862	125		
11F173	0852	2.5	11F185	0863	175		
11F174	0853	3	11F186	0864	250		
11F175	0854	4	11F187	0865	325		
11F176	0855	5	11F188	0866	500		
11F177	0856	8	11F189	0867	750		
11F178	0857	12.5	11F190	0868	1,000		
11F179	0858	16	11F191	0869	1,500		
11F180	0859	25	11F192	0870	2,000		
11F181	0860	40	11F193	0871	2,500		

OHMITE ACCESSORIES

DIAL PLATES

11F199. Type 5000. For types H, J, K, L, "AB" pots. except Style CLU. 2 oz. NET.....29c
11F198. Type 5001. For types N and R. 4 oz. NET.....70c
11F194. Type 5007. For type E. NET.....29c

KNOBS FOR OHMITE RHEOSTATS

Type S105 is a handwheel without pointer knob.
Type S104. With pointer knob.

Stk. No.	Type	For Use With	1-2	3-Up
11F023	S105	Models N & R	1.16	.96
11F200	S104	Models N & R	1.38	1.15

Stk. No.	Type	For Use With Models	1-4	5-9	10-24	25-Up
11F024	S150	H, J, K & L, "AB" pots. except CLU	.29	.25	.19	.16
11F025	S151	E	.29	.25	.19	.16

TANDEM COUPLING KITS

Type 6532 designed for models H and J; will couple models K, H, J or L in rear position. Max. panel thickness for standard Ohmite knobs, 1/32". Frame 2 3/32" long and 1 1/4" wide. Type 6533 designed for models K and L; will couple models H, J, K or L in rear position. Max. panel thickness 1/8". Frame 2 9/16" long and 1 1/4" wide. Shpg. wt., 5 oz.

*For Model E Rheostats.

Stk. No.	Type	1-4	5-9	10-24	25-49
11F196	6532	2.01	1.71	1.35	1.11
11F197	6533	2.51	2.13	1.68	1.38
11F195	6591*	2.01	1.71	1.35	1.11

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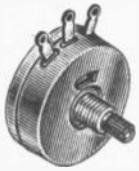
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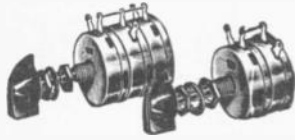
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12 1/2 WATT MG WIRE-WOUND CONTROLS

MG controls have a continuous DC rating of 12.5 watts at 35°C (ambient). Volume is 1.1 cu. in. and outside control diameter is only slightly larger than standard knob rotation arc at 15 1/2". Mechanical rotation: 294°; electrical rotation: 275°; peak audio rating at 50 watts. Voltage breakdown of 900V RMS. Contact arm insulated.

Stock No.	Type	Ohms Resist.	Net Ea.	Stock No.	Type	Ohms Resist.	Net Ea.
9F1700	MG1	1	2.18	9F1714	MG600	600	2.18
9F1701	MG3	3	2.18	9F1715	MG1000	1000	2.22
9F1702	MG6	6	2.18	9F1716	MG1500	1500	2.22
9F1703	MG10	10	2.18	9F1717	MG2000	2000	2.22
9F1704	MG15	15	2.18	9F1718	MG2500	2500	2.22
9F1705	MG20	20	2.18	9F1719	MG3000	3000	2.22
9F1706	MG25	25	2.18	9F1720	MG4000	4000	2.22
9F1707	MG30	30	2.18	9F1721	MG5000	5000	2.22
9F1708	MG50	50	2.18	9F1722	MG10K	10K	2.32
9F1709	MG100	100	2.18	9F1723	MG15K	15K	2.32
9F1710	MG200	200	2.18	9F1724	MG20K	20K	2.32
9F1711	MG300	300	2.18	9F1725	MG25K	25K	2.32
9F1712	MG400	400	2.18	9F1726	MG50K	50K	2.50
9F1713	MG500	500	2.18	9F1727	MG100K	100K	2.72



MALLORY T AND L PADS

Control level of low impedance audio circuits DC rating, 4 w.; 15 watts audio. With bar knob, dial-plate, washer and nuts. "L" pad 1 1/8" dia. x 1 1/8" deep. "T" pad. 1 1/16" deep. Wt., 7 oz.

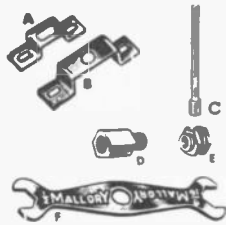
"T" PADS

Stk. No.	Type	Ohms	1-9	10-24	25-49	50-99	100-249	250-499
9F251	T4	4						
9F252	T6	6						
9F253	T8	8						
9F254	T15	15						
9F255	T50	50						
9F256	T100	100						
9F258	T250	250	3.54	3.36	3.19	2.95	2.655	2.36
9F259	T500	500						
9F260	T600	600						
9F261	T1000	1000						
9F262	T2000	2000						
9F263	T3000	3000						

"L" PADS

Stk. No.	Type	Ohms	1-9	10-24	25-49	50-99	100-249	250-499
9F281	L4	4						
9F282	L6	6						
9F283	L8	8						
9F284	L15	15						
9F285	L50	50						
9F286	L100	100						
9F287	L200	200	2.73	2.59	2.46	2.28	2.047	1.82
9F288	L250	250						
9F289	L500	500						
9F290	L600	600						
9F291	L1000	1000						
9F292	L2000	2000						
9F293	L3000	3000						

VOLUME CONTROL ACCESSORIES



RB MOUNTING BRACKETS

Average shpg. wt., 3 oz.

No.	Type	Fig.	Mtg.	EACH
9F201	RB248	A	1 3/4"	.05
9F202	RB249	B	2 1/2"	
9F218	RB254	....	Univ.	

TYPE 178 WRENCH

Fig. F. Wrench for 1/2" and 5/8" volume control hex nuts. Cadmium plated steel. 9F216. NET 51

RS EXTENSION SHAFTS

Type RS242. Fig. C. 4x1/4x1/2" flat. Wt., 1 1/2 oz. 9F212. NET 57

Type RS243. Fig. C. 4x1/4x3/2" flat. Wt., 1 oz. 9F213. NET 57

COUPLERS AND BUSHINGS

Stk. No.	Type	Fig.	EACH
9F206	EB247	D	.13
9F207	UB241	E	.12

HEX SHOULDER NUTS

No.	Type	Size	EACH
9F208	255	1/4"	.08
9F209	A11250-12	1/2"	.08



TYPE M AND MT

WIRE WOUND POTENTIOMETERS

Used on bias control and voltage dividers; also for replacement of positioning, hold, focus and other controls of TV sets. MT are center tapped. Compact high wattage controls rated 4 watts. Arm insulated from shaft. 275° rotation. 1 1/8" dia. x 3/8" W. 1/4" shaft, slotted 3/16" x 1/16" deep, extended 3/8" from bush. Mount in 3/8" hole. 4 oz.

Stk. No.	Type	Ohms	1-9	10-49	50-99	100-249	250-499
9F300	M1PK	1					
9F307	M3PK	3	1.35	1.22	1.13	1.013	.90
9F302	M6PK	6					
9F328	MT10PK	10	1.32	1.19	1.10	.99	.88
9F303	M10PK	10	1.35	1.22	1.13	1.013	.90
9F304	M15PK	15					
9F329	MT20PK	20	1.32	1.19	1.10	.99	.88
9F306	M25PK	25	1.35	1.22	1.13	1.013	.90
9F307	M30PK	30					
9F336	MT30PK	30	1.32	1.19	1.10	.99	.88
9F308	M40PK	40					
9F309	M50PK	50					
9F310	M60PK	60	1.35	1.22	1.13	1.013	.90
9F311	M75PK	75					
9F312	M100PK	100					
9F313	M200PK	200					
9F331	M300PK	300					
9F314	M400PK	400	1.35	1.22	1.13	1.013	.90
9F315	M500PK	500					
9F316	M600PK	600					
9F317	M1MPK	1K					
9F332	M1.5MPK	1.5K					
9F318	M2MPK	2K					
9F333	M2.5MPK	2.5K					
9F319	M3MPK	3K	1.35	1.22	1.13	1.013	.90
9F338	M4MPK	4K					
9F321	M5MPK	5K					
9F322	M10MPK	10K					
9F323	M15MPK	15K					
9F324	M20MPK	20K	1.47	1.32	1.23	1.103	.98
9F325	M25MPK	25K					
9F326	M50MPK	50K	1.74	1.57	1.45	1.305	1.16
9F327	M70MPK	70K	1.74	1.57	1.45	1.305	1.16
9F335	M100MPK	100K	2.48	2.21	2.05	1.845	1.64

TYPE VW WIREWOUND 5 WATT CONTROLS



Subminiature Industrial 5 Watt potentiometer. Ideal for limited space applications. Case size only 3/4 of an inch in diameter by 7/8" in depth. Bushing 3/8"x3/8" in diameter and length. Has 1/4" plain round shaft 2 1/2" from mounting surface.

Stk. No.	Type	Ohms	1-9	10-24	25-49	50-99	100-up
9F033	VW-1	1					
9F034	VW-2	2					
9F035	VW-3	3					
9F036	VW-5	5					
9F037	VW-6	6					
9F038	VW-8	8					
9F039	VW-10	10	1.38	1.24	1.15	1.035	.92
9F040	VW-15	15					
9F041	VW-20	20					
9F042	VW-25	25					
9F043	VW-30	30					
9F044	VW-40	40					
9F045	VW-50	50					
9F046	VW-60	60					
9F047	VW-75	75					
9F048	VW-100	100					
9F049	VW-200	200					
9F055	VW-250	250					
9F056	VW-300	300	1.38	1.24	1.15	1.035	.92
9F057	VW-400	400					
9F058	VW-500	500					
9F059	VW-600	600					
9F060	VW-750	750					
9F061	VW-1K	1000					
9F062	VW-1.5K	1500					
9F063	VW-2K	2000					
9F064	VW-2.5K	2500	1.44	1.30	1.20	1.08	.96
9F065	VW-3K	3000					
9F066	VW-4K	4000					
9F067	VW-5K	5000					
9F068	VW-7.5K	7500	1.50	1.35	1.25	1.125	1.00
9F069	VW-10K	10000	1.50	1.35	1.25	1.125	1.00
9F070	VW-15K	15000	1.56	1.40	1.30	1.17	1.04
9F071	VW-20K	20000	1.56	1.40	1.30	1.17	1.04
9F072	VW-25K	25000	1.65	1.49	1.38	1.237	1.10

TYPE U METAL SHAFT MIDGETROLS

Standard universal replacement 1/16" dia. carbon control. 1/4" dia. round brass shaft with adapters for knurled, slotted or flattened knobs. Hex nut incl.



No. Taper as for minitrols below.

Stk. No.	Type No.	Resist. Ohms	Taper	1-24	25-49	50-99	100-174	175-299	300-499
9F073	U1	100	4	1.02	.92	.85	.765	.73	.68
9F074	U2	500	4	1.02	.92	.85	.765	.73	.68
9F075	U52R	500	2	1.02	.92	.85	.765	.73	.68
9F076	U751R	750	2	1.02	.92	.85	.765	.73	.68
9F077	U3	1K	2	1.02	.92	.85	.765	.73	.68
9F078	U4	1K	4	1.02	.92	.85	.765	.73	.68
9F079	U5	1500	2	1.02	.92	.85	.765	.73	.68
9F080	U5L	1500	4	1.02	.92	.85	.765	.73	.68
9F081	U6	2K	4	1.02	.92	.85	.765	.73	.68
9F082	U7	2500	2	1.02	.92	.85	.765	.73	.68
9F083	U8	3K	4	1.02	.92	.85	.765	.73	.68
9F084	U9	3K	2	1.02	.92	.85	.765	.73	.68
9F085	U12	5K	1	1.02	.92	.85	.765	.73	.68
9F086	U14	5K	4	1.02	.92	.85	.765	.73	.68
9F087	U18	10K	1	1.02	.92	.85	.765	.73	.68
9F088	U19	10K	2	1.02	.92	.85	.765	.73	.68
9F089	U20	10K	4	1.02	.92	.85	.765	.73	.68
9F090	U21	15K	1	1.02	.92	.85	.765	.73	.68
9F091	U22	15K	2	1.02	.92	.85	.765	.73	.68
9F092	U24	20K	1	1.02	.92	.85	.765	.73	.68
9F093	U26	20K	4	1.02	.92	.85	.765	.73	.68
9F094	U28	25K	2	1.02	.92	.85	.765	.73	.68
9F095	U28A	25K	1	1.02	.92	.85	.765	.73	.68
9F096	U29	25K	4	1.02	.92	.85	.765	.73	.68
9F097	U30	30K	4	1.02	.92	.85	.765	.73	.68
9F098	U33	50K	1	1.02	.92	.85	.765	.73	.68
9F099	U34	50K	2	1.02	.92	.85	.765	.73	.68
9F219	U35	50K	4	1.02	.92	.85	.765	.73	.68

Only 1/2" diameter. Rated 1/4 watt linear, watt audio. 1/2"-32 x 1/4" bushing with nut. Shaft: 1/4" diameter x 1" FMS, MLC (steel); MLCN (nylon). SPST(*) switch rated 2 amperes at 125 VAC, UL approved. Printed ckt. MTC has open screwdriver slot. New MTC is supplied in resistance values from 100 ohms to 3 1/2 megohms, in standard linear taper.

Taper No. 1: Logarithmic used in audio circuits where percent of change is small at start of rotation.
Taper No. 2: Reverse logarithmic used where percent of change must be large at start of rotation.
Taper No. 4: Linear taper where percent of resistance change is directly proportional to rotational change on a straight line.



SWITCHES FOR TYPE U CONTROLS

Stk. No.	Type No.	Description	1-24	25-49	50-99	100-174	175-299	300-499
9F246	US26	SPST 6 amp @ 125V.	.42	.38	.35	.315	.30	.28
9F247	US26T	SPST w/dummy Terminal	.51	.46	.43	.383	.36	.34
9F248	US27	DPST 6 amp @ 125V.	.51	.46	.43	.383	.36	.34
9F249	US28	SPDT 3 amp @ 125V.	.51	.46	.43	.383	.36	.34

SUBMINIATURE MINITROLS

BUSHING MOUNT

Stk. No.	Type MLC	Resis. Ohms	Taper	1-24	25-49	50-99	100-174	175-299	300-499
60F2164	13L	1000	4	1.14	1.03	.96	.855	.810	.760
60F2165	222LS*	2200	4	1.86	1.67	1.55	1.395	1.330	1.240
60F2166	252A	2500	1	1.14	1.03	.96	.855	.810	.760
60F2167	252AS*	2500	1	1.86	1.67	1.55	1.395	1.330	1.240
60F2168	53A	5000	1	1.14	1.03	.96	.855	.810	.760
60F2169	53AS*	5000	1	1.86	1.67	1.55	1.395	1.330	1.240
60F2170	53L	15000	4	1.14	1.03	.96	.855	.810	.760
60F2171	53LS*	5000	4	1.86	1.67	1.55	1.395	1.330	1.240
60F2172	14AS*	10K	1	1.86	1.67	1.55	1.395	1.330	1.240
60F2173	14L	10K	4	1.14	1.03	.96	.855	.810	.760
60F2174	54L	50K	4	1.14	1.03	.96	.855	.810	.760
60F2175	15A	100K	1	1.14	1.03	.96	.855	.810	.760

PRINTED CIRCUIT VERTICAL MOUNT

Stk. No.	Type MTC	Resis. Ohms	1-24	25-49	50-99	100-174	175-299	300-499
60F2187	12L1	100	.39	.35	.33	.29	.29	.26
60F2188	22L1	200	.39	.35	.33	.29	.29	.26
60F2189	25L1L	250	.39	.35	.33	.29	.29	.26
60F2190	32L1	300	.39	.35	.33	.29	.29	.26
60F2191	52L1	500	.39	.35	.33	.29	.29	.26
60F2192	75L1	750	.39	.35	.33	.29	.29	.26
60F2193	13L1	1000	.39	.35	.33	.29	.29	.26
60F2194	152L1	1500	.39	.35	.33	.29	.29	.26
60F2195	23L1	2000	.39	.35	.33	.29	.29	.26
60F2196	33L1	3000	.39	.35	.33	.29	.29	.26
60F2197	53L1	5000	.39	.35	.33	.29	.29	.26
60F2198	63L1	6000	.39	.35	.33	.29	.29	.26
60F2199	682L1	6800	.39	.35	.33	.29	.29	.26
60F2200	14L1	10K	.39	.35	.33	.29	.29	.26

Stk. No.	Type MLC	Resis. Ohms	Taper	1-24	25-49	50-99	100-174	175-299	300-499
60F2176	15L	100K	4	1.14	1.03	.96	.855	.810	.760
60F2177	25L	200K	4	1.14	1.03	.96	.855	.810	.760
60F2178	25LA	250K	4	1.14	1.03	.96	.855	.810	.760
60F2179	N55A	500K	1	1.14	1.03	.96	.855	.810	.760
60F2180	55AS*	500K	1	1.86	1.67	1.55	1.395	1.330	1.240
60F2181	55LS*	500K	4	1.86	1.67	1.55	1.395	1.330	1.240
60F2182	N55L	500K	4	1.14	1.03	.96	.855	.810	.760
60F2183	16AS*	1 meg	1	1.86	1.67	1.55	1.395	1.330	1.240
60F2184	16LS*	1 meg	4	1.86	1.67	1.55	1.395	1.330	1.240
60F2185	N16A	1 meg	1	1.14	1.03	.96	.855	.810	.760
60F2186	N16L	1 meg	4	1.14	1.03	.96	.855	.810	.760

Stk. No.	Type MTC	Resis. Ohms	1-24	25-49	50-99	100-174	175-299	300-499
60F2201	153L1	15K	.39	.35	.33	.29	.29	.26
60F2202	24L1	20K	.39	.35	.33	.29	.29	.26
60F2203	253L1	25K	.39	.35	.33	.29	.29	.26
60F2204	54L1	50K	.39	.35	.33	.29	.29	.26
60F2205	15L1	100K	.39	.35	.33	.29	.29	.26
60F2206	124L1	120K	.39	.35	.33	.29	.29	.26
60F2207	184L1	180K	.39	.35	.33	.29	.29	.26
60F2208	254L1	250K	.39	.35	.33	.29	.29	.26
60F2209	3253L1	325K	.39	.35	.33	.29	.29	.26
60F2210	454L1	450K	.39	.35	.33	.29	.29	.26
60F2211	55L1	500K	.39	.35	.33	.29	.29	.26
60F2212	16L1	1 meg	.39	.35	.33	.29	.29	.26
60F2213	26L1	2 megs	.39	.35	.33	.29	.29	.26
60F2214	355L1	3.5 megs	.39	.35	.33	.29	.29	.26

MTC-4 PRINTED CIRCUIT HORIZONTAL MOUNTS

Stk. No.	Type MTC	Resis. Ohms	1-24	25-49	50-99	100-174	175-299	300-499
60F2215	MTC153L4	15K	.39	.35	.33	.29	.29	.26
60F2216	MTC24L4	20K	.39	.35	.33	.29	.29	.26
60F2217	MTC253L4	25K	.39	.35	.33	.29	.29	.26
60F2218	MTC354L4	50K	.39	.35	.33	.29	.29	.26
60F2219	MTC15L4	100K	.39	.35	.33	.29	.29	.26
60F2220	MTC124L4	120K	.39	.35	.33	.29	.29	.26
60F2221	MTC184L4	180K	.39	.35	.33	.29	.29	.26
60F2222	MTC254L4	250K	.39	.35	.33	.29	.29	.26
60F2223	MTC3253L4	325K	.39	.35	.33	.29	.29	.26
60F2224	MTC454L4	450K	.39	.35	.33	.29	.29	.26
60F2225	MTC55L4	500K	.39	.35	.33	.29	.29	.26
60F2226	MTC16L4	1 meg	.39	.35	.33	.29	.29	.26
60F2227	MTC26L4	2 megs	.39	.35	.33	.29	.29	.26
60F2228	MTC355L4	3.5 megs	.39	.35	.33	.29	.29	.26

Stk. No.	Type MTC	Resis. Ohms	1-24	25-49	50-99	100-174	175-299	300-499
60F2229	MTC12L4	100	.39	.35	.33	.29	.29	.26
60F2230	MTC22L4	200	.39	.35	.33	.29	.29	.26
60F2231	MTC25L4	250	.39	.35	.33	.29	.29	.26
60F2232	MTC32L4	300	.39	.35	.33	.29	.29	.26
60F2233	MTC52L4	500	.39	.35	.33	.29	.29	.26
60F2234	MTC75L4	750	.39	.35	.33	.29	.29	.26
60F2235	MTC13L4	1000	.39	.35	.33	.29	.29	.26
60F2236	MTC152L4	1500	.39	.35	.33	.29	.29	.26
60F2237	MTC23L4	2000	.39	.35	.33	.29	.29	.26
60F2238	MTC33L4	3000	.39	.35	.33	.29	.29	.26
60F2239	MTC53L4	5000	.39	.35	.33	.29	.29	.26
60F2240	MTC63L4	6000	.39	.35	.33	.29	.29	.26
60F2241	MTC682L4	6800	.39	.35	.33	.29	.29	.26
60F2242	MTC14L4	10K	.39	.35	.33	.29	.29	.26

DIVISION OF GLOBE-UNION INC.

1/5 WATT MINIATURE COMPOSITION CONTROLS

Style RV1. Meets MIL-R-94B. Ideally suited for guided missiles, geophysical equipment and miniature amplifiers. Linear taper. Tol: $\pm 10\%$. Dielectric strength: 900 VAC-RMS. Resistance elements completely enclosed permitting sealing and potting without damage. Brass terminals. Tin plated leads. Locating lug—left only. Stainless steel screwdriver slotted shaft, $1/8"$ dia. Mech. rotation $260^\circ \pm 3^\circ$. Bushing mtg. nut and lockwasher supplied.

JMP. Shaft $7/8"$ long from mtg. surface. $1/4"$ —32 NEF-2A thd. **JML.** Shaft $1/2"$ long from mtg. surface. Locking type bushing $1/4"$ —32 NEF-2A thd. $3/8"$ long from mtg. surface. Shaft locking nut furnished.



MODEL JMP

Stock No.	Type	Mil. Type	Ohms	1-9	10-24	25-49	50-99	100-249
9F1500	IMP-501	RVINAXSD501A	500					
9F1501	IMP-102	RVINAXSD102A	1000					
9F1502	IMP-252	RVINAXSD252A	2500					
9F1503	MP-502	RVINAXSD502A	5000					
9F1504	MP-103	RVINAXSD103A	10K	3.60	3.24	3.00	2.85	2.70
9F1505	MP-253	RVINAXSD253A	25K					
9F1506	MP-503	RVINAXSD503A	50K					
9F1507	MP-104	RVINAXSD104A	100K					
9F1508	MP-254	RVINAXSD254A	250K					
9F1509	MP-504	RVINAXSD504A	500K					
9F1510	MP-105	RVINAXSD105A	1 MEG.					

TYPE JML

Stock No.	Type	Mil. Type	Ohms	1-9	10-24	25-49	50-99	100-249
9F1511	JML-501	RVILAXSB501A	500					
9F1512	JML-102	RVILAXSB102A	1000					
9F1513	JML-252	RVILAXSB252A	2500					
9F1514	JML-502	RVILAXSB502A	5000					
9F1515	JML-103	RVILAXSB103A	10K	3.90	3.51	3.25	3.09	2.93
9F1516	JML-253	RVILAXSB253A	25K					
9F1517	JML-503	RVILAXSB503A	50K					
9F1518	JML-104	RVILAXSB104A	100K					
9F1519	JML-254	RVILAXSB254A	250K					
9F1520	JML-504	RVILAXSB504A	500K					
9F1521	JML-105	RVILAXSB105A	1 MEG.					

WW AND WN WIREWOUND CONTROLS

Rated full 5 watts — small as other 2 watt controls. $1\frac{1}{2}"$ dia., $3/8"$ depth, WW shaft $1/2"$ dia. full round, $2\frac{3}{8}"$ lg., WN shaft fingertip knurl, screwdriver slotted, $3/8"$ lg. from end at bushing. Linear taper. Shpg. wt., 1 oz.



Type WW Type WN

Stk. No.	Type WW	Stk. No.	Type WN	Ohms	1-9	10-24	25-49	50-99	100-249
9F400	010	9F433	010	1					
9F401	020	9F434	020	2					
9F402	030	9F435	030	3					
9F403	040	9F436	040	4					
9F404	050	9F437	050	5					
9F405	060	9F438	060	6					
9F406	080	9F439	080	8					
9F407	100	9F440	100	10					
9F408	150	9F441	150	15					
9F409	200	9F442	200	20					
9F410	250	9F443	250	25					
9F411	300	9F444	300	30					
9F412	400	9F445	400	40					
9F413	500	9F446	500	50					
9F414	600	9F447	600	60					
9F415	750	9F448	750	75	1.32	1.19	1.10	1.05	.99
9F416	101	9F449	101	100					
9F417	201	9F450	201	200					
9F418	251	9F451	251	250					
9F419	301	9F452	301	300					
9F420	401	9F453	401	400					
9F421	501	9F454	501	500					
9F422	751	9F455	751	750					
9F423	102	9F456	102	1000					
9F424	152	9F457	152	1500					
9F425	202	9F458	202	2000					
9F426	252	9F459	252	2500					
9F427	302	9F460	302	3000					
9F428	402	9F461	402	4000					
9F429	502	9F462	502	5000					
9F430	752	9F463	752	7500					
9F431	103	9F464	103	10000					
9F432	153	9F465	153	15000					
9F683	203	9F690	203	20000	1.59	1.43	1.33	1.26	1.19
9F684	253	9F691	253	25000					
9F685	303	9F692	303	30000					
9F686	403	9F693	403	40000	2.01	1.81	1.68	1.59	1.51
9F687	503	9F694	503	50000	2.01	1.81	1.68	1.59	1.51
9F688	753	9F695	753	75000	2.46	2.22	2.05	1.95	1.85
9F689	104	9F696	104	100000	2.46	2.22	2.05	1.95	1.85

MODEL B CONTROLS

$1/2$ watt, $1\frac{1}{8}"$ diam., universal fluted shaft $3"$ lg. Use KR switches. Less switch.



Stk. No.	Type	Ohms	Taper	1-9	10-24	25-49	50-99	100-249	250-499
9F600	B-2	200	C1						
9F624	B-4	500	C1						
9F600	B-5	1,000	C1						
9F625	B-6	2,000	C1						
9F626	B-7	2,500	C1						
9F601	B-10	5,000	C1						
9F628	B-11	5,000	C2						
9F602	B-14	10,000	C1						
9F635	B-15	10,000	C2						
9F640	B-22	20,000	C1						
9F604	B-26	25,000	C1						
9F605	B-31	50,000	C1						
9F606	B-32	50,000	C2						
9F644	B-35	75,000	C1						
9F607	B-40	100,000	C1						
9F608	B-41	100,000	C2	1.02	.92	.85	.81	.76	.68
9F646	B-46	200,000	C1						
9F647	B-50	250,000	C1						
9F648	B-51	250,000	C2						
9F610	B-59	.5 meg.	C1						
9F611	B-60	.5 meg.	C2						
9F653	B-69	1 meg.	C1						
9F612	B-70	1 meg.	C2						
9F613	B-742	1.5 megs	C1						
9F657	B-75	2 megs	C1						
9F613	B-76	2 megs	C2						
9F659	B-83	2.5 megs	C1						
9F660	B-84	3 megs	C1						
9F614	B-87	5 megs	C1						
9F678	B-90	7.5 megs	C1						
9F615	B-98	10 megs	C1						

TAPERS FOR CENTRALAB CONTROLS

C1. Linear, has uniform resistance change from either end. C2. Semi-log (audio) 10% center.

TYPE KR FASTATCH SWITCHES FOR MODEL B CONTROLS

3 Amps—125 Volts

Stk. No.	Type	Circuit	1-9	10-24	25-49	50-99	100-249
9F466	KR-1†	SPST					
9F467	KR-2	DPST	.60	.54	.50	.48	.45
9F468	KR-3*	DP (1 on 1 off)					

15 Amps—10 Volts

Stk. No.	Type	Circuit	1-9	10-24	25-49	50-99	100-249
9F470	KR-4	SPST	.60	.54	.50	.48	.45
9F471	KR-6**	SPST					
9F472	KR-7	DPST					

*Can be used as SPDT. **With dummy lug. †5 amps.

1/10 WATT-MINIATURE CONTROLS

Type B16. Dielectric strength 900 VAC-RMS. Tol. $\pm 20\%$ except (†) $\pm 30\%$. SPST switch rated at 6.5 amps at 1.5 VDC. Mounting nuts and screws supplied. Audiotaper except † which is linear. Shpg. wt., 3 oz.



Plain Type Stud Mounted — 260° Rotation

Stock No.	Type	Ohms	1-9	10-24	25-49	50-99	100-249
9F621	B16-107*	500					
9F622	B16-109*	1000					
9F623	B16-112*	2500					
9F624	B16-112*	2500					
9F625	B16-113*	5000					
9F626	B16-114*	5000					
9F627	B16-115*	10K					
9F628	B16-116*	10K					
9F629	B16-117*	25K	1.50	1.35	1.25	1.19	1.13
9F630	B16-119*	50K					
9F631	B16-121*	100K					
9F632	B16-123*	250K					
9F633	B16-118	500K					
9F634	B16-120	1 Meg.					
9F635	B16-122	2 Meg.					
9F636	B16-124†	3 Meg.					
9F637	B16-128†	5 Meg.					

Switch Type — Bracket Mounted — 225° Rotation

Stk. No.	Type	Ohms	1-9	10-24	25-49	50-99	100-249
9F638	B16-212	2500					
9F639	B16-214	5000					
9F640	B16-216	10K					
9F641	B16-217	25K					
9F642	B16-218	500K	2.40	2.16	2.00	1.90	1.80
9F643	B16-220	1 Meg.					
9F644	B16-222	2 Meg.					
9F645	B16-224†	3 Meg.					
9F646	B16-228†	5 Meg.					



Potentiometers



SERIES RA10—1 WATT WIRE WOUND
Meets Mil. Spec.—MIL-R-19A
 Linear resistance taper. $\pm 10\%$ tolerance. $2\frac{1}{2}$ " dia. Shpg. Wt., 7 oz.
TYPE RA10ASD. $\frac{1}{4}$ " dia., bushing $\frac{1}{4}$ " long. Slotted shaft $\frac{1}{8}$ " diameter, $\frac{7}{8}$ " long FMS.
TYPE RA10LASD. Locking bushing $\frac{1}{4}$ " dia., $\frac{3}{8}$ " long. Slotted shaft $\frac{1}{8}$ " dia. $\frac{7}{8}$ " long FMS.



SERIES RA20—2 WATT WIRE WOUND
Meets Mil. Spec.—MIL-R-19A
 Linear resistance taper $\pm 10\%$ tolerance. $1\frac{1}{2}$ " dia. Shpg. wt. 7 oz.
RA20ASD: Standard bushing $\frac{3}{8}$ " long. Slotted shaft $\frac{1}{4}$ " diameter $\frac{7}{8}$ " long FMS.
RA20LASD: Locking bushing $\frac{1}{2}$ " long. Slotted shaft $\frac{1}{4}$ " diameter $\frac{7}{8}$ " long FMS.

Stk. No.	Type	Ohms	1-9	10-24	25-49	50-99	100-249
8F832	RA10NASD150A	15					
8F833	RA10NASD250A	25					
8F834	RA10NASD500A	50					
8F835	RA10NASD750A	75					
8F836	RA10NASD101A	100					
8F837	RA10NASD151A	150					
8F838	RA10NASD201A	200	4.99	3.79	3.28	2.77	2.42
8F839	RA10NASD251A	250					
8F840	RA10NASD351A	350					
8F841	RA10NASD501A	500					
8F842	RA10NASD751A	750					
8F843	RA10NASD102A	1K					
8F844	RA10NASD152A	1.5K					
8F845	RA10NASD202A	2K					
8F846	RA10NASD252A	2.5K					
8F847	RA10LASD150A	15					
8F848	RA10LASD250A	25					
8F849	RA10LASD500A	50					
8F850	RA10LASD750A	75					
8F851	RA10LASD101A	100					
8F852	RA10LASD151A	150					
8F853	RA10LASD201A	200					
8F854	RA10LASD251A	250	5.16	3.92	3.39	2.86	2.50
8F855	RA10LASD351A	350					
8F856	RA10LASD501A	500					
8F857	RA10LASD751A	750					
8F858	RA10LASD102A	1K					
8F859	RA10LASD152A	1.5K					
8F860	RA10LASD202A	2K					
8F861	RA10LASD252A	2.5K					

Stk. No.	Type	Ohms	1-24	25-34	35-49	50-64	65-99	100-249
8F735	RA20NASD6R0A	6						
8F736	RA20NASD8R0A	8						
8F737	RA20NASD100A	10						
8F738	RA20NASD150A	15						
8F739	RA20NASD200A	20						
8F740	RA20NASD250A	25						
8F741	RA20NASD350A	35						
8F742	RA20NASD500A	50						
8F743	RA20NASD101A	100						
8F744	RA20NASD151A	150						
8F745	RA20NASD201A	200						
8F746	RA20NASD251A	250	3.00	2.54	2.01	1.62	1.41	1.16
8F747	RA20NASD351A	350						
8F748	RA20NASD501A	500						
8F749	RA20NASD751A	750						
8F750	RA20NASD102A	1K						
8F751	RA20NASD152A	1.5K						
8F752	RA20NASD202A	2K						
8F753	RA20NASD252A	2.5K						
8F754	RA20NASD352A	3.5K						
8F755	RA20NASD502A	5K						
8F756	RA20NASD103A	10K						
8F757	RA20NASD153A	15K						

Stk. No.	Type	Ohms	1-24	25-34	35-49	50-64	65-99	100-249
8F758	RA20LASB3R0A	3						
8F759	RA20LASB6R0A	6						
8F760	RA20LASB8R0A	8						
8F761	RA20LASB100A	10						
8F762	RA20LASB150A	15						
8F763	RA20LASB200A	20						
8F764	RA20LASB250A	25						
8F765	RA20LASB350A	35						
8F766	RA20LASB500A	50						
8F767	RA20LASB101A	100						
8F768	RA20LASB151A	150						
8F769	RA20LASB201A	200	3.00	2.62	2.09	1.70	1.49	1.24
8F770	RA20LASB251A	250						
8F771	RA20LASB351A	350						
8F772	RA20LASB501A	500						
8F773	RA20LASB751A	750						
8F774	RA20LASB102A	1K						
8F775	RA20LASB152A	1.5K						
8F776	RA20LASB202A	2K						
8F777	RA20LASB252A	2.5K						
8F778	RA20LASB352A	3.5K						
8F779	RA20LASB502A	5K						
8F780	RA20LASB103A	10K						
8F781	RA20LASB153A	15K						

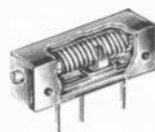
HOT MOLDED CARBON POTENTIOMETERS MIL-R-94 STYLE RV6



Rated 0.5 watt @ 70°C, derated to zero power @ 120°C. Working voltage 350 VDC across end of terminals. Mechanical and electrical rotation $295 \pm 3^\circ$. Voltage breakdown 750 VAC between terminals and ground for 1 minute. Available with standard or locking type bushing. RV6L Locking Bushing. RV6N Standard Bushing. Diameter: $\frac{1}{2}$ ". Shpg. wt., 5 oz.

Stk. No.	RV6L/AYSA Type	Ohms	1-24	25-34	35-49	50-64	65-99	100-249
9F2000	101A	100						
9F2001	251A	250						
9F2002	501A	500						
9F2003	102A	1000						
9F2004	252A	2500						
9F2005	502A	5000						
9F2006	103A	10,000						
9F2007	153A	15,000	5.35	5.08	3.88	3.10	2.33	2.02
9F2008	253A	25,000						
9F2009	503A	50,000						
9F2010	104A	100K						
9F2011	154A	150K						
9F2012	254A	250K						
9F2013	504A	500K						
9F2014	105A	1 Meg						

SERIES 76 SUPER SET TRIMMING POTENTIOMETERS



SUPER SETABILITY made possible through 10 times the resolution — 15 times greater winding length ever offered in this configuration. Trimming costs in critical circuits drop, performance of circuit improves. Because of small size, packaging size decreases. Mechanical travel: 14 turns approx. Effective travel: 11 turns $\pm \frac{1}{4}$ turn. Resistance Range: 100 ohms to 20,000 ohms.

Resistance tolerance $\pm 5\%$. Power Rating: .75 watts @ 85°C—derated linearly to 0 power @ 150°C.

SERIES 76A-2 (solder lug)

Stk. No.	Resis. Ohms	Nom. Res. -olution %	1-24	25-49	50-99	100-249	250-499
9F1381	100	0.1					
9F1382	200	0.09					
9F1383	500	0.08					
9F1384	1K	0.075	8.10	7.20	6.75	6.30	5.63
9F1385	2K	0.06					
9F1386	5K	0.05					
9F1387	10K	0.04					
9F1388	20K	0.03					

SERIES 76A-3 (printed circuit)

Stk. No.	Resis. Ohms	Nom. Res. -olution %	1-24	25-49	50-99	100-249	250-499
9F1389	100	0.1					
9F1390	200	0.09					
9F1391	500	0.08					
9F1392	1K	0.075	8.10	7.20	6.75	6.30	5.63
9F1393	2K	0.06					
9F1394	5K	0.05					
9F1395	10K	0.04					
9F1396	20K	0.03					

NEWARK Maintains Seven Giant Warehouses to Insure Fastest Delivery From Stock.

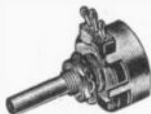
Depend on NEWARK for Complete Stocks — Best Service



Potentiometers

SERIES RV4—2 WATT CARBON Meets Mil. Spec.—MIL-R-948

For tolerance see last letter in type number (A) ± 10% (B) ± 20%. Linear resistance taper. 1 1/2" dia. Shpg. wt. 7 oz.
TYPE RV4NAYSD 3/8" long standard bushing. Slotted shaft 1/4" dia., 7/8" long FMS.
TYPE RV4LAYSA 1/2" long locking bushing. Slotted shaft 1/4" dia., 3/4" long FMS.



Type RV4NAYSK

Maximum operating temperature: 120°C. Maximum resistance change due to humidity test: 100 mega. Slotted operating shaft 1/4" dia., 2 1/2" long.

Stock No.	Type	Ohms	1-24	25-34	35-49	50-64	65-99	100-249
8F1400	RV4NAYSD500A	50						
8F700	RV4NAYSD101A	100						
9F1402	RV4NAYSD151A	150						
8F701	RV4NAYSD251A	250						
9F1404	RV4NAYSD351A	350						
8F702	RV4NAYSD501A	500						
9F1406	RV4NAYSD751A	750						
8F703	RV4NAYSD102A	1000						
9F1408	RV4NAYSD152A	1500						
8F704	RV4NAYSD252A	2500						
9F1410	RV4NAYSD352A	3500						
8F705	RV4NAYSD502A	5000						
9F1412	RV4NAYSD752A	7500						
8F706	RV4NAYSD103A	10K						
9F1414	RV4NAYSD153A	15K						
8F707	RV4NAYSD253A	25K	1.95	1.75	1.60	1.55	1.50	1.25
9F1416	RV4NAYSD353A	35K						
8F708	RV4NAYSD503A	50K						
9F1418	RV4NAYSD753A	75K						
8F709	RV4NAYSD104A	100K						
9F1420	RV4NAYSD154A	150K						
8F710	RV4NAYSD254A	250K						
9F1422	RV4NAYSD354A	350K						
8F711	RV4NAYSD504A	500K						
9F1424	RV4NAYSD754A	750K						
8F712	RV4NAYSD105A	1 Meg						
9F1426	RV4NAYSD155B	1.5 Meg						
9F1427	RV4NAYSD205B	2 Meg						
8F713	RV4NAYSD255B	2.5 Meg						
9F1429	RV4NAYSD355B	3.5 Meg						
8F714	RV4NAYSD505B	5 Meg						

Stock No.	Type	Ohms	1-24	25-34	35-49	50-64	65-99	100-249
9F1462	RV4NAYSK101A	100						
9F1463	RV4NAYSK251A	250						
9F1464	RV4NAYSK501A	500						
9F1465	RV4NAYSK102A	1000						
9F1466	RV4NAYSK252A	2500						
9F1467	RV4NAYSK502A	5000						
9F1468	RV4NAYSK103A	10K						
9F1469	RV4NAYSK253A	25K	1.95	1.75	1.60	1.55	1.50	1.25
9F1470	RV4NAYSK503A	50K						
8F1471	RV4NAYSK104A	100K						
8F1472	RV4NAYSK254A	250K						
8F1473	RV4NAYSK504A	500K						
8F1474	RV4NAYSK105A	1 Meg						
8F1475	RV4NAYSK255B	2.5 Meg						
9F1476	RV4NAYSK505B	5 Meg						

Type RV4NAYSB

Same as above except with 1/4" diameter, 7/8" long, slotted shaft.

Stock No.	Type	Ohms	1-24	25-34	35-49	50-64	65-99	100-249
9F1477	RV4NAYSB101A	100						
9F1478	RV4NAYSB251A	250						
9F1479	RV4NAYSB501A	500						
9F1480	RV4NAYSB102A	1000						
9F1481	RV4NAYSB252A	2500						
9F1482	RV4NAYSB502A	5000						
9F1483	RV4NAYSB103A	10K						
9F1484	RV4NAYSB253A	25K	1.95	1.75	1.60	1.55	1.50	1.25
9F1485	RV4NAYSB503A	50K						
9F1486	RV4NAYSB104A	100K						
9F1487	RV4NAYSB254A	250K						
9F1488	RV4NAYSB504A	500K						
9F1489	RV4NAYSB105A	1 Meg						
9F1490	RV4NAYSB255B	2.5 Meg						
9F1491	RV4NAYSB505B	5 Meg						

SERIES RA30—3 WATT WIRE WOUND

Meets Mil. Spec.—MIL-R-19A

Linear resistance taper ± 10% tolerance 1 1/2" dia. Shpg. wt. 7 oz.
TYPE RA30NASD: 3/8" long standard bushing
 Slotted shaft 1/4" diameter, 7/8" long FMS.
TYPE RA30LASB: 1/2" long locking bushing.
 Slotted shaft 1/4" diameter, 3/4" long FMS.



Stock No.	Type	Ohms	1-24	25-34	35-49	50-64	65-99	100-249
9F1431	RV4LAYSA500A	50						
8F715	RV4LAYSA101A	100						
9F1433	RV4LAYSA151A	150						
8F718	RV4LAYSA251A	250						
9F1435	RV4LAYSA351A	350						
8F717	RV4LAYSA501A	500						
9F1437	RV4LAYSA751A	750						
8F718	RV4LAYSA102A	1000						
9F1439	RV4LAYSA152A	1500						
8F719	RV4LAYSA252A	2500						
9F1441	RV4LAYSA352A	3500						
8F720	RV4LAYSA502A	5000						
9F1443	RV4LAYSA752A	7500						
8F721	RV4LAYSA103A	10K						
9F1445	RV4LAYSA153A	15K	2.25	2.05	1.90	1.79	1.58	1.33
8F722	RV4LAYSA253A	25K						
9F1447	RV4LAYSA353A	35K						
8F723	RV4LAYSA503A	50K						
9F1449	RV4LAYSA753A	75K						
8F724	RV4LAYSA104A	100K						
9F1451	RV4LAYSA154A	150K						
8F725	RV4LAYSA254A	250K						
9F1453	RV4LAYSA354A	350K						
8F726	RV4LAYSA504A	500K						
9F1455	RV4LAYSA754A	750K						
8F727	RV4LAYSA105A	1 Meg						
9F1457	RV4LAYSA155B	1.5 Meg						
9F1458	RV4LAYSA205B	2 Meg						
8F728	RV4LAYSA255B	2.5 Meg						
9F1460	RV4LAYSA355B	3.5 Meg						
8F729	RV4LAYSA505B	5 Meg						

Type RV4LAYSD. Carbon type "pots" with 1/2 in. locking type bushing. Maximum temperature: 120°C. Maximum resistance change due to humidity test: ±10%. Minimum insulation resistance during humidity test: 100 mega. Screw drive slotted operating shaft: 7/8 in. long (from mtg. surface). Wt., 7 oz.



Stock No.	Type	Ohms	1-24	25-34	35-49	50-64	65-99	100-249
9F1492	RA30NASD2R0A	3						
8F786	RA30NASD6R0A	6						
8F787	RA30NASD8R0A	8						
8F788	RA30NASD10A	10						
8F789	RA30NASD150A	15						
8F790	RA30NASD200A	20						
8F791	RA30NASD250A	25						
8F792	RA30NASD350A	35						
8F793	RA30NASD500A	50						
8F794	RA30NASD750A	75						
8F795	RA30NASD101A	100						
8F796	RA30NASD151A	150						
8F797	RA30NASD251A	250	3.00	2.72	2.19	1.80	1.59	1.34
8F798	RA30NASD351A	350						
8F799	RA30NASD501A	500						
8F800	RA30NASD102A	1K						
8F801	RA30NASD152A	1.5K						
8F802	RA30NASD202A	2K						
8F803	RA30NASD252A	2.5K						
8F804	RA30NASD352A	3.5K						
8F805	RA30NASD502A	5K						
8F806	RA30NASD752A	7.5K						
8F807	RA30NASD103A	10K						
8F808	RA30NASD203A	20K						
8F809	RA30NASD253A	25K						
9F1493	RA30LASB3R0A	3						
8F810	RA30LASB6R0A	6						
8F811	RA30LASB8R0A	8						
8F812	RA30LASB15A	15						
8F813	RA30LASB200A	20						
8F814	RA30LASB350A	35						
8F815	RA30LASB750A	75						
8F816	RA30LASB101A	100						
8F817	RA30LASB151A	150						
8F818	RA30LASB351A	350	3.00	2.80	2.27	1.88	1.67	1.42
8F819	RA30LASB102A	1K						
8F820	RA30LASB152A	1.5K						
8F821	RA30LASB202A	2K						
8F822	RA30LASB352A	3.5K						
8F823	RA30LASB502A	5K						
8F824	RA30LASB103A	10K						
8F825	RA30LASB203A	20K						
8F826	RA30LASB253A	25K						

Stock No.	Type	Ohms	1-24	25-34	35-49	50-64	65-99	100-249
8F685	RV4LAYSD101A	100 ohms						
8F686	RV4LAYSD251A	250 ohms						
8F687	RV4LAYSD501A	500 ohms						
8F688	RV4LAYSD102A	1000 ohms						
8F689	RV4LAYSD252A	2500 ohms						
8F690	RV4LAYSD502A	5000 ohms						
8F691	RV4LAYSD103A	10 K						
8F692	RV4LAYSD253A	25 K	2.25	2.05	1.90	1.79	1.58	1.33
8F693	RV4LAYSD503A	50 K						
8F694	RV4LAYSD104A	100 K						
8F695	RV4LAYSD254A	250 K						
8F696	RV4LAYSD504A	500 K						
8F697	RV4LAYSD105A	1 Meg.						
8F698	RV4LAYSD255B	2.5 Meg						
8F699	RV4LAYSD505B	5 Meg.						

Potentiometers



NEW SERIES 63 HOT-MOLDED CARBON TRIMMING POTENTIOMETERS

Designed specifically for application on printed circuit boards, this new configuration permits extremely close board-to-board spacing. Power Rating: .25 watt @ 70°C. Working Voltage: 350 VDC across end terminals, but power not to exceed rating. Resistance Range is 100 Ω to 1 megohm, linear. Resistance Tolerance: ±20%. Mechanical & Electrical Rotation 295° +3°. Voltage Breakdown is 750 VAC between terminals and gnd. for 1 min. Torque 0.5 to 3 oz. in. Diam. 1/2"; body length 1 1/2". Wt., 1 oz. appr.

Type 63M1. Plastic Shaft and Faceplate. Solder Lug

Stock No.	Res.	1-24	25-34	35-49	50-64	65-99	100-249	250-499	500-999
9F2030	100								
9F2031	250								
9F2032	500								
9F2033	1K								
9F2034	2.5K								
9F2035	5K								
9F2036	10K								
9F2037	15K	3.45	3.27	2.50	2.00	1.50	1.30	1.20	1.10
9F2038	25K								
9F2066	50K								
9F2067	100K								
9F2068	150K								
9F2069	200K								
9F2070	250K								
9F2071	500K								
9F2072	1 Meg.								

Type 63M2. Metal Shaft and Faceplate. Solder Lug

Stock No.	Res.	1-24	25-34	35-49	50-64	65-99	100-249	250-499	500-999
9F2039	100								
9F2040	250								
9F2041	500								
9F2042	1K								
9F2043	2.5K								
9F2044	5K								
9F2045	10K								
9F2046	15K	3.45	3.27	2.50	2.00	1.50	1.30	1.20	1.10
9F2047	25K								
9F2073	50K								
9F2074	100K								
9F2075	150K								
9F2076	200K								
9F2077	250K								
9F2078	500K								
9F2079	1 Meg.								

SERIES 42JA SINGLE TURN POTENTIOMETER

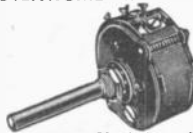
All types of applications ranging from ultra critical military systems to ultra dependable industrial equipment. Power Rating: 3 watts at 40°C. Resis. Tolerance: ±5%. Electrical rotation 330°±5°. Mechanical rotation: 360° continuous. Resolution from .35% at 500 ohms to .051% at 100K ohms. Linear output. Max. speed of rotation: 90 RPM. Body dia.: 1 1/4". Shaft length: 1/2"; Shaft dia.: .249". Approximate weight, 3.2 ounces.



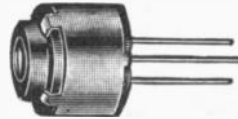
Stk. No.	Res.	1-9	10-24	25-99	100-199	200-499
8F523	50					
8F524	100					
8F525	500					
8F526	1K	8.00	7.60	7.20	6.80	6.40
8F527	2.5K					
8F528	5K					
8F529	10K					
8F530	20K					
8F531	50K	9.00	8.55	8.10	7.65	7.20
8F532	100K	9.00	8.55	8.10	7.65	7.20

SERIES 42-900 SINGLE TURN POTENTIOMETER

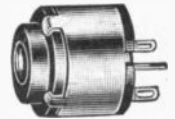
Features an extra tap for greater electrical versatility. Shaft extends thru rear of unit to permit addition of switching and other functions actuated by a single shaft. Tol.: ±5%. Linear output. Rated at 3 watts at 40°C. Tap 50% of applied voltage. ±1 in. tol. Max. speed of rotation: 90 RPM. 1 1/4" dia. Shaft length: 1 1/2". Shaft dia.: .25". Approximate weight, 3.2 oz.



Stk. No.	Res.	1-9	10-24	25-99	100-199	200-499
8F548	50					
8F549	100					
8F550	500					
8F551	1K	14.00	13.30	12.60	11.90	11.20
8F552	2.5K					
8F553	5K					
8F554	10K	16.00	15.20	14.40	13.60	12.80
8F555	20K	16.00	15.20	14.40	13.60	12.80
8F556	50K	19.00	18.05	17.10	16.15	15.20
8F557	100K	19.00	18.05	17.10	16.15	15.20



63M5



63M1

Type 63M4. Plastic Shaft and Faceplate. Wire Leads

Stock No.	Res.	1-24	25-34	35-49	50-64	65-99	100-249	250-499	500-999
9F2048	100								
9F2049	250								
9F2050	500								
9F2051	1K								
9F2052	2.5K								
9F2053	5K								
9F2054	10K								
9F2055	15K	3.45	3.27	2.50	2.00	1.50	1.30	1.20	1.10
9F2056	25K								
9F2080	50K								
9F2081	100K								
9F2082	150K								
9F2083	200K								
9F2084	250K								
9F2085	500K								
9F2086	1 Meg.								

Type 63M5. Metal Shaft and Faceplate. Wire Leads

Stock No.	Res.	1-24	25-34	35-49	50-64	65-99	100-249	250-499	500-999
9F2057	100								
9F2058	250								
9F2059	500								
9F2060	1K								
9F2061	2.5K								
9F2062	5K								
9F2063	10K								
9F2064	15K	3.45	3.27	2.50	2.00	1.50	1.30	1.20	1.10
9F2065	25K								
9F2087	50K								
9F2088	100K								
9F2089	150K								
9F2090	200K								
9F2091	250K								
9F2092	500K								
9F2093	1 Meg.								

SERIES 57M, 57M9, 57EJA, 57EJB SINGLE TURN POTENTIOMETERS

A high performance potentiometer in a 1/2" dia. housing. Series 57M is rated at 1.5 watts at 40°C. Series 57EJ 2 watts at 70°C and features glass sealed terminals. Shaft length: 57M and 57EJA 1/2" beyond bushing. Series 57M9 is similar to Series 57M except it has locking bushing mtg. and a 1/8" shaft. Series 57EJB is similar to Series 57EJA except it has locking bushing mtg. and 1/8" shaft. Common Specifications: Res. Tol.: ±5% independent. Linearity: ±2%. Mechanical and electrical rotation: 320°±5%. Dielectric Strength: 1000 VAC. Corrosion resistant housing per QQ-M-151. Centerless grd. stainless steel shaft. Approx. wt., 1/2 oz.



SERIES 57M AND 57M9

57M Stk. No.	57M9 Stk. No.	Res.	1-9	10-24	25-99	100-199	200-499
8F470	8F480	50					
8F471	8F481	100					
8F472	8F482	200					
8F473	8F483	500					
8F474	8F484	1K	9.65	9.17	8.69	8.20	7.72
8F475	8F485	5K					
8F476	8F486	10K					
8F477	8F487	20K					
8F478	8F488	50K					

SERIES 57EJA AND 57EJB

57EJA Stk. No.	57EJB Stk. No.	Res.	1-9	10-24	25-99	100-199	200-499
8F500	8F510	50					
8F501	8F511	100					
8F502	8F512	200					
8F503	8F513	500					
8F504	8F514	1K	10.00	9.50	9.00	8.50	8.00
8F505	8F515	5K					
8F506	8F516	10K					
8F507	8F517	20K					
8F508	8F518	50K					



Potentiometers and Dials

SERIES 62JA

10-TURN COMMERCIAL POTENTIOMETERS

Designed specifically for industrial instrumentation application.

Resistance tolerance $\pm 5\%$. Linear functional output; absolute linearity $\pm 25\%$ 500-100K ohms, $\pm 5\%$ 100-250 ohms. Power dissipation 2 watts @ 25° C. Dielectric strength 1000 volts AC. Effective rotation 3600° nominal. Insulation resistance 1000 meg-ohms. Operational life of 100,000 shaft revolutions. Maximum speed of rotation is 60 RPM. Weight approximately 1.34 oz.



Stk. No.	Res.	1-9	10-24	25-99	100-499
8F570	100	7.50	6.50	6.00	5.50
8F569	200				
8F571	250				
8F572	500				
8F573	1K				
8F574	2K				
8F575	5K				
8F576	10K				
8F577	20K				
8F578	30K				
8F579	50K				
8F580	100K				

SERIES SC42-970 SIN/COS SINGLE TURN POTENTIOMETER

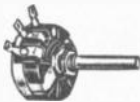
Used in radar, computer and servomechanisms, or any application requiring two output voltages accurately proportioned to the sine and cosine rotation angle. Total Resistance: 16K, $\pm 10\%$. Power rating: 2.46 watts at 40°C. 360° cont. rotation. Resolution: 0.14% of max. peak to peak voltage. Max. shaft speed: 30 RPM. Shaft length: $1\frac{1}{16}$ " dia., .2498". Body dia.: $2\frac{1}{16}$ ".



Stk. No.	1-9	10-24	25-99	100-199	200-499
8F568	45.00	42.75	40.50	38.25	36.00

TYPE 58 WW CONTROLS

Linear type, wire-wound 4 watt controls designed for use in test equipment and extremely delicate laboratory instruments. All are $1\frac{3}{32}$ " dia. x $1\frac{13}{16}$ " deep. Mount in $\frac{3}{8}$ " hole with nut and washer. Average weight, 4 oz. $\pm 10\%$ tolerance.



Stk. No.	Type	Ohms	NET
9F700	58-1	1	.93
9F701	58-2	2	
9F702	58-4	4	
9F703	58-6	6	
9F704	58-10	10	
9F705	58-15	15	
9F706	58-20	20	
9F707	58-25	25	
9F708	58-30	30	
9F709	58-40	40	
9F710	58-50	50	
9F711	58-60	60	
9F712	58-75	75	
9F713	58-100	100	
9F714	58-200	200	
9F715	58-300	300	1.20
9F716	58-400	400	
9F717	58-500	500	
9F718	58-750	750	
9F719	58-1,000	1,000	
9F720	58-2,000	2,000	
9F721	58-3,000	3,000	
9F722	58-5,000	5,000	
9F723	58-7,500	7,500	
9F724	58-10K	10,000	
9F725	58-15K	15,000	1.20
9F726	58-20K	20,000	
9F727	58-25K	25,000	
9F728	58-30K	30,000	1.62
9F729	58-40K	40,000	
9F730	58-50K	50,000	

58C1 WIRE-WOUND POTENTIOMETERS

Standard bushings; wire-wound; with all controls rated at 4 watts. Electrical tolerance is $\pm 5\%$ with all changes. Available up to 50K Ohms. Diam. $1\frac{3}{32}$ " x 1" depth. Shpg. wt.: 4 oz.

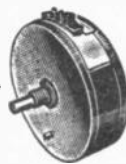


Stk. No.	Type	Ohms	NET
8F430	58C1-1	1	1.35
8F431	58C1-2	2	
8F432	58C1-4	4	
8F433	58C1-6	6	
8F434	58C1-10	10	
8F435	58C1-15	15	
8F436	58C1-20	20	
8F437	58C1-30	30	
8F438	58C1-40	40	
8F439	58C1-50	50	
8F440	58C1-60	60	1.80
8F441	58C1-75	75	
8F442	58C1-100	100	
8F443	58C1-200	200	
8F444	58C1-300	300	
8F445	58C1-400	400	
8F446	58C1-500	500	
8F447	58C1-750	750	
8F448	58C1-1000	1000	
8F449	58C1-1500	1500	
8F450	58C1-2000	2000	2.01
8F451	58C1-2500	2500	
8F452	58C1-3000	3000	
8F453	58C1-5000	5000	
8F454	58C1-7500	7500	
8F455	58C1-10K	10 K	
8F456	58C1-15K	15 K	
8F457	58C1-20K	20 K	
8F458	58C1-25K	25 K	
8F459	58C1-30K	30 K	
8F460	58C1-40K	40 K	
8F461	58C1-50K	50 K	

SERIES 54-48JA

VARI/PHASE SINGLE TURN POTENTIOMETERS

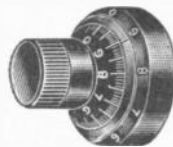
Permits external phasing of electrical rotation to mechanical rotation. Tol.: $\pm 5\%$. Linear output. Power dissipation: 6.1 watts at 40°C. Electrical rotation: 356°. Mechanical rotation: 360°. Max. speed of rotation: 60 RPM. Shaft length: $\frac{1}{2}$ ". Shaft dia.: .2498". Body dia.: 3". Approximate weight, 4.5 oz.



Stk. No.	Res.	1-9	10-24	25-99	100-199
8F561	1K	26.50	25.18	23.85	22.53
8F562	10K	26.50	25.18	23.85	22.53
8F563	50K	26.50	25.18	23.85	22.53
8F564	100K	26.50	25.18	23.85	22.53
8F565	250K	31.00	29.45	27.90	26.35

"CLARODIAL" 10 TURN SCALE DIALS

Calibrated dials designed for multi-turn potentiometers up to 10 turns or other rotary devices. Requires only 1 inch of panel space. The knob attaches directly to the shaft and the body of the dial is mounted rigidly to the panel. Accurate readings with a ratio of 1000 to 1 for 10 turns are provided with zero backlash and reading error. Anodized aluminum. $\frac{1}{4}$ " shaft.



Stock No.	Type No.	Description	1-9	10-24	25-99	100-249
8F585	411	Black; no lock	7.75	7.30	6.95	6.55
8F586	412	Black; with lock	8.75	8.50	8.05	7.60
8F587	461	Clear; no lock	8.25	7.80	7.40	7.00
8F588	462	Clear; with lock	9.45	8.95	8.50	8.00

43C2 2 WATT WW POTENTIOMETERS

2 watt, wire-wound control. Tolerance $\pm 5\%$ for all ohmages. $\frac{1}{8}$ screwdriver slotted bushing. Diam. $1\frac{5}{32}$ " x $\frac{3}{8}$ " deep. Fabricated in accordance with MIL-R-19 Style RA20. Meets the need for a high quality resistance device incorporating high stability under extreme climatic and operational conditions. Shpg. wt., 4 oz.



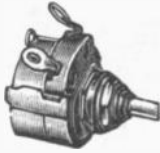
Stk. No.	Type	Ohms	NET
8F400	43C2-5	5	2.25
8F401	43C2-10	10	
8F402	43C2-20	20	
8F403	43C2-25	25	
8F404	43C2-30	30	
8F405	43C2-40	40	
8F406	43C2-50	50	
8F407	43C2-75	75	
8F408	43C2-100	100	
8F409	43C2-150	150	
8F410	43C2-200	200	2.55
8F411	43C2-300	300	
8F412	43C2-400	400	
8F413	43C2-500	500	
8F414	43C2-750	750	
8F415	43C2-1000	1000	
8F416	43C2-1500	1500	
8F417	43C2-2000	2000	
8F418	43C2-2500	2500	
8F419	43C2-3000	3000	
8F420	43C2-4000	4000	3.00
8F421	43C2-5000	5000	
8F422	43C2-7500	7500	
8F423	43C2-10K	10 K	
8F424	43C2-15K	15 K	
8F425	43C2-20K	20 K	
8F426	43C2-25K	25 K	
8F427	43C2-30K	30 K	
8F428	43C2-40K	40 K	
8F429	43C2-50K	50 K	

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Controls and Relays

CLAROSTAT

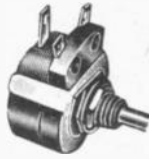
MINIATURIZED CONTROLS



Series 48M-9. Single pot. with shaft locking bushing. Rated at 0.2 w. Dia. $\frac{3}{16}$ ". Screw-driver slot shaft $\frac{1}{16}$ " diameter x $\frac{1}{8}$ " long. Split-locking bushing. $\frac{1}{4}$ " x 2 NEF2A, $\frac{3}{8}$ " long. Tolerance, 1K-100K is 10%, balance 20%.

No.	Ohms	1-9	10-24	25-49	50-99
9F513	1000				
9F514	1500				
9F515	2500				
9F516	5000				
9F517	7500				
9F518	10K				
9F519	25K	4.903	6.83	152	63
9F520	50K				
9F521	100K				
9F522	250K				
9F523	500K				
9F524	1 meg.				
9F525	2.5 meg.				

WW MIN. CONTROLS



Series 49M-9. Single pot. with shaft locking bushing. Power rating 1.5 w. $\frac{3}{4}$ " low loss housing. Linear taper resis. thru 300° rotat. Shaft $\frac{1}{8}$ " dia. by $\frac{1}{16}$ ". Bkdn. between mtg. element or term. above 1,000 VAC. Shpg. wt. 4 oz.

No.	Ohms	1-9	10-24	25-49	50-99
9F542	5	5.83	4.37	3.75	3.12
9F543	10				
9F544	20				
9F545	25				
9F546	50				
9F547	100				
9F548	200				
9F549	250				
9F550	500	4.96	3.72	3.19	2.66
9F551	1000				
9F552	1500				
9F553	2000				
9F554	2500				
9F555	5000				
9F556	7500				
9F557	10K				

TYPE 43 2-4 WATT WW CONTROLS

Rated at 2-4 watts. Overall tol. +10% for all values. Linear taper molded phenolic body, $\frac{1}{16}$ " dia. $\frac{9}{16}$ " deep. $\frac{3}{16}$ "-.32 bushing. 2" long round shaft. Less switch.

Stk. No.	Type	Ohms	NET
9F760	43-5	5	
9F761	43-10	10	
9F762	43-20	20	
9F763	43-25	25	
9F764	43-30	30	
9F765	43-40	40	
9F766	43-50	50	
9F767	43-75	75	
9F768	43-100	100	
9F769	43-150	150	
9F770	43-200	200	
9F771	43-300	300	
9F772	43-400	400	.93
9F773	43-500	500	
9F774	43-750	750	
9F775	43-1,000	1,000	
9F776	43-1,500	1,500	
9F777	43-2,000	2,000	
9F778	43-2,500	2,500	
9F779	43-3,000	3,000	
9F780	43-4,000	4,000	
9F781	43-5,000	5,000	
9F782	43-7,500	7,500	
9F783	43-10K	10,000	

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DOW KEY

DK60-G2C COAXIAL RELAYS

SPDT R.F. switch with DPDT auxiliary contacts and special "isolated" connector in de-energized position. Low VSWR: less than 1.15:1 from 0 to 500 mc. Long-life expectancy greater than one million operations. Power rating: 1 kilowatt through straight connectors; to 10 watts through "isolated connector". Maximum operating temperature: 100°C. Pure silver contacts. Shpg. wt. 1 lb.

Stk. No.	Type	Coil Voltage	Size	Each
24F2000	DK60-G2C	6V-DC	3 $\frac{3}{4}$ " x 2 $\frac{3}{4}$ " x 1 $\frac{1}{2}$ "	20.80
24F2001	DK60-G2C	6 V AC	3 $\frac{3}{4}$ " x 2 $\frac{3}{4}$ " x 1 $\frac{1}{2}$ "	21.80
24F2002	DK60-G2C	12V-DC	3 $\frac{3}{4}$ " x 2 $\frac{3}{4}$ " x 1 $\frac{1}{2}$ "	20.80
24F2003	DK60-G2C	115 VAC	3 $\frac{3}{4}$ " x 2 $\frac{3}{4}$ " x 1 $\frac{1}{2}$ "	21.80

ELECTRONIC ANTENNA SWITCHES

Both fully electronic. Includes tube. Will handle a full kilowatt. Type DKC-TRM-1 requires 150 V at 5 ma and 6.3 V at .3 amps.

Model DKC-TRP has built-in power supply for plug into 120 VAC circuit. Both switches are fully TVI-proof. Shpg. wt., 2 lbs.

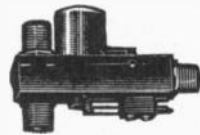
Stk. No.	Type	Power Supply	Frequency	Each
24FX2004	DKC-TRM-1	90-120 VDC	1.8-60 Mc	17.00
57F1704	DKC-TRP	120 VAC	1.8-30 Mc	37.00

UHF CONNECTORS

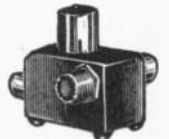
A complete line of connector styles suitable for every UHF application. Panel-mounting connectors require a $\frac{3}{16}$ " hole, no screws necessary. Connectors are made of precision-machined brass which is then

silver-plated. They lock firmly, provide a tight, firm connection. Females designed for low-loss operation with moisture and humidity-proof construction. Shipping wt. for each connector is approx. 1 oz.

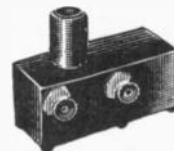
Stk. No.	Type	Fig.	Description	1-4	5-9
24F959	DKF-2	A	UHF double male connector	.92	.76
24F999	DK60-P	B	UHF panel mount female connector	.84	.69
57F1700	DK201	C	UHF panel mount male connector	1.30	1.07
57F1701	DK202	D	UHF double female connector	1.00	.82
57F1702	DK210	E	UHF female to male phono connector	1.50	1.24
57F1703	DK211	F	UHF male to male phono connector	1.60	1.32



DK60



DKC-TRM-1



DKC-TRP



A



B



C



D



E

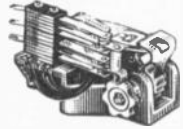


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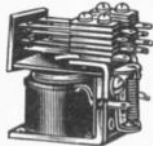
Guardian Relays

IMPULSE RATCHET RELAY—AC



Type 660. For on/off control of lighting, motors, appliances and speaker applications, among others. Each impulse (up to 10 steps per second) reverses contacts. Contact amperes 12.5 intermittent duty coil with voltage of 115 VAC, 60 cycles. Size: $3\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{2}$ ". Shpg. wt., 7.5 oz.

Stock No.	Type	Cont. Comb.	Coil VAC	1-24	25-49	50-99	100-249	250-up
24F193	660-C-115A	SPDT	115	6.85	6.17	5.82	5.48	4.80
24F194	660-2C-115A	DPDT	115	7.60	6.84	6.46	6.08	5.32
24F2437	660-C-24A	SPDT	24	6.85	6.17	5.82	5.48	4.80
24F2438	660-2C-24A	DPDT	24	7.40	6.66	6.29	5.92	5.18
24F2439	660-4C-24A	4PDT	24	10.75	9.68	9.14	8.60	7.53
24F2440	660-4C-115A	4PDT	115	10.75	9.68	9.14	8.60	7.53
			Coil VDC					
24F2441	665-C-24D	SPDT	24	6.85	6.17	5.82	5.48	4.80
24F2442	665-2C-24D	DPDT	24	7.40	6.66	6.29	5.92	5.18
24F2443	665-4C-24D	4PDT	24	10.75	9.68	9.14	8.60	7.53



ALL-PURPOSE ECONOMY AC-DC RELAY

Types IR-640 & 645. Compact, lightweight relay capable of unusually heavy power control for its size. Contact rating at 60 cycles, 115 V non-inductive load. All contact ratings are 10 amps, except 4PDT which are 8 amps. *Normally open. Size $1\frac{1}{2} \times 1\frac{1}{2} \times 1\frac{1}{2}$ ". Shpg. wt., 4 oz.

6 VOLTS AC—(Coil resistance 1.7 ohms)

Stock No.	Mfr. No.	Cont. Comb.	1-24	25-49	50-99	100-249	250-up
24F000	IR-640U-A-6A	SPST*	2.90	2.61	2.47	2.32	2.03
24F001	IR-640U-C-6A	SPDT	3.15	2.84	2.68	2.52	2.21
24F002	IR-640U-2C-6A	DPDT	3.40	3.06	2.89	2.72	2.38
24F003	IR-640U-4C-6A	4PDT	5.00	4.50	4.25	4.00	3.50

24 VOLTS AC—(Coil resistance 24 ohms)

Stock No.	Mfr. No.	Cont. Comb.	1-24	25-49	50-99	100-249	250-up
24F004	IR-640U-A-24A	SPST*	2.90	2.61	2.47	2.32	2.03
24F005	IR-640U-C-24A	SPDT	3.15	2.84	2.68	2.52	2.21
24F006	IR-640U-2C-24A	DPDT	3.40	3.06	2.89	2.72	2.38
24F007	IR-640U-4C-24A	4PDT	5.00	4.50	4.25	4.00	3.50

115 VOLTS AC—(Coil resistance 725 ohms)

Stock No.	Mfr. No.	Cont. Comb.	1-24	25-49	50-99	100-249	250-up
24F008	IR-640U-A-115A	SPST*	2.90	2.61	2.47	2.32	2.03
24F009	IR-640U-C-115A	SPDT	3.15	2.84	2.68	2.52	2.21
24F010	IR-640U-2C-115A	DPDT	3.40	3.06	2.89	2.72	2.38
24F011	IR-640U-4C-115A	4PDT	5.00	4.50	4.25	4.00	3.50

230 VOLTS AC—(Coil resistance 2950 ohms)

Stock No.	Mfr. No.	Cont. Comb.	1-24	25-49	50-99	100-249	250-up
24F012	IR-640U-2C-230A	DPDT	4.20	3.78	3.57	3.36	2.94

6 VOLTS DC—(Coil resistance 12 ohms)

Stock No.	Mfr. No.	Cont. Comb.	1-24	25-49	50-99	100-249	250-up
24F013	IR-645-A-6D	SPST*	2.90	2.61	2.47	2.32	2.03
24F014	IR-645-C-6D	SPDT	3.15	2.84	2.68	2.52	2.21
24F015	IR-645-2C-6D	DPDT	3.40	3.06	2.89	2.72	2.38
24F016	IR-645-4C-6D	4PDT	5.00	4.50	4.25	4.00	3.50

12 VOLTS DC—(Coil resistance 50 ohms)

Stock No.	Mfr. No.	Cont. Comb.	1-24	25-49	50-99	100-249	250-up
24F106	IR-645-A-12D	SPST*	2.90	2.61	2.47	2.32	2.03
24F107	IR-645-C-12D	SPDT	3.15	2.84	2.68	2.52	2.21
24F108	IR-645-2C-12D	DPDT	3.40	3.06	2.89	2.72	2.38
24F109	IR-645-4C-12D	4PDT	5.00	4.50	4.25	4.00	3.50

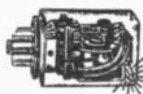
24 VOLTS DC—(Coil resistance 200 ohms)

Stock No.	Mfr. No.	Cont. Comb.	1-24	25-49	50-99	100-249	250-up
24F017	IR-645-A-24D	SPST*	2.90	2.61	2.47	2.32	2.03
24F018	IR-645-C-24D	SPDT	3.15	2.84	2.68	2.52	2.21
24F019	IR-645-2C-24D	DPDT	3.40	3.06	2.89	2.72	2.38
24F020	IR-645-4C-24D	4PDT	5.00	4.50	4.25	4.00	3.50

110 VOLTS DC—(Coil resistance 4,000 ohms)

Stock No.	Mfr. No.	Cont. Comb.	1-24	25-49	50-99	100-249	250-up
24F021	IR-645-A-110D	SPST*	3.40	3.06	2.89	2.72	2.38
24F022	IR-645-C-110D	SPDT	3.70	3.33	3.15	2.96	2.59
24F023	IR-645-2C-110D	DPDT	3.95	3.56	3.36	3.16	2.77
24F024	IR-645-4C-110D	4PDT	5.25	4.73	4.46	4.20	3.68

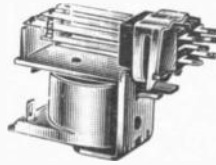
ENCLOSED PLUG-IN AC RELAY WITH NEON LAMP



Type 1210-N. A miniature neon lamp lights each time the coil is energized, or indicates a circuit fault when lamp is dark. Ideal for detecting circuit faults in relay banks, mass relay arrangements, or where relays are visibly located at intermediate switching points of the circuitry. Precludes the use of circuit testers. Coil Res. 1000 ohms. Contacts rated 10 amps at 115 VAC, 60 cycles, non-inductive load. Size: $2\frac{3}{4} \times 1\frac{1}{2} \times 1\frac{1}{2}$ ". Shipping weight, 3.5 ounces. *8 pin octal plug. †11 pin plug.

Stock No.	Mfg. No.	Coil Res.	Cont. Comb.	1-24	25-49	50-99	100-249	250-up
24F191	1210N-2C115A*	1000	DPDT	6.75	6.08	5.74	5.40	4.73
24F192	1210N-3C-115A†	1000	3PDT	8.00	7.20	6.80	6.40	5.60

GUARDIAN 900 SERIES RELAYS



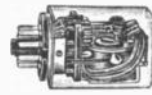
Number of parts and assembly time reduced by 50%. Eliminates cold flow. Higher voltage breakdown. Contacts D.P.D.T. can control up to 10 amps tact D.P.D.T. can control up to 10 amps resistive load at 115 V.A.C. Coil Values 24, 115 or 230 V.A.C. and 6, 12 or 24 V.D.C. 2 point. Single screw mounting. Unitary field and core, no gap between core and field piece. For 115v., 60 cycles. *UL Approved. Size $2\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{2}$ wide.

Stock No.	Type	1-9	10-24	25-49	50-99	100-up
62F1875	900-2C-24VAC	1.75	1.66	1.49	1.40	1.23
62F1876	900-2C-115VAC*	1.75	1.66	1.49	1.40	1.23
62F1877	900-2C-230AC	1.75	1.66	1.49	1.40	1.23
62F1878	905-2C-6VDC	1.75	1.66	1.49	1.40	1.23
62F1879	905-2C-12VDC	1.75	1.66	1.49	1.40	1.23
62F1880	905-2C-24VDC	1.75	1.66	1.49	1.40	1.23

As above, but with $\frac{3}{16}$ " quick-disconnect terminals.

Stock No.	Type	1-9	10-24	25-49	50-99	100-up
24F2444	910-2C-24AC	1.75	1.66	1.49	1.40	1.23
24F2445	910-2C-115AC	1.75	1.66	1.49	1.40	1.23
24F2446	910-2C-230AC	1.75	1.66	1.49	1.40	1.23
24F2447	915-2C-6DC	1.75	1.66	1.49	1.40	1.23
24F2448	915-2C-12DC	1.75	1.66	1.49	1.40	1.23
24F2449	915-2C-24DC	1.75	1.66	1.49	1.40	1.23

ENCLOSED PLUG-IN AC-DC RELAY



Type 1210. Type 1215. Enclosed in a transparent, lightweight Lexan case, resistant to temperatures of 200° F. 8 pin octal plug for DPDT and 11 pin for 3PDT. Contacts rated for 10 amperes at 60 cycles, 115 V. AC non-inductive load. Size $2\frac{3}{4} \times 1\frac{1}{2} \times 1\frac{1}{2}$ ". Shpg. wt., 3.5 oz.

Stock No.	Mfr. No.	AC Volts	Cont. Comb.	1-24	25-49	50-99	100-249	250-up
24F115	1210-2C-6A	6	DPDT	6.00	5.40	5.10	4.80	4.20
24F116	1210-3C-6A	6	3 PDT	7.50	6.75	6.38	6.00	5.25
24F117	1210-2C-24A	24	DPDT	6.00	5.40	5.10	4.80	4.20
24F118	1210-3C-24A	24	3PDT	7.50	6.75	6.38	6.00	5.25
24F119	1210-2C-115A	115	DPDT	6.00	5.40	5.10	4.80	4.20
24F120	1210-3C-115A	115	3PDT	7.50	6.75	6.38	6.00	5.25
24F2457	1210-2C-230A	230	DPDT	6.25	5.63	5.31	5.00	4.38
24F2458	1210-3C-230A	230	3PDT	7.75	6.98	6.59	6.20	5.43

DC

Stock No.	Mfr. No.	AC Volts	Cont. Comb.	1-24	25-49	50-99	100-249	250-up
24F121	1215-2C-6D	6	DPDT	6.00	5.40	5.10	4.80	4.20
24F122	1215-3C-6D	6	3 PDT	7.50	6.75	6.38	6.00	5.25
24F2459	1215-2C-12D	12	DPDT	6.00	5.40	5.10	4.80	4.20
24F2460	1215-3C-12D	12	3PDT	7.50	6.75	6.38	6.00	5.25
24F123	1215-2C-24D	24	DPDT	6.00	5.40	5.10	4.80	4.20
24F124	1215-3C-24D	24	3PDT	7.50	6.75	6.38	6.00	5.25
24F2461	1215-2C-110D	110	DPDT	6.50	5.85	5.53	5.20	4.55
24F2462	1215-3C-110D	110	3PDT	8.00	7.20	6.80	6.40	5.60

MEDIUM POWER AC-DC RELAY



Type 1200. Type 1205. Suited to communications, remote control. Heavy solder lug type terminals molded in phenolic black, with barriers for over-surface insulation, built to meet U/L specifications. Contacts rated 10 amperes at 60 cycles, 115 V. AC non-inductive load. Size: $1\frac{5}{8} \times 1 \times 1\frac{1}{2}$ ". Mounting single mtg. hole 6-32 TAP. 2.5 oz.

Stock No.	Mfr. No.	AC Volts	Cont. Comb.	1-24	25-49	50-99	100-249	250-up
24F833	1200-2C-6A	6	DPDT	3.75	3.38	3.19	3.00	2.63
24F834	1200-3C-6A	6	3PDT	4.25	3.83	3.61	3.40	2.98
24F835	1200-2C-24A	24	DPDT	3.75	3.38	3.19	3.00	2.63
24F836	1200-3C-24A	24	3PDT	4.25	3.83	3.61	3.40	2.98
24F2467	1200-C-115A	115	SPDT	3.50	3.15	2.98	2.80	2.45
24F837	1200-2C-115A	115	DPDT	3.75	3.38	3.19	3.00	2.63
24F838	1200-3C-115A	115	3PDT	4.25	3.83	3.61	3.40	2.98
24F2450	1200-2C-230A	230	DPDT	4.00	3.60	3.40	3.20	2.80
24F2451	1200-3C-230A	230	3PDT	4.50	4.05	3.83	3.60	3.15

DC

Stock No.	Mfr. No.	AC Volts	Cont. Comb.	1-24	25-49	50-99	100-249	250-up
24F839	1205-2C-6D	6	DPDT	3.40	3.06	2.89	2.72	2.38
24F840	1205-3C-6D	6	3PDT	3.85	3.47	3.27	3.08	2.70
24F2452	1205-2C-12D	12	DPDT	3.40	3.06	2.89	2.72	2.38
24F2453								



32-POLE DC RELAY

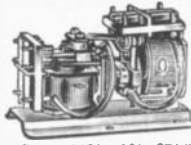
Type IR-805-S. Group selector relay can simultaneously make common up to 32 circuits. All circuits insulated from ground. Contact blades molded in thermosetting phenolic. Phenolic plunger housing, 32 poles made common upon energization. Coil Res. Ohms 72. Size, 2¹/₂" x 1¹/₂" x 2¹/₈". Shpg. wt., 6 oz.



Stock No.	Type	Volts	1-24	25-49	50-99	100-249	250-up
24F058	IR-805-S	24 DC	5.00	4.50	4.25	4.00	3.50

INTERLOCKING RELAY 115V. AC

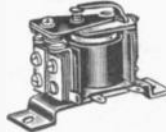
Two interlocking AC relays in sturdy metal frame bracket. Used to maintain circuits continuously without coil power consumption. Unit is electrically pulse operated with mechanical hold and electrical release. Contacts rated at 10 amps., 60 cps. non-inductive. Size, 1¹/₂" x 1³/₄" x 2⁷/₈". 4PDT contacts. Shipping wt., 5.5 oz.



Stock No.	Mfg. No.	1-24	25-49	50-99	100-249	250-up
24F868	IR-1200/1200-4C-115A	10.40	9.98	8.84	8.32	7.28

HEAVY DUTY INDUSTRIAL RELAY—AC

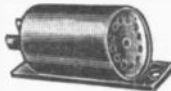
Type IR-220. Rugged unit breaks up to 20 amperes, at 230 volts. Armature is equipped with Phenolic contact mounting block carrying 5/16" dual contacts. Phenolic is tested at 1500 volts breakdown to ground. Contacts are silver alloy. Relay is available in SPST-NO contact combination only. Contact rating at 60 cycles, 20 amps, 230 V non-inductive load. Size: 3x1⁷/₈" x 1³/₄". Shipping wt., 5.5 oz.



Stock No.	Mfr. No.	Volts	1-24	25-49	50-99	100-249	250-up
24F052	IR-220A-24A	24	4.50	4.05	3.83	3.60	3.15
24F053	IR-220A-115A	115	5.05	4.55	4.29	4.04	3.54
24F054	IR-220A-230A	230	5.55	5.00	4.72	4.44	3.89

ROTOMITE STEPPER-DC

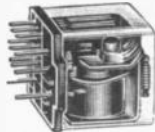
Continuous rotation on 12 positions up to 20 step per sec. Stepping mechanism, coils and contacts completely (metal) enclosed. 3 amps resistive, 1 amp inductive (50% P.F.). Tests well over 1,000,000 operations. App: bus, machines, lighting, sorting, computer circuits, and counting. Size: 2"L. x 1¹/₈" D. Shpg. wt., 5 oz.



Stk. No.	Mfg. No.	VDC	1-24	25-49	50-99	100-249	250-up
24F125	IR-705-12P-6D	6					
24F126	IR-705-12P-12D	12	6.60	5.94	5.61	5.28	4.62
24F127	IR-705-12P-24D	24					

10 AMPERE VERSATILE ENCLOSED RELAY

Reduced height and cost by elimination of radio-type plug. Features "Uni-Guard," loop moving blades; snap lock cover; terminals can be used as solder lug, AMP Faston 110 Series quick connect or socket plug in; built to U/L requirements; with mounting bracket. *3 pole.



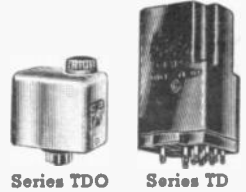
Stk. No.	Type	Coil Volt.	1-24	25-49	50-99	100-249	250-up
62F1881	IR-1220-2C-6A	6AC	4.00	3.60	3.40	3.20	2.80
62F1882	IR-1220-2C-24A	24AC	4.00	3.60	3.40	3.20	2.80
62F1883	IR-1220-2C-115A	115AC	4.00	3.60	3.40	3.20	2.80
62F1884	IR-1220-2C-230A	230AC	4.25	3.83	3.61	3.40	2.98
62F1885	IR-1220-3C-6A*	6AC	4.50	4.05	3.83	3.60	3.15
62F1886	IR-1220-3C-24A*	24AC	4.50	4.05	3.83	3.60	3.15
62F1887	IR-1220-3C-115A*	115AC	4.50	4.05	3.83	3.60	3.15
62F1888	IR-1220-3C-230A*	230AC	4.75	4.28	4.04	3.80	3.33
62F1889	IR-1225-2C-6D	6DC	4.00	3.60	3.40	3.20	2.80
62F1890	IR-1225-2C-12D	12DC	4.00	3.60	3.40	3.20	2.80
62F1891	IR-1225-2C-24D	24DC	4.00	3.60	3.40	3.20	2.80
62F1892	IR-1225-2C-110D	110DC	4.25	3.83	3.61	3.40	2.98
62F1893	IR-1225-3C-6D*	6DC	4.50	4.05	3.83	3.60	3.15
62F1894	IR-1225-3C-12D*	12DC	4.50	4.05	3.83	3.60	3.15
62F1895	IR-1225-3C-24D*	24DC	4.50	4.05	3.83	3.60	3.15
62F1896	IR-1225-3C-110D	110DC	4.75	4.28	4.04	3.80	3.33

IR-1220 SOCKET. Socket terminal lugs can be soldered to or will accept Series 110 quick connects.

62F1911		1-9	60	10 up	55
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SOLID STATE TIME DELAY RELAYS

Series TDO-62C30-115A. 2PDT 5 amp. commercial time delay relay. 10 turn pot .5 to 30 seconds. Recycling time: 100 milliseconds. Accuracy to 10% of a nominal setting over the temperature range. Plug-in mtg. Termination: octal socket. Temperature -10°F to +100°F. F. 115 VAC ±10% 50/60 cycles.



62F1912. NET

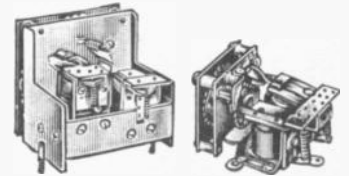
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Series TD. High reliability; all silicon semiconductors, precision tantalum capacitors. High resolution 15 turn pot. Recycle-time: 50 milliseconds. Accuracy: ±5% of nominal setting over complete voltage and temperature range. Repeatability: ±1% of nominal setting. 3PDT—10 amps. Temperature: -40°F to +150°F.

Stock No.	Type No.	Coil Volts	Adj. Range (Sec)	Net
62F1913	TD-33C15-24D	24VDC	1-15	24.20
62F1914	TD-33C60-24D	24VDC	10-60	25.19
62F1915	TD-33C180-24D	24VDC	50-180	32.09
62F1916	TD-63C15-115A	115VAC	1-15	29.70
62F1917	TD-63C60-115A	115VAC	10-60	30.06
62F1918	TD-63C180-115A	115VAC	50-180	36.85

ELECTRICAL RESET STEP RELAY

Type IR-P.E.R. Positive mechanical stops available to limit steps. Resets when coil energized. Coil V 115 VAC; 45W (stepping coil), 15W (reset coil). No. of pts: 40. 36 active contacts. Size 3x3³/₈" x 3³/₈". Wt. 22 oz. Type M.E.R. Reset stepper with positive acting interlock, actuated by magnet. Positive reset on one-hundredth of second. Coil V 115 VAC. 18W stepping coil, 7W reset coil. No. of pts: 24. 22 active contacts. Size 3¹/₂" x 2¹/₈" x 3 1/9". Wt. 11.5 oz.



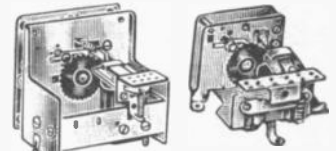
Type IR-P.E.R.

Type M.E.R.

Stk. No.	Type	VA.	1-24	25-49	50-99	100-249	250-up
24F766	IR-PER-115A	70-25	26.25	23.63	22.31	21.00	18.38
24F865	MER-115A	30-9	15.75	14.18	13.39	12.60	11.03
62F1919	MER-24DC	30-9	15.75	14.18	13.39	12.60	11.03

CONTINUOUS ROTATION STEP RELAY

Type IR-P.C. Oilite shaft bearing. Beryllium copper pawl control shutter. Solder beaded for easy soldering. Life expectancy at 4,000,000 steps; operate at 15% below, or 10% above voltage. Coil. 115 VAC. 45W; no. of pts: 40. 40 active contacts. Size 3³/₈" x 3³/₈". Wt. 17 oz. Type IR-M.C. Smaller rotation stepper similar to P.C.; life expectancy 2,000,000 steps. Coil V 115 VAC, 18W. No. pts: 24. 24 active contacts. Size: 2³/₈" x 3³/₈".



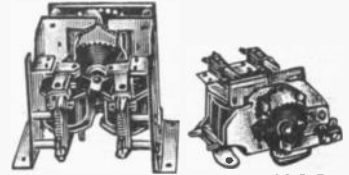
Type IR-P.C.

Type IR-M.C.

Stk. No.	Mfr. Type	VA.	1-24	25-49	50-99	100-249	250-up
24F762	IR-PC-115A	70	19.95	17.96	16.96	15.96	13.97
24F764	IR-MC-115A	30	14.75	13.28	12.54	11.80	10.32

ADD AND SUBTRACT STEP RELAY

Type IR-R.A.S. Shutters control motion of pawl to extend life of unit and prevent skipping. One step at time depending on coil energized. Coil V: 115 VAC, 45 W. No. of pts. 40. 38 active contacts. Size: 3¹/₂" x 4¹/₈" x 3³/₈". Wt. 29¹/₂" oz. Type IR-M.A.S. Add and Subtract Stepper similar to R.A.S. Guardian Steppers intermittent duty units at 10% duty cycle, max. energization single period, 5 min. Coil 115 VAC, 10 W. No. of pts: 30. Zero position switch only. 1¹/₂" x 3¹/₈" x 3¹/₈". 11 oz.



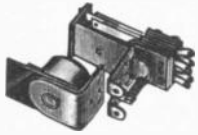
Type IR-R.A.S.

Type IR-M.A.S.

Stock No.	Mfr. Type	VA.	1-24	25-49	50-99	100-249	250-up
24F770	IR-R.A.S.115A	100	26.25	23.63	22.31	21.00	18.38
24F772	IR-M.A.S.115A	15	17.35	15.82	14.75	13.88	12.15



Guardian Relays



UNIVERSAL "200" SERIES

The coil assembly consists of the coil and the field piece; the contact assembly consists of switch blades, armature, return spring and mounting bracket. All contacts are rated at 60 cycles A.C. non-inductive. Standard contact assembly is 2/8"x1/4"x1".

Midget assembly is 1 1/2" long. Mounting, all Series 200 Relays: (2) 5-32 mtg. holes. .687" centers. Shpg. wt., 4 oz.

CONTACT SWITCH ASSEMBLIES

*Rating 8 amps. **Rating 10 amps. †Rating 12.5 amps.

Stk. No.	Type	Contacts	1-24	25-49	50-99	100-249	250-up
24F800	200-1	SPDT*	1.60	1.44	1.36	1.28	1.12
24F801	200-2	DPDT*	2.10	1.89	1.79	1.68	1.47
24F802	200-4	DPDT†	2.35	2.12	2.00	1.88	1.64
24F805	200-5	4PDT*	3.70	3.33	3.15	2.96	2.59
24F803	200-M1	Midget 4PDT*	1.50	1.35	1.28	1.20	1.05
24F804	200-M2	Midget DPDT**	1.85	1.67	1.57	1.48	1.30
24F806	200-M5	Midget 4PDT*	3.00	2.70	2.55	2.40	2.10

AC COIL ASSEMBLIES

Stk. No.	Type No.	Volts	1-24	25-49	50-99	100-249	250-up
24F810	200-6A	6	1.85	1.67	1.57	1.48	1.30
24F811	200-12A	12					
24F812	200-24A	24					
24F813	200-115A	115	2.15	1.94	1.83	1.72	1.51
24F814	200-230A	230	2.85	2.57	2.42	2.28	2.00

DC COIL ASSEMBLIES

Stk. No.	Type	Volts	1-24	25-49	50-99	100-249	250-up
24F820	200-6D	6	2.00	1.80	1.70	1.60	1.40
24F821	200-12D	12					
24F822	200-24D	24					
24F823	200-32D	32					
24F824	200-110D	110	2.65	2.39	2.25	2.12	1.86

DC PLATE COIL ASSEMBLIES

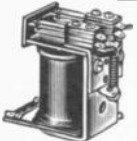
Stk. No.	Type	Coil Res. Ohms	1-24	25-49	50-99	100-249	250-up
24F815	200-5000D	5000Ω	2.30	2.07	1.96	1.84	1.61
24F829	200-10000D	10000Ω	2.65	2.39	2.25	2.12	1.86

Contact switch parts for adding poles to assemblies.

Stk. No.	Type	Use with	1-24	25-49	50-99	100-249	250-up
24F830	200-3	200-1,-2	1.60	1.44	1.36	1.28	1.12
24F831	200-M3	200-M1, M2	1.60	1.44	1.36	1.28	1.12

PLATE CIRCUIT RELAY

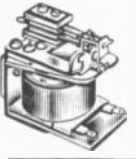
Unit is constructed with extra long coil for greater sensitivity. Adaptable to voltage operating as well as sensitive plate circuit control installations. Rated at 10 amps. Coil impregnated for reliability and longer life. Average power requirement, 0.2 watts. DPDT Silver contacts. Size, 2 1/2"x2"x1 1/2". Wt. 5.5 oz.



Stk. No.	Mfg. No.	Coil Res. Ohms	Oper. Mils	1-24	25-49	50-99	100-249	250-up
24F055	IR-625-2.5	2,500	9Ma.	4.45	4.01	3.78	3.56	3.12
24F056	IR-625-5	5,000	6.3Ma.	4.75	4.28	4.04	3.80	3.33
24F057	IR-625-10	10,000	4.5Ma.	5.80	5.22	4.93	4.64	4.06

AC-60 CYCLE LATCHING ON/OFF RELAY

Type IR-610L. Recommended for positive ON/OFF control of positioning devices, remote controls, lighting circuits and many additional applications. Impulse as short as 20 M.S. energizes coil to reverse position of snap-action switches. Holds last position of switch with coil de-energized. Contacts rated for 5 amperes, at 60 cycles, 115 V. AC non-inductive load. Size, 2 1/8" x 1 1/8" x 1 3/8". 4 oz.



St. No.	Type	Comb.	1-24	25-49	50-99	100-249	250-up
24F097	IR-610L-A-115A	SPST	4.45	4.01	3.78	3.56	3.12
24F098	IR-610L-C115A	SPDT	4.75	4.28	4.04	3.80	3.33

ENGINEER'S CONTACT SWITCH KIT

Indispensable to those who design, build, repair or test electrical controls. Contains large assortment of switch blades, contacts, separators, adapters, fish papers, bushings, etc. All standard high-quality Guardian parts. Shpg. wt., 1 1/4 lbs.

24F094. NET 11.50

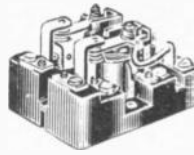


SERIES 240 AC & 245 DC RELAYS

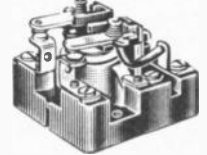
Stk. No.	Type	1-24	25-49	50-99	100-249	250-Up
62F1920	240-A-24A	3.15	2.84	2.68	2.52	2.21
62F1921	240-2C-24A	3.95	3.56	3.36	3.16	2.77
62F1922	240-A-115A	3.15	2.84	2.68	2.52	2.21
62F1923	240-2C-115A	3.95	3.56	3.36	3.16	2.77
62F1924	245-A-24D	3.15	2.84	2.68	2.52	2.21
62F1925	245-2C-24D	3.95	3.56	3.36	3.16	2.77

SERIES 2200 & 2210 POWER RELAYS

2200



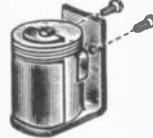
2210



Rated at 25 amperes continuous duty at 230 volts AC. 75% power factor. Operating power requirement for AC 9.5 volt amperes, 60 cycles. Coil drain approximately .080 amperes at 115 volts, 60 cycles. U/L approved.

Stk. No.	Mfg. No.	1-24	25-49	50-99	100-249	250-up
24F816	2200U-DPDT-6	6.75	6.08	5.74	5.40	4.73
24F817	2200U-DPDT-24					
24F818	2200U-DPDT-115					
24F819	2200U-DPDT-230	7.25	6.53	6.16	5.80	5.08
24F110	2210U-DPST-N.O.-6	5.75	5.18	4.89	4.60	4.03
24F111	2210U-DPST-N.O.-24					
24F112	2210U-DPST-N.O.-115					
24F113	2210U-DPST-N.O.-230					

INTERCHANGEABLE COIL ASSEMBLIES



By removing two easily accessible screws, coil assembly can be replaced by coil of another value. Complete instructions for this operation are included with each unit. Solder connections are not required when changing coils. Shpg. wt., 6 oz. MTG. 2 holes for 8/32 screws on 1 7/8" ctrs.

AC REPLACEMENT COILS—FOR EITHER RELAY

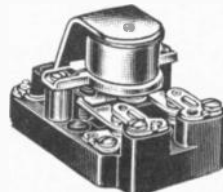
Stk. No.	Type No.	1-24	25-49	50-99	100-249	250-up
24F825	2200-6AV	2.35	2.12	2.00	1.88	1.65
24F827	2200-115AV					
24F828	2200-230AV	2.65	2.39	2.25	2.12	1.86

POWER RELAY REPLACEMENT CONTACT SWITCH PARTS

Available for series 2200 only—Replacement Contact Switch Parts for easy right or left S.P.D.T. assembly. Package contains one normally open and one normally closed contact bracket, complete moving blade and terminal. Left or Right Switch Assemblies determined by viewing relay from armature hinge end with contacts up. Cur. Cap. 25 amps. Shpg. wt. 4 oz.

Stk. No.	Type	1.95	1.76	1.66	1.56	1.37
24F847	CS-2200-Left	1.95	1.76	1.66	1.56	1.37
24F848	CS-2200-Right	1.95	1.76	1.66	1.56	1.37

SERIES 2400 AC AND 2405 DC POWER RELAYS



For power applications requiring up to 15 ampere contacts. Inverted coil construction protects armature and contacts. Both 2400 A.C. and Series 2405 D.C. Power Relays have standard DPDT contacts rated for 15 amperes non-inductive, or 1 H.P. at 115/230 volts, 60 cycles. Series 2400 standard coil voltages are 6, 12, 24 and 115 V.A.C. Series 2405 standard coil voltages are 6, 12, 24 and 110 V.D.C. Armature extension permits manual circuit testing. Screw type terminals. Recessed auxiliary switch, up to S.P.D.T. for 10 ampere operation; available for both A.C. and D.C. versions. Size: 3 1/8" x 2 1/2" x 2 1/8". Mounting: Two 196" Dia. holes on 1 7/8" centers. Shpg. wt., 8 oz. *10 amps AC. U/L approved.

Stk. No.	Mfg. No.	1-24	25-49	50-99	100-249	250-up
24F213	2400-DPDT-6VAC	6.25	5.63	5.31	5.00	4.38
24F214	2400U-DPDT-24VAC					
24F215	2400U-DPDT-115VAC					
24F216	2400U-DPDT-230VAC	6.50	5.85	5.53	5.20	4.55
24F2463	2405-DPDT-6VDC	6.25	5.63	5.31	5.00	4.38
24F2464	2405-DPDT-12VDC					
24F2465	2405-DPDT-24VDC					
24F2466	2405-DPDT-110VDC	6.75	6.08	5.74	5.40	4.73
24F217	2400-SPDT-AUX* Auxiliary Switch	1.35	1.22	1.15	1.08	.95

Guardian Solenoids



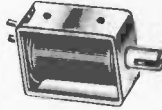
AC AND DC SOLENOIDS



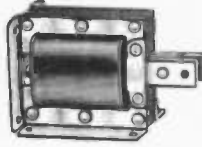
Type 1A1



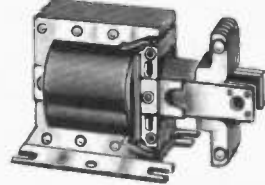
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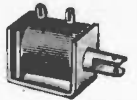
Type 11



Type 14



Type 18



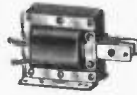
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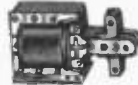
Type 2 and 4



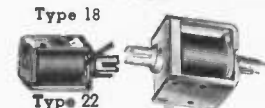
4HD-DC



Type 12



Type 16



Type 22



Type 28

2HD AC-DC

Available in both intermittent and continuous duty types. Intermittent types should not be energized for more than 5 consecutive minutes, or be permitted to rise more than 85° C. above 24° C. ambient, without giving sufficient time to cool

between operation cycles. Continuous duty types are designed so they will not rise more than 85° C. above the 24° C. ambient temperature when operated at rated load. Plunger has slotted end with 1/8" diameter hole for coupling.

*Pull Data Obtained During "Cold" Operation, when plunger is down.

Stock No.	Type	Volts	Current	Duty	Ohms	Amps	Adj. Stroke (in.)	Max. *Lift (oz.)	SIZE			Shpg. Wt. (oz.)	1-24	25-94	50-99	100-249	250-up
									Height (in.)	Length (in.)	Width (in.)						
24F870	1A1	115	AC	Inter.	300	.17	1/8-1/2	8	1 1/8	1 3/4	1 1/16	4.5	3.15	2.84	2.68	2.52	2.21
24F871	1A1	115	AC	Cont.	675	.076	1/8-3/8	3	1 1/8	1 3/4	1 1/16	4.5	3.15	2.84	2.68	2.52	2.21
24F078	2	115	AC	Inter.	60	.50	1/8-3/8	27	1 1/8	1 3/4	1 1/16	10	3.68	3.31	3.13	2.94	2.58
24F079	2	115	AC	Cont.	166	.155	1/8-3/8	10.5	1 1/8	1 3/4	1 1/16	10	3.68	3.31	3.13	2.94	2.58
62F1897	2HD	115	AC	Inter.	39	.6	1/8-3/8	60	1 1/16	1 3/4	1 1/16	13	8.66	7.79	7.36	6.93	6.06
62F1898	2HD	115	AC	Cont.	113	.13	1/8-3/8	19	1 1/16	1 3/4	1 1/16	13	8.66	7.79	7.36	6.93	6.06
24F872	4	115	AC	Inter.	37	.64	1/8-1	24	1 1/8	2	1 1/16	14.5	4.20	3.78	3.57	3.36	2.94
24F873	4	115	AC	Cont.	133	.14	1/8-1/2	6	1 1/8	2	1 1/16	14.5	4.20	3.78	3.57	3.36	2.94
24F890	11	24	AC	Inter.	5.1	1.10	1/8-1	20	1 1/16	1 1/2	1 1/16	7.5	3.15	2.84	2.68	2.52	2.21
24F080	11	24	AC	Cont.	12	.33	1/8-1	8	1 1/16	1 1/2	1 1/16	7.5	3.15	2.84	2.68	2.52	2.21
24F081	11	115	AC	Inter.	125	.225	1/8-1	20	1 1/16	1 1/2	1 1/16	7.5	3.15	2.84	2.68	2.52	2.21
24F082	11	115	AC	Cont.	300	.072	1/8-1	8	1 1/16	1 1/2	1 1/16	7.5	3.15	2.84	2.68	2.52	2.21
24F086	12	115	AC	Inter.	100	.27	1/8-1	32	1 1/16	1 1/2	1 1/16	6	4.46	4.01	3.79	3.57	3.12
24F087	12	115	AC	Cont.	150	.155	1/8-3/8	22	1 1/16	1 1/2	1 1/16	6	4.46	4.01	3.79	3.57	3.12
24F874	14	115	AC	Inter.	11	1.4	1/8-1 1/2	110	2 1/16	2 1/2	1 1/16	19	6.04	5.44	5.13	4.83	4.23
24F875	14	115	AC	Cont.	18	.52	1/8-1 1/2	65	2 1/16	2 1/2	1 1/16	19	6.04	5.44	5.13	4.83	4.23
24F090	16	115	AC	Inter.	41	.54	1/8-3/4	96	1 1/16	1 1/2	1 1/16	7.5	3.68	3.31	3.13	2.94	2.58
24F876	16	115	AC	Cont.	85	.19	1/8-3/4	55	1 1/16	1 1/2	1 1/16	7.5	3.68	3.31	3.13	2.94	2.58
24F892	16	230	AC	Inter.	224	.230	1/8-3/4	96	1 1/16	1 1/2	1 1/16	7.5	3.94	3.55	3.35	3.15	2.76
24F893	16	230	AC	Cont.	350	.110	1/8-3/8	55	1 1/16	1 1/2	1 1/16	7.5	3.94	3.55	3.35	3.15	2.76
24F092	18	115	AC	Inter.	8.8	1.45	1/8-1	304	2 1/16	2 1/2	1 1/16	16.5	4.99	4.49	4.24	3.99	3.49
24F093	18	115	AC	Cont.	19.7	.39	1/8-1	145	2 1/16	2 1/2	1 1/16	16.5	4.99	4.49	4.24	3.99	3.49
24F894	18	230	AC	Inter.	45	.590	1/8-1	304	2 1/16	2 1/2	1 1/16	16.5	5.25	4.73	4.46	4.20	3.68
24F895	18	230	AC	Cont.	78	.20	1/8-1	145	2 1/16	2 1/2	1 1/16	16.5	5.25	4.73	4.46	4.20	3.68
24F754	24	115	AC	Inter.	310	.130	1/16-3/8	19	5/16	1 1/4	1	3.0	3.41	3.07	2.90	2.73	2.39
24F755	24	115	AC	Cont.	500	.07	1/16-3/8	12	5/16	1 1/4	1	3.0	3.41	3.07	2.90	2.73	2.39
24F878	1A1	24	DC	Inter.	42.6	.56	1/8-3/8	5	1 1/16	1 3/4	1 1/16	4.5	2.89	2.60	2.46	2.31	2.02
62F1905	34	115	AC	Inter.	400	.11	1/16-1/2	16	1 1/16	1 1/8	3/4	2.5	2.31	2.08	1.96	1.85	1.62
62F1906	34	115	AC	Cont.	865	.055	1/16-1/2	9	1 1/16	1 1/8	3/4	2.5	2.31	2.08	1.96	1.85	1.62
24F879	1A1	24	DC	Cont.	74.4	.32	1/8-1/4	2	1 1/16	1 3/4	1 1/16	4.5	2.89	2.60	2.46	2.31	2.02
24F880	1A1	115	DC	Inter.	803	.14	1/8-3/8	5	1 1/16	1 3/4	1 1/16	4.5	3.41	3.07	2.90	2.73	2.39
24F881	1A1	115	DC	Cont.	2070	.05	1/8-1/4	2	1 1/16	1 3/4	1 1/16	4.5	3.41	3.07	2.90	2.73	2.39
24F885	4	24	DC	Inter.	15	1.6	1/8-1	57	1 1/8	2	1 1/16	14.5	4.20	3.78	3.57	3.36	2.94
24F886	4	24	DC	Cont.	50	.48	1/8-3/8	20	1 1/8	2	1 1/16	14.5	4.20	3.78	3.57	3.36	2.94
24F887	4	115	DC	Inter.	346	.33	1/8-1	57	1 1/8	2	1 1/16	14.5	4.46	4.01	3.79	3.57	3.12
24F888	4	115	DC	Cont.	1210	.09	1/8-3/8	20	1 1/8	2	1 1/16	14.5	4.46	4.01	3.79	3.57	3.12
24F889	11	6	DC	Inter.	2	3.00	1/8-3/8	39	1 1/16	1 1/2	1 1/16	7.5	3.15	2.84	2.68	2.52	2.21
24F083	11	6	DC	Cont.	5	1.2	1/8-3/8	21	1 1/16	1 1/2	1 1/16	7.5	3.15	2.84	2.68	2.52	2.21
24F891	11	24	DC	Inter.	32	.750	1/8-3/8	39	1 1/16	1 1/2	1 1/16	7.5	3.15	2.84	2.68	2.52	2.21
24F084	11	24	DC	Cont.	72	.333	1/8-3/8	21	1 1/16	1 1/2	1 1/16	7.5	3.15	2.84	2.68	2.52	2.21
24F756	22	6	DC	Inter.	4.7	1.27	1/16-3/8	24	3/4	1 1/8	3/4	2.5	2.94	2.65	2.50	2.35	2.06
24F757	22	6	DC	Cont.	9	.667	1/16-1/4	13	3/4	1 1/8	3/4	2.5	2.94	2.65	2.50	2.35	2.06
24F758	22	24	DC	Inter.	60	.4	1/16-3/8	24	3/4	1 1/8	3/4	2.5	2.94	2.65	2.50	2.35	2.06
24F759	22	24	DC	Cont.	144	.167	1/16-1/4	13	3/4	1 1/8	3/4	2.5	2.94	2.65	2.50	2.35	2.06
24F176	28	24	AC	Inter.	7.5	.900	1/16-1/2	35	1 1/16	1 1/8	1 1/16	3.5	3.15	2.84	2.68	2.52	2.21
24F177	28	24	AC	Cont.	17.4	.340	1/16-1/2	20	1 1/16	1 1/8	1 1/16	3.5	3.15	2.84	2.68	2.52	2.21
24F178	28	115	AC	Inter.	220	.160	1/16-1/2	35	1 1/16	1 1/8	1 1/16	3.5	3.41	3.07	2.90	2.73	2.39
24F179	28	115	AC	Cont.	400	.077	1/16-1/2	20	1 1/16	1 1/8	1 1/16	3.5	3.41	3.07	2.90	2.73	2.39
24F218	28	6	DC	Inter.	3.3	1.80	1/16-1/2	41	1 1/16	1 1/8	1 1/16	3.5	2.94	2.65	2.50	2.35	2.06
24F219	28	6	DC	Cont.	7.7	.78	1/16-3/8	35	1 1/16	1 1/8	1 1/16	3.5	2.94	2.65	2.50	2.35	2.06
24F220	28	12	DC	Inter.	13	.92	1/16-1/2	41	1 1/16	1 1/8	1 1/16	3.5	2.94	2.65	2.50	2.35	2.06
24F221	28	12	DC	Cont.	27	.45	1/16-3/8	35	1 1/16	1 1/8	1 1/16	3.5	2.94	2.65	2.50	2.35	2.06
24F222	28	24	DC	Inter.	50	.48	1/16-1/2	41	1 1/16	1 1/8	1 1/16	3.5	2.94	2.65	2.50	2.35	2.06
24F223	28	24	DC	Cont.	104	.23	1/16-3/8	35	1 1/16	1 1/8	1 1/16	3.5	2.94	2.65	2.50	2.35	2.06
62F1899	2HD	24	DC	Inter.	20	1.2	1/8-3/4	120	1 1/16	1 1/2	1 1/16	13	8.93	8.04	7.59	7.14	6.25
62F1900	2HD	21	DC	Cont.	60	.4	1/8-3/4	66	1 1/16	1 1/2	1 1/16	13	8.93	8.04	7.59	7.14	6.25
62F1901	4HD	24	DC	Inter.	14	1.7	1/8-3/4	156	1 1/8	2 1/4	1 1/16	15	6.41	5.77	5.45	5.13	4.49
62F1902	4HD	24	DC	Cont.	50	.092	1/8-3/4	86	1 1/8	2 1/4	1 1/16	15	6.41	5.77	5.45	5.13	4.49
62F1903	4HD	110	DC	Inter.	330	.48	1/8-3/4	156	1 1/8	2 1/4	1 1/16	15	6.41	5.77	5.45	5.13	4.49
62F1904	4HD	110	DC	Cont.	1200	.33	1/8-3/4	86	1 1/8	2 1/4	1 1/16	15	6.41	5.77	5.45	5.13	4.49
62F1907	34	6	DC	Inter.	4.3	1.4	1/16-1/2	21	1 1/16	1 1/8	3/4	2.5	2.31	2.08	1.96	1.85	1.62
62F1908	34	6	DC	Cont.	9.1	.66	1/16-1/2	8.5	1 1/16	1 1/8	3/4	2.5	2.31	2.08	1.96	1.85	1.62
62F1909	34	24	DC	Inter.	66	.36	1/16-1/2	21	1 1/16	1 1/8	3/4	2.5	2.31	2.08	1.96	1.85	1.62
62F1910	34	24	DC	Cont.	145	.16	1/16-1/2	8.5	1 1/16	1 1/8	3/4	2.5	2.31	2.08	1.96	1.85	1.62

POTTER & BRUMFIELD General Purpose Relays



KA GENERAL PURPOSE RELAY
For small power loads; silver contacts rated at 5 amps. "G" suffix indicates silver cadmium contacts on movables rated 10 amps. Mounting #6-32 stud with locating boss. Size: 1 1/32" x 1 7/32" x 1 1/16". KAP-enclosed model protected by clear plastic dust cover. Terminals: 8 or 11 pin plug. U. L. listed.



5 AMP KRP ENCLOSED-VOLTAGE ACTUATED

Versatile, multi-contact relay enclosed in clear plastic dust cover. (See KCP for current actuated models.) Mounting: Standard 8 pin octal for KRP-5 & 11; 11 pin for KR14. Silver contacts rated at 5 amps. Size: 1 1/32" x 1 1/32" x 2". Wt., 3 oz.

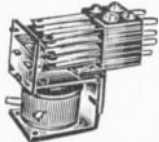
Stock No.	Type	Action	Volt	1-24	25-50	51-99	100-249
24F545	KASAY	SPDT	6v. AC	3.35	3.18	3.02	2.35
24F1308	KASAY	SPDT	12v. AC				
24F593	KASAY	SPDT	24v. AC				
24F515	KASAY	SPDT	120v. AC				
24F547	KA11AY	DPDT	6v. AC	4.05	3.85	3.65	2.84
24F1309	KA11AY	DPDT	12v. AC				
24F594	KA11AY	DPDT	24v. AC				
24F517	KA11AY	DPDT	120v. AC				
24F1310	KA11AY	DPDT	240v. AC	4.45	4.23	4.01	3.12
24F549	KA14AY	3PDT	6v. AC				
24F1213	KA14AY	3PDT	12v. AC				
24F595	KA14AY	3PDT	24v. AC				
24F519	KA14AY	3PDT	120v. AC				
24F552	KA5DY	SPDT	6v. DC	3.20	3.04	2.88	2.24
24F1214	KA5DY	SPDT	12v. DC				
24F596	KA5DY	SPDT	24v. DC				
24F1311	KA5DY	SPDT	110v. DC	3.85	3.66	3.47	2.70
24F553	KA11DY	DPDT	6v. DC	3.55	3.37	3.20	2.49
24F1215	KA11DY	DPDT	12v. DC				
24F597	KA11DY	DPDT	24v. DC				
24F554	KA11DY	DPDT	110v. DC				
24F523	KA14DY	3PDT	6v. DC	4.05	3.85	3.65	2.84
24F1216	KA14DY	3PDT	12v. DC				
24F598	KA14DY	3PDT	24v. DC				
24F1217	KA14DY	3PDT	110v. DC				
24F1665	KA5AG	SPDT	6v. AC	3.40	3.23	3.06	2.38
24F1666	KA5AG	SPDT	12v. AC				
24F1667	KA5AG	SPDT	24v. AC				
24F1668	KA5AG	SPDT	120v. AC				
24F1669	KA5AG	SPDT	240v. AC	3.85	3.66	3.47	2.70
24F1670	KA11AG	DPDT	6v. AC	4.15	3.94	3.74	2.91
24F1671	KA11AG	DPDT	12v. AC				
24F1672	KA11AG	DPDT	24v. AC				
24F1673	KA11AG	DPDT	120v. AC				
24F1674	KA11AG	DPDT	240v. AC				
24F1675	KA14AG	3PDT	6v. AC	4.60	4.37	4.14	3.22
24F1676	KA14AG	3PDT	12v. AC				
24F1677	KA14AG	3PDT	24v. AC				
24F1678	KA14AG	3PDT	120v. AC				
24F1679	KA14AG	3PDT	240v. AC				

SERIES KAP GENERAL PURPOSE RELAYS

Stock No.	Type	Action	Volt	1-24	25-50	51-99	100-249
24F2565	KAP11AY	DPDT	24VAC	6.35	6.03	5.72	4.45
24F2566	KAP11AY	DPDT	120VAC	6.35	6.03	5.72	4.45
24F2567	KAP11AY	DPDT	240VAC	6.75	6.41	6.08	4.73
24F2568	KAP11AG	DPDT	6VAC	6.45	6.13	5.81	4.52
24F2569	KAP11AG	DPDT	24VAC	6.45	6.13	5.81	4.52
24F2570	KAP11AG	DPDT	120VAC	6.45	6.13	5.81	4.52
24F2571	KAP11DG	DPDT	24VDC	6.40	6.08	5.76	4.48
24F2572	KAP11DG	DPDT	110VDC	7.05	6.70	6.35	4.94
24F2573	KAP11DY	DPDT	12VDC	6.30	5.99	5.67	4.41
24F2574	KAP11DY	DPDT	24VDC	6.30	5.99	5.67	4.41
24F2575	KAP11DY	DPDT	110VDC	6.95	6.60	6.26	4.81
24F2577	KAP14AY	3PDT	24VAC	7.90	7.51	7.11	5.53
24F2576	KAP14AY	3PDT	120VAC	7.90	7.51	7.11	5.53
24F2578	KAP14AY	3PDT	240VAC	8.30	7.89	7.47	5.81
24F2579	KAP14AG	3PDT	24VAC	8.05	7.65	7.25	5.64
24F2580	KAP14AG	3PDT	120VAC	8.05	7.65	7.25	5.64
24F2581	KAP14DG	3PDT	24VDC	8.00	7.60	7.20	5.60
24F2582	KAP14DG	3PDT	110VDC	8.60	8.17	7.74	6.02
24F2583	KAP14DY	3PDT	12VDC	7.80	7.41	7.02	5.46
24F2584	KAP14DY	3PDT	24VDC	7.80	7.41	7.02	5.46
24F2585	KAP14DY	3PDT	110VDC	8.45	8.03	7.61	5.92

24F2586 KAP holdown springs 9KA1 (.15 ea. Box of 50 5.50)

MEDIUM DUTY POWER RELAY



GF SERIES Medium duty power relay for industrial control applications. 1/4" dia. silver contacts rated at 10 amps at 115V AC or 28V DC resistive. Tinned, pierced solder terminals. Mounting: 8-32 tapped cord with locating boss. Weight: 4.75 ozs.

Stock No.	Type	Action	Volt	1-24	25-50	51-99	100-249
24F2587	GF17A	4PDT	6VAC	7.00	6.65	6.30	4.90
24F2588	GF17A	4PDT	12VAC	7.00	6.65	6.30	4.90
24F2589	GF17A	4PDT	24VAC	7.00	6.65	6.30	4.90
24F2590	GF17A	4PDT	120VAC	7.00	6.65	6.30	4.90
24F2591	GF17A	4PDT	240VAC	7.40	7.03	6.66	5.18
24F2592	GF17D	4PDT	6VDC	7.00	6.65	6.30	4.90
24F2593	GF17D	4PDT	12VDC	7.00	6.65	6.30	4.90
24F2594	GF17D	4PDT	24VDC	7.00	6.65	6.30	4.90
24F2595	GF17D	4PDT	110VDC	7.45	7.08	6.71	5.22

10 AMP KRP ENCLOSED-VOLTAGE ACTUATED

Stock No.	Mfr's Type	Coil Volts	Action	1-24	25-50	51-99	100-249
24F1330	KRP5AG	6v. AC	SPDT	5.85	5.56	5.27	4.10
24F1331	KRP5AG	24v. AC	SPDT				
24F1332	KRP5AG	120v. AC	SPDT				
24F1333	KRP11AG	6v. AC	DPDT	6.55	6.22	5.90	4.59
24F1334	KRP11AG	12v. AC	DPDT				
24F1335	KRP11AG	24v. AC	DPDT				
24F1336	KRP11AG	120v. AC	DPDT				
24F1696	KRP11AG	240v. AC	DPDT				
24F1337	KRP14AG	6v. AC	3PDT	8.20	7.79	7.38	5.74
24F1338	KRP14AG	12v. AC	3PDT				
24F1339	KRP14AG	24v. AC	3PDT				
24F1340	KRP14AG	120v. AC	3PDT				
24F1343	KRP5DG	24v. DC	SPDT					5.80	5.51	5.22	4.06
24F1344	KRP5DG	110v. DC	SPDT	6.40	6.08	5.76	4.48
24F1345	KRP11DG	6v. DC	DPDT	6.50	6.18	5.85	4.55
24F1346	KRP11DG	12v. DC	DPDT				
24F1347	KRP11DG	24v. DC	DPDT				
24F1348	KRP11DG	110v. DC	DPDT	7.15	6.79	6.44	5.01
24F1349	KRP14DG	6v. DC	3PDT	8.15	7.74	7.34	5.71
24F1350	KRP14DG	12v. DC	3PDT				
24F1359	KRP14DG	24v. DC	3PDT				
24F1351	KRP14DG	110v. DC	3PDT				



KRP-N LIGHT IN RELAY

Plug-in relay has built-in lamp, which lights when relay coil is energized. Operates on 1.2 watts DC or 2 volt-amps AC. DPDT silver cadmium contacts rated at 10 amps, 3PDT arrangement. Lamp: AC 6 to 230 volts, DC 6 to 110 volts. Enclosure: clear cellulose acetate. Dim: 2"H x 1 1/32" square. 3 oz.

Stock No.	Type	Volts	1-24	25-50	51-99	100-249
24F1435	KRP11AN	6v. AC	7.50	7.13	6.75	5.25
24F1436	KRP11AN	12v. AC				
24F1437	KRP11AN	24v. AC				
24F1438	KRP11AN	120v. AC				
24F1329	KRP14AN	120v. AC	9.15	8.69	8.24	6.41
24F1439	KRP14AN	240v. AC	7.90	7.51	7.11	5.53
24F1440	KRP11DN	6v. DC	7.45	7.08	6.71	5.22
24F1441	KRP11DN	12v. DC				
24F1442	KRP11DN	24v. DC				
24F1443	KRP11DN	110v. DC	8.10	7.70	7.29	5.67



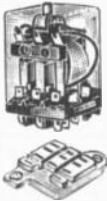
KCP-KRP HOLD DOWN SPRING

Type 9-KR-15. Insures mounting of relay in any position. Fits all KCP and KRP plug-in relays. Stainless steel spring can be moved aside for relay removal and installation. Mounting: Two 5/32" dia. holes on 1/16" centers.

Stk. No.	Type	Each	Box of 50
24F1358	9-KR-15	.15	5.50

For sockets for above listings see Amphenol pages listed in the Index.

Relays POTTER & BRUMFIELD



NEW GENERAL PURPOSE KUP SERIES

This reliable 10-ampere relay is for industrial control. The .187" terminals of the relay are of the quick-connect solder type. The KUP is enclosed in a clear, high impact plastic dust cover. Silver-cadmium-oxide contacts assure long contact life. Operation: continuous. Shpg. wt., 3 ozs.



KL MULTIPLE CONTACT RELAY

Highly versatile relay with extra-long coil permits double the ampere-turns; provides more power to actuate the relay and maintain good hold-down pressure. Silver contacts rated at 5 amps. Mounting: Two #6-32 holes on 1 1/16" centers. Weight: 5 ozs. Size: 2 1/4" x 1 3/32" x 1 1/16".

Stock No.	Type	Action	Coil	Ma.	1-24	25-50	51-99	100-249
24F2600	KUP5A15	SPDT	6VAC	10	3.70	3.52	3.33	2.59
24F2601	KUP5A15	SPDT	12VAC	10	3.70	3.52	3.33	2.59
24F2602	KUP5A15	SPDT	24VAC	10	3.70	3.52	3.33	2.59
24F2603	KUP5A15	SPDT	120VAC	10	3.70	3.52	3.33	2.59
24F2604	KUP5A15	SPDT	240VAC	10	4.10	3.90	3.69	2.87
24F2605	KUP5D15	SPDT	6VDC	10	3.55	3.37	3.20	2.49
24F2606	KUP5D15	SPDT	12VDC	10	3.55	3.37	3.20	2.49
24F2607	KUP5D15	SPDT	24VDC	10	3.55	3.37	3.20	2.49
24F2608	KUP5D15	SPDT	110VDC	10	4.15	3.94	3.74	2.91
24F2609	KUP11A15	DPDT	6VAC	10	4.50	4.28	4.05	3.15
24F2610	KUP11A15	DPDT	12VAC	10	4.50	4.28	4.05	3.15
24F2611	KUP11A15	DPDT	24VAC	10	4.50	4.28	4.05	3.15
24F2612	KUP11A15	DPDT	120VAC	10	4.50	4.28	4.05	3.15
24F2613	KUP11A15	DPDT	240VAC	10	4.90	4.66	4.41	3.43
24F2614	KUP11D15	DPDT	6VDC	10	4.05	3.85	3.65	2.84
24F2615	KUP11D15	DPDT	12VDC	10	4.05	3.85	3.65	2.84
24F2616	KUP11D15	DPDT	24VDC	10	4.05	3.85	3.65	2.84
24F2617	KUP11D15	DPDT	110VDC	10	4.65	4.42	4.19	3.26
24F2618	KUP14A15	3PDT	6VAC	10	5.05	4.80	4.55	3.54
24F2619	KUP14A15	3PDT	12VAC	10	5.05	4.80	4.55	3.54
24F2620	KUP14A15	3PDT	24VAC	10	5.05	4.80	4.55	3.54
24F2621	KUP14A15	3PDT	120VAC	10	5.05	4.80	4.55	3.54
24F2622	KUP14A15	3PDT	240VAC	10	5.45	5.18	4.91	3.82
24F2623	KUP14D15	3PDT	6VDC	10	4.65	4.42	4.19	3.26
24F2624	KUP14D15	3PDT	12VDC	10	4.65	4.42	4.19	3.26
24F2625	KUP14D15	3PDT	24VDC	10	4.65	4.42	4.19	3.26
24F2626	KUP14D15	3PDT	110VDC	10	5.05	4.80	4.55	3.54

9KUI SOCKETS

9KUI sockets for KUP relays. Rated 10 amperes, molded nylon, pierced solder terminals.

Stk No.	Type	1-24	25-50	51-99	100-249
24F2627	9KUI	.75	.71	.68	.53

PLATE CIRCUIT RELAYS

LB LOW COST PLATE CIRCUIT RELAY

Current sensitive relays designed to operate on a few milliwatts DC. Sensitivity 200 milliwatts. Silver contacts rated at 5 amps. Two 3/16" holes on 2 1/32" centers. 2 1/32" x 1 1/4" x 1 3/16". Weight: 2 ozs.



Stk. No.	Type	Action	Ohms	Ma.	1-24	25-50	51-99	100-249
24F570	LB5	SPDT	2500	9.0	2.70	2.57	2.43	1.89
24F571	LB5	SPDT	5000	6.3	2.90	2.76	2.61	2.03
24F572	LB5	SPDT	10,000	4.5	3.15	2.99	2.84	2.21

LM PLATE CIRCUIT RELAY

Operates on only 100 mw. per pole. Medium cost high quality relay with silver contacts rated at 5 amps. Pull-in adjustable by tail spring adjusting screw. Mounting: Two No. 6-32 holes on 1 1/16" centers. DC only. (See KL for voltage actuated models.) 2 3/16" x 2 1/4" x 2 1/2". Weight: 5 ozs.



Stk. No.	Type	Action	Ohms	Ma.	1-24	25-50	51-99	100-249
24F562	LM5	SPDT	2500	6.3	4.15	3.94	3.74	2.91
24F563	LM5	SPDT	5000	4.5	4.35	4.13	3.92	3.05
24F564	LM5	SPDT	10,000	3.2	4.65	4.42	4.19	3.26
24F567	LM11	DPDT	2500	9.0	5.90	5.61	5.31	4.13
24F568	LM11	DPDT	5000	6.3	6.10	5.80	5.49	4.27
24F569	LM11	DPDT	10,000	4.5	6.70	6.37	6.03	4.69

SS5D LIGHT WEIGHT, SENSITIVE RELAY

Low cost, sensitive relay for current or voltage applications. Mounting: Two No. 4-40 holes on 3/4" x 5/8" diagonal centers. SPDT bar palladium contacts rated at 2 amps. Size: 1 x 1 1/4" x 1 1/16" high. Av. Shpg. wt. 3 oz.



Stk. No.	V.DC	Ohms	Ma.	1-24	25-50	51-99	100-249
24F1173	6	335	....	2.75	2.61	2.48	1.93
24F1198	12	1350	....	2.90	2.76	2.61	2.03
24F1174	2500	5.0	3.00	2.85	2.70	2.10	2.10
24F1175	5000	3.5	3.30	3.14	2.97	2.31	2.31
24F1176	10,000	2.5	3.80	3.61	3.42	2.66	2.66

"P" CASE — CLEAR RESISTANT PLASTIC

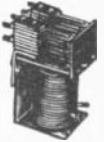
For mounting rectifiers, capacitors, or combinations. Av. Shpg. wt. 3 oz.

Stock No.	Type	Plugs	1-24	25-50	51-99	100-249
24F1322	35D070	8 pin	.60	.57	.54	.42
24F1323	35D072	11 pin	.75	.71	.68	.53



GB LOW COST PLATE CIRCUIT RELAY

115 milliwatts for single pole, 275 milliwatts for 4 pole (See GA Relay for similar voltage-actuated models.) Silver contacts rated at 5 amps. Mounting: No. 8-32 tapped core and locating half-punch. 2 1/32" x 1 3/32" x 1 1/16". Weight: 5 ozs.



Stk. No.	Type	Action	Ohms	Ma.	1-24	25-50	51-99	100-249
24F1319	GB5D	SPDT	2500	6.8	3.60	3.42	3.24	2.52
24F1320	GB5D	SPDT	5000	4.8	3.80	3.61	3.42	2.66
24F1321	GB5D	SPDT	10,000	3.4	4.30	4.09	3.87	3.01
24F1177	GB11D	DPDT	2500	7.0	5.10	4.85	4.59	3.57
24F1178	GB11D	DPDT	5000	5.0	5.20	4.94	4.68	3.64
24F1179	GB11D	DPDT	10,000	3.53	5.90	5.51	5.22	4.06
24F1181	GB17D	4PDT	5000	7.4	6.25	5.94	5.63	4.38
24F1182	GB17D	4PDT	10,000	5.25	6.70	6.37	6.03	4.69

KCP ENCLOSED PLATE CIRCUIT RELAY

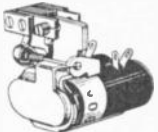
Silver contacts rated at 2 amps. Current actuated. Sensitivity: 125 milliwatts per pole. Mounting: Standard octal plug; eight pins for KCP5 and 11, 11 pins for KCP14. Clear plastic case. 1 1/32" x 1 3/32" x 2" high. Wt., 3 ozs.



Stk. No.	Type	Action	Ohms	Ma.	1-24	25-50	51-99	100-249
24F489	KCP5	SPDT	2500	7.2	6.20	5.89	5.58	4.34
24F490	KCP5	SPDT	5000	5.0	6.30	5.99	5.67	4.41
24F491	KCP5	SPDT	10,000	3.6	6.70	6.37	6.03	4.69
24F492	KCP11	DPDT	2500	10.0	6.60	6.27	5.94	4.62
24F496	KCP11	DPDT	5000	7.2	6.70	6.37	6.03	4.69
24F497	KCP11	DPDT	10,000	5.0	7.15	6.79	6.44	5.01
24F493	KCP14	3PDT	2500	12.3	8.15	7.74	7.34	5.71
24F494	KCP14	3PDT	5000	8.7	8.25	7.84	7.43	5.78
24F495	KCP14	3PDT	10,000	6.1	8.65	8.22	7.79	6.06

SS SUPER SENSITIVE RELAY

Model SS5D. 10 mw. sensitivity. Dual coils with balanced armature on needle-point bearings for precision instruments and bridge circuits. May be used as a differential relay. SPDT silver contacts rated at 2 amps. Coil 10,000 ohms 1 ma. Mounting: Two No. 6-32 holes on 2 1/16" centers. Size: 1 1/2" x 1 1/16" x 1 1/16". Wt. 3 1/2 oz.



Stk. No.	1-24	25-50	51-99	100-249
24F609	14.50	13.78	13.05	10.15

SM SUPER MIDGET RELAY

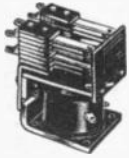
Both current and voltage actuated models available. 75 mw. sensitivity for current actuated models. Hermetically sealed. SPDT silver-rhodium contacts rated at 250 ma. Mounting: Sealed-Standard 7-pin miniature tube socket. Size: 1 1/16" above chassis, .765" dia. Wt.: 1 oz.



Stk. No.	Type	VDC	Ohms	Ma.	1-24	25-50	51-99	100-249
24F602	SMSDS	6	80	....	6.90	6.56	6.21	4.83
24F607	SMSDS	12	360	....			
24F603	SMSDS	24	900	....			
24F604	SMSLS	....	5000	3.9	7.20	6.84	6.48	5.04
24F606	SMSLS	....	10,000	2.7	7.70	7.32	6.93	5.39

LET NEWARK SUPPLY ALL YOUR ELECTRONIC NEEDS!
Seven Stocking Warehouses,
Coast-to-Coast

Relays POTTER & BRUMFIELD



GA GENERAL ALL PURPOSE RELAY
Multiple leaf relay with a wide range of contact combinations. Used for remote power switching and mobile communications equipment. (See GB for current actuated models.) Mounting: No. 8-32 tapped core with locating boss. Silver contacts rated at 5 amps. Size: 1 1/16" W x 1 23/32" L x 1 23/32" H. Weight: 3.5 ozs.

Stk. No.	Type	Action	Volts	1-24	25-50	51-99	100-249
24F1183	GA11A	DPDT	6v.AC	3.50	3.33	3.15	2.45
24F1184	GA11A	DPDT	24v.AC				
24F1185	GA11A	DPDT	120v.AC				
24F1307	GA14A	3PDT	120v.AC	4.25	4.04	3.83	2.98
24F1186	GA17A	4PDT	6v.AC	5.10	4.85	4.59	3.57
24F1187	GA17A	4PDT	12v.AC	5.10	4.85	4.59	3.57
24F1188	GA17A	4PDT	24v.AC				
24F1189	GA17A	4PDT	120v.AC				
24F1190	GA11D	DPDT	6v.DC	3.50	3.33	3.15	2.45
24F1191	GA11D	DPDT	12v.DC				
24F1192	GA11D	DPDT	24v.DC				
24F1193	GA11D	DPDT	110v.DC	4.00	3.80	3.60	2.80
24F1194	GA17D	4PDT	6v.DC	5.10	4.85	4.59	3.57
24F1195	GA17D	4PDT	12v.DC				
24F1196	GA17D	4PDT	24v.DC				
24F1197	GA17D	4PDT	110v.DC	5.80	5.32	5.04	3.82

PM SERIES RELAYS

PM series relays are rated at 25 amperes (or 1 H.P.) at 115 volts, 50/60 cycles resistive. Insulated with molded phenolic. These are 4PDT relays with silver-cadmium-oxide contacts. UL listed. Terminals are screw type with No. 8-32, BH screw. Wt., 14 oz. Size: 2 3/32" W, 3 3/16" L, 2 1/32" H.



Stock No.	Mfr. No.	Coil Volts	1-24	25-50	51-99	100-249
24F1430	PM17AY	6VAC	12.85	12.30	11.66	9.07
24F1431	PM17AY	12VAC	12.85	12.30	11.66	9.07
24F1432	PM17AY	24VAC	12.85	12.30	11.66	9.07
24F1433	PM17AY	120VAC	12.85	12.30	11.66	9.07
24F1434	PM17AY	240VAC	13.40	12.73	12.06	9.38
24F1449	PM17A	480VAC	14.30	13.59	12.87	10.01
24F1428	PM17DY	6VDC	12.40	11.78	11.16	8.68
24F1427	PM17DY	12VDC	12.40	11.78	11.16	8.68
24F1428	PM17DY	24VDC	12.40	11.78	11.16	8.68
24F1429	PM17DY	110VDC	13.00	12.35	11.70	9.10

PM COVER—35D227

Metal cover for PM only. 5 1/2 x 3 1/4 x 3 1/16".

Stock No.	1-24	25-50	51-99	100-249
24F1288	3.30	3.14	2.87	2.31

MR MEDIUM DUTY POWER RELAY

Designed for small motors and appliances. Contacts rated at 8 amps except * rated at 10 amps. Mounting: Two 5/32" dia. holes on 2 9/16" centers for 1 and 3 poles and 2 1/4" centers for 2 pole relay. Size: 2 3/32 x 2 1/4 x 1 3/4". Weight: 4 ozs.



Stock No.		Mfrs.	Normal Pos.	1-24	25-50	51-99	100-249
6v.AC	24v.AC	Type	Action				
24F1157	24F1158	MR3A	SPST*	Open	4.10	3.90	3.69
24F541	24F1159	MR5A	SPDT	.....	3.65	3.47	3.29
24F543	24F1160	MR11A	DPDT	.....	5.15	4.89	4.64

120 Volts AC

24F506	.....	MR3A	SPST*	Open	4.10	3.90	3.69	2.87
24F509	.....	MR5A	SPDT	.....	3.65	3.47	3.29	2.56
24F511	.....	MR11A	DPDT	.....	5.15	4.89	4.64	3.61
24F536	.....	MR14A	3PDT	.....	6.15	5.84	5.54	4.31

240 Volts AC

Stock No.	Mfrs.	Normal Pos.	1-24	25-50	51-99	100-249	
6V. AC	24V. AC	Type	Action				
24F534	.....	MR5A	SPDT	.....	4.10	3.90	3.69
24F535	.....	MR11A	DPDT	.....	5.55	5.27	5.00

6, 12 and 24 Volts DC

Stock No.	Mfrs.	Normal Pos.	1-24	25-50	51-99	100-249
6v.DC	12v.DC	24v.DC	Type	Action		
24F1164	24F1168	MR3D	SPST*	Open	3.70
24F550	24F1168	MR5D	SPDT	.....	3.40
24F551	24F1169	MR11D	DPDT	.....	4.90
.....	24F1171	MR14D	3PDT	.....	5.80

110 Volts DC

24FX1315	.....	.....	MR11D	DPDT	.....	5.40	5.13	4.86	3.78
24FX1316	.....	.....	MR14D	3PDT	.....	6.30	5.99	5.67	4.41

AB APPLIANCE RELAY

For appliance and general purpose applications where rugged construction, long life and quiet operation are required. All units have DPDT silver contacts rated at 10 amps. Mounting: 2 #8-32 tapped holes on 1 1/4" centers. Weight: 5 oz. Size: 3" L x 1 1/2" W x 1 1/16" H. A.C. Models U.L. Listed.



Stock No.	Mfr. Type	Coil Volts	1-24	25-50	51-99	100-249
24F1121	AB11AY	120 VAC	5.55	5.27	5.00	3.69

ABC MEDIUM POWER RELAYS

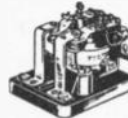
Dust cover enclosed AB relay. Used with small motors, industrial controls and similar applications. All relays have DPDT silver contacts rated at 10 amps. Snap-on terminals packed with each relay. Mounting: One #8-32 stud 3/4" long. Weight: 7 oz. Size: 2 3/4" L x 1 1/4" W x 2 3/32" H. All A.C. Models U.L. Listed.



Stock No.	Mfr. Type	Coil Volts	1-24	25-50	51-99	100-249
24F1128	ABC11AY	24 VAC	6.70	6.37	6.03	4.69
24F1129	ABC11AY	120 VAC	6.70	6.37	6.03	4.69
24F1301	ABC11D	24 VDC	6.60	6.27	5.94	4.62
24F1311	ABC11D	110 VDC	7.15	6.79	6.44	5.01

PR HEAVY-DUTY POWER RELAY

Extra rugged fast-acting power relay with full-floating movable contact carrier to provide ample contact wipe and pressure. For industrial control applications, motor loads up to 1 HP or heater loads up to 25 amps. Terminals are heavy duty screw type. Mounting: Two 5/16" dia. holes on 1 7/8" centers. Silver contacts rated at 25 amps. Size: max. w/out aux. contacts. 3 3/8" L x 2 1/16" W x 2 1/2" H. All except PR11AL5 are U/L listed. Weight, 11 ozs.



Stk. No.	Type	Action	Coil V.	1-24	25-50	51-99	100-249
24F1132	PR3AY	SPST	6 VAC	4.35	4.13	3.92	3.05
24F1133	PR3AY	Nor. Open	24 VAC	4.35	4.13	3.92	3.05
24F500	PR3AY	Double Break	120 VAC	4.35	4.13	3.92	3.05
24F350	PR3AY	Double Break	240 VAC	4.75	4.51	4.28	3.33
24F1135	PR5AY	SPDT	12 VAC	4.55	4.32	4.10	3.19
24F1136	PR5AY	SPDT	24 VAC	4.55	4.32	4.10	3.19
24F503	PR5AY	SPDT	120 VAC	4.55	4.32	4.10	3.19
24F531	PR5AY	SPDT	240 VAC	5.00	4.75	4.50	3.50
24F1137	PR7AY	DPST	6 VAC	5.15	4.89	4.64	3.61
24F538	PR7AY	DPST	120 VAC	5.15	4.89	4.64	3.61
24F1139	PR7AY	DPST	240 VAC	5.60	5.32	5.04	3.92
24F1140	PR11AY	DPDT	6 VAC	6.75	6.41	6.07	4.73
24F538	PR11AY	DPDT	24 VAC	6.75	6.41	6.07	4.73
24F505	PR11AY	DPDT	120 VAC	6.75	6.41	6.07	4.73
24F532	PR11AY	DPDT	240 VAC	7.30	6.94	6.57	5.11
24F1198	PR11AY	DPDT	480 VAC	8.20	7.79	7.38	5.74
24F1141	†PR11AL5	DPDT	6 VAC	6.55	6.12	5.70	5.99
24F1144	†PR11AL5	DPDT	120 VAC	8.55	8.12	7.70	5.99
24F1147	PR3DY	SPST-NO	110 VDC	5.00	4.75	4.50	3.50
24F579	PR5DY	SPDT	12 VDC	4.55	4.32	4.10	3.19
24F1148	PR5DY	SPDT	110 VDC	5.20	4.94	4.68	3.64
24F1150	PR7DY	DPST	24 VDC	5.15	4.89	4.64	3.61
24F1151	PR7DY	DPST	110 VDC	5.80	5.51	5.22	4.06
24F586	PR11DY	DPDT	6 VDC	6.75	6.41	6.07	4.73
24F1152	PR11DY	DPDT	12 VDC	6.75	6.41	6.07	4.73
24F578	PR11DY	DPDT	24 VDC	6.75	6.41	6.07	4.73
24F577	PR11DY	DPDT	110 VDC	7.40	7.03	6.66	5.18

†DPDT main contacts rated at 20 amps.

PR COVER—35D013

A sheet steel base with aluminum cover all finished in zinc gray baked enamel with 4 knockouts for 1/2" conduit. Mounting: 3 No. 10 holes on 1 7/8 x 1/4" centers. Shpg. wt., 1 lb.



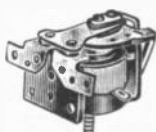
Stock No.	1-24	25-50	51-99	100-249
24FX1318	3.30	3.14	2.97	2.31

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Relays POTTER & BRUMFIELD

NEW KR3-H SERIES

Compact heavy duty relay. Copper alloy moveable contact carrier with twin 1/4" dial silver-cadmium-oxide contacts rated 20 amps @ 115V AC 60 Hz resistive, or 28V DC; 1 HP 115/230V 60 Hz. Contact arrangement: 1 Form X (SPST NO-DB). Terminals: suitable for 1/4" quick connect, also solder, for contacts; solder only for coil. Size: 1.6" x 1.671" x 1.52". Seated height: 1.21". Mtg: One 6-32 stud on .437" center.



KR3-H Series



KR3P-H Series

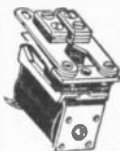
NEW KR3P-H SERIES

Similar to above, but with high impact plastic dust cover and octal plug-in base.

Stock No.	Mfr. Type	Contacts	Coil Volts	1-24	25-50	51-99	100-249
24F2628	KR3AH	SPST-NO-DB	6VAC	4.10	3.90	3.69	2.87
24F2629	KR3AH	SPST-NO-DB	12VAC	4.10	3.90	3.69	2.87
24F2630	KR3AH	SPST-NO-DB	24VAC	4.10	3.90	3.69	2.87
24F2631	KR3AH	SPST-NO-DB	120VAC	4.10	3.90	3.69	2.87
24F2632	KR3DH	SPST-NO-DB	6VDC	3.90	3.71	3.51	2.73
24F2633	KR3DH	SPST-NO-DB	12VDC	3.90	3.71	3.51	2.73
24F2634	KR3DH	SPST-NO-DB	24VDC	3.90	3.71	3.51	2.73
24F2635	KR3DH	SPST-NO-DB	110VDC	4.50	4.28	4.05	3.15
24F2636	KRP3AH	SPST-NO-DB	6VAC	6.65	6.32	5.99	4.66
24F2637	KRP3AH	SPST-NO-DB	12VAC	6.65	6.32	5.99	4.66
24F2638	KRP3AH	SPST-NO-DB	24VAC	6.65	6.32	5.99	4.66
24F2639	KRP3AH	SPST-NO-DB	120VAC	6.65	6.32	5.99	4.66
24F2640	KRP3DH	SPST-NO-DB	6VDC	6.45	6.13	5.81	4.52
24F2641	KRP3DH	SPST-NO-DB	12VDC	6.45	6.13	5.81	4.52
24F2642	KRP3DH	SPST-NO-DB	24VDC	6.45	6.13	5.81	4.52
24F2643	KRP3DH	SPST-NO-DB	110VDC	7.10	6.75	6.39	4.97

MB MINIATURE DC POWER CONTACTOR

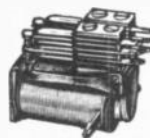
Designed for very high current applications. Switches 60 amps with SPST, normally open, double break silver contacts. Mounting: Four #3-48 holes on 3/8x3/8" centers. Weight: 2 oz. Solder terminals. Size: 1 1/8" L. x 2 1/2" W. x 1 3/8" H.



Stock No.	Mfr. Type	Coil VDC	1-24	25-50	51-99	100-249
24F612	MB3D	12	5.80	5.51	5.22	4.06
24F613	MB3D	24	5.80	5.51	5.22	4.06
24F614	MB3D	110	6.20	5.89	5.58	4.34

MH MINIATURE TELEPHONE RELAY

DC Models withstand 0.065" double amplitude vibrations from 10-55 cps. Sealed AC's operate with built-in rectifier, 4.5-ma current actuated, 10,000 ohm coil. Mtg. MH11L has #6-32 stud, 1 1/2" long locating boss. Other open relays have 4, #3-48 holes on 3/8" ctrs. Sealed units have 3, #6-32 studs, 1 1/8" long on 1 1/4x1/2" ctrs. Weight Sealed: 5 oz.; open: 2 1/2 oz. Silver contacts rated at 5 amps except † 3 amps. **Herm. sealed. Size Open: 1 1/2"L. x 3/4"W. x 1 3/8"H.



Stk. No.	Mfr. Type	Contacts	Coil V	1-24	25-50	51-99	100-249
24F1115	MH11L†	DPDT	10,000 Ohms	6.25	5.94	5.63	4.38
24F1118	MH11LM**†	DPDT	10,000 Ohms	10.60	10.07	9.54	7.42
24F1113	MH17D	4PDT	6 VDC	6.25	5.94	5.63	4.38
24FX1296	MH17D	4PDT	12 VDC	6.25	5.94	5.63	4.38
24F620	MH17D	4PDT	24 VDC	6.25	5.94	5.63	4.38
24FX1297	MH17DM**	4PDT	12 VDC	12.65	12.02	11.39	8.86
24F622	MH17DM**	4PDT	24 VDC	12.65	12.02	11.39	8.86
24F1117	MH17AMR**	4PDT	120 VAC	20.65	19.62	18.59	14.46
24FX1298	MH23D	6PDT	24 VDC	7.90	7.51	7.11	5.53
24FX1299	MH23D	6PDT	110 VDC	8.40	7.98	7.56	5.88

BU AC-OPERATED BUZZERS

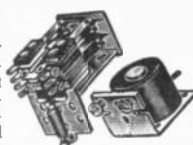
Steel armature buzzes when coil is energized. Mtg.: #6-32 tapped core.

Stk. No.	Volts	Ohms	1-24	25-50	51-99	100-249
24F2483	6	2.75	1.85	1.80	1.67	1.30
24F2484	12	13.25	1.85	1.80	1.67	1.30
24F2485	24	50.00	1.85	1.80	1.67	1.30
24F2486	115	1250.00	1.85	1.80	1.67	1.30

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GP "PIC & BUILD" KIT

Units can be combined to produce twenty different relays and design different sensitivities or switches for different contact arrangements. Mtg: permits rapid changing of coils for #8-32 tapped core and locating half punch. Silver contacts rated at 5 amps. Wt. Av. 4 oz.

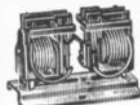


Stock No.	Mfr's Type	Item	1-24	25-50	51-99	100-249
24F1200	GPA	6v. AC Coil	1.75	1.66	1.58	1.23
24F1201	GPA	12v. AC Coil	1.75	1.66	1.58	1.23
24F1203	GPA	120v AC Coil	1.75	1.66	1.58	1.23
24F1211	GP11	DPDT Switch	1.80	1.71	1.62	1.26
24F1212	GP17	4PDT Switch	3.10	2.95	2.79	2.17
24F2644	GPD	6VDC	2.20	2.09	1.98	1.54
24F2645	GPD	12VDC	2.20	2.09	1.98	1.54
24F2646	GPD	24VDC	2.20	2.09	1.98	1.54
24F2647	GPD	110VDC	3.30	3.14	2.97	2.31
24F2648	GPD	2.5K Ohms	1.60	1.52	1.44	1.12
24F2649	GPD	5K Ohms	1.85	1.80	1.67	1.30
24F2650	GPD	10K Ohms	2.20	2.09	1.98	1.54

KB SERIES

LATCHING RELAY

Dual coil relay for latching, memory work or overload application. Operates on momentary impulse to either coil. Silver contacts rated at 5 amps except * 10 amps. Mtg.: Two 3/8" dia. holes on 1 1/8" centers. Wt.: 6 ozs. Size: 2 1/8" x 1 1/2" x 2 3/8". AC relay with 5 amp contacts U.L. listed.



Stock No.	Mfr's Type	Action	Coil Volts	1-24	25-50	51-99	100-249
24F629	KB17AY	4PDT	6 AC	11.05	10.50	9.95	7.74
24F617	KB17AY	4PDT	12 AC	11.05	10.50	9.95	7.74
24F631	KB17AY	4PDT	120 AC	11.05	10.50	9.95	7.74
24F1249	KB17AG	4PDT	24 AC*	11.15	10.59	10.04	7.81
24F1250	KB17AG	4PDT	120 AC*	11.15	10.59	10.04	7.81
24F632	KB17D	4PDT	6 DC	9.90	9.41	8.91	6.93
26F618	KB17D	4PDT	12 DC	9.90	9.41	8.91	6.93
24F633	KB17D	4PDT	24 DC	9.90	9.41	8.91	6.93
24F619	KB17D	4PDT	110 DC	11.20	10.64	10.08	7.84
24F1355	KB17DG	4PDT	24DC*	10.15	9.64	9.14	7.11

GM SERIES IMPULSE SEQUENCING RELAYS

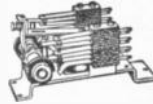
Especially suitable for applications where single coil latching is desirable. The 2 Form C contact arrangement is switched alternately by cams. Positive switching is by indirect action during drop-out of the armature. All contacts are rated at 3 amps, 115V AC (non-inductive). Available with AC or DC coils. Mounting: 8-32 tapped core with a locating boss. *All Double Action DPDT. Weight: with aux. contacts 4 1/4 oz.; without aux. contacts 4 oz.



Stk. No.	Type	Action	Coil Volts	1-24	25-50	51-99	100-249
24F2470	GM11A	DPDT	24 AC	7.60	7.22	6.84	5.32
24F2471	GM11A	DPDT	120 AC	7.60	7.22	6.84	5.32
24F2472	GM11AL11	DPDT*	24 AC	10.80	10.26	9.72	7.56
24F2473	GM11AL11	DPDT*	120 AC	10.80	10.26	9.72	7.56
24F2474	GM11D	DPDT	12 DC	7.30	6.94	6.57	5.11
24F2475	GM11D	DPDT	24 DC	7.30	6.94	6.57	5.11
24F2476	GM11D	DPDT	110 DC	7.80	7.41	7.02	5.46
24F2477	GM11DL11	DPDT*	12 DC	10.60	10.07	9.54	7.42
24F2478	GM11DL11	DPDT*	24 DC	10.60	10.07	9.54	7.42
24F2479	GM11DL11	DPDT*	110 DC	11.10	10.55	9.99	7.77

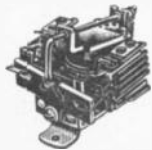
AP RATCHET IMPULSE RELAY

Compact unit for applications requiring on-off or reversing action on alternate impulses. Operates on 60 ms. pulses. Intermittent duty. Silver contacts rated at 5 amps. Mtg.: Three 3/8" dia. holes on 3 3/8" x 7/8" triangular centers. Wt. 7 ozs. Size 2 3/8" x 2 1/4" x 3 3/4".



Stock No.	Mfr's Type	Action	Coil Volts	1-24	25-50	51-99	100-249
24F1231	AP11A	DPDT	6v AC	9.20	8.74	8.28	6.44
24F1232	AP11A	DPDT	12v AC	9.20	8.74	8.28	6.44
24F1233	AP11A	DPDT	24v AC	9.20	8.74	8.28	6.44
24F1234	AP11A	DPDT	120v AC	9.20	8.74	8.28	6.44
24F1235	AP11A	4PDT	240v AC	9.70	9.22	8.73	6.79
24F1238	AP17A	4PDT	24v AC	11.15	10.59	10.04	7.81
24F1239	AP17A	4PDT	120v AC	11.15	10.59	10.04	7.81
24F1241	AP11D	DPDT	6v DC	9.20	8.74	8.28	6.44
24F1243	AP11D	DPDT	24v DC	9.20	8.74	8.28	6.44
24F1247	AP17D	4PDT	24v DC	11.15	10.59	10.04	7.81
24F1248	AP17D	4PDT	110v DC	11.85	11.26	10.66	8.30

POTTER & BRUMFIELD Special Purpose Relays



PC ALTERNATE PULSE RELAY
Conventional armature relay operated by 60-ms pulses. Armature actuates phenolic rocker to transfer contacts between alternate positions. For on-off or alternate mode switching. Gold-flashed silver cadmium oxide 7 1/2-amp. contacts. Mtg.: Two 9/32" diam. holes on 2 1/4" centers. Wt., 5 oz. 2 1/8 x 2 1/8 x 1 1/8" H.

Stk. No.	Type	Action	Coil V.	1-24	25-50	51-99	100-249
24F636	PC11A	DPDT	115 AC	5.90	5.61	5.31	4.13
24F638	PC17A	4PDT	24 AC	8.15	7.74	7.34	5.71
24F639	PC17A	4PDT	115 AC	8.15	7.74	7.34	5.71
24F641	PC11D	DPDT	24 DC	5.70	5.42	5.13	3.99
24F643	PC17D	4PDT	24 DC	7.95	7.55	7.16	5.57



KM SUBMINIATURE RELAYS
Subminiature relay for use where size and weight are critical factors. Simple to install and wire into circuit. Silver contacts rated at 2 amps. Terminals are solder lug type. Mounting: No. 2-56 tapped core with locating boss. Size: 1 1/8" L x 3/64" W x 3/64" H. Wt., 1 oz.

Stk. No.	Type	VDC	Action	1-24	25-50	51-99	100-249
24F1268	KM11D	6	DPDT	3.95	3.75	3.56	2.77
24F1269	KM11D	12	DPDT	3.95	3.75	3.56	2.77
24F1270	KM11D	24	DPDT	3.95	3.75	3.56	2.77
24F1271	KM14D	6	3PDT	4.55	4.32	4.10	3.19
24F1272	KM14D	12	3PDT	4.55	4.32	4.10	3.19
24F1273	KM14D	24	3PDT	4.55	4.32	4.10	3.19



KT ANTENNA SWITCHING RELAY
Glass base insulation to minimize RF losses. Used to switch common transmitter-receiver antenna using 300-ohm line. Silver contacts rated at 5 amps. Mounting: 6-32 stud. Weight: 1.5 oz. Size: 1 1/8" L x 1 1/4" W x 1 1/8" H.

Stk. No.	Type	Coil V.	Action	1-24	25-50	51-99	100-249
24F1275	KT11A	115AC	DPDT	3.90	3.71	3.51	2.73
24F1277	KT11D	12DC	DPDT	3.90	3.71	3.51	2.73

COMPUTER and DATA PROCESSING APPLICATION

4-pole relay with long life operating 4PDT contacts switch loads from dry circuit to 3 amps at 30VDC or 115VAC. Power: 0.5 W min. and 0.9 W max. at 3 amps. Temp.: -45°C to +70°C. Pull-in time less than 15ms.

KHP: Size 1 1/8" L x 5/16" W x 1 1/8" H. Wt., 1 1/2 oz. Nylon dust cover.

KHS: Size 1 1/2" L x 2 1/8" W x 1 1/2" H. Wt., 1 1/2 oz. Hermetically sealed. (*) Silver Cadmium-oxide contacts.



Stock No.	Type	DC Voltage	Ohms	1-24	25-50	51-99	100-249
24F1390	KHP17D11	6	40	5.05	4.80	4.55	3.54
24F1391	KHP17D11	12	160	5.05	4.80	4.55	3.54
24F1392	KHP17D11	24	650	5.05	4.80	4.55	3.54
24F1393	KHP17D11	48	2600	5.25	4.99	4.73	3.68
24F1394	KHP17D11	90	9000	5.90	5.61	5.31	4.13
24F1395	KHP17D11	110	11000	5.90	5.61	5.31	4.13
24F2561	KHS17D11	6	40	8.55	8.12	7.70	5.99
24F2562	KHS17D11	12	160	8.55	8.12	7.70	5.99
24F2563	KHS17D11	24	650	8.55	8.12	7.70	5.99
24F2564	KHS17D11	110	11000	9.40	8.93	8.46	6.58
24F1697	KHP17D12*	24	650	5.20	4.85	4.68	3.64
24F1698	KHP17D12*	110	11000	6.05	5.75	5.45	4.24

AC VOLTS

Stk. No.	Type	DC Voltage	Ohms	1-24	25-50	51-99	100-249
24F1661	KHP17A11	6	10.5	5.55	5.27	5.00	3.89
24F1662	KHP17A11	12	43	5.55	5.27	5.00	3.89
24F1663	KHP17A11	24	160	5.55	5.27	5.00	3.89
24F1664	KHP17A11	115	3900	6.05	5.75	5.45	4.24
24F2557	KHS17A11	6	10.5	9.55	9.07	8.60	6.69
24F2558	KHS17A11	12	43	9.55	9.07	8.60	6.69
24F2559	KHS17A11	24	160	9.55	9.07	8.60	6.69
24F2560	KHS17A11	115	3900	9.90	9.41	8.91	6.93

HC SERIES RELAYS

A micro-miniature, non-polarized, non-latching half-size crystal case relay. High torque motor structure and bifurcated gold-plated silver DPDT contacts rated dry circuit to 2 amps @ 28 VDC (or 814 ohms) resistive. Nominal power: .72W. Temperature range: -55°C to +125°C. Hermetically welded. Meets or exceeds all applicable sections of MIL-R-5757D/9, and complies with MSFC-SPEC-399. .8x.4x.4". Shpg. wt., 1/4 oz.

Stock No.	Type	Voltage	Description	1-24	25-50	51-99	100-249
24F2596	HC11D	24VDC	plug-in case	17.50	16.63	15.75	12.25
24F2597	HC11DA	24VDC	hook-end sold. term	17.50	16.63	15.75	12.25
24F2598	HC11DB	24VDC	like HC11DA with flat mtg. plate	17.50	16.63	15.75	12.25

P&B SOCKETS FOR COMPUTER AND DATA PROCESSING RELAYS

Stock No.	Type	Description	1-24	25-50	51-99	100-249
24F1396	9KH-1	Sold. Term Skt.	.66	.63	.59	.46
24F1397	9KH-2	P.C. Socket	.66	.63	.59	.46

SC MICRO-MINIATURE PERMANENT MAGNET D.C. RELAY

High shock/vibration relay conforms with standard crystal-case relay dimensions and circuitry. Coil circuit polarized; positive terminal marked with red dot. Mounting: Plug-in for printed circuit or receptacle; shoulder bracket** with two 0.014" x 0.136" holes on 1.062" centers; mounting plate*** DD-plain case w/hook end solder terminals. **2#4-40 Studs. 0.54" ctrs. Wt. 3/4 oz. Gold-0.795" x 0.359" x 0.890" above the chassis. All DPDT.

Stk. No.	Type	Mtg.	VDC	1-24	25-50	51-99	100-249
24FX1360	SC11D	•	6	18.10	17.20	16.29	12.67
24FX1361	SC11D	•	12				
24F1280	SC11D	•	24				
24FX1369	SC11DA	•	6				
24FX1384	SC11DA	•	12				
24F1281	SC11DA	•	24				
24F1282	SC11DB	•••	24				
24FX1386	SC11DC	••••	24				
24FX1387	SC11DD	••••	24				

SOCKET FOR PLUG-IN SC RELAYS

Stk. No.	Type	Description	1-99	100-up per 100
29FX729	54A20730	Socket	.45	22.50



SL MAGNETIC LATCHING D.C. RELAY

Dual coil latching relay for low power, high shock/vibration uses. Requires connections to both coils or a reversing power source applied to the two coils in series. Operates on 1 watt, 3-ms pulses to either coil. Remaining specifications identical to SC. All DPDT.

Stk. No.	Type	Mtg.	VDC	1-24	25-50	51-99	100-249
24FX1373	SL11D	•	6	19.85	18.86	17.87	13.90
24F1283	SL11D	•	24				
24FX1377	SL11DA	•	12				
24F1284	SL11DA	•	24				
24FX1379	SL11DB	•	6				
24FX1380	SL11DB	•	12				
24F1285	SL11DB	•	24				
24FX1388	SL11DC	•••	24				
24FX1389	SL11DD	•••	24				

TYPE FL MICRO-MINIATURE LATCHING RELAY

Hermetically sealed relay. Particularly designed for use in printed circuit applications. The terminals are plug-in pins to afford fast interchangeability. Coil resistance is 10,000 ohms per coil. The transfer time is .5 millisecond maximum. The terminals are arranged in a grid layout of multiples of 0.1". Weight: .75 ounces. DPDT silver contacts rated at 3 amps. @ V.D.C. 1.1x.925x.485".

Stk. No.	Type	Volts	1-24	25-50	51-99	100-249
24F1286	FL11D	6 VDC	20.15	19.14	18.14	14.11
24F1287	FL11D	12 VDC				
24F1288	FL11D	24 VDC				

FC SERIES RELAYS

Conventional micro-miniature relay lies flat on printed circuit board. Contact arrangement: DPDT. Rated 3 amps. .65W.

Stock No.	Type	Coils		1-24	25-50	51-99	100-249
		Volt.	Ohms				
24F2487	FC11D	6VDC	60	17.90	17.01	16.11	12.53
24F2488	FC11D	12VDC	210	17.90	17.01	16.11	12.53
24F2489	FC11D	24VDC	900	17.90	17.01	16.11	12.53
24F2490	FC4037	26.5VDC	.....	17.90	17.01	16.11	12.53

TL SERIES MAGNETIC LATCHING RELAYS

High performance 4PDT micro-miniature magnetic latching relay for severe environments. Encapsulated and hermetically sealed coils within hermetically sealed relay case can't contaminate contacts by outgassing. Approx. 0.5 ms transfer time. Temperature range: -55°C to 125°C. Mountings: D-plain case, plug-in header; DA-shoulder brackets .300" from base, hook-end solder; DB-flatplate, .593" x 1.60". 4-.125 dia. holes on .281" x 1.30" centers, hook-end solder. Shpg. wt. 2 oz.

Stk. No.	Type	Action	Coil Volts	1-24	25-50	51-99	100-249
24F2480	TL17D	4PDT	24 DC	28.75	28.21	26.88	20.13
24F2481	TL17DA	4PDT	24 DC	28.75	28.21	26.88	20.13
24F2482	TL17DB	4PDT	24 DC	28.75	28.21	26.88	20.13

Relays POTTER & BRUMFIELD

DC SOLID STATE TIME DELAY RELAYS

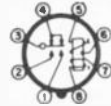
Knob adjustment for entire time range. Timing accuracy $\pm 10\%$. Repeatability, $\pm 2\%$. Plastic enclosures. All delay on operate except **CDB-38-70012 and CDD-38-10012 are delay on release. CDB-38 and CDD-38 have internal DPDT 10-amp relay. Timers only for use with P&B relays: *KRPSAG, KRPI1AG, KRPI4AG; †KRPSDG, KRPI1DG, KRPI4DG, †PRPI1AY-115VAC. ‡KHPI7D11 (adjustable delay, 1.88-180 sec. by connecting $\frac{1}{2}$ watt resistors)



Specifications	CH SERIES	CD SERIES
Dial Setting.....	Reference scale	Time-calibrated $\pm 5\%$ of full scale
Temperature.....	-10°C to $+55^\circ\text{C}$	-40°C to $+55^\circ\text{C}$
Accuracy Over Temp. and Voltage Range	$\pm 10\%$ of nominal	$\pm 5\%$ of nominal
Transient Protection	Twice rated impulse voltage 8 milliseconds	Tested to 1000V- $\frac{1}{2}$ cycle surges (on all 115V AC models)
Inherent False Oper.	Contacts transfer mom. if timing interval is interrupted	None
Reset Time..	100 milliseconds	60 milliseconds
Repeatability	$\pm 2\%$	$\pm 1\%$
Polarity Reversal Protection on DC	Yes	Yes

Stock No.	Type	Input Volts	Delay Sec.	1-9	10-24	25-49	50-99
24F2881	CHB38-30001	24VAC	1.0-10	18.50	17.58	16.65	14.80
24F2882	CHB38-30003	24VAC	1.0-180	18.50	17.58	16.65	14.80
24F2883	CHB38-70001	115VAC	1.0-10	18.50	17.58	16.65	14.80
24F2884	CHB38-70003	115VAC	1.0-180	18.50	17.58	16.65	14.80
24F2885	CHD38-30001	24VDC	1.0-10	17.50	16.63	15.75	14.00
24F2886	CHD38-30003	24VDC	1.0-180	17.50	16.63	15.75	14.00
24F2887	CHB38-70011	115VAC	1.0-10	22.50	21.38	20.25	18.00
24F2888	CHB38-70013	115VAC	1.0-180	22.50	21.38	20.25	18.00
24F2889	CHD38-30011	24VDC	1.0-10	20.50	19.47	18.45	16.40
24F2890	CHD38-30013	24VDC	1.0-180	20.50	19.47	18.45	16.40
24F1875	CDB-38-70003	115VAC	0.1-10	43.80	41.61	39.42	35.04
24F1876	CDB-38-70004	115VAC	0.6-60	43.80	41.61	39.42	35.04
24F1877	CDB-38-70005	24VDC	1.8-10	43.80	41.61	39.42	35.04
24F1878	CDD-38-30003	24VDC	0.1-10	41.55	39.48	37.40	33.24
24F1879	CDD-38-30004	24VDC	0.6-60	41.55	39.48	37.40	33.24
24F1880	CDD-38-30005	115VAC	1.8-180	41.55	39.48	37.40	33.24
24F1881	CDB-21-70003*	115VAC	0.1-10	38.70	36.76	34.83	30.96
24F1882	CDB-21-70001*	24VDC	1.8-100	38.70	36.76	34.83	30.96
24F1883	CDD-21-30003†	24VDC	0.1-10	38.35	36.44	34.52	30.68
24F1884	CDD-21-30001†	24VDC	1.8-180	38.35	36.44	34.52	30.68
24F1885	CDH-31-30005‡	24VDC	180 Max.	38.90	36.99	35.09	31.12
24F1886	CDB-45-70002††	115VAC	0.6-60	37.05	35.20	33.35	29.64
24F1887	CDB-38-70012**	115VAC	0.6-60	52.45	49.83	47.21	41.96
24F1888	CDD-38-30012**	25VDC	0.6-60	49.50	47.02	44.55	39.60

SPECIAL PURPOSE RELAYS



JM MERCURY-WETTED CONTACT RELAYS

Designed for long high speed versatility of operation; computing systems, data processing, missile control, etc. Glass capsule contains 2 sets of contacts with mercury reservoir. Hermetically sealed in hydrogen. Rating—500V-54; 250 VA contact protection. Timing—Contact speed up to 100 operations/second; 60 operations—2 and 4 capsule—3 Mi/sec.; 4 Mi/sec.—2 capsule; 5 Mi/sec.—4 capsule. Resistance 25-50 milliohms. Dielectric—Double buffer coils. 1000V-60cy. Will withstand 10G's 10-500 cps. Wt. 4 oz.

SINGLE CAPSULE—Single Coils

Stk. No.	Type	Ohms	Fig.	1-9	10-24	25-99
24F1680	JM1-109-12	130	C	14.75	11.50	10.77
24F1681	JM1-112-11	500	B	14.75	11.50	10.77
24F1682	JM1-114-11	700	B	14.75	11.50	10.77
24F1683	JM1-114-12	700	C	14.75	11.50	10.77
24F1684	JM1-118-11	2500	B	15.00	11.70	10.97
24F1685	JM1-119-11	4000	B	8.55	8.55	8.55
24F156	JM1-119-12	4000	C	15.55	12.13	11.35
24F1686	JM1-120-11	7000	B	15.55	12.13	11.35
24F1687	JM1-121-11	11000	B	15.55	12.13	11.35
24F1688	JM1-123-11	25000	B	15.55	12.13	11.35

SINGLE CAPSULE—Dual Coil

Stk. No.	Type	Ohms	Fig.	1-9	10-24	25-99
24F1689	JM1-405-51	(1) 700 (2) 3300	D	17.00	13.26	12.41

DOUBLE CAPSULE—Single Coil

Stk. No.	Type	Ohms	Fig.	1-9	10-24	25-99
24F2157	JM2-104-22	50	A			
24F2158	JM2-109-22	315	A			
24F2159	JM2-110-22	500	A			
24F1690	JM2-111-22	700	A	23.95	18.68	17.48
24F2160	JM2-112-22	1250	A			
24F2162	JM2-115-21	5000	G			
24F1691	JM2-115-22	5000	A			

THREE CAPSULE—Single Coil

Stk. No.	Type	Ohms	Fig.	1-9	10-24	25-99
24F2166	JM3-111-31	700				
24F2167	JM3-112-31	1250		31.00	24.18	22.63
24F2168	JM3-115-31	5000				

FOUR CAPSULE—Single Coil

Stk. No.	Type	Ohms	Fig.	1-9	10-24	25-99
24F2170	JM4-106-41	65	E			
24F2171	JM4-110-41	390	E			
24F2172	JM4-110-42	390	F			
24F2173	JM4-112-41	700	E			
24F1692	JM4-114-41	1400	E	39.90	31.12	29.13
24F1693	JM4-114-42	1400	F			
24F2175	JM4-117-42	4000	F			
24F1694	JM4-118-41	6500	E			
24F1695	JM4-119-42	10000	F			

JMP POLARIZED MERCURY-WETTED CONTACT RELAYS

JMP relays utilize the same capsule with the same general ratings as the JM series. However, greater sensitivity is achieved by permanent magnet biasing. These magnets are factory adjustable over a wide range of operating characteristics. All JMP relays mount in Amphenol 77-MIP-8 sockets. Size: Diameter, 1.31" max.; Seated height 3.105" max.; Overall height 3.665"

JML NON-BRIDGING MERCURY-WETTED CONTACT RELAYS

JML relays employ a Form C non-bridging (break-before-make) contact arrangement. They provide greater sensitivity, faster operation, and somewhat lower contact ratings than the JMP relays. JML relays have a sensitivity approximately six times that of the JMP. Speeds from 3 ms to 1.1 ms are possible, depending upon coil power. Contacts are rated 2 amps max., 500V max. with contact protection. All JML relays mount in Amphenol 77-MIP-8 sockets. Size: Diameter 1.312" max.; Seated height 2.640" max.; Overall height 3.303" max. Weight: 4 ozs.

SINGLE-SIDE-STABLE

Stk. No.	Type	Ohms	1-9	10-24	25-99
24F2189	JML-1061-81	40	12.20	9.52	8.91
24F2190	JML-1110-81	350	12.20	9.52	8.91
24F2191	JML-1160-81	1000	12.20	9.52	8.91
24F2192	JML-1190-81	2500	13.00	10.14	9.49
24F2193	JML-1200-81	4000	13.00	10.14	9.49
24F2194	JML-1260-81	25000	14.30	11.15	10.44

BI-STABLE

Stk. No.	Type	Ohms	1-9	10-24	25-99
24F2197	JML-5200-81	4000	13.00	10.14	9.49
24F2198	JML-5430-82	1100/1100	14.30	11.15	10.44

CHOPPER

Stk. No.	Type	Ohms	1-9	10-24	25-99
24F2199	JML-8130-81	600	12.70	9.91	9.27

NEW JMF PRINTED CIRCUIT MODULE RELAYS

JMF relays utilize the same capsule as the JML series, but are designed for mounting on printed circuit boards. They employ a Form C SPDT break-before-make non-bridging contact arrangement. Contacts are rated 2 amps max.; 500 volts max. with contact protection. Details of a simple protection circuit are packed with every relay. Size: Width .612"; Mounted height .625" max.; Length 2.062". Weight 1.25 ozs.

SINGLE-SIDE-STABLE

Stk. No.	Type	Ohms	1-9	10-24	25-99
24F2550	JMF-1020-61	65			
24F2551	JMF-1070-61	450			
24F2552	JMF-1080-61	675	9.40	7.33	6.86
24F2553	JMF-1120-61	1425			
24F2554	JMF-1150-61	2400			
24F2555	JMF-1160-61	4000			

BI-STABLE

Stk. No.	Type	Ohms	1-9	10-24	25-99
24F2556	JMF-5080-61	675	9.40	7.33	6.86

CHOPPER

Stk. No.	Type	Ohms	Fig.	1-9	10-24	25-99
24F2186	JMP-8120-12	500	C	16.50	12.87	12.05
24F2187	JMP-8200-12	4000	C	17.65	13.77	12.88

Switches & Relays

POTTER & BRUMFIELD RELAYS



MDP SMALL POLARIZED RELAYS

Small size, ultra-sensitivity and high speed switching together with efficient, bounce free contact action. For Bi-stable or Center-stable operation. Temperatures: -60°C to +85°C. Size: 1 1/16" sq. x 1 3/16" H (seated). Equipped with a plastic dust cover and 8 or 12 pin slugs. Ship wt. 4 1/4 oz.

CENTER STABLE

Stock No.	Type	MA	Ohms	1-9	10-49	50-249
24F2839	MDP-306-5	1.5	250	33.40	30.06	28.39
24F2840	MDP-1001	1.75	12	25.55	23.00	21.72
24F2841	MDP-1004	0.49	130	25.55	23.00	21.72
24F2842	MDP-1006	0.32	330	25.55	23.00	21.72
24F2843	MDP-1007	0.27	480	25.55	23.00	21.72
24F2844	MDP-1008	0.23	900	25.55	23.00	21.72
24F2845	MDP-1009	0.18	1460	25.55	23.00	21.72
24F2846	MDP-1011	0.10	3500	25.55	23.00	21.72
24F2847	MDP-1013	0.067	7200	25.55	23.00	21.72
24F2848	MDP-2001	3.50	6	25.55	23.00	21.72
24F2849	MDP-2008	0.46	360	25.55	23.00	21.72
24F2850	MDP-2009	0.32	1000	25.55	23.00	21.72
24F2851	MDP-2011	0.17	2300	25.55	23.00	21.72
24F2852	MDP-2101	5.30	6	25.55	23.00	21.72
24F2853	MDP-2107	0.80	240	25.55	23.00	21.72
24F2854	MDP-2112	0.22	3300	25.55	23.00	21.72

BI-STABLE

Stock No.	Type	MA	Ohms	1-9	10-49	50-249
24F2855	MDP-300-1	1.5	150	22.35	20.12	19.00
24F2856	MDP-900-1	2.0	150	29.00	26.10	24.65
24F2857	MDP-930-1	2.4	150	29.55	26.60	25.12
24F2858	MDP-1300-1	1.4	150	22.35	20.12	19.00
24F2859	MDP-1300-8	0.28	4000	22.35	20.12	19.00

PW HERMETICALLY SEALED RELAY



A miniature tube sensitive relay available in voltage or current actuated models. Sensitivity: Voltage: 180 mw.; current: 40 mw. Precision, light weight relay with 10g vibration to 500 cps. Silver SPDT contacts rated at 2 amps. Mounting: Standard 7-pin miniature tube base. Weight: 1 oz. Size: 1 1/16" high above socket, .765" dia.



JR DRY REED RELAYS

Relays for computer circuits and other data processing equipment. Glass supported nylon insulated. Voltage: 500 volts rms 60 Hz, between insulated points. 250 volts rms 60 Hz between open contacts. Operate time: 3 ms. @ nom. coil voltage @ 25°C. Coil power: 1 capsule-240 mw; 2 capsules-360 mw; 3 capsules-720 mw; 4 capsules-960 mw.

Stock No.	Type	No. Cav	Coil Nom. Volt	Coil Ohms	Con. Arr.	Reed Rating Watts	1-24	25-50	51-99	100-249
24F2860	JR1000	1	6	150	1A	15	2.65	2.52	2.39	1.86
24F2861	JR1001	2	6	100	2A	15	3.55	3.37	3.20	2.49
24F2862	JR1003	4	6	37.5	4A	15	4.95	4.70	4.46	3.47
24F2863	JR1084	3	6	50	1A&1B	15	4.40	4.18	3.96	3.08
24F2864	JR1040	1	6	150	1C	10	6.65	6.32	5.99	4.66
24F2865	JR1020	1	6	150	1A	50	3.75	3.56	3.29	2.63
24F2866	JR1021	2	6	100	2A	50	5.75	5.46	5.18	4.03
24F2867	JR1005	1	12	600	1A	15	2.65	2.52	2.39	1.86
24F2868	JR1006	2	12	400	2A	15	3.55	3.37	3.20	2.49
24F2869	JR1008	4	12	150	4A	15	4.95	4.70	4.46	3.47
24F2870	JR1086	3	12	200	1A&1B	15	4.40	4.18	3.96	3.08
24F2871	JR1045	1	12	600	1C	10	6.65	6.32	5.99	4.66
24F2872	JR1025	1	12	600	1A	50	3.75	3.56	3.29	2.63
24F2873	JR1026	2	12	400	2A	50	5.75	5.46	5.18	4.03
24F2874	JR1010	1	24	2400	1A	15	3.10	2.95	2.79	2.17
24F2875	JR1011	2	24	1600	2A	15	3.80	3.61	3.42	2.66
24F2876	JR1013	4	24	600	4A	15	5.20	4.94	4.68	3.69
24F2877	JR1088	3	24	800	1A&1B	15	4.65	4.42	4.19	3.26
24F2878	JR1050	1	24	2400	1C	10	6.95	6.60	6.26	4.87
24F2879	JR1030	1	24	2400	1A	50	4.00	3.80	3.60	2.80
24F2880	JR1031	2	24	1600	2A	50	6.00	5.70	5.40	4.20

Stk. No.	Type	Volts	Ohms	Ma.	1-24	25-50	51-99	100-249
24F556	PW5DS	6VDC	202	.....	11.30	10.74	10.17	7.91
24F557	PW5DS	12VDC	810	.....	11.30	10.74	10.17	7.91
24F555	PW5DS	24VDC	3240	.....	11.30	10.74	10.17	7.91
24F558	PW5LS	.....	5000	2.8	11.65	11.07	10.48	8.16
24F559	PW5LS	.....	10,000	2.0	12.10	11.50	10.89	8.47

ELECTRONICS CONTROLS, INC.

T-BAR® SWITCHES

- Fine silver gold-bonded contacts.
- Dust tight enclosure

Specifications for all T-Bar Switches and Relays... Contact Ratings: Noninductive. 150 W, 3 amps make and break 500 W, 5 amps carry. Fine silver gold bonded contacts: Silver. Double throw. For 50,000 minimum life cycle. Dielectric: Terminal-To-Case™ 1000 VAC at standard sea level and 20°C. Terminal-To-Terminal; 1,000 VAC at standard sea level and 20°C.

Off-On and Make-Or-Break Variety BAT HANDLE TOGGLE SWITCHES

Stock No.	Type No.	Pls.	1-24	25-49	50-74	75-99	100-249	250-499
59F724	802-4C	4	7.74	7.37	7.00	6.66	5.30	5.04
59F725	802-8C	8	9.81	9.32	8.86	8.42	6.73	6.39
59F726	802-12C	12	10.87	10.33	9.80	9.31	7.45	7.08
59F729	802-24C	24	21.32	20.28	19.26	18.33	14.67	13.96
59F731	802-36C	36	29.50	28.04	26.58	25.26	20.26	19.24
59F744	802-48C	48	53.10	48.00	43.00	38.70	34.80	33.00
59F745	802-60C	60	66.60	60.00	54.00	48.50	43.70	41.50
59F746	802-72C	72	80.00	72.00	65.00	59.10	53.00	50.30
59F747	802-84C	84	93.00	83.60	75.50	68.00	61.20	58.00
59F748	802-96C	96	108.00	95.50	86.00	77.50	69.70	66.30
59F749	802-108C	108	120.00	108.00	97.00	87.80	79.50	75.50

T-BAR® SWITCH/RELAYS

Controls up to 48 circuits simultaneously! Maximum operate time 30 milliseconds. Relay specifications: Temperature Range: -55°C to +85°C. Center to Center spacing: 1 1/2". Gold-bonded fine silver contacts. Terminals: Solder tab, also mates with connector (see below). Dust-tight; contact enclosures. 20,000,000 mechanical life cycle.

Stock No.	Type No.	Pls.	1-24	25-49	50-74	75-99	100-249	250-499
59F700	801-4C24	4	8.58	8.14	7.73	7.35	5.89	5.48
59F701	801-8C24	8	11.33	10.78	10.42	9.90	7.72	7.54
59F702	801-12C12	12	13.09	12.43	11.83	11.22	8.97	8.53
59F703	801-12C24	12	13.09	12.43	11.83	11.22	8.97	8.53
59F750	801-12C28	12	13.09	12.43	11.83	11.22	8.97	8.53
59F704	801-12C48	12	13.09	12.43	11.83	11.22	8.97	8.53
59F705	801-12C110	12	13.09	12.43	11.83	11.22	8.97	8.53
59F751	801-24C12	24	23.54	22.38	21.29	20.24	16.19	15.40
59F712	801-24C24	24	23.54	22.38	21.29	20.24	16.19	15.40
59F752	801-24C28	24	23.54	22.38	21.29	20.24	16.19	15.40
59F713	801-24C48	24	23.54	22.38	21.29	20.24	16.19	15.40
59F714	801-24C110	24	23.54	22.38	21.29	20.24	16.19	15.40
59F753	801-36C12	36	31.72	30.14	28.60	27.17	21.78	20.68
59F721	801-36C24	36	31.72	30.14	28.60	27.17	21.78	20.68
59F754	801-36C28	36	31.72	30.14	28.60	27.17	21.78	20.68
59F722	801-36C48	36	31.72	30.14	28.60	27.17	21.78	20.68
59F723	801-36C110	36	31.72	30.14	28.60	27.17	21.78	20.68
59F755	801-48C12	48	43.99	41.79	39.71	37.71	30.16	28.65
59F756	801-48C24	48						
59F757	801-48C28	48						
59F758	801-48C48	48						
59F759	801-48C110	48						

CONNECTOR, TOOLS

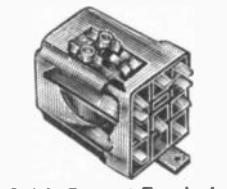
Model 88601. T-Bar Connector. For connecting wires to T-Bar switches or terminals. Nylon terminal block pushes onto water terminals. Snap-in terminals for wire. Wires are first crimped to snap-in terminal using the crimping tool below. Accommodates #20, 22 or 24 stranded wire with max. insulation diameter of .074".
59F741. NET 1.25

Model 8601-51. Crimping Tool. For use with the connectors above. Crimps wire and insulation to snap-in terminals.
59F742. NET 35.00
Model 8601-61. Extraction Tool. Removes snap-in contact from crimped wire.
59F743. NET 7.50

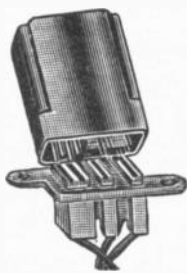
NEWARK — Same Day Shipment From On-the-Shelf Stock.

Relays

TYPE 93 QUICK CONNECT & PRINTED CIRCUIT



Quick Connect Terminals
Type 93Q



Relay Receptacles

93-153-1



Printed Circuit

NEW PRINTED CIRCUIT TERMINAL RELAYS

Overall size: 1 1/16" x 1 1/16" x 1 1/16"

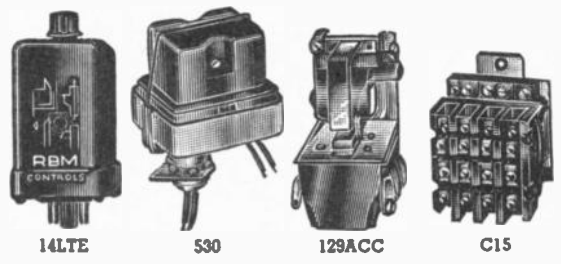
Stock No.	Mfr's No.	Coil Voltage	Contact Form	Amp	1-24	25-49	50-99	100-249
60F2741	93-964	24V	1PDT	5	3.20	2.88	2.56	2.24
60F2742	93-965	50/60 CY.	2PDT	5	3.85	3.47	3.08	2.70
60F2743	93-966		3PDT	5	4.25	3.83	3.40	2.98
60F2744	93-967	120V	1PDT	5	3.20	2.88	2.56	2.24
60F2745	93-968	50/60 CY.	2PDT	5	3.85	3.47	3.08	2.70
60F2746	93-969		3PDT	5	4.25	3.83	3.40	2.98
60F2747	93-976	12V DC	1PDT	5	3.05	2.75	2.44	2.14
60F2748	93-977		2PDT	5	3.40	3.06	2.72	2.38
60F2749	93-978		3PDT	5	3.85	3.47	3.08	2.70
60F2750	93-979	24V DC	1PDT	5	3.05	2.75	2.44	2.14
60F2751	93-980		2PDT	5	3.40	3.06	2.72	2.38
60F2752	93-981		3PDT	5	3.85	3.47	3.08	2.70

All may be controlled by SCR providing firing angle no more than 10 degrees.

NEW QUICK-CONNECT TERMINAL RELAYS

Front mounting 10 amp. Fine silver button contacts. 5 amp. cross-bar contacts. Uses gold alloy socket. Size: 2 1/8" x 1 1/16" x 1 1/16".

Stock No.	Mfr's No.	Coil Voltage	Contact Form	Amp	1-24	25-49	50-99	100-249
60F2755	93Q-901	6V 50/60 CY.	1PDT	10	3.75	3.38	3.00	2.63
60F2759	93Q-931			5	3.70	3.33	2.96	2.59
60F2756	93Q-902		2PDT	10	4.50	4.05	3.60	3.15
60F2780	93Q-932			5	4.40	3.96	3.52	3.08
60F2757	93Q-903	24V 50/60 CY.	1PDT	10	5.00	4.50	4.00	3.50
60F2781	93Q-933			5	4.85	4.37	3.88	3.40
60F2758	93Q-904		2PDT	10	3.75	3.38	3.00	2.63
60F2782	93Q-934		5	3.70	3.33	2.96	2.59	
60F2759	93Q-905	120V 50/60 CY.	1PDT	10	4.50	4.05	3.60	3.15
60F2783	93Q-935			5	4.40	3.96	3.52	3.08
60F2760	93Q-906		2PDT	10	5.00	4.50	4.00	3.50
60F2784	93Q-936		5	4.85	4.37	3.88	3.40	
60F2761	93Q-907	208/240V 50/60 CY.	1PDT	10	3.75	3.38	3.00	2.63
60F2785	93Q-937			5	3.70	3.33	2.96	2.59
60F2762	93Q-908		2PDT	10	4.50	4.05	3.60	3.15
60F2786	93Q-938		5	4.40	3.96	3.52	3.08	
60F2763	93Q-909	6V D.C.	1PDT	10	5.00	4.50	4.00	3.50
60F2787	93Q-939			5	4.85	4.37	3.88	3.40
60F2764	93Q-910		2PDT	10	4.15	3.74	3.32	2.91
60F2788	93Q-940		5	4.10	3.69	3.28	2.87	
60F2765	93Q-911	208/240V 50/60 CY.	1PDT	10	4.90	4.41	3.92	3.43
60F2789	93Q-941			5	4.80	4.32	3.84	3.36
60F2766	93Q-912		2PDT	10	5.40	4.86	4.32	3.78
60F2790	93Q-942		5	5.25	4.73	4.20	3.68	
60F2767	93Q-913	6V D.C.	1PDT	10	3.60	3.24	2.88	2.52
60F2791	93Q-943			5	3.55	3.20	2.84	2.49
60F2768	93Q-914		2PDT	10	4.05	3.65	3.24	2.84
60F2792	93Q-944		5	3.95	3.56	3.16	2.74	
60F2769	93Q-915	208/240V 50/60 CY.	1PDT	10	4.60	4.14	3.68	3.22
60F2793	93Q-945			5	4.45	4.01	3.56	3.12
60F2770	93Q-916		2PDT	10	3.60	3.24	2.88	2.52
60F2794	93Q-946		5	3.55	3.20	2.84	2.49	
60F2771	93Q-917	12V D.C.	1PDT	10	4.05	3.65	3.24	2.84
60F2795	93Q-947			5	3.95	3.56	3.16	2.74
60F2772	93Q-918		2PDT	10	4.60	4.14	3.68	3.22
60F2796	93Q-948		5	4.45	4.01	3.56	3.12	
60F2773	93Q-919	6V D.C.	1PDT	10	3.60	3.24	2.88	2.52
60F2797	93Q-949			5	3.55	3.20	2.84	2.49
60F2774	93Q-920		2PDT	10	4.05	3.65	3.24	2.84
60F2798	93Q-950		5	3.95	3.56	3.16	2.74	
60F2775	93Q-921	24V D.C.	1PDT	10	4.60	4.14	3.68	3.22
60F2799	93Q-951			5	4.45	4.01	3.56	3.12



Stock No.	Mfr's No.	Coil Voltage	Contact Form	Amp	1-24	25-49	50-99	100-249
60F2776	93Q-922	110V D.C.	1PDT	01	4.20	3.78	3.36	2.94
60F2850	93Q-952			5	4.15	3.74	3.32	2.91
60F2777	93Q-923		10	4.65	4.19	3.72	3.26	
60F2851	93Q-953	5	4.55	4.10	3.64	3.19		
60F2778	93Q-924	110V D.C.	2PDT	10	5.20	4.68	4.16	3.64
60F2852	93Q-954			5	5.05	4.55	4.04	3.54

POLARIZED SOCKET FOR TYPE 93

Stk. No.	Mfr's No.	Description	1-24	25-49	50-99	100-249
60F2753	93-153-1	Panel Mount	.60	.54	.48	.42

Include Quick Connect Terminals

NEW TYPE C15 CONTACTORS

Laminated magnet and a resilient mounting. Pressure connector power terminals. Replaceable coil and contacts. Easily converted to normally closed. 50/60 cy. coil. 18 Volt Amps cont. 90 VA, inrush. 4PNO double break-rated 15 amp. continuous. 1 1/2 h.p. for 1 phase; 2 h.p. for 3 phases. Dim: 3 3/8" x 2 3/4" x 3 3/8". Apprx. wt. 1 lb.

Stock No.	Mfr's No.	Coil Voltage	1-24	25-49	50-99	100-249
60F2853	C15-901	24V	19.80	17.82	15.84	13.86
60F2854	C15-902	110V	19.80	17.82	15.84	13.86
60F2855	C15-903	220V	19.80	17.82	15.84	13.86
60F2856	C15-904	440V	19.80	17.82	15.84	13.86

NEW TYPE 142TE TIME DELAY RELAY

Solid state adjustable time delay (after coil energized). 2PDT. Rated, 5 amps (resistive) 115/230 VAC 50/60 cy. or 28 VDC coil—3.2 V.A. cont. & 4.5 V.A. inrush. Repeat accuracy—2% at normal voltage. 10% over volt. & temp. range. Dim. 1 1/16" x 3 1/2" x 3 3/4".

Stock No.	Mfr's No.	Coil Voltage	Contact Action—Delay after coil energized—	1-24	25-49	50-99	100-249
60F2866	142TE-901	24VAC	0.1—1.0 Seconds	18.00	16.20	14.40	12.60
60F2867	142TE-902	120VAC		18.00	16.20	14.40	12.60
60F2868	142TE-903	24VDC		18.00	16.20	14.40	12.60
60F2869	142TE-911	24VAC	1.1—10.0 Seconds	18.00	16.20	14.40	12.60
60F2870	142TE-912	120VAC		18.00	16.20	14.40	12.60
60F2871	142TE-913	24VDC		18.00	16.20	14.40	12.60
60F2872	142TE-921	24VAC	10.1—30.0 Seconds	18.00	16.20	14.40	12.60
60F2873	142TE-922	120VAC		18.00	16.20	14.40	12.60
60F2874	142TE-923	24VDC		18.00	16.20	14.40	12.60

NEW TYPE 129AR RELAYS

- Color coded eight inch lead wires
- U/L listed

SPNO or SPDT. Continuous rating: 18 amps. fl mounts any 1/2" K.O. Meets all standard code requirements. 1 H.P.—125V. 2 H.P.—250 VAC. 4.5 V.A. cont.; 10 V.A. inrush. 50/60 cycle. 3 3/8" x 2 3/8".

Stock No.	Mfr's No.	Coil Voltage	Contact Action	1-24	25-49	50-99	100-249
60F2857	129AR-901	24V	SPNO	6.64	5.98	5.31	4.65
60F2858	129AR-902	115/120V	SPNO	6.94	6.25	5.55	4.86
60F2859	129AR-903	208/230V	SPNO	7.25	6.53	5.80	5.08
60F2860	129AR-904	24V	*SPDT	7.24	6.52	5.80	5.07
60F2861	129AR-905	115/120V	*SPDT	7.54	6.79	6.04	5.28
60F2862	129AR-906	208/230V	*SPDT	7.85	7.07	6.28	5.50

*All contact terminals must be wired same polarity.

NEW TYPE 530 RELAYS

3PNO double break-rated. 30 amps continuous, 180 amps inrush at 250 volts. 16 amps continuous and 90 amps inrush at 600 VAC. Laminated magnet and armature. Resilient mounting. Screw terminals. Enclosed contacts. 50/60 cy. coil. 14.5 Volt Amps. continuous with 50 Volt Amps. inrush. Overall size: 3 3/8" x 2 1/2".

Stock No.	Mfr's No.	Coil Voltage	1-24	25-49	50-99	100-249
60F2863	S30-901	24V.	11.55	10.40	9.24	8.09
60F2864	S30-902	115V.	11.55	10.40	9.24	8.09
60F2865	S30-903	230V.	11.55	10.40	9.24	8.09



RBM Controls - Relays

AC GENERAL PURPOSE RELAYS

TYPE 84

Totally enclosed. Screw terminals. Silver alloy contacts rated at 125/250 volts AC; SPNO, 16 amps resistive (continuous); 8 amps (25 amps inrush) inductive. SPDT, 12 amps resistive (18 amps inrush) inductive. 6-32 mounting holes/2.156" centers. Electrical life, 100,000 operations at rated load. Coil, 4 VA inrush; 3 VA sealed. Overall size, 2 3/8x1 9/16x1 1/2". Approx. wt., 5 oz.



Stock No.	Type	Coil V.	Action	1-24	25-49	50-99	100-249
60F2700	84-901	6	SPNO	2.85	2.57	2.28	2.00
60F2701	84-902	24	SPNO	2.90	2.61	2.32	2.03
60F2702	84-903	115/120	SPNO	3.05	2.75	2.44	2.14
60F2703	84-904	230/240	SPNO	3.35	3.02	2.68	2.35
60F2704	84-905	6	SPDT	3.00	2.70	2.40	2.10
60F2705	84-906	24	SPDT	3.20	2.88	2.56	2.24
60F2706	84-907	115/120	SPDT	3.35	3.02	2.68	2.35
60F2707	84-908	230/240	SPDT	3.58	3.24	2.87	2.52

TYPE 129

Totally enclosed. Screw terminals. Silver alloy contacts rated at 18 amperes continuously at 250 volts AC, resistive or inductive. Horse power rating, 1 H.P. at 125 volts, 2 H.P. at 250 volts. Single screw mounting. Electrical life, 100,000 operations at rated load. Coil: 10 volt-amperes inrush—5 volt-amperes sealed. Size, 2 3/8x1 9/16x1 1/2". Approx. wt. 7 oz.

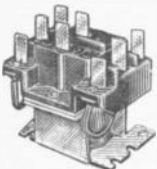


Stock No.	Type	Coil V.	Action	1-24	25-49	50-99	100-249
60F2708	129-901	6	SPNO	3.89	3.50	3.11	2.72
60F2709	129-902	24	SPNO	3.94	3.55	3.16	2.76
60F2710	129-903	115/120	SPNO	4.05	3.65	3.24	2.84
60F2711	129-904	208/230	SPNO	4.14	3.73	3.31	2.90
60F2712	129-905	6	SPDT*	4.32	3.89	3.46	3.03
60F2713	129-906	24	SPDT*	4.37	3.94	3.50	3.08
60F2714	129-907	115/120	SPDT*	4.50	4.05	3.60	3.15
60F2715	129-908	208/240	SPDT*	4.59	4.14	3.68	3.22

*Isolated Terminals; all contact terminals must be wired same polarity.

TYPE 91

Solenoid action *Quick connect terminals. Enclosed fine silver contacts. Contacts rated at 15 amps, 277 volts AC max., resistive; 12 amps, (60 amps inrush), 125 volts AC—6 amps (35 amps inrush) 250 volts AC inductive. Selective mounting. Electrical life, 100,000 operations at rated load. Coil, 22 volt-amperes inrush; 10 volt-amperes sealed. Overall dimensions, 2 1/8"x1 1/8"x 2 3/8". Approx. wt., 5 oz.

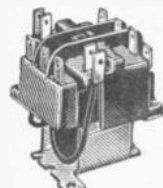


Stock No.	Type	Coil V.	Action	1-24	25-49	50-99	100-249
60F2716	91-901	24	DPDT	5.14	4.63	4.11	3.60
60F2717	91-902	115/120	DPDT	5.37	4.84	4.30	3.76
60F2718	91-903	208/240	DPDT	5.57	5.02	4.46	3.90

*Quick connect wiring terminals included.

TYPE 92

Solenoid action. *Quick connect terminals. Enclosed fine silver contacts rated at 15 amps, 277 volts AC max., resistive; 12 amps (60 amps inrush), 125 volts AC—6 amps (35 amps inrush) 250 volts AC inductive. Selective mounting. Electrical life, 100,000 operations at rated load. Coil characteristics, 24 volt-amperes inrush; 12 volt-amperes sealed. Overall dimensions, 2 3/8x2 3/8x2 3/4". Approx. wt., 6 oz.



Stock No.	Type	Coil V.	Action	1-24	25-49	50-99	100-249
60F2719	92-901	24	3PDT	5.87	5.29	4.70	4.11
60F2720	92-902	115/120	3PDT	6.07	5.47	4.86	4.25
60F2721	92-903	208/240	3PDT	6.24	5.62	5.00	4.37

*Quick connect wiring terminals included.

TYPE 75

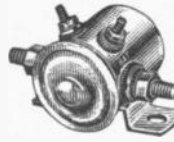
Protected contacts. Screw power terminals. Coil lead wires. Silver alloy contacts rated at 22 amps, 240 volts AC (per pole) resistive; 15 amps, 230 volts AC inductive. 1 Horse power per pole, 115/230 volts AC. 2 pole rating—2 horse power, 230 volts AC. Selective mounting. Electrical life, 100,000 operations at rated load. Coil characteristics, 16 volt-amperes inrush; 12 volt-amperes sealed. Overall dimensions, 2 1/2x2 1/4". Approx. wt., 7 oz.



Stock No.	Type	Coil V.	Action	1-24	25-49	50-99	100-249
60F2722	75-901	24	2PNO	4.59	4.13	3.67	3.21
60F2723	75-902	115/120	2PNO	4.59	4.13	3.67	3.21
60F2724	75-903	230/240	2PNO	4.59	4.13	3.67	3.21

TYPE 70

Solenoid action. Totally enclosed. Double break copper to copper rotating disc moveable contact. Copper stud power and isolated coil terminals. Wiring hardware included. Continuous rating, 80 amps (inrush 300 amps at 6 volts—150 amps at 12 volts DC). 50 amps maximum at 24 and 32 volts DC. Bracket mounting—2.109" centers. Coil, 9 watts. Overall dimensions, 2 1/2x3 1/2x2 1/2". Approx. wt. 1 lb.



Stock No.	Type	Coil V.	Action	1-24	25-49	50-99	100-249
60F2725	70-901	6V. D.C.	SPNO	3.74	3.37	3.00	2.62
60F2726	70-902	12V. D.C.	SPNO	3.74	3.37	3.00	2.62
60F2727	70-903	24V. D.C.	SPNO	3.74	3.37	3.00	2.62
60F2728	70-904	32V. D.C.	SPNO	3.74	3.37	3.00	2.62

TYPE TRMR

Double throw (Form C contact in one capsule). Gold alloy contacts rated at 15 volt-amperes AC, 5 watts DC. 1/4 ampere maximum to 125 volts AC/32 volts DC. Electrical life, 2,000,000 operations at rated load. Sensitivity: Single Pole, 150 milliwatts; Double Pole, 250 milliwatts. Maximum operating time, 1 ms. pull-in, 0.5 ms. drop-out. Size: S.P., 1.14x.56x.54"; D.P., 1.14x.73x.54" plus leads. Wt. 2 oz.



Stock No.	Type	D.C. Coil at 25°C.							
		Action	Nom. V.	*P.U.	**Ohms	1-24	25-49	50-99	100-249
60F2729	TRMR1-901	SPDT	6 V.	4.5 V.	105	10.07	9.06	8.06	7.05
60F2730	TRMR1-902	SPDT	12 V.	9 V.	420	10.12	9.11	8.10	7.08
60F2731	TRMR1-903	SPDT	28 V.	18 V.	2350	10.22	9.20	8.18	7.15
60F2732	TRMR2-901	DPDT	6 V.	4.5 V.	70	14.59	13.13	11.67	10.21
60F2733	TRMR2-902	DPDT	12 V.	9 V.	280	14.62	13.16	11.70	10.23
60F2734	TRMR2-903	DPDT	28 V.	18 V.	1540	14.68	13.21	11.74	10.28

†Nominal. *Pick-up. **Nominal ±10%.

TYPE BRMR

Normally open special alloy contacts are rated 12 volt-amperes AC—4 watts DC. 1/2 amp max. to 250 volts. Electrical life: 2,000,000 operations at rated load. Sensitivity: Single Pole, 100 milliwatts—Double Pole, 150 milliwatts. Max. operating time, 1 millisecond pull-in; 0.5 millisecond drop-out. Overall dimensions: S.P., 1.14x.56x.54"; D.P., 1.14x.73x.54" plus leads. Approx. wt. 2 oz.



Stock No.	Type	D.C. Coil at 25°C.							
		Action	Nom. V.	*P.U.	**Ohms	1-24	49	50-99	100-249
60F2735	BRMR1-901	SPNO	6 V.	3.25 V.	105	5.11	4.60	4.09	3.58
60F2736	BRMR1-902	SPNO	12 V.	6.5 V.	420	5.16	4.64	4.13	3.61
20F2737	BRMR1-903	SPNO	28 V.	15.2 V.	2350	5.26	4.73	4.21	3.68
60F2738	BRMR2-901	DPNO	6 V.	3.25 V.	70	7.15	6.43	5.72	5.00
60F2739	BRMR2-902	DPNO	12 V.	6.5 V.	280	7.18	6.46	5.74	5.03
60F2740	BRMR2-903	DPNO	28 V.	15.2 V.	1540	7.24	6.52	5.79	5.07

†Nominal. *Pick-up. **Nominal ±10%.

WRITE FOR FREE RBM COMPLETE CATALOG—INCLUDES ENGINEERING DESIGN & APPLICATION DATA

RBM CONTROLS

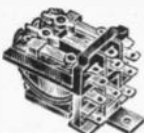
TYPE 93 AC AND DC GENERAL PURPOSE RELAYS

Combination molded coil bobbin and stationary contact terminal block. Extremely high arc-resistant and minimal moisture absorption characteristics. Terminal block, coil bobbin and carrier-molded glass filled alkyl material (GLASKED): — Stable over a normal commercial temperature range. All flexible lead wires are welded (no solder) joints. Coil terminals are on contact terminal block. Gold alloy cross-bar contacts

(welded to contact springs) are superior for low level or audio circuits, coil power, DC-.15 watts. AC-.30 VA. 4.5 VA. inrush. CONTACT RATING: Silver Button — 120 Volts, 10 amps.; 240 Volts, 5 amps. Gold alloy cross-bar 120 Volts 5 amps.; 240 Volts, 3 amps. CONTACT SPRINGS: 10 AMPS: Plated Beryllium Copper. 5 AMPS: Nickel Silver.

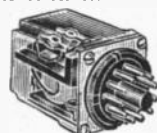
NEW OPEN TYPE 93 (Front Mtg.)

Hardware included to permit replacement of rear mounted relays either, screw or stud mounted. Solder terminals. Overall size — 1 1/16" x 1 1/16" x 1 1/16".



NEW TYPE 93P 8 AND 11 PIN

Plug in. 8 pin octal base for single and two-pole—11 pin base for 3 pole. Overall size — 2 1/8" x 1 1/16" x 1 1/16". Approximate weight 5 oz.



Stk. No.	Mfr. No.	Coil Voltage	Contact Form	Amps	1-24	25-49	50-99	100-249
60F2875	93-901	6 VAC	1 PDT	10	3.25	2.93	2.60	2.28
60F2890	93-931			5	3.20	2.88	2.56	2.24
60F2876	93-902			10	3.95	3.56	3.16	2.74
60F2891	93-932			5	3.85	3.47	3.08	2.70
60F2877	93-903			10	4.40	3.96	3.52	3.08
60F2892	93-933	5	4.25	3.83	3.40	2.98		
60F2878	93-904	24 VAC	1 PDT	10	3.25	2.93	2.60	2.28
60F2893	93-934			5	3.20	2.88	2.56	2.24
60F2879	93-905			10	3.95	3.56	3.16	2.74
60F2894	93-935			5	3.85	3.47	3.08	2.70
60F2880	93-906			10	4.40	3.96	3.52	3.08
60F2895	93-936	5	4.25	3.83	3.40	2.98		
60F2881	93-907	120 VAC	1 PDT	10	3.25	2.93	2.60	2.28
60F2896	93-937			5	3.20	2.88	2.56	2.24
60F2882	93-908			10	3.95	3.56	3.16	2.74
60F2897	93-938			5	3.85	3.47	3.08	2.70
60F2883	93-909			10	4.40	3.96	3.52	3.08
60F2898	93-939	5	4.25	3.83	3.40	2.98		
60F2884	93-910	208/240 VAC	1 PDT	10	3.65	3.29	2.92	2.56
60F2899	93-940			5	3.60	3.24	2.88	2.52
60F2885	93-911			10	4.35	3.92	3.48	3.05
60F2900	93-941			5	4.25	3.83	3.40	2.98
60F2886	93-912			10	4.80	4.32	3.84	3.36
60F2901	93-942	5	4.65	4.19	3.72	3.26		
60F2887	93-913	6 V	1 PDT	10	3.10	2.79	2.48	2.17
60F2902	93-943			5	3.05	2.75	2.44	2.14
60F2888	93-914			10	3.50	3.15	2.80	2.45
60F2903	93-944			5	3.40	3.06	2.72	2.38
60F2889	93-915			10	4.00	3.60	3.20	2.80
60F2904	93-945	5	3.85	3.47	3.08	2.70		
60F2914	93-916	12 V	1 PDT	10	3.10	2.79	2.48	2.17
60F2905	93-946			5	3.05	2.75	2.44	2.14
60F2915	93-917			10	3.50	3.15	2.80	2.45
60F2906	93-947			5	3.40	3.06	2.72	2.38
60F2916	93-918			10	4.00	3.60	3.20	2.80
60F2907	93-948	5	3.85	3.47	3.08	2.70		
60F2917	93-919	24 V	1 PDT	10	3.10	2.79	2.48	2.17
60F2908	93-949			5	3.05	2.75	2.44	2.14
60F2918	93-920			10	3.50	3.15	2.80	2.45
60F2909	93-950			5	3.40	3.06	2.72	2.38
60F2919	93-921			10	4.00	3.60	3.20	2.80
60F2910	93-951	5	3.85	3.47	3.08	2.70		
60F2920	93-922	110 V	1 PDT	10	3.70	3.33	2.96	2.59
60F2911	93-952			5	3.65	3.29	2.92	2.56
60F2921	93-923			10	4.10	3.69	3.28	2.87
60F2912	93-953			5	4.00	3.60	3.20	2.80
60F2922	93-924			10	4.60	4.14	3.68	3.22
60F2913	93-954	5	4.45	4.01	3.56	3.12		

Stk. No.	Mfr. No.	Coil Voltage	Contact Form	Amps	1-24	25-49	50-99	100-249
60F2923	93P-901	6 VAC	1 PDT	10	5.50	4.95	4.40	3.85
60F2947	93P-931			5	5.45	4.91	4.36	3.82
60F2924	93P-902			10	6.15	5.54	4.92	4.31
60F2948	93P-932			5	6.05	5.45	4.84	4.24
60F2925	93P-903			10	7.65	6.89	6.12	5.36
60F2949	93P-933	5	7.50	6.75	6.00	5.25		
60F2926	93P-904	24 VAC	1 PDT	10	5.50	4.95	4.40	3.85
60F2950	93P-934			5	5.45	4.91	4.36	3.82
60F2927	93P-905			10	6.15	5.54	4.92	4.31
60F2951	93P-935			5	6.05	5.45	4.84	4.24
60F2928	93P-906			10	7.65	6.89	6.12	5.36
60F2952	93P-936	5	7.50	6.75	6.00	5.25		
60F2929	93P-907	120 VAC	1 PDT	10	5.50	4.95	4.40	3.85
60F2953	93P-937			5	5.45	4.91	4.36	3.82
60F2930	93P-908			10	6.15	5.54	4.92	4.31
60F2954	93P-938			5	6.05	5.45	4.84	4.24
60F2931	93P-909			10	7.65	6.89	6.12	5.36
60F2955	93P-939	5	7.50	6.75	6.00	5.25		
60F2932	93P-910	208/240 VAC	1 PDT	10	5.90	5.31	4.72	4.13
60F2956	93P-940			5	5.85	5.27	4.68	4.10
60F2933	93P-911			10	6.55	5.90	5.24	4.59
60F2957	93P-941			5	6.45	5.81	5.16	4.52
60F2934	93P-912			10	8.05	7.25	6.44	5.64
60F2958	93P-942	5	7.90	7.11	6.32	5.53		
60F2935	93P-913	6 V	1 PDT	10	5.45	4.91	4.36	3.82
60F2959	93P-943			5	5.40	4.86	4.32	3.78
60F2936	93P-914			10	6.10	5.49	4.88	4.27
60F2960	93P-944			5	6.00	5.40	4.80	4.20
60F2937	93P-915			10	7.60	6.84	6.08	5.32
60F2961	93P-945	5	7.45	6.71	5.96	5.22		
60F2938	93P-916	12 V	1 PDT	10	5.45	4.91	4.36	3.82
60F2962	93P-946			5	5.40	4.86	4.32	3.78
60F2939	93P-917			10	6.10	5.49	4.88	4.27
60F2963	93P-947			5	6.00	5.40	4.80	4.20
60F2940	93P-918			10	7.60	6.84	6.08	5.32
60F2964	93P-948	5	7.45	6.71	5.96	5.22		
60F2941	93P-919	24 V	1 PDT	10	5.45	4.91	4.36	3.82
60F2965	93P-949			5	5.40	4.86	4.32	3.78
60F2942	93P-920			10	6.10	5.49	4.88	4.27
60F2966	93P-950			5	6.00	5.40	4.80	4.20
60F2943	93P-921			10	7.60	6.84	6.08	5.32
60F2967	93P-951	5	7.45	6.71	5.96	5.22		
60F2944	93P-922	110 V	1 PDT	10	6.05	5.45	4.84	4.24
60F2968	93P-952			5	6.00	5.40	4.80	4.20
60F2945	93P-923			10	6.70	6.03	5.36	4.69
60F2969	93P-953			5	6.60	5.94	5.28	4.62
60F2946	93P-924			10	8.20	7.38	6.56	5.74
60F2970	93P-954	5	8.05	7.25	6.44	5.64		

BARBER-COLMAN RELAYS

Ultra-sensitive, versatile, polarized DC industrial relay. With 0.0005 watt input. Can control 100 watts on contacts with proper arc suppression giving 200,000 to 1 amplification factor. Reliable selenium photo cell can drive directly, one millisecond operation. Single

pole, double-throw center off works in relation to the current direction.

The 1.3 ampere-turn single-coil relay is more sensitive and accurate than the 2 amp-turn relay. Resists 10g vibration. With twice pull-in current. Comes with octal base—dimensions: 2 1/8" x 1 1/8". Shipping weight, 6 1/4 oz.



SINGLE COIL (1.3 Ampere-Turns)

Stock No.	Mfr. Type AYLZ-	Coil Ohms	Pull-In Amps.	Volts	uW Input	NET
24F387	7300-100	13	.00173	.023	39.1	29.00
24F388	7301-100	54	.00087	.047	40.6	
24F390	7303-100	140	.00054	.076	41.1	
24F391	7304-100	215	.00046	.100	46.3	
24F392	7305-100	350	.00035	.123	43.2	
24F393	7306-100	560	.00028	.155	42.8	
24F394	7307-100	900	.00022	.198	43.7	
24F395	7308-100	1400	.00017	.243	42.1	
24F396	7309-100	2300	.00014	.325	45.9	
24F397	7310-100	3550	.00011	.401	45.3	
24F398	7311-100	5650	.000093	.524	48.7	
24F426	7312-100	7950	.000076	.604	45.9	

SINGLE COIL (2 Ampere-Turns)

Stk. No.	Mfr. Type AYLZ-	Coil Ohms	Amps.	Pull-in Volts	uW Input	NET
24F401	7325-100	13	.00267	.035	92.4	25.00
24F405	7329-100	215	.00071	.154	109.6	
24F407	7331-100	560	.00043	.238	101.2	
24F409	7334-100	2300	.00022	.499	108.3	
24F412	7337-100	7950	.00012	.930	108.8	

DOUBLE COIL (1.3 Ampere-Turns)

Stk. No.	Mfr. Type AYLZ-	Coil Ohms	Amps.	Pull-in Volts	uW Input	NET
24F471	7358-100	940	.00084	.322	110.0	30.00
24F473	7360-100	2300	.00022	.507	111.6	
24F474	7361-100	3800	.00017	.650	111.1	

DOUBLE COIL (2 Ampere-Turns)

Stk. No.	Mfr. Type AYLZ-	Coil Ohms	Amps.	Pull-in Volts	uW Input	NET
24F400	7383-100	940	.00063	.494	260.0	26.00
24F424	7386-100	3800	.00026	1.000	263.0	

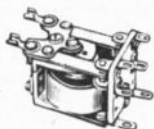


Phillips-Advance Relays

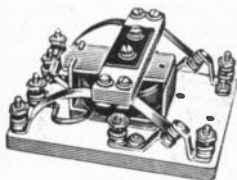
MIDGET ANTENNA RELAYS

AM Series. Space-saving "transmit-receive" antenna relays for many different low-power RF applications. They fill the need for 300 ohm circuit switching in mobile, marine, aircraft, television communication and fixed station service. Conically-shaped silver contacts assure low resistance paths for either "receive" or "transmit" positions. Supplied with single 6-32 NC-2 mounting stud with hex nut. Dimensions: $1\frac{1}{16}$ "H.x1"W.x $2\frac{1}{16}$ "L. Weight 2 oz.

Stk. No.	Type	Coil Resis.	Coil Voltage	Contacts	1-9	10-49	50-99	100-249	250-499
24F795	AM/2C/115VA	1600 ohms	115VAC	DPDT 2 amps	5.05	4.80	4.55	4.29	4.04
24F796	AM/2C/ 6VD	25 ohms	6VDC	DPDT 2 amps	4.20	3.99	3.78	3.57	3.36
24F797	AM/2C/ 12VD	100 ohms	12VDC	DPDT 2 amps	4.20	3.99	3.78	3.57	3.36



AM Series

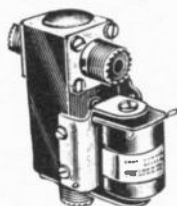


AT Series

HEAVY DUTY ANTENNA RELAY

AT Series. For heavy-duty RF transmitter antenna changeover applications. Primarily designed for fixed-station usage, with a conservative 1 Kilowatt RF rating. Insulated with ceramic Steatite. Excellent wiping action of contacts assures flow of most minute currents for receiving positions. High efficiency. Available with auxiliary single-pole, normally open contacts. Four mounting holes, .157 dia., clearance for 6-32 screws. Size: $1\frac{1}{2}$ "H.x $2\frac{1}{16}$ "W.x $3\frac{3}{16}$ "L. Weight 12.6 oz.

Stock No.	Type	Coil Res.	Coil Voltage	Contacts	1-9	10-49	50-99	100-249	250-499
24F1971	AT/2C/115VA	450 ohms	115VAC	DPDT	13.20	12.54	11.88	11.22	10.56

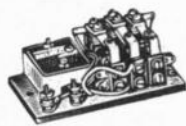


CB Series

COAXIAL SWITCHING RELAYS

CB Series. Unsurpassed for meeting problems of coaxial cable switching. Designed for performance on 52-ohm coaxial lines. Low standing-wave ratios permit usage on frequencies up to 300 megacycles. Units operate equally well in any position. All types supplied with SO-239 connectors. Inspection port at contact end for access to internal parts. Two tapped holes 6-32 NC-2; $1\frac{1}{16}$ " cntrs., for mounting. $1\frac{1}{2}$ "H.x $3\frac{3}{16}$ "W.x $3\frac{3}{16}$ "L. Shpg. wt., 11.1 oz.

Stock No.	Type	Coil Resis.	Coil Voltage	Contacts	1-9	10-49	50-99	100-249	250-499
24F1066	CB/1C/115VA	280 ohms	115VAC	SPDT 5 amps	21.00	19.95	18.90	17.85	16.80
24F1007	CB/1C2C/115VA	280 ohms	115VAC	SPDT(int.) DPDT(aux.) 5 amps	24.55	23.32	22.10	20.87	19.64
24FX1061	CB/1C2C/12VD	70 ohms	12VDC	SPDT(int) DPDT(aux) 5 amps	23.60	22.42	21.24	20.06	18.88
24FX1062	CB/1C2C/24VD	280 ohms	24VDC	SPDT(int) DPDT(aux) 5 amps	23.60	22.42	21.24	20.06	18.88

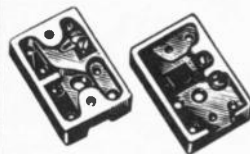


DM Series

TIME-DELAY RELAY

DM Series. Has adjustable time-delay range, excellent for use in pre-heating tube-filaments, for specialized lighting circuits, photographic controls, protection applications, etc. Provides time-delay before make. Uses bi-metal thermal unit which can be adjusted for delays of from 5 to 60 seconds Cool quickly for recycling. Require only 8 to 10 times the delay period to be properly cooled. Two .152 dia., $3\frac{3}{16}$ " centers, mounting holes. $1\frac{3}{8}$ "x $2\frac{3}{8}$ "x $3\frac{3}{4}$ ". Wt. 7.8 oz.

Stk. No.	Type	Coil Resist.	Coil Voltage	Contacts	1-9	10-49	50-99	100-249	250-499
24F748	DM/2C/115VA	450 ohms	115VAC	DPDT 15 amps	14.35	13.63	12.92	12.20	11.48

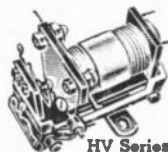


DT Series

THERMAL DELAY RELAYS

DT Series. Efficient, low-cost units used in conjunction with various relays for delayed making or breaking of controlled circuits. Applicable wherever a time delay of 5 to 60 seconds is needed. Adjustable range from 8 to 20 cycles per minute. Operates on the bi-metal thermal principle, housed in unglazed porcelain, and obtainable with either normally-open or normally-closed contacts. 2 holes, .154 dia. for 6-32 NC-2 screws; $1\frac{3}{8}$ " cntrs. $1\frac{3}{16}$ " x $1\frac{1}{4}$ " x $1\frac{5}{8}$ ". Wt. 1.4 oz.

Stock No.	Type	Coil Voltage	Contacts	1-9	10-49	50-99	100-249	250-499
24FX1057	DT/1A/115VA	115VAC	SPST-NO 2 amps	2.75	2.61	2.48	2.36	2.20
24FX1058	DT/1B/115VA	115VAC	SPST-NC 2 amps	2.75	2.61	2.48	2.36	2.20



HV Series

HIGH VOLTAGE RELAYS

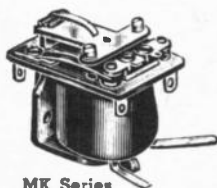
HV SERIES. Replaces space taking std. high volt units. Will break up to 5000V RMS @ 200ma. Contact assembly mounted on Steatite to insure high insulation and low energy loss. Available in SPDT contact arrangement. Dimensions: $1\frac{7}{32}$ " x $2\frac{1}{32}$ " x $3\frac{1}{16}$ ". Shpg. wt., 7.5 oz.

Stock No.	Type	Coil Resis.	Coil Voltage	Contacts	1-9	10-49	50-99	100-249	250-499
24F1081	HV/1Z/24VD	120 ohms	24VDC	SPDT DB-DM	17.65	16.77	15.89	15.00	14.12
24F1082	HV/1Z/110VD	3000 ohms	110VDC	SPDT DB-DM	18.25	17.34	16.43	15.51	14.60

SPECIAL PURPOSE TYPES

MK SERIES. Ultra-small and leather-light, these direct current devices require less than $\frac{1}{2}$ cubic inch mounting space. All switching is entirely above ground. Insulated material is silicone glass. Beryllium copper armature hinges assure stable performance under vibration and shock. With 2-56 NC-2 machine screw. Dimen: $\frac{5}{16}$ "x $\frac{1}{16}$ "x $5\frac{3}{4}$ ". Shpg. wt. 11 grams.

Stock No.	Type	Coil Resis.	Coil Voltage	Contacts	1-9	10-49	50-99	100-249	250-499
24F931	MK/2C/ 24VD	500 ohms	24VDC	DPDT 1 amp	5.95	5.65	5.36	5.06	4.76
24F932	MK/2C/5000D	5000 ohms	50VDC	DPDT 1 amp	6.95	6.60	6.26	5.91	5.58
24F1065	MK/2C/ 6VD	30 ohms	6VDC	DPDT 1 amp	5.95	5.65	5.36	5.06	4.76



MK Series

GENERAL PURPOSE RELAYS

Type 15. A small economical unit designed for printed circuit or screw mounting. 200 milliwatts nominal operating power. Available in form 1C only. Three coil voltage ratings, all with contacts rated at 1 ampere. Single $\frac{5}{32}$ " tapped mounting hole. $0.781" \times 1\frac{1}{16}" \times 1"$.

Stk. No.	Type	Coil Voltage	Coil Res. (Ω)	Contact Rating (Amps.)	1-9	10-49	50-99	100-249	250-499
60F1747	15-6-1C	6	85	1	1.50	1.42	1.27	1.12	1.05
60F1748	15-12-1C	12	300	1	1.50	1.42	1.27	1.12	1.05
60F1749	15-24-1C	24	1100	1	1.50	1.42	1.27	1.12	1.05

GENERAL PURPOSE RELAYS

GHB and GHH Series. Low-cost continuous-duty general purpose relay. Contacts rated at 10 amperes resistive. GHB is open style relay with axial type leads. GHH utilizes a dustite plastic enclosure. Enclosed relays with SPDT and DPDT contacts have 8 pin octal plug-in bases while those with 3PDT contacts use 11 pin plug-in bases. DC relays need 1 to 2 watts nominal and AC relays 2 to 3 volt-amperes nominal. Types GHB/1C and GHB/2C UL approved. Open Style $1\frac{1}{4}" \times 1\frac{1}{4}" \times 1\frac{1}{2}"$. Enclosed Style $1\frac{1}{2}" \times 1\frac{1}{2}" \times 2\frac{1}{8}"$. Av. wt. 2 oz.

Stk. No.	Type	Coil Resist.	Coil Voltage	Contacts		1-9	10-49	50-99	100-249	250-499
				Form	Rating					
24F1008	GHB/2C/ 6VAC	4	6VAC	DPDT	10 amps	4.05	3.85	3.65	2.84	2.63
24F1009	GHB/2C/ 24VAC	63	24VAC	DPDT	10 amps	4.05	3.85	3.65	2.84	2.63
24F1010	GHB/2C/115VAC	1600	115VAC	DPDT	10 amps	4.05	3.85	3.65	2.84	2.63
24F1011	GHB/3C/ 6VAC	4	6VAC	3PDT	10 amps	4.60	4.37	4.14	3.22	2.99
24F1015	GHB/2C/ 24VDC	400	24VDC	DPDT	10 amps	3.80	3.61	3.42	2.66	2.47
24F1017	GHB/3C/ 24VDC	400	24VDC	3PDT	10 amps	4.40	4.18	3.96	3.08	2.86
24F1075	GHH/2C/24VAC	63	24VAC	DPDT	10 amps	6.05	5.75	5.45	4.24	3.93
24F1076	GHH/2C/24VDC	400	24VAC	DPDT	10 amps	5.75	5.46	5.18	4.03	3.74
24F1077	GHH/2C/115VAC	1600	115VAC	DPDT	10 amps	6.05	5.75	5.45	4.24	3.93
24F1078	GHH/3C/24VDC	400	24VAC	3PDT	10 amps	7.25	6.89	6.53	5.08	4.71
24F1079	GHH/3C/115VAC	1600	115VAC	3PDT	10 amps	7.25	6.89	6.53	5.08	4.71

GENERAL PURPOSE RELAYS

GHA and GHP Series. General purpose, continuous-duty relays, engineered for high efficiency at low cost. Contacts rated at 5 amps with resistive load. GHA series is open-frame relay with axial-type solder lug terminals, size $1\frac{1}{4}" \times 1\frac{1}{4}" \times 1\frac{3}{16}"$. GHP relays have dustite plastic enclosure with octal base in SP and DPDT models, 11-pin base in 3PDT types; size $1\frac{1}{2}" \times 1\frac{1}{2}" \times 2\frac{1}{8}"$. power of 130 milliwatts per IC (single pole) is required. Contact rating: 5 amps. Size: $1\frac{1}{2}" \times 1\frac{1}{2}" \times 2\frac{1}{8}"$. Wt. 2 oz.

Stock No.	Type	Coil Res. (ohms)	Coil Voltage	Contacts		1-9	10-49	50-99	100-249	250-499
				Form	Rating					
24F1018	GHA/1C/ 6VAC	4	6VAC	SPDT	5 amps	3.05	2.90	2.75	2.14	1.98
24F1019	GHA/1C/ 24VAC	63	24VAC	SPDT	5 amps	3.05	2.90	2.75	2.14	1.98
24F1020	GHA/1C/115VAC	1600	115VAC	SPDT	5 amps	3.05	2.90	2.75	2.14	1.98
24F1021	GHA/1C/220VAC	5000	220VAC	SPDT	5 amps	3.55	3.37	3.20	2.49	2.31
24F1022	GHA/2C/ 6VAC	400	6VAC	DPDT	5 amps	3.55	3.37	3.20	2.49	2.31
24F1023	GHA/2C/ 24VAC	4	24VAC	DPDT	5 amps	3.55	3.37	3.20	2.49	2.31
24F1024	GHA/2C/115VAC	25	115VAC	DPDT	5 amps	3.55	3.37	3.20	2.49	2.31
24F1026	GHA/3C/ 6VAC	100	6VAC	3PDT	5 amps	4.05	3.85	3.65	2.84	2.63
24F1028	GHA/3C/115VAC	400	115VAC	3PDT	5 amps	4.05	3.85	3.65	2.84	2.63
24F1031	GHA/1C/ 24VDC	100	24VDC	SPDT	5 amps	3.05	2.90	2.75	2.14	1.98
24F1032	GHA/2C/ 6VDC	4	6VDC	DPDT	5 amps	3.35	3.18	3.02	2.35	2.18
24F1033	GHA/2C/ 12VDC	63	12VDC	DPDT	5 amps	3.35	3.18	3.02	2.35	2.18
24F1034	GHA/2C/ 24VDC	1600	24VDC	DPDT	5 amps	3.35	3.18	3.02	2.35	2.18
24F1036	GHA/3C/ 12VDC	4	12VDC	3PDT	5 amps	3.75	3.56	3.38	2.63	2.44
24F1037	GHA/3C/ 24VDC	1600	24VDC	3PDT	5 amps	3.75	3.56	3.38	2.63	2.44
24F985	GHP/1C/24VAC	63	24VAC	SPDT	5 amps	5.10	4.85	4.59	3.57	3.32
24F986	GHP/1C/115VAC	1600	115VAC	SPDT	5 amps	5.10	4.85	4.59	3.57	3.32
24F987	GHP/2C/6VAC	4	6VAC	DPDT	5 amps	5.75	5.46	5.18	4.03	3.74
24F988	GHP/2C/24VAC	63	24VAC	DPDT	5 amps	5.75	5.46	5.18	4.03	3.74
24F989	GHP/2C/115VAC	1600	115VAC	DPDT	5 amps	5.75	5.46	5.18	4.03	3.74
24F993	GHP/3C/115VAC	1600	115VAC	3PDT	5 amps	7.05	6.70	6.35	4.94	4.58
24F1074	GHP/3C/24VDC	400	24VDC	3PDT	5 amps	6.95	6.60	6.26	4.87	4.52

GENERAL PURPOSE RELAYS

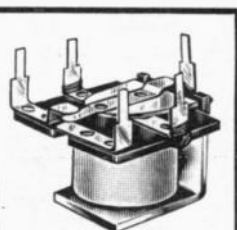
GHE SERIES. A plate circuit current operated unit having extremely good sensitivity. Standard GHE enclosed in dustite plastic enclosure and mounts with either an 8 pin or 11 pin plug-in base. Nominal power of 130 milliwatts per IC (single pole) is required. Contact rating: 5 amps. Size $1\frac{1}{2}" \times 1\frac{1}{2}" \times 2\frac{1}{8}"$. Wt. 2 oz.

Stk. No.	Type	Coil Resist.	Coil Cur ma	Contacts	1-9	10-49	50-99	100-249	250-499
24F1080	GHE/1C/5000D	5000	5.	SPDT	5.85	5.56	5.27	4.10	3.80
24F994	GHE/2C/2500D	2500	10.	DPDT	6.30	5.99	5.67	4.41	4.00
24F995	GHE/2C/5000D	5000	7.2	DPDT	8.70	6.37	6.03	4.69	4.06
24F996	GHE/2C/10,000D	10000	5.	DPDT	7.10	6.75	6.39	4.97	4.32

LATCHING TYPES

LGA SERIES. For industrial and power control applications; eliminate continuous use of current by duty coil; latching mech. positive. Operate and reset coils elec. operated. Dim.: $1\frac{1}{4}" \times 1\frac{1}{4}" \times 3\frac{1}{2}"$. Wt. 5 oz.

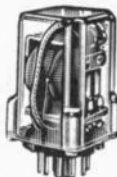
Stock No.	Type	Coil Resist.	Coil Voltage	Contacts	1-9	10-49	50-99	100-249	250-499
24F1093	LGA/4C/24VA	40 ohms	24VAC	4 PDT 5 amps	10.45	9.93	9.41	8.88	8.36
24F1094	LGA/4C/115VA	1K ohms	115VAC	4 PDT 5 amps	10.45	9.93	9.41	8.88	8.36
24F1095	LGA/4C/6VD	16 ohms	6VDC	4 PDT 5 amps	9.35	8.88	8.42	7.95	7.48
24F1096	LGA/4C/12VD	63 ohms	12VDC	4 PDT 5 amps	9.35	8.88	8.42	7.95	7.48
24F1097	LGA/4C/24VD	250 ohms	24VDC	4 PDT 5 amps	9.35	8.88	8.42	7.95	7.48
24F1098	LGA/4C/110VD	5K ohms	110VDC	4 PDT 5 amps	10.55	10.02	9.50	8.97	8.44
24F1099	LGA/6C/24VA	40 ohms	24VAC	6 PDT 5 amps	12.50	11.88	11.25	10.68	10.00
24F1049	LGA/6C/115VA	1K ohms	115VAC	6 PDT 5 amps	12.50	11.88	11.25	10.63	10.00
24F1048	LGA/6C/6VD	16 ohms	6VDC	6 PDT 5 amps	11.40	10.83	10.26	9.69	9.12
24F1047	LGA/6C/12VD	63 ohms	12VDC	6 PDT 5 amps	11.40	10.83	10.28	9.69	9.12
24F1046	LGA/6C/24VD	250 ohms	24VDC	6 PDT 5 amps	11.40	10.83	10.28	9.69	9.12
24F1045	LGA/6C/110VD	5K ohms	110VDC	6 PDT 5 amps	12.60	11.97	11.34	10.71	10.08



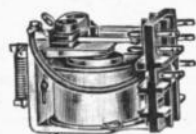
Type 15



GHB



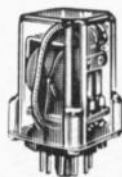
GHH



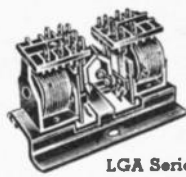
GHA SERIES



GHP SERIES



GHE SERIES



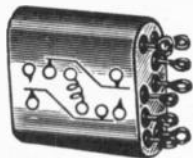
LGA Series



Phillips-Advance Relays

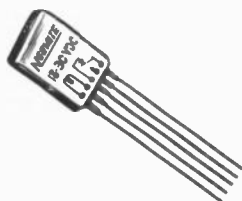
MICRO-MINIATURE CRYSTAL CAN RELAYS

MV Series. Hermetically sealed rotary action DPDT DC relay for severe military and industrial applications. Designed to meet MIL-R-5757D requirements. Occupies 1/4 inch. Spring leaf contact blades insure longer life, greater heat dissipation. All except MV7033 available in a wide variety of terminal and mounting arrangements. Type number designates coil resist.: 120, 600, 1000, or 2500Ω except MV7033 which has 6000. *44 ma. max. pull-in current, nom. coil voltage 12VDC. **21 ma., 26VDC. ***16 ma., 35VDC. †10 ma., 55 VDC. ††21 ma., 26.5 VDC.



MV Series

Stock No.	Type	Terminal Arrangement	Mounting Arrangement	1-9	10-49	50-99	100-249	250-499
24FX1908	MV2C120D-11*	Solder-hook	Side studs	13.50	11.50	8.50	8.00	7.50
24FX1909	MV2C120D-12*	Solder-hook	Top studs					
24FX1910	MV2C120D-13*	Solder-hook	2-hole bracket					
24FX1915	MV2C120D-24*	Plug-in pin	Plain can					
24FX1916	MV2C600D-11**	Solder-hook	Side studs					
24FX1917	MV2C-600D-12**	Solder-hook	Top studs					
24FX1918	MV2C600D-13**	Solder-hook	2-hole bracket					
24FX1923	MV2C600D-24**	Plug-in pin	Plain can					
24FX1926	MV2C1000D-13***	Solder-hook	2-hole bracket					
24FX1931	MV2C1000D-24***	Plug-in pin	Plain can					
24FX1934	MV2C2500D-13†	Solder-hook	2-hole bracket	13.60	11.56	8.57	8.02	7.61
24FX1939	MV2C2500D-24†	Plug-in pin	Plain can	13.60	11.56	8.57	8.02	7.61
24FX1956	MV7033††	Solder-hook	Angle bracket	13.50	11.50	8.50	8.00	7.50



NM Series

NEOMITE MICRO-MINIATURE RELAYS

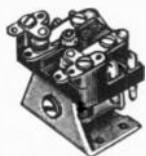
NM Series. Hermetically sealed SPDT DC relay for missiles, aircraft, control equipment and printed circuits. Occupies only .04 cubic inch. Ideal where small size and long life are important. Contact resist. is very low. Available with a screw-down or bend-over-tab mounting bracket.

Stock No.	Type	Ohms	DCV	Ma.	1-9	10-49	50-99	100-249	250-499
24F960	NM1C50	50	3-5	44	21.00	20.00	18.00	17.00	14.50
24F961	NM1C200	200	6-10	22					
24F962	NM1C500	500	9-15	14					
24F963	NM1C1K	1000	12-21	10					
24F964	NM1C2K	2000	18-30	7					

POWER TRANSFER RELAYS

PG Series. Continuous duty general purpose relay. Excellent for general industrial power control circuits and withstanding vibration and shock because of special armature and frame design. 4 tapped holes 6-32 NC-2; 1/2" x 1 1/16" cntrs. 1 7/8" x 1 5/8" x 1 1/2". Wt. 4.4 oz.

Stk. No.	Type	Coil Resistance	Coil		1-9	10-49	50-99	100-249	250-499
			Voltage	Cont.					
24F917	PG/2C/115VA	400 ohms	115VAC	DPDT 15 amps	7.50	7.13	6.75	6.37	6.00
24F919	PG/2C/24VD	250 ohms	24-28VDC	DPDT 15 amps	6.90	6.56	6.21	5.87	5.52



PG Series

POWER RELAYS

PC Series. Compact, positive-acting relays for either AC or DC use. Used in air conditioning and lighting systems, small motor starting, transformers, garage door openers—wherever dependable circuit switching is necessary. Rugged construction for long life at peak efficiency. Contacts rated at 15 amperes resistive, 5 amperes inductive at 115 VAC or 26.5 VDC. 2 tapped mounting holes 6-32 NC-2; 2" centers. 1 9/16" x 1 5/8" 2 5/8". Weight 8 oz.

Stk. No.	Type	Coil Resistance	Coil		1-9	10-49	50-99	100-249	250-499
			Voltage	Cont.					
24F782	PC/1C/24VA	16 ohms	24VAC	SPDT	3.95	3.75	3.56	3.35	3.16
24F783	PC/1C/115VA	450 ohms	115VAC	SPDT					
24F786	PC1C/24VD	250 ohms	24-28VDC	SPDT					
24F839	PC/2C/6VA	1.6 ohms	6VAC	DPDT	5.95	5.65	5.36	5.06	4.77
24F940	PC/2C/24VA	16 ohms	24VAC	DPDT					
24F913	PC/2C/115VA	450 ohms	115VAC	DPDT					
24F941	PC/2C/6VD	16 ohms	6VDC	DPDT					
24F942	PC/2C/12VD	63 ohms	12VDC	DPDT					
24F943	PC/2C/24VD	250 ohms	24-28VDC	DPDT					
24F944	PC/3C/6VA	1.6 ohms	6VAC	3PDT	8.45	8.03	7.61	7.19	6.76
24F945	PC/3C/115VA	450 ohms	115VAC	3PDT					
24F947	PC/3C/24VD	250 ohms	24-28VDC	3PDT					
24F948	PC/4C/115VA	450 ohms	115VAC	4PDT	10.95	10.40	9.86	9.41	8.76
24F788	PC/4C/220VA	1600 ohms	220VAC	4PDT	12.45	11.83	11.21	10.59	9.96
24F949	PC/4C/24VD	250 ohms	24-28VDC	4PDT	10.95	10.40	9.86	9.41	8.76

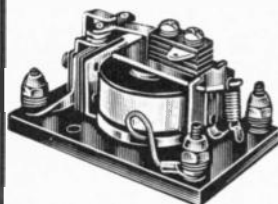


PC Series

POWER RELAYS

PV Series. Very heavy-duty power-transfer relays—excellent for motor starting, lighting circuits and numerous applications where heavy double make contacts are needed. "T" blade equipped with two 5/16" silver-cadmium oxide contacts, with ample contact gap. These contacts minimize pitting and burning under heavy non-inductive or inductive loads. 2 mounting holes .169 dia., clearance for 8-32 NC-2 screws. 1 7/8" centers. 1 3/8" x 2 1/4" x 3 1/4". Wt. 6.8 oz.

Stock No.	Type	Coil Res. (ohms)	Coil Voltage	Contacts	1-9	10-49	50-99	100-249	250-499
24F906	PV/1X/115VA	450 ohms	115VAC	SPST-NO	7.70	7.32	6.93	6.55	6.16
24F938	PV/1Z/115VA	450 ohms	115VAC	SPDT	8.70	8.27	7.83	7.40	6.96
24F936	PV/1X/6VD	16 ohms	6VDC	SPST-NO	7.35	6.98	6.62	6.25	5.88
24F937	PV/1Z/6VD	16 ohms	6VDC	SPDT	8.55	8.12	7.70	7.27	6.84



PV Series

Phillips-Advance Relays



SENSITIVE RELAYS

SV Series. For DC circuits restricted to a few thousandths of a watt power consumption. Venier screws vary sensitivity from the 5-milli-watt factory setting. Contacts and spring tension can be accurately set—easily changed. Mtg. holes $\frac{9}{64}$ " dia. $1\frac{1}{2} \times 2 \times \frac{9}{16}$ ". Wt. 6.5 oz.

Stock No.	Type	Coil Resistance	Coil Current	1-9	10-49	50-99	100-249	250-499
24F920	SV/1C/1000D	1000 ohms	2.25 MA	8.25	7.84	7.43	7.01	6.60
24F922	SV/1C/2200D	2200 ohms	1.5 MA	8.25	7.84	7.43	7.01	6.60
24F776	SV/1C/3500D	3500 ohms	1.2 MA	8.40	7.98	7.56	7.14	6.72
24F924	SV/1C/5500D	5500 ohms	.95 MA	8.75	8.31	7.88	7.44	7.00
24F925	SV/1C/8700D	8700 ohms	.75 MA	9.40	8.93	8.46	7.99	7.52
24F923	SV/1C/10000D	10000 ohms	.7 MA	9.40	8.93	8.46	7.99	7.52
24F926	SV/1C/14000D	14000 ohms	.6 MA	10.10	9.60	9.09	8.59	8.08
24F927	SV/1C/20000D	20000 ohms	.5 MA	11.10	10.55	9.99	9.44	8.88
24F928	SV/1C/30000D	30000 ohms	.4 MA	11.85	11.26	10.67	10.07	9.48
24F929	SV/1C/40000D	40000 ohms	.35 MA	13.30	12.64	11.97	11.33	10.64



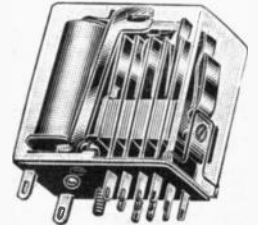
SV Series

MINIATURE INDUSTRIAL RELAY

Type 67. Use armco magnetic ingot iron and a one piece frame and core to provide for unusually precise adjustment. Has plastic protective cover. Sockets available.

STANDARD ADJUSTMENT

Stk. No.	Type	Coil VDC	Ohms	Contacts		1-9	10-49	50-99	100-249	250-499
				Form	Rating					
57F1600	67DP-A-2C3	6	52	2C	3 Amp	3.40	3.05	2.55	2.38	2.31
57F1601	67DP-D-2C3	12	185	2C	3 Amp	3.40	3.05	2.55	2.38	2.31
57F1602	67DP-G-2C3	24	700	2C	3 Amp	3.40	3.05	2.55	2.38	2.31
57F1603	67DP-N-2C3	115	15000	2C	3 Amp	4.80	4.32	3.60	3.36	3.26
57F1604	67DP-A-4C3	6	52	4C	3 Amp	3.80	3.42	2.85	2.66	2.58
57F1605	67DP-D-4C3	12	185	4C	3 Amp	3.80	3.42	2.85	2.66	2.58
57F1606	67DP-G-4C3	24	700	4C	3 Amp	3.80	3.42	2.85	2.66	2.58
57F1607	67DP-N-4C3	115	15000	4C	3 Amp	5.20	4.68	3.90	3.64	3.54
57F1608	67DP-B-6C3	6	25	6C	3 Amp	4.90	4.41	3.68	3.43	3.33
57F1609	67DP-E-6C3	12	90	6C	3 Amp	4.90	4.41	3.68	3.43	3.33
57F1610	67DP-H-6C3	24	430	6C	3 Amp	4.90	4.41	3.68	3.43	3.33
57F1611	67DP-P-6C3	115	9000	6C	3 Amp	5.85	5.27	4.62	4.10	3.98
57F1612	67DP-C-8C3	6	20	8C	3 Amp	7.00	6.30	5.25	4.90	4.76
57F1613	67DP-F-8C3	12	72	8C	3 Amp	7.00	6.30	5.25	4.90	4.76
57F1614	67DP-I-8C3	24	350	8C	3 Amp	7.00	6.30	5.25	4.90	4.76
57F1615	67DP-R-8C3	115	8000	8C	3 Amp	7.95	7.16	6.28	5.56	5.41
57F1616	67DP-A-2C5	6	52	2C	5 Amp	3.50	3.15	2.63	2.45	2.38
57F1617	67DP-D-2C5	12	185	2C	5 Amp	3.50	3.15	2.63	2.45	2.38
57F1618	67DP-G-2C5	24	700	2C	5 Amp	3.50	3.15	2.63	2.45	2.38
57F1619	67DP-N-2C5	115	15000	2C	5 Amp	4.90	4.41	3.66	3.43	3.33
57F1620	67DP-A-4C5	6	52	4C	5 Amp	4.00	3.60	3.00	2.80	2.72
57F1621	67DP-D-4C5	12	185	4C	5 Amp	4.00	3.60	3.00	2.80	2.72
57F1622	67DP-G-4C5	24	700	4C	5 Amp	4.00	3.60	3.00	2.80	2.72
57F1623	67DP-N-4C5	115	15000	4C	5 Amp	5.40	4.86	4.05	3.78	3.67
57F1624	67DP-B-6C5	6	25	6C	5 Amp	5.20	4.68	3.90	3.64	3.54
57F1625	67DP-E-6C5	12	90	6C	5 Amp	5.20	4.68	3.90	3.64	3.54
57F1626	67DP-H-6C5	24	430	6C	5 Amp	5.20	4.68	3.90	3.64	3.54
57F1627	67DP-P-6C5	115	9000	6C	5 Amp	6.15	5.58	4.86	4.31	4.18
57F1628	67DP-C-8C5	6	20	8C	5 Amp	7.40	6.66	5.55	5.18	5.03
57F1629	67DP-F-8C5	12	72	8C	5 Amp	7.40	6.66	5.55	5.18	5.03
57F1630	67DP-I-8C5	24	350	8C	5 Amp	7.40	6.66	5.55	5.18	5.03
57F1631	67DP-R-8C5	115	8000	8C	5 Amp	8.35	7.52	6.60	5.85	5.68
57F1632	67DP-A-2C3B	6	52	2C	3 Amp	3.80	3.42	2.85	2.66	2.58
57F1633	67DP-D-2C3B	12	185	Bifurcated		3.80	3.42	2.85	2.66	2.58
57F1634	67DP-G-2C3B	24	700	Bifurcated		3.80	3.42	2.85	2.66	2.58
57F1635	67DP-N-2C3B	115	15000	Bifurcated		5.20	4.68	3.90	3.67	3.54
57F1636	67DP-A-4C3B	6	52	4C | 3 Amp		4.30	3.87	3.23	3.01	2.94
57F1637	67DP-D-4C3B	12	185	Bifurcated		4.30	3.87	3.23	3.01	2.94
57F1638	67DP-G-4C3B	24	700	Bifurcated		4.30	3.87	3.23	3.01	2.94
57F1639	67DP-N-4C3B	115	15000	Bifurcated		5.70	5.13	4.28	3.99	3.88
57F1640	67DP-B-6C3B	6	25	6C | 3 Amp		5.40	4.86	4.05	3.78	3.67
57F1641	67DP-E-6C3B	12	90	Bifurcated		5.40	4.86	4.05	3.78	3.67
57F1642	67DP-H-6C3B	24	430	Bifurcated		5.40	4.86	4.05	3.78	3.67
57F1643	67DP-P-6C3B	115	9000	Bifurcated		6.35	5.72	5.02	4.45	4.32
57F1644	67DP-C-8C3B	6	20	8C | 3 Amp		7.70	6.93	5.78	5.39	5.24
57F1645	67DP-F-8C3B	12	72	Bifurcated		7.70	6.93	5.78	5.39	5.24
57F1646	67DP-I-8C3B	24	350	Bifurcated		7.70	6.93	5.78	5.39	5.24
57F1647	67DP-R-8C3B	115	8000	Bifurcated		8.65	7.79	6.83	6.06	5.88



Type 67

Newark
can supply all
Phillips
Advance
Relays.
Seven Stocking
Warehouses
Assure Same
Day Shipment
from
On-the-Shelf
Stocks.

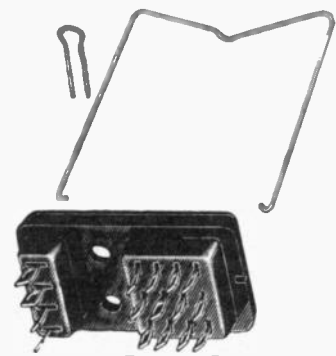
SENSITIVE ADJUSTMENT

Stk. No.	Type	Coil Resist.	Contacts		Curr.	1-9	10-49	50-99	100-249	250-499
			Form	Rating						
57F1648	67DS-S-2C3	1,000	2C	3 Amp	8.5	3.70	3.33	2.78	2.59	2.52
57F1649	67DS-K-2C3	2,500	2C	3 Amp	5.8	3.70	3.33	2.78	2.59	2.52
57F1650	67DS-T-2C3	5,000	2C	3 Amp	4.1	4.20	3.78	3.15	2.94	2.87
57F1651	67DS-V-2C3	10,000	2C	3 Amp	3.1	4.60	4.14	3.45	3.22	3.13
57F1652	67DS-N-2C3	15,000	2C	3 Amp	2.6	4.60	4.14	3.45	3.22	3.13
57F1653	67DS-S-4C3	1,000	4C	3 Amp	13.0	4.15	3.74	3.11	2.91	2.82
57F1654	67DS-K-4C3	2,500	4C	3 Amp	8.4	4.15	3.74	3.11	2.91	2.82
57F1655	67DS-T-4C3	5,000	4C	3 Amp	6.2	4.65	4.19	3.49	3.26	3.16
57F1656	67DS-V-4C3	10,000	4C	3 Amp	4.5	5.05	4.55	3.79	3.54	3.44
57F1657	67DS-N-4C3	15,000	4C	3 Amp	3.5	5.05	4.55	3.79	3.54	3.44

SOCKETS

Chassis socket for 67 relay. Retaining ring and ground clip included.

Stk. No.	Type	Socket No.	1-9	10-49	50-99	100-249
57F1658	67-2C	6-1313-9	.55	.50	.43	.38
57F1659	67-4C	6-1313-11	.60	.55	.46	.42
57F1660	67-6C	6-1313-13	.95	.86	.73	.66
57F1661	67-8C	6-1313-15	1.30	1.13	1.08	.97



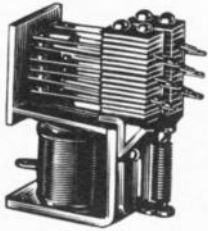
Type 67-2C



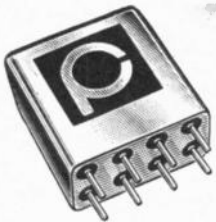
Phillips-Advance Relays

GENERAL PURPOSE RELAYS

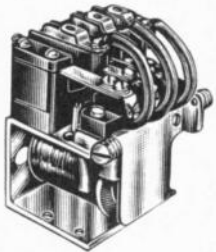
Type 12. Low cost general purpose relay with multiple contacts. Used widely in commercial applications such as industrial controls, communications equipment, and automatic vending machines. AC or DC, 230 volts, maximum. Coil dissipation, 3 watts maximum. Provided with four mounting holes, single stud, for easy installation. $2\frac{3}{16}$ " x $1\frac{13}{32}$ " x 1".



Type 12



Type 30



Type 33B

Newark can supply all Phillips Advance Relays. One Purchase Order to One Source for Everything in Industrial Electronics.

Stk. No.	Type	Coil Voltage	Contact Arrange.	Rating (Amps)	Voltage				
					1-9	10-49	50-99	100-249	250-499
60F1715	12DC-6-2C-10	6	DPDT	10	2.30	1.95	1.72	1.54	1.45
60F1716	12DC-12-2C-10	12	DPDT	10	2.40	2.04	1.80	1.60	1.51
60F1717	12DC-24-2C-10	24	DPDT	10	2.50	2.13	1.88	1.67	1.58
60F1718	12DC-115-2C-10	115	DPDT	10	2.80	2.38	2.10	1.87	1.76
60F1719	12DC-6-3C-10	6	3PDT	10	3.00	2.55	2.25	2.00	1.89
60F1720	12DC-12-3C-10	12	3PDT	10	3.10	2.63	2.32	2.07	1.95
60F1721	12DC-24-3C-10	24	3PDT	10	3.15	2.68	2.37	2.11	1.98
60F1722	12DC-115-3C-10	115	3PDT	10	3.50	2.98	2.63	2.33	2.21
60F1723	12DC-6-4C-10	6	4PDT	10	3.00	2.55	2.25	2.00	1.89
60F1724	12DC-12-4C-10	12	4PDT	10	3.10	2.63	2.32	2.07	1.95
60F1725	12DC-24-4C-10	24	4PDT	10	3.15	2.68	2.37	2.11	1.98
60F1726	12DC-115-4C-10	115	4PDT	10	3.50	2.98	2.63	2.33	2.21
60F1727	12DC-6-6C-10	6	6PDT	10	3.50	2.98	2.63	2.33	2.21
60F1728	12DC-12-6C-10	12	6PDT	10	3.60	3.06	2.70	2.40	2.27
60F1729	12DC-24-6C-10	24	6PDT	10	3.65	3.10	2.74	2.45	2.30
60F1730	12DC-115-6C-10	115	6PDT	10	4.00	3.40	3.00	2.67	2.52
60F1731	12AC-6-2C-10	6	DPDT	10	2.40	2.04	1.80	1.60	1.51
60F1732	12AC-12-2C-10	12	DPDT	10	2.50	2.13	1.88	1.67	1.58
60F1733	12AC-24-2C-10	24	DPDT	10	2.55	2.17	1.92	1.71	1.61
60F1734	12AC-115-2C-10	115	DPDT	10	2.70	2.30	2.03	1.80	1.70
60F1735	12AC-6-3C-10	6	3PDT	10	2.70	2.30	2.03	1.80	1.70
60F1736	12AC-12-3C-10	12	3PDT	10	2.80	2.38	2.10	1.87	1.76
60F1737	12AC-24-3C-10	24	3PDT	10	2.90	2.47	2.18	1.94	1.83
60F1738	12AC-115-3C-10	115	3PDT	10	3.10	2.63	2.32	2.07	1.95
60F1739	12AC-6-4C-10	6	4PDT	10	3.10	2.63	2.32	2.07	1.95
60F1740	12AC-12-4C-10	12	4PDT	10	3.15	2.68	2.37	2.11	1.98
60F1741	12AC-24-4C-10	24	4PDT	10	3.20	2.72	2.40	2.13	2.02
60F1742	12AC-115-4C-10	115	4PDT	10	3.40	2.89	2.55	2.27	2.14
60F1743	12AC-6-6C-10	6	6PDT	10	3.60	3.06	2.70	2.40	2.27
60F1744	12AC-12-6C-10	12	6PDT	10	3.65	3.10	2.74	2.45	2.30
60F1745	12AC-24-6C-10	24	6PDT	10	3.70	3.15	2.78	2.47	2.33
60F1746	12AC-115-6C-10	115	6PDT	10	3.90	3.32	2.93	2.60	2.46

MICRO-MINIATURE RELAYS

Type 30. Micro-miniature Type 30 provides rugged, dependable performance from a compact, hermetically sealed relay. It is ideal for applications involving computer systems, missile or aircraft control circuits, communications equipment and general electronic circuitry. Quality controlled production and precision components assembled and tested under dust-free, super clean manufacturing conditions assures you that the Phillips micro-miniature Type 30 will uphold the high quality standards of your products. Conforms to MIL-5757D. Meets the following low level requirements: 30 microvolts open circuit voltage; 10 microamperes contact current. Available with five different mountings, all with 675 ohms resistance and 28.5 volts nominal.

Stk. No.	Type	Mounting	Res.	Volt Nom.	Voltage				
					1-9	10-49	50-99	100-249	250-499
60F1750	30-01G	Solder Header with 2 mtg. brackets	675	26.5	7.25	7.00	6.25	6.00	5.75
60F1751	30-02G	Solder Header with side bracket	675	26.5	7.25	7.00	6.25	6.00	5.75
60F1752	30-04G	Solder Header with 2 side studs	675	26.5	7.25	7.00	6.25	6.00	5.75
60F1753	30-05G	Solder Header with 2 top studs	675	26.5	7.25	7.00	6.25	6.00	5.75
60F1754	30-07G	Plug in-Plain can	675	26.5	7.25	7.00	6.25	6.00	5.75

POWER RELAYS

Type 33B. Designed and constructed with a variety of features which contribute to the sensitivity and longevity of the relay. Contacts and terminals are mounted on molded phenolic blocks with integral barriers. Moveable contact blades are made of spring temper phosphor bronze for high conductivity and long life. Adjusting screws on each blade permit close adjustment in the factory for contact gap, over-travel, and pressure. Armature pivots on machined phosphor bronze bearing pins and pivot holes are precision reamed. Adjustment of the armature and yoke assembly allows proper alignment between the armature and pole face. Four 6-32 NC tapped mounting holes in the base allow easy mounting on chassis or bracket.

Stk. No.	Type (DC)	Coil (Ω)	Operate Curr. (amp)	Watts	Operate Time	Contact Arrange.	Voltage				
							1-9	10-49	50-99	100-249	250-499
60F1755	33BDC-6-3C-14	18	.185	.62	.019	3PDT	6.60	6.27	5.61	4.95	4.62
60F1756	33BDC-6-5C-14	18	.225	.91	.025	5PDT	8.10	7.70	6.89	6.08	5.67
60F1757	33BDC-24-3C-14	250	.064	1.02	.025	3PDT	6.60	6.27	5.61	4.95	4.62
60F1758	33BDC-24-5C-14	250	.070	1.22	.029	5PDT	8.10	7.70	6.89	6.08	5.67
60F1759	33BDC-230-3C-14	10 000	.010	1.0	.014	3PDT	8.60	8.17	7.31	6.45	6.02
60F1760	33BDC-230-5C-14	10 000	.011	1.21	.016	5PDT	10.10	9.60	8.59	7.58	7.07

Stk. No.	Type (AC)	Coil No.	Coil Res. Ω	Curr. Drain (Amp)	Pick-up Voltage 60 cyc.	Contact Arrange.	Voltage				
							1-9	10-49	50-99	100-249	250-499
60F1763	33BAC-24-3C-14	33CA3K	9	.390	21	3PDT	6.60	6.27	5.61	4.95	4.62
60F1764	33BAC-24-5C-14	33CA3K	9	.390	21	5PDT	8.10	7.70	6.89	6.08	5.67
60F1765	33BAC-115-3C-14	33CA3Q	215	.070	100	3PDT	9.10	8.65	7.74	6.83	6.37
60F1766	33BAC-115-5C-14	33CA3Q	215	.070	100	5PDT	10.60	10.07	9.01	7.95	7.42

Phillips-Advance Relays



Type 38



Type 39



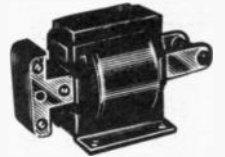
Type 40



Type 41



Type 42



Type 51

Types 38, 39, 40, 41, 42, 51. Solid frame solenoids using high-grade steel in all parts of the magnetic circuit. Carefully controlled annealing, after all machining operations are completed, assures maximum efficiency. The frame is dovetailed and staked to the end plate, adding mechanical strength and increasing the performance of the magnetic circuit. Plungers and plunger stops, which are made of annealed and specially processed steel, are available in three standard types for specific operating requirements. Type 51 is a laminated frame solenoid and has been designed and engineered to meet all of the requirements of the highest quality A.C. solenoid. Special production techniques and rigid quality control combine to provide a highly efficient unit. The frame is composed of silicon steel laminations securely riveted to a steel frame. Pole faces are precision ground and equipped with copper shading rings. Silicon steel laminations are also used for the plunger.

Stock No.	Type	Duty	Volts	Coil. Res.	1-9	10-49	50-99	100-999
60F1768	38C115DC-AY	Cont.	115 VDC	1500	4.50	3.60	3.15	2.70
60F1770	3825115DC-AY	Intermt.	115 VDC	400	4.50	3.60	3.15	2.70
60F1771	38C11560-AX	Cont.	115 VAC	135	4.50	3.60	3.15	2.70
60F1772	382511560-AX	Intermt.	115 VAC	50	4.50	3.60	3.15	2.70
60F1775	392524DC-AY	Intermt.	24 VDC	10	5.10	4.08	3.57	3.06
60F1777	39C11560-AX	Cont.	115 VAC	105	5.10	4.08	3.57	3.06
60F1778	392511560-AX	Intermt.	115 VAC	30	5.10	4.08	3.57	3.06
60F1779	40C24DC-AY	Cont.	24 VDC	47.5	6.00	4.80	4.20	3.60
60F1781	402524DC-AY	Intermt.	24 VDC	12	6.00	4.80	4.20	3.60
60F1780	40C115DC-AY	Cont.	115 VDC	1570	6.00	4.80	4.20	3.60
60F1784	402511560-AX	Intermt.	115 VAC	25	6.00	4.80	4.20	3.60
60F1785	41C24DC-AU	Cont.	24 VDC	200	4.10	3.28	2.87	2.46
60F1786	41C115DC-AU	Cont.	115 VDC	4500	4.10	3.28	2.87	2.46
60F1789	42C11560-AX	Cont.	115 VAC	370	4.50	3.60	3.15	2.70
60F1790	422511560-AX	Intermt.	115 VAC	125	4.50	3.60	3.15	2.70
60F1791	51C11560	Cont.	115 VAC	30	7.20	5.76	5.04	4.32
60F1792	512511560	Intermt.	115 VAC	15	7.20	5.76	5.04	4.32
60F1793	512523060	Intermt.	230 VAC	65	7.20	5.76	5.04	4.32

MICRO MINIATURE HALF SIZE TYPES

Type 62. A unique half-size microminiature relay with these eleven specific advantages: (1) Diagonally mounted coil for greater sensitivity; (2) uniquely designed armature assures maximum sensitivity and magnetic uniformity; (3) massive pole pieces provide higher heat dissipation; (4) Contacts of gold-flashed silver magnesium nickel for high temp. stability and low performance; (5) single coil design provides greater reliability; (6) single stamping forms integral return spring and back stop; (7) welded, spade-type coil terminations; (8) unitized, welded construction for greater rigidity; (9) designed for optimum magnetic characteristics; (10) balanced armature provides higher resistance to vibrations and shock; (11) sensitivity level below 200 milliwatts. Dimen.: H. 0.400"; L. 0.390"; W. 0.800".

Stock No.	Type	Res.	Contacts	Volts	Style	1-9	10-49	50-99	100-249	250-499
60F1794	62-01-G	700	DPDT	26.5	Solder-Header					
					2 Mntg. Brckts.	14.25	13.50	12.00	11.00	10.00
60F1795	62-07-G	700	DPDT	26.5	Plug In-Pln. Can	14.25	13.50	12.00	11.00	10.00

MICRO MINIATURE 4 POLE-HALF SIZE TYPES

Type 64. Four-pole double throw relay having twice the versatility of conventional 2PDT'S, half the size of the conventional 4PDT'S. Designed specifically to meet aerospace needs, the Type 64 features all-welded construction and "Thermo-Dri" nitrogen backfilling to assure contamination-free operation. Symmetrical circuitry simplifies wiring. Available in various coil resistances and all popular header styles. Meets MIL-R-5757/12A.

Stock No.	Type	Res.	Contacts	Volts	Style	1-9	10-49	50-99	100-249	250-499
60F1796	64-01-H	500	4PDT	26.5	Solder Header,					
					Mntg. Brackets	24.50	23.50	21.50	19.00	18.00
60F1797	64-07-H	500	4PDT	26.5	Plug-In-Pln. Can	24.50	23.50	21.50	19.00	18.00

SENSITIVE MICRO-MINIATURE TYPES

Type 80. A 40 milliwatt micro-miniature relay using latest manufacturing techniques, including back-filling with "Thermo-Dri" nitrogen and precise adjustments to obtain an operate time of less than 10 milli-seconds. This unit meets all requirements of military specifications, MIL-R-5757/13A. Vibration, 20 G's through 2000 CPS. Shock, 65 G's for 11 milliseconds. Temp. range: -65C to +125C.

Stock No.	Type	Res.	Contact Rating	Volts	Style	1-9	10-49	50-99	100-249	250-499
60F1798	80-01-S	5000	3 Amps	26.5	Solder Header,					
					Mntg. Brackets	13.00	12.00	11.00	9.00	8.50
60F1799	80-07-S	5000	3 Amps	26.5	Plug-In-Pln. Can	13.00	12.00	11.00	9.00	8.50

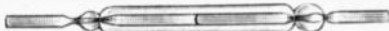
CIRCUIT DESIGNERS' BREADBOARD

Ideal workbench for school and industry. Circuit diagrams drawn on schematic transfer board and viewed from above. 14K gold plated spring connectors for perfect elec. contacts. Sturdy aluminum frame on rubber cushions; binding posts, 100 spring connectors included; solid 1/4" Plexiglas circuit panel; built-in ground rail for alligator clips; partitioned drawer for tools and parts; includes Ohms Law, color code, symbol charts. Size, 14"x17". Wgt., 4 3/4 lbs.

60F1800. NET

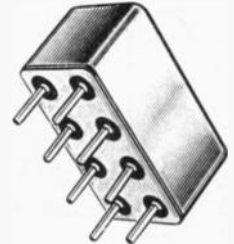
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GENERAL ELECTRIC DRY REED SWITCH

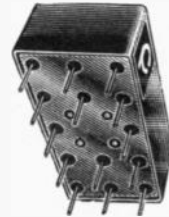


Contains a pair of magnetic overlapping, contact bearing cantilever reeds sealed in a glass tube filled with dry inert gas. Life expectancy 20 million cycles. Operating temperature -85° to 150°C. Shock without false operation. 40G's, except DR100, 15G's. Length, with leads 3.21". Dia. .215". Contacts; normally open. Max. voltage 250 Volts.

Type	Contact resist.	Contact material.	Max. current	1-99	100-up
DR100	150 Mohm	gold	0.25 amp	.98	.80
DR101	50 Mohm	gold	1 amp	.70	.60
DR113	50 Mohm	rhodium	3 amp	1.47	1.13
DR104	50 Mohm	gold	1 amp	.63	.49
DR121	150 Mohm	rhodium	0.25 amp	1.00	.80



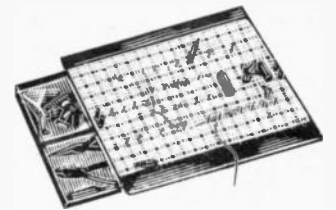
Type 62



Type 64



Type 80



Circuit Designers' Breadboard

Dunco Reed & General Purpose Relays



MOLDED



PRINTED CIRCUIT

STANDARD REED CHARACTERISTICS

Temp. range; 0°C to 50°C. Vib.; 10G to 450 cycles; Shock; 50G; Contact rating; 15 watts; 250 volts or 1 amp. Contact resistance; 50 milliohms maximum. Life expectancy; 200,000,000 operations at dry circuit level. 100,000,000 operations at one-half max; 200,000,000 operations at maximum rating. Form A (SPST-NO), Form B (SPST-NC), Form C (SPOT).

NEW MOLDED SHIELDED REEDS

Axial leads, encapsulated with wrap around shielding. Operating time; 1.5 to 2.5 milliseconds, 500,000 megohms insulating res. Contact arrangements indicated by type numbers as follows: RRIA (1 Form A) and RRI1B (1 Form B), .655" dia. x 1.875"; RRA2 (2 Form A), .67 x .84 x 1.875" and RRA4F (4 Form A), .81 x 1.385 x 1.875". Shpg. wt. 4 oz.

Stk. No.	Type	Coil VDC	Ohms	1-24	25-49	50-74	75-99	100-249
60F3133	RRIA	6	90					
60F3134	RRI1B	12	360	3.20	3.04	2.88	2.56	2.24
60F3135	RRIA	24	1440					
60F3137	RRI1B	12	360	4.10	3.90	3.69	3.28	2.87
60F3136	RRI1B	24	1440					
60F3138	RR2A	6	36					
60F3139	RR2A	12	145	5.00	4.75	4.50	4.00	3.50
60F3140	RR2A	24	580					
60F3141	RR4AF	12	95	8.60	8.17	7.74	6.88	6.02
60F3142	RR4AF	24	380					

NEW PRINTED CIRCUIT SHIELDED REEDS

Entirely enclosed in a steel housing, and unaffected by external magnetic fields. Insulation resistance; 10000 megohms. RRIA1BM, 1 Form A, 1 Form B; .800x.500x2.313". RR2A2BM 2 Form A, 2 Form B; 1.200x.5.50x2.313". RRICM, 1 Form C; RRLM1CM, 1 Form C (latching-single coil, bistable) and RRLM1CM-102, is same but double coil; .60x.55x2.313".

Stk. No.	Type	Coil VDC	Ohms	1-24	25-49	50-74	75-99	100-249
60F3143	RRIA1BM	...	36					
60F3144	RRIA1BM	...	144	7.00	6.65	6.30	5.60	4.90
60F3145	RRIA1BM	...	576					
60F3146	RR2A2BM	...	72					
60F3147	RR2A2BM	...	288	12.30	11.69	11.07	9.84	8.61
60F3148	RRICM	...	1152	12.70	12.07	11.43	10.16	8.89
60F3149	RRICM	...	4600					
60F3150	RRLM1CM	...	1152	11.80	11.21	10.62	9.44	8.26
60F3151	RRLM1CM	...	4600					
60F3152	RRLM1CM102	...	480	12.70	12.07	11.43	10.16	8.89
60F3153	RRLM1CM102	...	1920					

NEXT LARGER TYPE MINIATURE REED CHARACTERISTICS

Contact rating; low level to 4 watts; 250 volts max. 125 MA max. Temp. range; 0°C to 50°C. Vib.; 10 G to 1000 cycles. Shock; 50G. Contact Res., 200 milliohms max. Life expectancy; 200,000,000 oper. at dry circuit level. 20,000,000 oper. at 1/2 max. rating. 3,000,000 oper. at max. rating.

NEW MINIATURE MOLDED SHIELD REEDS

Operating time is 1-2.5 msec. Release time less than 0.3 msec. Insulation resistance; 50,000 megs. MRR1A, 1 form A, N.O.; 425" dia. x 1.062". MRR2A, 2 form A, N.O.; 425x515x1.062". MRR4A 4 form A, N.O.; 53x810x1.062". Shpg. wt. 2 oz.

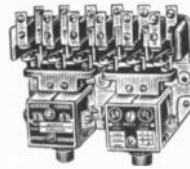
Stk. No.	Type	Coil VDC	Ohms	1-24	25-49	50-74	75-99	100-249
60F3154	MRR1A	6	288					
60F3155	MRR1A	12	1152	4.20	3.99	3.78	3.36	2.94
60F3156	MRR1A	24	4600					
60F3157	MRR2A	6	144					
60F3158	MRR2A	12	576	6.20	5.89	5.57	4.95	4.33
60F3159	MRR2A	24	2300					
60F3160	MRR4A	12	288	10.60	10.07	9.54	8.48	7.42
60F3161	MRR4A	24	1152					

NEW MINIATURE PRINTED CIRCUIT SHIELDED REEDS

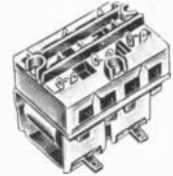
Can be wired on 0.1 grid centers. MMRIAM, 1 form A; MRR1BM, 1 form B; MRR1A1BM, 1 form A, 1 form B; MRR2AM, 2 form A; MRR2BM 2 form B; Size; All aver. .50x.50x1.125". Shpg. wt. 5 oz.

Stk. No.	Type	Coil VDC	Ohms	1-24	25-49	50-74	75-99	100-249
60F3162	MMRIAM	6	144					
60F3163	MRR1AM	12	576	5.70	5.42	5.13	4.56	3.99
60F3164	MRR1AM	24	2304					
60F3165	MRR1BM	12	576	5.90	5.61	5.31	4.72	4.13
60F3166	MRR1BM	24	2304					
60F3167	MRR1A1BM	6	72					
60F3168	MRR1A1BM	12	288	7.70	7.32	6.93	6.16	5.39
60F3169	MRR1A1BM	24	1152					
60F3170	MRR2AM	12	288	6.80	6.46	6.12	5.44	4.76
60F3171	MRR2AM	24	1152					
60F3172	MRR2BM	12	288	7.00	6.65	6.30	5.60	4.90
60F3173	MRR2BM	24	1152					

REVERSING CONTACTOR



A175KXX



275KXX

NEW SERIES B 175KXX

Control the reversal of single phase AC, polyphase AC, and DC motors. Withstands frequent reversing or jogging service, and severe shock and vibrations encountered in the hoist service. Two 3-pole solenoid operated contactors mounted on a common frame and mechanically interlocked to prevent simultaneous closure. Double-break silver contacts rated 2hp at 110-220v., 2-3 phase; 3 hp at 440-450v., 2-3 phase; 1 1/2 hp at 230v., 1 hp at 115v. single phase. 5/4x4 1/2x2 1/2". U.L., C.S.A. listed. Shpg. wt. 2 1/2 lbs.

Stk. No.	Type	Coil Vac	1-24	25-49	50-74	75-99	100-249
60F3174	B175KXX	24					
60F3175	B175KXX	115	27.50	26.13	24.75	22.00	19.25
60F3176	B175KXX	230					

NEW SERIES 275KXX

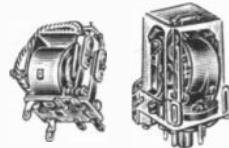
Compact, low cost contractor designed for continuous operation in heavy duty service. Numerous applications in overhead doors, elevators, hoists, pump sequencing and other jogging services. 3 point suspension 3 pole contactor mounted on a common frame and mechanically interlocked to prevent simultaneous closure. Contacts rated 3/4 hp at 120v; 1 hp at 120v; 2-3 phase, 240 and 480v; 1-2-3 phase.

SERIES 275KXX74. As above but with auxiliary electrical interlock that consists of a pair of SPDT double break contacts mounted on hte front of the contactor. Size: 3 1/8x2 3/4x2 7/8". Wt. 1 lb.

Stock No.	Type	Coil Vac	1-24	25-49	50-74	75-99	100-249
60F3177	275KXX	24					
60F3178	275KXX	120	16.50	15.68	14.85	13.20	11.55
60F3179	275KXX	230					
60F3180	275KXX74	24					
60F3181	275KXX74	120	19.80	18.81	17.82	15.84	13.86
60F3182	275KXX74	230					

NEW 214 FRAME AC AND DC RELAYS

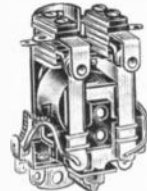
Space saving, low cost relays for general purpose applications. Features contact reliability. Insulation (G3) is Melamine bonded fibre glass which assures firm contact support. Longer operating life by use of wide hinge. AC relays operate over a range of 85% to 110% of nom.v. DC relays operate over a range of 80% to 110% of nom. v. Standard contacts are line silver rated 5 amps, 115 VAC. Shpg. Wt. 5 oz.



OPEN								
Stock No.	Type	Coil volts	Action	1-24	25-49	50-74	75-99	100-249
60F3183	214XB	115AC	DPDT	3.10	2.95	2.79	2.48	2.17
60F3184	214XB	24DC	DPDT	3.10	2.95	2.79	2.48	2.17
60F3185	214XC	115AC	3PDT	3.50	3.33	3.15	2.80	2.45
60F3186	214XC	24DC	3PDT	3.50	3.33	3.15	2.80	2.45
ENCLOSED								
60F3187	214XB48P	115AC	DPDT	5.00	4.75	4.50	4.00	3.50
60F3188	214XB48P	24DC	DPDT	5.00	4.75	4.50	4.00	3.50
60F3189	214XC48P	115AC	3PDT	6.00	5.70	5.40	4.80	4.20
60F3190	214XC48P	24DC	3PDT	6.00	5.70	5.40	4.80	4.20

NEW MEDIUM POWER OPEN-FRAME 115 VAC RELAYS

Low cost relay designed for long life. Can be used over a broad range of applications. Impregnated operating coils for max. moisture and corrosion resistance. Insulated carrying parts for min. of 1250 volts AC breakdown. Contacts are 7/32" fine silver buttons mounted on heavy flexing phosphor bronze fingers with a current carrying cap. of 15 amps. DC circuits when adjusted may be used in plate circuits. Shpg. wt. 5 oz.



Stk. No.	Type	Action	1-24	25-49	50-74	75-99	100-249
60F3191	215XAX	SPDT	5.10	4.85	4.59	4.08	3.57
60F3192	215XB	DPDT	7.20	6.84	6.48	5.76	5.04



SIGMA

Relays — General Purpose



Type 11FZ



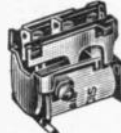
Type 46



Type 50F



Type 50R0



Type 59F1D



Type 59A01D



Type 62

SERIES 11 AC & DC SPDT RELAYS

Small, low cost relays for 1 ampere switching at 28 VDC/115 VAC resistive. DC types are designed for sliding current or on-off 50mw signals. AC used for .3va on-off signals. Good environmental capability. UL and C.S.A. listed. 11F and 11FZ screw mounting with solder lug terminals, 1¹/₃₂" x 1¹/₁₆" x 1¹/₁₆". 11FP shoulder lug mounting with printed circuit terminals, 1¹/₂" sq. x 1¹/₂". Temp. range: -40 to +122°F. Shpg. wt., 3 oz.

DC RELAYS

Stock No.	Type and Coil ohms	Ma DC	Nominal Voltage	1-99	100-499
24F1987	11F-250-G-SIL	14.0	6VDC	1.95	1.76
24F1988	11F-550-G-SIL	9.5	....	1.95	1.76
24F360	11F-1000-G-SIL	7.0	12VDC	1.95	1.76
24F1989	11F-1500-G-SIL	5.8	....	1.95	1.76
24F361	11F-2300-G-SIL	4.6	....	1.95	1.76
24F362	11F-6000-G-SIL	2.9	24VDC	2.15	1.94
24F363	11F-9000-G-SIL	2.4	....	2.35	2.12
24F1990	11FP-1000-G-SIL	7.0	12VDC	2.05	1.85
24F1991	11FP-2300-G-SIL	4.6	....	2.05	1.85

AC RELAYS

Stock No.	Type and Coil ohms	V AC	1-24	25-49	50-74	75-99	100-249
24F1992	11FZ-25-ACS-SIL	6	3.05	2.90	2.75	2.44	2.14
24F380	11FZ-9000-ACS-SIL	115	3.60	3.42	3.24	2.88	2.52

SERIES 46B AC & DC DPDT RELAYS

Switches industrial loads, fractional HP motors up to 10 amps. 8 pin plug. Comes with a plastic dust cover. Switch, coil, and frame assemblies are solidly fixed to base to withstand severe shocks. No internal switch wiring. UL yellow card and C.S.A. listed. Nominal Power: 2va;w. Temp. -85° to +158°F. H: 1¹/₂" sq. x 2⁵/₁₆". Shpg. wt., 7 oz.

Stock No.	Type and Coil ohms	Coil V.	1-24	25-49	50-74	75-99	100-249
24F1993	46BROZ-43 ACL-SCO	24AC	6.05	5.75	5.45	4.81	4.24
24F2018	46BROZ-1100 ACL-SCO	120AC	6.05	5.75	5.45	4.84	4.24
24F1994	46BROZ-4500 ACL-SCO	240AC	6.45	6.13	5.81	5.16	4.52
24F2013	46BRO-180 LG-SCO	12DC	6.00	5.70	5.40	4.80	4.20
24F2014	46BRO-630 LG-SCO	24DC	6.00	5.70	5.40	4.80	4.20
24F2015	46BRO-2800 LG-SCO	48DC	6.20	5.89	5.58	4.96	4.34
24F2016	46BRO-17000 LG-SCO	120DC	6.60	6.27	5.94	5.28	4.62

SERIES 50 AC & DC SPDT, DPDT, 3PDT RELAYS

Compact relay for switching small motors, solenoids, and other relays in all types of automated equipment. Contact rating 10 amps at 28 VDC/115 VAC. Polycarbonate cover. Mech. life, 5x10⁶ operations. Temp: +14° to ±158°F; 50R0: TO +131° F.

OPEN TYPE WITH SOLDER TERMINALS

Stock No.	Type SCO and Coil Volts	Coil ohms	Action	1-24	25-49	50-74	75-99	100-249
24F2651	50F1-6AC	5.8	SPDT	3.20	3.04	2.88	2.56	2.24
24F2652	50F1-12AC	23.5	SPDT	3.20	3.04	2.88	2.56	2.24
24F2653	50F1-24AC	95	SPDT	3.20	3.04	2.88	2.56	2.24
24F2654	50F1-115AC	2300	SPDT	3.20	3.04	2.88	2.56	2.24
24F2655	50F1-6DC	23.5	SPDT	3.15	2.99	2.84	2.52	2.21
24F2656	50F1-12DC	95	SPDT	3.15	2.99	2.84	2.52	2.21
24F2657	50F1-24DC	430	SPDT	3.15	2.99	2.84	2.52	2.21
24F2558	50F1-110DC	10000	SPDT	3.65	3.47	3.29	2.92	2.56
24F2659	50F2-6AC	5.8	DPDT	3.95	3.75	3.56	3.16	2.77
24F2660	50F2-12AC	23.5	DPDT	3.95	3.75	3.56	3.16	2.77
24F2661	50F2-24AC	430	DPDT	3.95	3.75	3.56	3.16	2.77
24F2662	50F2-115AC	2300	DPDT	3.95	3.75	3.56	3.16	2.77
24F2663	50F2-6DC	23.5	DPDT	3.60	3.42	3.24	2.88	2.52
24F2664	50F2-12DC	95	DPDT	3.60	3.42	3.24	2.88	2.52
24F2665	50F2-24DC	430	DPDT	3.60	3.42	3.24	2.88	2.52
24F2666	50F2-110DC	10000	DPDT	4.05	3.85	3.65	3.24	2.84
24F2667	50F3-6AC	5.8	3PDT	4.40	4.18	3.96	3.52	3.08
24F2668	50F3-12AC	23.5	3PDT	4.40	4.18	3.96	3.52	3.08
24F2669	50F3-24AC	95	3PDT	4.40	4.18	3.96	3.52	3.08
24F2670	50F3-115AC	2300	3PDT	4.40	4.18	3.96	3.52	3.08
24F2671	50F3-6DC	23.5	3PDT	4.05	3.85	3.65	3.24	2.84
24F2672	50F3-12DC	95	3PDT	4.05	3.85	3.65	3.24	2.84
24F2673	50F3-24DC	430	3PDT	4.05	3.85	3.65	3.24	2.84
24F2674	50F3-110DC	10000	3PDT	4.55	4.32	4.10	3.64	3.19

SERIES 59DC SPOT RELAYS

Low cost snap switch relay. Contact rating 2 amp. Contact assembly provides positive operations from on-off or slowly changing signals. Mech. life, 1x10⁶. Temp: +14° to +158°F. 59F1D: Screw mounting with solder terminals 1¹/₈" x 2³/₁₆" x 1¹/₄". Shpg. wt., 1 oz. 59A01D: Metal dust cover, 8-pin plug, Dia. 1¹/₁₆" x 1¹/₃₂" H. Nom. power; 300mw. Shtpg. wt., 2 oz.

Stock No.	Type and coil v.	Coil ohms	1-99	100-499
24F1978	59A01D-6DC	120	3.55	3.20
24F1979	53A01D-12DC	465	3.55	3.20
24F1980	5901D-24DC	1800	3.55	3.20
24F1975	59F1D-6DC	120	2.05	1.85
24F1976	59F1D-12DC	465	2.05	1.85
24F1977	59F1D-24DC	1800	2.05	1.85

SERIES 62DC DPDT, 4PDT, 6PDT RELAYS

Excellent stability, exceptional life at moderate loads. Interchangeable with similar commercial relays. Rated 2 amps. Nom. power for 2 pole and 4 pole; 70mw; For 6 pole 1.4w. Plastic dust cover, stud mounting, and solder or printed-circuit terminal sockets. 1¹/₁₆" x 3¹/₄" x 1¹/₃₂" h. Temp: +14° to +158°F. Shpg. wt., 1 oz.

Stock No.	Type and coil volts	Coil ohms	Action	1-24	25-49	50-74	75-99	100-499
24F2675	62R2-6DC	52	DPDT	3.40	3.23	3.06	2.72	2.38
24F2676	62R2-12DC	185	DPDT	3.40	3.23	3.06	2.72	2.38
24F2677	62R2-24DC	700	DPDT	3.40	3.23	3.06	2.72	2.38
24F2678	62R2-48DC	2.5K	DPDT	3.50	3.33	3.15	2.80	2.45
24F2679	62R2-110DC	15K	DPDT	4.80	4.56	4.32	3.84	3.36
24F2680	62R4-6DC	52	4PDT	3.80	3.61	3.42	3.04	2.66
24F2681	62R4-12DC	185	4PDT	3.80	3.61	3.42	3.04	2.66
24F2682	62R4-24DC	700	4PDT	3.80	3.61	3.42	3.04	2.66
24F2683	62R4-48DC	2500	4PDT	4.00	3.80	3.60	3.20	2.80
24F2684	62R4-110DC	15000	4PDT	5.20	4.94	4.68	4.16	3.64
24F2685	62R6-6DC	25	6PDT	4.85	4.61	4.37	3.88	3.40
24F2686	62R6-12DC	90	6PDT	4.85	4.61	4.37	3.88	3.40
24F2687	62R6-24DC	430	6PDT	4.85	4.61	4.37	3.88	3.40
24F2688	62R6-48DC	1550	6PDT	5.20	4.94	4.68	4.16	3.64
24F2689	62R6-110DC	9000	6PDT	5.80	5.51	5.22	4.64	4.06
24F2690	AD22-Solder term. socket DPDT			.55	.52	.50	.44	.39
24F2691	AD23-P.C. term. socket DPDT			.55	.52	.50	.44	.39
24F2692	AD24-Solder term. socket 4PDT			.65	.62	.58	.52	.46
24F2693	AD25-P.C. term. socket 4PDT			.65	.62	.58	.52	.46
24F2694	AD26-Solder term. socket 6PDT			.95	.90	.86	.76	.67
24F2695	AD26-Solder term. socket 6PDT			.95	.90	.86	.76	.67

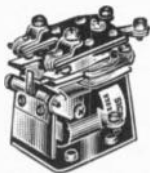
ENCLOSED PLUG-IN TYPE

Stock No.	Type SCO & Coil V.	Coil Ohms	Action	1-24	25-49	50-74	75-99	100-249
24F2696	50R01-6AC	5.8	SPDT	5.40	5.13	4.86	4.32	3.78
24F2697	50R01-12AC	23.5	SPDT	5.40	5.13	4.86	4.32	3.78
24F2698	50R01-24AC	95	SPDT	5.40	5.13	4.86	4.32	3.78
24F2699	50R01-115AC	2300	SPDT	5.40	5.13	4.86	4.32	3.78
24F2700	50R01-6DC	23.5	SPDT	5.30	5.04	4.77	4.24	3.71
24F2701	50R01-12DC	95	SPDT	5.30	5.04	4.77	4.24	3.71
24F2702	50R01-24DC	430	SPDT	5.30	5.04	4.77	4.24	3.71
24F2703	50R01-110DC	10000	SPDT	5.75	5.46	5.18	4.60	4.03
24F2704	50R02-6AC	5.8	DPDT	6.05	5.75	5.45	4.84	4.24
24F2705	50R02-12AC	23.5	DPDT	6.05	5.75	5.45	4.84	4.24
24F2706	50R02-24AC	95	DPDT	6.05	5.75	5.45	4.84	4.24
24F2707	50R02-115AC	2300	DPDT	6.05	5.75	5.45	4.84	4.24
24F2708	50R02-6DC	23.5	DPDT	6.00	5.70	5.40	4.80	4.20
24F2709	50R02-12DC	95	DPDT	6.00	5.70	5.40	4.80	4.20
24F2710	50R02-24DC	430	DPDT	6.00	5.70	5.40	4.80	4.20
24F2711	50R02-110DC	10000	DPDT	6.40	6.08	5.76	5.12	4.48
24F2712	50R03-6AC	5.8	3PDT	7.00	6.65	6.30	5.60	4.90
24F2713	50R03-12AC	23.5	3PDT	7.00	6.65	6.30	5.60	4.90
24F2714	50R03-24AC	95	3PDT	7.00	6.65	6.30	5.60	4.90
24F2715	50R03-115AC	2300	3PDT	7.00	6.65	6.30	5.60	4.90
24F2716	50R03-6DC	23.5	3PDT	6.95	6.60	6.26	5.56	4.87
24F2717	50R03-12DC	95	3PDT	6.95	6.60	6.26	5.56	4.87
24F2718	50R03-24DC	430	3PDT	6.95	6.60	6.26	5.56	4.87
24F2719	50R03-110DC	10000	3PDT	7.40	7.03	6.66	5.92	5.18



SERIES 55 AC & DC RELAYS

Relay for continuous heavy-duty, multiple switching of up to 15 amp 230 VAC. Mechanical life at least 5 million operations. Temp: +14 to +158°F. All unenclosed, screw-mounted. All solder terminals. 2-pole: 1 1/2 x 1 3/4 x 2 3/8". 3-pole: 1 1/2 x 1 3/4 x 2 3/8". 4-pole: 1 1/2 x 1 3/4 x 2 3/8". Ship. wt., 10 oz.



DPDT

Stock No.	Mfr's Type & Coil Volts	Coil Ohms	1-24	25-49	50-74	75-99	100-249
24F2720	55F2-115AC	635	7.50	7.13	6.75	6.00	5.25
24F2721	55F2-230AC	3150	7.50	7.13	6.75	6.00	5.25
24F2722	55F2-12DC	80	7.25	6.89	6.53	5.80	5.08
24F2723	55F2-24DC	327	7.25	6.89	6.53	5.80	5.08
24F2724	55F2-110DC	6250	8.75	8.31	7.88	7.00	6.13

3PDT

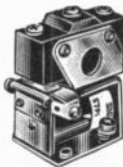
Stock No.	Mfr's Type & Coil Volts	Coil Ohms	1-24	25-49	50-74	75-99	100-249
24F2725	55F3-115AC	332	8.50	8.08	7.65	6.80	5.95
24F2726	55F3-230AC	1560	8.50	8.08	7.65	6.80	5.95
24F2727	55F3-12DC	70	8.25	7.84	7.43	6.60	5.78
24F2728	55F3-24DC	274	8.25	7.84	7.43	6.60	5.78
24F2729	55F3-110DC	5500	9.75	9.26	8.78	7.80	6.83

4PDT

Stock No.	Mfr's Type & Coil Volts	Coil Ohms	1-24	25-49	50-74	75-99	100-249
24F2730	55F4-115AC	224	10.00	9.50	9.00	8.00	7.00
24F2731	55F4-230AC	980	10.00	9.50	9.00	8.00	7.00
24F2732	55F4-12DC	51	9.50	9.03	8.55	7.60	6.65
24F2733	55F4-24DC	230	9.50	9.03	8.55	7.60	6.65
24F2734	55F4-110DC	4210	11.00	10.45	9.90	8.80	7.70

SERIES 57 AC & DC RELAYS

Snap-switch power relay for single or multiple switching of up to 15 amp loads. Contact assembly is enclosed, snap-action precision switch featuring positive response to slowly changing signals, isolation permitting reliable 3-phase switching. Resistive: 230 VAC; 15; 28 VDC; 6. Inductive: 230 VAC; 7.5; 28 VDC; 3. Temp.: +14 to +158°F. All unenclosed, screw mounted, screw terminals. Size: 2 1/2 x 2 3/4 x 2 3/8". Ship. wt., 12 oz.



SPDT

Stock No.	Mfr's Type & Coil Volts	Coil Ohms	1-24	25-49	50-74	75-99	100-499
24F2735	57F1-115AC	635	8.00	7.60	7.20	6.80	6.00
24F2736	57F1-230AC	3150	8.00	7.60	7.20	6.80	6.00
24F2737	57F1-12DC	96	7.75	7.36	6.98	6.59	5.81
24F2738	57F1-24DC	384	7.75	7.36	6.98	6.59	5.81
24F2739	57F1-110DC	6250	9.25	8.79	8.33	7.86	6.94

DPDT

Stock No.	Mfr's Type & Coil Volts	Coil Ohms	1-24	25-49	50-74	75-99	100-249
24F2740	57F2-115AC	332	9.75	9.26	8.78	8.29	7.31
24F2741	57F2-230AC	1560	9.75	9.26	8.78	8.29	7.31
24F2742	57F2-12DC	72	9.50	9.03	8.55	8.08	7.13
24F2743	57F2-24DC	274	9.50	9.03	8.55	8.08	7.13
24F2744	57F2-110DC	5500	11.00	10.45	9.90	9.35	8.25

3PDT

Stock No.	Mfr's Type & Coil Volts	Coil Ohms	1-24	25-49	50-74	75-99	100-249
24F2745	57F3-115AC	224	11.50	10.93	10.35	9.78	8.63
24F2746	57F3-230AC	980	11.50	10.93	10.35	9.78	8.63
24F2747	57F3-12DC	62	11.25	10.69	10.13	9.56	8.44
24F2748	57F3-24DC	250	11.25	10.69	10.13	9.56	8.44
24F2749	57F3-110DC	4210	12.75	12.11	11.48	10.84	9.56

SERIES 8PL, PHOTO RELAY

Photorelay receiver for mounting up to 12 feet from 8L2 light source. Operates on 5 ft.-c., release at 0.1 ft.-c. Bracket-mounted; with 6 ft., 3 wire cord. Size: 2 1/2 x 3 1/4 x 4 1/8". Shpg. wt. 3 lbs. Type 8L2 light source: bracket mounted, with 6 ft., 2 wire cord. Size: 2 1/2 x 3 1/4 x 4 1/8". Type 8PL2: photo-relay receiver and one 8L2 light source. Shpg. wt. 5 lbs.



24F2092. Type 8P2. NET	31.40
24F2093. Type 8L2. NET	17.00
24F2094. Type 8PL2. NET	48.40

SERIES 8 PHOTORELAYS — SPDT

Relays for make or break light-beam use, counting, sorting, process control. Operates on 115 VAC, 60 cps. 8RC01A: must operate light level 5 cf max.; must release, .1 fc min. Shield aperture: 3/8" dia. 8RC02A: must operate, 5 fc max.; must release, .5 fc min. Shield aperture 3/8" dia. 1 9/16 sq x 2 3/8". Ship. wt., 3 oz.



Stock No.	Mfr's Type	1-24	25-49	50-74	75-99	100-249
24F1719	8RC01A	18.15	17.24	16.34	14.52	12.71
24F1720	8RC02A	18.75	17.81	16.88	15.00	13.13

SERIES 22—MINIATURE DL RELAYS

For airborne and ground-based military equipment. A sensitive, high-reliability miniature, non-polarized relay featuring excellent stability and dropout 33% of pickup current. Single-coil 22RJC pickup power: 20 mw; dual-coil 22RJC, 22NCC: 40 mw. 2 amp contact-rated at 28 VDC/115 VAC. Resists 10 g to 300 cps vibration, 100 g shock. Temp: -65 to +125°C. All hermetically sealed. 1" sq. x 1 1/2". 22RJC, 22RJC: stud mounting; 22NCC: 9-pin plug. Ship. wt., 3 oz.

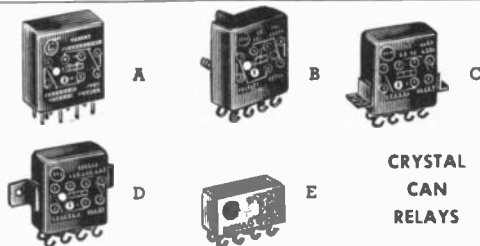


SPDT

Stock No.	Mfr's Type & Coil Ohms	1-24	25-49	50-74	75-99	100-249
24F2750	22RJC-500 G-SIL	13.00	12.35	11.70	10.40	9.10
24F371	22RJC-1000 G-SIL	13.00	12.35	11.70	10.40	9.10
24F372	22RJC-2500 G-SIL	13.50	12.83	12.15	10.80	9.45
24F373	22RJC-5000 G-SIL	14.00	13.30	12.60	11.20	9.80
24F374	22RJC-8000 G-SIL	14.50	13.78	13.05	11.60	10.15

DPDT

Stock No.	Mfr's Type & Coil Ohms	1-24	25-49	50-74	75-99	100-249
24F1750	22RJC-500 G-SIL	14.50	13.78	13.05	11.60	10.15
24F375	22RJC-1000 G-SIL	14.50	13.78	13.05	11.60	10.15
24F376	22RJC-2500 G-SIL	15.00	14.25	13.50	12.00	10.50
24F377	22RJC-5000 G-SIL	15.50	14.73	13.95	12.40	10.85
24F378	22RJC-8000 G-SIL	16.00	15.20	14.40	12.80	11.20
24F2751	22RJC-12000 G-SIL	17.50	16.63	15.75	14.00	12.25
24F2752	22NCC-2500 G-SIL	15.35	14.58	13.82	12.28	10.75
24F2753	22NCC-5000 G-SIL	15.85	15.06	14.27	12.68	11.10



CRYSTAL CAN RELAYS

SPECIFICATIONS

Series	Coil Ohms	Adj. Ohms	Pickup Pwr (mw)	Pickup Volts (DC)	Vibration	Shock
32	3100	G	50	4.0	30 g's to 5000 cps.	-100 g's
32	1200	GD	100	9.2	30 g's to 5000 cps.	-100 g's
33	1200	VG	100	9.2	30 g's to 5000 cps.	-70 g's
34	6300	G	20	1.8	30 g's to 2000 cps.	-50 g's
34	4000	GD	40	3.2	30 g's to 2000 cps.	-50 g's
35	1000	VG	40	6.5	30 g's to 2000 cps.	-50 g's
35	4000	VG	40	13.5	30 g's to 2000 cps.	-50 g's
36	700	G	200	13.5	30 g's to 2000 cps.	-50 g's

Reliable, miniature relays, exceeds MIL-R-5757D. Rated 26.5 DC nominal volts except * 12 DC. Contact rating 2 amp. All types hermetically sealed. ** Dual coil types. Size: 0.8x0.9x0.4" except type 36, 0.8x0.41x0.41". Ship. wt., 10 oz. Temp: -60 to +125°C.

TYPE 32 — DPDT (Solder term., except 10 pin)

Stock No.	Mfr's Type & Coil Ohms	Fig.	1-24	25-49	50-74	75-99	100-249
24F2754	32J D-1200 GD-SIL†	A	26.50	25.18	23.85	21.20	18.55
24F2755	32RJKD-1200 GD-SIL	B	26.50	25.18	23.85	21.20	18.55
24F2756	32RJPD-1200 GD-SIL	C	26.50	25.18	23.85	21.20	18.55
24F2757	32RJP-1200 G-SIL	C	23.50	22.33	21.15	18.80	16.45

TYPE 33 — DPDT (Solder term., except 9-pin)

Stock No.	Mfr's Type & Coil Ohms	Fig.	1-24	25-49	50-74	75-99	100-249
24F2758	33J-1200 VG-SIL†	A	22.00	20.90	19.80	17.60	15.40
24F2759	33RJK-1200 VG-SIL	B	22.00	20.90	19.80	17.60	15.40
24F2760	33RJP-1200 VG-SIL	D	22.00	20.90	19.80	17.60	15.40
24F2761	33RJP-1200 VG-SIL	C	22.00	20.90	19.80	17.60	15.40

TYPE 34 — DPDT (Solder term.)

Stock No.	Mfr's Type & Coil Ohms	Fig.	1-24	25-49	50-74	75-99	100-249
24F2762	34RJP2-6300 G-SCN	C	21.10	20.05	18.99	16.88	14.77
24F2763	34RJP2D-4000 GD-SCN	C	22.00	20.90	19.80	17.60	15.40

TYPE 35 — DPDT (Solder term., except 8 pin.)

Stock No.	Mfr's Type & Coil Ohms	Fig.	1-24	25-49	50-74	75-99	100-249
24F2764	35JP2-1000 VG-SCN†	C	18.00	17.10	16.20	14.40	12.60
24F2765	35R1L-4000 VG-SCN	D	18.00	17.10	16.20	14.40	12.60
24F2766	35R1P2-4000 VG-SCN	C	18.00	17.10	16.20	14.40	12.60

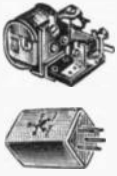
TYPE 36 — DPDT (8 Pin term., except † solder.)

Stock No.	Mfr's Type & Coil Ohms	Fig.	1-24	25-49	50-74	75-99	100-249
24F2767	36J-700 G-SMN	C/A	15.20	14.44	13.68	12.16	10.64
24F2768	36JP2-700 G-SMN	E/C	15.20	14.44	13.68	12.16	10.64
24F2769	36RJP2-700 G-SMN†	E/C	15.20	14.44	13.68	12.16	10.64

SIGMA Relays — Sensitive

SERIES 4 DC — SPDT

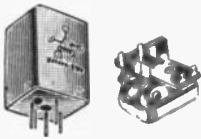
For vacuum tube and transistor drives and applications requiring high dropout; or narrow differential. Ideal for circuits where energizing current does not drop to zero. Pickup power: 20 mw. Contact rating: 2 amp at 28VDC/115VAC. Temperature range: +32 to +112 F. Unenclosed 4F has screw mounting, with solder terminals. 4R has aluminum dust cover and 5 pin plug. 4F: $1\frac{3}{4} \times 1\frac{1}{2} \times 1\frac{1}{2}$ ". Shp. wt. $2\frac{1}{4}$ oz. 4R: $1\frac{1}{2} \times 1\frac{1}{2} \times 2\frac{1}{2}$ ". Sh. wt. $3\frac{3}{4}$ oz.



Stock No.	Mir's Type	Coil Ohms	Ma DC	1-100					
				24	25-49	50-74	75-99	100-249	
24F352	4F-1000 S-SIL	1 K	4.5	6.50	6.18	5.85	5.20	4.55	
24F353	4F-2500 S-SIL	2.5K	3.0	6.50	6.18	5.85	5.20	4.55	
24F354	4F-5000 S-SIL	5 K	2.0	6.85	6.51	6.17	5.48	4.80	
24F350	4F-8000 S-SIL	8 K	1.6	7.10	6.75	6.39	5.68	4.97	
24F1700	4F-10,000 S-SIL	10 K	1.4	7.10	6.75	6.39	5.68	4.97	
24F2770	4R-1000 S-SIL	1 K	4.5	8.90	8.46	8.01	7.12	6.23	
24F2771	4R-5000 S-SIL	5 K	2.0	9.20	8.74	8.28	7.36	6.44	
24F2772	4R-8000 S-SIL	8 K	1.6	9.45	8.98	8.51	7.56	6.62	
24F2773	4R-10,000 S-SIL	10 K	1.4	9.45	8.98	8.51	7.56	6.62	

SERIES 5 DC — SPDT

High contact forces at inputs as low as 1 mw. Useful for overload underload detection. Withstands overloads of 30:1. Contact ratings: S: 1 amp; SS: .25 amp. All types UL listed. Temp.: S: -4 to +158°F.; SS: +50 to 140°F. 5F. Unenclosed, screw mounting, solder terminals. $1\frac{1}{2} \times 1\frac{1}{4} \times 1\frac{1}{2}$ ". Shp. wt. $4\frac{1}{4}$ oz. 5R. Aluminum cover, 5 pin plug. $1\frac{1}{2} \times 1\frac{1}{4} \times 2\frac{1}{2}$ ". Shp. wt. $5\frac{1}{4}$ oz.



Stock No.	Mir's Type	Coil Ohms	Ma DC	1-100					
				24	25-49	50-74	75-99	100-249	
24F355	5F-1000 S-SIL	1 K	2.3	9.25	8.79	8.33	7.40	6.48	
24F356	5F-2500 S-SIL	2.5K	1.4	9.25	8.79	8.33	7.40	6.48	
24F357	5F-5000 S-SIL	5 K	1.0	9.90	9.41	8.91	7.92	6.93	
24F358	5F-10,000 S-SIL	10 K	.70	10.85	10.31	9.77	8.68	7.60	
24F359	5F-16,000 S-SIL	16 K	.55	11.70	11.12	10.53	9.36	8.19	
24F2774	5F-10,000 SS-PAL	1 K	1.0	10.50	9.98	9.45	8.40	7.35	
24F2775	5F-10,000 SS-PAL	10 K	.30	12.10	11.50	10.89	9.68	8.47	
24F2776	5R-1000 S-SIL	1 K	2.3	11.70	11.12	10.53	9.36	8.19	
24F2777	5R-2500 S-SIL	2.5K	1.4	11.70	11.12	10.53	9.36	8.19	
24F2778	5R-5000 S-SIL	5 K	1.0	12.35	11.73	11.12	9.88	8.65	
24F1742	5R-10,000 S-SIL	10 K	.70	13.25	12.59	11.93	10.60	9.28	
24F2743	5R-16,000 S-SIL	16 K	.55	14.25	13.54	12.83	11.40	9.98	

SERIES 26 — SPDT

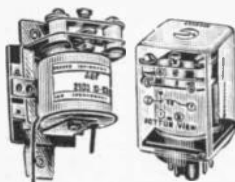


A miniature, rugged relay featuring high sensitivity, long mechanical life. Adjustment S features 5 mw pickup power, switches 1 amp at 28 VDC/115 VAC. CDS: 4 mw pickup power, .5 ampere contact rating, drop-out 50% of pickup current. Temp.: -85 to +212°F. 26F: unenclosed, screw mounting, solder terminals. $1\frac{7}{8} \times 1\frac{1}{2} \times 1\frac{1}{16}$ ". Shp. wt. 2 oz.

Stock No.	Mir's Type	Coil Ohms	Ma DC	1-100					
				24	25-49	50-74	75-99	100-499	
24F2088	26F-1000 S-SIL	1 K	2.3	9.45	8.98	8.51	8.03	7.09	
24F351	26F-8000 CDS-PAL	8 K	.7	11.55	10.97	10.40	9.32	8.66	

SERIES 48 DC — SPDT

Low cost sensitive relay for use in alarm systems requiring operation from 5 mw. Bridge type contact structure. Compliant armature for good contact wipe. Adjustment G: 2 amp; S: 1 amp. Temp.: -4 to +158°F. 48F. Unenclosed, screw mounting, solder terminals. $1\frac{1}{4} \times 2\frac{3}{4} \times 1\frac{1}{16}$ ". Shp. wt. 3 oz. 48RO: plastic dust cover, 8 pin coil plug. $1\frac{3}{4} \times 1\frac{1}{2} \times 2\frac{1}{4}$ ". Shp. wt. 4 oz.



Stock No.	Mir's Type	Coil Ohms	Ma DC	1-100					
				24	25-49	50-74	75-99	100-249	
24F2779	48F-1000 G-SIL	1 K	3.2	5.90	5.61	5.31	4.72	4.13	
24F2780	48F-2500 G-SIL	2.5K	2.0	5.90	5.61	5.31	4.72	4.13	
24F2781	48F-1000 S-SIL	1 K	2.3	6.15	5.84	5.54	4.92	4.31	
24F2782	48F-2500 S-SIL	2.5K	1.4	6.15	5.84	5.54	4.92	4.31	
24F2783	48RO-1000 G-SIL	1 K	3.2	6.90	6.56	6.21	5.52	4.83	
24F2784	48RO-2500 G-SIL	2.5K	2.0	6.90	6.56	6.21	5.52	4.83	
24F2785	48RO-1000 S-SIL	1 K	2.3	7.15	6.79	6.44	5.72	5.01	
24F2786	48RO-2500 S-SIL	2.5K	1.4	7.15	6.79	6.44	5.72	5.01	

SERIES 41 AC & DC — SPDT

Industrial relay with one-billion-operation mechanical life. Balanced design for coil overload capacity 4-5 times rated input, long contact life. Operates from on-off AC/DC signals. Adjustment S: 40 mw; ACS: .2 va; ACG: .4 va; ACG rated 5 amp, S, ACS: 2 amp. Temp.: -67 to +185°F. 41F, 41FZ: unenclosed, screw mounting, solder terminals. $1\frac{1}{4} \times 2\frac{3}{4} \times 1\frac{1}{16}$ ". 41ROZ, 41RO: aluminum dust cover, 8-pin. $1\frac{3}{4} \times 1\frac{1}{2} \times 2\frac{1}{4}$ ". 41RO6: plastic dust cover, 8-pin. $1\frac{3}{4} \times 1\frac{1}{2} \times 2\frac{1}{4}$ ". 41JOZ: hermetically sealed, 8-pin. $1\frac{3}{4} \times 1\frac{1}{2} \times 2\frac{1}{4}$ ". Shp. wt. Enclosed: 4 oz.; unenclosed $2\frac{1}{2}$ oz.

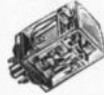


Stock No.	Mir's Type & Coil Ohms	VDC/AC Ma	1-100					
			24	25-49	50-74	75-99	100-249	
24F365	41FZ-10 ACG-BSL	6	3.90	3.71	3.51	3.12	2.73	
24F369	41FZ-5000 ACG-BSL	115	4.10	3.90	3.69	3.28	2.87	
24F364	41FZ-35 ACS-SIL	6	4.50	4.28	4.05	3.60	3.15	
24F368	41FZ-10,000 ACS-SIL	115	5.00	4.75	4.50	4.00	3.50	
24F2787	41JOZ-12,000 ACS-SIL	150	12.15	11.54	10.94	9.72	8.51	
24F2788	41ROZ-5000 ACG-BSL	115	5.75	5.46	5.18	4.60	4.03	
24F2789	41RZ-5000 ACG-BSL	115	5.75	5.46	5.18	4.60	4.03	

DC TYPES

Stock No.	Mir's Type & Coil Ohms	Nom. Volts	1-100					
			24	25-49	50-74	75-99	100-249	
24F2790	41F-200 S-SIL	6	4.30	4.09	3.87	3.44	3.01	
24F2791	41F-500 S-SIL	6	4.30	4.09	3.87	3.44	3.01	
24F1714	41F-1000 S-SIL	12	4.30	4.08	3.87	3.44	3.01	
24F2792	41F-5000 S-SIL	24	4.50	4.28	4.05	3.60	3.15	
24F1747	41F-10,000 S-SIL	24	4.75	4.51	4.28	3.80	3.33	
24F1716	41RO-1000 S-SIL	12	6.15	5.84	5.54	4.92	4.31	
24F2793	41RO-5000 S-SIL	24	6.30	5.99	5.67	5.04	4.41	
24F2794	41RO-10,000 S-SIL	24	6.60	6.27	5.94	5.28	4.62	
24F2795	41RO6-1000 S-SIL	12	6.15	5.84	5.54	4.92	4.31	
24F2796	41RO6-2500 S-SIL	12	6.15	5.84	5.54	4.92	4.31	
24F2797	41RO6-5000 S-SIL	24	6.30	5.99	5.67	5.04	4.41	

SERIES 42 AC & DC — DPDT



100 mw for 1-billion-operation mechanical life. Adjustment S: 100 mw; G: 200 mw; ACS: .3 va; ACG: .5 va. Contact ratings: ACG, G: 5 amp ACS, S: 2 amp. Temp.: -67 to +185°F, plastic covers to 158°F. 42ROZ, 42ROZ: Plastic dust cover with 8-pin. $1\frac{3}{4} \times 1\frac{1}{2} \times 2\frac{1}{4}$ ". 42RO6Z: Differ in wiring only. 42JOZ: Hermetically sealed, 8-pin. $1\frac{3}{4} \times 1\frac{1}{2} \times 2\frac{1}{4}$ ". Shp. wt. $5\frac{1}{4}$ oz.

AC TYPES

Stock No.	Mir's Type & Coil Ohms	Nom. Volts	1-100					
			24	25-49	50-74	75-99	100-249	
24F2798	42JOZ-4000 ACG-SIL	115	11.25	10.69	10.13	9.00	7.88	
24F2799	42ROZ-8 ACG-SIL	6	6.55	6.22	5.90	5.24	4.59	
24F2800	42ROZ-50 ACG-SIL	12	6.55	6.22	5.90	5.20	4.59	
24F2801	42ROZ-200 ACG-SIL	24	6.55	6.22	5.90	5.20	4.59	
24F2802	42ROZ-4000 ACG-SIL	115	6.55	6.22	5.90	5.20	4.59	
24F2049	42RO6Z-4000 ACG-SIL	115	6.55	6.22	5.90	5.20	4.59	
24F2803	42ROZ-7000 ACS-SIL	115	7.80	7.41	7.02	6.24	5.46	

DC TYPES

Stock No.	Mir's Type & Coil Ohms	Nom. Volts	1-100					
			24	25-49	50-74	75-99	100-249	
24F2804	42RO-200 G-SIL	12	6.55	6.22	5.90	5.24	4.59	
24F2805	42RO-500 G-SIL	12	6.55	6.22	5.90	5.24	4.59	
24F2806	42RO-1000 G-SIL	24	6.55	6.22	5.90	5.24	4.59	
24F2807	42RO-2500 G-SIL	48	6.55	6.22	5.90	5.24	4.59	
24F2808	42RO-5000 G-SIL	6.80	6.46	6.12	5.44	4.76	4.08	
24F2809	42RO-10,000 G-SIL	7.00	6.65	6.30	5.60	4.90	4.20	
24F2810	42RO-12,000 G-SIL	7.30	6.94	6.57	5.84	5.11	4.38	
24F2041	42RO6-500 G-SIL	6	6.55	6.22	5.90	5.24	4.59	
24F2010	42RO6-1000 G-SIL	24	6.55	6.22	5.90	5.24	4.59	
24F2043	42RO6-2500 G-SIL	48	6.55	6.22	5.90	5.24	4.59	
24F2011	42RO6-5000 G-SIL	6.80	6.46	6.12	5.44	4.76	4.08	
24F2045	42RO6-10,000 G-SIL	7.00	6.65	6.30	5.60	4.90	4.20	
24F2811	42RO-150 S-SIL	6	7.20	6.84	6.48	5.76	5.04	
24F2812	42RO-500 S-SIL	12	7.20	6.84	6.48	5.76	5.04	
24F2813	42RO-1000 S-SIL	7.20	6.84	6.48	5.76	5.04		
24F2814	42RO-2500 S-SIL	24	7.20	6.84	6.48	5.76	5.04	
24F2815	42RO-5000 S-SIL	7.45	7.08	6.71	5.96	5.22		
24F2816	42RO-10,000 S-SIL	7.70	7.32	6.93	6.16	5.39		
24F2817	42RO6-1000 S-SIL	7.20	6.84	6.48	5.76	5.04		

SERIES 72 — SPDT

Latching, 2 position polar relay. For high-speed switching, telegraphy at 100 words/minute, pulse repetition. Contacts replaceable for extended life. Temp.: -85 to +185°F. 72Z: plastic dust cover, 8-pin. $1\frac{1}{2} \times 2\frac{1}{4} \times 1\frac{1}{2}$ ". Shp. wt. 4 oz.



Stock No.	Mir's Type & Coil Ohms	Ma DC	1-100					
			24	25-49	50-74	75-99	100-249	
24F2818	72AOZ-160 TG-TCP	3.6	33.00	31.35	29.70	26.40	23.10	
24F1752	72AOZ-160 TS-TCP	1.4	33.00	31.35	29.70	26.40	23.10	
24F2819	72AOZ-4000 TS-TCP	.28	34.10	32.40	30.69	27.28	23.87	

Depend On Newark For All Your Industrial Electronic Needs

Stock No.	Description	Net Each
24F2820	AT36-1 Contact Repair Kit	3.50

Relays and Controls

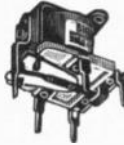
SIGMA RELAYS



TYPE 65 COMMERCIAL DPDT RELAYS

Telephone type relay provides reliable, minimum distortion switching of low-level audio signals, and may be used in logic circuitry. Features good sensitivity, low and stable contact resistance, 10 million operation mechanical life. Temp. range: +14 to 158°F.

Stock No	Types & Coil Volts	Coil Ohms	Cont. Act.	1-24	25-49	50-74	75-99	100-249
24F2821	63F2-12DC	200	DPDT	5.10	4.85	4.59	4.08	3.57
24F2822	63F2-24DC	800	DPDT	5.10	4.85	4.59	4.08	3.57
24F2823	63F4-12DC	200	DPDT	7.10	6.75	6.39	5.68	4.97
24F2824	63F4-24DC	800	DPDT	7.10	6.75	6.39	5.68	4.97
24F2825	63R02-12DC	200	4PDT	8.20	7.79	7.38	6.56	5.74
24F2826	63R02-24DC	800	4PDT	8.20	7.79	7.38	6.56	5.74
24F2827	63R04-12DC	200	4PDT	10.60	10.07	9.54	8.48	7.42
24F2828	63R04-24DC	800	4PDT	10.60	10.07	9.54	8.48	7.42



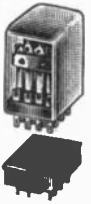
SERIES 63 DC 2PDT AND 4PDT RELAYS

Small, low cost relay which can respond positively to low-power signals. Good adjustments stability. 5 million operation mechanical life. Contact load rating: 1 A. Nom. power: 90 mw. 65F1 (screw mount, with solder term). 65FPI (terminals with printed circuit). Shpg. wt: 1 oz.

Stock No.	Mfr.'s Type Coil Volts	Coil Ohms	1-99	100-499
24F1981	65F1-6DC	6560	1.50	1.35
24F1982	65F1-12DC	1640	1.50	1.35
24F1983	65F1-24DC	6560	1.50	1.35
24F1984	65FPI-6DC	6560	1.60	1.44
24F1985	65FPI-12DC	1640	1.60	1.44
24F1986	65FPI-24DC	1640	1.60	1.44

SERIES 67 AC AND DC — 4PDT

This miniature AC or DC relay switches 3 ampere loads from 1.2 volt-ampere or 900 milliwatt signals. Features inline contacts, and the choice of solder terminals. Also features temperature range of -4°F. to +140° F. Plastic dust cover is included. With 14-prong plug, is adequately designed for stud mounting. 1-5/16 x 1-7/64 x 5/64". Shipping weight, 1.5 oz.



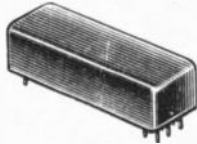
Stock No.	Mfr.'s Type Coil Volts	Coil Ohms	1-24	25-49	50-74	75-99	100-249
24F2829	67R4-12AC	43	5.50	5.23	4.95	4.40	3.85
24F2830	67R4-24AC	160	5.50	5.23	4.95	4.40	3.85
24F2831	67R4-115AC	3900	5.85	5.56	5.27	4.68	4.10
24F2832	67R4-6DC	40	4.40	4.18	3.96	3.52	3.08
24F2833	67R4-12DC	160	4.40	4.18	3.96	3.52	3.08
24F2834	67R4-24DC	650	4.40	4.18	3.96	3.52	3.08
24F2835	67R4-48DC	2600	4.60	4.37	4.14	3.68	3.22
24F2836	67F4-110DC	11000	5.10	4.85	4.19	4.08	3.57
24F2837	D28 Solder Term. Skt.		.60	.57	.54	.48	.42
24F2838	D29 Printed Circ. Skt.		.60	.57	.54	.48	.42

Depend on NEWARK For Everything in Industrial Electronics. To Serve You Better—Seven Stocking Warehouses from Coast-to-Coast • Top Quality • Fastest Service

JAMES ELECTRONICS INC.



"Chopper"



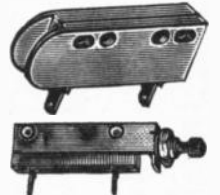
"Microscan"



"Box Shielded"



"Photocom"



"Seal-X-Switch"

MECHANICAL CHOPPERS

Precision instrument choppers for sub-microvolt signal level sensitivity. Designed to operate from 6.3 VRMS at 20 to 150 cps. Instrument choppers in SPDT, DPDT, MBB or BBM Gold Alloy contacts may be used in nanovoltmeters, DC amplifier, X-Y Strip Chart Recorders and Scientific apparatus. Mirrored junctions for low loss insures less than 1 micro-volt offset and long term drift. Commercial C1800 chopper suited for Millivolt Sensitivity applications. Freq. 50-70 cps.

Stk. No.	Type	Pins	Contacts	Dwell	Size	Net
62F405	C1800	Octal	SPDT	BBM	2 1/2 x 1 1/2"	13.50
63F115	C1201	9 Pin	DPDT	BBM	2 1/2 x 1 1/2"	42.00
63F116	C1282	Octal	SPDT	MBB	2 3/8 x 1 3/8"	36.50
63F117	C2220	9 Pin	SPDT	BBM	3 x 1 1/2"	38.50

HIGH SPEED — LOW LEVEL SWITCHING

"MICROSCAN" RELAYS

A 3PST Form A low noise PC mounting signal switching relay. Applications are low-level computers and industrial control systems. The 3 pole relay has 2 gold alloy contacts for switching dry circuit signals from strain gages, thermocouples, etc. The third pole is heavy duty material for switching a long line "guard" shield from the signal originating point. Low capacitance noise isolation—3 pfd open circuit; 10-4 pfd coil to circuit; .001 pfd pole to pole. Operates bounce free up to 200 PPS rep rate. Insulation: 10K meg min. at 100 VDC. Size: 2 1/2 x 7/8 x 5/8".

Stk. No.	Type	Drive Coil		Speed		NET
		V	R	Pull-in	Drop-out	
63F118	6204	6VDC	60r	650 ms	750 ms	16.95
63F119	6205	12VDC	180r	650 ms	750 ms	16.95
63F120	6206	20VDC	450r	650 ms	750 ms	16.95

LOW NOISE "BOX SHIELDED" TRANSFORMERS

A unique double box shield coil design for "guarded" low level instrument applications. Chopper types yield 150 db ma 1 common mode rejection with balanced windings, low thm microphonic construction in high inductance designs. Mag. shield 35 db. Electroguard power transformers are box shielded for 107 pfd pri to Sec electrostatic transient isolation. Low

"PHOTOCOM" PHOTO ELECTRIC CHOPPERS

RELAYS/SWITCHES/RESISTORS

Solid state "Photocom" signal and control modulators. SPDT models are used as DC/AC signal converters in DC amplifiers, servo amplifiers and pH meters. Solid state contacts eliminate transients, contact bounce and isolate drive noise. Unit may be driven as relay from DC up to 2000 cps over 25,000 hour life. Thermal and electrostatic noise less than 3 micro-volts. High signal input impedances up to 1K megohms can be modulated. Plug-in 7 pin miniature package. Both SPDT and SPST designed for 117 VAC or 150 VDC drive source. Sizes: C4005, C4007—2 1/8 x 3/4" dia. C4825, C4828—1 1/2 x 3/8" dia.

Switch-Signal Characteristics

Stk. No.	Type	Cont.	R-on	R-off	Drop Out	Pull-in	NET
63F121	C4005	SPDT	300K	10 ⁸	3 ms	.7 ms	30.20
63F122	C4007	SPDT	25K	10 ⁸	3 ms	.7 ms	30.20
63F123	C4825	SPST	25K	10 ⁸	3 ms	.7 ms	9.40
63F124	C4828	SPST	300r	10 ⁷	13 ms	10 ms	9.40

MAGNETICALLY ACTUATED DRY REED "SEAL-X-SWITCH"

A hermetic sealed, long life dry reed switch operated by a permanent magnet. Actuator and switch are assembled in a compact nylon housing. Basic plunger models used in digital computer tape programmers, business machine key boards, and manual industrial controllers. Application of push button models are lab instrument null detector and low level controls. Sealed contact insures 50 million operation reliability with low contact resistance. Speed: 15 pps.

Stk. No.	Type	Contact Ratings			Operate Force	Size	NET
		I	V	R			
63F125	6501	.25A	150V	.1Ω	3 oz.	1 3/8 x 1/2 x 1/4"	1.49
63F126	6510	.25A	150V	.1Ω	7 oz.	2 1/8 x 1/2 x 3/8"	2.55

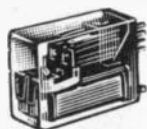
ripple DC power supplies and precision resistance bridge signal conditioners specify "Electroguard."

Stock No.	Type	Pri L Hys	Pri Zoc Ohms	Pri R Ohms	Sec R Ohms	Turns Ratio	Size	NET
63F127	8365	4,000	1.2 meg (ct)	12.2K	2.7K	2:1	1 7/8 x 1 1/2"	19.75
63F128	8307	1,000	1300K (ct)	2.7K	2.7K	1:1	1 7/8 x 1 1/2"	18.75



Allied Control Relays

MINIATURE TYPE RELAYS



TF-225 AC RELAYS

Contact rating: 5 amps at 29 VDC or 1A resist. at 115 VAC. Terminals: Plug-in, printed circuit and hook type solder. DC resist.-standard tol., ±10%.

Stk. No.	Type	VAC	Resis. Ohms	1-9	10-49	50-99	100-499
58F1200	2C	6	6.4	4.85	4.37	3.64	3.40
58F1201	2C	12	31.8	4.85	4.37	3.64	3.40
58F1202	2C	24	112.5	4.85	4.37	3.64	3.40
58F1203	2C	115	2580	4.85	4.37	3.64	3.40
58F1204	2C	220	6000	5.35	4.82	4.02	3.75
58F1205	4C	6	6.4	5.82	5.06	4.22	3.93
58F1206	4C	12	20	5.82	5.06	4.22	3.93
58F1207	4C	24	112.5	5.82	5.06	4.22	3.93
58F1208	4C	115	1575	5.82	5.06	4.22	3.93
58F1209	4C	220	6000	6.12	5.51	4.60	4.28

CH DC RELAYS

CH relay, miniature, 10 AMP; 4 PDT vibration 20 G's to 2000 cps. Temp. -65°C to +125°C. Operating time 15 milliseconds. Voltage—26.5 DC. Wt.—5 oz. Mounting, (3)—6-32 thd. studs.

Stk. No.	Type	Coil Pwr.	1-9	10-49	50-99	100-249
58F416	CH-12D	4W	30.00	24.00	22.50	21.00

MH-6 DC RELAYS

26.5 VDC, 5 Amp, DPDT contacts. Vibration 15 G's to 1000 cps. Temp. for MH, -55° to +85°C for MHB, -65°C to +125°C. Mounting, (2)—.125 dia. holes. Wt.—2 oz.

Stk. No.	Type	Ohm	Coil Pwr.	1-9	10-49	50-99	100-249
58F439	MH-6D	400	1.75W	14.25	11.40	10.00	9.98
58F442	MHB-6D	325	1.25W	14.25	11.40	10.00	9.98

MH-12 DC RELAYS

Same as MH-6 Series, except 4PDT. Mounting, (2)—6-32 nc thd. studs. Wt.—3 oz.

58F440	MH-12D	300	2.5W	20.90	16.72	15.68	14.63
58F443	MHB-12D	250	3.0W	20.90	16.72	15.68	14.63

MH-18 DC RELAYS

Same as MH-6 Series, except 6PDT. Wt.—4.2 oz.

58F441	MH-18D	240	3W	23.75	19.00	17.81	16.63
58F444	MHB-18D	200	3.5W	23.75	19.00	17.81	16.63

MHUO-12 DC RELAYS

Same as MH except 4PDT plug in. Socket 16188-1. Temp. -55°C. to +85°C. Vibration 15 G's to 1000 cps. Wt.—3 oz.

Stk. No.	Type	Ohm	Coil Pwr.	1-9	10-49	50-99	100-249
58F445	MHUO-12D	300	2.5W	20.90	16.72	15.68	14.63

MHUO-18 DC RELAYS

Same as MHUO-12 except 6PDT plug in. Socket 16189-1. Wt. 4.2 oz.

Stk. No.	Type	Ohm	Coil Pwr.	1-9	10-49	50-99	100-249
58F446	MHUO-18D	240	3W	23.75	19.00	17.81	16.63

MHY DC RELAYS

Same as MH except 4PDT @ 10 amps and vibration 20 G's to 500 cps. Mounting (2)—6-32 thd. studs. Wt.—4.2 oz.

Stk. No.	Type	Ohm	Coil Pwr.	1-9	10-49	50-99	100-249
58F447	MHY12D	200	3.5W	25.41	20.33	19.06	17.79

MHYO DC RELAYS

Same as Relay MHY except plug in style. Mtg. 2-.125 dia. holes.

Stk. No.	Type	Ohm	Coil Pwr.	1-9	10-49	50-99	100-249
58F448	MHYO-12D	200	3.5W	25.41	20.33	19.06	17.79

GENERAL PURPOSE RELAYS

TF154-2C DC RELAYS

5 AMP contacts; 700 MW, DPDT Relays—Combination plug in style and solder terminals use socket 30055-1. Wt.: .80 oz.

Stk. No.	Type	Voltage	Ohms	1-9	10-49	50-99	100-249
58F484	TF154-2C	6DC	52	3.52	3.17	2.64	2.46
58F485	TF154-2C	12DC	185				
58F486	TF154-2C	24DC	700				
58F487	TF154-2C	48DC	2500				
58F488	TF154-2C	115DC	15000	4.99	4.49	3.74	3.49

GENERAL PURPOSE RELAYS

TF154-4C DC RELAYS

Same as TF154-2C except 4PDT. Uses socket 30055-2. .95 oz.

Stk. No.	Type	Voltage	Ohms	1-9	10-49	50-99	100-249
58F489	TF154-4C	6DC	52	4.02	3.62	3.02	2.81
58F490	TF154-4C	12DC	185				
58F491	TF154-4C	24DC	700				
58F492	TF154-4C	48DC	2500				
58F493	TF154-4C	115DC	15000	5.49	4.94	4.12	3.84

TF154-6C DC RELAYS

Same as model TF154-2C except 6PDT and 1.5w. Uses socket 30055-20. 1.0 oz.

Stk. No.	Type	Voltage	Ohms	1-9	10-49	50-99	100-249
58F494	TF154-6C	6DC	25	5.25	4.73	3.94	3.68
58F495	TF154-6C	12DC	90				
58F496	TF154-6C	24DC	430				
58F497	TF154-6C	48DC	1550				
58F498	TF154-6C	115DC	9000	6.15	5.54	4.62	4.31

T-163-2C BIFURCATED DC RELAYS

Interchangeable physically with T-154 above. 2 amp. Gold plated Same as T-163-4C, except 6PDT. Contacts rated 1 ampere.

Stk. No.	Type	Voltage	Ohms	1-9	10-49	50-99	100-249
58F528	T-163-2C	6DC	52	3.80	3.42	2.85	2.66
58F527	T-163-2C	12DC	185	3.80	3.42	2.85	2.66
58F528	T-163-2C	24DC	700	3.80	3.42	2.85	2.66
58F529	T-163-2C	48DC	2500	3.80	3.42	2.85	2.66
58F530	T-163-2C	115DC	15000	5.27	4.74	3.95	3.69

Same as T-163-2C, except 4PDT.

58F531	T-163-4C	6DC	52	4.33	3.90	3.25	3.03
58F532	T-163-4C	12DC	185	4.33	3.90	3.25	3.03
58F533	T-163-4C	24DC	700	4.33	3.90	3.25	3.03
58F534	T-163-4C	48DC	2500	4.33	3.90	3.25	3.03
58F535	T-163-4C	115DC	15000	5.80	5.22	4.35	4.06

Same as T-163-4C, except 6PDT. Contacts rated 1 Amp.

58F536	T-163-6C	6DC	52	5.34	4.81	4.01	3.74
58F537	T-163-6C	12DC	185	5.34	4.81	4.01	3.74
58F538	T-163-6C	24DC	700	5.34	4.81	4.01	3.74
58F539	T-163-6C	48DC	2500	5.34	4.81	4.01	3.74
58F540	T-163-6C	115DC	15000	6.24	5.62	4.69	4.37

TFMDO DC RELAYS

5 AMP; 700 MW, DPDT Relays—Transparent, polycarbonate cover, plug in style, same as TAT Series. Socket; RETMA or EIA octal.

Stk. No.	Type	Voltage	Ohms	1-9	10-49	50-99	100-249
58F502	TFMDO-2C	6DC	52	6.02	5.42	4.52	4.21
58F503	TFMDO-2C	12DC	185				
58F504	TFMDO-2C	24DC	700				
58F505	TFMDO-2C	115DC	15000					7.49	6.74	5.62	5.24

TAT-2C DC RELAYS

Subminiature, 4-4-48. NF-2B tapped holes. NF tapped holes. Wt. .7 oz., 2 AMP contacts; 700 MW, DPDT Relay.

Stk. No.	Type	Voltage	Ohms	1-9	10-49	50-99	100-249
58F474	TAT-2C	6DC	52	3.08	2.77	2.31	2.16
58F475	TAT-2C	12DC	185				
58F476	TAT-2C	24DC	700				
58F477	TAT-2C	48DC	2500				
58F478	TAT-2C	115DC	15000	4.55	4.09	3.41	3.10

TAT-4C DC RELAYS

Same as TAT-2C series except 4PDT.

Stk. No.	Type	Voltage	Ohms	1-9	10-49	50-99	100-249
58F479	TAT-4C	6DC	52	3.48	3.13	2.61	2.44
58F480	TAT-4C	12DC	185				
58F481	TAT-4C	24DC	700				
58F482	TAT-4C	48DC	2500				
58F483	TAT-4C	115DC	15000	4.95	4.45	3.71	3.47

PLATE CIRCUIT RELAYS

TS154-2C DC RELAYS

1 AMP; 85 mw, DPDT, solder/plug-in type. Socket 30055-1. 8 oz.

Stk. No.	Type	Current	Ohm	1-9	10-49	50-99	100-249
58F509	TS154-2C	5.8 ma DC	2500	3.73	3.36	2.80	2.61
58F510	TS154-2C	4.1 ma DC	5000	4.23	3.81	3.18	2.96
58F511	TS154-2C	3.1 ma DC	10000	4.63	4.17	3.48	3.24

TS154-4C DC RELAYS

Same as TS154-2C except 4PDT, 175 mw. Socket 30055-2. .95 oz.

58F512	TS154-4C	18.4 ma DC	2500	4.17	3.75	3.13	2.91
58F513	TS154-4C	6.2 ma DC	5000	4.67	4.20	3.51	3.26
58F514	TS154-4C	4.5 ma DC	10000	5.07	4.56	3.81	3.54

Allied Relays & Sockets



PLATE CIRCUIT RELAYS (Cont.)

TFT-2C DC RELAYS

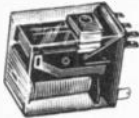
5 AMP; DPDT contacts, subminiature relays. Mounting (4)—4-48NF tapped holes. Wt.—0.70 oz. (*) 220 mw, (†) 250 mw, (**) 300 mw.



No. Stk.	Type	Voltage	Ohms	1-9	10-49	50-99	100-249
59F506	TFT-2C*	9.5 madc	2500	3.49	3.14	2.62	2.45
59F507	TFT-2C†	7.0 madc	5000	3.99	3.59	3.00	2.80
59F508	TFT-2C**	5.5 madc	10000	4.39	3.95	3.30	3.08

T-154 DC TYPE RELAYS

Compact long life telephone relay. No external wiring, contact arms extend to form combination solder and plug-in terminals. 2 amp contacts, 700 MW except 6-C with 1.5 W coil power.



Stk. No.	Type	Volt.	Cont.	Socket	Ohm	1-9	10-49	50-99	100-499
59F459	T154-2C	6DC	DPDT	30055-1	52	3.42	3.08	2.57	2.39
59F460	T154-2C	12DC	DPDT	30055-1	185	3.42	3.08	2.57	2.39
59F461	T154-2C	24DC	DPDT	30055-1	700	3.42	3.08	2.57	2.39
59F462	T154-2C	48DC	DPDT	30055-1	2500	3.42	3.08	2.57	2.39
59F463	T154-2C	115DC	DPDT	30055-1	15000	4.89	4.40	3.67	3.42
59F464	T154-4C	6DC	4PDT	30055-2	52	3.82	3.44	2.87	2.67
59F465	T154-4C	12DC	4PDT	30055-2	185	3.82	3.44	2.87	2.67
59F466	T154-4C	24DC	4PDT	30055-2	700	3.82	3.44	2.87	2.67
59F467	T154-4C	48DC	4PDT	30055-2	2500	3.82	3.44	2.87	2.67
59F468	T154-4C	115DC	4PDT	30055-2	15000	5.29	4.76	3.97	3.70
59F469	T154-6C	6DC	6PDT	30055-20	25	4.95	4.46	3.71	3.47
59F470	T154-6C	12DC	6PDT	30055-20	90	4.95	4.46	3.71	3.47
59F471	T154-6C	24DC	6PDT	30055-20	430	4.95	4.46	3.71	3.47
59F472	T154-6C	48DC	6PDT	30055-20	1550	4.95	4.46	3.71	3.47
59F473	T154-6C	115DC	6PDT	30055-20	9000	5.85	5.27	4.39	4.10

NEW TEFDO GENERAL PURPOSE RELAYS

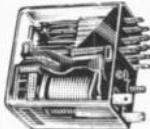
DPDT enclosed in a transparent polycarbonate cover and rigidly secured to base. Enclosure: dust cover. Socket: Any standard RETMA or EIA octal. Shipping weight: 2.5 ounces.



Stock No.	Type	VAC	Ohms	1-9	10-49	50-99	100-499
59F1240	TEFDO-2C	6	6.4	4.92	4.43	3.69	3.44
59F1241	TEFDO-2C	12	31.8	4.92	4.43	3.69	3.44
59F1242	TEFDO-2C	24	112.5	4.92	4.43	3.69	3.44
59F1243	TEFDO-2C	115	2580.0	4.92	4.43	3.69	3.44
59F1244	TEFDO-2C	220	6000.0	5.42	4.88	4.07	3.79

T-351 MAGNETIC LATCHING DC RELAYS

Actuated by a pulse of 10 mill-seconds duration, it is able to withstand a continuous coil input. Coil available with one or two windings. Coil dissipation: 1.2 W. Operate time: 10 ms max. (set or reset) Contact ratings: T-351, 1A at 29 VDC, non-ind. and 0.5A at 115 VAC, non-ind.; TF-351, 5A (2C max.) at 24 VDC, non-ind. and 3A (2C max.) at 115 VAC, non-ind. With up to 4 contact (2x) circuits, 6 normally opened or closed. Size: 1 1/4 x 1 1/4 x 1 3/8.



Stock No.	Type	VDC	Ohms	Contact	1-9	10-49	50-99	100-499
59F1210	T351-2C	6	40	DPDT	6.10	5.49	4.58	4.27
59F1211	T351-2C	12	166	DPDT	6.10	5.49	4.58	4.27
59F1212	T351-2C	24	630	DPDT	6.10	5.49	4.58	4.27
59F1213	T351-2C	48	2020	DPDT	6.30	5.67	4.73	4.41
59F1214	T351-2C	115	13800	DPDT	7.00	6.30	5.25	4.90
59F1215	T351-4C	6	40	4PDT	6.50	5.85	4.88	4.55
59F1216	T351-4C	12	166	4PDT	6.50	5.85	4.88	4.55
59F1217	T351-4C	24	630	4PDT	6.50	5.85	4.88	4.55
59F1218	T351-4C	48	2020	4PDT	6.70	6.03	5.03	4.69
59F1219	T351-4C	115	13800	4PDT	7.40	6.66	5.55	5.18
59F1220	TF351-2C	6	40	DPDT	6.50	5.85	4.88	4.55
59F1221	TF351-2C	12	166	DPDT	6.50	5.85	4.88	4.55
59F1222	TF351-2C	24	630	DPDT	6.50	5.85	4.88	4.55
59F1223	TF351-2C	48	2020	DPDT	6.70	6.03	5.03	4.69
59F1224	TF351-2C	115	13800	DPDT	7.40	6.66	5.55	5.18

Double Coil

59F1225	T351-2C	6	31.5	DPDT	7.10	6.39	5.33	4.97
59F1226	T351-2C	12	134	DPDT	7.10	6.39	5.33	4.97
59F1227	T351-2C	24	485	DPDT	7.10	6.39	5.33	4.97
59F1228	T351-2C	48	1760	DPDT	7.30	6.57	5.48	5.11
59F1229	T351-2C	110	9600	DPDT	9.05	8.15	6.79	6.34
59F1230	T351-4C	6	31.5	4PDT	7.50	6.75	5.63	5.25
59F1231	T351-4C	12	134	4PDT	7.50	6.75	5.63	5.25
59F1232	T351-4C	24	485	4PDT	7.50	6.75	5.63	5.25
59F1233	T351-4C	48	1760	4PDT	7.70	6.93	5.78	5.39
59F1234	T351-4C	110	9600	4PDT	9.40	8.46	7.05	6.58
59F1235	TF351-2C	6	31.5	DPDT	7.50	6.75	5.63	5.25
59F1236	TF351-2C	12	134	DPDT	7.50	6.75	5.63	5.25
59F1237	TF351-2C	24	485	DPDT	7.50	6.75	5.63	5.25
59F1238	TF351-2C	48	1760	DPDT	7.70	6.93	5.78	5.39
59F1239	TF351-2C	110	9600	DPDT	9.45	8.51	7.09	6.62

POWER TYPE RELAYS

BOT AC/DC RELAYS

AC-DC relay for 15 amp at 20 VDC and 115 VAC. .05 ohms max. resistance. Temp: -55 C to +71 C. The BOT is an unenclosed DPDT relay with standard mounting. Terminals available in solder lug, plug in, or hook type. Specify terminals wanted when ordering. Wt. 5 oz.



Stock No.	Type	Voltage	Ohm	Coil Power	1-9	10-49	50-99	100-499
59F404	BOT6A	6AC	1.07	5VA	5.24	4.72	3.93	3.67
59F1245	BOT6A	12AC	4.10	5VA	5.24	4.72	3.93	3.67
59F405	BOT6A	24AC	17.	5VA	5.24	4.72	3.93	3.67
59F406	BOT6A	115AC	445	5VA	5.24	4.72	3.93	3.67
59F407	BOT6A	230AC	2675	5VA	5.36	4.82	4.02	3.75
59F408	BOT6D	6DC	14.2	2.5W	4.79	4.31	3.59	3.36
59F409	BOT6D	12DC	70	2.5W	4.79	4.31	3.59	3.36
59F410	BOT6D	26.5DC	230	2.5W	4.79	4.31	3.59	3.36
59F411	BOT6D	110DC	5000	2.5W	5.34	4.31	4.01	3.74

BOHR AC/DC RELAYS

Same as BOT except 10 amps, hermetically sealed mounting (3)—8-32 thd. studs. Wt. 9.5 oz.



59F412	BOHR-6A	115AC	445	5VA	11.33	10.20	8.50	7.93
59F413	BOHR-6D	26.5DC	230	2.5W	10.88	9.79	8.16	7.62

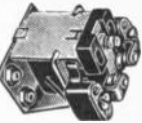
BOHRO AC/DC RELAYS

Same as BO except plug-in style, socket RETMA or EIA. 9.5 oz.

59F414	BOHRO-6A	115AC	445	5VA	11.33	10.20	8.50	7.93
59F415	BOHRO-6D	26.5DC	230	2.5W	10.88	9.79	8.16	7.62

CNA AC RELAYS

115VAC, SPST-NO; 145 ohm coil, 10.5 VA relays are heavy duty with compact double break contacts. Mounting (4)—6-32 elastic stop nuts. Wt., 9.5 oz.



Stk. No.	Type	Cont.	1-9	10-49	50-99	100-499
59F417	CNA-13A	25A	8.00	7.20	6.00	5.60
59F418	CNAS-13A	50A	10.00	9.00	7.50	7.00

PO-9 AND PO-12 AC/DC RELAY SERIES

Low cost compact. PO-9 3PDT, PO-12 4PDT, 15 ampere relays. Mounting (4)—6-32 tapped holes. Wt., 8.0 oz.



Stk. No.	Type	Volt.	Wattage	Ohm	1-9	10-49	50-99	100-499
59F449	PO-3A	24AC	10.5VA	8	6.40	5.76	4.80	4.48
59F450	PO-9A	115AC	10.5VA	145	6.40	5.76	4.80	4.48
59F451	PO-9D	13.2DC	2.5W	70	6.00	5.40	4.50	4.20
59F452	PC-9D	24DC	2.5W	230	6.00	5.40	4.50	4.20
59F453	PC-9D	115DC	2.5W	5000	6.42	5.78	4.82	4.49
59F454	PO-12A	115AC	10.5VA	145	7.16	6.44	5.37	5.01
59F455	PO-12D	13.2DC	2.5W	70	6.60	5.94	4.95	4.62
59F456	PC-12D	24DC	2.5W	230	6.60	5.94	4.95	4.62

WJS-3D AND WJS-6D DC RELAYS

Welded construction, bifurcated contacts. Meets MIL-R-5757/13. Ambient temp.: -65°C to +125°C. WJS-3D, SPDT; WJS-6D, DPDT. Non-inductive—low level up to 3 amps @ 29VDC or 1 amp @ 115 VAC case underground. Terminals: 0.2 in. grid spaced. Shock: 50g operational. Insl. rest.: 1000 megohms min. Min. pull-in power; WJS-3D, 24 mw; WJS-6D, 40 mw. *Plug-in style.



Stk. No.	Type	Amps	Ohms	1-9	10-49	50-99	100-499
59F664	WJS-3D	3.2 madc	2500	11.57	10.41	8.68	8.10
59F665	WJS-3D	2.2 madc	5000	11.57	10.41	8.68	8.10
59F666	WJS-3D	1.6 madc	10000	13.50	12.15	10.13	9.45
59F667	WJS6D	4.0 madc	2500	11.83	10.65	8.87	8.28
59F668	WJS6D	2.8 madc	5000	11.83	10.65	8.87	8.28
59F669	WJS6D	2.0 madc	10000	13.83	12.45	10.37	9.68
59F670	WJS0-6D*	2.8 madc	5000	11.83	10.65	8.87	8.28
59F671	WJS0-6D*	2.0 madc	10000	13.83	12.45	10.37	9.68

SOCKETS

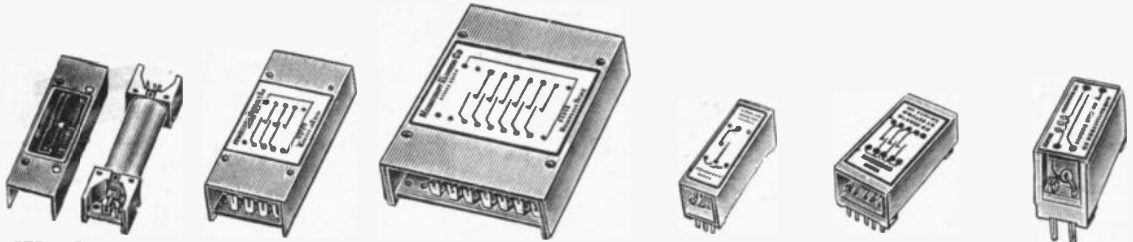
Above chassis mounting sockets. Beryllium copper, silver plated contacts. Socket: mica filled phenolic. Hardware: retainer ring and ground wire.



Stk. No.	Type	Socket No.	1-9	10-49	50-99	100-499
59F515	MHUO-12	16188-1	1.42	1.28	1.07	.99
59F516	MHUO-18	16189-1	1.64	1.48	1.23	1.15
59F517	T-154-2C	30055-1	.55	.50	.43	.38
59F518	T-154-4C	30055-2	.60	.55	.46	

MAGNECRAFT Relays

Modular Packaged "MPC" Dry and Mercury-Wetted Contact Reed Relays



STANDARD SIZE 1 STANDARD SIZE 2 STANDARD SIZE 3 MINIATURE SIZE 1 MINIATURE SIZE 2 MICRO-MINIATURE

STANDARD SERIES MPC RELAYS

MPC Packaged Relays provide quick plug-in assembly to circuit boards. Nylon bobbin intergrally molded with terminal board support and mounting base. Epoxy resin terminal board with tinned terminal supports and terminal pins (one piece) riveted into mortised position. Snap-on steel cover—combines mechanical protection and magnetic shielding, also prevents interaction. The switch mechanism, hermetically sealed with an atmosphere of inert gas in a glass capsule.

CLASS 102MPC FORM A DRY REED RELAYS

DC Power Required: 1/2 watt nom.; Operating Time: 3 msec. average; Release Time: 1/2 msec. average; Contact Bounce: less than 1 msec. average; Contact Load Ratings: 15 VA at 1 amp. max. or 250 VAC max.; non-inductive load; Contact Resistance: 0.1ohm; Life Expectancy: 20 million cycles; Insulation to Ground: 500 VAC RMS; Operating Position: Any; Ambient Temp. Range: -50°F. to +185°F.; Maintenance: None. Size 1 Single-Pole—2 5/8 x 3/4 x 1 1/4"; Size 2 Triple-Pole—2 5/8 x 1 1/2 x 1 1/4"; Size 3 Six-Pole—2 5/8 x 1 1/2 x 1 1/4"; All are normally open. Wt. 2 oz.

Stk. No.	Type W102	Act.	COIL DATA						
			VDC†	OHMS	1-24	25-49	50-74	75-99	100-999
56F415	MPCX-5	SPST	6	30	3.29	2.96	2.79	2.63	2.30
56F416	MPCX-6	SPST	6	70	3.29	2.96	2.79	2.63	2.30
56F417	MPCX-7	SPST	12	250	3.29	2.96	2.79	2.63	2.30
56F418	MPCX-8	SPST	24	1000	3.29	2.96	2.79	2.63	2.30
56F419	MPCX-9	SPST	48	4000	3.46	3.11	2.94	2.77	2.42
56F420	MPCX-10	SPST	7000	4.14	3.73	3.52	3.31	2.90	
56F300	MPCX-48	3PST	6	50	5.62	5.06	4.78	4.50	3.94
56F301	MPCX-49	3PST	12	175	5.63	5.07	4.79	4.51	3.95
56F302	MPCX-50	3PST	24	750	5.77	5.20	4.91	4.62	4.04
56F303	MPCX-51	3PST	48	3000	5.97	5.38	5.08	4.78	4.18
56F304	MPCX-52	6PST	6	25	9.18	8.27	7.81	7.35	6.43
56F305	MPCX-53	6PST	12	100	9.30	8.37	7.91	7.44	6.51
56F306	MPCX-54	6PST	24	375	9.35	8.42	7.95	7.48	6.55
56F307	MPCX-55	6PST	48	1500	9.43	8.49	8.02	7.55	6.61

CLASS 103MPC FORM C DRY REED RELAYS

Contact Load Rating: 10 VA at 1/2 amp. max., or 250 VAC max., non-inductive load; Contact Resistance: 0.1 ohm; Insulation to Ground: 500 VAC RMS; DC Power Required: 1/2 watt nom.; Life Expectancy: 25 million cycles; Ambient Temp. Range: 50°F. to 185°F.; Operating Time: 2 msec.; Release Time: 1/2 msec. Size 1 Single-Pole—1 9/8 x 3/4 x 1 1/4"; Size 2 Triple-Pole—1 9/8 x 1 1/2 x 1 1/4"; Size 3 Six-Pole—2 5/8 x 1 1/2 x 1 1/4"; Wt. 2 oz.

Stk. No.	Type W103	Act.	COIL DATA						
			VDC†	OHMS	1-24	25-49	50-74	75-99	100-999
56F421	MPCX-1	SPDT	6	30	5.88	5.25	4.96	4.66	4.08
56F422	MPCX-2	SPDT	6	70	5.83	5.25	4.96	4.66	4.08
56F423	MPCX-3	SPDT	12	250	5.83	5.25	4.96	4.66	4.08
56F424	MPCX-4	SPDT	24	1000	5.83	5.25	4.96	4.66	4.08
56F425	MPCX-5	SPDT	48	4000	6.00	5.40	5.10	4.80	4.20
56F426	MPCX-6	SPDT	7000	6.68	6.01	5.68	5.34	4.68	
56F308	MPCX-30	DPDT	6	50	8.33	7.50	7.09	6.67	5.84
56F309	MPCX-31	DPDT	12	175	8.33	7.50	7.09	6.67	5.84
56F310	MPCX-32	DPDT	24	750	8.47	7.63	7.20	6.78	5.93
56F311	MPCX-33	DPDT	48	3000	8.67	7.81	7.37	6.94	6.07
56F312	MPCX-34	4PDT	6	25	14.60	13.14	12.41	11.68	10.22
56F313	MPCX-35	4PDT	12	100	14.70	13.23	12.50	11.76	10.29
56F314	MPCX-36	4PDT	24	375	14.77	13.29	12.55	11.82	10.34
56F315	MPCX-37	4PDT	48	1500	14.88	13.40	12.65	11.91	10.42

CLASS 132MPC FORM A MERCURY-WETTED RELAYS

Power Required: 1/2 watt nom.; Operating Time: 2 msec. average; Release Time: 2msec. average; Contact Bounce: None; Contact Load Rating: 50 VA at 3.0 amps. max. or 400 VAC max.; non-inductive; Contact Resistance: 0.025 ohm max.; Life Expectancy: 1 billion cycles; Insulation to Ground: 500 VAC RMS; Operating Position: Upright, not more than 30 from vertical; Ambient Temp. Range: -37°F. to +185°F.; Maintenance: No change in adjustment after the relay is made. Size 1 Single-Pole—2 5/8 x 3/4 x 1 1/4"; All are normally open. Wt. 2 oz.

Stk. No.	Type W132	Act.	COIL DATA						
			VDC†	OHMS	1-24	25-49	50-74	75-99	100-999
56F483	MPCX-1	SPST	6	30	5.83	5.25	4.96	4.66	4.08
56F484	MPCX-2	SPST	6	70	5.83	5.25	4.96	4.66	4.08
56F485	MPCX-3	SPST	12	250	5.83	5.25	4.96	4.66	4.08
56F486	MPCX-4	SPST	24	1000	5.83	5.25	4.96	4.66	4.08
56F487	MPCX-5	SPST	48	4000	6.00	5.40	5.10	4.80	4.20
56F488	MPCX-6	SPST	7000	6.68	6.01	5.68	5.34	4.68	

CLASS 133MPC FORM C MERCURY-WETTED CONTACT RELAYS

Same as Class 132MPC listed on this page, except for—Contact Load Rating: 50 VA at 2.0 amps. max. or 400 VAC max., non-inductive load. Size 1 Single-Pole—2 5/8 x 3/4 x 1 1/4"; Wt. 2 oz.

Stk. No.	Type W133	Act.	COIL DATA						
			VDC†	OHMS	1-24	25-49	50-74	75-99	100-999
56F489	MPCX-1	SPDT	6	30	8.42	7.58	7.16	6.74	5.89
56F490	MPCX-2	SPDT	6	70	8.42	7.58	7.16	6.74	5.89
56F491	MPCX-3	SPDT	12	250	8.42	7.58	7.16	6.74	5.89
56F492	MPCX-4	SPDT	24	1000	8.42	7.58	7.16	6.74	5.89
56F493	MPCX-5	SPDT	48	4000	8.69	7.74	7.31	6.88	6.02
56F494	MPCX-6	SPDT	7000	9.35	8.42	7.95	7.48	6.55	

MINIATURE SERIES MPC RELAYS

Miniature MPC Reed Relays offer more than versatility alone... they're fast and reliable! Form A Dry Reed MPC Relays provide operating times of one msec. average and life expectancies of 5 million cycles at rated loads! Contact ratings and mechanical construction is fully consistent with circuit requirements. Ideal units for compact printed circuit design.

CLASS 101MPC FORM A MINIATURE DRY REED RELAYS

DC Power Required: 500 Milliwatts; Operating Time: 1 Millisecond, average; Release Time: 0.5 Millisecond, average; Contact Bounce: 0.5 Millisecond, average; Contact Load Rating: 10 Volt-Amperes maximum at 250 Milliampers maximum or 100 Volts maximum, non-inductive; Contact Resistance: 150 Milliohms, average; Capacitance Across Contacts: 0.8 Picofarad, average; Life Expectancy, Rated Load: 5 million cycles; Insulation to Ground: 500 Volts AC, RMS; Operating Position: Any; Ambient Temperature Range: -50°F. to +185°F. Size 1 Single-Pole—1 1/2 x 3/8 x 3/8"; Size 2 Triple-Pole—1 1/2 x 3/8 x 3/8"; Wt. 1 oz.

Stk. No.	Type W101	Act.	COIL DATA						
			VDC†	OHMS	1-24	25-49	50-74	75-99	100-499
56F316	MPCX-1	SPST	6	70	3.60	3.24	3.06	2.88	2.52
56F317	MPCX-2	SPST	12	300	3.60	3.24	3.06	2.88	2.52
56F318	MPCX-3	SPST	24	1100	3.63	3.27	3.09	2.90	2.54
56F319	MPCX-4	3PST	48	4300	3.77	3.39	3.20	3.02	2.64
56F320	MPCX-5	3PST	6	50	6.75	6.08	5.74	5.40	4.73
56F321	MPCX-6	3PST	12	220	6.75	6.08	5.74	5.40	4.73
56F322	MPCX-7	3PST	24	850	6.77	6.09	5.75	5.42	4.74
56F323	MPCX-8	3PST	48	3300	6.85	6.17	5.82	5.48	4.80

CLASS 104MPC FORM C MINIATURE DRY REED RELAYS

DC Power Required: 500 Milliwatts; Operating Time: 1 Millisecond, average; Release Time: 1 Millisecond, average; Contact Resistance: 150 Milliohms, average; Insulation to Ground: 500 Volts AC, RMS; Operating Position: Any; Contact Load Rating: 3 Volt-Amperes maximum at 250 Milliampers maximum or 28 Volts maximum, non-inductive; Size 1 Single-Pole—1 1/8 x 3/8 x 3/8"; Size 2 Double-Pole—1 1/8 x 3/8 x 3/8"; Wt. 1 oz.

Stk. No.	Type W104	Act.	COIL DATA						
			VDC†	OHMS	1-24	25-49	50-74	75-99	100-499
56F324	MPCX-1	SPDT	6	70	6.82	6.14	5.80	5.46	4.77
56F325	MPCX-2	SPDT	12	300	6.83	6.15	5.81	5.46	4.78
56F326	MPCX-3	SPDT	24	1100	6.85	6.17	5.82	5.48	4.80
56F327	MPCX-4	SPDT	48	4300	6.98	6.28	5.93	5.58	4.89
56F328	MPCX-5	DPDT	6	50	11.62	10.48	9.88	9.30	8.13
56F329	MPCX-6	DPDT	12	220	11.62	10.47	9.89	9.30	8.14
56F330	MPCX-7	DPDT	24	850	11.65	10.49	9.90	9.32	8.16
56F331	MPCX-8	DPDT	48	3300	11.73	10.56	9.97	9.38	8.21

MICRO-MINIATURE SERIES MPC RELAYS

Provide all of the outstanding advantages of reed relays in low profile compact designs that meet the most rigid demands for space saving, reliable components. Available in either encapsulated axial lead units or "plug-in" units specifically designed for high density printed circuit applications. Switch capsule and design features provide fast switching plus low internal noise... an advantage that makes these relays ideal for low voltage and "dry" circuit designs. Contacts: SPST-NO; Contact Load Rating: 100 Millivolt-Amperes maximum at 10 Milliampers maximum or 12 Volts maximum, non-inductive; Contact Resistance: 200 Milliohms, average; Insulation to WS ground: 250 Volts AC RMS; Operating Position: Any; DC Coil Power Required: 300 Milliwatts; Size: Single-Pole—5/8 x 3/4 x 1 1/4"; Wt. 1 oz.

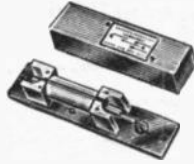
Stk. No.	Type W105	Act.	COIL DATA						
			VDC†	OHMS	1-24	25-49	50-74	75-99	100-999
56F332	MPCX-1	SPST	6	6	5.45	4.91	4.63	4.36	3.82
56F333	MPCX-2	SPST	12	6	5.47	4.92	4.65	4.38	3.83
56F334	MPCX-3	SPST	24	6	5.58	5.02	4.74	4.46	3.91

Relays MAGNECRAFT

SPECIAL PURPOSE REED RELAYS

CLASS 102V 5000 VOLT REED RELAY

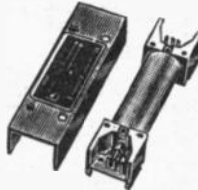
For high voltage switching with the inherent reliability of reed relay operation. Contacts rated at 50v.-amp. at 5,000 VDC max. or 3 amp. max., resistive load. Life expectancy 20,000,000 operations. Op. time, 3 millisecond average, release time 0.5 millisecond average. Internally insulated metal cover protects coil assembly and shields relay from stray magnetic fields. Contacts: SPST-NO. $4\frac{1}{2} \times 1\frac{1}{16} \times \frac{3}{16}$ ". Wt. 3 oz.



Stk. No.	Type	Volt. or Curr.	Res. (Ohms)	1-24	25-49	50-74	75-99	100-499
56F368	W102VX-9	140.0 MA	30	13.09	12.32	11.64	10.95	9.58
56F369	W102VX-10	6 V	70	13.09	12.32	11.64	10.95	9.58
56F370	W102VX-11	12 V	250	13.73	12.36	11.67	10.98	9.61
56F371	W102VX-12	24 V	1000	13.78	12.40	11.71	11.02	9.65
56F372	W102VX-13	48 V	4000	14.15	12.74	12.03	11.32	9.91
56F373	W102VX-14	9.0 MA	7000	14.58	13.12	12.39	11.66	10.21

NEW 102RMP POWER REED RELAY

Type 102 RMPC. Provides the printed circuit design engineer with the first reed relay capable of switching up to 100 watts at 3 amps and within 1 msec. average. SPST-NO. Requiring $\frac{1}{2}$ watt nominal operating power and rated 100VA, 3 amps or 250 volts maximum. Dimensions: $2\frac{3}{8} \times \frac{3}{4} \times \frac{1}{2}$ "H.



Stock No.	Type	VDC	Ohms	1-24	25-49	50-74	75-99	100-499
56F356	W102RMPXC-1	6	70	7.87	7.08	6.69	6.30	5.51
56F357	W102RMPXC-2	12	250	7.87	7.09	6.70	6.31	5.52
56F358	W102RMPXC-3	24	1000	7.93	7.14	6.74	6.34	5.55
56F359	W102RMPXC-4	48	4000	8.18	7.36	6.95	6.54	5.73

103 LMPC LATCHING REED RELAYS

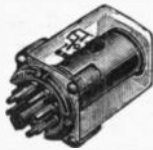
Magnetic latching; requires no coil current to hold SPDT contacts. Contacts rated at 10 volt-ampere at 200 V. maximum or 2 amp. max. Life expectancy, 25 million operations. Size: $2\frac{3}{8} \times \frac{1}{2} \times \frac{3}{4}$ ". Wt. 3 oz.



Stock No.	Type	Ma	Volt	Ohm	1-24	25-49	50-74	75-99	100-499
56F390	W103LMPCX-3	40	—	70	7.07	6.36	6.01	5.66	4.95
56F391	W103LMPCX-4	—	6	250	7.07	6.36	6.01	5.66	4.95
56F392	W103LMPCX-5	—	12	1000	7.07	6.36	6.01	5.66	4.95
56F393	W103LMPCX-6	—	24	4000	7.26	6.53	6.17	5.81	5.08
56F394	W103LMPCX-7	4	—	7000	8.01	7.21	6.81	6.41	5.61
56F395	W103LMPCX-8	80	—	30/30	8.22	7.40	6.99	6.58	5.75
56F396	W103LMPCX-9	—	6	120/120	8.33	7.50	7.08	6.66	5.83
56F397	W103LMPCX-10	—	12	460/460	8.33	7.50	7.08	6.66	5.83
56F398	W103LMPCX-11	—	24	1800/1800	9.00	8.10	7.65	7.20	6.30
56F399	W103LMPCX-12	8	—	3000/3000	10.04	9.04	8.53	8.03	7.03

DRY REED RELAY PLUG-IN ASSEMBLIES WITH PLASTIC DUST COVER

Type 103CP. Each assembly contains two or three SPDT dry reeds with plug-in mounting in plastic dust cover. All are DPDT except (*) are 3PDT. Rated: 10 watts resistive load, 1 amp or 250 VAC max. Life expectancy: 25 million cycles at rated, 50 million cycles at $\frac{1}{2}$ rated, 100 million cycles at low load. Dimensions: $1\frac{3}{8} \times 1\frac{1}{8} \times 2\frac{1}{8}$ ". Wt. 5 oz.



Stk. No.	Type	Volt or Curr.	Coil Res. (Ohms)	1-24	25-49	50-74	75-99	100-499
56F360	W103CPX-7	6VDC	75	12.92	11.63	10.80	10.34	9.04
56F361	W103CPX-8	12VDC	300	12.95	11.66	11.01	10.36	9.07
56F362	W103CPX-9	24VDC	1K	13.01	11.71	11.06	10.41	9.11
56F363	W103CPX-10	8MADC	5K	13.57	12.21	11.53	10.88	9.50
56F364	W103CPX-11*	6VDC	40	16.77	15.09	14.25	13.42	11.74
56F365	W103CPX-12*	12VDC	150	16.83	15.15	14.31	13.46	11.78
56F366	W103CPX-13*	24VDC	650	16.95	15.26	14.41	13.56	11.87
56F367	W103CPX-14*	10MADC	1K	17.50	15.75	14.86	14.00	12.25

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ENCAPSULATED PRINTED CIRCUIT REED RELAYS

CLASS 101 ENCAPSULATED MINIATURE REED RELAYS

SPST- $1\frac{1}{2}$ "L, $\frac{1}{2}$ "W, $\frac{9}{16}$ "H. DPST- $1\frac{1}{2}$ "L, $1\frac{1}{16}$ "W, $\frac{9}{16}$ "H. Gold contacts rated at Operating time 1 millisecond average. Release time $\frac{1}{2}$ millisecond average. Wt. 1 oz.



Stk. No.	Type	Volt	Ohm Cont.	1-24	25-49	50-74	75-99	100-499
56F459	W101PCX-5	6VDC	65 SPST	5.11	4.60	4.34	4.09	3.58
56F460	W101PCX-6	12VDC	250 SPST	5.16	4.64	4.39	4.13	3.61
56F461	W101PCX-7	24VDC	1000 SPST	5.26	4.73	4.47	4.21	3.68
56F462	W101PCX-8	8.0MADC	5000 SPST	5.68	5.11	4.83	4.54	3.98
56F463	W101PCX-9	6VDC	40 DPST	7.15	6.49	6.08	5.72	5.00
56F464	W101PCX-10	12VDC	150 DPST	7.18	6.49	6.10	5.74	5.03
56F465	W101PCX-11	24VDC	650 DPST	7.24	6.52	6.15	5.79	5.07
56F466	W101PCX-12	8.0MADC	5000 DPST	7.69	6.92	6.54	6.15	5.38

CLASS 102 ENCAPSULATED STANDARD REED RELAYS

SPST $2\frac{1}{4}$ "L, $2\frac{1}{32}$ "W, $\frac{3}{8}$ "H. DPST $2\frac{1}{4}$ "L, $1\frac{1}{4}$ "W, $\frac{3}{8}$ "H. Operate, 3 ms. average. Release, $\frac{1}{2}$ ms. average. Contact Load Rating, 15VA at 1 amp. max. or 250 VAC max., non-inductive. Life Expectancy, 20 million cycles at full load; 100 million at $\frac{1}{2}$ load. Wt. 3 oz.

Stk. No.	Type	Volt	Ohm Cont.	1-24	25-49	50-74	75-99	100-499
56F467	W102PCX-1	6VDC	100 SPST	4.77	4.29	4.05	3.82	3.34
56F468	W102PCX-2	12VDC	400 SPST	4.83	4.35	4.10	3.86	3.38
56F469	W102PCX-3	24VDC	1500 SPST	4.87	4.38	4.14	3.90	3.41
56F470	W102PCX-4	6.5MADC	5000 SPST	5.32	4.79	4.52	4.26	3.72
56F471	W102PCX-5	6VDC	50 DPST	6.22	5.60	5.29	4.98	4.35
56F472	W102PCX-6	12VDC	200 DPST	6.28	5.65	5.34	5.02	4.40
56F473	W102PCX-7	24VDC	800 DPST	6.33	5.70	5.38	5.06	4.43
56F474	W102PCX-8	8.0MADC	5000 DPST	6.78	6.10	5.76	5.42	4.75

CLASS 103 ENCAPSULATED STANDARD REED RELAYS

SINGLE POLE DOUBLE THROW $2\frac{1}{4}$ "L, $2\frac{1}{32}$ "W, $\frac{3}{8}$ "H. Double pole-double throw $2\frac{1}{4}$ "L, $1\frac{1}{4}$ "W, $\frac{3}{8}$ "H. SPDT or DPDT. Good contacts rated 10 watts resistive load, - amp or 250 VAC max. Operating and release time less than 2 millisecond average. Wt., 3 oz.

Stk. No.	Type	Volt	Ohm Cont.	1-24	25-49	50-74	75-99	100-499
56F475	W103PCX-1	6VDC	100 SPDT	7.22	6.50	6.14	5.78	5.05
56F476	W103PCX-2	12VDC	400 SPDT	7.27	6.54	6.18	5.82	5.09
56F477	W103PCX-3	24VDC	1500 SPDT	7.32	6.59	6.22	5.86	5.12
56F478	W103PCX-4	6.5MADC	5000 SPDT	7.76	6.98	6.60	6.21	5.43
56F479	W103PCX-5	6VDC	50 DPDT	10.77	9.69	9.15	8.62	7.54
56F480	W103PCX-6	12VDC	200 DPDT	10.79	9.71	9.17	8.63	7.55
56F481	W103PCX-7	24VDC	800 DPDT	10.84	9.76	9.21	8.67	7.59
56F482	W103PCX-8	9.0MADC	5000 DPDT	11.31	10.18	9.61	9.05	7.92

CLASS 104 ENCAPSULATED MINIATURE SPDT REED RELAY

New miniaturized Magnereed relay. Contacts: gold, rated 3 VA @ $\frac{1}{4}$ amp max. or 28 V max. Life expectancy: 10 million cycles at rated load. Oper. time 1ms. average.



Stk. No.	Type	Volt	Ohm Cont.	1-24	25-49	50-74	75-99	100-499
56F427	W104PCX-7	6VDC	40 SPDT	10.07	9.06	8.56	8.06	7.05
56F428	W104PCX-8	12VDC	150 SPDT	10.12	9.11	8.60	8.10	7.08
56F429	W104PCX-9	24VDC	650 SPDT	10.22	9.20	8.69	8.19	7.15
56F430	W104PCX-10	.....	5000 SPDT	10.64	9.58	9.04	8.51	7.45
56F431	W104PCX-3	6VDC	100 DPDT	14.59	13.13	12.40	11.67	10.21
56F432	W104PCX-4	12VDC	225 DPDT	14.62	13.16	12.43	11.70	10.23
56F433	W104PCX-5	24VDC	1000 DPDT	14.66	13.21	12.49	11.74	10.28
56F434	W104PCX-6	.....	5000 DPDT	15.13	13.62	12.86	12.10	10.59

SERIES "131PC" MINIATURE MERCURY WETTED RELAY

Miniature mercury wetted contact printed circuit relay. Contacts rated at 28VA, 1 amp, or 100v max., resistive. Operate and release time 1MS average 100 million cycle life. Wt. 2 oz.



Stk. No.	Type	Volt. or Curr.	Res. (Ohms)	1-24	25-49	50-74	75-99	100-499
56F374	W131PCX-8	6 VDC	65	8.38	7.54	7.12	6.70	5.87
56F375	W131PCX-9	12 VDC	250	8.44	7.60	7.17	6.75	5.91
56F376	W131PCX-10	24 VDC	1000	8.55	7.70	7.27	6.84	5.99
56F377	W131PCX-11	8.0 MA	5000	9.01	8.11	7.66	7.21	6.31
56F378	W131PCX-12	6 VDC	40	10.62	9.58	9.03	8.50	7.43
56F379	W131PCX-13	12 VDC	150	10.66	9.59	9.06	8.53	7.46
56F380	W131PCX-14	24 VDC	650	10.71	9.64	9.10	8.57	7.50
56F381	W131PCX-15	8.0 MA	5000	11.21	10.08	9.53	8.97	7.85

MAGNECRAFT Relays

ENCAPSULATED AXIAL LEAD REED RELAYS

CLASS "101EP" SPST REED RELAYS



SPST-NO gold contacts rated at 12 VA at .250 amperes maximum or 100 VAC maximum. Life expectancy 5 million cycles at rated load. Operate time 1 millisecond average release time 1/2 millisecond average. Axial lead wires for coil and contacts. Encapsulated molded case. Overall length 3", body length 1", 1/16" diameter. Weight, 1 oz.

Stock No.	Type	Coil			Nom. Pwr.	1-24	25-49	50-74	75-99	100-499
		MA	Volt	Ohms						
56F382	W101EPX-5	6VDC	65	600	3.62	3.26	3.08	2.90	2.53	
56F383	W101EPX-6	12VDC	225	600	3.62	3.26	3.08	2.90	2.53	
56F384	W101EPX-7	24VDC	1000	MW	4.24	3.82	3.60	3.39	2.97	
56F385	W101EPX-8	8 OMA	5000		4.68	4.21	3.98	3.74	3.28	

CLASS "104EP" SPDT REED RELAYS



SPDT gold contacts rated at 3 VA at .250 amps. or 28 VAC maximum. Life expectancy 10 million cycles at rated load. Operate time and release time 1 millisecond average. Axial lead wires for coil and contacts. Encapsulated molded case. Overall length 3", body length 1", 1/16" diameter. Weight, 1 ounce.

Stock No.	Type	Coil			1-24	25-49	50-74	75-99	100-499
		Voltage or Current	Res. Ohms	Ohms					
56F386	W104EPX-2	6VDC	65	7.37	6.63	6.26	5.90	5.16	
56F387	W104EPX-3	12VDC	225	7.37	6.63	6.26	5.90	5.16	
56F388	W104EPX-4	24VDC	1000	8.05	7.25	6.84	6.44	5.64	
56F389	W104EPX-5	8.0MA	5000	8.55	7.70	7.27	6.84	5.99	

MICRO-MINIATURE CLASS "105EP" SPST REED RELAYS



Highly resistant to mechanical shock, excessive humidity and corrosive atmospheres. These units are ideal in circuitry that not only requires maximum resistance to adverse environmental conditions but compactness. They are equipped with 3/4" long axial leads, for both coil and contacts, and may be used in either printed circuit applications or circuits designed for point-to-point wiring. DC Coil Power Required: 400 Milliwatts; Operate Time: 250 Microseconds, average; Release Time: 500 Microseconds, average; Contact Bounce: 500 Microseconds, average; Contact Load Rating: 100 Millivolt-Amperes maximum at 10 Milliampere max. or 12 Volts maximum, non-inductive; Contact Resistance: 200 Milliohms, average; Capacitance Across Contacts: 0.35 Picofarad, average; Life Expectancy, Rated Load: 10 Million cycles; 1/4" in diameter by 1/16" long. Wt. 1 oz.

Stk. No.	Type	Coil Data		1-24	25-49	50-74	75-99	100-499
		VDC	Ohms					
56F351	W105EPX-1	6	90	6.18	5.56	5.25	4.94	4.33
56F352	W105EPX-2	12	350	6.18	5.56	5.25	4.94	4.33
56F353	W105EPX-3	24	1300	6.30	5.67	5.36	5.04	4.41

HERMETICALLY SEALED RELAYS 4PDT SMALL AC-DC TYPES



Hermetically sealed enclosure housing Class 22 telephone type relay with 14 pin glass insulated solder terminal header. Silver alloy contacts, 5 amp rating. Three 6-32 threaded mounting studs on 1 1/2 x 1 1/8" centers. Size: 1 7/16 x 1 5/8 x 2 1/8". Wt.: 7 oz.

AC Voltage Actuated

Stock No.	Type	Coil		1-9	10-24	25-49	50-99	100-249
		Volts	Ohms					
56F607	W22AHSX32	115	375	17.30	15.57	14.71	13.84	12.98

DC Voltage Actuated

Stock No.	Type	Coil		1-9	10-24	25-49	50-99	100-249
		Volts	Ohms					
56F608	W22HSX144	6V	20	17.00	15.30	14.45	13.60	12.75
56F609	W22HSX145	12V	80	17.00	15.30	14.45	13.60	12.75
56F610	W22HSX146	24V	375	17.05	15.35	14.49	13.64	12.79
56F611	W22HSX147	110V	8000	18.03	16.23	15.33	14.42	13.52

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OPEN TYPE AXIAL LEAD REED RELAYS

Pre-adjusted gold contacts hermetically sealed inside a glass capsule in an atmosphere of inert gas. Contacts are actuated magnetically by a coil around the sealed capsule. They are easily adaptable to mtg. configurations as well as group to meet multipole switching requirements. Contact combination: SPST, normally open. Operating time: 1 millisecond average. Release time: 1/2 millisecond average.

CLASS 101 MINIATURE



Contacts: Gold; rated 12VA at .250 amps max. Nom. Power: 200 mw. Life Expectancy: Max. rating: 5 million cyc. Size: 7/16" dia. x 1 1/2" L. Wt. 1 oz.

Stock No.	Type	Operate I	Volts	Ohms	1-24	25-49	50-74	75-99	100-499
56F625	W101X-1	46MA	6V	100	3.29	2.96	2.80	2.63	2.30
56F626	W101X-2	30MA	12V	250	3.29	2.96	2.80	2.63	2.30
56F627	W101X-3	2MA	24V	500	3.85	3.46	3.27	3.08	2.69
56F628	W101X-4	9MA	.....	2500	4.25	3.82	3.61	3.40	2.97

CLASS 102 STANDARD TYPES



Contacts: Gold; Rated 15VA at 1 amp. max. Life Expectancy: Max. rating—20 million cyc., 1/2 max. rating—100 million cyc., low load (1/10 amp. at 12V)—200 million cyc. Size: 1/2" dia. x 3/4". Wt., 1 oz.

Stock No.	Type	Operate I	Volts	Ohms	1-24	25-49	50-74	75-99	100-499
56F629	W102X-1	32 MA	.....	100	2.57	2.31	2.18	2.06	1.80
56F630	W102X-2	23 MA	6V	200	2.57	2.31	2.18	2.06	1.80
56F631	W102X-3	14.5MA	12V	500	2.57	2.31	2.18	2.06	1.80
56F632	W102X-4	10 MA	24V	2000	2.70	2.43	2.29	2.16	1.89
56F633	W102X-5	4.6MA	.....	5000	3.25	2.92	2.76	2.60	2.27

CLASS 103 STANDARD TYPES



Overall length: 3 1/2"; glass length: 2 1/2". Outside diameter: 1/2". Contact combinations: single pole, double throw. Contact gold rated 10 watts resistive load 1 ampere or 250 VAC maximum. Operating time 2 millisecond, release time 1 millisecond average. *I in MA. Weight 1 oz.

Stock No.	Type	Operate I	V	Ohms	1-24	25-49	50-74	75-99	100-499
56F450	W103X-8	32	6	100	4.54	4.09	3.86	3.63	3.18
56F451	W103X-9	23	6	200	4.75	4.28	4.04	3.80	3.33
56F452	W103X-10	14.5	12	500	5.22	4.70	4.44	4.18	3.65
56F453	W103X-11	7.5	24	2000	5.66	5.09	4.81	4.53	3.96
56F454	W103X-12	4.6	.....	5000	5.79	5.21	4.92	4.63	4.05

CLASS 88 HERMETICALLY SEALED PLUG-IN RELAY



High reliability relay with type 40-180 enclosure. Has hermetically sealed housing. Class 88 with a standard 8-pin octal plug. Has silver alloy contacts. Rated at 10 amps. All are DPDT except (*) are 3PDT and use 11-pin octal plug. Type 88AHP is alternating current voltage actuated. Type 88P is direct current voltage actuated. Nominal power: Type 88AHP, 3VA; Type 88P, 1.5 W. Plug-in mounted. Size: 1 1/8" x 2 1/2". Wt. 5 oz.

Stk. No.	Type	Voltage	Res. Ohms	1-9	10-24	25-49	50-99	100-249
56F400	W88AHPX-21	6 VAC	.....	8.59	7.73	7.39	6.87	6.44
56F401	W88AHPX-22	12 VAC	.....	8.59	7.73	7.39	6.87	6.44
56F402	W88AHPX-23	24 VAC	.....	8.64	7.78	7.34	6.91	6.48
56F403	W88AHPX-24	115 VAC	.....	8.79	7.91	7.47	7.03	6.59
56F354	W88AHPX-36*	115 VAC	.....	10.60	9.54	9.01	8.48	7.95
56F404	W88HPX-32	6 VDC	25	8.19	7.37	6.96	6.55	6.14
56F405	W88HPX-33	12 VDC	100	8.19	7.37	6.96	6.55	6.14
56F406	W88HPX-34	24 VDC	400	8.24	7.42	7.00	6.59	6.18
56F497	W88HPX-35	110 VDC	8000	9.29	8.36	7.90	7.43	6.97
56F355	W88HPX-51*	24 VDC	400	10.03	9.03	8.53	8.02	7.52

SUB-MINIATURE DC TYPES



Hermetically sealed enclosure housing Class 33 telephone type relay with high compression, glass insulated solder terminal header. 5 amp silver alloy contacts. Three 4-40 threader mtg. studs on 1 1/2" centers. Size: 3 1/2 x 1 1/2 x 1 1/4". Wt., 3 oz.

DPDT 8 Pin Solder Terminal

Stock No.	Type	Coil		1-9	10-24	25-49	50-99	100-249
		Volts	Ohms					
56F612	W33HSX177	6V	17	13.21	11.89	11.23	10.57	9.91
56F613	W33HSX178	12V	75	13.21	11.89	11.23	10.57	9.91
56F614	W33HSX179	24V	280	13.26	11.93	11.27	10.61	9.95

1PDT 14 Pin Solder Terminal

Stock No.	Type	Coil		1-9	10-24	25-49	50-99	100-249
		Volts	Ohms					
56F617	W33HSX182	12V	75	16.65	14.99	14.15	13.32	12.49
56F618	W33HSX183	24V	280	16.70	15.03	14.20	13.36	12.53
56F619	W33HSX184	110V	6500	17.36	15.62	14.76	13.89	13.02

Time Delay Relays and Ballast Tubes

AGASTAT PNEUMATIC TIME DELAY RELAYS

2400 Series. Front screw type terminals. Time delay dials calibrated in min. or sec. DPDT contacts rated 10A/120V, 60 cy. Coils consume 8 watts & operate on 120V. 60 cy & 240V, 60 cy. 4 1/4" x 2 1/2" x 2 7/8". Shpg. wt. 2 lbs.

Type 2412. Time delay on pull-in. Timing cycle begins when coil is energized. Coil kept energized throughout time setting preceding DPDT contacts transfer from de-energized to energized position. Coil de-energized: contacts retransfer immediately (25 m-sec). Coil de-energized during timing cycle, contacts remain de-energized & timing mech. resets to start position for full time cycle on next energization of coil.

Type 2422. Time delay on drop-out. Coil energized: DPDT contacts transfer & stay in transfer position. De-energization coil:

Time delay begins. Timing cycle: contacts stay energized. End time delay setting: contacts transfer back to de-energized position. Coil re-energized during timing cycle: contacts energized produce full time delay upon next de-energization if coil remains de-energized through time setting.

Type 2432. Double head unit provides independent delay of contact transfer on both energized & de-energized cycles of coil. 6 1/2" x 3 3/4" x 3 1/8". Shpg. wt. 2 1/2 lbs. Auxiliary Switch Kits: Type "T" SPDT contacts rated 10A/120V, 60 cy. attached to Type 2412 or 2422. 2412 units: "T" switch provides 2-step timing. Switch transfers time delay up to 30 sec. Type "L" switch gives immediate transfer of contacts both on energization and de-energization cy. of coil.

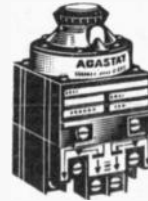


Fig. A



Fig. B



Fig. C

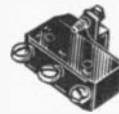


Fig. D

Stk. No.	Type No.	Fig.	Time Delay Range	Volts AC	NET
57F1550	2412AB	A	0.2 to 5 sec.	120	38.00
57F1551	2412AD	A	2.5 to 50 sec.	120	38.00
57F1552	2412AH	A	1 to 30 min.	120	46.00
57F1553	2412BB	A	0.2 to 5 sec.	240	38.00
57F1554	2412BD	A	2.5 to 50 sec.	240	38.00
57F1555	2412BH	A	1 to 30 min.	240	46.00
57F1556	2422AB	A	0.2 to 5 sec.	120	38.00
57F1557	2422AD	A	2 to 50 sec.	120	38.00
57F1558	2422AH	A	1 to 30 min.	120	46.00
57F1559	2422BB	A	0.2 to 5 sec.	240	38.00
57F1560	2422BD	A	2.5 to 50 sec.	240	38.00
57F1561	2422BH	A	1 to 30 min.	240	48.00
57F1562	2432ADD	B	2.5 to 50 sec.	120	74.00
57F1563	2432AHH	B	1 to 30 min.	120	82.00
57F1564	T	D	Aux. switch kit (see text)		7.00
57F1565	L	D	Aux. switch kit (see text)		7.00
57F1568	GZ	C	Relay enclosure w/bottom knockouts		6.00

AMPERITE THERMOSTATIC DELAY RELAYS, TUBES & FLASHERS

FLASHERS

Normally closed flashers. Operate 1/2 on, 1/2 off. Percent time on increased by reducing voltage of heater. 115F30 flashes 30 times per min.; 115F60—60 times.

Stock No.	Type	Tol. FPM —20°C	NET
24F2359	115F30	30±10	2.35
24F2360	115F60	60±15	2.35



AMPERITE BALLAST TUBES



Rugged units provide low-cost automatic voltage and current regulation, operate equally well on AC or DC. As supply voltage increases, ballast tube resistance increases, holding load voltage constant. Regulating action is based on high temperature coefficient of resistance element and heat dissipation qualities of gas-filled tube. Av. shpg. wt., 8 oz.

No.	Type	No.	Type	NET
24F735	1HT4	24F724	4A1	1.76
24F716	3-4	24F718	4H4C	
24F716	3-14	24F719	6-4	
24F739	3-16	24F720	6-8B	
24F737	3-50A	24F721	6-12	
24F727	3HTF4	24F722	6H6	
24F725	3TF4A	24F742	6TF4	
24F738	3TF4	24F733	8-4	
24F726	3TFV4	24F734	9-7	
24F729	3TK2	24F723	10-4C	
24F732	3V4	24F743	3A10	

THERMOSTATIC DELAY RELAYS

Hermetically sealed-heater actuated relays for AC or DC operation. SPST — Normally open (NO); Normally closed (NC). Draw 2 w. Contact rating —115 at 3A AC and 220v at 1A AC. Breakdown voltage: delays 2-5 sec. between contacts 250 V, heater to contacts 500 V. Delays 15-180 sec between contacts 800V, heater to contacts 800V. Compensated for 55°-70°C ambient. Dia. 1 1/4". Hgt. less prongs 2 3/4". Min. 9 pin. 3/4 x 2 1/2". Ship. wt., 4 oz.

OCTAL BASE TUBE SHELL

Delay Seconds	Stock No.	6.3 NO	Stock No.	25V NO	Stock No.	115V NO	Stock No.	115V NC	NET
2	24F2300	6 NO2	24F2314	26 NO2	24F2328	115 NO2	24F2342	115 C2	2.35
3	24F2301	6 NO3	24F2315	26 NO3	24F2329	115 NO3	24F2343	115 C3	
5	24F2302	6 NO5	24F2316	26 NO5	24F2330	115 NO5	24F2344	115 C5	
10	24F2303	6 NO10	24F2317	26 NO10	24F2331	115 NO10	24F2345	115 C10	
15	24F2304	6 NO15	24F2318	26 NO15	24F2332	115 NO15	24F2346	115 C15	
20	24F2305	6 NO20	24F2319	26 NO20	24F2333	115 NO20	24F2347	115 C20	
30	24F2306	6 NO30	24F2320	26 NO30	24F2334	115 NO30	24F2348	115 C30	
45	24F2307	6 NO45	24F2321	26 NO45	24F2335	115 NO45	24F2349	115 C45	
60	24F2308	6 NO60	24F2322	26 NO60	24F2336	115 NO60	24F2350	115 C60	
75	24F2309	6 NO75	24F2323	26 NO75	24F2337	115 NO75	24F2351	115 C75	
90	24F2310	6 NO90	24F2324	26 NO90	24F2338	115 NO90	24F2352	115 C90	
120	24F2311	6 NO120	24F2325	26 NO120	24F2339	115 NO120	24F2353	115 C120	
150	24F2312	6 NO150	24F2326	26 NO150	24F2340	115 NO150	24F2354	115 C150	
180	24F2313	6 NO180	24F2327	26 NO180	24F2341	115 NO180	24F2355	115 C180	

MINIATURE 9 PIN TUBE SHELL

2	24F2370	6 NO2T	24F2381	26 NO2T	24F2392	115 NO2T	24F2403	115 C2T	2.35
3	24F2371	6 NO3T	24F2382	26 NO3T	24F2393	115 NO3T	24F2404	115 C3T	
5	24F2372	6 NO5T	24F2383	26 NO5T	24F2394	115 NO5T	24F2405	115 C5T	
10	24F2373	6 NO10T	24F2384	26 NO10T	24F2395	115 NO10T	24F2406	115 C10T	
15	24F2374	6 NO15T	24F2385	26 NO15T	24F2396	115 NO15T	24F2407	115 C15T	
20	24F2375	6 NO20T	24F2386	26 NO20T	24F2397	115 NO20T	24F2408	115 C20T	
30	24F2376	6 NO30T	24F2387	26 NO30T	24F2398	115 NO30T	24F2409	115 C30T	
45	24F2377	6 NO45T	24F2388	26 NO45T	24F2399	115 NO45T	24F2410	115 C45T	
60	24F2378	6 NO60T	24F2389	26 NO60T	24F2400	115 NO60T	24F2411	115 C60T	
90	24F2379	6 NO90T	24F2390	26 NO90T	24F2401	115 NO90T	24F2412	115 C90T	
120	24F2380	6 NO120T	24F2391	26 NO120T	24F2402	115 NO120T	24F2413	115 C120T	

24F2414. Type 25CST. Normally closed. Delay 5 sec. 26 V. NET..... 2.35

OCTAL BASE TUBE SHELL

Same as above, but lower voltage and normally closed; except 2NO30 normally open.

Delay Sec.	Stock No.	2.5 V.	Stock No.	6.3 V.	Stock No.	26.0 V.	NET
30	24F2356	2NO30	24F2357	6C20	24F2358	26C30	2.35
20							
30							

You Can Depend on

NEWARK

For Everything In Industrial Electronics



Thermal Time Delay Relays



HOT WIRE TIME DELAYS RELAYS

For delay intervals from 0.1 seconds to 4 seconds. Rapid recovery rates. Adjustable delay, DC or AC frequency for energization. 3/4" diameter, 2 3/4" length. Operates from -70°C to 100°C or higher. No damage by high shock or vibration. Independent of position or altitude. Continuous energization on at full voltage with no damage. Sealed hermetically. Small, sturdy, dependable. Weight 1 oz.

FLANGE MOUNTING

Stk. No.	Type	Volts	Con.	TD Secs.	1-9	10-24	25-49
24F1519	GT-331	28	NO	12-22	13.55	11.92	10.57
24F1521	GT-385	115	NO	12-22	13.55	11.92	10.57
24F1528	GT-389	115	NO	33-45	13.55	11.92	10.57
24F1529	GT-337	28	NO	45-65	13.55	11.92	10.57
24F1530	GT-391	115	NO	45-65	13.55	11.92	10.57
24F1532	GT-395	115	NO	90-125	13.55	11.92	10.57
24F1534	GT-343	28	NO	125-180	13.55	11.92	10.57
24F1535	GT-321	6.3	NO	125-180	13.55	11.92	10.57
24F1536	GT-398	115	NC	125-180	13.55	11.92	10.57
24F1538	GT-344	28	NC	125-180	13.55	11.92	10.57
24F1539	GT-397	115	NO	125-180	13.55	11.92	10.57
24F1508	GT-327	28	NO	3-8	16.80	14.78	13.10
24F1509	GT-328	28	NC	3-8	16.80	14.78	13.10
24F1511	GT-329	28	NO	8-12	16.80	14.78	13.10
24F1513	GT-383	115	NO	8-12	16.80	14.78	13.10
24F1504	GT-323	28	NO	.5-1.25	19.90	17.51	15.52
24F1505	GT-324	28	NC	.5-1.25	19.90	17.51	15.52
24F1508	GT-325	28	NO	1.25-3	19.90	17.51	15.52

SPST HERMETICALLY SEALED TIME DELAY RELAYS

Relays meet MIL-R-19648. Small (2 3/4" L. x 5/16" dia., flange located 1/4" from bottom) and lightweight (appr. 1 oz.). Stainless steel differential timing mechanism is temperature compensated over ambient range. Performance data: Temp. range, -70°C to +125°C; shock, 30g's for 11 mill-sec.; vibration, H Series 10G's to 55-200 cps. RST Series 15G's, 55-500 cps; contact rating, 3A to 250 VAC 1A to 32V DC non-inductive. Operate from DC or AC (any frequency); power drain is approx. 4 watts.

Normally open (NO) or normally closed (NC).

7-PIN MINIATURE BASE MOUNTING (No Flange, Has 7-Pin Base)

Stk. No.	Type	Volts	Con.	TD Secs.	1-9	10-24	25-49
24F1514	GT-131	28	NO	12-22	12.90	11.35	10.06
24F1515	GT-132	28	NC	12-22	12.90	11.35	10.06
24F1517	GT-185	115	NO	12-22	12.90	11.35	10.06
24F1518	GT-186	115	NC	12-22	12.90	11.35	10.06
24F1523	GT-187	115	NO	22-33	12.90	11.35	10.06
24F1525	GT-189	115	NO	33-45	12.90	11.35	10.06
24F1526	GT-137	28	NO	45-65	12.90	11.35	10.06
24F1527	GT-191	115	NO	45-65	12.90	11.35	10.06
24F1537	GT-143	28	NO	125-180	12.90	11.35	10.06
24F1570	GT-142	28	NC	90-125	12.90	11.35	10.06
24F1507	GT-183	115	NO	8-12	16.15	14.21	12.60
24F1500	GT-123	28	NO	.5-1.25	19.25	16.94	15.02
24F1501	GT-124	28	NC	.5-1.25	19.25	16.94	15.02
24F1502	GT-125	28	NO	1.25-3	19.25	16.94	15.02
24F1503	GT-126	28	NC	1.25-3	19.25	16.94	15.02
24F1568	GT-104	6.3	NC	1.25-3	19.25	16.94	15.02

TYPE XA-1 MINIATURE RELAY RETAINER

Base mounts using same screws that mount socket; spring wire snaps up over relay. For HM, TM, RM relays. Shpg. wt. 1 lb. 24F1564. Pkg. of 10. **3.00**

TYPE XA-2 RELAY CLAMP

Requires an extra mounting hole, but holds relay even more rigidly. For HM, TM, RM relays. Shpg. wt. 1 lb. 24F1565. Pkg. of 10. **4.00**

G-V RED LINE THERMAL TIMING RELAYS — OCTAL BASE



Relay mechanism is differential-expansion type used in all G-V thermal relays. Parts are welded into an integrated structure; no glass used in mechanism, shell or base.

Stk. No.	Type	Con.	Delay in Sec.	1-9	10-24	25-49
24F1540	DT-7023*	NO	5±1	6.55	5.95	5.40
24F1541	DT-7024*	NC	5±1	6.55	5.95	5.40
24F1542	DT-7025*	NO	10±1.5	6.55	5.95	5.40
24F1543	DT-7026*	NC	10±1.5	6.55	5.95	5.40
24F1544	DT-7027*	NO	20±3	6.55	5.95	5.40
24F1545	DT-7028*	NC	20±3	6.55	5.95	5.40
24F1546	DT-7033*	NO	60±9	7.00	6.35	5.80
24F1550	DT-7039*	NO	180±27	8.15	7.40	6.75
24F1551	DT-7040*	NC	180±27	8.15	7.40	6.75
24F1552	DT-7043	NO	5±1	6.55	5.95	5.40

THERMETTE TIME DELAY RELAYS



Especially designed for commercial and industrial applications requiring reliable operation and long life. The pin connections are such that the relay may be interchanged with any other standard 9-pin single-throw thermal time delay relay. Contact rating: 2 amp. 1/16" diameter with a seat height of 1 3/4". Shpg. wt. 1/2 oz.

NORMALLY OPEN 6.3 VOLTS AC-DC

Stk. No.	Type	Time/delay seconds	1-9	10-24	25-99	100-249
62F1800	6NO5T	5	3.75	3.40	3.20	3.00
62F1801	6NO10T	10	3.75	3.40	3.20	3.00
62F1802	6NO15T	15	3.75	3.40	3.20	3.00
62F1803	6NO20T	20	3.75	3.40	3.20	3.00
62F1804	6NO30T	30	3.75	3.40	3.20	3.00
62F1805	6NO45T	45	3.75	3.40	3.20	3.00
62F1806	6NO60T	60	3.75	3.40	3.20	3.00
62F1807	6NO75T	75	3.75	3.40	3.20	3.00
62F1808	6NO90T	90	3.75	3.40	3.20	3.00

NORMALLY CLOSED 6.3 VOLTS AC-DC

Stk. No.	Type	Time/delay seconds	1-9	10-24	25-99	100-249
62F1809	6NC5T	5	3.75	3.40	3.20	3.00
62F1810	6NC10T	10	3.75	3.40	3.20	3.00
62F1811	6NC15T	15	3.75	3.40	3.20	3.00
62F1812	6NC20T	20	3.75	3.40	3.20	3.00
62F1813	6NC30T	30	3.75	3.40	3.20	3.00
62F1814	6NC45T	45	3.75	3.40	3.20	3.00
62F1815	6NC60T	60	3.75	3.40	3.20	3.00
62F1816	6NC75T	75	3.75	3.40	3.20	3.00
62F1817	6NC90T	90	3.75	3.40	3.20	3.00

NORMALLY OPEN 26 VOLTS AC-DC

Stk. No.	Type	Time/delay seconds	1-9	10-24	25-99	100-249
62F1818	26NO5T	5	3.75	3.40	3.20	3.00
62F1819	26NO10T	10	3.75	3.40	3.20	3.00
62F1820	26NO15T	15	3.75	3.40	3.20	3.00
62F1821	26NO20T	20	3.75	3.40	3.20	3.00
62F1822	26NO30T	30	3.75	3.40	3.20	3.00
62F1823	26NO45T	45	3.75	3.40	3.20	3.00
62F1824	26NO60T	60	3.75	3.40	3.20	3.00
62F1825	26NO75T	75	3.75	3.40	3.20	3.00
62F1826	26NO90T	90	3.75	3.40	3.20	3.00

NORMALLY CLOSED 26 VOLTS AC-DC

Stk. No.	Type	Time/delay seconds	1-9	10-24	25-99	100-249
62F1827	26NC5T	5	3.75	3.40	3.20	3.00
62F1828	26NC10T	10	3.75	3.40	3.20	3.00
62F1829	26NC15T	15	3.75	3.40	3.20	3.00
62F1830	26NC20T	20	3.75	3.40	3.20	3.00
62F1831	26NC30T	30	3.75	3.40	3.20	3.00
62F1832	26NC45T	45	3.75	3.40	3.20	3.00
62F1833	26NC60T	60	3.75	3.40	3.20	3.00
62F1834	26NC75T	75	3.75	3.40	3.20	3.00
62F1835	26NC90T	90	3.75	3.40	3.20	3.00

NORMALLY OPEN 115 VOLTS AC-DC

Stk. No.	Type	Time/delay seconds	1-9	10-24	25-99	100-249
62F1836	115NO5T	5	3.75	3.40	3.20	3.00
62F1837	115NO10T	10	3.75	3.40	3.20	3.00
62F1838	115NO15T	15	3.75	3.40	3.20	3.00
62F1839	115NO20T	20	3.75	3.40	3.20	3.00
62F1840	115NO30T	30	3.75	3.40	3.20	3.00
62F1841	115NO45T	45	3.75	3.40	3.20	3.00
62F1842	115NO60T	60	3.75	3.40	3.20	3.00
62F1843	115NO75T	75	3.75	3.40	3.20	3.00
62F1844	115NO90T	90	3.75	3.40	3.20	3.00

NORMALLY CLOSED 115 VOLTS AC-DC

Stk. No.	Type	Time/delay seconds	1-9	10-24	25-99	100-249
62F1845	115NC5T	5	3.75	3.40	3.20	3.00
62F1846	115NC10T	10	3.75	3.40	3.20	3.00
62F1847	115NC15T	15	3.75	3.40	3.20	3.00
62F1848	115NC20T	20	3.75	3.40	3.20	3.00
62F1849	115NC30T	30	3.75	3.40	3.20	3.00
62F1850	115NC45T	45	3.75	3.40	3.20	3.00
62F1851	115NC60T	60	3.75	3.40	3.20	3.00
62F1852	115NC75T	75	3.75	3.40	3.20	3.00
62F1853	115NC90T	90	3.75	3.40	3.20	3.00

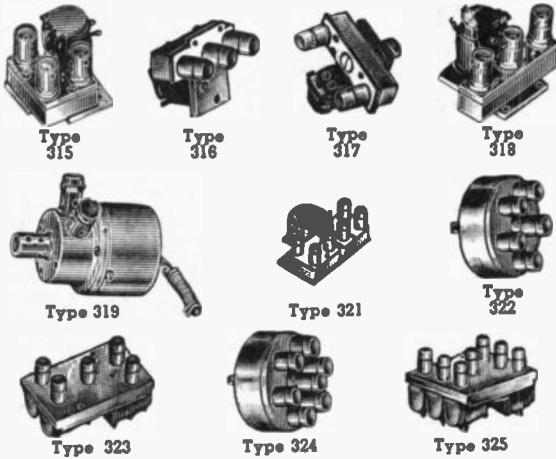
Dust-tight, operate up to 185°F. SPST contacts rated 5 amp. at 125 VAC with non-inductive load. 115 V., except *26.5 V. and *230 V. Size 1 9/16" x 2 3/4" H. Wt. 3 oz. Newark can also supply instant reset relays (immediately recycling with delay).

Stk. No.	Type	Con.	Delay in Sec.	1-9	10-24	25-49
24F1553	DT-7044	NC	5±1	6.55	5.95	5.40
24F1554	DT-7045	NO	10±1.5	6.55	5.95	5.40
24F1555	DT-7046	NC	10±1.5	6.55	5.95	5.40
24F1556	DT-7047	NO	20±3	6.55	5.95	5.40
24F1558	DT-7053	NO	60±9	7.00	6.35	5.80
24F1559	DT-7054	NC	60±9	7.00	6.35	5.80
24F1560	DT-7057	NO	120±18	7.60	6.90	6.30
24F1562	DT-7059	NO	180±27	8.15	7.40	6.75
24F1563	DT-7060	NC	180±27	8.15	7.40	6.75
24F1571	DT-7076†	NC	180±27	8.75	7.95	7.25

Switches & Relays

AMPHENOL

COAXIAL SWITCHES—MANUAL AND SOLENOID-OPERATED



20 millisecond max. operate and release time. Mech. life exceeds 1,000,000 cycles. Silver plated for complete shielding. Gold-over-sil. plated contacts 100 watt RF power rating. Vacuum impregnated coils withstand high humidity. Rated for cont. duty from -65°C to +85°C. Terminations are all shorting except (*).

SPECIFICATION TABLE FOR SWITCHES BELOW

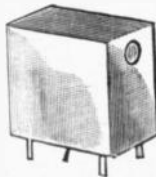
Type No.	Freq (Mc)	Power (W)	Coil Volts	Coil ohms	Wt. oz.
315-010002-3	1000	100	26DC	280	4
315-010022-3	1000	100	26DC	280	4
316-010082-3	2750	100	26DC	280	4 1/2
317-010255-8	4000	100	115AC	550	7
318-010381-0	2750	100	lever manual	.....	4 1/2
319-011141-0	1000	100	rotary manual	.....	4 1/2
321-011062-0	1000	100	lever manual	.....	8
321-011064-3	1000	100	26DC	200	10
322-011431-0	2750	100	rotary manual	.....	11
323-011506-3	900	100	26DC	280	14
324-011442-0	900	100	26DC	280	14
325-011635-3	900	100	26DC	280	21

Stk. No.	Type No.	Func.	Plug Type	1-4	5-9	10-24	25-49	50-up
57F1100	315-010002-3*	SPDT	BNC	23.00	19.09	16.45	14.49	12.77
57F1101	315-010022-3*	SPDT	MB	23.00	19.09	16.45	14.49	12.77
57F1102	316-010082-3	SPDT	BNC	25.60	21.34	18.38	16.20	14.27
57F1103	317-010255-8*	SPDT	N	27.70	23.00	19.81	17.46	15.38
57F1104	318-010381-0*	SPDT	BNC	27.70	23.00	19.81	17.46	15.38
57F1105	319-011141-0*	SPDT	BNC	42.00	34.86	30.03	26.46	23.31
57F1106	321-011062-0*	DPDT	BNC	39.20	32.54	28.03	24.70	21.76
57F1107	321-011064-3*	DPDT	BNC	35.40	29.39	25.32	22.31	19.65
57F1108	322-011431-0*	SP4T	BNC	57.00	47.31	40.76	35.31	31.64
57F1109	323-011506-3	SP4T	BNC	50.80	42.17	36.33	32.01	28.20
57F1110	324-011442-0*	SP6T	BNC	59.70	49.56	42.69	37.62	33.14
57F1111	325-011635-3	SP6T	BNC	64.00	53.12	45.76	40.32	35.52

CORNELL DUBILIER

FULLY ENCLOSED MINIATURE RELAYS

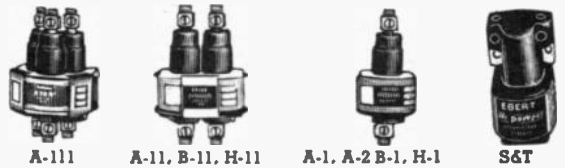
Well suited for modern designs. High volumetric efficiency. Nylon snap-on cover protects the relay from dust and foreign particles. Meets UL requirements. Mechanical life is up to 100,000,000 cycles. Breakdown strength is 900 VAC. Coil voltage ranges from 3 volts to 28 volts, and pull-in voltage from 2.2 volts to 22 volts. With one form C contact, PC terminals, and contacts rated at 3 amps, 115 VAC resistive. Shpg. wt., 3 oz.



Stock No.	Type	1-24	25-49	50-99	100-499
15F2050	603-36	2.80	2.66	2.52	1.89
15F2051	603-62	2.85	2.71	2.57	1.92
15F2052	603-92	2.90	2.76	2.61	1.76
15F2053	603-122	2.95	2.80	2.66	1.99
15F2054	603-182	3.00	2.85	2.70	2.03
15F2055	603-242	3.05	2.90	2.75	2.06
15F2056	603-286	3.10	2.95	2.79	2.09

EBERT

MERCURY PLUNGER RELAYS



Sturdy construction and compact part design combined with simple, silent, service-free mercury to mercury action make these relays ideal for most power control applications. All terminals are up front and easily accessible. All relays listed below are for 115 volts 50/60 cycle AC. Other AC and DC voltages available on special order.

EPOXY ENCASED METAL TUBE TYPES

Epoxy encased metal tube withstands physical shock and rough handling.

MINIATURE SERIES A 25 AMPS (115VAC)

Stock No.	Type	Description	Size	1-9	10-99
59F1600	A-1	Single pole NO	4 1/4 x 2 x 1 3/4"	13.80	12.50
59F1601	A-2	Single pole NC	4 1/4 x 2 x 1 3/4"	15.80	14.50
59F1602	A-11	2-pole both NO	4 1/4 x 3 1/4 x 2 1/4"	24.65	22.20
59F1603	A-111	3-pole ALL NO	4 1/4 x 3 1/4 x 3 1/4"	35.85	32.30

STANDARD SERIES B 50 AMPS (115VAC)

59F1604	B-1	Single pole NO	4 3/4 x 2 x 1 3/4"	17.50	15.95
59F1605	B-11	2-pole both NO	4 3/4 x 3 1/4 x 2 1/4"	29.75	26.90

HEAVY DUTY SERIES H 100 AMPS (115VAC)

59F1606	H-1	Single pole NO	7 1/2 x 3 3/8 x 3 1/4"	47.70	42.95
59F1607	H-11	2-pole both NO	7 1/2 x 5 3/4 x 4"	78.90	71.00

COMPLETELY ENCAPSULATED RELAYS

Use for extreme environmental conditions. Epoxy cast, sealed construction, molded-in terminal connectors eliminates need for enclosures.

MINIATURE SERIES S 25 AMPS (115VAC)

59F1608	S-1	Single pole NO	3 1/2 x 1 3/4 x 1 5/8"	16.30	14.70
59F1609	S-2	Single pole NC	3 1/2 x 1 3/4 x 1 5/8"	18.30	16.70

STANDARD SERIES T 50 AMPS

59F1610	T-1	Single pole NO	3 7/8 x 2 x 1 7/8"	19.90	17.95
59F1611	T-2	Single pole NC	3 7/8 x 2 x 1 7/8"	21.90	19.95



EM-1, HD-1



MR-14, EM-4, HD-4



"100" Relay

OPEN CONSTRUCTION TYPES

MINIRELAY 20 AMPS (115VAC) CSA LISTED

Stock No.	Type	Description	Size	Each	2-up
59F1612	MR-10	Single pole NO	3 x 1 7/8 x 1 1/2"	10.89	8.36
59F1613	MR-12	2 pole both NC	4 x 1 7/8 x 1 1/2"	11.99	9.19
59F1614	MR-14	Single pole NO	4 1/2 x 3 x 1 7/8"	20.63	16.34

STANDARD DUTY 35 AMPS (115VAC) UL&CSA LISTED

59F1615	EM-1	Single pole NO	4 3/4 x 2 5/8 x 2 1/2"	15.35	11.28
59F1616	EM-4	2 pole both NO	5 3/8 x 3 3/8 x 2 1/2"	25.30	19.80

HEAVY DUTY 60 AMPS (115VAC) UL&CSA LISTED

59F1617	HD-1	Single pole NO	5 1/4 x 3 3/4 x 2 3/8"	17.32	13.64
59F1618	HD-4	2 pole both NO	5 3/4 x 3 3/4 x 2 3/8"	31.95	24.31

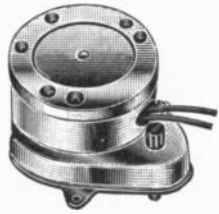
"100" RELAY—100 AMPS (115VAC) CSA LISTED

Encapsulated relay tube to withstand physical shock and rough handling.

Stock No.	Type	Description	Size	One	2-up
59F1619	100	Single pole NO	7 x 3 1/2 x 3 3/8"	35.75	27.22
59F1620	100	Single pole NC	7 x 3 1/2 x 3 3/8"	37.95	29.42

Synchronous Motors

CRAMER SYNCHRONOUS MOTORS



Type 117P. Permanent magnet type synchronous motors ideally suited for use both in the lab and industry where precise timing functions are a prerequisite. Units provide the 30 inch-ounces of torque at 1 RPM and start and stop instantly . . . No Coast! Rotation is clockwise facing shaft. Shaft is .125" dia., .375" long with flat. For 115 volt, 60 cycle operation. 117 P series 30 in. oz. @ 1RPM. 117 H series 60 in. oz. @ 1 RPM.

Stock No.	Type	Speed	1-9	10-24	25-49	50-99
55F390	117P	1 rev./day	7.00	6.50	6.00	5.25
55F391	117P	1 rev./12 hrs	7.00	6.50	6.00	5.25
55F392	117P	1 rev./hour	6.50	6.00	5.25	5.00
55F393	117P	1 rev./30 min	6.50	6.00	5.25	5.00
55F394	117P	1 rev./5 min	6.25	5.75	5.25	4.75
55F395	117P	1 rev./min				
55F4400	117P	2 rev./min				
55F4401	117P	4 rev./min	6.00	5.50	5.00	4.50
55F397	117P	10 rev./min				
55F398	117P	30 rev./min				
55F399	117P	60 rev./min				
55F4402	117H	2 rev./min				
55F4403	117H	4 rev./min				
55F4404	117H	10 rev./min	8.00	7.50	7.00	6.50
55F4405	117H	30 rev./min				
55F4406	117H	60 rev./min				

NEW REVERSIBLE SYNCHRONOUS MOTORS

Provides equivalent of 35 in oz at 1 RPM and electrically reversible. Direction of the rotation can be controlled by an SPDT switch. Operates on 2 phase or single phase. Single phase operation is accomplished by a shift network which is furnished with motor. Shaft is .125 dia. x .375 long flattened. 115 volt 60 cycle operation. Shpg. wt., 7 oz.

Stock No.	Type	Speed	1-9	10-24	25-49	50-99
55F4407	0410	1 rev./day				
55F4408	0410	1 rev./12 hr	13.50	12.50	11.75	10.20
55F4409	0410	1 rev./hour				
55F4410	0410	1 rev./30 min	13.00	12.00	11.25	9.85
55F4411	0410	1 rev./5 min	13.00	12.00	11.25	9.70
55F4412	0410	1 rev./min				
55F4413	0410	2 rev./min				
55F4414	0410	4 rev./min				
55F4415	0410	10 rev./min	13.00	12.00	11.25	9.50
55F4416	0410	30 rev./min				
55F4417	0410	60 rev./min				

AMPHENOL MOTORS

4 POLE SYNCHRONOUS MOTORS



1005-4SY



1003-4SY

Synchronous permanent split capacitor type. No cut out switch is used. Can be reversed with a DPDT switch. Torque same in both directions. Starting torque min. of double the rated syn. torque with average of 3 to 4 times this fig. Rated

8.7 Watts on 110V. 50 or 60 cycles, 110-220V. * is 11 watts. On 50 cycles the output speed will be 5/6 of the listed speed. Size: 1003—2 1/2"x2 9/16", shaft dia., .25". 1005—2 1/2"x2 9/16", shaft dia., 1.876", mounting size for both 2.696". Geared motor can be mounted with shaft in 9, 12, 3, or 6 o'clock positions. Wt., 3 lbs. *Without gear train.

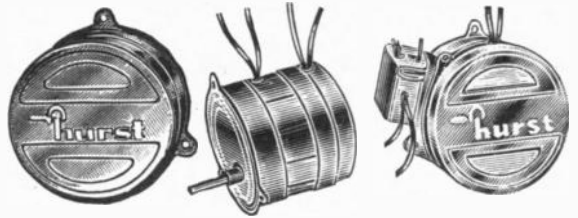
Stk. No.	Type	Output	Rated Sync. Torque-oz. in.	1-9	10-49	50-199
12F860	1003-4SY	300 RPM	1.3	31.96	28.78	28.95
12F861	1003-4SY	180 RPM	2.1	31.96	28.78	26.95
12F862	1003-4SY	120 RPM	3.2	33.26	29.94	28.04
12F863	1003-4SY	60 RPM	7.0	33.26	29.94	28.04
12F864	1003-4SY	30 RPM	14.0	33.26	29.94	28.04
12F865	1003-4SY	10 RPM	41.0	35.87	32.29	30.25
12F866	1003-4SY	3 RPM	138.0	37.11	33.41	31.29
12F867	1003-4SY	1 RPM	150.0	37.11	33.41	31.29
12F868	1005-4SY*	1800 RPM	.56	25.17	22.66	21.22

MOTOR CAPACITOR

A 0.8 mfd capacitor that is required for the above listed motors. Size: 3"x1" dia. Shipping wt., 1/2 lb.

12F869, 1-9.....1.07 10-49......89 50-199......87

HURST MOTORS



SM-DA

CA

PC-DA

FOR HEAVY DUTY CONTINUOUS TIMING

This compact motor is engineered for tough jobs demanding accurate timing. It has excellent shock and vibration resistance and will start instantly at full torque (40 in. ounces at 1 RPM). It will not overheat during continuous duty nor in a stall position. Dim. 2 1/2"x1 3/4". Weight 12 oz. Shaft size: 3/16" dia flatted. Shaft length: 1". Mounting: 3 no. 6 holes spaced 120°. Power: 60 C.P.S. AC: 95/130V., 5 watts. Rotation: Clockwise facing shaft. Max. temp. rise 40°C above ambient. Shock resistance: 100g without motor damage. Shpg. wt., 1 lb.

40 INCH-OUNCE SYNCHRONOUS MOTOR

Stock No.	Mfg. Type	RPM	1-9	10-24	25-49	50-99	100-249
24F1450	SM-1	1					
24F1451	SM-4	4					
24F1452	SM-6	6					
24F1453	SM-10	10	12.28	11.05	10.50	9.98	9.48
24F1454	SM-30	30					
24F1455	SM-60	60					

120 INCH-OUNCE REVERSIBLE SYNCHRONOUS MOTORS

Complete timing accuracy in both clockwise and counter-clockwise directions. SPDT switching. Dimensions: 2 1/2" dia. Shaft size: 3/16" dia. Shaft length 1" standard flatted. Power: 60 cps. AC 95/130V., 5 watts. Other specifications same as above. Shpg. wt., 1 pound 4 ounces.

Stk. No.	Mfg. Type	RPM	1-9	10-24	25-49	50-99	100-249
24F1456	DA-1	1					
24F1580	DA-2	2					
24F1457	DA-4	4					
24F1458	DA-6	6					
24F1459	DA-10	10	14.60	13.14	12.48	11.86	11.27
24F1581	DA-12	12					
24F1460	DA-30	30					
24F1461	DA-60	60					

120 INCH-OUNCE REVERSIBLE SYNCHRONOUS MOTOR

Same as Series DA (above) but with clutch and brake. Shpg. wt., 22 oz.

Stk. No.	Mfg. Type	RPM	1-9	10-24	25-49	50-99	100-249
24F1471	PC-DA-1	1					
24F1582	PC-DA-2	2					
24F1472	PC-DA-4	4					
24F1473	PC-DA-6	6					
24F1474	PC-DA-10	10	20.18	18.16	17.25	16.39	15.75
24F1583	PC-DA-12	12					
24F1475	PC-DA-30	30					
24F1476	PC-DA-60	60					

100 INCH-OUNCE REVERSIBLE

Instantly reversible (with SPDT switching). Completely accurate both clockwise and counter-clockwise. 1200 rpm rotor speed for quiet performance. Torque, 100 inch-ounce at 1 rpm. Case dimensions, 2 1/2" dia. x 2 1/8". Output shaft 3/16" dia. x 1" long flatted. Shpg. wt., 1 lb. 2 oz.

Stk. No.	Mfg. Type	RPM	1-9	10-24	25-49	50-99	100-249
24F1584	CA-1/2	1/2					
24F1494	CA-1	1					
24F1585	CA-2	2					
24F1495	CA-4	4					
24F1496	CA-6	6	12.51	11.26	10.70	10.17	9.67
24F1497	CA-10	10					
24F1586	CA-15	15					
24F1498	CA-30	30					
24F1499	CA-60	60					

Depend on NEWARK for the Latest Top-Quality Equipment. Complete On-the-Shelf Stocks — Lowest Prices — Fast Service.

Timers *Intermatic*

PORTABLE TIME-ALL

Fig. A. Type A211-6 Deluxe. Time control switch for plant, office, store. Controls lights, appliances, P.A. systems, dehumidifiers, etc. Operation repeated every 24 hours. Plug equipment controlled into built-in AC outlet. Contacts handle 15 amp, 1875 watt load. 5 ft. line cord, plug included 5x4x2 1/2". Plastic case. U.L. listed. For 110-120 V, 60 cycle AC. 2 lbs.

24F979. 1 to 5 9.70
6 or more, each 8.64
Type A221-6 Standard. Similar to above, but handles 7 amps or 875 watts.
24F966. 1 to 5 8.95
6 or more, each 7.97



Fig. A. Type A211-6



Fig. B. Type A301-4.

TIME MINDER

Fig. B. Type A301-4. Plug it in and set for 1 to 60 minutes. At end of interval, buzzer sounds. Desert sand case, 4 3/4 x 4 1/2 x 2 1/4". 125v, 60 cycle AC. 2 lbs.

24F967. 1 to 5 6.70
6 or more, each 5.97

CLOCK TIMER

Fig. C. Type A401-4. Super deluxe time-piece that turns lights and appliances on for periods of 15 minutes to 5 1/2 hours . . . then turns them off again automatically. Handles up to 1875 watts (15 amps). Desert sand case, 4 3/4 x 4 1/2 x 2 1/4". Operates on 125v, 60 cycle AC. Shipping wt. 2 lbs.

24F968. 1 to 5 8.95
6 or more, each 7.97



Fig. C. Type A401-4.

7-DAY OPERATION "SKIPPER" TIME SWITCH

Model T171, T173 & T175. The Intermatic Skipper provides a program of operations for most commercial or industrial needs. For use where it is desired to skip operations on weekends or other selected days. Has 24-hour time dial and 7-day skipper dial. Small skipping screws are merely inserted into the respective day-holes for skipping operation. Contacts are rated up to 40 amps. per pole. 3 skipping screws, one cutout, one off tripper. Power requirements: 125 volt AC 60 cps. Drawn steel case, gray finished. 7 3/4" x 5" x 3". 3 lbs.

Model T173, DPST. 12.97
24F1890. EACH

Model T175, SPDT. 12.97
24F1891. EACH

Model T171, SPST. 11.67
24F1892. EACH

Set of extra trippers.26
24F982. Each



SUPERVISOR DELUXE

Ideal for control of background music, industrial process operations, heating systems. Periods of operation can be varied in multiples of 5 minutes. Repeats program every 24 hours and skips any days desired. Includes toggle switches for testing signal and cutting off automatic operations. Gray steel case 12 1/8" x 9 1/8" x 4 5/8". 125 V, 60 cy. AC. Weight: 9 1/2 lbs.

24F1893. Model V27171 One circuit 71.96
24F1894. Model V27177 Two Circuit 95.96



RANGER TIME SWITCH

Type T185. Up to 12 "on-off" cycles of from 5-60 minutes. Minimum interval between cycles, 2 hours. Used as SPST, N.O.; SPST, N.C.; or SPDT, alternate open & closed 40 Amps (1 combination tripper for each "on-off" cycle). Gray steel case. 7 3/4" x 5" x 3". 60 cycle AC. Shpg. wt.: 3 lbs.

24F1895 11.67
Extra Set of Trippers. Adjustable cam type tripper can be set for duration of "on" period. 4 oz.
24F1896 per set of 385

GENERAL PURPOSE TIMERS

Type T101. Rugged time switch for stores, offices, homes, and industry. Perfect for neon signs, air conditioners, fans, etc. Turns device on and off for any period over 1 hour . . . once every 24 hours. May be set up for more operations with additional trippers sets below. Can be manually operated without upsetting automatic sequence. SPST switch has new alloy-T contacts, U-beam blades, high-power switching mechanism, and tungsten rated at 40 amps, to carry incandescent lighting loads. 7 3/4 x 5 x 3". For 125 v, 60-cycle AC. 3 lbs.

24F978. EACH 8.42

Type T103. Same as above, but it has DPST contacts.
24F977. EACH 9.72

24F982. Set of extra trippers each26



PROGRAM TIME SWITCH

Type T1905. Provides up to 96 on and off operations in 15-minute steps every 24 hours! Ideal for music systems, chicken feeders, fans, and other devices requiring frequent control. Permanently attached trippers are spotted every 15 minutes around the dial . . . slide easily, and can't get lost. Timer is driven by slow-speed industrial-type motor coupled to dial through only four gears. 20-amp. contacts can be set up for: SPST normally open or closed, or SPDT. Knockout box, 7 3/4 x 5 x 3". For 125v, 60 cycle AC. Shpg. wt., 4 lbs.

24F973. EACH 19.47



SUPERVISOR PROGRAM TIMER

Type T1975. Has 96 trippers for 48 "on" and 48 "off" operations every 24 hours. Minimum interval is 15 minutes. Controls heating, air conditioning, music systems, etc. "Skipper" dial omits operation on selected days. Synchronous, slow-speed, heavy duty industrial type, self-starting motor. Snap-out mechanism. SPDT switch, rated 20 amps at 125 volts, 60 cycle AC. Gray steel case. 7 3/4" x 5" x 3". 3 3/4 lbs.

24F980 22.72

SEVEN DAY PROGRAMMER

Type V26001. Provides different program for every day of week. Up to 4 operations per day with minimum of 3 hours between operations. For heating, lights, motors, and other loads which require daily scheduling. 40 Amp tungsten rated contacts. 120 VAC 60 cycle. Gray steel case, 10 7/8" x 7 3/8" x 3 5/8". Shpg. wt.: 6 1/4 lbs.

24F1897. 4 PST switch 19.47
24F1898. Type V26003 Same as above except 4P: 2 NO-2 NC switch 19.47



SCHEDULER

Provides 1 to 288 short interval operations per day. For bells, buzzers. Operates for periods of from 2-30 sec.—intervals of 2 1/2 min. on 12 hour models. 2-60 at 5 min. intervals on 24 hours models. 125 V, 60 cy. AC. 12 1/8 x 9 x 4 5/8". 9 1/2 lbs.

24F970. Model V28177 (with advance warning signal before maj. sig.) 2 cir., 24 hr. 63.96

24F971. Model V29171 1 cir., 24 hr. 59.96

24F972. Model V29177 2 cir., 24 hr. 79.96

24F981. Model V29371 1 cir., 12 hr. 71.16

24F983. Model V29377 2 cir., 12 hr. 87.96



PORTABLE TIME SWITCH

Type P101. Will handle any appliance that plugs into regular outlets. Has many uses in the shop, store, or factory. Controls lamps, signs, radios, TV sets, etc. Easily set for as many as 12 "on-off" operations per day with extra trippers. Minimum "on" or "off" time, 1 hour; maximum 23 hours. May also be manually operated, 10 amps at 125 volts. Tungsten rated contacts. Gray steel case, 7 3/4" H x 5" W x 3" D. 125 V. 60 cycle AC. 3 lbs.

24F1899 9.72



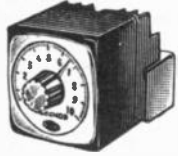
SAVE WORK! Make Newark your Complete 1-Point Stock Source!
SAVE TIME! At Newark—fast, efficient service always!
SAVE MONEY! Quantity Prices Competitive with Manufacturer!

ELECTRONIC TIMER

Solid state, fully transistorized, no warm up. Operates directly from 115V AC, 60 cy power line for use with flashers, X-ray equipment, welding equipment, etc. Time ranges—0.02 to 1.0 sec.; 0.20 to 10 sec.; 2.0 to 100 sec. Repeat Accuracy: $\pm 1\%$ of full scale. Reset time of 30 milliseconds. Timing circuit life of over 40 million cycles—10 million for the load relay. Plug in load relay can be easily replaced. Complete with eight external load connections for SPST or SPDT hook up of two independent circuits and remote control operation. Load contact ratings—25 amp resistive, 120 or 240 VAC; 25 amp. inductive, 120 VAC (75% pt.); 1 H.P. 120 VAC (96 amp. locked rotor); 2 H.P. 240 VAC (72 amp. locked rotor); 25 amp. resistive, 24 VDC. Panel mount will operate in any position. Power Consumption: 3 V.A. Shpg. wt., 2½ lbs.

280—Interval Timer—Sustained contact starting: load switches transfer immediately and return to original position at end of selected interval. Control contact must be opened to allow reset for second operation. **Momentary contact starting:** load switches transfer immediately and return to original position at end of selected interval. Timer resets automatically.

480—Time Delay Relay—Sustained contact starting: load switches do not transfer until end of timing. Switches remain transferred until control contact is opened.



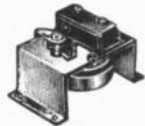
Type 280/480



Type 241E



Type 310E



Type 330



Type 412E



Type 691



Model 450A

Stk. No.	Type	Range	1-4	5-9	10-24	25-49	50-99	100-249
55F321	280	.02 to 1.0	69.50	67.42	65.33	63.25	61.16	59.08
55F322	280	.20 to 10.0						
55F323	280	2.00 to 100						
55F324	480	.02 to 1.0						
55F325	480	.20 to 10.0						
55F326	480	2.00 to 100						

TYPE 241E AUTOMATIC RESET INTERVAL TIMER

Start button integral with setting knob turns on load and starts timer. Upon completion of timing, load is shut off and timer automatically resets. Ideal for controlling ovens, mixers, pumps and other types of batch operations. SPDT contacts rated 15 amps at 115 VAC, 60 cy. Repeat accuracy $\pm .25\%$ except 15 sec. time range $\pm 5\%$. Case dia. 3¼", depth 3½". Three hole mounting on 1.687" radius. Ship. wt. 3 lbs. 115 VAC, 60 Cy—WD1150.

Stock No.	Time Range	Calibration	1-4	5-9	10-24	25-49	50-99	100-249
55F350	15 seconds	0.25 second	25.50	24.73	23.97	23.20	22.44	21.67
55F351	60 seconds	1 second						
55F352	15 minutes	15 seconds						
55F378	30 minutes	0.5 minute						
55F353	60 minutes	1 minute						
55F4476	24 hours	30.0 minute						

TIME DELAY RELAYS

Use to introduce an accurate time delay between the closing of a maintained or momentary control switch and the subsequent actuation of the timer load switch. Removal of power resets timer.

Type 310E. Use with maintained control switch. Has progress and setting indicators. S.P.D.T. contacts rated 10 amps at 115 V., 60 Cy. Overall accuracy $\pm 2\%$. Repeat accuracy $\pm .5\%$. Case dia. 3¼", depth 3½". 3 hole mounting on 1.687" radius. Shipping weight 3 lbs.

55F385	15 seconds	0.25 seconds	28.50	27.64	26.79	25.93	25.08	24.22
55F386	60 seconds	1.00 seconds						
55F387	120 seconds	2.00 seconds						

Type 330. Use with maintained control switch. Semi-adjustable. S.P.D.T. contacts rated 10 amps at 115 V., 60 Cy. Repeat accuracy $\pm .75\%$ of range. Size: H.W.D.—2.5"x2.125"x3.656". Shipping weight, 2 lbs.

55F342	20 seconds	18.00	17.46	16.92	16.38	15.84	15.30
55F343	40 seconds	.....					
55F344	80 seconds	.....					

Type 412E. Provides adjustable time delay with instantaneous automatic reset. Use it to initiate and control exact time delay between operation of control circuit and subsequent opening or closing of load switch. Operates from momentary or sustained source, and has 2 SPDT open blade contacts rated at 15 amps. Repeat accuracy is $\pm .25\%$ except 15 sec. range is $\pm .5\%$. Shpg. wt., 4 lbs. Timers 115 except * 220 V 60 cy.—WD1123.

55F355	15 seconds	0.25 second	44.00	42.68	41.36	40.04	38.72	37.40
55F356	60 seconds	1 second						
55F381	120 seconds	2 seconds						
55F383	5 minutes	5 seconds						
55F357	15 minutes	15 seconds						
55F358	60 minutes	1 minute						
55F4477	24 hours	30.0 minute						

TYPE 691. TOTALIZER. For laboratory testing. Electrically operated stop-clock used wherever precise time measurements are required. Instantaneous electrical reset. Accuracy within .01 second. Shpg. wt. 4 lbs.

Stock No.	Time Range	Calibration	1-4	5-9	10-24	25-49	50-99	100-249
55F369	60 seconds	.01 sec.—1 sec.	75.00	72.75	70.50	68.25	66.00	63.75

SERIES 450A AND 450D TIME DELAY RELAYS

Standard panel mount time delay relay, with SPDT, 10 amp, 125/250 VAC load switch, is used to provide time delay between closing of a maintained control circuit and the actuation of a load circuit. Instantaneous reset upon power interrup-

tion. Terminals are quick connect spade type. Easily adjustable from minimum setting of 2 dial division to full scale. For 115 volt 60 cycle operation. 450D similar to 450A except vertical chassis mount and lock screw setting. Ship. wt. 2 lbs.

			450A					
Range	Stk. No.		1-4	5-9	10-24	25-49	50-99	100-249
6 min.	55F3154	33.00	32.01	31.02	30.03	29.09	28.05	
12 min.	55F3155							
30 min.	55F3156							
6 hr.	55F3159							
30 hr.	55F3161							
			450D					
60 sec.	55F3164	26.00	25.22	24.44	23.66	22.88	22.10	
30 min.	55F3168							

Write for quantity prices.

Timers & Card Readers

CRAMER TIMERS

PERCENTAGE TIMERS

Type 560. Cycling timer designed to make or break an electrical circuit for an adjustable percentage of the full cycle time. Desired percentage of total cycle time for ON or OFF control device is adjustable by the operator, from 3% to 97% in steps of 1%. Widely used for the control of blowers, pumps, filters, and other equipment where ON or OFF control is desired as a percentage of a primary fixed operating cycle. Repeat Accuracy: $\pm 1\%$ of full scale. 25 amp. snap action load switch. 115V., 60 cycle.

Stk. No.	Cycle Times	Dial Division	1-4	5-9	10-24	25-49	50-99	100-249
55F3174	15 sec.	0.15 sec.	24.50	23.77	23.03	22.30	21.56	20.83
55F3175	30 sec.	0.30 sec.	24.50	23.77	23.03	22.30	21.56	20.83
55F3176	60 sec.	0.60 sec.	24.50	23.77	23.03	22.30	21.56	20.83
55F3177	5 min.	3.0 sec.	24.50	23.77	23.03	22.30	21.56	20.83



Model 560



Type 635

RUNNING TIME METERS

Type 635 & 636. (Replaces obsolete types 632 & 633). Running time meter registers cumulative operating or idle time of machinery or electrical apparatus. Large diameter counting wheels provide extremely legible display which can be read easily from a distance. Bezels are 2 1/2" round or square for standard NEMA mounting. 3 1/2" square bezels are for replacement of old 632 & 633 timers. Shpg. wt., 3 lbs.

TYPE 635—NON-RESET

Stock Numbers				Range	Counts	1-4	5-9	10-24	25-49	50-99	100-249
2 1/2" Rd.	2 1/2" Sq.	3 1/2" Rd.	3 1/2" Sq.								
55F4420	55F4428	55F4436	55F3178	9999.9 sec.	1/10 sec.	14.00	13.58	13.16	12.74	12.32	11.90
55F4421	55F4429	55F4437	55F3179	99999 sec.	1 sec.						
55F4422	55F4430	55F4438	55F3180	999.99 min.	1/100 min.						
55F4423	55F4431	55F4439	55F3181	9999.9 min.	1/10 min.						
55F4424	55F4432	55F4440	55F3182	99999 min.	1 min.						
55F4425	55F4433	55F4441	55F3183	999.99 hr.	1/100 hr.						
55F4426	55F4434	55F4442	55F3184	9999.9 hr.	1/10 hr.						
55F4427	55F4436	55F4443	55F3185	99999 hr.	1 hr.						

TYPE 636—PUSH BUTTON RESETTABLE

Stock Numbers				Range	Counts	1-4	5-9	10-24	25-49	50-99	100-249
2 1/2" Rd.	2 1/2" Sq.	3 1/2" Rd.	3 1/2" Sq.								
55F4444	55F4452	55F4460	55F4468	9999.9 sec.	1/10 sec.	20.00	19.40	18.80	18.20	17.60	17.00
55F4445	55F4453	55F4461	55F4469	99999 sec.	1 sec.						
55F4446	55F4454	55F4462	55F4470	999.99 min.	1/100 min.						
55F4447	55F4455	55F4463	55F4471	9999.9 min.	1/10 min.						
55F4448	55F4456	55F4464	55F4472	99999 min.	1 min.						
55F4449	55F4457	55F4465	55F4473	999.99 hr.	1/100 hr.						
55F4450	55F4458	55F4466	55F4474	9999.9 hr.	1/10 hr.						
55F4451	55F4459	55F4467	55F4475	99999 hr.	1 hr.						

HICKOK CARDMATIC CARD READERS



Model 906-003



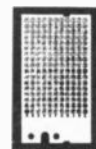
Model 908-001



Model 907-001



Model 915-001



Code Card

MANUAL MODEL

Manual Model 906-003. Self-actuating type mechanism built around 186 self-cleaning, wiping-type switches. Tested to over 100,000 operations. 10 amp current carrying capacity, .005 Ω nom. (contact-to-pin-to-contact) and .0025 Ω nom. (contact-to-pin-only) contact resistance. Applicable where multiple switching arrangements require flexibility with low loss of current carrying capacity. 12.6x10⁵⁶ possible switching combinations. Switch jamming is eliminated and card alignment is assured because the machine is actuated only when the card is in the proper position. 6 7/8"W. x 7 1/4"D. x 4 5/8"H. Black. Shpg. wt., 5 lbs. **62F104. NET.....298.00**

MOTORIZED MODEL

Model 908-001. The motorized cardreader is similar in most respects to the manual model. The motorized model substitutes a 1/20th H.P. Universal type, 5000 RPM motor equipped with a single reducer with a 15:1 reduction ratio. Closing of a toggle switch and insertion of a card will actuate all 185 contacts, both top and bottom. Extra circuit capability makes it applicable to remote control operations. Power supply: 115V, 60c., 100 w. Max. size: 6 7/8"x 7 1/4"x 4 5/8". Black enamel finish. Shpg. wt., 8 lbs. **62F105. NET.....495.00**

62F105. NET.....495.00

MASTER CARD PUNCH

Model CP-10. Designed to produce quick, accurate punching of programming cards used in the Hickok Cardmatic Card Readers. As many as 186 holes may be punched simultaneously with one pull of the operating lever. 6"D. x 9"W. x 5 1/2"H. Operating Lever Ingt. 15". Shpg. Wt. 32 lbs. **62F107. NET.....450.00**

Stock No.	Type	50	100	500	1000	2000	5000
62F108	3122-122	6.60	12.00	50.00	90.00	140.00	300.00

NEW 540 CONTACT CARD ACTUATED MULTIPLE SWITCH

Model 907-001. Motorized Cardmatic Card Reader. 540 contacts for programming, missile checkout, bulk batching, etc. Standard wiring configuration on upper deck (45 columns of 12 contacts tied together), bottom contacts left unwired. Current rating: 10 amps. 1/2 hp universal motor, 10,000 rpm with 15:1 reduction ratio. Contact Resistance: .005 ohms nominal (contact-to-pin-to-contact), .0025 ohms nominal (contact-to-pin only). For standard 3 1/4"x 7 3/8" type cards. Size: 9 1/2"x 8 3/8"x 7 1/8" deep. For operation from 115 v. AC, 60 cycle. Shpg. wt. 13 lbs. **62F1757 Net.....1240.00**

50 CONTACT CARDMATIC CARD READER

Model 915-001. Compact Reader for less complex uses. Programmed by a wallet-sized, vinyl card. All other properties same as standard 186 contact model. Current capacity, 10 amps. Contact-to-pin res. .0025 Ω . Insertion of card immediately operates all desired circuits without aux. relays. Wt. 15 lbs. **62F1758 Net.....195.00**

62F1758 Net.....195.00

Model 100-547. Chrome plated Hand type punch with 50 blank cards imprinted with hole positions. Shipping wt., 3 lbs.

62F109. NET.....20.00

Blank cards imprinted with hole position for Model 100-537 Hand Type Punch.

Stock No.	Type	50	100	500	1000	2000	5000
62F110	3122-99	7.50	14.00	60.00	110.00	160.00	350.00



Industrial Timer Controls



Series TDAB

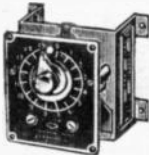


Series TDAF

AUTOMATIC RESET SERIES TDAB & TDAF

Both have SPST switches rated 10 amps, 115 V, 60 cycle. TDAF designed for panel mount; TDAB designed for behind panel mount. Shpg. wt. 4 lbs.

Stk. No.	TDAB	Stk. No.	TDAF	Time Cy.	Calibration	NET EACH					
						1-3	4-5	6-11	12-24	25-49	50-99
24F1810	-6S	24F305	-6S	6 sec	1/10 sec	43.00	40.85	38.70	36.55	34.40	32.25
24F302	-15S	24F1806	-15S	15 sec	1/4 sec						
24F1811	-60S	24F1838	-60S	60 sec	1 sec						
24F1812	-15M	24F1808	-15M	15 min	15 sec						
24F303	-30M	24F1809	-30M	30 min	30 sec						
24F304	-60M	24F1839	-60M	60 min	60 sec						
24F1871	Type K Steel Housing Encl. for TDAB					6.50	6.18	5.85	5.53	5.20	4.88



Series SF



Series TD

AUTOMATIC RESET SERIES TD AND CTD

Expertly designed for "through the panel" mounting. 3" diameter extra strong bakelite case with terminals at rear. Weight, 1 1/2 lbs. *2 3/32 dep., †4 1/32" depth.

Stock No.	Type No.	Time Cycle	Calibration	NET EACH					
				1-3	1-5	6-11	12-24	25-49	50-99
24F275	TD15S*	15 seconds	1/4 second	30.50	28.98	27.45	25.93	24.40	22.88
24F276	CTDIM†	60 seconds	1 second						
24F277	CTD3M†	3 minutes	3 seconds						
24F278	CTD5M†	5 minutes	5 seconds						

AUTOMATIC RESET SERIES SF AND CSF

For back of panel or chassis installation. 115v 60-cycle. 2 3/4x3 1/2x7 5/8". Shpg. wt., 1 1/2 lbs.

Stock No.	Type No.	Time Cycle	Calibration	1-3	1-5	6-11	12-24	25-49	50-99
24F279	SF15S	15 seconds	1/4 second	23.00	21.85	20.70	19.55	18.40	17.25
24F280	CSF1M	60 seconds	2 seconds						
24F281	CSF3M	3 minutes	6 seconds						
24F282	CSF5M	5 minutes	10 seconds						

AUTOMATIC RESET SERIES H AND CH

For panel mounting. Four screws hold timer in place. Terminals at rear. 115 volt. 60 cycle operation. 3 9/16x3 1/8x3 1/2". Shipping weight 1 1/2 lbs.

Stock No.	Type No.	Time Cycle	Calibration	1-3	1-5	6-11	12-24	25-49	50-99
24F296	H-15S	15 seconds	1/4 second	26.50	25.18	23.85	22.53	21.20	19.88
24F297	CH1M	60 seconds	1 second						
24F298	CH3M	3 minutes	3 seconds						
24F299	CH5M	5 minutes	5 seconds						

AUTOMATIC RESET TIME DELAY RELAY

Series MTD. Timing cycle begins when power is applied to timer motor; contacts transfer when progress indicator reaches zero point on timer dial. Units operate from 115 VAC, 60 cycles; SPDT contacts are rated 10A/115 VAC. Rugged plastic case matches modern panels.

Stock No.	Model No.	Max. Setting	Min. Setting	1-3	4-5	6-11	12-24	25-49	50-99
62F2036	MTD-15S*	15 sec.	1/4 sec.	30.50	28.98	27.45	25.93	24.40	22.88
62F2037	MTD-60S	60 sec.	1 sec.						
62F2038	MTD-5M	5 min.	5 sec.						
62F2039	MTD-60M	60 min.	1 min.						

SERIES 90 DELAY TIMERS

The Series 90 is designed for applications requiring little or no field adjustments. No calibrated dial is supplied with the Series 90. Changes in time cycle are made by loosening the time set cam screw and offsetting one cam arm. Load contacts are SPDT, 10 amps, rated at 115/60. Dimensions are: 2 5/8x2 1/4x2 1/4. Shipping weight is 1 lb.

Stock No.	Type No.	Time Cycle	Calibration	1-3	4-5	6-11	12-24	25-49	50-99
24F1843	90-6S	6 sec.	1/2 sec.	17.00	16.15	15.30	14.45	13.60	12.75
24F1844	90-15S	15 sec.	1 1/2 sec.						
24F1845	90-30S	30 sec.	3 sec.						
24F1846	90-60S	60 sec.	6 sec.						
24F1847	90-90S	90 sec.	9 sec.						

TANDEM RECYCLING TIMER



Recycling Timer

Type A. Timing device that provides 2 adjustable and continuous time cycles. Permits practically any timing sequence. Controls: "ON"-"OFF" toggle switch, load control switch, pilot lamps, and male load plugs. Load circuit carried by SPDT relay, contact rating: 15 amps AC non-inductive. Control cabinet is for 115 volt/60 cycles.

Type B. Similar to Type A but designed for built-in tamper-proof applications. Contains only pilot lights and element

receptacles. Load control switch located inside the cabinet. Wiring to and from unit done at terminal block. 9x11x6". 11 lbs.

CONTROL UNITS

Stock No.	Description	1-3	4-5	6-11	12-24	25-49
24F285	Type A Unit	54.50	51.78	49.05	46.33	43.60
24F1826	Type B Unit	54.50	51.78	49.05	46.33	43.60

TIMING ELEMENT (2 REQUIRED)

Stock No.	Type	Max. Time	Dial Calib.	1-3	4-5	6-11	12-24	25-49
24F1840	ET-3S	3 sec	1/20 sec	44.00	41.80	39.60	37.40	35.20
24F286	ET-6S	6 sec	1/10 sec					
24F287	ET-15S	15 sec	1/4 sec					
24F288	ET-30S	30 sec	1/2 sec					
24F289	ET-60S	60 sec	1 sec					
24F290	ET-3M	3 min	3 sec					
24F291	ET-5M	5 min	5 sec					
24F292	ET-15M	15 min	15 sec					
24F293	ET-30M	30 min	30 sec					
24F294	ET-60M	60 min	60 sec					
24F295	ET-3H	3 hours	3 hours					

SERIES "DUAL TROL" RECYCLING TIMERS



TM

Series Dual Trol is a compact recycling timer that provides two adjustable On-Off sequencing switch closures. Consists of two TM modules, operating in sequence. Modules can be combined to provide any combination of the time cycles found in the time cycle chart. Time setting adjustment is accomplished by moving the selectors to the time cycles required. Large easy to read concentric scales. Load contacts are SPDT isolated. Load rating—10 amps,

non-inductive rated at 115 V/60 cps. Voltages: 115, 230 volts; 50 or 60 cycles. Other voltages and frequency available upon request. Wiring: Terminal strip inside housing, housing equipped with two 1/2" knockouts. Dimensions: 4 1/2x5 5/16x7 1/2". Approximate shipping weight: 2 lbs.

Stock No.	Type	Max. Time	Min. Time	1-3	4-5	6-11	12-24	25-49
24F1860	TM-6S	6 sec	1/10 sec	27.50	26.13	24.75	23.38	22.00
24F1861	TM-15S	15 sec	1/4 sec					
24F1862	TM-30S	30 sec	1/2 sec					
24F1863	TM-60S	60 sec	1 sec					
24F1864	TM-3M	3 min	3 sec					
24F1865	TM-5M	5 min	5 sec					
24F1866	TM-15M	15 min	15 sec					
24F1867	TM-30M	30 min	30 sec					
24F1868	TM-60M	60 min	1 min					
24F1869	TM-3H	3 hours	3 min					

Industrial Timer Controls



ONE UNIT TIMERS

For applications where dependable one-unit timers are required. Feature positive adjustments, and automatic reset. These units are all manufactured to high standards of quality and will stand up under hard usage. Heavy-duty synchronous motors operate on 115 volts-60 cyc. Type PAB and Type P contacts rated at 15 amps non-inductive load, all others 10 amps.

INSTANTANEOUS RESET SERIES PAB



Series PAB



Series P

Units specifically designed for process control where long life and trouble-free operation is essential. In heavy steel enclosure, 7 1/8 x 5 1/2 x 4 1/16". Two 1/2" knock-outs provided for easy access to internal terminal strip. Shipping weight, 6 lbs.

Stock No.	Type No.	Time Cycle	Calibration
24F283	PAB6S	6 sec.	1/40 second
24F1872	PAB15S	15 sec.	1/4 second
24FX1800	PAB30S	30 sec.	1/2 second
24FX1801	PAB60S	60 sec.	1 second
24FX1802	PAB3M	3 min.	3 seconds
24FX1803	PAB15M	15 min.	15 seconds
24FX1804	PAB30M	30 min.	30 seconds
24FX1805	PAB3H	3 hr.	3 minutes

NET EACH

1-3	4-5	6-11	12-24	25-49	50-99
55.00	52.25	49.50	46.75	44.00	41.25

ECONOMY SERIES P

Low-cost timing units are complete with AC line cord, built-in actuating start button, and two receptacles on side of case for load and remote control circuits. 5x5x3 3/16". Wt., 3 lbs.

Stock No.	Type No.	Time Cycle	Calibration
24F269	P4R	15 sec.	1/4 second
24FX1813	P2R	30 sec.	1/2 second
24F256	P1M	60 sec.	1 second
24F274	P3M	3 min.	3 seconds
24F257	P5M	5 min.	5 seconds

NET EACH

1-3	4-5	6-11	12-24	25-49	50-99
33.00	31.35	29.70	28.05	26.40	24.75

MANUAL RESET SERIES S

Manual reset signaling timers are designed to command visual and audible attention when a time interval is completed. Sockets on side of timer provide for connection of additional lights, alarms or controlled circuits 115V 60 cycle operation. 5x5x3 3/4". Wt., 3 lbs.



Series S

Stock No.	Type No.	Time Cycle	Calibration
24FX1836	S-1M	1 min.	1 second
24FX1837	S-5M	5 min.	5 seconds
24FX1814	S-15M	15 min.	15 seconds
24FX1815	S-30M	30 min.	30 seconds
24F266	S1H	1 hr.	1 minute
24F267	S3H	3 hrs.	3 minutes

NET EACH

1-3	4-5	6-11	12-24	25-49	50-99
29.00	27.55	26.10	24.65	23.20	21.75



Series PBM



Series RS



Series PC



SC-100

PUSHBUTTON AUTOSET INTERVAL TIMER

Series PBM. When pushbutton is manually depressed, the timer resets; when the pushbutton is released, load switch closes, the timing operation begins. Contacts: 25 amps non-inductive. 115 VAC. Motor: 115 Volts, 60 or 50 cycles.

Stk. No.	Type	Time Cycle
62F2040	PBM-15S	15 sec.
62F2041	PBM-60S	60 sec.
62F2042	PBM-5M	5 min.
62F2043	PBM-60M	60 min.

1-3	4-5	6-11	12-24	25-49	50-99
19.25	18.29	17.33	16.36	15.40	14.44

SERIES RS MANUAL SET TIMERS

Completely enclosed for extra ruggedness! Heavy silver contacts. Mounts in 2 3/4" hole, requiring 3" depth. Has 3 1/2" flange, 18" color coded leads extend from back for direct wiring. For 115 volts, 60 cycles AC. Shipping weight, 2 lbs.

Stock No.	Type	Max. Time Cyc.	Dial Cal.	1-3	4-5	6-11	12-24	25-49	50-99
24F1821	RS-15M	15 min.	15 seconds	18.50	17.58	16.65	15.73	14.80	13.88
24F1822	RC-60M	60 min.	1 minute						
24F1823	RS-3H	3 hrs.	5 minutes						
24F271	RS-6H	6 hrs.	10-min. steps						
24F270	RS-12H	12 hrs.	15-min. steps						

PERCENTAGE TIMERS

Series PC. Calibrated in percentage of a given time delay. Designed to close an electrical circuit within any desired percentage of rated time cycle for timer. Knob for setting of "on" time from 3% to 97%, with 100% position for continuous circuit operation. Cam operated snap switch rated at 15 amps. 3 7/8 dia. x 4 3/16 deep. 115V., 60 cycles AC, 2 lbs.

Stock No.	Type	Time Cycle	1-3	4-5	6-11	12-24	25-49	50-99
24F243	PC-15S	15 seconds	31.00	29.45	27.90	26.35	24.80	23.25
24F244	PC-30S	30 seconds						
24F245	PC-60S	60 seconds						

NEW MODEL SC-100 ELECTRIC STOP-CLOCK

Provides all the functions of a mechanical stopwatch with the advantage of electrical control. Measures intervals from .01 to 60 seconds; ideal for research, time-and-motion study, sporting events. Remote-control provision permits start/stop with pushbutton on cord, etc.; reset with button unit or remotely with a series switch. Compound dial has 2 pointers measuring 1-60 sec in 1-sec increments and .01-.99 sec in .01 sec increments respectively. Synchronous motor, automatic wear compensation. 115V 60c. AC only. 5x5x4 2 3/16". Shpg. wt. 5 lbs.

Stock No.	Type	1-3	4-5	6-11	12-24	25-49	50-99
24F300	SC-100	68.50	65.08	61.55	58.23	54.80	51.38

ELAPSED TIME METERS

Provides exact record of operating hours of AC machines and appliances. Long-life synchronous self-lubricating motors, connected to five-digit counters. Series C-2A enclosed in a 3 1/2" bakelite meter case; requires a 2 7/8" diameter hole in panel for mounting. Series C-5 is resettable to zero, has a 3/4" square flange and requires a 2 3/4" diameter mounting hole. Series C-4 open type, 2 1/2" round flange. 2" diam. mtg. hole. All 115 V 60c. except * which is 230 volts. Shpg. wt., 1 lb. † Max. no. of minutes.



Type C-2



Type C-4

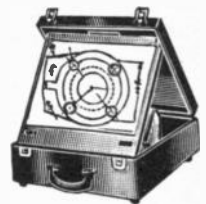


Type C-5

Stock No.	Type	Max. Hrs.	Calib.	NET EACH					
				1-3	4-5	6-11	12-24	25-49	50-99
55F670	C-2	10,000	1/10 hr.	20.90	19.00	18.00	17.00	16.00	15.00
55F671	C-2*	10,000	1/10 hr.	21.50	20.43	19.35	18.28	17.20	16.13
55F680	C-5	10,000	1/10 hr.	42.50	40.38	38.25	36.13	34.00	31.88
24FX1816	C-2-A	100,000	1 hr.	20.00	19.00	18.00	17.00	16.00	15.00
24FX1817	C-4	10,000	1/10 hr.	16.50	15.68	14.85	14.03	13.20	12.38
24FX1841	C-2-F	100,000†	1 min.	20.00	19.00	18.00	17.00	16.09	15.00

NEW "MICRO-READER" PORTABLE MICROFILM READER

Model 1013A. Portable microfilm reader especially designed for aperture cards. Valuable tool for viewing microfilmed engineering drawings, electrical diagrams, etc. Precision optical system employing coated color-corrected anastigmatic f3.5 lens and hard coated front-surface mirror insures clear, precise 10X magnification of 35mm microfilm mounted in aperture cards. Large 10x13" green tint patented "Lenscreen" is hooded for easier reading in brightly lighted rooms. Built-in heat absorbing filter, fingertip focusing. Combines screen and reader in compact unit; sets up in seconds. Comes in attractive black Morocco grain attache-type case. With 100 watt projection lamp, requires 100-125V AC/DC. Size (folded): 16x14 1/2 x 6 1/2"; approx. wt., 12 lbs.



24F301. Model 1013A. NET **89.50**



Industrial Timer Controls

HOW TO ORDER CAM TIMERS

Locate desired time cycle duration in "Gear Assemblies" chart below, and order gear-and-rack assembly listed in left-hand column. Appropriate foundation (motor-switch) units appear at top of "Time Cycle" columns: CM types are single-circuit, recycling; MC types are multi-circuit recycling; RC types are multi-circuit, single-time-cycle (see detailed descriptions below): Example: Suppose 4 circuits are to be controlled, with a 30-second time cycle, recycling. Order gear-and-rack assembly A12, stock number 24F315, and note that foundation unit MC2 is required. At bottom of page, locate MC2 under heading "4 SWITCH CHASSIS" and order stk. no. 62F2010.

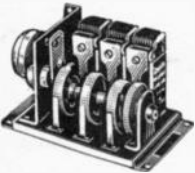
Note: in some cases RC0, RC1, MC0 and MC1 units may require a special high-torque motor.

To determine need of larger motor, multiply time cycle (in seconds) by 2/3; result will be maximum number of switches that can be operated by a standard unit. For example, with a time cycle of 9 seconds, up to 6 switches may be operated by a standard motor; if more circuits are to be controlled, order a high-torque motor. On RC0 and MC0 units, add \$27.50 to listed price for high-torque motor; on RC1 and MC1 types price must be increased by \$29.50.

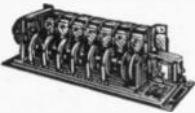
Alternate Ordering Information: specify desired time cycle, number of switches, operating voltage and frequency. Such information may expedite delivery by allowing NEWARK to ship model in stock with desired time cycle.



Series CM



Series MC



Series RC

GEAR ASSEMBLIES—TOTAL TIME CYCLE*

Stock No.	Mfrs. Type	CM0 RCO	CM1 RC1	CM2 RC2	CM3 RC3	CM4 MC4	CM5 RA5 MC5	CM6	CM7 MC7 RC7	CM8 RC8	CM9 MC9 RC9	CM10 MC10 RC10	CM12 MC12 RC12	Net Each
24F306	E12	40c	4S	10S	20S	40S	2M	3M20S	10M	20M	40M	2H	8H	
24F307	E15	50c	5S	12.5S	25S	50S	2M30S	4M10S	12M30S	25M	50M	2H30M	10H	
24F308	C12	1S	6S	15S	30S	60S	3M	5M	15M	30M	60M	3H	12H	
24F309	C14	70c	7S	17.5S	35S	70S	3M30S	5M50S	17M30S	35M	70M	3H30M	14H	
24F310	C15	75c	7.5S	18.75S	37.5S	75S	3M45S	6M15S	18M45S	37M30S	75M	3H45M	15H	
24F311	B12	80c	8S	20S	40S	80S	4M	6M40S	20M	40M	80M	4H	16H	
24F312	C18	90c	9S	22.5S	45S	90S	4M30S	7M30S	22M30S	45M	90M	4H3M	18H	
24F313	B15	100c	10S	25S	50S	100S	5M	8M20S	25M	50M	100M	5H	20H	
24F314	C22	110c	11S	27.5S	55S	110S	5M30S	9M10S	27M30S	55M	110M	5H30M	22H	
24F315	A12	2S	12S	30S	60S	2M	6M	10M	30M	60M	2H	6H	24H	
24F316	C26	2S10c	13S	32.5S	65S	130S	6M30S	10M50S	32M30S	65M	2H10M	6H30M	26H	
24F317	A14	2S20c	14S	35S	70S	140S	7M	11M40S	35M	70M	2H20M	7H	28H	
24F318	A15	2S30c	15S	37.5S	75S	150S	12M30S	12M30S	37M30S	75M	2H30M	7H30M	30H	
24F319	A16	2S40c	16S	40S	80S	160S	8M	13M20S	40M	80M	2H40M	8H	32H	1.75
24F320	C34	2S50c	17S	42.5S	85S	170S	8M30S	14M10S	42M30S	85M	2H50M	8H30M	34H	
24F321	A18	3S	18S	45S	90S	3M	9M	15M	45M	90M	3H	9H	36H	
24F322	A20	3S20c	20S	50S	100S	200S	10M	16M40S	50M	100M	3H20M	10H	40H	
24F323	A22	3S40c	22S	55S	110S	220S	11M	18M20S	55M	110M	3H40M	11H	44H	
24F324	A24	4S	24S	60S	2M	4M	12M	20M	60M	2H	4H	12H	48H	
24F325	A26	4S20c	26S	65S	130S	260S	13M	21M40S	65M	2H10M	4H20M	13H	52H	
24F326	A28	4S40c	28S	70S	140S	280S	14M	23M20S	70M	2H20M	4H40M	14H	56H	
24F327	A30	5S	30S	75S	150S	5M	15M	25M	75M	2H30M	5H	15H	60H	
24F328	A32	5S20c	32S	80S	160S	320S	16M	26M40S	80M	2H40M	5H20M	16H	64H	
24F329	A34	5S40c	34S	85S	170S	340S	17M	28M20S	85M	2H50M	5H40M	17H	68H	
24F330	A36	6S	36S	90S	3M	6M	18M	30M	90M	3H	6H	18H	72H	

* C=cycles (refers to 60 cps current; e.g. 50 c=5% sec), S=seconds, M=minutes, H=hours.

SERIES CM SINGLE-CAM RECYCLING TIMER

Snap action totally-enclosed, dustproof SPDT switch. Rated 10A-115V, 10A-220V, non-inductive AC Cam and gear train, interchangeable for longer or shorter time cycle, attach to motor chassis by single 6-32 screw. Can be set so switch is actuated from 2% to 98% of total time cycle; each cycle auto-

matically repeats until power is turned off. Size, 3 1/8 x 2 1/8 x 2 1/4". For 115 volts—60 cycle operation. For complete timer, order Motor-Switch chassis covering required time range, and gear assemblies for specific time cycles. Av. shpg. wt., 1 lb

Stk. No.	Type	Stk. No.	Type	Stk. No.	Type	Stk. No.	Type	1-3	4-5	6-11	12-24	25-49	50-99
24F1827	CM0	24F1829	CM3	24F252	CM6	24F1820	CM9						
24F1828	CM1	24F250	CM4	24F1819	CM7	24F254	CM10	18.75	17.81	16.88	15.94	15.00	14.06
24F268	CM2	24F251	CM5	24F253	CM8	24F255	CM12						

SERIES MC MULTI-CAM RECYCLING TIMER

Recycling type identical in operation to CM timer but with multiple cams to operate more than one switch. The cams are mounted on a single driving shaft, coupled to the motor by a gear and rack assembly (see gear assembly chart above).

Cams can be adjusted in any combination of timed sequences. Each cam is individually adjustable from 2 to 98% of the total time cycle. Order Motor-Switch chassis plus any gear assembly to achieve required time cycle. For 115 v.-60 cycle.

SERIES RC SINGLE CYCLE MULTI-CAM TIMER

Provides a single timed electrical cycle upon momentary actuation from a remote position. May be used to control several circuits; similar to MC series, except operates one cycle only.

Cams are adjustable for any combination of timed sequences. Order motor-switch chassis plus any gear assembly (see "How to Order," above). For 115VAC, 60 cy.

2 SWITCH CHASSIS

Stk. No.	Type	Stk. No.	Type	1-3	4-5	6-11	12-24	25-49	50-99
62F2001	MC0	62F2052	MC6						
62F2050	MC1	62F2053	MC7						
62F2002	MC2	62F2054	MC8	33.75	32.06	30.37	28.69	27.00	25.51
62F2003	MC3	62F2055	MC9						
62F2005	MC4	62F2056	MC10						
62F2006	MC5	62F2057	MC12						
62F2003	RC0	62F2061	RC6						
62F2004	RC1	62F2062	RC7						
62F2007	RC2	62F2068	RC8	48.75	46.31	43.87	41.44	39.00	36.56
62F2058	RC3	62F2063	RC9						
62F2059	RC4	62F2064	RC10						
62F2060	RC5	62F2065	RC12						

4 SWITCH CHASSIS

Stk. No.	Type	Stk. No.	Type	1-3	4-5	6-11	12-24	25-49	50-99
62F2009	MC0	62F2066	MC6						
62F2066	MC1	62F2069	MC7						
62F2010	MC2	62F2070	MC8	50.75	48.21	45.67	43.14	40.60	38.06
62F2067	MC3	62F2071	MC9						
62F2013	MC4	62F2072	MC10						
62F2014	MC5	62F2073	MC12						
62F2011	RC0	62F2077	RC6						
62F2012	RC1	62F2078	RC7						
62F2015	RC2	62F2016	RC8	66.25	62.94	59.63	56.31	53.00	49.69
62F2074	RC3	62F2079	RC9						
62F2075	RC4	62F2080	RC10						
62F2076	RC5	62F2081	RC12						

6 SWITCH CHASSIS

Stk. No.	Type	Stk. No.	Type	1-3	4-5	6-11	12-24	25-49	50-99
62F2017	MC0	62F2084	MC6						
62F2082	MC1	62F2085	MC7						
62F2018	MC2	62F2086	MC8	67.25	63.89	60.53	57.17	53.80	50.44
62F2083	MC3	62F2087	MC9						
62F2021	MC4	62F2088	MC10						
62F2022	MC5	62F2089	MC12						
62F2019	RC0	62F2093	RC6						
62F2020	RC1	62F2094	RC7						
62F2023	RC2	62F2024	RC8	83.75	79.56	75.38	71.19	67.00	62.81
62F2090	RC3	62F2095	RC9						
62F2091	RC4	62F2096	RC10						
62F2092	RC5	62F2097	RC12						

8 SWITCH CHASSIS

Stk. No.	Type	Stk. No.	Type	1-3	4-5	6-11	12-24	25-49	50-99
62F2025	MC0	62F2100	MC6						
62F2098	MC1	62F2101	MC7						
62F2026	MC2	62F2102	MC8	84.25	80.04	75.82	71.61	67.40	63.19
62F2099	MC3	62F2103	MC9						
62F2029	MC4	62F2104	MC10						
62F2030	MC5	62F2105	MC12						
62F2027	RC6	62F2109	RC0						
62F2028	RC7	62F2110	RC1						
62F2031	RC8	62F2032	RC2	100.25	95.24	90.23	85.21	80.20	75.16
62F2106	RC9	62F2111	RC3						
62F2107	RC10	62F2112	RC4						
62F2108	RC12	62F2113	RC5						

INDUSTRIAL TIMER

RB AUTOMATIC RESET DELAY TIMER

Provides an adjustable delay between the closing of one circuit and the subsequent operation of the timer load switch. The timer delay is initiated with a sustained switch closure to the synchronous motor of the timer. Series RB automatically resets to the start setting when the sustained start circuit is opened, and the timer is then ready to perform

another timing function. Versatile back panel or front mounting. Directly interchange physically and electrically with Haydon type RG. Timing cycles ranging from 5.6 sec. to 4 min. and 40 sec. Contact rating: 15 amps non-inductive @ 115/60 115/60V AC oper. Shpg. wt., 1 lb.

Stk. No.	Type	Minimum Time	Maximum Time	1-3	4-5	6-11	12-24	25-49	50-99
24F331	RB-5.6S	.2 sec.	5.6 sec.	14.50	13.77	13.05	12.33	11.60	10.88
24F332	RB-14S	1/2 sec.	14 sec.						
24F333	RB-28S	1 sec.	28 sec.						
24F334	RB-56S	2 sec.	56 sec.						
24F335	RB-84S	3 sec.	1 min. 24 sec.						
24F336	RB-168S	6 sec.	2 min. 48 sec.						
24F337	RB-4.5M	10 sec.	4 min. 40 sec.						



RB

TRP LOW COST ELECTRONIC TIME DELAY

Plug in adjustable delay relay incorporating an electronic delay circuit. Provides a preset delay between the closing of a circuit and the subsequent operation of the built-in SPDT contacts. Unit resets instantaneously upon the opening of the start circuit. Adjustment is accomplished with a

screw secured with a lock nut located on the timer. Timing cycles ranging from 1/10 sec. to 60 sec. Load contacts isolated from timing circuit. Contact rating: 5 amps, rated at 115/60 Non-inductive. Start circuit of 115/60 only. Shpg. wt., 12 oz.

Stk. No.	Type	Time Min.	Delay Max.	1-3	4-5	6-11	12-24	25-49	50-99
24F338	TRP-5	0.1 sec.	5 sec.	18.50	17.58	16.65	15.73	14.80	13.88
24F339	TRP-10	0.1 sec.	10 sec.						
24F340	TRP-15	0.1 sec.	15 sec.						
24F341	TRP-30	0.1 sec.	30 sec.						
24F342	TRP-60	0.1 sec.	60 sec.						



TRP

PARAGON

Versatile time switch which has hundreds of uses around store, plant, or offices. Property has an "open" look after hours to discourage prowlers. Controls any appliances such as fans, air conditioners, dehumidifiers, PA systems, etc. Automatic

operation repeats every 24 hrs., never needs re-setting. On-off settings as close as 15 minutes. Plug grey plastic case. 4 3/8" x 4 3/8" x 2 3/4" and 6" cord set. UL and CSA listed. 110-120 VAC, 60 CPS. Shpg. wt. 2 lbs.

PCT 7-0—PHOTOCONTROL TIMER

Combines photocell and timer for efficiency in light control. Choice of four different lighting schedules. SPDT switch, 840 watts capacity. Size:

4 3/8" x 4 3/8" x 2 3/4". Volts 60 cycle 120. Sh. wt. 1 3/4 lbs.

57F1150. NET 11.20

APPLIANCE TIMERS

Makes home appliances magically automatic. Select the on and off time for any appliance, plug it in and forget it. Skip-trip a pre-set dial schedule with the white On-Off knob. Maintain an On-Off setting by moving the red auto-lock to the

lock position then to the auto position to return to the pre-set schedule. Grey-beige softtone finish case with colored selector knobs. Size: 4 3/8" x 4 3/8" x 2 3/4".

Type APT 5-0.

SPST switch. 15 amps 1800 W. Shpg. wt. 1 3/4 lbs.

57F1153. NET 9.70

Type APT 4-0.

SPST switch. 7 amps 840 W. Shpg. wt. 1 3/4 lbs.

57F1151. NET 8.95

PARAGON PROGRAM INSTRUMENT

Ideal for programming audible signals by providing pre-warning and main signals adjustable over a range of 4-60 sec. Dial is divided into 5-minute units with 24 hr. markings to provide flexibility in scheduling. The Skip-a-day feature allows the omission of signals a 12 or 24 hr. period, and the unique gearing arrangements eliminate any deviation from the pre-set schedules. Instrument has

manual ON-OFF lever and can be operated manually when necessary without interrupting the pre-set programming. Snap-out movement for easy replacement, knurled dial for easy setting, and single lever for MANUAL, AUTOMATIC, or OFF operations. Steel drawn enclosure, hinged cover for seal. 120, 60 cyc. AC. Weight, 8 1/2 lbs.

57F1152. Type 23001-0S. NET 63.96

PROGRAM TIME SWITCH

Same as above but for automatic on-off operations only at 5 minutes on-off intervals. 14 trippers for

Skip-a-Day, and 22 for on-off. Shpg. wt. 8 1/2 lbs.

57F1154. Type 25001-0S NET 59.96

FAA-FF SERIES FLUSH MOUNTED INTERVAL TIMER

Used for attic and exhaust fans, yard lights, and limitless other applications. U.S. single standard outlet box. Ivory molded wall plate, gold finished dial plate with black numerals, gold knob. 4 1/2" x 2 3/4" x 1 3/16". Shpg. wt. 3/4 lbs. each.

120V-60 Cycle Only

Stk. No.	Type	Descrip.	NET
57F1155	FA51-0	0-20 hours	6.47
57F1156	FF51-0	0-60 min.	
57F1157	FF30-0	0-30 min.	



PCT-20

APT-5-0

APT-4-0



Program Switches



FA-FF

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ITT General Controls Counters and Actuators



SERIES CE40, CE600, CE620, CE800 ELECTRIC COUNTERS

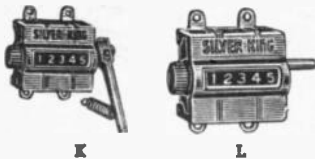
Series CE40 is multiposited and operates in any position. All have tamper-proof construction; cover clinches through frame and cannot be removed without dismantling counter. Large white numbers on black background. 1/8" wide, 3/16" high on reset models. Non-reset numbers are 5/32" wide and high. Can be actuated by any switch, relay, photo-electric, or other device with a minimum closed period of .040 sec., and minimum open period of .060 sec. 5 watts power consumption at rated voltage. Standard with 6" leads. 600 cpm.

Series CE600 is multiposited and operates in any position. Has specialized armature and built-in rectification. Count life is 50 million, conservative rating. 1000 counts per minute (higher speeds with suitable actuation). Can be actuated by any switch, relay, photo-electric or other device that makes and breaks without chatter. Minimum duration of make, 0.030 sec. Minimum duration of break, 0.030 sec. Close fitting cover with unbreakable plastic window protects against dust and tampering.

Series CE620 is multiposited and can be mounted in any position. Has specialized armature and built-in rectification. Quiet, free from AC hum. 7 watt power consumption. 1000 cpm. Actuation requirements: duration of make, .030 sec. minimum; duration of break, .030 sec. minimum. Reset circuit requires only .100 sec. contact to make. Total reset time is two sec. Dimensions: overall 6" wide, 4" high and 5 1/2" deep. Shipping weight, 6 1/2 lbs.

Series CE800 has balanced armature and built-in rectification. Unit is completely dustproof, gasket sealed, and tamper proof. Clear unbreakable plastic window is staked and sealed in position. White numerals on black background. 1000 counts-per-minute (higher speeds possible with suitable actuation). Actuation by any type of switch, relay, photo-electric or other circuit breaking device that makes and breaks without chatter. Minimum duration of make, .03 sec.; minimum duration of break, .03 sec. Continuous duty coils. Rectifier with capacitor gives top reliability on all AC voltages to 240 volts. Count life is 200 million.

Stk. No.	Type	Fig.	V/Freq.	Reset	Mount	Digit	1-9	10-24	25-49	50-99	100-249
57F1800	CE40AN501	A	24AC/60	Non	Base	5	7.75	6.59	6.20	5.81	5.43
57F1801	CE40AN502	A	120AC/60	Non	Base	5					
57F1840	CE40AN5014	A	6VDC	Non	Base	5					
57F1841	CE40AN5015	A	12VDC	Non	Base	5					
57F1812	CE40AN5016	A	24VDC	Non	Base	5					
57F1843	CE40AN5018	A	110VDC	Non	Base	5					
57F1802	CE40BN501	B	24AC/160	Non	Panel	5	8.35	7.10	6.68	6.26	5.81
57F1803	CE40BN502	B	120AC/60	Non	Panel	5	8.35	7.10	6.68	6.26	5.81
57F1804	CE40AS401	C	24AC/60	Knob	Base	4	15.25	12.96	12.20	11.44	10.68
57F1805	CE40AS402	C	120AC/60	Knob	Base	4	15.25	12.96	12.20	11.44	10.68
57F1844	CE40AS4014	C	6VDC	Knob	Base	4	15.25	12.96	12.20	11.44	10.68
57F1845	CE40AS4015	C	12VDC	Knob	Base	4	15.25	12.96	12.20	11.44	10.68
57F1846	CE40AS4016	C	24VDC	Knob	Base	4	15.95	13.56	12.76	11.96	11.17
57F1806	CE40BS401	D	24AC/60	Knob	Panel	4	15.95	13.56	12.76	11.96	11.17
57F1807	CE40BS402	D	120AC/60	Knob	Panel	4	15.95	13.56	12.76	11.96	11.17
57F1847	CE40BS4014	D	6VDC	Wheel	Panel	4	15.95	13.56	12.76	11.96	11.17
57F1848	CE40BS4015	D	12VDC	Wheel	Panel	4	15.95	13.56	12.76	11.96	11.17
57F1849	CE40BS4016	D	24VDC	Wheel	Panel	4	15.95	13.56	12.76	11.96	11.17
57F1852	CE600AS601	G	24Va/60cy	Knob	Base	6	18.75	15.94	15.00	14.06	13.13
57F1808	CE600AS602	G	120VAC/60cy	Knob	Base	6	18.75	15.94	15.00	14.06	13.13
57F1850	CE600AS6015	G	12VDC	Knob	Base	6	18.75	15.94	15.00	14.06	13.13
57F1851	CE600AS6016	G	24VDC	Knob	Base	6	18.75	15.94	15.00	14.06	13.13
57F1853	CE600AS702	G	120Va/60cy	Knob	Base	7	19.75	16.79	15.80	14.81	13.83
57F1809	CE600BS602	E	120AC/60	Knob	Panel	6	20.35	17.30	16.28	15.26	14.25
57F1810	CE600BK602	F	120AC/60	Key	Panel	6	28.75	24.44	23.00	21.56	20.13
57F1811	CE620BB602	H	120AC/60	Push Button	Panel	6	72.00	61.20	57.60	54.00	50.40
57F1812	CE620BA602	...	120AC/60	Remote	Panel	6	67.00	56.95	53.60	50.25	46.90
57F1813	CE800AS602	I	120VAC	Knob	Base	6	47.25	40.16	37.80	35.44	33.08
57F1814	CE800AK602	J	120VAC	Key	Base	6	50.25	42.71	40.20	37.69	35.18
57F1815	CE800BS602	J	120VAC	Knob	Panel	6	41.50	35.28	33.20	31.13	29.05
57F1816	CE800BK602	...	120VAC	Key	Panel	6	50.25	42.71	40.20	37.69	35.18



SERIES CM52, CM54, STROKE SERIES REVOLUTION COUNTERS

Series CM52 stroke counter. 200 million count life, 500 cpm. conservative rating. Large white figures 1/4" high on black background. Tamperproof reset. Registers one count for each stroke of operating arm. Unbreakable window.

Series CM54 revolution counter-add or subtract. life count 200 million, conservative rating. 4000 cpm when adding; 2000 cpm when subtracting. Counter is ruggedly built with modern design for heavy duty service. Dimensions: 4" wide x 5 1/2" long x 2 3/8" deep.

Top-Going Knob Reset 10 Count/Rev. of Drive Shaft (400 RPM) Base Mount

Stk. No.	Type	Fig.	Shaft Ext	1-9	10-24	25-49	50-99	100-249
57F1825	CM54BS501A	L	Right	17.50	14.88	14.00	13.13	12.25
57F1826	CM54BS502A	L	Left	17.50	14.88	14.00	13.13	12.25

Series CM54 Top-Coming Knob Reset 1 Count/Rev. of Drive Shaft (4000 RPM) Base Mount

57F1821	CM54AS501B	L	Right	17.50	14.88	14.00	13.13	12.25
57F1822	CM54AS502B	L	Left	17.50	14.88	14.00	13.13	12.25

Five Digit Top Going Knob Reset

57F1819	CM52BS501B	K	Right	16.50	14.03	13.20	12.38	11.55
57F1820	CM52BS502B	K	Left	16.50	14.03	13.20	12.38	11.55

Five Digit Top Coming Knob Reset

Stk. No.	Type	Fig.	Shaft Ext	1-9	10-24	25-49	50-99	100-249
57F1817	CM52AS501A	K	Right	16.50	14.03	13.20	12.38	11.55
57F1818	CM52AS502A	K	Left	16.50	14.03	13.20	12.38	11.55
57F1857	CM52AK501A	K	Right	19.50	16.58	15.60	14.63	13.65
57F1858	CM52AK502A	K	Left	19.50	16.58	15.60	14.63	13.65

Top-Going Knob Reset 10 Count/Rev. of Drive Shaft (400 RPM) Base Mount

57F1823	CM54AS501A	L	Right	17.50	14.88	14.00	13.13	12.25
57F1824	CM54AS502A	L	Left	17.50	14.88	14.00	13.13	12.25

Panel Mount Top-Going

57F1859	CM54BS501B	L	Right	20.00	17.00	16.00	15.00	14.00
57F1860	CM54BS502B	L	Left	20.00	17.00	16.00	15.00	14.00

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ITT GENERAL CONTROLS (Continued)

ACTUATORS AND ACCESSORIES

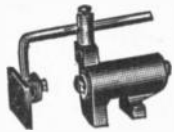
SERIES ES4, ES5 ACTUATORS

Series ES4 small, sensitive actuators. 300 cpm. Arm motion: reciprocal 24° minimum, 59° maximum; overthrow, 10 to 45°. Operating torque: field adjustable from 1/2 oz. to 3/4 oz. at end of spring steel arm. Switching: SPST. Electrical rating: noninductive. Generally used where only lightweight objects are available to operate actuator.

Series ES5 heavy duty actuator. 300 cpm. Arm motion: reciprocal 31° minimum, 63° maximum by internal mechanical limit stops. Minimum operating torque: 3 inch-ounces. Switch is operated by steel arm equipped with spring return.

SMALL SENSITIVE ACTUATORS

Stk. No.	Type	Fig.	Description	1-9	10-24	25-49	50-99	100-249
55F1835	ES-41	O	Straight Spring Steel Arm, 2 3/4" Long	8.40	7.14	6.72	6.30	5.88
55F1836	ES-43	O	Straight Spring Steel Arm, 6 1/4" Long	8.40	7.14	6.72	6.30	5.88
55F1837	ES-5	P	Actuating Switch	9.85	8.37	7.88	7.39	6.90
55F1838	ES4B1		Normally closed 2 3/4" Spring Steel Arm	8.40	7.14	6.72	6.30	5.88
55F1839	ES5B		Normally closed 2 3/4" Spring Steel Arm	9.85	8.37	7.88	7.39	6.90



AC20H01



AC20H02

AC20H01 ACTUATOR BRACKET

Clamps on any thickness to 1 3/4". Adjustments permit mounting holding switch in nearly any position. Mounts ES4 and ES5 series actuators with almost unlimited positioning adjustment. Screws can be tightly set to hold setting rigidly.

AC20H02 ACTUATOR BRACKET

Has a fixed opening with set screw for attachment to bar up to 3/8" thick. Curved and slotted bracket arm is reversible and switch plate is swivel-mounted on bracket arm, affording extreme flexibility as well as a wide range of adjustment. For use with ES4 only.

AC20J01 CORD SET

Designed for safe and portable actuation of electric counters and other uses where electrical equipment is to be operated by a switch. Equipment to be operated and switch are safely plugged into female connection of the "Y" cord.



AC20J01



ES1B



AC20A03

ES1B LINEAL MEASURING ROTARY ACTUATOR SWITCH

For measuring lengths of paper, fabric, lumber, rope and wire-and-rotary switching to open and close a circuit with each shaft revolution—this heavy duty switch has an expected count or contact life of 100,000,000. Available as an actuator switch with mounting bracket only. Can be used to actuate any electric counter, cut-off device solenoid or other electrical equipment. Rated maximum speed: 1,000 RPM.

AC20A03 MEASURING WHEEL

The AC20A03 lineal measuring wheel is carefully ground to exactly 12 inches in circumference with rubber tire. Used with the ES1B rotary switch where each revolution makes and breaks a circuit for each foot of lineal measurement. 1/4" shaft diameter.

Stock No.	Type No.	1-9	10-24	25-49	50-99	100-249
57F1861	ES1B	15.00	12.75	12.00	11.25	10.50
57F1862	AC20A03	7.50	6.38	6.00	5.62	5.25
57F1863	AC20J01	6.70	5.70	5.36	5.03	4.69
57F1864	AC20H01	14.75	12.54	11.80	11.06	10.33
57F1865	AC20H02	14.75	12.54	11.80	11.06	10.33



SOLID STATE DEVICES



32548



11382



11448

REED SWITCH ROTARY TRANSDUCER

Model 32548. Detects shaft rotation and yields a fixed number of pulses per revolution at speeds from 0 to 2,000 RPM. Encased in a lightweight aluminum housing. Teflon feed-through terminals are used for external connections. The rotating shaft is 3/8" diameter polished steel, and is mounted in a precision ball bearing. Four mounting holes. Switch is normally open. 10 closures per revolution is standard, max. 10 watt, up to .5 amps, and 400 VDC. Range is -20°C to +60°C. Shock 15G without false operation. 5" wide x 5" high x 1 1/4" deep.

Model 32554. As above but with sleeve bearing.

Stock No.	Type	1-9	10-24	25-49	50-99
24F3000	32548	33.00	29.70	26.40	24.75
24F3001	32554	27.25	24.75	22.50	21.65

MAGNETIC SWITCH MODEL 11382

Detects the presence of a magnet regardless of the direction of approach or motion which brings magnet into detecting area. Almost any magnet will activate; Form A (SPST) normally open contacts rated at 10 watts, max. 5 A, 400 VDC. Temperature range, -50°C to +95°C. Shock without false operation, 15G. Potted in aluminum case to withstand severe environment. Supplied with 4 ft., 2 cond. rubber covered cable. Size 1" x 1 3/4" x 2 1/2". Weight 6 oz.

Stock No.	Type	1-9	10-24	25-49	50-99	100-249
24F3002	11382	8.96	8.07	7.60	7.16	6.70



ER SERIES SOLID STATE RELAYS

Solid state long life relays for direct replacement of most octal base electro-mechanical types. High speed sensitive yet rugged. Ideally suited for inductive loads, solenoid valves, actuators. ER115 series switches output voltage of 115VAC 50/60 CPS/ ER230 series switches output voltage 230VAC 50/60 CPS. Form A (SPST-NO) handles an output load of 2.5 amps, resistive or inductive (15 amps in-rush) 100% duty cycle with no contact bounce. Output isolated from input. Has standard octal plug connection. Oper. Temp. range: 0 to 135°F. Size 2"x2"x3". (less plug pins) 3/8 lb. *750 milliwatts. ** @ 10 Ma.

Stock No.	Type	Output Will Switch	Input Voltage	1-9	10-24	25-49	50-99
24F3003	ER115-12VAC	115VAC	12VAC*				
24F3004	ER115-24VAC	50/60 CPS	24VAC*	22.50	21.60	19.80	18.90
24F3005	ER115-115VAC		115VAC*				
24F3006	ER230-12VAC	230VAC	12VAC*				
24F3007	ER230-24VAC	50/60 CPS	24VAC*	24.50	23.60	21.80	20.90
24F3008	ER230-115VAC		115VAC*				
24F3009	ER115-12VDC	115VAC	12VDC**				
24F3010	ER115-24VDC	50/60 CPS	24VDC**	27.00	25.88	24.75	23.63
24F3011	ER115-110VDC		110VDC**				
24F3012	ER230-12VDC	230VAC	12VDC**				
24F3013	ER230-24VDC	50/60 CPS	24VDC**	29.00	27.88	26.75	25.63
24F3014	ER230-110VDC		110VDC**				

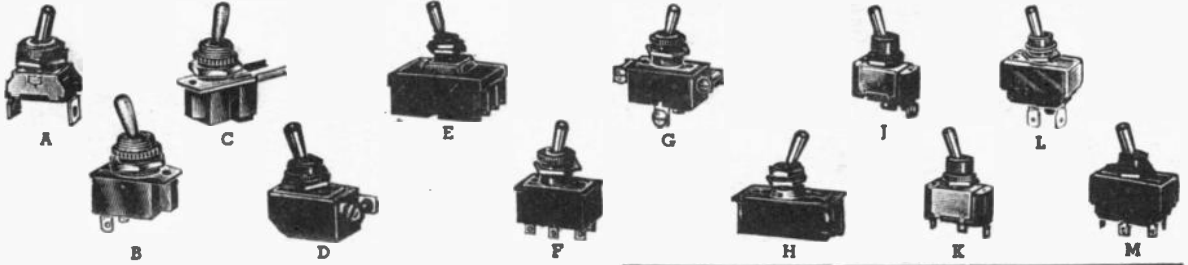
MAGNETIC ASSEMBLY MODEL 11448

Consists of ceramic magnet mounted between 2 pole pieces with mounting feet for screw mounting or for mounting with steel strapping 1/2" wide. For operation with Amtron Magnetic Switch Model 11382. Wt. 3 oz.

Stk. No.	Type	1-9	10-24	25-49	50-99	100-249
24F3015	11448	5.40	4.86	4.59	4.32	4.05



Cutler-Hammer Switches



SNAP-ACTION TOGGLE SWITCHES

General purpose light and heavy duty AC switches for AC power appliances. Employ snap-action rocker type contact mechanism. Switches have phenolic-metallic housing. All one hole mount type Bushing $1\frac{1}{2}$ " Dia., $1\frac{1}{2}$ " L. * $1\frac{1}{2}$ " Long Bushing. U/L Approved.

6 AMP 125 V. 3 AMP 250 V AC

Stock No.	Type	Fig.	Act.	Term.	Key	1-	25-	50-	100-	500-
						24	49	99	499	up
23F341	7580K4	J	SPST	Screw	A	.63	.58	.49	.437	.388
23F342	7580K6	I	SPST	Lugs	A	.55	.50	.42	.378	.336
23F371	7580K9*	J	SPST	Spd.	A	.72	.67	.56	.500	.444
23F343	7581K4	K	SPDT	Screw	B	.72	.67	.56	.500	.444
23F344	7581K6	K	SPDT	Lugs	B	.59	.54	.45	.405	.360
23F372	7581K9*	K	SPDT	Spd.	B	.59	.54	.45	.405	.360
23F345	7582K4	K	SPDT	Screw	C	.72	.67	.56	.500	.444
23F346	7582K6	K	SPDT	Lugs	C	.59	.54	.45	.405	.360
23F347	7590K4	L	DPST	Screw	A	.97	.89	.75	.671	.596
23F348	7590K6	L	DPST	Lugs	A	.79	.73	.61	.545	.484
23F349	7591K4	M	DPDT	Screw	B	1.14	1.06	.88	.792	.704
23F350	7591K6	M	DPDT	Lugs	B	.88	.81	.68	.608	.540
23F374	7591K7**	M	DPDT	Screw	B	.88	.81	.68	.608	.540
23F357	7592K4	M	DPDT	Lugs	C	1.14	1.06	.88	.792	.704
23F358	7592K6	M	DPDT	Lugs	C	.88	.81	.68	.608	.540
23F376	7592K8	M	DPDT	Spd.	C	.88	.81	.68	.608	.540

HEAVY DUTY AC SWITCHES 15 AMP 125 V, 10 AMP 250 V

Stock No.	Type	Fig.	Act.	Term.	Key	1-	25-	50-	100-	500-
						24	49	99	499	up
23F377	7500K13*	I	SPST	Screw	A	.72	.67	.56	.500	.444
23F247	7500K14	I	SPST	Screw	A	.72	.67	.56	.500	.444
23F369	7501K12*	J	SPST	Lugs	A	.63	.58	.49	.437	.388
23F230	7501K13	J	SPST	Lugs	A	.63	.58	.49	.437	.388
23F378	7501K14*	J	SPST	Spd.	A	.63	.58	.49	.437	.388
23F379	7501K15	J	SPST	Spd.	A	.63	.58	.49	.437	.388
23F231	7503K13	K	SPDT	Lugs	B	.72	.67	.56	.500	.444
23F380	7504K4	J	SPDT	Screw	C	.85	.79	.66	.590	.524
23F232	7505K4	K	SPDT	Lugs	C	.72	.67	.56	.500	.444
23F383	7502K12*	J	SPDT	Screw	B	.85	.79	.66	.590	.524
23F265	7502K13	E	SPDT	Screw	B	.85	.79	.66	.590	.524
23F267	7560K5	L	DPST	Screw	A	1.14	1.06	.88	.792	.704
23F235	7561K4	L	DPST	Lugs	A	.97	.89	.75	.671	.596
23F268	7561K5	L	DPST	Lugs	A	.97	.89	.75	.671	.596
23F381	7561K6	L	DPDT	Spd.	A	.97	.89	.75	.671	.596
23F246	7562K4	M	DPDT	Screw	B	1.41	1.30	1.09	.977	.868
23F266	7564K6	M	DPDT	Screw	C	1.41	1.30	1.09	.977	.868
23F236	7565K5	M	DPDT	Lugs	C	1.14	1.06	.88	.792	.704
23F382	7565K7	M	DPDT	Spd.	C	1.14	1.06	.88	.792	.704
23F237	7563K4	M	DPDT	Lugs	B	1.14	1.06	.88	.792	.704
23F271	7610K2	E	3PST	Screw	A	2.31	2.13	1.78	1.598	1.420
23F240	7611K2	E	3PST	Lugs	A	1.98	1.82	1.52	1.368	1.216
23F241	7613K2	E	3PDT	Lugs	B	2.44	2.55	1.88	1.688	1.500
23F243	7615K2	F	3PDT	Lugs	C	2.44	2.55	1.88	1.688	1.500
23F276	7615K4	F	3PDT	Spd.	C	2.44	2.55	1.88	1.688	1.500
23F256	7612K2	E	3PDT	Screw	B	2.93	2.70	2.25	2.025	1.800
23F257	7614K2	E	3PDT	Screw	C	2.93	2.70	2.25	2.025	1.800

10 AMP 250 V

Stock No.	Type	Fig.	Act.	Term.	Key	1-	25-	50-	100-	500-
						24	49	99	499	up
23F242	7691K14	E	4PST	Lugs	A	2.99	2.76	2.30	2.070	1.840
23F384	7693K2	E	4PDT	Lugs	B	3.65	3.37	2.81	2.525	2.244

10 AMP AT 250 VAC ONLY. MOMENTARY CONTACT

Stock No.	Type	Fig.	Act.	Term.	Key	1-	25-	50-	100-	500-
						24	49	99	499	up
23F233	7506K3	J	SPST	Lugs	A	.82	.76	.63	.567	.504
23F234	7510K6	K	SPDT	Lugs	C	.93	.86	.82	.644	.572
23F239	7566K4	L	DPST	Lugs	A	1.31	1.21	1.01	.909	.808
23F368	7566K5	L	DPST	Screw	A	1.49	1.37	1.15	1.031	.916
23F238	7570K4	M	DPDT	Lugs	C	1.49	1.37	1.15	1.031	.916

ON-OFF PLATE

23F248. Model 827-228F3. On-Off Plate. For Toggle, General Purpose, and Aircraft switches. Shpg. wt. 5 oz per 100.
 1-49 Ea.04 59-99 Ea.023
 100-499 Ea.027 500-up Ea.034



LEVER CONTROL CHART

Key	Up	Center	Down	Key	Up	Center	Down
A	On	None	Off	H	None	Off	On
B	On	Off	On	I	On	Off	None
C	On	None	On	J	On	None	Off
D	On	Off	None	K	Off	None	On
E	On	Off	On	L	Off	None	On
F	On	None	On	M	None	On	On

QUICK MAKE-BREAK TOGGLE SWITCHES

Quick make-break toggle, standard duty AC-DC switches. Small one hole mount type for flat surfaces. Designed for small motor loads, radio appliances, and other similar applications. Quick break mechanism provides speedy operation, minimizing harmful pitting of contacts. Mtg. Bushing $1\frac{1}{2}$ " Dia., $1\frac{1}{2}$ " L. except (*) $1\frac{1}{4}$ " L. and (**) $1\frac{1}{2}$ " L. U/L Approved. Shpg. wt., 3 oz.

3 AMP 250 VOLT AC-DC

Stock No.	Type	Fig.	Act.	Term.	Key	1-	25-	50-	100-	500-
						24	49	99	499	up
23F219	8280K14*	B	SPST	Lugs	A	.63	.58	.49	.437	.388
23F385	8280K15**	B	SPST	Lugs	A	.63	.58	.49	.437	.388
23F220	8280K16	B	SPST	Lugs	A	.63	.58	.49	.437	.388
23F391	8290K15**	C	SPST	Wire	A	.76	.70	.59	.527	.468
23F335	8290K16	C	SPST	Wire	A	.76	.70	.59	.527	.468
23F336	8295K7**	D	SPST	Screw	A	.76	.70	.59	.527	.468
23F337	8295K8	D	SPST	Screw	A	.76	.70	.59	.527	.468
23F392	8360K6*	F	DPST	Lugs	A	1.14	1.05	.88	.788	.700
23F223	8360K7	F	DPST	Lugs	A	1.14	1.05	.88	.788	.700
23F393	8360K8**	F	DPST	Lugs	A	1.14	1.05	.88	.788	.700
23F394	8363K6*	F	DPDT	Lugs	C	1.31	1.21	1.01	.905	.804
23F224	8363K7	F	DPDT	Lugs	C	1.31	1.21	1.01	.905	.804
23F209	8363K8**	F	DPDT	Lugs	C	1.31	1.21	1.01	.905	.804
23F275	8365K7	G	DPDT	Screw	C	1.72	1.59	1.33	1.193	1.060

3 AMP 125 VOLT, 1 AMP 250 V AC-DC

Stock No.	Type	Fig.	Act.	Term.	Key	1-	25-	50-	100-	500-
						24	49	99	499	up
23F395	8282K13**	F	3 Way	Lugs	C	.79	.73	.61	.549	.488
23F259	8284K14	F	2 Circ.	Lugs	C	.84	.77	.65	.481	.516
23F396	8284K12*	F	2 Circ.	Lugs	C	.84	.77	.65	.481	.516
23F222	8282K14	F	3 Way	Lugs	C	.79	.73	.61	.549	.488

6 AMP 125 V, 3 AMP 250 V AC-DC

Stock No.	Type	Fig.	Act.	Term.	Key	1-	25-	50-	100-	500-
						24	49	99	499	up
23F338	8391K8	C	SPST	Wire	A	.85	.79	.66	.590	.524
23F221	8381K8	B	SPST	Lugs	A	.72	.67	.56	.500	.444
23F397	8396K6*	D	SPST	Screw	A	.85	.79	.66	.590	.524
23F228	8396K8	D	SPST	Screw	A	.85	.79	.66	.590	.524
23F399	8372K7	G	DPST	Screw	A	1.50	1.38	1.15	1.035	.920
23F227	8370K7	F	DPST	Lugs	A	1.22	1.13	.94	.846	.752
23F225	8370K8**	F	DPST	Lugs	A	1.22	1.13	.94	.846	.752
23F226	8373K7*	F	DPDT	Lugs	C	1.40	1.30	1.08	.972	.864
23F263	8373K8**	F	DPDT	Lugs	C	1.40	1.30	1.08	.972	.864
23F340	8375K7	G	DPDT	Screw	C	1.81	1.67	1.39	1.251	1.112

3 AMP 125 VAC, .75 AMP DC

23F367	8098K3	I	A	SPST	I	Screw53	.49	.41	.365	.324
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HEAVY DUTY SWITCHES AC-DC 16 AMP 125 V, 8 AMP 250 V

23F252	7321K3	H	SPST	Screw	A	1.27	1.17	.98	.878	.780
23F251	7320K3	H	DPST	Screw	A	1.27	1.17	.98	.878	.780
23F250	7320K2**	H	DPST	Screw	A	1.27	1.17	.98	.878	.780

15 AMP 125 V, 10 AMP 250 V AC-DC

23F270	7360K7**	H	DPST	Screw	A	2.19	2.02	1.69	1.517	1.348
23F245	7361K5	H	SPST	Screw	A	2.19	2.02	1.69	1.517	1.348
23F253	7360K8	H	DPST	Screw	A	2.19	2.02	1.69	1.517	1.348

20 AMP 250 VOLT AC-DC

23F255	17402K4	I	H	DPST	I	Screw	A	2.94	2.72	2.27	2.039	1.812
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15 AMP 125 V, 10 AMP 250 V AC-DC

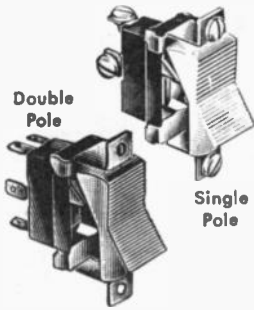
23F229	8690K2	I	H	DPDT	I	Screw	C	4.59	4.24	3.53	3.177	2.824
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Cutler-Hammer Switches



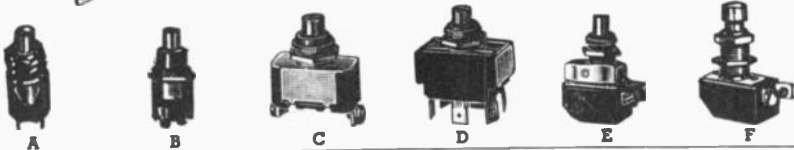
ROCKETTE APPLIANCE SWITCHES UL APPROVED

Designed to enhance the appearance of any appliance and to provide safe and correct sequence of circuit operation. The rocket actuator is made of durable, molded white nylon and provides rugged, attractive construction. Handy, flush mounting, two #6 mounting holes, 1 1/8" hole centers, recommended 1 1/8" x 1 1/4" panel hole. .250 spade terminals except (*) screw. (†) with off position. Wt. 4 oz.



Stock No.	Type	Action	Key	Current Rating		1-24	25-49	50-99	100-499	500-Up
				125 VAC	250 VAC					
23F398	8134K21A1MS2	SPST	A	6 amps	3 amps	.62	.57	.48	.427	.380
23F399	8144K21A1MS2	SPST	A	15 amps	10 amps	.70	.65	.54	.486	.432
23F365	8144K21A1MS0*	SPST	A	15 amps	10 amps	.79	.72	.61	.544	.484
23F433	8134-K20A-1MS2	SPDT†	B	6 amps	3 amps	.66	.61	.51	.457	.406
23F434	8144K-20A-1MS2	SPDT†	B	15 amps	10 amps	.79	.73	.61	.547	.484
23F435	8132K-21E-6M52	DPST	A	6 amps	3 amps	.92	.84	.70	.629	.562
23F436	8142K-21E-6M52	DPST	A	15 amps	10 amps	1.10	1.02	.83	.748	.664
23F366	8142K21E6M50*	DPST	A	15 amps	10 amps	1.25	1.16	.96	.864	.786
23F437	8132K-20E-6M52	DPDT†	B	6 amps	3 amps	.99	.92	.77	.690	.612
23F438	8142K-20E-6M52	DPDT†	B	15 amps	10 amps	1.25	1.16	.96	.864	.786

PUSHBUTTON SWITCHES



Momentary contact (SPST) except (**) DPDT action pushbutton switches. Normally open, circuit closed only when button is held in closed position. Wide use in refrigerators, telephone booths, closets, etc. (*) Normally closed. (†) Push-On-Off** Switch. ‡ Push Pull. Wt. 3 oz.

Stock No.	Type	Button Color	Fig.	Current Rating			Pole	Bushing	Term.	1-24	25-49	50-99	100-499	500-Up
				125 VDC	125 VAC	250 VAC								
23F439	8411K12	Black	A	3/4	3/4	1/4	1	1 1/2"	Lug	.48	.44	.37	.333	.296
23F260	8411K11	Black	A	3/4	3/4	1/4	1	1 1/2"	Screw	.43	.39	.33	.297	.264
23F359	8411K13	Red	A	3/4	3/4	1/4	1	1 1/2"	Lug	.43	.39	.33	.297	.264
23F440	8411K7*	Black	A	3/4	3/4	1/4	1	1 1/2"	Screw	.36	.33	.28	.248	.220
23F261	8411K8*	Black	A	3/4	3/4	1/4	1	1 1/2"	Lug	.31	.29	.24	.216	.192
23F262	8440K2	Nickel	B	....	3	1	1	1 1/2"	Lug	.87	.80	.67	.603	.536
23F441	8440K3	Nickel	B	....	3	1	1	1 1/2"	Screw	1.01	.93	.78	.698	.620
23F360	8442K4	Nickel	C	....	6	3	1	1 1/2"	Screw	.96	.89	.74	.666	.592
23F442	8443K2	Black	C	....	6	3	1	1 1/2"	Screw	.96	.89	.74	.666	.592
23F443	8444K3	Nickel	C	....	15	10	1	1 1/2"	Screw	1.03	.95	.80	.716	.636
23F361	8444K4	Nickel	C	....	15	10	1	1 1/2"	Screw	1.03	.95	.80	.716	.636
23F362	8448K2	Nickel	D	....	15	10	2	1 1/2"	Screw	1.48	1.37	1.14	1.026	.912
23F444	7190K1	Nickel	E	6	6	3	1	1 1/2"	Lug	1.16	1.07	.89	.801	.712
23F363	7196K1	Nickel	E	6	6	3	1	1 1/2"	Screw	1.28	1.18	.99	.887	.788
23F445	7199K1**	Nickel	F	6	6	3	2	1 1/2"	Screw	2.60	2.40	2.00	1.80	1.60
23F364	7208K4†	Nickel	F	....	6	3	1	1 1/2"	Screw	.99	.91	.76	.684	.608
23F370	7116K2††	Nickel	....	5	5	3	1	1 1/2"	Screw	1.40	1.30	1.08	.972	.864

POSITIVE ACTION MINIATURE SWITCHES

Positive wiping action with gold plated contacts. Rated 4 @ 28 volts DC, 1 A @ 50 volts DC, 3 A @ 115 volts AC. Min. 30 μs @ 50 mu. *Mom contact. † Small lever, 3/16 x 3/4 x 1 1/32 - 3/64. Large lever: 9/16 x 4/64 x 1 1/32 - 3/64. Shpg. wt. 2 oz.



SMALL LEVER

8866 (MS24855), 8867 (MS24656)

Stock No.	Type	MS No.	Action	Key	1-24	25-49	50-99	100-Up
23F327	8866K1	24655 #	SPDT	B	5.04	4.65	3.88	3.10
23F328	8866K2	24656†	SPDT*	F	5.69	5.25	4.38	3.50
23F447	8866K3	271 #	SPDT*	E	5.69	5.25	4.38	3.50
23F329	8866K4	271 #	SPDT	C	5.04	4.65	3.88	3.10
23F448	8866K5	311 #	SPST	L	5.69	5.25	4.38	3.50
23F449	8866K6	231 #	SPST*	H	5.69	5.25	4.38	3.50
23F330	8866K7	241 #	SPST	A	5.04	4.65	3.88	3.10
23F494	8866K8	281 #	SPDT*	M	5.69	5.25	4.38	3.50
23F331	8867K1	221 #	DPDT	B	6.31	5.82	4.85	3.88
23F332	8867K2	211†	DPDT	F	7.35	6.78	5.65	4.52
23F495	8867K3	271†	DPDT	E	7.35	6.78	5.65	4.52
23F333	8867K4	311†	DPDT	C	6.31	5.82	4.85	3.88
23F499	8867K5	231†	DPST	L	7.35	6.78	5.65	4.52
23F497	8867K6	241†	DPST*	H	7.35	6.78	5.65	4.52
23F334	8867K7	281†	DPST	A	6.31	5.82	4.85	3.88
23F498	8867K8	221†	DPST	M	7.35	6.78	5.65	4.52

LARGE LEVER

Stock No.	Type	Action	Key	1-24	25-49	50-99	100-Up
23F781	8868K1	SPDT	B	5.14	4.74	3.95	3.16
23F782	8868K2	SPDT*	F	5.79	5.34	4.45	3.56
23F783	8868K3	SPDT*	G	5.79	5.34	4.45	3.56
23F784	8868K4	SPDT	C	5.14	4.74	3.95	3.16
23F785	8868K5	SPST	L	5.79	5.34	4.45	3.56
23F786	8868K6	SPST*	H	5.79	5.34	4.45	3.56
23F774	8868K7	SPST	A	5.14	4.74	3.95	3.16
23F787	8868K8	SPDT*	M	5.79	5.34	4.45	3.56
23F788	8869K1	DPDT	B	6.40	5.91	4.93	3.94
23F789	8869K2	DPDT*	F	7.44	6.87	5.73	4.58
23F790	8869K3	DPDT*	E	7.44	6.87	5.73	4.58
23F791	8869K4	DPDT	C	6.40	5.91	4.93	3.94
23F792	8869K5	DPST	L	7.44	6.87	5.73	4.58
23F793	8869K6	DPST*	A	7.44	6.87	5.73	4.58
23F794	8869K7	DPST	H	6.40	5.91	4.93	3.94
23F795	8869K8	DPDT*	M	7.44	6.87	5.73	4.58

NEW COMMERCIAL MINIATURE TOGGLE SWITCHES

Single or double throw types. Momentary or maintained action. Rated 5 amps, 125 VAC and 28 VDC. Bushing length: 5/16". Lever extension 3/4". Term. silver solder lugs located at rear. Gold plated terminals and contacts. Has extra large .07" dia. terminal holes to accept three #22 wires.



Stock No.	Type	Action	Key	1-24	25-49	50-99	100-499	500-Up
23F766	7055K20	SPST	A	3.46	3.19	2.66	2.394	2.128
23F767	7050K20	SPDT	B	3.67	3.39	2.83	2.543	2.260
23F768	7051K20	SPDT	F	3.93	3.62	3.02	2.718	2.416
23F769	7052K20	SPDT	E	3.93	3.62	3.02	2.718	2.416
23F770	7053K20	SPDT	C	3.67	3.39	2.83	2.543	2.280
23F771	7054K20	SPDT	M	3.93	3.62	3.02	2.718	2.416
23F772	7065K20	DPST	A	4.28	3.95	3.29	2.961	2.632
23F773	7060K20	DPDT	B	4.70	4.34	3.62	3.254	2.892
23F774	7061K20	DPDT	F	6.08	5.61	4.68	4.218	3.740
23F775	7062K20	DPDT	E	6.08	5.61	4.68	4.218	3.740
23F776	7063K20	DPDT	C	4.70	4.34	3.62	3.254	2.892
23F777	7064K20	DPDT	M	6.08	5.61	4.68	4.218	3.740

MIL-S-6807 ROTARY SWITCHES

These switches feature an adjustable index and continuous rotation by omitting the index screws. Rated: 5 amps @ 28 volts DC and 115 volts AC. All switches are non-shorting and have 8 positions. All have screw terminals, 1 1/2" shaft, 1 1/2" bushing, hex nuts, locking ring, and washer. Average Shpg. Wt., 4 oz.



Stock No.	Type	MS No.	Sec.	Action	1-24	25-49	50-99	100-Up
23F544	7261K13	25002-1	1	SP	5.69	5.25	4.38	3.50
23F545	7262K12	25002-2	2	DP	9.10	8.40	7.00	5.60
23F546	7263K11	25002-3	3	3P	12.03	11.10	9.25	7.40
23F547	7264K9	25002-4	4	4P	14.95	13.80	11.50	9.20
23F548	7265K9	25002-5	5	5P	17.88	16.50	13.95	11.00
23F549	7266K5	25002-6	6	6P	20.80	19.20	16.00	12.80



Cutler-Hammer Military Switches

AIRCRAFT SWITCHES



ST-42



ST-40



ST-52



ST-50

Precision engineered and thoroughly tested to meet rigid aircraft requirements. Extra ruggedness and dependability for long life under adverse conditions. Most types listed below are lever sealed to prevent entry of dust or moisture. All mount in a single hole. Shipping weight, each, 2 oz.

NOTE: **Screw lug †Solder lug ‡Flush mtd. ††Unsealed lever.

JAN MILITARY TYPES

Stock No.	Type	JAN. No.	Switch Action	Key	1-24	25-49	50-99	100-up
23F283	8801-K13	ST40A	SPST**	A	1.41	1.30	1.09	.868
23F284	8811-K12	ST40C	SPST-NO**	R	1.63	1.50	1.25	1.00
23F285	8810-K12	ST40D	SPDT**	C	1.70	1.57	1.31	1.044
23F286	8800-K13	ST40E	SPDT**	B	1.70	1.57	1.31	1.044
23F287	8804-K12	ST40F	SPDT**	G	1.84	1.70	1.42	1.132
23F291	8812-K13	ST40G	SPDT**	F	1.84	1.70	1.42	1.132
23F288	8809-K13	ST40H	SPDT**	E	1.84	1.70	1.42	1.132
23F290	8803-K10	ST42A	SPST†	A	1.33	1.23	1.03	.820
23F277	†8803-K6	ST42A	SPST†	A	1.27	1.17	.98	.78
23F207	8819-K9	ST42B	SPST-NC†	J	1.48	1.36	1.14	.908
23F205	8817-K9	ST42C	SPST-NO†	K	1.48	1.36	1.14	.908
23F323	†8816-K5	ST42D	SPDT†	C	1.24	1.14	.95	.760
23F201	8816-K9	ST42D	SPDT†	C	1.53	1.46	1.22	.972
23F324	†8802-K6	ST42E	SPDT†	B	1.30	1.20	1.00	.80
23F202	8802-K10	ST42E	SPDT†	B	1.53	1.46	1.22	.972
23F203	8805-K9	ST42F	SPDT†	G	1.72	1.59	1.33	1.080
23F204	8818-K9	ST42G	SPDT†	F	1.72	1.59	1.33	1.080
23F208	8815-K10	ST42H	SPDT†	E	1.72	1.59	1.33	1.080
23F218	88201-K6	ST45A	SPST**	A	1.64	1.52	1.27	1.012
23F292	8822-K8	ST50K	SPST**	A	1.89	1.74	1.45	1.160
23F293	†8828-K5	ST50L	DPST-NC**	J	2.33	2.15	1.80	1.436
23F294	†8826-K5	ST50M	DPST-NO**	K	2.33	2.15	1.80	1.436
23F295	8824-K8	ST50N	DPDT**	C	2.27	2.09	1.75	1.396
23F296	8820-K10	ST50P	DPDT**	B	2.27	2.09	1.75	1.396
23F297	8830-K5	ST50R	DPDT**	G	2.54	2.34	1.95	1.56
23F298	8834-K4	ST50S	DPDT**	F	2.54	2.34	1.95	1.56
23F299	8832-K4	ST50T	DPDT**	E	2.54	2.34	1.95	1.56
23F326	8823-K5	ST52K	DPST†	D	1.32	1.22	1.02	.812
23F210	8823-K6	ST52K	DPST†	D	1.73	1.60	1.33	1.064
23F214	†8829-K5	ST52L	DPST-NO†	J	1.76	1.62	1.35	1.08
23F215	†8827-K5	ST52M	DPST-NO†	H	1.76	1.62	1.35	1.08
23F273	†8825-K5	ST52N	DPDT†	C	1.48	1.36	1.14	.908
23F211	8825-K6	ST52N	DPDT†	C	2.03	1.87	1.56	1.248
23F325	†8821-K5	ST52P	DPDT†	B	1.48	1.36	1.14	.908
23F212	8821-K6	ST52P	DPDT†	B	2.03	1.87	1.56	1.248
23F216	†8831-K5	ST52R	DPDT†	M	1.89	1.74	1.45	1.16
23F217	†8835-K3	ST52S	DPDT†	F	1.89	1.74	1.45	1.16
23F213	†8833-K3	ST52T	DPDT†	E	1.89	1.74	1.45	1.16
23F272	88700-K14	ST52P	DPDT**	A	4.62	4.26	3.55	2.84
23F278	8803-K8	SPST	SPST†	B	1.48	1.37	1.14	.912

MS MILITARY TYPES

Stock No.	Type	MIL-S 3950A MS No. Per	Switch Action	Key	1-24	25-49	50-99	100-up
23F300	8801-K22	35058-22	SPST**	A	1.41	1.30	1.09	.868
23F301	8801-K23	35058-24	SPST**	D	1.41	1.30	1.09	.868
23F302	8813-K16	35058-25	SPST-NC**	F	1.55	1.43	1.20	.956
23F303	8813-K17	35058-29	SPST-NO**	I	1.55	1.43	1.20	.956
23F304	8811-K18	35058-28	SPST-NO**	H	1.55	1.43	1.20	.956
23F305	8811-K17	35058-30	SPST-NO**	K	1.55	1.43	1.20	.956
23F306	8810-K15	35058-23	SPDT**	C	1.70	1.57	1.31	1.044
23F307	8800-K16	35058-21	SPDT**	B	1.70	1.57	1.31	1.044
23F308	8804-K13	35058-26	SPDT**	G	1.84	1.70	1.42	1.132
23F309	8812-K14	35058-27	SPDT**	F	1.84	1.70	1.42	1.132
23F310	8809-K16	35058-31	SPDT**	E	1.84	1.70	1.42	1.132
23F311	8822-K20	35059-22	DPST**	A	1.89	1.74	1.46	1.160
23F312	8822-K21	35059-24	DPST**	L	1.89	1.74	1.46	1.160
23F313	8828-K12	35059-25	DPST-NC**	I	2.27	2.09	1.75	1.396
23F314	8826-K14	35059-28	DPST-NO**	H	2.41	2.22	1.85	1.480
23F315	8824-K14	35059-23	DPDT**	C	2.27	2.09	1.75	1.396
23F316	8820-K16	35059-21	DPDT**	B	2.27	2.09	1.75	1.396
23F317	8834-K5	35059-27	DPDT**	F	2.36	2.27	1.89	1.512
23F318	8832-K6	35059-31	DPDT**	E	2.36	2.27	1.89	1.512

Newark can supply all Cutler-Hammer Switches and Accessories. Write, Wire or Phone Newark's Industrial Division for items not listed in this Catalog.

POSITIVE ACTION ENVIRONMENT SEALED SWITCHES

Momentary contact switches, normally opened or normally closed. Single, double, or four pole; single or double throw with or without center "off" position. Metal parts visible when switch is mounted are dull nickel plated. "On-Off" circuit designation stamped on side of switch. All are furnished as environment sealed. Screw terminals located at rear. One hole mounting, bushing length, 1 1/2". Rated 20A @ 28VDC, 10A @ 115 VAC. Aver. Shpg. Wt., 3 oz.



SPDT (†SPST)

Stock No.	Type	MS No.	Key	1-24	25-49	50-99	100-up
23F650	8836K1	25306-212	B	6.66	6.15	5.13	4.10
23F651	8836K2	25306-272	E	7.18	6.63	5.53	4.42
23F652	8836K3	25306-312	F	7.18	6.63	5.53	4.42
23F653	8836K4	25306-232	C	6.66	6.15	5.13	4.10
23F654	8836K5	25306-262	D	7.48	6.90	5.75	4.60
23F655	8836K6	25306-242	G	6.50	6.00	5.00	4.00
23F656	8836K7	25306-282	H†	7.48	6.90	5.75	4.60
23F658	8836K9	25306-222	A†	6.24	5.76	4.80	3.84
23F660	8836K11	25306-302	K†	7.02	6.48	5.40	4.32

DPDT (†DPST)

Stock No.	Type	MS No.	Key	1-24	25-49	50-99	100-up
23F661	8837K1	25307-212	B	10.43	9.63	8.03	6.42
23F662	8837K2	25307-272	E	11.31	10.44	8.70	6.96
23F663	8837K3	25307-312	F	11.31	10.44	8.70	6.96
23F664	8837K4	25307-232	C	10.43	9.63	8.03	6.42
23F665	8837K5	25307-262	G	11.31	10.44	8.70	6.96
23F666	8837K6	25307-242	D†	9.82	9.06	7.55	6.04
23F667	8837K7	25307-282	H†	10.43	9.63	8.03	6.42
23F669	8837K9	25307-222	A†	9.58	8.82	7.35	5.88
23F670	8837K10	25307-292	J†	10.43	9.63	8.03	6.42
23F671	8837K11	25307-302	K†	10.43	9.63	8.03	6.42

4PDT (†4PST)

Stock No.	Type	MS No.	Key	1-24	25-49	50-99	100-up
23F672	8838K1	25308-212	B	24.05	22.20	18.50	14.80
23F673	8838K2	25308-272	E	25.87	23.88	19.90	15.92
23F674	8838K3	25308-312	F	25.87	23.88	19.90	15.92
23F675	8838K4	25308-232	C	24.05	22.20	18.50	14.80
23F676	8838K5	25308-262	G	25.87	23.88	19.90	15.92
23F677	8838K6	25308-242	D†	22.95	21.18	17.65	14.12
23F678	8838K7	25308-282	H†	24.05	22.20	18.50	14.80
23F680	8838K8	25308-222	A†	22.95	21.18	17.65	14.12
23F681	8838K10	25308-292	J†	24.05	22.20	18.50	14.80
23F682	8838K11	25308-302	K†	24.05	22.20	18.50	14.80

FOUR POLE AIRCRAFT SWITCHES

Meets MIL-S-3950A. Meets specifications for humidity and moisture proof, has high environment seal for use at high altitudes. Shpg. Wt. 2 oz.

*MS25068-24. †MS25068-24.

Stock No.	Type	Action	Term.	Key	1-24	25-49	50-99	100-up
23F319	7664-K5*	4PDT	Screw	C	5.16	4.76	3.97	3.166
23F320	7660-K13†	4PST	Screw	L	4.13	3.82	3.18	2.544
23F289	7661-K6	4PST	Lugs	A	3.82	3.52	2.94	2.348
23F284	7663-K5	4PDT	Lugs	B	4.69	4.33	3.61	2.888
23F321	7665-K4	4PDT	Lugs	C	4.69	4.33	3.61	2.888
23F322	7675-K4	4PDT	Lugs	G	5.73	5.29	4.41	3.528

PUSHBUTTON SWITCH



Aircraft Type. SPST action. Normally open, circuit closed only when button is held in closed position. Button chrome plated. Bushing 1 1/2" - 32 thds., Screw terminal. Size 5/8" x 1 1/2".

* 8A Rating—resistive load † 5A Rating—resistive load

Stock No.	Type	30V	125V	250V	1-24	25-49	50-99	100-up
23F281	8450-K†	4A*	1.5A†	1.82	1.68	1.40	1.12	

ROTARY SWITCHES



7011K1

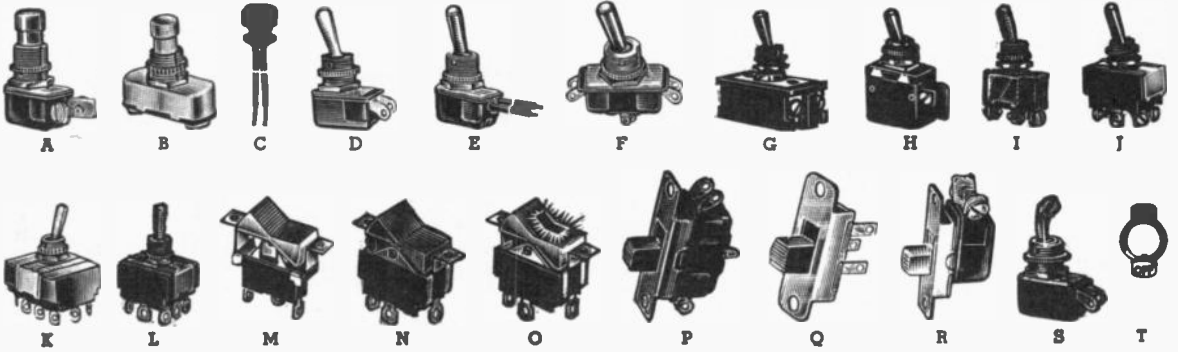


8122K4

Ideal for use with fans, air conditioners, and other similar electrical uses. Types 7011K1 and 7012K4 are AC-DC and have screw terminals with a 3/8" stem. Types 8122K4 and 8123K4 are AC only and have solder lug terminals with a 3/8" stem. UL approved. Av. Shpg. wt. 6 oz.

Stock No.	Type	Action	125V	250V	1-24	25-49	50-99	100-up	500-up
23F796	7011K1	2 on, 1 off	5	2	1.34	1.24	1.03	.927	.824
23F797	7012K4	3 on, 1 off	5	2	1.38	1.27	1.06	.954	.848
23F798	8122K4	2 on, 1 off	3	---	.53	.49	.41	.369	.328
23F799	8123K4	3 on, 1 off	3	---	.58	.53	.45	.401	.356

Carling Switches



PUSHBUTTON SWITCHES

Type 110-SP is "push-push" which maintains open or closed contacts. Stem $\frac{1}{16}$ " dia., $\frac{3}{16}$ " long. 172, normally open; 170, normally closed. 172 and 170 have screw terminals, momentary contacts.

Stk. No.	Type	Fig.	Action	1-24	25-49	50-99	100-499	500-up
23F087	110-SP	A	SPST	1.14	1.05	.88	.787	.70
23F089	172	B	SPST	.81	.74	.62	.558	.496
23F084	170	B	SPST	.81	.74	.62	.558	.496

SMALL ROTARY SWITCH

Excellent for lamps and small motors. Black knob $\frac{5}{16}$ " Dia. Mounts in $\frac{3}{8}$ " hole. Has 6" long leads.

23F717	R-135	C		.28	.24	.20	.18	.16
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AC-DC TOGGLE SWITCHES

Bat type (*) has $\frac{1}{16}$ " toggle and $\frac{1}{32}$ " stem length. Bail type (**) has $\frac{3}{8}$ " toggle and $\frac{7}{8}$ " stem length (***) $\frac{1}{32}$ " stem length. All with lug terminals except 111-16-73, wire leads.

Stk. No.	Type	Fig.	Action	1-24	25-49	50-99	100-499	500-up
23F070	110-73*	D	SPST	.62	.57	.48	.428	.380
23F718	110-25**	D	SPST	.75	.69	.58	.518	.460
23F764	110-23***	D	SPST	.62	.57	.48	.428	.380
23F071	112-73*	F	SPST	.77	.71	.60	.536	.476
23F719	112-25**	F	SPDT	.90	.83	.70	.626	.556
23F072	216-73*	F	DPST	1.05	.97	.81	.729	.648
23F720	216-25**	F	DPST	1.18	1.09	.91	.819	.728
23F073	316-73*	F	DPDT	1.16	1.07	.89	.801	.712
23F068	2BL63-73*	F	DPDT	1.26	1.16	.97	.873	.776
23F721	2BB62-73*	F	SPDT	.91	.84	.70	.630	.560
23F099	2BK62-63*	F	DPST	1.16	1.07	.89	.801	.712
23F067	2BL62-63*	F	DPDT	1.26	1.16	.97	.873	.776
23F074	111-16-73*	E	SPST	.70	.65	.54	.486	.432

HEAVY DUTY TOGGLE SWITCHES

Bat handle type, $\frac{1}{16}$ " with $\frac{1}{32}$ " stem. Screw terminals. Rated 20A/125V except *15A/125V.

Stk. No.	Type	Fig.	Action	1-24	25-49	50-99	100-499	500-up
23F722	DA284-73*	G	SPST	1.20	1.10	.92	.828	.736
23F077	DK284-73*	G	DPST	1.20	1.10	.92	.828	.736
23F723	EA204-73*	G	SPST	2.03	1.88	1.57	1.409	1.252
23F078	EK204-73*	G	DPST	2.03	1.88	1.57	1.409	1.252
23F085	600-C	H	SPST	1.02	.94	.79	.707	.628

HEAVY DUTY A-C TOGGLE SWITCHES

Solder lugs, except (*) 6-32 binding head screw terminals. (**) Center off. All rated 15A/125VAC.

Stk. No.	Type	Fig.	Action	1-24	25-49	50-99	100-499	500-up
23F079	2FA53-73	I	SPST	.62	.57	.48	.428	.380
23F080	2FA54-73*	I	SPST	.72	.66	.55	.495	.440
23F084	2FB53-73	I	SPDT	.72	.66	.55	.495	.440
23F081	2FB54-73*	I	SPDT	.85	.79	.66	.590	.524
23F082	2FC53-73	I	SPDT**	.74	.66	.55	.495	.440
23F083	2FC54-73*	I	SPDT**	.85	.79	.66	.590	.524
23F086	2GK50-73	I	DPST	.97	.89	.75	.671	.596
23F087	2GK54-73*	I	DPST	1.14	1.06	.88	.792	.704
23F088	2GL50-73	I	DPST	1.14	1.06	.88	.792	.704
23F089	2GL54-73*	I	DPDT	1.41	1.30	1.09	.977	.868
23F090	2GM50-73	I	DPDT**	1.14	1.06	.88	.792	.704
23F091	2GM54-73*	I	DPDT**	1.41	1.30	1.09	.977	.868

MOMENTARY SWITCHES

Screw terminals (15 amps, 125 VAC; 10 amps, 250 VAC) except † solder terminals (6 amps, 125 VAC; 3 amps 250 VAC). (*) one side momentarily on; other side normally closed, no center position. (**) both sides mom-on, center off. (***) one side mom. one side maintained, center off. $\frac{1}{16}$ " toggle and $\frac{1}{32}$ " stem.

Stk. No.	Type	Fig.	Action	1-24	25-49	50-99	100-499	500-up
23F724	6FA54-73	I	SPST n.o.	.90	.83	.69	.621	.552
23F725	6FA58-73	I	SPST n.c.	.90	.83	.69	.621	.552
23F726	6FB54-73	I	SPDT*	1.06	.98	.82	.734	.652
23F085	6FC54-73*	I	SPDT**	1.06	.98	.82	.734	.652
23F076	6FC53-73†	I	SPDT**	.93	.86	.72	.644	.572
23F727	6GK54-73*	I	DPST n.o.	1.31	1.21	1.01	.909	.808
23F754	6GK5L-73*	I	DPST n.c.	1.31	1.21	1.01	.909	.808
23F075	6GL54-73*	I	DPDT*	1.49	1.37	1.15	1.030	.916
23F728	6GMS5-73	I	DPDT**	1.76	1.62	1.35	1.215	1.080
23F092	6GM5E-73	I	DPDT**	1.76	1.62	1.35	1.215	1.080

STANDARD DUTY A-C SWITCHES

All rated at 6 Amp 125V; 3 Amp 250V. $\frac{1}{16}$ " Bat toggle. $\frac{1}{32}$ "-32 thread. $\frac{1}{32}$ "-32 stem length. (*) Center off. Solder lugs.

Stk. No.	Type	Fig.	Action	1-24	25-49	50-99	100-499	500-up
23F350	2FA63-73	I	SPST	.54	.50	.42	.374	.332
23F351	2FB63-73	I	SPDT	.59	.54	.45	.405	.360
23F352	2FC63-73	I	SPDT*	.59	.54	.45	.405	.360
23F353	2GK60-73	I	DPST	.79	.73	.61	.545	.484
23F354	2GL60-73	I	DPDT	.88	.81	.68	.608	.540
23F355	2GM60-73	I	DPDT*	.88	.81	.68	.608	.540

HEAVY DUTY 4-POLE SWITCHES

Rated 15A., 125V; 10A., 250V; $\frac{3}{4}$ " H.P. 120/240V. AC. Small size $1\frac{1}{2}$ "L. x $1\frac{1}{16}$ " x $1\frac{1}{16}$ "D. For multi circuit and two phase work. Will handle 15 Amp at 30V. DC. (*) indicates center off.

Stk. No.	Type	Fig.	Action	1-24	25-49	50-99	100-499	500-up
23F069	IL250-73	K	4PDT	3.65	3.32	2.81	2.53	2.25
23F729	IK254-73	K	4PDT	3.33	3.08	2.57	2.31	2.05
23F730	IL254-73	K	4PDT	4.11	3.79	3.16	2.84	2.53
23F731	IM254-73	K	4PDT*	4.11	3.79	3.16	2.84	2.53

COMPACT 3-POLE SWITCHES

Heavy duty rated 15A., 125V; 10A., 250V; $\frac{3}{4}$ " H.P. 120/240V. AC. $1\frac{1}{2}$ "L. x $1\frac{1}{16}$ "W. x $1\frac{1}{16}$ "D. Including solder lugs. (*) center off.

Stk. No.	Type	Fig.	Action	1-24	25-49	50-99	100-499	500-up
28F732	HK250-73	L	3PST	1.96	1.81	1.51	1.359	1.208
23F733	HL250-73	L	3PDT	2.42	2.24	1.87	1.679	1.492
23F734	HM250-73	L	3PDT*	2.42	2.24	1.87	1.679	1.492

TIPPETTES

Rated 15A., 125V; 10A., 250 VAC. Requires opening $\frac{1}{32}$ " x $\frac{1}{16}$ " with 2- $\frac{9}{32}$ " screws on $\frac{1}{16}$ " centers. Solder lugs. (*) center off.

Stk. No.	Type	Fig.	Color	Action	1-24	25-49	50-99	100-499	500-up
23F735	TILA50-BL	M	Black	SPST	.70	.65	.54	.486	.432
23F736	TILA50-RD	M	Red	SPST	.70	.65	.54	.486	.432
23F737	TILB50-BL	M	Black	SPDT	.79	.73	.61	.545	.484
23F738	TILB50-RD	M	Red	SPDT	.79	.73	.61	.545	.484
23F739	TILC50-BL	M	Black	SPDT*	.79	.73	.61	.545	.484
23F740	TILC50-RD	M	Red	SPDT*	.79	.73	.61	.545	.484
23F741	TIGK50-BL	N	Black	DPST	1.08	1.00	.83	.747	.664
23F742	TIGK50-RD	N	Red	DPST	1.08	1.00	.83	.747	.664
23F743	TIGL50-BL	N	Black	DPDT	1.25	1.15	.96	.864	.768
23F744	TIGL50-RD	N	Red	DPDT	1.25	1.15	.96	.864	.768
23F745	TIGM50-BL	N	Black	DPDT*	1.25	1.15	.96	.864	.768
23F746	TIGM50-RD	N	Red	DPDT*	1.25	1.15	.96	.864	.768

FIG. O TIPPALITE

Combination switch and neon pilot lite. Rated 15A/125V, 10A/250 VAC. Requires $\frac{1}{32}$ " x $\frac{1}{16}$ " opening with 2- $\frac{9}{32}$ " mtg. screws on $\frac{1}{16}$ " ctrs. Solder lugs.

Stk. No.	Type	Color	Action	1-24	25-49	50-99	100-499	500-up
23F747	LTILA50-BL-RC	Black	SPST	1.51	1.39	1.16	1.044	.928
23F748	LTILA50-WH-RC	White	SPST	1.51	1.39	1.16	1.044	.928

SLIDE SWITCHES

Stk. No.	Type	Fig.	Action	Terms.	1-24	25-49	50-99	100-499	500-up
23F749	S-316-BL	P	DPDT	Lugs	1.16	1.07	.84	.801	.712
23F750	S-60A-BL	Q	SPST	Lugs	.18	.16	.14	.122	.108
23F751	S-60B-BL	Q	SPDT	Lugs	.18	.16	.14	.122	.108
23F752	S-110-S-BL	R	SPST	Screw	.70	.65	.54	.486	.432

MOMENTARY SPST AC-DC TOGGLE SWITCH

Trigger bat handle. Silver-plated lugs. Normally open. AC-DC rating: 6 Amps @ 125 Volts; 3 Amps @ 250 Volts. Stem: $\frac{1}{32}$ " L.

Stk. No.	Type	Fig.	1-24	25-49	50-99	100-499	500-up
23F096	110-M-NO-93	S	1.08	.99	.82	.734	.652

ON-OFF PLATE

23F753	Y-01	T	.04	.03	.025	.023	.02
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Arrow-Hart & Hegeman Switches

POWER TYPE TOGGLE SWITCH



Type 80600-B is also rated 1 HP at 250 volts. Bakelite case. Screw terminals. Slotted sleeves $1\frac{1}{2}$ " dia. $1\frac{1}{2}$ " long, except 80600 is $\frac{3}{4}$ " long; 80602 is $1\frac{1}{2}$ " long. *Is rated for $1\frac{1}{2}$ H.P. 125-250 v. AC— $1\frac{1}{2}$ HP, 250 v. DC. **Indicates Bat Handle. With mounting nuts, Shpg. wt., 2 oz.

Stock No.	Mfg. No.	Poles	Rated 125 v.	Rated 250 v.	1-24	25-49	50-99	100-499	500 Up
23F035	80600	DPST	16A	8A	1.26	1.16	.97	.873	.776
23F039	80600-B	DPST	16A	8A	1.26	1.16	.97	.873	.776
23F048**	80600-BJ	DPST	16	8	1.26	1.16	.97	.873	.776
23F041*	80602	DPST	20	10A	2.19	2.02	1.69	1.52	1.348
23F047**	80602-CA	DPST	20	10A	2.19	2.02	1.69	1.52	1.348
23F038	80607-B	SPST	12	6	1.26	1.16	.97	.873	.776
23F040	80618-A	SPDT	12	6	1.26	1.16	.97	.873	.776
23F020	80421	DPST	20	10	2.94	2.72	2.27	2.04	1.81

2 CIRCUIT MOMENTARY PUSH BUTTON



Leaves 1 circuit "on", other "off". Rated 1 amp at 125 volts AC. Sleeve $1\frac{1}{2}$ " dia., $\frac{9}{16}$ " long. *Have $\frac{1}{16}$ " long sleeve and bakelite caps. Shpg. wt., 2 oz.

Stock No.	Mfg. No.	Cap	1-24	25-49	50-99	100-499	500 Up
23F029	3392	Plain	.87	.80	.67	.603	.536
23F030	3392-AR*	Red	1.08	1.00	.83	.747	.664
23F031	3392A*	Black	1.08	1.00	.83	.747	.664
23F044	3392AE	Black	1.08	1.00	.83	.747	.664

PUSH BUTTON SWITCH

Type 80630. For standard duty applications. DPST norm. open. Mom. contacts, 8 amps, 250 volts; 16 amps, 125 volts, $1\frac{1}{4} \times 1\frac{1}{16}$ ". Sleeve length $\frac{1}{16}$ "; $1\frac{1}{2}$ " dia. Screw terminals. Wt., 2 oz.

Stock No.	Mfg. No.	Cap	1-24	25-49	50-99	100-499	500 Up	
23F036	1-24, Ea.	1.77	25-49, Ea.	1.65	50-99, Ea.	1.36	100-499, Ea.	1.224
							500-up, Ea.	1.088

MOMENTARY ACTION TOGGLE SWITCHES

2 position, back connected. Slotted sleeve $1\frac{1}{2}$ " dia. x $1\frac{1}{2}$ " long. SPDT switches rated 1 amp, 250V and 6 amps, 125V AC-DC. Others rated 3 amps, 250V and 6 amps, 125V AC-DC. Solder lugs. 2 oz.

Stock No.	Mfg. No.	Poles	1-24	25-49	50-99	100-499	500 Up
23F002	81045-FB	SPST-NO	1.20	1.10	.92	.828	.736
23F003	81054-H	DPST-NO	1.72	1.58	1.32	1.188	1.056
23F004	81051-G	SPDT	1.30	1.20	1.00	.90	.80
23F005	81057-N	DPDT	1.88	1.73	1.45	1.30	1.156

POSITIVE CENTER-OFF SWITCH

Type 80638D. DPDT. Rated 5 amps, 250V AC-DC, 10 amps, 125V AC or $\frac{3}{4}$ HP 250 volts. $\frac{3}{8}$ " long sleeve. $\frac{3}{4}$ " dia. Size: $2 \times 1\frac{1}{4}$ ". UL Approved. Shipping weight, 4 oz.

Stock No.	Mfg. No.	Pole	1-24	25-49	50-99	100-499	500 Up
23F060	80638D	DPDT	4.42	4.08	3.40	3.06	2.72

INDICATING DIAL

Type 20590-1. For switches $1\frac{1}{2}$ " shank.
23F045. 1-24, Ea. .4c 25-49 Ea. .3c 50-99, Ea. 2.5c
100-499, Ea. 2.25c 500-up, Ea. 2c

TOGGLE SWITCHES—SLOW MAKE-BREAK UTILITY SIZE

Switches have molded phenolic base-bat lever and nickel finish. SPST switches rated at 10A 250V AC; 15A 125V AC. $\frac{3}{4}$ H.P. 120-240 VAC. Screw terminals Sleeve $1\frac{1}{2}$ " Long, $1\frac{1}{2}$ " Dia. Wt., 2 oz. *2 position (on-off). **3 position (on-off-on).

Stock No.	Mfg.	Poles	1-24	25-49	50-99	100-499	500 Up
23F106*	82600	SPST	.72	.66	.55	.495	.440
23F107**	82602	SPDT	.85	.79	.66	.590	.524
23F108**	82608	DPDT	1.41	1.30	1.09	.977	.868

SUB-MINIATURE SWITCHES

Miniature switches, 20 thousand break cycle (min.) 5-28 cps double amplitude. Shock up to 50 g's. Wt. 3-5 gm max. All toggle, 5 amp, 115 VAC except *push-button, 1 amp, 115 VAC. Sleeve $1\frac{1}{4} \times \frac{1}{4}$ " L.

Stock No.	Mfg.	Position	Contacts	1-24	25-99	100-499	500-999
59F520	PM-7	mom-N.O.*	3PST	3.21	2.65	2.48	2.32
59F521	TC-3	on-off-on	SPDT	3.00	2.40	2.25	2.10
59F522	TE-3	mom-off-on	SPDT	3.20	2.65	2.50	2.24
59F523	TG-3	mom-off-mom	SPDT	3.20	2.65	2.40	2.24
59F524	TS-3	on-on	SPDT	3.00	2.40	2.25	2.10
59F525	TS-6	on-on	DPDT	3.90	3.12	2.93	2.73
59F128	PM-3	mom*	SPDT	2.86	2.29	2.15	2.00
59F129	PM-6	mom*	DPDT	3.51	2.81	2.63	2.46

BAT HANDLE TOGGLE SWITCH



Bakelite insulation on all units. SPST type rated at 3 amps, 250 volts. All others 3 amps, 125 volts or 1 amp, 250 v. *Spring return. Underwriters' Laboratories Approved. Sleeve $1\frac{1}{2}$ " long. *Sleeve $1\frac{1}{2}$ " long. With mounting nuts, Shpg. wt., 2 oz.

Stk. No.	Mfg. No.	Poles	1-24	25-49	50-99	100-499	500 Up
23F125	20994-NV†	SPST	.62	.58	.48	.432	.384
23F013	20994-LH	SPST	.62	.58	.48	.432	.384
23F011	21350-EH	SPDT	.79	.73	.61	.549	.488
23F012	20902-CX	DPST	1.14	1.05	.88	.788	.700
23F126	20905-AN†	DPDT	1.31	1.21	F.01	.905	.804
23F015	20905-FR	DPDT	1.31	1.21	1.01	.905	.804
23F058	21858-X*	DPDT	2.20	2.03	1.70	1.526	1.356
23F059	21827-Q*	SPDT	1.20	1.11	.93	.833	.740
23F056	20902-DN	DPST†	1.14	1.05	.88	.788	.700
23F057	20994-EW	SPST†	1.22	1.13	.94	.846	.752

BAT HANDLE TOGGLE SWITCHES—INTERMEDIATE SIZE

Molded phenolic base. Slotted sleeve, $1\frac{1}{2}$ " long. Has solder lugs. Rated 3 amps, 250V or 6 amps, 125V, except SPDT, rated 1 amp, 250V or 6 amps, 125V AC-DC. Shpg. wt., 2 oz.

Stk. No.	Mfg. No.	Poles	1-24	25-49	50-99	100-499	500 Up
23F006	81015-AW	SPST	.83	.76	.64	.572	.508
23F007	81021-AV	SPDT	.99	.91	.76	.684	.608
23F008	81024-GB	DPST	1.22	1.13	.94	.846	.752
23F009	81027-CE	DPDT	1.40	1.30	1.08	.972	.864

BALL HANDLE TOGGLE SWITCH



SPST type rated at 3 amps, 250 volts. All others rated at 3 amps, 125 volts or 1 amp at 250 volts. Shank $1\frac{1}{2}$ " dia. With mounting nuts, Shpg. wt., 2 oz.

Stk. No.	Mfg. No.	Poles	Shank	1-24	25-49	50-99	100-499	500 Up
23F021	20994-CS	SPST	$1\frac{1}{2}$ "	.62	.58	.48	.432	.384
23F022	21615-BD	SPST	$1\frac{1}{2}$ "	.87	.80	.67	.603	.536
23F024	21350-FB	SPDT	$1\frac{1}{2}$ "	.79	.73	.61	.549	.488
23F023	21661-B	SPDT	$1\frac{1}{2}$ "	1.04	.96	.80	.720	.640
23F025	20902-N	DPST	$1\frac{1}{2}$ "	1.14	1.05	.88	.788	.700
23F026	20902-Q	DPST	$1\frac{1}{2}$ "	1.38	1.28	1.07	.959	.852
23F028	20905-BX	DPDT	$1\frac{1}{2}$ "	1.31	1.21	1.01	.905	.804
23F027	20905-C	DPDT	$1\frac{1}{2}$ "	1.56	1.44	1.20	1.080	.960

PUSH BUTTON SWITCHES



Plunger type, 3 amps, 250 v.; 6 amps, 125 volts. U.L. approved. Threaded Sleeve $1\frac{1}{2} \times \frac{9}{16}$ " long. With mtg. nuts. *Have bakelite buttons. Shpg. wt., 2 oz.

Stk. No.	Mfg. No.	Poles	Cap	1-24	25-49	50-99	100-499	500 Up
23F032	86710†	SPST	Nickel	1.04	.96	.80	.72	.640
23F033	86710CR*‡	SPST	Red	1.23	1.14	.95	.855	.760
23F034	86710C*‡	SPST	Black	1.23	1.14	.95	.855	.760
23F042	3391-GL*	†SPST	Black	.88	.82	.68	.612	.544
23F043	3391-GL*	†SPST	Red	.88	.82	.68	.612	.544

MOMENTARY CONTACT PUSH BUTTON SWITCHES

Slotted sleeve $1\frac{1}{2}$ " dia. $\frac{9}{16}$ " long except * $\frac{1}{2}$ ". SPDT rated 1 amp, 250V or 6 amps, 125V. Others 3 amps, 250V or 6 amps, 125V except † 3 amps, 120V. A.C. Wt., 2 ozs.

Stk. No.	Mfg. No.	Poles	Button	1-24	25-49	50-99	100-499	500 Up
23F115	*80511	SPST-NC	Plain	.47	.43	.36	.324	.288
23F116	*80541	SPST-NC	Black	.88	.82	.68	.612	.544
23F117	*80541-R	SPST-NC	Red	.88	.82	.68	.612	.544
23F118	*80511-E	SPST-NO	Plain	.47	.43	.36	.324	.288
23F119	*80541-E	SPST-NO	Black	.88	.82	.68	.612	.544
23F120	*80541-ER	SPST-NO	Red	.88	.82	.68	.612	.544
23F121	*81075-Q	SPST-NO	Plain	1.40	1.30	1.08	.972	.864
23F122	*81081-G	SPDT-NC	Plain	1.57	1.45	1.21	1.085	.964
23F123	*81084-G	DPST-NO	Plain	1.88	1.73	1.45	1.30	1.156
23F124	*81087-J	DPDT-NC	Plain	2.03	1.88	1.57	1.41	1.252
23F037	80857	2 cir. lever sw.		1.23	1.14	.95	.855	.760

DOUBLE ACTION PUSH SWITCHES



Molded phenolic base; slotted sleeve $1\frac{1}{2}$ " D. 32 thrs/in. One hex nut and one knurled nut assembled. Ratings: 6A 250V, 12A 125V, 1HP 125, 250V AC-DC. Wt. 2 oz.

Stock No.	Mfg. No.	Poles	Button	1-24	25-49	50-99	100-499	500 Up
23F054	80863	DPST	Nickel	1.77	1.63	1.36	1.224	1.088

Arrow-Hart & Hegeman Switches AH

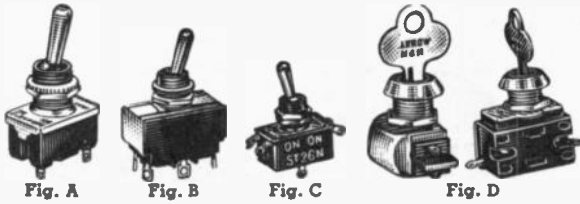


Fig. A—MIDGET WIPING ACTION SWITCHES

For aircraft, missile, electronic and other applications demanding small size, maximum performance and dependability. Commercial type, fulcrum pin assembly. Quick make and break action. Ratings: 1A @ 250 V, and 3A @ 125V, AC or DC. Solder lug terminals, double wiping blade mech. Current carrying parts silver plated. Size (including toggle): 1 1/2 L. x 4 1/4 W. x 1 3/32 H. Sleeve 1 1/2 L. long with 1 1/2-32 threads. With Pl knurled nut and 1 hex. nut. 1 oz. momentary.

Stk No.	Type	Lever Action	1-24	49	50-99	100-499	500 Up
60F2322	83050	SPST-Pos. toggle	.83	.76	.84	.572	.508
60F2323	83052	SPDT-Pos. toggle	.99	.91	.76	.684	.608
60F2324	83053	DPST-Pos. toggle	1.22	1.13	.94	.846	.752
60F2325	83054	DPDT-Pos. toggle	1.40	1.30	1.08	.972	.864
60F2326	83070	SPST-Mom. toggle	1.14	1.05	.88	.788	.700
60F2327	83072	SPDT-Mom. toggle	1.30	1.20	1.00	.900	.800
60F2328	83073	DPST-Mom. toggle	1.53	1.41	1.18	1.058	.940
60F2329	83074	DPDT-Mom. toggle	1.72	1.58	1.32	1.188	1.056
60F2330	83090-C*	SPST-Push N.O.	1.30	1.20	1.00	.900	.800
60F2331	83090-CA	SPST-Push N.C.	1.30	1.20	1.00	.900	.800
60F2332	83095-C	SPST-Push-Push	1.02	.94	.79	.707	.628
60F2333	83097-C	SPDT-Push-Push	1.17	1.08	.90	.810	.720

Fig. B—UTILITY TOGGLE SWITCHES

High capacity AC switch on small phenolic base. Fine silver button contacts. Ball joint lever construction for long life expectancy. Slotted sleeve 1 1/2 L. long with 1 1/2-32 threads. Solder lug terminals. 1 hex nut and 1 knurled nut supplied.

Stock No.	Type	Desc.	Key	Rated @125V	Rated @250V	1-24	25-49	50-99	100-499	500 Up
60F2300	82601	SPST	A	15A	10A	.62	.58	.48	.432	.384
60F2301	83001	SPST	A	6A	3A	.54	.50	.42	.374	.332
60F2302	82607	DPST	A	15A	10A	.97	.89	.75	.671	.596
60F2303	83025	DPST	A	6A	3A	.79	.73	.61	.545	.484
60F2304	82603	SPDT	B	15A	10A	.72	.66	.55	.485	.440
60F2305	83004	SPDT	B	6A	3A	.59	.54	.45	.405	.360
60F2306	82609	DPDT	B	15A	10A	1.14	1.06	.88	.792	.704
60F2307	83028	DPDT	B	6A	3A	.88	.81	.68	.608	.540
60F2308	82605	SPDT	C	15A	10A	.72	.66	.55	.485	.440
60F2309	83007	SPDT	C	6A	3A	.59	.54	.45	.405	.360
60F2310	82611	DPDT	C	15A	10A	1.14	1.06	.88	.792	.704
60F2311	83031	DPDT	C	6A	3A	.88	.81	.68	.608	.540

Fig. C—GENERAL PURPOSE MILITARY SWITCHES

MIL-S-3950A switches. Molded phenolic base, screw lugs. Toggle lever is nickel plated. Sleeve length is 1 1/2 L. with 1 1/2 thread. Supplied with 2 hex nuts, 1 lock-washer and 1 locking ring. Listing MS-3508-21 to MS-35058-31 are single pole. Listings MS-35059-21 to MS-35059-31 are double pole. Shpg. wt., 1 oz.

Stk. No.	Type	Mil. No.	Lev. Act.	1-24	25-49	50-99	100-499	500 Up
60F2346	35058-EM	MS-35058-21	B	1.83	1.69	1.41	1.269	1.128
60F2347	35058-WM	MS-35058-22	E	1.52	1.40	1.17	1.053	.936
60F2348	35058-DM	MS-35058-23	F	1.83	1.69	1.41	1.269	1.128
60F2349	35058-AM	MS-35058-24	G	1.52	1.40	1.17	1.053	.936
60F2350	35058-CM	MS-35058-25	H	1.68	1.55	1.24	1.161	1.032
60F2351	35058-FM	MS-35058-26	J	1.99	1.84	1.53	1.377	1.224
60F2352	35058-GM	MS-35058-27	K	1.99	1.84	1.53	1.377	1.224
60F2353	35058-BM	MS-35058-28	L	1.68	1.55	1.29	1.161	1.032
60F2354	35058-XM	MS-35058-29	M	1.68	1.55	1.29	1.161	1.032
60F2355	35058-YM	MS-35058-30	N	1.68	1.55	1.29	1.161	1.032
60F2356	35058-HM	MS-35058-31	P	1.99	1.84	1.53	1.377	1.224
60F2357	35059-EM	MS-35059-21	B	2.45	2.26	1.89	1.697	1.508
60F2358	35059-WM	MS-35059-22	E	2.03	1.88	1.57	1.409	1.252
60F2359	35059-DM	MS-35059-23	F	2.45	2.26	1.89	1.697	1.508
60F2360	35059-CM	MS-35059-24	G	2.03	1.88	1.57	1.409	1.252
60F2361	35059-FM	MS-35059-25	H	2.45	2.26	1.89	1.697	1.508
60F2362	35059-GM	MS-35059-26	J	2.65	2.45	2.04	1.836	1.632
60F2363	35059-XM	MS-35059-27	K	2.65	2.45	2.04	1.836	1.632
60F2364	35059-BM	MS-35059-28	L	2.45	2.26	1.89	1.697	1.508
60F2365	35059-YM	MS-35059-29	M	2.45	2.26	1.89	1.697	1.508
60F2366	35059-AM	MS-35059-30	N	2.45	2.26	1.89	1.697	1.508
60F2367	35059-HM	MS-35059-31	P	2.65	2.45	2.04	1.836	1.632

LEVER ACTION

A	On-Off	B	On-Off-On
C	On-On	D	Off
E	On-None-Off	F	On-None-On
G	On-Off-None	H	On-Off-Off-None
J	On-None-Mom.-On	K	Mom.-On-Off-Mom.-On
L	None-Off-Mom.-On	M	On-None-Mom.-Off
N	Off-None-Mom.-On	P	On-Off-Mom.-On
R	Mom.-On	S	Mom.-Off-Mom.
T	Mom.-Off-On		



Fig. D—LOCK TYPE ROTO-POWER SWITCHES

Use toggle switch mechanism converted to rotary motion for control panel, instrument, and appliance applications. Lock type switches add security and safety. Sleeve 1/2 L. with 1/2-32 thread. For SPST, 250 V AC-DC, rating is 3A. For SPDT, DPST, DPDT, rating is 1A 250 V. 3A 125V, AC-DC. Wt., 1 oz. Prices shown are less key. L designation—key removable in off position only. LE designation—key removable in both positions.

		CANOPY					
Stk. No.	Type	Lever Action	1-24	25-49	50-99	100-499	500 Up
60F2312	1561-L	SPST	1.48	1.37	1.14	1.028	.912
60F2313	1561-LE	SPST	1.48	1.37	1.14	1.028	.912
60F2314	1572-L	DPST	1.87	1.73	1.44	1.286	1.152
60F2315	1572-LE	DPST	1.87	1.73	1.44	1.286	1.152

		INTERMEDIATE SIZE					
Stk. No.	Type	Lever Action	1-24	25-49	50-99	100-499	500 Up
60F2316	81715-L	SPST	1.93	1.73	1.49	1.341	1.192
60F2317	81715-LE	SPST	1.93	1.73	1.49	1.341	1.192
60F2318	81724-L	DPST	2.46	2.27	1.89	1.701	1.512
60F2319	81724-LE	DPST	2.46	2.27	1.89	1.701	1.512

		REMOVABLE KEYS FOR ABOVE SWITCHES					
Stk. No.	Type	Lever Action	1-24	25-49	50-99	100-499	500 up
60F2320	1561-1488	Removable, Off	.18	.17	.14	.126	.112
60F2321	1561-1487	Removable, On Off	.18	.17	.14	.126	.112

Fig. E—SUBMINIATURE MILITARY SWITCHES
Meets MIL-S-3950A
SP base is 1/4 x 1/4". DP base is 1/2 x 1/2". Sleeve is 1/4" long with 1/4-40 thread. Supplied with 2 hex nuts, 1 locking ring and 1 locking washer. 4 grams.

		SPDT					
Stk. No.	MIL Spec.	Type	Lev. Act.	1-24	25-99	100-499	500 Up
60F2334	MS75028-21	TC-3-M	B	3.20	2.56	2.40	
60F2335	MS75028-22	TS-1-3	A	3.00	2.40	2.25	
60F2336	MS75028-23	TM-3-M	C	3.20	2.56	2.40	
60F2337	MS75028-26	TS-3-M	R	3.40	2.72	2.55	
60F2338	MS75028-27	TG-3-M	S	3.40	2.72	2.55	
60F2339	MS75028-31	TE-3-M	T	3.40	2.72	2.55	

		DPDT					
Stk. No.	MIL Spec.	Type	Lev. Act.	1-24	25-99	100-499	500 Up
60F2340	MS75029-21	TC-6-M	B	4.10	3.28	3.08	
60F2341	MS75029-22	TS-2-M	A	3.60	2.88	2.70	
60F2342	MS75029-23	TS-6-M	C	3.60	2.88	2.70	
60F2343	MS75029-26	TM-6-M	R	5.20	4.16	3.90	
60F2344	MS75029-27	TG-6-M	S	5.20	4.16	3.90	
60F2345	MS75029-31	TE-6-M	T	5.20	4.16	3.90	

Fig. F—HIGH ALTITUDE MILITARY SWITCHES
Meets MIL-S-3950A
Made to meet the rigid requirements of MIL-S-3950A. Sleeve length 1 1/2 L. with 1 1/2-32 thread. Supplied with 2 hex nuts, 1 lockwasher and 1 locking ring. MS 25098 are Single Pole; MS 25100 are Double Pole. Wt., approximately 1 oz.

Stk. No.	Type	Mil. Type	Lev. Act.	1-24	25-49	50-99	100-499	500 Up
60F2368	25098-AM	MS-25098-22	E	2.03	1.87	1.56	1.404	1.248
60F2369	25098-BM	MS-25098-29	M	2.49	2.30	1.92	1.724	1.532
60F2370	25098-CM	MS-25098-30	N	2.49	2.30	1.92	1.724	1.532
60F2371	25098-DM	MS-25098-23	F	2.19	2.02	1.78	1.512	1.344
60F2372	25100-AM	MS-25100-22	E	2.49	2.30	1.92	1.724	1.532
60F2373	25100-BM	MS-25100-29	M	2.96	2.74	2.28	2.052	1.824
60F2374	25100-CM	MS-25100-30	J	2.96	2.74	2.28	2.052	1.824
60F2375	25100-DM	MS-25100-23	F	2.65	2.45	2.04	1.836	1.632

LOCKWASHER
8991-1378. Bronze lockwasher for 1 1/2 dia. sleeve. **2.00**
60F2376. NET. Per 100

LOCKING RING
60F2377. 20590. For 1 1/2 dia. sleeve. NET Per 100 **3.00**

		MIDGET CONNECTORS AND RECEPTALS		
Stk. No.	Type	Description	1-99	100-999
60F2378	80324	Receptacle Cap.	.67	.60
60F2379	80325	Female Receptacle.	.67	.60
60F2380	80326	Female Flush Recept., 2 screw mt.	.80	.71
60F2381	80327	Female Flush Recept., lock nut.	1.32	1.17
60F2382	80328	Recessed Male Recept., 2 screw mt.	.89	.80
60F2383	80329	Recessed Male Recept., lock nut mt.	1.35	1.22
60F2384	80330	Third Terminal Cover for all Units.	.23	.20
60F2385	80331	Recessed Female Recept., lock nut mt.	1.35	1.22

Special Purpose Components

APM SWITCH SEALING DEVICES AND SELF-SEALING SCREWS



APM SEELSCREWS
Seelscrews are single-unit fasteners which form an absolute seal against any surface. They are grooved under the head and have a silicone rubber o-ring pressed into the groove. Maintain seal even after frequent removal from equipment. Range: -160°F to +500°F.

Stock No.	Size	Head Depth	Head Dia.	100-500-1000-			
				1-99	499	999	2499
30F018	4/40x1/4"	.069	.220	.13	.095	.065	.056
30F019	4/40x3/8"	.069	.220	.13	.095	.065	.057
30F020	4/40x1/2"	.069	.220	.13	.095	.065	.058
30F039	4/40x1"	.069	.220	.13	.095	.075	.068
30F021	6/32x3/4"	.083	.271	.13	.095	.065	.055
30F022	6/32x3/8"	.083	.271	.13	.095	.065	.056
30F023	6/32x1/2"	.083	.271	.13	.095	.065	.057
30F040	6/32x3/8"	.083	.271	.13	.095	.075	.065
30F042	6/32x1/2"	.083	.271	.13	.095	.075	.067
30F043	6/32x1"	.083	.271	.13	.095	.075	.067
30F024	8/32x3/8"	.097	.323	.13	.095	.065	.0575
30F025	8/32x1/2"	.097	.323	.13	.095	.075	.0645
30F044	8/32x3/8"	.097	.323	.13	.095	.075	.0675
30F045	8/32x1/2"	.097	.323	.13	.095	.075	.0675
30F047	8/32x1"	.097	.323	.13	.095	.075	.0675
30F027	10/32x3/8"	.113	.374	.16	.12	.095	.0665
30F028	10/32x1/2"	.113	.374	.16	.12	.095	.0705
30F029	10/32x3/4"	.113	.374	.16	.12	.095	.076
30F048	10/32x3/8"	.113	.374	.16	.12	.095	.076
30F051	10/32x1"	.113	.374	.16	.12	.095	.0805
30F030	10/24x3/8"	.113	.374	.16	.12	.095	.0885
30F055	10/24x1"	.113	.374	.16	.12	.095	.0805
30F056	1/4" 20x3/8"	.148	.493	.16	.12	.095	.08
30F033	1/4" 20x1/2"	.148	.493	.16	.12	.095	.08
30F057	1/4" 20x3/8"	.148	.493	.16	.12	.10	.085
30F053	1/4" 20x1"	.148	.493	.16	.12	.10	.093
30F058	1/4" 20x3/8"	.148	.493	.16	.12	.10	.093
30F059	1/4" 20x1 1/4"	.148	.493	.16	.12	.10	.095

SNAPSEALS



For general commercial applications. Designed to make standard push-button, toggle, and rotary switches both watertight and dust-proof. Material: Neoprene. Color: Black. Operating

Temperatures: 40°F to +225°F. Bushing dia. for type 1211/5 & 1312/7: 3/8"; type 1111/4: 1/4". Push, toggle & rotary dia.: 1/4".

Stk. No.	Type	To Switch	1-99	100-999	1000-2499	2500-4999	5000-9999
30E997	1211/5	Push-button	.40	.199	.169	.139	.119
30E998	1111/4	Toggle					
30E999	1312/7	Rotary					

BLADED POWER CONNECTORS



Type UP120M. Miniature. Rated 125 V-15 amps to 250 V-10 amps. Meets MIL-C-3767/3. High impact glass-filled melamine insert. 2 parallel blades. Type UP121M or UP221M. 3 blades gnd. type MIL-C-3767/13.

Type UP131M. 3 blades. Polarized contact blade. Spring loaded grounding blade. Meets MS24663-MIL-C 3767/12 specifications.

Stk. No.	Type	1-99	100-499	500-999
30F016	UP120M	.83	.78	.70
30F017	UP121M UP221M	.86	.81	.73
30F061	UP131M	.99	.95	.89

HIGH PRESSURE SEALS FOR STANDARD TOGGLE SWITCHES



N-1030



N-1030B



2030B

High pressure seals for all standard toggle switches. Silicone rubber chemically and mechanically bonded to nut, make these boots impervious to salt water, acids, and ozone. Flexible from -160°F to +500°F. Meets MIL-B-005423A (ASG), MIL-B-19257 (Ships) and MIL-B-5423B. Wt. approx. 1 oz. per 10.

Stock No.	Mfg. No.	Thread Size	Description	1-99 EACH	100-499 EACH
30F062	1030	15/32-32	Bush Mtg.	.74	.57
30F063	1030B	15/32-32	Bush Mtg.	.74	.57
30F000	N1030	15/32-32	Toggle Sw. Seal	.69	.52
30F001	N1030A	15/32-32	Toggle Sw. Seal	1.25	1.05
30F002	N1030B	15/32-32	Toggle Sw. Seal	.69	.52
30F004	2030B	3 hole mtg.	Toggle Sw. Seal	.49	.40

HIGH PRESSURE SEALS FOR STANDARD PUSHBUTTON SWITCHES



N-3030



NC-3030



N-5040



4080 Series

Meet the same weather and vibration MIL specs as above. High pressure sealing is maintained by a gasket rib, which seats firmly against any panel surface to keep out moisture, dust, or combustible vapors. Temp. Range: -160°F to +500°F.

Stock No.	Mfg. No.	Thread Size	Description	1-99	100-499
30F064	3030	15/32-32	Push-button seal	.74	.57
30F068	N-3030	15/32-32	Push-button seal	.59	.46
30F007	NC-3030	15/32-32	Push-button seal	.59	.46
30F008	NH-3030	1/2-32	Push-button seal	.74	.57
30F009	4080	5/8-24	Dial-light seal (trans)	1.63	1.27
30F010	4082	15/32-32	Dial-light seal (trans)	1.63	1.27
30F011	N-5030	1/4-40	Toggle switch seal (min)	.99	.86
30F012	N-5040	1/4-40	Push-button seal (min)	.99	.86
30F065	N-5040G	1/4-32	Push-button seal	.99	.86
30F066	N-5040-R	1/4-40	Push-button seal	.99	.86

HEXSEAL



Seals for locking type potentiometers and variable capacitors. Temperature range 15 p.s.i. internal and external per square inch. Temp. Range: -160°F to +500°F. Shaft size: 1/4". Thread size: 3/8-32". Ht. 1 1/2". Width 5/8".

Stock No.	Type No.	1-99	100-499
30F060	NLK-9030-1/4	1.38	1.16

HIGH PRESSURE SEALS

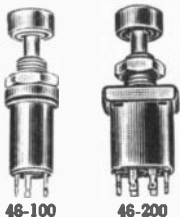


Series N-9000. High Pressure seals are designed for shafts which pass through panels or housings. Meets MIL-B-5423B. They may also be used in place of packing glands. Wt. approx. 1 oz. per 20.

Stock No.	Mfg. No.	Thread Size	Shaft Size	Depth	Hex Size	1-99	100-499
30F067	9030-1/4	3/8-32	1/4"	1 9/16"	5/8"	.65	.49
30F013	N-9030-1/4	3/8-32	1/4"	7/32"	1/2"	.55	.43
30F014	N-9040-1/8	1/4-32	1/8"	15/16"	7/16"	.59	.46
30F015	N-9060-1/4	1 1/2-32	1/4"	5/16"	3/4"	1.15	.90

GRAYHILL

NEW SERIES 46 PUSH BUTTON SWITCH



48-100

46-200

SPDT, miniature push button switch. Rated to make and break 1/4 amp, 115 VAC resistive. Contact resistance: .010 ohms maximum initial; .010 ohms typical after 250,000 operations. Insulation resistance 100,000 megohms. Wiping contacts. Button travel .187" approx.; overtravel .082" approx.

Actuating force: 16 oz. Mounting bushing: 1/4"-32NEF/2A thd., .89" approx. behind panel dimension. 1.33" approx. overall length. Contacts and terminals silver plated phosphor-bronze. Series 46-200. Similar to above except double pole switch, d.t. 1/4-32 NEF mounting bushing .92". 1 oz.

SERIES 46-100 SPDT

Stock No.	Type	Button Color	1-49	50-99
23F894	46-101B	Black	1.40	1.05
23F895	46-101R	Red	1.40	1.05
23F896	46-102B	Black	1.85	1.05
23F897	46-102R	Red	1.85	1.05

SERIES 46-200 DPDT

Stock No.	Type	Button Color	1-49	50-99
23F898	46-200B	Black	3.10	2.33
23F899	46-200R	Red	3.10	2.33

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NEW SERIES 50 ADJUSTABLE ROTARY TAP SWITCH

10 position, single deck, rated to make or break 50 ma, carry 6 amps at 115 VAC. Contact resistance. .008 ohms initial. Life expectancy 25,000 cycles. MD (military) style has shaft - to - bushing and bushing-to-panel seal, molded dially base. CD (commercial) style without seal and molded phenolic base. Mtg. bushing has 1/4" UNF thread. Behind panel dimension .617". Non-shorting contacts. Wt., 1/2 oz.



Stk. No.	Type	Poles	1-49	50-99
57F1537	50CD36-01-1-ADJN	1	7.05	5.29
57F1538	50CD36-01-2-ADJN	2	8.20	6.15
57F1539	50MD36-01-1-ADJN	1	8.35	6.26
57F1540	50MD36-01-2-ADJN	2	9.50	7.13

SERIES 42D AND 44D ADJUSTABLE STOP ROTARY TAP SWITCHES

10 position (42D) and 12 position (44D) fully enclosed adjustable stop switches, completely interchangeable with fixed stop 42A and 44A series. Rated to make or break 1 amp, carry 10 amps continuous at 115 VAC. Non-shorting contacts. Bushing thread: 3/32 NEF. Behind panel: 1-deck, 1.025"; 2-deck, 1.371"; 3-deck, 1.717". 1.162" Diam. Wt., 1 1/2 oz.



Stk. No.	Type	Decks	1-49	50-99
57F1541	42D36-01-1-ADJN	1	6.30	4.73
57F1542	42D36-02-1-ADJN	2	7.55	5.66
57F1543	42D36-03-1-ADJN	3	8.80	6.60
57F1544	42D36-01-2-ADJN	1	7.10	5.33
57F1545	44D30-01-1-ADJN	1	6.50	4.88
57F1546	44D30-02-1-ADJN	2	7.85	5.89
57F1547	44D30-03-1-ADJN	3	9.20	6.90
57F1548	44D30-01-2-ADJN	1	7.30	5.48

* Indicates 2 poles/deck.

SERIES 8 ULTRA-MINIATURE TAP SWITCHES

Many features of larger switches. Single pole. Rated for 1/4 amp at 115 V.A.C. Resistive make and break. Carry 4 amp. continuous. Dielectric strength. Voltage breakdown is at 1000 volts AC. Life expectancy of the switch, depending on conditions, is about 100,000 operations. Solder terminals and non-shorting contacts. Length behind panel for single deck is .960". 3/4 oz.



Stk. No.	Type	Pos.	1-49	50-99
57F1515	8A36-01-1-2N	2	7.10	5.33
57F1516	8A36-01-1-3N	3	7.20	5.40
57F1517	8A36-01-1-4N	4	7.30	5.48
57F1518	8A36-01-1-5N	5	7.40	5.55
57F1519	8A36-01-1-6N	6	7.50	5.63
57F1520	8A36-01-1-7N	7	7.60	5.70
57F1521	8A36-01-1-8N	8	7.70	5.78
57F1522	8A36-01-1-9N	9	7.80	5.85
57F1523	8A36-01-1-10N	10	7.90	5.93

SERIES 19 POWER TAP SWITCHES

U.L. listed. Single pole. Single deck. 2 to 11 taps plus common terminal. Non-shorting contacts with 15 amp 115 VAC resistive rating. Breakdown is rated for 2500 VAC. Wt., 1 3/4 oz.



Stk. No.	Type	Taps	1-49	50-99
57F1500	19101-2UL	2	2.80	2.10
57F1501	19101-3UL	3	2.90	2.18
57F1502	19101-4UL	4	3.00	2.25
57F1503	19101-5UL	5	3.10	2.33
57F1504	19101-6UL	6	3.20	2.40
57F1505	19101-7UL	7	3.30	2.48
57F1506	19101-8UL	8	3.40	2.55
57F1507	19101-9UL	9	3.50	2.63
57F1508	19101-10UL	10	3.60	2.70
57F1509	19101-11UL	11	3.70	2.78

SERIES 24 MINIATURE TAP SWITCH

One pole on each deck. Non-shorting contacts. Break 1 amp., carries 5 amps. 3/32 threaded, keyed bushing. 1 1/2" O.D. Can withstand 125 G, and 10 to 500 cps. Can operate from -55° C to +85° C, up to 50,000 ft. 5 oz. * Depth behind panel.



SINGLE-DECK SWITCHES * .58:

Stk. No.	Type	Taps	1-49	50-99
23F950	24001-2	2	2.90	2.18
23F951	24001-3	3	3.00	2.25
23F952	24001-4	4	3.10	2.33
23F953	24001-5	5	3.25	2.44
23F954	24001-6	6	3.35	2.51
23F955	24001-7	7	3.45	2.59
23F956	24001-8	8	3.55	2.66
23F957	24001-9	9	3.65	2.74
23F958	24001-10	10	3.80	2.85

2-DECK SWITCHES * 1.39"

Stk. No.	Type	Taps	1-49	50-99
23F959	24002-2	2	4.30	3.23
23F960	24002-3	3	4.40	3.30
23F961	24002-4	4	4.50	3.38
23F962	24002-5	5	4.60	3.45
23F963	24002-6	6	4.75	3.58
23F964	24002-7	7	4.85	3.64
23F965	24002-8	8	4.95	3.72
23F966	24002-9	9	5.05	3.79
23F967	24002-10	10	5.15	3.85

SERIES 5000 TAP SWITCHES

Rated to break one amp at 115V AC non-inductive and to carry 5 amps. All have stops except 10-tap units, which are continuous rotation. Non-shorting contacts. Single hole panel mtg. 3/8" bushing. 1 1/2" diameter. 1 pole per deck. Shipping wt. approx. 4 oz. *Depth behind panel.



SINGLE-DECK SWITCHES * .47"

Stk. No.	Type	Taps	1-49	50-99
24F225	5-001-2	2	1.60	1.20
24F226	5-001-3	3	1.65	1.24
24F227	5-001-4	4	1.70	1.27
24F228	5-001-5	5	1.75	1.31
24F229	5-001-6	6	1.80	1.35
24F230	5-001-7	7	1.85	1.39
24F231	5-001-8	8	1.90	1.42
24F232	5-001-9	9	1.95	1.48
24F233	5-001-10	10	2.00	1.50

2-DECK SWITCHES * 1.25"

Stk. No.	Type	Taps	1-49	50-99
23F900	5-002-2	2	3.60	2.70
23F901	5-002-3	3	3.70	2.76
23F902	5-002-4	4	3.80	2.85
23F903	5-002-5	5	3.90	2.93
23F904	5-002-6	6	4.00	3.00
23F905	5-002-7	7	4.10	3.08
23F906	5-002-8	8	4.20	3.15
23F907	5-002-9	9	4.30	3.23
23F908	5-002-10	10	4.40	3.30

PUSH BUTTON SWITCHES

Series 2000. Momentary contact SPST. Rated 10 amps, 115 volts A.C. res. solder terminals. Size: 1.92" L x .87" D. Wt., 1 oz. *Bulk packed.
Type 2201. SPST.NO. Red button. Wt., 3/4 oz.
Type 2202. SPST-NC. Black button. Wt., 3/4 oz.
Type 7-26. SPDT. Red button. Wt., 3/4 oz.
Type 721047. Plastic button cap for 2000 series. 721047R, red 721047B black. 3/4 oz.



Stk. No.	Type	1-49	50-99	100-499*
24F200	2201	2.05	1.54	1.23
24F201	2202	2.05	1.54	1.23
24F212	7-26	3.50	2.63	2.10
23F973	7-26B	3.50	2.63	2.10
24F234	721047R	.35	.27	.21
24F235	721047B	.35	.27	.21

ULTRA-MINIATURE SWITCH

Series 38-1. SPST. 1/2 A, 115 vac. 1,000,000 operation life. Phenolic button and base. 1/4" Dx 1 1/2" L. 1 1/4" mtg. hole. Wt., 1 oz.
24F209. (Red Button) 1.49 .15
50-99 .86



LIGHTED PUSH BUTTON SWITCH

Series 40. Integrated switch and indicator light. Silent action, SPST, momentary contact, normally open. Life expectancy, 500,000 operations at rated load of 1 ampere, 115 VAC. 3/64" mtg. hole required. Solder-type terminals. Overall length 1.84". Shpg. wt. 1 oz.
Type 40-1. Neon lamp.
Type 40-100. Incandescent lamp.



Color	Type 40-1			Type 40-100		
	Stk. No.	1-49	50-99	Stk. No.	1-49	50-99
Clear	24F210			23F989		
White	23F986			23F990		
Red	23F987	2.45	1.84	23F991	2.75	2.06
Amber	23F988			23F997		
Green				23F992		
Yellow				23F993		

MINIATURE MOMENTARY CONTACT SWITCH

23-1. Momentary Contact Switch. Normally open SPST. 1/4 amp, 115 VAC volts, AC non-inductive. Length 1.047" and maximum diameter, 1/2". Solder terminals. Red button. Shpg. wt. 1 oz.
24F204. 1-49 .105
50-99 .79



SUB-MINIATURE SWITCH

Series 30. Push button switch with coin silver contacts and terminals. SPST. Momentary contact. Rated 1 amp.—115 VAC. OD—.375" length behind panel—.592. Length 3/64". Shpg. Wt. 1 oz.
Type 30-1. SPST-NO. Red button.
Type 30-2. SPST-NC. Black button.



Stk. No.	Type	1-49	50-99
24F205	30-1	.95	.71
24F206	30-2	.95	.71

PUSH-PULL SWITCH

Series 30-16. SPST. Rated 1 amp., 115 VAC resistive. Life expectancy 100,000 operations. 3/64" mtg. hole; approx. .90" behind panel projection. Wt., 2 oz.
24F211. Type 30-16B. 1-49 .160
23F974. Type 30-16R. 1-49 .160
50-99 .120

POSITIVE FEEL SWITCH

Series 30-17. SPST. Butt contact, positive feel with audible click. Rated 1 amp., 115 VAC resistive. 3/64" mtg. hole, approx. behind panel proj., .90" Wt., 2 oz.
24F224. Type 30-17B. 1-49 .140
23F975. Type 30-17R. 1-49 .140
50-99 .105



MOMENTARY CONTACT SWITCH

Series 4000. Non-snap action switch, momentary contact, SPST. 1/2 amp—500M operations, 1 amp—100M operations. 115V. AC. Solder terminals. Size: 1.53" L x .80" D. Shpg. Wt., 1 oz. *Bulk packed.
Type 4001. Normally open. Red Button.
Type 4002. Normally open. Black Button.



Stk. No.	Type	1-49	50-99	*100-499
24F202	4001	.90	.68	.54
24F203	4002	.90	.68	.54

BUTTON GUARD

FOR SERIES 2000, 4000 & 35-1
Type 10C1015. Provides protective recess for buttons. Brass cadmium plated, fits 1 1/2" x .32 thread. Wt., 1/2 oz.
23F496. 1-49 .25
50-99 .19
Type 7C1040. Decorative mtg. nut.
57F1514. 1-49 .15
50-99 .11





Oak Rotary Switches and Assemblies



MINIATURE PHENOLIC SWITCHES

Series F. Dual ball, 30° indexing. Meet MIL-S-3786A, 50-Hr. salt spray finishes. Frame dim. 1 1/8" H. x 1 1/4" W; 1 1/2" over clips; 1/4" dia. x 2 3/4" L. shaft break-off points @ 3/8", 1 1/8", 1 7/8" from mtg. surt., adj. stop, except 2-pos. fixed stop. Sect. spacing, 1st spacer 5/16", 2nd, 1/4", approx. 1000V peak breakdown voltage 1 amp @ 28 VDC, 5 amp @ 115 VAC. Av. Shpg. wt. 3 oz

SHORTING TYPE "F"

Stock No.	Type	Sec.	Poles			1-4	5-9	10-24	25-49	50-99	100-249
			Tot.	Pos.	Pos.						
57F616	399322F	1	1	2-11	2.64	2.20	1.98	1.88	1.76	1.58	
57F618	399324F	2	2	2-11	3.18	2.65	2.39	2.27	2.12	1.91	
57F620	399326F	1	2	2-5	2.64	2.20	1.98	1.88	1.76	1.58	
57F622	399328F	2	4	2-5	3.18	2.65	2.39	2.27	2.12	1.91	
57F624	399330F	1	3	2-3	2.64	2.20	1.98	1.88	1.76	1.58	
57F626	399332F	2	6	2-3	3.18	2.65	2.39	2.27	2.12	1.91	
57F628	399334F	1	4	2	2.64	2.20	1.98	1.88	1.76	1.58	
57F630	399336F	2	8	2	3.18	2.65	2.39	2.27	2.12	1.91	

NON-SHORTING TYPE "F"

57F617	399323F	1	1	2-11	2.64	2.20	1.98	1.88	1.76	1.58
57F621	399327F	1	2	2-5	2.64	2.20	1.98	1.88	1.76	1.58
57F623	399329F	2	4	2-5	3.18	2.65	2.39	2.27	2.12	1.91
57F625	399331F	1	3	2-3	2.64	2.20	1.98	1.88	1.76	1.58
57F627	399333F	2	6	2-3	3.18	2.65	2.39	2.27	2.12	1.91
57F629	399335F	1	4	2	2.64	2.20	1.98	1.88	1.76	1.58
57F631	399337F	2	8	2	3.18	2.65	2.39	2.27	2.12	1.91

SHORTING TYPE FC

50 hr. salt spray. Steel and brass parts are cadmium plated and chromite dipped. Phenolic PEB-P PER MIL-P-3115, Steatite L48 per JAN-1-10, Silicone fibrils; GSG per MIL-P-997. Contacts; Brass-silver plated. Electrical; Break 1 amp at 28VDC or 0.5 amp. at 110VAC, resistive. Carry 5 amps.

Sk. No.	Type	Sec.	Poles			1-4	5-9	10-24	25-49	50-99	100-249
			Tot.	Pos.	Pos.						
57F632	399366-FC	1	1	2-11	2.94	2.45	2.21	2.10	1.96	1.76	
57F634	399368-FC	2	2	2-11	4.17	3.48	3.13	2.97	2.78	2.50	
57F636	399370-FC	1	2	2-5	2.94	2.45	2.21	2.10	1.96	1.76	
57F640	399374-FC	1	3	2-3	2.94	2.45	2.21	2.10	1.96	1.76	
57F638	399372-FC	2	4	2-5	4.17	3.48	3.13	2.97	2.78	2.50	
57F644	399378-FC	1	4	2	2.94	2.45	2.21	2.10	1.96	1.76	
57F642	399376-FC	2	6	2-3	4.17	3.48	3.13	2.97	2.78	2.50	
57F646	399380-FC	2	8	2	4.17	3.48	3.13	2.97	2.78	2.50	

NON-SHORTING TYPE EC

57F633	399367-FC	1	1	2-11	2.94	2.45	2.21	2.10	1.96	1.76
57F637	399371-FC	1	2	2-5	2.94	2.45	2.21	2.10	1.96	1.76
57F641	399375-FC	1	3	2-3	2.94	2.45	2.21	2.10	1.96	1.76
57F639	399373-FC	2	4	2-5	4.17	3.48	3.13	2.97	2.78	2.50
57F643	399379-FC	1	4	2	2.94	2.45	2.21	2.10	1.96	1.76
57F645	399377-FC	2	6	2-3	4.17	3.48	3.13	2.97	2.78	2.50
57F647	399381-FC	2	8	2	4.17	3.48	3.13	2.97	2.78	2.50



PHENOLIC INSULATION SWITCHES

Series K. 50 Hr. Salt Spray finish. Meet MIL-S-3786. Single ball 30° indexing. Frame dim. 1 1/2" H. x 1 1/2" W; 1 9/16" over clips; 1/4" dia. x 2 3/4" L. shaft breakoff points @ 3/8", 1 1/8", 1 7/8" from mtg. surt., bushing

SHORTING TYPE "K"

Stock No.	Type	Sec.	Poles			1-4	5-9	10-24	25-49	50-99	100-249
			Tot.	Pos.	Pos.						
57F648	399418K	1	1	2-12	1.86	1.55	1.40	1.33	1.24	1.12	
57F650	399420K	2	2	2-12	2.67	2.28	2.05	1.95	1.78	1.60	
57F656	399426K	1	2	2-6	1.86	1.55	1.40	1.33	1.24	1.12	
57F658	399428K	2	4	2-6	2.67	2.28	2.05	1.95	1.78	1.60	
57F660	399430K	3	6	2-6	3.36	2.80	2.52	2.39	2.24	2.02	
57F652	399422K	3	3	2-12	3.36	2.80	2.52	2.39	2.24	2.02	
57F654	399424K	4	4	2-12	3.96	3.30	2.97	2.82	2.64	2.38	
57F662	399432K	1	6	2	1.86	1.55	1.40	1.33	1.24	1.12	
57F664	399434K	2	12	2	2.67	2.28	2.05	1.95	1.78	1.60	
57F859	399490K	1	3	2-5	3.30	2.75	2.52	2.38	2.20	2.04	
57F861	399492K	2	6	2-5	3.30	2.75	2.52	2.38	2.20	2.04	
57F863	399494K	3	9	2-5	3.96	3.30	3.04	2.84	2.64	2.44	
57F562	399732K	5	5	2-11	4.68	3.90	3.51	3.35	3.12	2.89	
57F564	399734K	2	6	2-3	2.67	2.28	2.05	1.95	1.78	1.60	
57F566	399736K	6	6	2-11	5.40	4.50	4.05	3.87	3.60	3.33	
57F568	399738K	4	8	2-5	3.96	3.30	2.97	2.82	2.64	2.38	
57F570	399740K	3	12	2	3.36	2.80	2.52	2.39	2.24	2.02	
57F572	399742K	5	10	2-5	4.68	3.90	3.52	3.35	3.12	2.89	
57F574	399744K	6	12	2-5	5.40	4.50	4.05	3.87	3.60	3.33	

STEATITE CERAMIC INSULATION SWITCHES



Series JC. Single ball, 30° indexing finishes. Meet MIL-S-3786, 50-Hr. salt spray finishes. Frame dim. 1 1/2" H. x 1 3/8" W, 1 1/2" over clips, 1/4" dia. x 2 3/4" L. shaft break-off points @ 3/8", 1 1/8", 1 7/8" from mtg. surt., adj. stop. Sect. spacing, 1st spacer 3/8", 2nd 1/4", 3rd 1 1/2", 4th 1 3/8"; approx. 1800V peak breakdown voltage; 1 amp @ 28 VDC, 5 amp @ 115 VAC. Av. shpg. wt., 5 oz.

SHORTING TYPES JC

Stock No.	Type	Sec.	Poles			1-4	5-9	10-24	25-49	50-99	100-249
			Tot.	Pos.	Pos.						
57F666	399468JC	1	1	2-12	2.46	2.05	1.85	1.76	1.64	1.48	
57F668	399470JC	2	2	2-12	3.54	2.95	2.66	2.53	2.36	2.12	
57F670	399472JC	3	3	2-12	4.50	3.75	3.38	3.21	3.00	2.70	
57F672	399474JC	4	4	2-12	5.40	4.50	4.05	3.85	3.60	3.24	
57F674	399476JC	1	2	2-6	2.46	2.05	1.85	1.76	1.64	1.48	
57F676	399478JC	2	4	2-6	3.54	2.95	2.66	2.53	2.36	2.12	
57F678	399480JC	3	6	2-6	4.50	3.75	3.38	3.21	3.00	2.70	
57F680	399484JC	1	6	2	2.46	2.05	1.85	1.76	1.64	1.48	
57F682	399486JC	2	12	2	3.54	2.95	2.66	2.53	2.36	2.12	
57F855	399696JC	2	6	2-5	3.54	2.95	2.72	2.54	2.36	2.18	
57F857	399698JC	4	8	2-5	5.40	4.50	4.15	3.87	3.60	3.33	
57F859	399704JC	1	3	2-5	2.46	2.05	1.85	1.76	1.64	1.52	
57F842	399706JC	3	9	2-5	5.33	4.45	4.00	3.82	3.56	3.29	
57F846	399708JC	4	8	2-6	4.50	3.75	3.38	3.21	3.00	2.70	
57F548	399710JC	2	10	2-3	3.54	2.95	2.66	2.53	2.36	2.12	
57F550	399712JC	5	10	2-6	5.53	4.62	4.15	3.97	3.69	3.40	
57F552	399714JC	6	12	2-6	7.57	6.30	5.67	5.42	5.03	4.66	
57F554	399716JC	3	15	2-3	4.90	4.10	3.68	3.52	3.27	3.03	
57F556	399718JC	3	18	2	4.90	4.10	3.68	3.52	3.27	3.03	

NON-SHORTING TYPES JC

Stock No.	Type	Sec.	Poles			1-4	5-9	10-24	25-49	50-99	100-249
			Tot.	Pos.	Pos.						
57F667	399469JC	1	1	2-12	2.46	2.05	1.85	1.76	1.64	1.48	
57F669	399471JC	2	2	2-12	3.54	2.95	2.66	2.53	2.36	2.12	
57F671	399473JC	3	3	2-12	4.50	3.75	3.38	3.21	3.00	2.70	
57F673	399475JC	4	4	2-12	5.40	4.50	4.05	3.85	3.60	3.24	
57F675	399477JC	1	2	2-6	2.46	2.05	1.85	1.76	1.64	1.48	
57F677	399479JC	2	4	2-6	3.54	2.95	2.66	2.53	2.36	2.12	
57F679	399481JC	3	6	2-6	4.50	3.75	3.38	3.21	3.00	2.70	
57F681	399483JC	1	6	2	2.46	2.05	1.85	1.76	1.64	1.48	
57F683	399487JC	2	12	2	3.54	2.95	2.66	2.53	2.36	2.12	
57F856	399697JC	2	6	2-5	3.54	2.95	2.72	2.54	2.36	2.18	
57F858	399699JC	4	8	2-5	5.40	4.50	4.15	3.87	3.60	3.33	
57F843	399705JC	1	3	2-5	2.46	2.05	1.85	1.76	1.64	1.52	
57F845	399707JC	3	8	2-6	5.33	4.45	4.00	3.82	3.56	3.29	
57F847	399709JC	4	9	2-5	4.50	3.75	3.38	3.21	3.00	2.70	
57F849	399711JC	2	10	2-3	3.54	2.95	2.66	2.53	2.36	2.12	
57F551	399713JC	5	10	2-6	5.53	4.62	4.15	3.97	3.69	3.40	
57F553	399715JC	6	12	2-6	7.57	6.30	5.67	5.42	5.03	4.66	
57F555	399717JC	3	15	2-3	4.90	4.10	3.68	3.52	3.27	3.03	
57F557	399719JC	3	18	2	4.90	4.10	3.68	3.52	3.27	3.03	

NON-SHORTING TYPE "K"

Stock No.	Type	Sec.	Poles			1-4	5-9	10-24	25-49	50-99	100-249
			Tot.	Pos.	Pos.						
57F649	399419K	1	1	2-12	1.86	1.55	1.40	1.33	1.24	1.12	
57F651	399421K	2	2	2-12	2.67	2.28	2.05	1.95	1.78	1.60	
57F653	399423K	3	3	2-12	3.36	2.80	2.52	2.39	2.24	2.02	
57F655	399425K	4	4	2-12	3.96	3					

Oak Rotary Switches, Assemblies



PHENOLIC INSULATION SWITCHES

Series H. Dual ball, 30° indexing. Meet MIL-S-3786, 50-Hr. salt spray finishes. Frame dim. 1 7/8" H. x 1 1/2" W. 1 1/4" over clips. 1/4" dia. x 2 3/8" L. shaft break-off points @ 3/4", 1 1/8", 1 3/8" from mounting surf. Adj. stop. Sect. spacing 1st spacer 1/2"; 2nd 1"; 3rd 1" Approx. 2500V peak break-down voltage. 1 amp @ 28 VDC, .5 amp @ 115 VAC. Av. shpg. wt. 4 oz.



SHORTING TYPES "H"

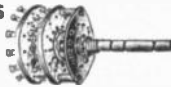
Stk. No.	Type	Sec.	Poles			1-4	5-9	10-24	25-49	50-99	100-249
			Tot.	Pos.	Pos.						
57F684	399512H	1	1	2-11	2.64	2.20	1.98	1.88	1.76	1.58	
57F686	399514H	2	2	2-11	3.18	2.65	2.39	2.27	2.12	1.91	
57F692	399520H	2	4	2-5	3.18	2.65	2.39	2.27	2.12	1.91	
57F688	399516H	3	3	2-11	4.05	3.88	3.49	3.32	2.70	2.43	
57F690	399518H	1	2	2-5	2.64	2.20	1.98	1.88	1.76	1.58	
57F694	399522H	3	6	2-5	4.05	3.88	3.49	3.32	2.70	2.43	

NON-SHORTING TYPES "H"

Stk. No.	Type	Sec.	Poles			1-4	5-9	10-24	25-49	50-99	100-249
			Tot.	Pos.	Pos.						
57F685	399513H	1	1	2-11	2.64	2.20	1.98	1.88	1.76	1.58	
57F687	399515H	2	2	2-11	3.18	2.65	2.39	2.27	2.12	1.91	
57F689	399517H	3	3	2-11	4.05	3.88	3.49	3.32	2.70	2.43	
57F691	399519H	1	2	2-5	2.64	2.20	1.98	1.88	1.76	1.58	
57F693	399521H	2	4	2-5	3.18	2.65	2.39	2.27	2.12	1.91	
57F695	399523H	3	6	2-5	4.05	3.88	3.49	3.32	2.70	2.43	
57F597	399525H	4	4	2-11	4.71	3.93	3.54	3.36	3.14	2.83	
57F865	399525H	1	4	2	2.62	2.19	1.97	1.87	1.75	1.57	
57F866	399527H	2	6	2-3	3.18	2.65	2.39	2.28	2.12	1.92	

STEATITE CERAMIC INSULATION SWITCHES

Series HC. 50-Hr. salt spray finishes. Meet MIL-S-3786 Dual ball, 30° indexing. Frame dim. 1 7/8" H. x 1 3/8" W. 1 7/8" over clips 1/4" dia. x 2 3/8" L. shaft break-off points @ 3/4", 1 1/8", 1 3/8" from mounting surf. Adj. stop. Sect. spacing 1st spacer 1/2"; 2nd 1 1/8"; 3rd 1". Approx. 2500V. peak break-down voltage, 1 amp @ 28 VDC, .5 amp 115 VAC. Av. Wt., 5 oz.



SHORTING TYPES "HC"

Stk. No.	Type	Sec.	Poles			1-4	5-9	10-24	25-49	50-99	100-249
			Tot.	Pos.	Pos.						
57F696	399562HC	1	1	2-11	2.94	2.45	2.21	2.10	1.96	1.76	
57F698	399564HC	2	2	2-11	4.17	3.48	3.13	2.97	2.78	2.50	
57F700	399566HC	3	3	2-11	5.37	4.48	4.03	3.83	3.58	3.22	
57F702	399568HC	1	2	2-5	2.94	2.45	2.21	2.10	1.96	1.76	
57F704	399570HC	2	4	2-5	4.17	3.48	3.13	2.97	2.78	2.50	

NON-SHORTING TYPES "HC"

Stk. No.	Type	Sec.	Poles			1-4	5-9	10-24	25-49	50-99	10-24
			Tot.	Pos.	Pos.						
57F697	399563HC	1	1	2-11	2.94	2.45	2.21	2.10	1.96	1.76	
57F699	399565HC	2	2	2-11	4.17	3.48	3.13	2.97	2.78	2.50	
57F701	399567HC	3	3	2-11	5.37	4.48	4.03	3.83	3.58	3.22	
57F703	399569HC	1	2	2-5	2.94	2.45	2.21	2.10	1.96	1.76	
57F705	399571HC	2	4	2-5	4.17	3.48	3.13	2.97	2.78	2.50	
57F707	399573HC	3	6	2-5	5.37	4.48	4.03	3.83	3.58	3.22	

MINIATURE SILICONE SWITCHES

Series A. Dual ball, 30° indexing finishes. Meet MIL-S-3786, 200-hr. salt spray finishes. Frame dim. 1" H x 1 1/8" W; 1 3/8" over clips; 1/4" dia. x 2 3/8" L shaft break-off points @ 3/4", 1 1/8", 1 3/8" from mtg. surf. Adj. stop. Sect. spacing, 1st spacer 1/4", 2nd 5/8", 3rd 3/2" approx. 750V peak breakdown voltage 1 amp @ 28 VDC, .5 amp @ 115 VAC. Av. shpg. wt. 4 oz.



SHORTING—TYPE "A"

Stock No.	Type	Sec.	Poles			1-4	5-9	10-24	25-49	50-99	100-249
			Tot.	Pos.	Pos.						
57F600	399216A	1	1	2-12	5.40	4.50	4.05	3.85	3.60	3.24	
57F602	399218A	2	2	2-12	6.90	5.75	5.18	4.92	4.60	4.14	
57F604	399220A	3	3	2-12	8.70	7.25	6.53	6.20	5.80	5.22	
57F606	399222A	1	2	2-6	5.40	4.50	4.05	3.85	3.60	3.24	
57F608	399224A	2	4	2-6	6.90	5.75	5.18	4.92	4.60	4.14	
57F610	399226A	3	6	2-6	8.70	7.25	6.53	6.20	5.80	5.22	
57F612	399234A	1	4	2	5.40	4.50	4.05	3.85	3.60	3.24	
57F614	399236A	2	8	2	6.90	5.75	5.18	4.92	4.60	4.14	

NON-SHORTING TYPE "A"

Stk. No.	Type	Sec.	Poles			1-4	5-9	10-24	25-49	50-99	100-249
			Tot.	Pos.	Pos.						
57F601	399217A	1	1	2-12	5.40	4.50	4.05	3.85	3.60	3.24	
57F603	399219A	2	2	2-12	6.90	5.75	5.18	4.92	4.60	4.14	
57F605	399221A	3	3	2-12	8.70	7.25	6.53	6.20	5.80	5.22	
57F607	399223A	1	2	2-6	5.40	4.50	4.05	3.85	3.60	3.24	
57F609	399225A	2	4	2-6	6.90	5.75	5.18	4.92	4.60	4.14	
57F611	399227A	3	6	2-6	8.70	7.25	6.53	6.20	5.80	5.22	
57F613	399235A	1	4	2	5.40	4.50	4.05	3.85	3.60	3.24	
57F615	399237A	2	8	2	6.90	5.75	5.18	4.92	4.60	4.14	

PHENOLIC INSULATED SWITCHES

Series L. Single ball, 20° indexing. 50-hr. salt spray finishes. Meet MIL-S-3786 Frame dim. 2 3/16" H. x 1 13/16" W. 2 1/8" over clips. 1/4" dia. x 2 3/8" L. shaft, break-off points @ 3/4", 1 1/8", 1 3/8" from mounting surf. Adj. stop. 2-17 pos. adjustable. Sect. spacing all 1/2". Approx. 1000V. peak break-down voltage. 1 amp @ 28 VDC, .5 amp @ 115 VAC. Av. shpg. wt., 4 oz.



SHORTING TYPES "L"

Stk. No.	Type	Sec.	Poles			1-4	5-9	10-24	25-49	50-99	100-249
			Tot.	Pos.	Pos.						
57F708	399608L	1	1	2-17	2.34	1.95	1.76	1.67	1.56	1.40	
57F710	399610L	2	2	2-17	3.36	2.80	2.52	2.39	2.24	2.02	
57F712	399612L	3	3	2-17	4.38	3.65	3.29	3.13	2.92	2.63	
57F714	399614L	4	4	2-17	4.95	4.03	3.63	3.45	3.30	2.97	

NON-SHORTING TYPES "L"

Stk. No.	Type	Sec.	Poles			1-4	5-9	10-24	25-49	50-99	100-249
			Tot.	Pos.	Pos.						
57F709	399609L	1	1	2-17	2.34	1.95	1.76	1.67	1.56	1.40	
57F711	399611L	2	2	2-17	3.36	2.80	2.52	2.39	2.24	2.02	
57F713	399613L	3	3	2-17	4.38	3.65	3.29	3.13	2.92	2.63	
57F715	399615L	4	4	2-17	4.95	4.03	3.63	3.45	3.30	2.97	

SHORTING TYPE MF SERIES

200 hour salt spray. MIL-P-3115, MIL-P-997. Ball type indexing, one fixed and adjustable stop per switch. Break one amp at 28 VDC or 0.5 amp at 110 VAC, resistive. Carry 5 amps.

Stk. No.	Type	Sec.	Poles			1-4	5-9	10-24	25-49	50-99	100-249
			Tot.	Pos.	Pos.						
57F716	399658-MF	1	1	2-23	2.52	2.10	1.89	1.80	1.68	1.51	
57F718	399660-MF	2	2	2-23	3.60	3.00	2.70	2.57	2.40	2.16	
57F720	399662-MF	3	3	2-23	4.71	3.93	3.54	3.36	3.14	2.83	
57F722	399664-MF	4	4	2-23	5.34	4.45	4.01	3.81	3.56	3.20	

NON SHORTING TYPES MF SERIES

Stk. No.	Type	Sec.	Poles			1-4	5-9	10-24	25-49	50-99	100-249
			Tot.	Pos.	Pos.						
57F717	399649-MF	1	1	2-23	2.52	2.10	1.89	1.80	1.68	1.51	
57F719	399661-MF	2	2	2-23	3.60	3.00	2.70	2.57	2.40	2.16	
57F721	399663-MF	3	3	2-23	4.71	3.93	3.54	3.36	3.14	2.83	
57F723	399665-MF	4	4	2-23	5.34	4.45	4.01	3.81	3.56	3.20	

SPECIAL FUNCTIONS SECTIONS

Same dimensions and materials as complete switches. Av. wt., 2 oz.

Consecutive Shorting Function—Type A

Stk. No.	Type	1-4	5-9	10-24	25-49	50-99	100-249
57F782	399056A	2.10	1.75	1.58	1.50	1.40	1.26

Binary Coded Decimal Output Switch—Type A, Non-Shorting

57F783	399061A	2.10	1.75	1.58	1.50	1.40	1.26
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SPECIAL FUNCTIONS SECTIONS

Resistor Decade—Type A, Non-Shorting

Stk. No.	Type	1-4	5-9	10-24	25-49	50-99	100-249
57F784	399057A	2.10	1.75	1.58	1.50	1.40	1.26

Capacitor Decade—Type A, Non-Shorting

57F785	399059A	2.10	1.75	1.58	1.50	1.40	1.26
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ADD-ON SECTIONS — SHORTING

Suffix letter indicates Oak type; see descriptions, this and preceding page. 1 pole, 2-11 positions, except: *2-17 position, †2-23 position.

Stk. No.	Type	1-4	5-9	10-24	25-49	50-99	100-249
57F786	399058A	2.10	1.75	1.58	1.50	1.40	1.26
57F787	399060F	1.58	1.30	1.17	1.11	1.04	.94
57F788	399062FC	2.10	1.75	1.58	1.50	1.40	1.26



Oak Switches

200 HOUR SALT SPRAY SWITCHES
All switches are OEM preferred types. These switches have silver alloy contacts, with .000030" of an inch thick gold plating. All frame materials are stainless steel or nickel plated brass. Stainless parts are passivated. Insulation—phenolic: PBE-P per MIL-3115.

Switches feature ball-type indexing; one fixed & one adjustable stop per switch. Shafts are cadmium plated steel (2 3/8" long); grooved for breakoff at 3/4", 1 1/8", and 1 7/8". Double wiping self cleaning contacts are used throughout. Break 1 amp at 28 VDC or 0.5 amp at 110 VAC, resistive. Carries 5 amps. 3/8-32 Mounting nuts & lock washers supplied.

SHORTING

Stk. No.	Type	Sec	Poles		1-4	5-9	10-24	25-49	50-99	100-249
			tot.	pos.						
57F724	399240A	1	1	2-12	5.70	4.75	4.28	4.07	3.80	3.42
57F726	399338F	1	1	2-11	3.24	2.70	2.43	2.31	2.16	1.94
57F728	399382FC	1	1	2-11	3.54	2.95	2.66	2.53	2.36	2.12
57F580	399724JC	2	1	2-12	4.90	4.10	3.68	3.52	3.27	3.03

NON SHORTING

Stk. No.	Type	1	1	Poles		1-4	5-9	10-24	25-49	50-99	100-249
				2-12	4.90						
57F725	399241A	1	1	2-12	5.70	4.75	4.28	4.07	3.80	3.42	
57F727	399339F	1	1	2-11	3.24	2.70	2.43	2.31	2.16	1.94	
57F729	399383FC	1	1	2-11	3.54	2.95	2.66	2.53	2.36	2.12	
57F581	399725JC	2	1	2-12	4.90	4.10	3.68	3.52	3.27	3.03	



4 PDT per plunger. 2 to 12 buttons. 8 to 48 poles. Mechanism permits modification to momentary operations. 5/8 and 3/4" button spacing. Buttons interlocked by common latch bar. Push rods extend 2" from mounting surface. Double wiping with gold-plate on the contacts. Rated, 1 amp at 28 VDC operation; 0.5 amp at 110 VAC. Carries 5 A. Insulation: Phenolic punching stock, conforming to MIL-P-3115 grade PBG. Slider insulators: PBE-P.

3/4" BUTTON SHORTING

Stk. No.	Type	No. of Buttons	Tot. No. Poles	1-9	10-24	25-49	50-99	100-249
57F827	399854-130	4	16	8.16	6.86	5.44	4.62	3.54
57F830	399858-130	6	24	11.70	9.75	7.80	6.63	5.07
57F833	399862-130	8	32	15.09	12.58	10.06	8.55	6.54
57F836	399866-130	10	40	18.87	15.73	12.58	10.69	8.18
57F839	399870-130	12	48	22.68	18.90	15.12	12.85	9.82

3/4" BUTTON NON-SHORTING

Stk. No.	Type	1	8	Poles		1-9	10-24	25-49	50-99	100-249
				2-12	4.86					
57F825	399851-130	2	8	4.86	4.05	3.24	2.75	2.11		
57F826	399853-130	3	12	6.54	5.45	4.36	3.71	2.83		
57F828	399855-130	4	16	8.16	6.80	5.44	4.62	3.54		
57F829	399857-130	5	20	9.99	8.33	6.66	5.66	4.33		
57F831	399859-130	6	24	11.70	9.75	7.80	6.63	5.07		
57F832	399861-130	7	28	13.41	11.18	8.94	7.60	5.81		
57F834	399863-130	8	32	15.09	12.58	10.06	8.55	6.54		
57F835	399865-130	9	36	17.18	14.30	11.44	9.72	7.44		
57F837	399867-130	10	40	18.87	15.73	12.58	10.69	8.18		
57F838	399869-130	11	44	21.15	17.63	14.10	11.99	9.16		
57F840	399871-130	12	48	22.68	18.90	15.12	12.85	9.82		

NEW DELUXE BUTTONS FOR 130 SWITCH

Lighting accomplished by flooding back of panel with light. Translucent buttons light up when depressed.

57F841. Type 399930-001. NET 18

NEW TYPE 200 SERIES SLIDE SWITCHES

SPST-DPST-SPDT-DPDT. 1 & 2 poles. 2-6 contacts. 30% narrower than ordinary slide switches; gold-plated. Double-Wiping contacts which are self-cleaning. All slide switches rated 3 amps at 125 VAC operation. All non-shorting.

Stk. No.	Type	Funct.	Poles	Cont.	1-99	100-249
57F816	399275-275	SPST	1	2	.16	.144
57F817	399276-276	DPST	2	4	.21	.19
57F818	399277-277	SPDT	1	3	.16	.144
57F819	399278-278	DPDT	2	6	.21	.19

NEW SWITCH HARDWARE

Listed for the convenience of design engineers to assist in assembling switches. Sets include hardware to build 5 l-section, spacers, strut screws, washers, nuts, sockwashers, and stopwashers.

Stk. No.	Part No.	For Types	1-4	5-9	10-24	25-49	50-99	100-249
57F842	399960	A	6.24	5.59	5.20	4.68	4.16	3.62
57F843	399961	F, FC, JC, K	14.40	12.90	12.00	10.80	9.80	8.70
57F844	399962	H, HC, L, MF	13.44	12.04	11.20	10.08	8.96	8.12

NEW TYPE 20 SERIES ROTARY SWITCHES



Shorting and non-shorting. 1 and 2 poles. 2 to 4 positions. These economical switches provide more flexibility and adaptability to circuit design. Ideally suited for all light duty circuit switching such as radio-phonos, stereo channel reversing, meters, speakers and related equipment. Shaft is 2 3/8" long. Grooved for break-off at 3/4", 1 1/8" and 1 7/8" from the mounting surface. Long life and quality construction assured.

STANDARD ROTATION CONSECUTIVE SHORTING TYPES JC & K

9 active contacts. All open in full CCW position & progressively picked-up & shorted to common contact.

Stk. No.	Type	Sec.	Poles		1-4	5-9	10-24	25-49	50-99	100-249
			Tot.	Pos.						
57F559	399722JC	1	1	2-10	2.16	1.80	1.62	1.54	1.44	1.30
57F578	399748K	1	1	2-10	1.86	1.55	1.40	1.33	1.24	1.12

OPPOSITE ROTATION CONSECUTIVE SHORTING TYPES JC & K

9 active contacts, all shorted to common contact CCW position, & progressively opened and dropped.

Stk. No.	Type	Sec.	Poles		1-4	5-9	10-24	25-49	50-99	100-249
			Tot.	Pos.						
57F558	399720JC	1	1	2-10	2.16	1.80	1.62	1.54	1.44	1.30
57F576	399746K	1	1	2-10	1.86	1.55	1.40	1.33	1.24	1.12

60° INDEXING SWITCHES (PHENOLIC, NON-SHORTING)

Stk. No.	Type	1	1	Poles		1-4	5-9	10-24	25-49	50-99	100-249
				2-6	1.86						
57F577	399747K	1	1	2-6	1.86	1.55	1.40	1.33	1.24	1.12	
57F579	399749K	2	1	2-6	2.64	2.20	1.98	1.88	1.76	1.58	

60° HAM SWITCHES (CERAMIC, NON-SHORTING)

Stk. No.	Type	1	1	2-6	4.37	3.65	3.29	3.13	2.93	2.64
57F541	399581HC	3	1	2-6	4.37	3.65	3.29	3.13	2.93	2.64

NEW 130 PUSHBUTTON SWITCH

4 PDT per plunger. 2 to 12 buttons. 8 to 48 poles. Mechanism permits modification to momentary operations. 5/8 and 3/4" button spacing. Buttons interlocked by common latch bar. Push rods extend 2" from mounting surface. Double wiping with gold-plate on the contacts. Rated, 1 amp at 28 VDC operation; 0.5 amp at 110 VAC. Carries 5 A. Insulation: Phenolic punching stock, conforming to MIL-P-3115 grade PBG. Slider insulators: PBE-P.

3/4" BUTTON SHORTING

Stk. No.	Type	No. of Btms.	Tot. No. Poles	1-9	10-24	25-49	50-99	100-249
57F870	399876-130	4	16	8.16	6.80	5.44	4.62	3.54
57F873	399880-130	6	24	11.70	9.75	7.80	6.63	5.07
57F876	399884-130	8	32	15.09	12.58	10.06	8.55	6.54
57F879	399888-130	10	40	18.87	15.73	12.58	10.69	8.18
57F882	399892-130	12	48	22.68	18.90	15.12	12.85	9.82

3/4" BUTTON NON-SHORTING

Stk. No.	Type	1	8	Poles		1-9	10-24	25-49	50-99	100-249
				2-12	4.86					
57F868	399873-130	2	8	4.86	4.05	3.24	2.75	2.11		
57F869	399875-130	3	12	6.54	5.45	4.36	3.71	2.83		
57F871	399877-130	4	16	8.16	6.80	5.44	4.62	3.54		
57F872	399879-130	5	20	9.99	8.33	6.66	5.66	4.33		
57F874	399881-130	6	24	11.70	9.75	7.80	6.63	5.07		
57F875	399883-130	7	28	13.41	11.18	8.94	7.60	5.81		
57F877	399885-130	8	32	15.09	12.58	10.06	8.55	6.54		
57F878	399887-130	9	36	17.18	14.30	11.44	9.72	7.44		
57F880	399889-130	10	40	18.87	15.73	12.58	10.69	8.18		
57F881	399891-130	11	44	21.15	17.63	14.10	11.99	9.16		
57F883	399893-130	12	48	22.68	18.90	15.12	12.85	9.82		

17S PUSHBUTTON SWITCH

Designed for circuit applications requiring a single pushbutton switch with low contact resistance. Shorting & non-shortng. 2 PDT; 6 contacts. 4 PDT; 12 contacts. Push-push Latching.

Stk. No.	Type	Funct.	Cont.	1-4	5-9	10-24	25-49	50-99	100-249
57F822	399812-175*	4PDT	12	3.01	2.49	2.19	2.11	1.98	1.29
57F821	399811-175**	2PDT	6	2.63	2.18	1.91	1.84	1.72	1.13
57F823	399813-175**	4PDT	12	3.01	2.49	2.19	2.11	1.98	1.29

*Shorting **Non-shortng

NEW TYPE 189 LEVER SWITCHES

2 poles, 3 positions. Double wiping contacts. Single sect. Gold plated contacts.

Stk. No.	Type	Poles	Pos.	Index.	1-4	5-9	10-24	25-49	50-99	100-249
57F801	399160-189*	2	3	Positive	1.31	1.10	1.00	.95	.89	.85
57F802	399161-189**	2	3	Positive	1.31	1.10	1.00	.95	.89	.85

NEW TYPE 184 LEVER SWITCHES

5 & 6 poles, 2 & 3 positions. Molded stator adapts to miniature circuitry. Features Double-Wiping gold-plated contacts.

Stk. No.	Type	Poles	Pos.	Index.	1-4	5-9	10-24	25-49	50-99	100-249
57F803	399162-184*	5	3	Positive	4.94	4.09	3.60	3.45	2.82	1.83
57F805	399164-184*	6	2	Positive	4.90	4.06	3.57	3.43	3.22	2.10
57F804	399163-184**	5	3	Positive	4.94	4.09	3.60	3.45	2.82	1.83
57F806	399165-184**	6	2	Positive	4.90	4.06	3.57	3.43	3.22	2.10

ROTARY SWITCHES

OAK SHAFT & INDEX ASSEMBLIES



Complete hardware consisting of mounting nut and lockwasher, stop washer, assembly tie rods and spacers, washers, nuts. Shpg. wt., 3 oz.

NEWARK Saves You Time and Money—With One Purchase Order

Stk. No.	Type	Sec.	DIM-K	Pole Pos.	1-4	5-9	10-24	25-49	50-99	100-249
57F776	399029A	A	6 $\frac{3}{4}$	2-12	2.25	1.88	1.69	1.60	1.50	1.35
57F795	399022A	A	4 $\frac{1}{2}$ ⁵²	2-12	3.00	2.50	2.25	2.14	2.00	1.80
57F777	399039F-FC	F	1 $\frac{1}{4}$	2-12	1.56	1.30	1.17	1.11	1.04	.94
57F796	399021F-FC	F	6 $\frac{1}{8}$	2-12	2.49	2.08	1.88	1.79	1.66	1.50
57F778	399043K-1C	K	2 $\frac{1}{2}$ ⁵²	2-12	1.44	1.20	1.08	1.03	.96	.86
57F797	399024K-1C	K	6 $\frac{1}{8}$	2-12	2.37	1.98	1.78	1.69	1.58	1.42
57F779	399785H-HC	H	3 $\frac{3}{4}$ ²	2-12	1.71	1.43	1.29	1.23	1.14	1.03
57F798	399023H-HC	H	6 $\frac{1}{8}$	2-12	2.64	2.20	1.98	1.88	1.76	1.59
57F780	399789L	L	2 $\frac{1}{2}$ ⁵²	2-18	1.80	1.50	1.35	1.28	1.20	1.08
57F799	399025L	L	6 $\frac{1}{8}$	2-18	2.73	2.28	2.06	1.96	1.82	1.64
57F781	399793MF	MF	2 $\frac{1}{2}$ ⁵²	2-24	1.95	1.63	1.47	1.40	1.30	1.17
57F800	399026MF	MF	6 $\frac{1}{8}$	2-24	2.88	2.40	2.16	2.06	1.92	1.73

SECTIONS

50 hour salt spray. Steel and brass parts are cadmium plated and chromate dipped 200 hour salt spray. Nickel plated brass and stainless steel. (+) Notched blade sections.

NON-SHORTING "A"

Stock No.	Type	Sec.	Poles		1-4	5-9	10-24	25-49	50-99	100-249
			Tot.	Pos.						
57F731	399033A	A	1	2-12	3.09	2.58	2.32	2.20	2.06	1.85
57F735	399037A	A	4	2	3.09	2.58	2.32	2.20	2.06	1.85
57F733	399035A	A	2	2-16	3.09	2.58	2.32	2.20	2.06	1.85

NON-SHORTING "F"

Stock No.	Type	Sec.	Poles		1-4	5-9	10-24	25-49	50-99	100-249
			Tot.	Pos.						
57F737	399071F	F	1	2-11	1.11	.93	.84	.80	.74	.67
57F739	399073F	F	2	2-5	1.11	.93	.84	.80	.74	.67
57F741	399075F	F	3	2-3	1.11	.93	.84	.80	.74	.67
57F734	399077F	F	4	2	1.11	.93	.84	.80	.74	.67

NON-SHORTING "FC"

Stock No.	Type	Sec.	Poles		1-4	5-9	10-24	25-49	50-99	100-249
			Tot.	Pos.						
57F745	399091FC	FC	1	2-11	1.41	1.18	1.06	1.01	.94	.85
57F747	399093FC	FC	2	2-5	1.41	1.18	1.06	1.01	.94	.85
57F749	399095FC	FC	3	2-3	1.41	1.18	1.06	1.01	.94	.85
57F751	399097FC	FC	4	2	1.41	1.18	1.06	1.01	.94	.85

NON-SHORTING "K"

Stock No.	Type	Sec.	Poles		1-4	5-9	10-24	25-49	50-99	100-249
			Tot.	Pos.						
57F753	399131K	K	1	2-12	.90	.75	.68	.65	.60	.59
57F755	399133K	K	2	2-6	.90	.75	.68	.65	.60	.59
57F757	399135K	K	6	2	.90	.75	.68	.65	.60	.59
57F583	399243-K	K	1	2-11	.90	.75	.68	.65	.60	.59
57F585	399245-K	K	2	2-5	.90	.75	.68	.65	.60	.59
57F587	399247-K	K	3	2-3	.90	.75	.68	.65	.60	.59
57F885	399255-K	K	4	2	.90	.75	.68	.65	.60	.56
57F589	399249-K	K	6	2	.90	.75	.68	.65	.60	.59

NON-SHORTING "1C"

Stock No.	Type	Sec.	Poles		1-4	5-9	10-24	25-49	50-99	100-249
			Tot.	Pos.						
57F759	3991511C	1C	1	2-12	1.26	1.05	.95	.90	.84	.76
57F761	3991531C	1C	2	2-6	1.26	1.05	.95	.90	.84	.76
57F591	399445-1C	1C	3	2-5	1.26	1.05	.95	.90	.84	.76
57F588	399447-1C	1C	5	2-3	1.26	1.05	.95	.90	.84	.76
57F763	399155-1C	1C	6	2	1.26	1.05	.95	.90	.84	.76

NON-SHORTING "H"

Stock No.	Type	Sec.	Poles		1-4	5-9	10-24	25-49	50-99	100-249
			Tot.	Pos.						
57F765	399751H	H	1	2-11	1.11	.93	.84	.80	.74	.67
57F767	399753H	H	2	2-5	1.11	.93	.84	.80	.74	.67
57F594	399767H	H	3	2-3	1.11	.93	.84	.80	.74	.67
57F595	399769H	H	4	2	1.11	.93	.84	.80	.74	.67

NON-SHORTING "HC"

Stock No.	Type	Sec.	Poles		1-4	5-9	10-24	25-49	50-99	100-249
			Tot.	Pos.						
57F769	399761HC	HC	1	2-11	1.41	1.18	1.06	1.01	.94	.84
57F771	399763HC	HC	2	2-5	1.41	1.18	1.06	1.01	.94	.84

NON-SHORTING "L"

Stock No.	Type	Sec.	Poles	1-4	5-9	10-24	25-49	50-99	100-249	
57F773	399173L	L	1	1-17	1.14	.95	.86	.82	.76	.69

NON-SHORTING "MF"

Stock No.	Type	Sec.	Poles	1-4	5-9	10-24	25-49	50-99	100-249	
57F775	399181MF	MF	1	1-23	1.20	1.00	.90	.85	.80	.72

SHORTING "A"

Stock No.	Type	Sec.	Poles		1-4	5-9	10-24	25-49	50-99	100-249
			Tot.	Pos.						
57F730	399032A	A	1	2-12	3.09	2.58	2.32	2.20	2.06	1.85
57F732	399034A	A	2	2	3.09	2.58	2.32	2.20	2.06	1.85
57F734	399036A	A	4	2-16	3.09	2.58	2.32	2.20	2.06	1.85

SHORTING "F"

Stock No.	Type	Sec.	Poles		1-4	5-9	10-24	25-49	50-99	100-249
			Tot.	Pos.						
57F736	399070F	F	1	2-11	1.11	.93	.84	.80	.74	.67
57F738	399072F	F	2	2-5	1.11	.93	.84	.80	.74	.67
57F740	399074-F	F	3	2-3	1.11	.93	.84	.80	.74	.67
57F742	399076-F	F	4	2	1.11	.93	.84	.80	.74	.67

SHORTING "FC"

Stock No.	Type	Sec.	Poles		1-4	5-9	10-24	25-49	50-99	100-249
			Tot.	Pos.						
57F744	399090FC	FC	1	2-11	1.41	1.18	1.06	1.01	.94	.85
57F764	399092FC	FC	2	2-5	1.41	1.18	1.06	1.01	.94	.85
57F748	399094-FC	FC	3	2-3	1.41	1.18	1.06	1.01	.94	.85
57F750	399096-FC	FC	4	2	1.41	1.18	1.06	1.01	.94	.85

SHORTING "K"

Stock No.	Type	Sec.	Poles		1-4	5-9	10-24	25-49	50-99	100-249
			Tot.	Pos.						
57F752	399130K	K	1	2-12	.90	.75	.68	.65	.60	.59
57F754	399132K	K	2	2-6	.90	.75	.68	.65	.60	.59
57F756	399134K	K	6	2	.90	.75	.68	.65	.60	.59
57F582	399242-K	K	2	2-11	.90	.75	.68	.65	.60	.59
57F584	399244-K	K	2	2-5	.90	.75	.68	.65	.60	.59
57F586	399246-K	K	3	2-3	.90	.75	.68	.65	.60	.59
57F884	399254-K	K	3	2-5	.90	.75	.68	.65	.60	.56
57F588	399248-K	K	4	2	.90	.75	.68	.65	.60	.59

SHORTING "1C"

Stock No.	Type	Sec.	Poles		1-4	5-9	10-24	25-49	50-99	100-249
			Tot.	Pos.						
57F758	3991501C	1C	1	2-12	1.26	1.05	.95	.90	.84	.76
57F760	399152-1C	1C	2	2-6	1.26	1.05	.95	.90	.84	.76
57F590	399444-1C	1C	3	2-5	1.26	1.05	.95	.90	.84	.76
57F592	399446-1C	1C	5	2-3	1.26	1.05	.95	.90	.84	.76
57F762	399154-1C	1C	6	2	1.26	1.05	.95	.90	.84	.76

SHORTING "H"

Stock No.	Type	Sec.	Poles		1-4	5-9	10-24	25-49	50-99	100-249
			Tot.	Pos.						
57F764	399750H	H	1	2-11	1.11	.93	.84	.80	.74	.67
57F766	399752H	H	2	2-5	1.11	.93	.84	.80	.74	.67

SHORTING "HC"

Stock No.	Type	Sec.	Poles		1-4	5-9	10-24	25-49	50-99	100-249
			Tot.	Pos.						
57F768	399760HC	HC	1	2-11	1.41	1.18	1.06	1.01	.94	.84
57F770	399762HC	HC	2	2-5	1.41	1.18	1.06	1.01	.94	.84
57F596	399764-HC	HC	2	2-6	1.41	1.18	1.06	1.01	.94	.84

SHORTING "L"

Stock No.	Type	Sec.	Poles	1-4	5-9	10-24	25-49	50-99	100-249	
57F772	399172L	L	1	1-17	1.14	.95	.86	.82	.76	.69

SHORTING "MF"

Stock No.	Type	Sec.	Poles	1-4	5-9	10-24	25-49	50-99	100-249	
57F774	399180MF	MF	1	1-23	1.20	1.00	.90	.85	.80	.72

SONALERT "SOLID STATE" AUDIBLE SIGNAL DEVICE

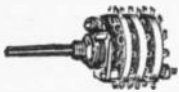


Models SC-628 and SC-628H



DIVISION OF GLOBE-UNION INC.

SUB-MINIATURE CERAMIC SWITCHES



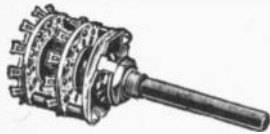
Ultra-small ceramic rotary switches ideal for use in band switching, small electronic equipment, transistor circuits, aircraft instruments, and guided missiles. Bolt construction with single hole bushing mount; locating lug on $\frac{3}{8}$ " radius; $\frac{1}{8}$ " D. shaft, cadmium plated steel, $\frac{1}{4}$ " long from mounting surface. Index angle positive 30° with index stop strength of 10 in.-pounds. $\frac{3}{32}$ " spacing between front plate and first section. Make, break, resistive load; 3.5 amps. @ 6 V. DC; .60 ma. at 110 VAC (based on 10,000 cycles). Avg. initial resistance 5 milliohms. Includes mounting nut, lockwasher, and $\frac{1}{16}$ " D. black pointer knob. Wt., 2 oz. per section.

SEPARATE ASSEMBLY SECTIONS FOR SUB-MINIATURE SWITCHES

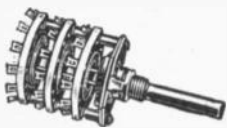


These assembly sections are for use with shaft and index assemblies listed below (P-501 thru P-511). Carry same ratings as above switches. Shpg. wt., 2 oz.

Hardware for sub-miniature switches. All index assemblies listed are designed for a maximum 3 sections and contain one index and shaft assembly, one P-106 pointer knob, six $\frac{1}{2}$ " spacers, two $\frac{1}{16}$ " spacers, two $\frac{1}{8}$ " spacers, two $\frac{3}{16}$ " spacers, two $\frac{1}{16}$ " tie bolts, nuts, lockwashers, washers, and sixteen plastic spacer washers. Shipping weight, 2 oz.



Laminated phenolic insulated rotary switches with low intercurt capacitance. Bushing $\frac{3}{8}$ " L. cadmium-plated steel. Shaft $\frac{1}{4}$ " D. full round cadmium-plated steel, $2\frac{1}{4}$ " L. from mg. surface. Index angle pos. 30° except (*) 60° . $\frac{3}{16}$ " spacing between front plate and first section; $\frac{1}{2}$ " space between sections. Brass silver-plated clips and rotor contacts; other metal parts cadmium-plated steel. Make and break res. load: 5.5 amp. @ 6 VDC; 1.75 amp. @ 24 VDC; 230 MA @ 115 VAC; based on 10,000 cycles. Avg. initial res. 3 milliohms. Includes mntg. nut, lockwasher, and $\frac{1}{4}$ " blk. pointer knob. †Bulk sold in minimum quantity of 100 only. Add suffix "B" to Newark's Stock No. Shipped less knob. Shpg. wt., 3 oz. per section.



Offers maximum voltage flash-over with high-Q-low-loss steatite body. Bolted construction with single hole bushing mount. Bushing is $\frac{3}{8}$ " cad.-plated steel and locating lug on $\frac{3}{16}$ " R. $\frac{1}{4}$ " D. shaft $2\frac{1}{4}$ " L. from mounting surface. Index angle is 30° except (*) 60° adjustable stop or continuous rotation. $\frac{3}{16}$ " spacing between front plate and first section; $\frac{1}{2}$ " spacing between sections. Voltage breakdown: 1500 VAC-RMS. Clips and rotor contacts are brass, silver plated. Make and break res. load: 5.5 amp. @ 6 VDC; 2.75 amp. @ 15 VDC; 1.75 amp. @ 24 VDC; 230 MA @ 115 VAC; based on 10,000 cycles life test. Avg. initial res. 3 milliohms. Rotational life 25,000 cycles min. Includes mntg. nut, lockwasher, and $\frac{1}{4}$ " blk. pointer knob. (†) Bulk sold in minimum quantity of 100 only. Add suffix "B" to Newark's Stock No. Shipped less knob. Shpg. wt., 3 oz. per section.

Shorting		Non-Short.		Sec.	Total Poles	No. Pos.	1-4	5-9	10-24	25-49	50-99	100-249
Stk. No.	Type	Stk. No.	Type									
22F781	PS-100	22F773	PS-101	1	1	11	4.80	4.00	3.60	3.42	3.20	2.80
22F782	PS-102	22F774	PS-103	2	2	11	6.00	5.00	4.50	4.28	4.00	3.60
22F783	PS-104	22F775	PS-105	1	2	5	4.80	4.00	3.60	3.42	3.20	2.88
22F784	PS-106	22F776	PS-107	3	3	11	7.20	6.00	5.40	5.13	4.80	4.32
22F785	PS-108	22F777	PS-109	1	3	3	4.80	4.00	3.60	3.42	3.20	2.88
22F786	PS-110	22F778	PS-111	2	4	5	6.00	5.00	4.50	4.28	4.00	3.60
22F787	PS-112	22F779	PS-113	1	4	2	4.80	4.00	3.60	3.42	3.20	2.88
22F788	PS-114	22F780	PS-115	3	6	5	7.20	6.00	5.40	5.13	4.80	4.32
22F789	PS-116	22F781	PS-117	2	6	3	6.00	5.00	4.50	4.28	4.00	3.60
22F790	PS-118	22F782	PS-119	2	8	2	7.20	6.00	5.40	5.13	4.80	4.32
22F771	PS-120	22F783	PS-121	3	9	3	7.20	6.00	5.40	5.13	4.80	4.32
22F772	PS-122	22F784	PS-123	3	12	2	7.20	6.00	5.40	5.13	4.80	4.32

Shorting		Non-Short.		Tot. Pla.	No. Pos.	1-4	5-9	10-24	25-49	50-99	100-249
Stk. No.	Type	Stk. No.	Type								
22F785	PS-20	22F789	PS-21	1	1	2-11					
22F786	PS-22	22F790	PS-23	2	2-5						
22F787	PS-24	22F791	PS-25	3	2-3						
22F788	PS-26	22F792	PS-27	4	2						

2.10 1.75 1.58 1.50 1.40 1.26

SHAFT AND INDEX ASSEMBLIES

Stock No.	Type	Ind.	Pos.	1-4	5-9	10-24	25-49	50-99	100-249
22F681	P-501	30°	2						
22F682	P-502	30°	3						
22F683	P-503	30°	4						
22F684	P-504	30°	5						
22F685	P-505	30°	6						
22F686	P-506	30°	7						
22F687	P-507	30°	8						
22F688	P-508	30°	9						
22F689	P-509	30°	10						
22F690	P-510	30°	11						
22F691	P-511	30°	con't						

1.95 1.63 1.47 1.40 1.30 1.17

MINIATURE PHENOLIC SWITCHES

Shorting		Non-Short.		Tot. Pol.	No. Pos.	Sec.	1-4	5-9	10-24	25-49	50-99	100-249	Bulk
Stk. No.	PA Type	Stk. No.	PA Type										
22F800	1000	22F801	1001	1	2-11	1	1.98	1.65	1.49	1.42	1.32	1.19	1.05
22F802	1002	22F803	1003	2	2-5	1	1.98	1.65	1.49	1.42	1.32	1.19	1.05
22F804	1004	22F805	1005	2	2-11	2	2.82	2.35	2.12	2.01	1.88	1.69	1.49
22F806	1006	22F807	1007	3	2-3	1	1.98	1.65	1.49	1.42	1.32	1.19	1.05
22F808	1008	22F809	1009	3	2-11	3	3.57	2.98	2.68	2.55	2.38	2.14	1.89
22F810	1010	22F811	1011	4	2	1	1.98	1.65	1.49	1.42	1.32	1.19	1.05
22F812	1012	22F813	1013	4	2-5	2	2.82	2.35	2.12	2.01	1.88	1.69	1.49
22F814	1014	22F815	1015	4	2-11	4	4.17	3.48	3.13	2.97	2.78	2.50	2.21
22F816	1016	22F817	1017	5	2-11	5	4.92	4.10	3.69	3.51	3.28	2.95	2.60
22F818	1018	22F819	1019	6	2-3	2	2.82	2.35	2.12	2.01	1.88	1.69	1.49
22F820	1020	22F821	1021	6	2-5	3	3.57	2.98	2.68	2.55	2.38	2.14	1.89
22F822	1022	22F823	1023	6	2-11	6	5.55	4.63	4.17	3.96	3.70	3.33	2.94
22F824	1024	22F825	1025	8	2	2	2.82	2.35	2.12	2.01	1.88	1.69	1.49
22F826	1026	22F827	1027	8	2-5	4	4.17	3.48	3.13	2.97	2.78	2.50	2.21
22F828	1028	22F829	1029	12	2	3	3.57	2.98	2.68	2.55	2.38	2.14	1.89
22F830	1030	22F831	1031	10	2-5	5	4.92	4.10	3.69	3.51	3.28	2.95	2.60
22F832	1032	22F833	1033	12	2-5	6	5.55	4.63	4.17	3.96	3.70	3.33	2.94
22F590	1040	22F835	*1035	1	2-6	1	1.98	1.65	1.49	1.42	1.32	1.19	1.05
.....	.....	22F837	*1037	2	2-6	2	2.82	2.35	2.12	2.01	1.88	1.69	1.49

MINIATURE CERAMIC ROTARY SWITCHES

Shorting		Non-Short.		Tot. Pol.	Tot. Sec.	No. Pos.	1-4	5-9	10-24	25-49	50-99	100-249	Bulk
Stock No.	Type	Stock No.	Type										
22F600	PA2000	22F601	PA2001	1	1	2-12	2.61	2.18	1.96	1.86	1.74	1.57	1.39
22F602	PA2002	22F603	PA2003	2	1	2-6	2.61	2.18	1.96	1.86	1.74	1.57	1.39
22F604	PA2004	22F605	PA2005	2	2	2-12	3.72	3.10	2.79	2.65	2.48	2.23	1.97
22F606	PA2006	22F607	PA2007	3	1	2-5	2.61	2.18	1.96	1.86	1.74	1.57	1.39
22F608	PA2008	22F609	PA2009	3	3	2-12	4.74	3.95	3.56	3.38	3.16	2.84	2.51
22F610	PA2010	22F611	PA2011	4	2	2-6	3.72	3.10	2.79	2.65	2.48	2.23	1.97
22F612	PA2012	22F613	PA2013	4	4	2-12	5.70	4.75	4.28	4.07	3.80	3.42	3.02
22F614	PA2014	22F615	PA2015	5	1	2-3	2.61	2.18	1.96	1.86	1.74	1.57	1.39
22F616	PA2016	22F617	PA2017	5	5	2-12	6.81	5.68	5.11	4.85	4.54	4.09	3.61
22F618	PA2018	22F619	PA2019	6	1	2	2.61	2.18	1.96	1.86	1.74	1.57	1.39
22F620	PA2020	22F621	PA2021	6	2	2-5	3.72	3.10	2.79	2.65	2.48	2.23	1.97
22F622	PA2022	22F623	PA2023	6	3	2-6	4.74	3.95	3.56	3.38	3.16	2.84	2.51
22F624	PA2024	22F625	PA2025	6	6	2-12	7.92	6.80	5.94	5.64	5.28	4.75	4.19
22F626	PA2026	22F627	PA2027	8	4	2-6	5.70	4.75	4.28	4.07	3.80	3.42	3.02
22F628	PA2028	22F629	PA2029	9	3	2-5	4.74	3.95	3.56	3.38	3.16	2.84	2.51
22F630	PA2030	22F631	PA2031	10	2	2-3	3.72	3.10	2.79	2.65	2.48	2.23	1.97
22F632	PA2032	22F633	PA2033	10	5	2-6	6.81	5.68	5.11	4.85	4.54	4.09	3.61
22F634	PA2034	22F635	PA2035	12	2	2	3.72	3.10	2.79	2.65	2.48	2.23	1.97
22F636	PA2036	22F637	PA2037	12	6	2-6	7.92	6.80	5.94	5.64	5.28	4.75	4.19
22F638	PA2038	22F639	PA2039	15	3	2-3	5.37	4.48	4.03	3.83	3.58	3.22	2.84
22F640	PA2040	22F641	PA2041	18	3	2	5.37	4.48	4.03	3.83	3.58	3.22	2.84
22F642	PA2042	22F643	PA2043	1	1	2-6	2.37	1.98	1.79	1.69	1.58	1.42	1.25
.....	.....	22F645	PA2045	2	2	2-6	3.30	2.75	2.48	2.35	2.20	1.98	1.75

PK-20-S SWITCH KIT

- Contact Nibbling Tool Enables Construction of Special Switches
- For PA-1000 and PA-2000 Series Miniature Switches

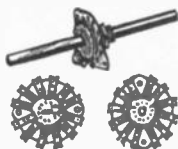
The PK-20-S Switch Kit consists of all the component parts needed by any prototype designer or electronic engineer to build individual switches to his specifications. The sturdy metal box with its folding shelves keeps an ample supply of rotors, contacts, retainers, clips, stators, eyelets, and stops within easy reach. Contains ample parts for 25 special,

four section switches. An integral part of the kit is a contact nibbling tool which enables the technician to construct a special switch with factory precision. Kit is shipped in heavy corrugated carton, complete with nibbling tool and instruction sheets.

22F599. NET 200.00



Separate sections. Use with index assemblies P-270, P-271 and P-272, below to assemble switches with special characteristics. Special section PISD, one off position, nine progressively shorting positions. Sections NSD and PSD combine for resistance decade. Section QSD special for capacitance decade. Special sections GGD and FFD all unused contacts connected and shorted. Wt., 4 oz.



SEPARATE CERAMIC SECTIONS

Shorting		Non-Short.		Poles	Pos.	1-4	5-9	10-24	25-49	50-99	100-249
Stk. No.	Type	Stk. No.	Type								
22F482	TD	22F488	XD	1	2-6	1.35	1.13	1.02	.97	.90	.81
22F483	UD	22F489	YD	1	2-11						
22F484	RD	22F490	RRD	2	2-5						
22F485	SD	22F491	SSD	3	2-3						
22F486	VD	22F492	ZD	4	2						
22F495	PISD	22F538	FFD	See Text	See Text						
22F496	QSD	.....	.....	See Text	See Text				
22F493	NSD	.....	.....	See Text	See Text				
22F494	PSD	.....	.....	See Text	See Text				
22F487	GGD	.....	.....	See Text	See Text				

INDEX ASSEMBLIES

Stk. No.	Type	No. Sec.	1-4	5-9	10-24	25-49	50-99	100-249
22F540	P-270	1-3	1.65	1.38	1.24	1.18	1.10	.99
22F541	P-271	3-5	2.10	1.75	1.58	1.50	1.40	1.28
22F542	P-272	5-10	2.85	2.38	2.14	2.03	1.90	1.71

Use with above sections. Pos. 30° index, adjustable stop includes all hardware and knob. Shipping weight, 3 oz.

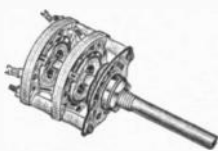


Die-cast, one piece frame except 1463, 1464, 1465, stamped steel frames. Make and break resistive load: 230MA @ 115 VAC-RMS; 1.75 amps @ 24VDC. Pos. indexing exc. 1463 and 1464. spring return. 1463, 1464 and 1472 non-shorting type, others shorting. Ship. wt., 5 oz.

GENERAL PURPOSE SWITCHES

Stk. No.	Type	Poles	Pos.	1-4	5-9	10-24	25-49	50-99	100-249
22F574	1460	1	2	1.08	.90	.81	.77	.72	.65
22F575	1461	1	3	1.08	.90	.81	.77	.72	.65
22F576	1462	2	2	1.08	.90	.81	.77	.72	.65
22F577	1463	1	2	1.08	.90	.81	.77	.72	.65
22F578	1464	2	2	1.08	.90	.81	.77	.72	.65
22F564	1465	1	4	1.80	1.50	1.35	1.28	1.20	1.08
22F585	1472	2	3	1.08	.90	.81	.77	.72	.65
22F586	1473	2	3	1.08	.90	.81	.77	.72	.65
22F587	1483	1	3	.75	.63	.57	.54	.50	.45
22F588	1484	1	3	.90	.75	.68	.65	.60	.54

Transmitters and receivers. Ceramic sections 1 1/2 x 1 1/8" d. Phenolic shaft thru sections. Steel shaft 1 1/8" lg. 60° 2-6 pole pos. Non-shorting 90°; 2-4 pole pos. 4 oz.



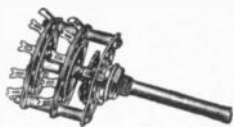
HAM SWITCHES

60°		90°		Sec.	Total Poles	1-4	5-9	10-24	25-49	50-99	100-249
Stk. No.	Type	Stk. No.	Type								
22F692	2550	22F460	2542	1	1	2.37	1.98	1.78	1.69	1.58	1.42
22F693	2551	22F461	2543	2	2	3.36	2.80	2.52	2.39	2.24	2.02
22F694	2552	22F462	2544	3	3	4.32	3.60	3.24	3.08	2.88	2.59
22F695	2553	22F463	2545	4	4	5.34	4.45	4.01	3.80	3.56	3.20
22F696	2554	22F464	2546	5	5	6.30	5.25	4.73	4.49	4.20	3.78

ROTARY SELECTOR SWITCHES — PHENOLIC INSULATION

Shorting		Non-Short.		Tot. Pls.	Tot. Sec.	No. Pos.	1-4	5-9	10-24	25-49	50-99	100-249
Stk. No.	Type	Stk. No.	Type									
22F422	1400	22F438	1401	1	1	2-6	2.52	2.10	1.89	1.80	1.68	1.51
22F423	1402	22F439	1403	1	1	2-11						
22F424	1404	22F440	1405	2	1	2-5						
22F425	1406	22F441	1407	3	1	2-3						
22F426	1408	22F442	1409	4	1	2						
22F427	1410	22F443	1411	2	2	2-6						
22F428	1412	22F444	1413	2	2	2-11						
22F429	1414	22F445	1415	4	2	2-5						
22F430	1416	22F446	1417	6	2	2-3						
22F431	1418	22F447	1419	8	2	2						
22F432	1420	22F448	1421	3	3	2-6						
22F433	1422	22F449	1423	3	3	2-11						
22F434	1424	22F450	1425	6	3	2-5						
22F435	1426	22F451	1427	4	4	2-6						
22F436	1428	22F452	1429	4	4	2-11						
22F437	1430	22F453	1431	8	4	2-5						

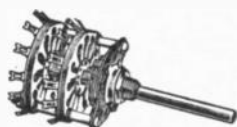
Series 1400 of. Compact design and quality construction. Laminated phenolic insulation. Mounting bushings 3/8" NEF-2A thread, 3/8" long. Shafts 1 1/8" from end of bushing. Positive 30° index with adjustable stop. Size and current rating same as 2500 series. Breakdown voltage 1000 VAC. Includes pointer knob, nut and lockwasher. Shpg. wt., 4 oz. per section.



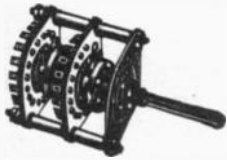
ROTARY SELECTOR SWITCHES — STEATITE INSULATION

Shorting		Non-Short.		Tot. Pls.	Tot. Sec.	No. Pos.	1-4	5-9	10-24	25-49	50-99	100-249
Stk. No.	Type	Stk. No.	Type									
22F400	2500	22F411	2501	1	1	2-6	2.82	2.35	2.12	2.01	1.88	1.69
22F401	2502	22F412	2503	1	1	2-11						
22F402	2504	22F413	2505	2	1	2-5						
22F403	2506	22F414	2507	3	1	2-3						
22F404	2510	22F415	2511	2	2	2-6						
22F405	2512	22F416	2513	2	2	2-11						
22F406	2514	22F417	2515	4	2	2-5						
22F407	2516	22F418	2517	6	2	2-3						
22F408	2520	22F419	2521	3	3	2-6						
22F409	2522	22F420	2523	3	3	2-11						
22F410	2524	22F421	2525	6	3	2-5						

Series 2500. Compact, efficient, shorting and non-shorting rotary selector switches. Low loss steatite wafers. Positive 30° index. Adjustable stop. Bushing 3/8"-32thd. 3/8" lg. Shaft 1/4" full round 1 1/8" from bushing. Dia. 1 1/8" x 1 1/8". Rated 2.75 amps at 15 VDC, 230 ma. at 115 VAC. Breakdown voltage 1500 VAC. Includes pointer knob, nut and lockwasher. Shpg. wt., 4 oz. per section.



HEAVY DUTY ROTARY POWER SWITCHES



Stearite insulation having bolted construction and single hole, bushing mounted; bushing is 3/8" brass plated. Adjustment of tie rod lengths provides one or two locating lugs. 1/4"

shaft D., double flat steel, suitably plated to resist corrosion. 2 1/4" L. from mounting surface. Index angle is 20° with 2 adjustable stops. 1" spacing between front plate and first section. Make and break res. load: 9 amps @ 110 VAC-RMS; 15 MA @ 2500 VAC-RMS; 30 amp. @ 5 VDC; 20 amp. @ 12 VDC; 11 amp. @ 28 VDC. Contact resistance 7 milliohms with rotational life 25,000 cycles min. Comes with 2" double set-screw pointer knob, dial plate, adjustable stop pin and nut and instruction sheet. Shpg. wt., 6 oz.

Shorting		Non-Short.		Tol. Pol.	Tol. Sec.	No. Pos.	1-4	5-9	10-24	25-49	50-99
Stk. No.	Type	Stk. No.	Type								
22F731	IV9000	22F748	IV9001	1	1	2-17	10.50	8.75	7.88	7.49	7.00
22F732	IV9032	22F747	IV9033	2	1	2-8	10.50	8.75	7.88	7.49	7.00
22F733	IV9004	22F748	IV9005	2	2	2-17	17.40	14.50	13.05	12.40	11.60
22F734	IV9002	22F749	IV9003	3	1	2-5	10.50	8.75	7.88	7.49	7.00
22F735	IV9008	22F750	IV9009	3	3	2-17	24.30	20.25	18.23	17.32	16.20
22F736	IV9034	22F751	IV9035	4	2	2-8	17.40	14.50	13.05	12.40	11.60
22F737	IV9012	22F752	IV9013	4	4	2-17	31.20	26.00	23.40	22.23	20.80
22F738	IV9016	22F753	IV9017	5	5	2-17	38.10	31.75	28.58	27.15	25.40
22F739	IV9006	22F754	IV9007	6	2	2-5	17.40	14.50	13.05	12.40	11.60
22F740	IV9036	22F755	IV9037	6	3	2-8	24.30	20.25	18.23	17.32	16.20
22F741	IV9020	22F756	IV9021	6	6	2-17	45.30	37.75	33.98	32.28	30.20
22F742	IV9038	22F757	IV9039	8	4	2-8	31.20	26.00	23.40	22.23	20.80
22F743	IV9010	22F758	IV9011	9	3	2-5	24.30	20.25	18.23	17.32	16.20
22F744	IV9014	22F759	IV9015	12	4	2-5	31.20	26.00	23.40	22.23	20.80
22F745	IV9018	22F760	IV9019	15	5	2-5	38.10	31.75	28.58	27.15	25.40

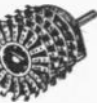
PA-4000 SERIES 24-POSITION PHENOLIC SWITCH



High quality laminated phenolic insulation, meets MIL-P-3115B. Sections: 2 1/8" H, 1 1/4" W, 1/8" thick. Rating same as PA-3000 series. Shpg. wt., 4 oz.

Shorting		Non-Short.		Pol.	Pos.	Sec.	1-4	5-9	10-24	25-49	50-99	100-249
Stk. No.	Type	Stk. No.	Type									
57F930	PA-4000	57F931	PA-4001	1	2-23	1	2.16	1.80	1.62	1.54	1.44	1.30
57F932	PA-4002	57F933	PA-4003	2	2-23	2	3.18	2.65	2.39	2.27	2.12	1.91
57F934	PA-4004	57F935	PA-4005	3	2-23	3	4.17	3.48	3.13	2.97	2.78	2.50
57F936	PA-4006	57F937	PA-4007	4	2-23	4	4.98	4.15	3.74	3.55	3.32	2.99

PA-3000 SERIES 18 POSITION SWITCH



PA-3000. High quality laminated phenolic insulation meets MIL-P-3115B. Voltage breakdown between parts 1000 VAC. Sections 2 1/8" high x 2 1/4" wide, 1/8" thick. Rated 5.5 amp at 6 VDC; 2.75; 15VDC; 1.75 amp at 24VDC; 230 ma at 115VAC. Adjustable stop or continuous rotation. Wt., 4 oz. per sect.

Shorting		Non-Short.		Pol.	Pos.	Sec.	1-4	5-9	10-24	25-49	50-99	100-249
Stk. No.	Type	Stk. No.	Type									
57F922	PA-3000	57F923	PA-3001	1	2-17	1	2.04	1.70	1.53	1.45	1.36	1.22
57F924	PA-3002	57F925	PA-3003	2	2-17	2	2.94	2.45	2.21	2.09	1.96	1.76
57F926	PA-3004	57F927	PA-3005	3	2-17	3	3.84	3.20	2.88	2.74	2.56	2.30
57F928	PA-3006	57F929	PA-3007	4	2-17	4	4.68	3.90	3.51	3.33	3.12	2.81

SEPARATE INDEX ASSEMBLY

Contains: (1) IV-7W index with 7" rotor shaft. (2) P-5637 7/8" tie-rods. (6) 5363 tie rod nuts, (6) P-4665 tie rod lockwashers, (12) P-9410 3/8" spacers, (1) P-168 2" black pointer knob, (24) P-7963 spacer washers, (1) P-21675 adjustable stop pin, (1)

P-4088 stop pin nut, mounting nut and lockwasher; instruction sheet. 2-6 sections with 7" L. shaft; 20° indexing.

Stock No.	Type	1-4	5-9	10-24	25-49	50-99
57F999	IV-7	4.50	3.75	3.38	3.21	3.00

SEPARATE ASSEMBLY SWITCH INDEXES

Index features phenolic shaft through switch sections for high bkd. v. Has knob, dial, hardware. Non-shorting. ZZZ type 60° positions. XXX type 90° position. Shpg. wt., 3 oz.

ZZZ		XXX		For Switches	Shaft	1-4	5-9	10-24	25-49	50-99	100-249
Stk. No.	Type	Stk. No.	Type								
22F846	P-273	22F856	P-278	1-2 Sec.	2"	1.38	1.15	1.04	.99	.92	.83
22F847	P-274	22F857	P-279	3-4 Sec.	4 1/4"	1.74	1.45	1.31	1.25	1.16	1.04
22F848	P-275	22F858	P-280	5-8 Sec.	7"	2.16	1.80	1.62	1.54	1.44	1.30

SEPARATE ASSEMBLY SECTION

Stk. No.	Type	Poles	Pos.	1-4	5-9	10-24	25-49	50-99	100-249
22F849	ZZD	1	2-6	1.20	1.00	.80	.88	.80	.72

Stk. No.	Type	Poles	Pos.	1-4	5-9	10-24	25-49	50-99	100-249
22F859	XXD	1	2-6	1.20	1.00	.80	.86	.80	.72

For use with P-278, 279 and 280 indexes.

SEPARATE SECTIONS

For use with IV-7 index assembly. Sections 2 1/8" high, 2" wide, 2 1/8" strut centers, 1/8" thick.

Shorting		Non-Short.		Poles	Pos.	1-4	5-9	10-24	25-49	50-99
Stk. No.	Type	Stk. No.	Type							
57F983	IV-8	57F986	IVN-8	1	2-17	6.90	5.75	5.18	4.92	4.60
57F984	IV-9	57F987	IVN-9	3	2-5	6.90	5.75	5.18	4.92	4.60
57F985	IV-10	57F988	IVN-10	2	2-8	6.90	5.75	5.18	4.92	4.60

SEPARATE MULTIPLE FINGER SECTION

Rotor has 17 silver-plated phosphor bronze fingers, making contact with 17 contacts on stator leaving one contact open. Section can be adapted for special circuits by cutting off unwanted fingers.

Shorting		Non-Short.		Poles	Pos.	1-4	5-9	10-24	25-49	50-99
Stk. No.	Type	Stk. No.	Type							
57F920	IV-18	57F921	IVN-18	1	2-18	7.50	6.25	5.63	5.35	5.00

DIAL PLATES FOR ROTARY SWITCHES

Specially designed for use with all 30° index switches. They have a diameter of 1 1/8 inches. Constructed of durable etched aluminum coated with wear resistant black enamel. 1 oz.

Stk. No.	Type	Marking	1-4	5-9	10-24	25-49	50-99	100-249
22F530	P-115	1-5						
22F531	P-116	1-6						
22F532	P-117	1-10	.21	.18	.16	.15	.14	.13
22F533	P-118	1-11						

DUAL SPEAKER SWITCH KIT

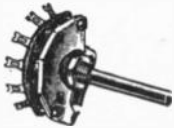


Type PK-300. Kit includes switch, etched bracket, dial plate, knob, mounting hardware, and instructions. Ship wt. 10 oz.

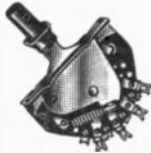
Stk. No.	Type	1-4	5-9	10-24	25-49	50-99	100-249
22F789	PK-300	1.05	.88	.79	.75	.70	.63

CENTRALAB

UNIVERSAL FLAT SWITCHES



Rated 2.75 amps at 15 VDC, 230 ma at 115 VAC. Phenolic insulation. Bushing $\frac{3}{16} \times \frac{3}{16}$ ". Shaft $1\frac{1}{8}$ " lg. from bushing. Includes hardware 4 oz.



Coil spring index design. Phenolic insulation. Single switch. $1\frac{1}{8}$ " high x $\frac{1}{16}$ " wide x $1\frac{1}{4}$ " deep behind panel. With knob and hardware. Rated at 2.75 amps at 15 VDC, 230 ma at 115 volts AC. No. 1475 is the tube tester replacement switch. Weight, 3 oz.

VDC. 230 ma at 115 volts AC. No. 1475 is the tube tester replacement switch. Weight, 3 oz.

Stk. No.	Type	Poles	Pos.	Index	1-4	5-9	10-24	25-49	50-99	100-249
22F570	1450	4	2	Pos.	1.65	1.38	1.24	1.18	1.10	.89
22F571	1451	4	2	Pos. & S. R.	2.40	2.00	1.80	1.72	1.60	1.44
57F991	1488	6	3	S. R.	3.60	3.00	2.70	2.57	2.40	2.16
57F992	1489	6	3	Pos. & S. R.	3.60	3.00	2.70	2.57	2.40	2.16

LEVER SWITCHES

Shorting		Non-Short		Poles	Pos.	Index	1-4	5-9	10-24	25-49	50-99	100-249
No.	Type	No.	Type									
22F550	1452	22F555	1454	2	3	Pos.	1.47	1.23	1.10	1.05	.98	.88
22F551	1453	22F556	1455	2	3	S. R.	1.47	1.23	1.10	1.05	.98	.88
22F552	1456	22F557	1457	4	2	S. R.	1.62	1.35	1.22	1.15	1.08	.97
22F553	1459	22F558	1458	4	2	Pos.	1.62	1.35	1.22	1.15	1.08	.97
22F554	1466	22F559	1467	2	3	Pos. & S. R.	1.47	1.23	1.10	1.05	.98	.88
		22F539	1475	1	3	Pos.	1.47	1.23	1.10	1.05	.98	.88

MINIATURE INDEX ASSEMBLIES

Use with PA sections. Includes all hardware and knob.

30° Indexing

Stock No.	Type	For Switches	Shaft	1-4	5-9	10-24	25-49	50-99	100-249
22F650	PA-300	1 to 3 sec.	2"	1.50	1.25	1.13	1.07	1.00	.90
22F651	PA-301	4 to 6 sec.	4"	1.98	1.65	1.49	1.42	1.32	1.19
22F652	PA-302	7 to 9 sec.	6"	2.58	2.15	1.94	1.84	1.72	1.55

60° Indexing

Stock No.	Type	For Switches	Shaft	1-4	5-9	10-24	25-49	50-99	100-249
22F655	PA-304	1 to 3 sec.	2"	1.50	1.25	1.13	1.07	1.00	.90
22F654	PA-305	4 to 6 sec.	4"	2.10	1.75	1.58	1.50	1.40	1.28

Intersections Shield

22F680	PA-320								
		.30	.25	.23	.22	.20	.18		

SEPARATE MINIATURE CERAMIC SECTIONS

For use with index assemblies PA-300, PA-301, PA-302 for assembly of special units of your own design. Provide maximum flexibility. Sections are .105" thick ceramic (steatite). *Unused contacts one side of common connected and shorted out. †All unused contacts connected and shorted out. ‡Progressively shorting with clockwise rotation. **Progressive shorting with counter-clockwise rotation. ††60° indexing, use with PA-304 and 305 indexes. Shipping weight, 3 oz.

Shorting		Non-Short		Poles	Pos.	1-4	5-9	10-24	25-49	50-99	100-249
Stk. No.	Type	Stk. No.	Type								
22F660	PA-0	22F661	PA-1	1	2-12	1.32	1.10	.99	.94	.88	.79
22F662	PA-2	22F663	PA-3	2	2-6						
22F664	PA-4	22F665	PA-5	3	2-5						
22F666	PA-6	22F667	PA-7	5	2-3						
22F668	PA-8	22F669	PA-9	6	2						
22F670*	PA-10	22F679*	PA-19	1	2-5						
22F671†	PA-11	22F678†	PA-18	2	2-11						
22F672‡	PA-12			1	2-10						
22F673**	PA-13			1	2-10						
22F674††	PA-20	22F677††	PA-17	1	2-6						

SEPARATE MINIATURE PHENOLIC SECTIONS

For use with index assemblies PA-300, PA-301, PA-302 for assembly of special switches to meet your requirements. Meet rigorous commercial of military applications. Sections are of $\frac{1}{16}$ " thick phenolic. *All unused contacts one side of common connected and shorted out. †All unused contacts connected and shorted out. ‡Active contacts all shorted to common contact in full CCW progressively opened and dropped with CW rotation. PA-45 is 60° indexing section, use with PA-304, 305 indexes. Shpg. wt., 2 oz.

Shorting		Non-Short.		Total Poles	Index.	Positions	1-4	5-9	10-24	25-49	50-99	100-249
Stk. No.	Type	Stk. No.	Type									
22F840	PA-30	22F841	PA-31	1	30°	2-11	.96	.80	.72	.68	.64	.58
22F842	PA-32	22F843	PA-33	2	30°	2-5						
22F844	PA-34	22F845	PA-35	3	30°	2-3						
22F846	PA-36	22F847	PA-37	4	30°	2						
22F848	PA-38*	22F849	PA-39*	1	30°	2-5						
22F850	PA-40†	22F851	PA-41†	2	30°	2-11						
22F852	PA-43‡			1	30°	2-10						
		22F853	PA-45	1	60°	2-6						

SIZE CHART

Code*	Size
A	$1\frac{1}{2} \times 1\frac{3}{8} \times \frac{9}{32}$ "
B	$1\frac{1}{2} \times 1\frac{3}{8} \times \frac{1}{16}$ "
C	$1\frac{1}{2} \times 1\frac{5}{16} \times \frac{3}{16}$ "
D	$1\frac{1}{2} \times 1\frac{5}{16} \times \frac{9}{32}$ "
E	$1\frac{1}{2} \times 1\frac{5}{16} \times \frac{1}{16}$ "

Attractive low-cost AC-DC switches for hundreds of different applications. Mtg. holes are .136, .140" clearance holes. All switches are non-shorting types, break before make. Solder lug terminals designed to accept AMP Faston Series 110 or the equivalent. U.L. and CSA listed.

STACKPOLE SWITCHES



Slide Switch



Flush Bracket



Offset Bracket

ROCKER SWITCHES

Rocker knobs made of molded Delrin. Approx. $\frac{1}{16}$ " above switch body. Two bracket configurations available. Fig. A, flush bracket (FB), Fig. B offset bracket (OB). SPST and SPDT types rated 4 amps @ 125 VAC, DPDT rated 3 amps @ 125 VAC.

Stock No.	Type & Bracket	Action	Knob Color	*	1-24	25-49	50-99	100-499	500-999
60F3314	RS-26-FB	SPST	Blk	A	.48	.38	.30	.248	.198
60F3315	RS-26-FB	SPST	Wt	A	.53	.42	.37	.273	.209
60F3316	RS-26-FB	SPST	Red	A	.53	.42	.33	.273	.209
60F3317	RS-26-OB	SPST	Blk	D	.49	.39	.31	.255	.205
60F3318	RS-26-OB	SPST	Wt	D	.54	.43	.34	.28	.216
60F3319	RS-26-OB	SPST	Red	D	.54	.43	.34	.28	.216
60F3320	RS-26-1-FB	SPDT	Blk	A	.48	.38	.30	.248	.198
60F3321	RS-26-1-FB	SPDT	Wt	A	.53	.42	.37	.273	.209
60F3322	RS-26-1-FB	SPDT	Red	A	.53	.42	.33	.273	.209
60F3323	RS-26-1-OB	SPDT	Blk	D	.49	.39	.31	.255	.205
60F3324	RS-26-1-OB	SPDT	Wt	D	.54	.43	.34	.28	.216
60F3325	RS-26-1-OB	SPDT	Red	D	.54	.43	.34	.28	.216
60F3326	RS-50-FB	DPDT	Blk	B	.50	.40	.32	.266	.216
60F3327	RS-50-FB	DPDT	Wt	B	.59	.47	.37	.291	.227
60F3328	RS-50-FB	DPDT	Red	B	.59	.47	.37	.291	.227
60F3329	RS-50-OB	DPDT	Blk	E	.53	.42	.33	.273	.227
60F3330	RS-50-OB	DPDT	Wt	E	.60	.48	.38	.298	.234
60F3331	RS-50-OB	DPDT	Red	E	.60	.48	.38	.298	.234

DEPEND ON NEWARK FOR EVERYTHING IN INDUSTRIAL ELECTRONICS

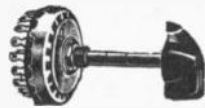
- OEM Factory Prices
- Same Day Shipment from On-the-Shelf Stocks
- To Serve You Better — Seven Stocking Warehouses Coast-to-Coast

1200L AND 1300L SERIES GANG SWITCHES

Has one fixed, one adjustable stop, silver-plated contacts and phosphor-bronze springs. 3- and 4-gang spaced 1"; all others, 1/2", 2" notched shaft. Shorting-type make before break. Require 1/16" mtg. hole. With bar knob and mtg. hardware, less mtg. plate. *Has additional "off" position with all circuits open. Wt. av., 8 oz.



Shorting No.	Shorting Type	Non-Shorting No.	Non-Shorting Type	Gangs	Total Poles	Pos. per Pole	1-4	5-9	10-24	25-49	50-99	100-249
22F000	1211L	22F016	1311L	1	1	11	2.10	1.75	1.58	1.50	1.40	1.26
22F001	1215L*	22F017	1315L*	1	2	5	2.10	1.75	1.58	1.50	1.40	1.26
22F002	1213L*	22F018	1313L*	1	3	3	2.10	1.75	1.58	1.50	1.40	1.26
22F003	1212L*	22F019	1312L*	1	4	2	2.10	1.75	1.58	1.50	1.40	1.26
22F004	1221L	22F020	1321L	2	2	11	2.58	2.15	1.94	1.84	1.72	1.55
22F005	1225L*	22F021	1325L*	2	4	5	2.58	2.15	1.94	1.84	1.72	1.55
		22F023	1322L*	2	8	2	2.58	2.15	1.94	1.84	1.72	1.55
22F008	1231L	22F024	1331L	3	3	11	3.24	2.70	2.43	2.31	2.16	1.94
22F009	1235L*	22F025	1335L*	3	6	5	3.24	2.70	2.43	2.31	2.16	1.94
22F010	1241L	22F026	1341L	4	4	4	3.81	3.18	2.86	2.71	2.54	2.29
22F011	1245L*	22F027	1345L*	4	8	5	3.81	3.18	2.86	2.71	2.54	2.29
		22F028	1351L	5	5	11	4.11	3.43	3.08	2.93	2.74	2.47
		22F029	1356L	5	10	6	4.53	3.78	3.40	3.23	3.02	2.72
22F014	1261L	22F030	1361L	6	6	11	4.83	4.03	3.62	3.44	3.22	2.90
22F015	1266L	22F031	1366L	6	12	6	5.52	4.60	4.14	3.93	3.68	3.31
		22F022	1323L*	2	3	3	2.58	2.15	1.94	1.84	1.72	1.55



SINGLE GANG SWITCHES

Well-constructed and versatile units for servicing and industrial use. Compact, enclosed switches with 2" notched shaft; 3/8" threaded bushing 3/8" long. With bar knob and nut. All have adjustable stops. For band switching, etc. Use plates listed at right. A volume plate and a 0-100 plate are also available. 1 1/4" dia. 30°; 1 1/8" dia. 20°. Shpg. wt., 4 oz.

Shorting No.	Shorting Type	Non-Shorting No.	Non-Shorting Type	Poles	Pos.	Base Dia.	1-4	5-9	10-24	25-49	50-99	100-249
22F040	3115	22F052	3215	1	5	1 1/4"	1.02	.85	.77	.73	.68	.61
22F041	31112	22F053	32112	1	12	1 1/4"	1.02	.85	.77	.73	.68	.61
22F042	3122	22F054	3222	2	2	1 1/4"	1.02	.85	.77	.73	.68	.61
22F043	3123	22F055	3223	2	3	1 1/4"	1.02	.85	.77	.73	.68	.61
22F044	3126	22F056	3226	2	6	1 1/4"	1.02	.85	.77	.73	.68	.61
22F045	3134	22F057	3234	3	4	1 1/4"	1.05	.88	.79	.75	.70	.63
22F046	3142	22F058	3242	4	2	1 1/4"	1.05	.88	.79	.75	.70	.63
22F047	3143	22F059	3243	4	3	1 1/4"	1.05	.88	.79	.75	.70	.63
22F048	31117	22F060	32117	1	17	1 1/8"	1.56	1.30	1.17	1.11	1.04	.94
22F049	3129	22F061	3229	2	9	1 1/8"	1.56	1.30	1.17	1.11	1.04	.94
22F050	3136	22F062	3236	3	6	1 1/8"	1.65	1.38	1.24	1.18	1.10	.99
22F051	3163	22F063	3263	3	3	1 1/8"	1.65	1.38	1.24	1.18	1.10	.99

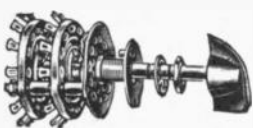


LEVER ACTION SWITCHES

5000 Series elongated mounting holes with mounting centers of 2 3/32". The 6000 Series have round holes spaced 1 5/8" ctrs. May be mounted singly or grouped with 3/4" between lever arm centers. Voltage breakdown rating 500 V AC-DC. Maximum and minimum breaking currents, resistive load, .125A @ 300V DC, 3A @ 6V DC, .2A @ 300V AC and 5A @ 6V AC.

Shorting Stk. No.	Shorting Type	Non-shorting Stk. No.	Non-shorting Type	No. of Poles	No. of Position	1-4	5-9	10-24	25-49	50-99	100-249
22F131	5124	22F134	5224	2	4	1.38	1.15	1.04	.98	.92	.83
22F132	6142	22F135	6242	4	2	1.20	1.00	.90	.86	.80	.72
22F133	6143	22F136	6243	4	3	1.20	1.00	.90	.86	.80	.72

CIRCUIT SELECTOR SWITCHES



Ceramic-section switches with low RF losses. Adjustable stop. 2 gang spaced 1/2"; 3 gang, 1". With 2" grooved shaft, knob, and hardware. *Has 1 circuit and 11 positions. †Has 2 circuits and 5 positions and ‡has 3 circuits and 3 positions per gang. # additional "off" pos. Wt. 8 oz.

Stk. No.	Types	Gang	1-4	5-9	10-24	25-49	50-99	100-249
22F070	172C	1*	2.37	1.98	1.78	1.69	1.58	1.42
22F071	173C#	1 1/2	2.37	1.98	1.78	1.69	1.58	1.42
22F072	174C#	1 1/2	2.37	1.98	1.78	1.69	1.58	1.42
22F073	176C#	2*	3.39	2.83	2.54	2.42	2.26	2.03
22F074	177C#	2†	3.39	2.83	2.54	2.42	2.26	2.03
22F075	178C#	2‡	3.39	2.83	2.54	2.42	2.26	2.03
22F077	180C	3*	4.32	3.60	3.24	3.08	2.88	2.59
22F078	181C#	3†	4.32	3.60	3.24	3.08	2.88	2.59

MALLORY DECADE SWITCHES

Use for capacitors or resistors for full decade. 153L for capacitors, 154L for resistors. Phenolic insulation. Mtg. depth behind panel 1". Lateral mtg. space 2". Steel shaft is 1/4" dia. x 2" long. Complete with knob and instructions. Wt. 6 oz.

Stk. No.	Type	1-4	5-9	10-24	25-49	50-99	100-249
22F087	153L	2.70	2.25	2.03	1.92	1.80	1.62
22F088	154L	2.94	2.45	2.21	2.09	1.96	1.76

DIAL PLATES FOR ROTARY SWITCHES



Types 372 to 390 for switches 1200L, 1300L and 1 1/4" base 3100J, 3200J types. Others are designed for 1 1/4" base 3100J and 3200J types. All are etched aluminum.

Shpg. wt., 1 oz.

PLATES FOR 1 1/4" BASE SWITCHES 30° SPACING

No.	Type	Mark
22F150	372	1 to 2
22F151	373	1 to 3
22F152	374	1 to 4
22F153	375	1 to 5
22F154	376	1 to 6
22F155	377	1 to 7
22F156	378	1 to 8
22F157	379	1 to 9
22F158	380	1 to 10
22F159	381	1 to 11
22F160	382	1 to 12
22F161	383	off 1 to 3
22F162	384	off 1 to 4
22F163	385	off 1 to 5
22F164	386	off 1 to 6
22F165	387	off 1 to 7
22F166	388	off 1 to 8
22F167	389	off 1 to 9
22F168	390	off 1 to 10

NET EACH 12c

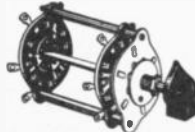
PLATES FOR 1-11/16" BASE SWITCHES 20° SPACING

No.	Type	Mark
22F169	453	1 to 3
22F170	454	1 to 4
22F171	455	1 to 5
22F172	456	1 to 6
22F173	457	1 to 7
22F174	458	1 to 8
22F175	459	1 to 9
22F176	460	1 to 10
22F177	461	1 to 11
22F178	462	1 to 12
22F179	467	1 to 17
22F180	473	off 1 to 3
22F181	474	off 1 to 4
22F184	477	off 1 to 7
22F185	478	off 1 to 8
22F186	479	off 1 to 9
22F187	480	off 1 to 10

NET EACH 12c

22F188. Type 369. 0-100 plate for either type switch. EA. 21c
22F189. Type 391. Volume plate for either type switch 15c
22F190. Type 395. 0-10 plate for standard controls 21c
22F292. Type 399. 0-10 for "E" type potentiometers 21c

MALLORY "HAMSWITCHES"



Type 151L. 2-section, 5-position switch. Non-shorting type. For switching meter circuits. 2 1/4" spacing between sections. Rated at 1000 volts AC or 1500 volts DC, 60° indexing between positions. With knob, nut, washer. Shpg. wt., 6 oz.

Stk. No.	Type	1-4	5-9	10-24	25-49	50-99	100-249
22F080	151L	2.70	2.25	2.03	1.92	1.80	1.62

Type 1312L Tap Switch. Single circuit 24-position non-shorting switch. Continuous rotation. 3/8" bushing, 2" notched shaft. 15° indexing between positions. With bar knob, dial plate and mtg. hardware. Wt., 6 oz.

Stk. No.	Type	1-4	5-9	10-24	25-49	50-99	100-249
22F085	13124L	2.76	2.30	2.07	1.97	1.84	1.66

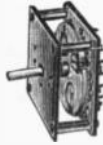
Type 1400L Circuit Opening Switch. Opens any one of 12 "lines" for insertion of current reading meter. Maintains circuit on other 11 lines. Resistors can be wired so that switch not only opens line, but also cuts in selected resistor. With bar knob, dial plate, and hardware. Wt., 6 oz.

Stk. No.	Type	1-4	5-9	10-24	25-49	50-99	100-249
22F086	1400L	4.68	3.92	3.51	3.33	3.12	2.81

Daven Switches & Resistors

ADJUSTABLE STOP SWITCHES

Allow number of switch positions to be changed at any time for maximum flexibility on all types of switch applications. All applicable paragraphs of MIL-S-3786 and MIL-E-5272 are met or exceeded. Continuous current carrying capacity (not make or break) 10 amps. Switch contacts and rotor arms are solid silver alloy.



1 Deck Non-Shorting 30° Between Positions BB Series 1 1/4" sq., EB Series 2 3/4" sq.

Stk. No.	Type	Replaces	Poles	Pos.	1-4	5-9
10F287	111-BB-3	.....	1	3	16.25	13.00
10F289	111-BB-10	.....	1	10	16.25	13.00
10F290	121-BB-2	.....	2	2	17.40	13.90
10F291	121-BB-3	.....	2	3	17.40	13.90
10F293	111-EB-12	.....	1	12	21.00	16.80

1 3/4" SQUARE

1 Deck Shorting 15° Between Positions

10F204	111CM-24A	111CM-2-24	1	24	18.50	14.80
10F205	121CM-11A	121CM-2-11	2	11	20.50	16.40
10F206	131CM-7A	131CM-2-7	3	7	22.50	18.00
10F207	141CM-5A	141CM-2-5	4	5	24.50	19.60

2 Decks Shorting 15° Between Positions

10F233	211CM-24A	211CM-2-24	1	24	30.45	24.35
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3 Decks Shorting 15° Between Positions

10F262	311CM-24A	311CM-2-24	1	24	42.40	33.90
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1 Deck Non-Shorting 30° Between Positions

10F200	111CB-12A	111CB-2-12	1	12	18.50	14.80
10F201	121CB-6A	121CB-2-6	2	6	20.50	16.40
10F202	131CB-4A	131CB-2-4	3	4	22.50	18.00
10F203	141CB-3A	141CB-2-3	4	3	24.50	19.60

2 Decks Non-Shorting 30° Between Positions

10F229	211CB-12A	211CB-2-12	1	12	30.45	24.35
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1 3/4" SQUARE (CONTINUED)

1 Deck Shorting 11 1/4° Between Positions

Stk. No.	Type	Replaces	Poles	Pos.	1-4	5-9
10F212	112CM-32A	112CM-2-32	1	32	18.50	14.80
10F213	122CM-15A	122CM-2-15	2	15	20.50	16.40

2 Decks Shorting 11 1/4° Between Positions

10F241	212CM-32A	212CM-2-32	1	32	30.45	24.35
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1 Deck Non-Shorting 22 1/2° Between Positions

10F208	112CB-16A	112CB-2-16	1	16	18.50	14.80
10F210	132CB-5A	132CB-2-5	3	5	22.50	18.00
10F211	142CB-4A	142CB-2-4	4	4	24.50	19.60

2 Decks Non-Shorting 22 1/2° Between Positions

10F237	212CB-16A	212CB-2-16	1	16	30.45	24.35
10F240	242CB-4A	242CB-2-4	4	4	42.45	33.95



2 1/4" SQUARE

1 Deck Shorting 15° Between Positions

Stk. No	Type	Replaces	Poles	Pos.	1-4	10-24
10F220	121DM-24A	121DM-2-24 121EM-2-24	2	24	22.65	18.30
10F222	141DM-11A	141DM-2-11 141EM-2-11		4	11	28.55	22.90

1 Deck Non-Shorting 15° Between Positions

10F216	113DB-24A	113DB-2-24 113TB-2-24	1	24	20.00	16.00
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2 Decks Non-Shorting 15° Between Positions

10F245	213DB-24A	213DB-2-24 213EB-2-24	1	24	33.50	26.80
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1 Deck Non-Shorting 30° Between Positions

10F217	121DB-12A	121DB-2-12 121EB-2-12	2	12	22.85	18.30
10F219	141DB-6A	141DB-2-6 141EB-2-6					4	6	28.55	22.90

2 Decks Non-Shorting 30° Between Positions

10F246	221DB-12A	221DB-2-12 221EB-2-12	2	12	39.20	31.40
10F247	231DB-6A	231DB-2-6 231EB-2-6	3	6	44.90	36.00
10F248	241DB-6A	241DB-2-6 241EB-2-6	4	6	50.60	40.60

3 Decks Non-Shorting 30° Between Positions

10F277	341DB-6A	341DB-2-6 341EB-2-6	4	6	72.65	58.30
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1 Deck Shorting 11 1/4° Between Positions

10F226	122DM-32A	122DM-2-32 122EM-2-32	2	32	22.85	18.30
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2 Decks Shorting 11 1/4° Between Positions

10F255	222DM-32A	222DM-2-32 222EM-2-32	2	32	39.20	31.40
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1 Deck Non-Shorting 22 1/2° Between Positions

10F223	122DB-16A	122DB-2-16 122EB-2-16	2	16	22.85	18.30
10F225	142DB-6A	142DB-2-8 142EB-2-8	4	8	28.55	22.90

2 Decks Non-Shorting 22 1/2° Between Positions

10F252	222DB-16A	222DB-2-16 222EB-2-16	2	16	39.20	31.40
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MODEL 1250 ENCAPSULATED RESISTORS

Encapsulated axial lead non-inductive resistors. Meet MIL-R-93C requirements. Meet AFRT-10 requirements for values of 100 ohms to 100K. Tolerance: 1%. Designed to dissipate .33 watts at 800°C., amb. with 25°C rise. Size: 1/4" dia. x 1/2" L. Avg. wt. 1 oz. Stock No. 10F000 ... See table below for values and prices.

Ohms	1-4	5-9	10-24	25-99
1	1.90	1.29	.92	.75
10	1.90	1.29	.92	.75
20	1.90	1.29	.92	.75
40	1.90	1.29	.92	.75
50	1.90	1.29	.92	.75
100	1.90	1.29	.92	.75
150	1.90	1.29	.92	.75
200	1.90	1.29	.92	.75
300	1.90	1.29	.92	.75
400	1.90	1.29	.92	.75
500	1.90	1.29	.92	.75
600	1.90	1.29	.92	.75
1000	1.90	1.29	.92	.75
1500	1.90	1.29	.92	.75
2000	1.90	1.29	.92	.75
3000	1.90	1.29	.92	.75

Ohms	1-4	5-9	10-24	25-99
4000	1.90	1.29	.92	.75
5000	1.90	1.29	.92	.75
6000	1.93	1.31	.93	.77
8000	1.93	1.31	.93	.77
10000	1.93	1.31	.93	.77
15K	2.02	1.37	1.00	.80
18K	2.02	1.37	1.00	.80
20K	2.02	1.37	1.00	.80
22K	2.02	1.37	1.00	.80
25K	2.02	1.37	1.00	.80
30K	2.13	1.44	1.06	.84
40K	2.13	1.44	1.06	.84
43K	2.13	1.44	1.06	.84
47K	2.13	1.44	1.06	.84
50K	2.13	1.44	1.06	.84
56K	2.35	1.59	1.18	.93

Ohms	1-4	5-9	10-24	25-99
60K	2.35	1.59	1.18	.93
70K	2.35	1.59	1.18	.93
75K	2.35	1.59	1.18	.93
80K	2.51	1.76	1.30	1.03
82K	2.51	1.76	1.30	1.03
100K	2.51	1.76	1.30	1.03
120K	2.60	1.80	1.40	1.11
150K	2.70	1.94	1.46	1.20
160K	2.83	2.12	1.59	1.31
180K	2.92	2.20	1.65	1.35
200K	2.92	2.20	1.65	1.35
220K	3.12	2.34	1.76	1.44
250K	3.12	2.34	1.76	1.44
300K	3.48	2.61	1.96	1.62
400K	3.97	2.85	2.13	1.75
500K	4.37	3.28	2.46	2.02

MODEL 1195 ENCAPSULATED RESISTORS

Model 1195. Axial lead resistor. Same as Model 1250 above except: Power rating is 5 watts and size is 1/4" diameter x 3/4" length. Avg. wt. 2 oz. Stock No. 10F005.

Ohms	1-4	5-9	10-24	25-99
750K	5.78	4.34	3.25	2.67
1 Meg.	6.67	5.22	3.92	3.22

ATTENUATORS

Stk. No	Model	Imped.	Steps	DB per Step	1-4	5-9
10F102	LA350EF	*250/500	20	2	26.56	21.27
10F103	LA350G	*600/600	20	2	26.56	21.27
10F104	LA350AH	*30/60	20	2	26.56	21.27
10F107	CP354X	*250,000	20	2	16.75	13.08
†10F108	CP350T	100,000	20	2	17.42	13.75
‡10F109	LAQ350EF	*250/500	20	2	28.06	22.77
10F112	T330-G	*600/600	30	1.5	43.53	34.23
10F114	T321-G	*600/600	20	2	36.31	29.25

Dial and Knobs for above attenuators. Specify attenuator type when ordering. Net per set..... 2.25



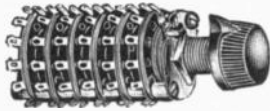
DAVENOIL. 1/2 oz. container with applicator.

10F116. NET 25c



Rotary and Lever Switches

SUB-MINIATURE ROTARY SWITCHES INCLUDING SROS STYLE TO MIL-S-3786B
V and X Types



● Space saving. Deck wafers are epoxy-glass fabric laminations per MIL-P-18177C GEB. Deck rotor meets MIL-I-10A. Water contacts are 90% silver alloy, gold-plate, double wiping for low contact resistance, and self cleaning. Frame, detent mechanism, and shaft are stainless steel. Initial contact resistance: .005 ohms max. Dielectric strength 1000 volts RMS. Insulation resistance exceeds 100,000 megohms. Current carrying capacity: 5 amp. at standard ambient conditions. Current breaking capacity: 750MA at 30 DCV; 300 MA at 120 DCV; 1 amp at 115 ACV. non-inductive. All V and X types include A7505 knob. Positive 30° indexing. (Also available with 60° or 90° indexing). Nominal 1" diameter. Patented Series 7000 provides a full 12 live switching contacts per deck. Series 5000 has the same water design but provides nearly twice the switching capability per deck, with up to 12 contacts on the front and up to 12 contacts on the rear of the same dual-duty deck. SROS types designed for top reliability ratings of MIL-S-3786B. C indicates highest temp-life rating, 25,000 rotational cycles -65°C to +125°C; 3 for vibration grade 3, 10 to 2000 cps; M for medium-impact.

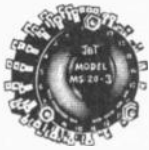
Stock No.	Type	Decks	Poles Per Deck	Pos. Per Pole	Short or Non-Short	Shaft Dia.	NET EACH
26F745	V71121N	ONE DECK	1	12	N-S	1/8"	4.90
26F746	V71121S		1	12	S	1/8"	4.90
26F747	X71121N		1	12	N-S	1/8"	4.70
26F748	X71121S		1	12	S	1/8"	4.70
26F749	V72061N		2	6	N-S	1/8"	5.00
26F750	V74031N		4	3	N-S	1/8"	5.20
26F751	V52111N	ONE DECK	2	11	N-S	1/8"	5.25
26F754	V54051S	DUAL DECK	4	5	S	1/8"	5.35
26F755	V58021N		8	2	N-S	1/8"	5.55
26F756	V71122N	TWO DECKS	1	12	N-S	1/8"	6.75
26F758	X71122N		1	12	N-S	1/8"	6.45
26F762	X52112N	2 DUAL	2	11	N-S	1/8"	7.75
26F768	X71124N	FOUR	1	12	N-S	1/8"	11.40
26F769	V71126N	SIX	1	12	N-S	1/8"	16.05

Military SROS Type MIL-S-3786B

Stock No.	Designation SROS30C2PH	Decks	Poles per Deck	Pos. per Pole	Short or Non-Short	Shaft Dia.	NET EACH
26F770	V71121N-SR05	ONE DECK	1	12	N-S	1/8"	5.25
26F771	V71121S-SR05		1	12	S	1/8"	5.25
26F772	V72061N-SR05		2	6	N-S	1/8"	5.35
26F773	V74031N-SR05		4	3	N-S	1/8"	5.50
26F777	V54051S-SR05	DUAL	4	5	N-S	1/8"	5.70
26F781	V72062N-SR05	TWO	2	6	N-S	1/8"	7.40
26F783	V52112N-SR05	TWO DUAL	2	11	N-S	1/8"	8.65
26F784	V54052N-SR05	DUTY	4	5	N-S	1/8"	8.85
26F785	V71123N-SR05	THREE	1	12	N-S	1/8"	9.45
26F787	V74033N-SR05		4	3	N-S	1/8"	10.45

SINGLE DECK, NON-SHORT, SUB-MINIATURE LEVER SWITCHES

Stock No.	Type	Poles/Deck	Pos./Pole	Shaft Dia.	Each
26F790	VL71031N	1	3	1/4"	4.80
26F792	VL72031N	2	2	1/4"	5.05
26F793	VL58021N	8	2	1/4"	5.35



ENCLOSED MOLDED ROTARY SWITCHES

Interchangeable with laminated types, but offer enclosed construction. Heavy silver plated contacts are rated at 1 amp. -125 VAC. inductive. Double-grip collector arms reduce contact resistance to an average of .007 ohm. Type MS-14 has a diameter of 2 3/32", while type MS-20 is 2 5/16". With bar knob. Type MS-14 switches require 25° 43', and type MS-20 takes 18°

plates. 5 oz. All non-shortening except (**) shorting *2 position fixed stop, with no "off" position.

MS-14 TYPE

Stk. No.	Type	Poles	Decks	Positions	NET
22F931	MS-14-1S**	1	1	14	2.50
22F932	MS-14-2S**	2	2	14	3.20
22F933	MS-14-1	1	1	14	2.45
22F934	MS-14-2	2	2	14	3.10
22F935	MS-14-3	3	3	14	3.75
22F936	MS-14-4	4	4	14	4.85
22F937	MS-14-6	6	6	14	7.05

MS-20 TYPE

Stk. No.	Type	Poles	Decks	Positions	NET
22F938	MS-20-1S**	1	1	20	3.15
22F939	MS-20-2S**	2	2	20	4.00
22F940	MS-20-1	1	1	20	3.10
22F941	MS-20-2	2	2	20	3.90
22F942	MS-20-3	3	3	20	5.00
22F943	MS-20-4	4	4	20	6.20
22F944	MS-20-1-6DT	6	1	2*	8.60
22F945	MS-20-6	6	6	20	8.60
22F946	MS-20-2-6DT	12	2	2*	5.50

ADJUSTABLE STOP MOLDED SWITCHES

Like molded switches above, except have adjustable stop to permit use of as many positions as desired. Enclosed adjustable stop mechanism increases overall depth 5/32" behind panel. Angular indexing is 25° 43'. (** Shorting Type. Shpg. wt., 4 oz.

MAS-14 TYPE

No.	Type	Poles	Decks	Positions	NET
22F947	MAS-14-1S**	1	1	2-14	3.20
22F948	MAS-14-2S**	2	2	2-14	3.95
22F949	MAS-14-1	1	1	2-14	3.10
22F950	MAS-14-2	2	2	2-14	3.80
22F951	MAS-14-3	3	3	2-14	4.60
22F952	MAS-14-4	4	4	2-14	5.70
22F953	MAS-14-6	6	6	2-14	8.00

ETCHED DIAL PLATES

For all rotary switches on this page. Dull black. 2 3/4" diameter. Shpg. wt., 2 oz.

No.	Type	Calibration	Index	NET
22F954	EP-13	Off thru 13	25° 43'	23c
22F955	EP-14	1 thru 14	25° 43'	
22F956	EP-19	Off thru 19	18°	
22F957	EP-20	1 thru 20	18°	



LAMINATED ROTARY SWITCHES

Has 14 contacts in a 2" circle, or 20 contacts in a 2 3/32" circle. 3-post deck suspension. Double-grip collector arms, with silver-to-silver contact, result in a contact resistance of .007 ohms. Contacts rated at 1 amp.-125 VAC, inductive load max. momentary capacity (not make and break) 5 amp.; max. voltage between contacts 1500 V/ RMS. Continuous rotation type, SS-14, is supplied with adjustable stop and bar knob. Designed for switching arrangements in complex circuits where one or any number of circuits can be keyed through the use of one switch. Designed for long life through the use of high dielectric contacts. Include one "off" position. Indexing is 25° 43' for SS-14 types, and 18° for SS-20 switches. With molded plastic bar knob. Average shpg. wt., 3 oz.

SS-14 NON-SHORTING TYPE

No.	Type	Poles	Decks	Positions	NET
22F905	SS-14-1	1	1	2-14	2.30
22F908	SS-14-2	2	2	2-14	2.90
22F907	SS-14-1A	2	1	2-5	2.45
22F908	SS-14-3	3	3	2-14	3.50
22F909	SS-14-4	4	4	2-14	4.40
22F910	SS-14-2A	4	2	2-5	3.20
22F911	SS-14-6	6	6	2-14	6.30

LEVER ACTION SWITCHES

Same features as laminated rotary switches above, but with lever action. Switches are 1 5/8" deep and should be mounted 3/8" apart for 1 deck. Two-deck types have same spacing between decks as 300-ohm twin lead. Type MS-20-1L5A1 is special molded unit, recommended for sound systems. Shpg. wt., 4 oz. each. *Spring return. †Includes "off" position. ‡Molded black case.



SHORTING TYPE

No.	Type	Poles	Decks	Positions	NET
22F920	SS-14-1L3S	1	1	3	1.05
22F921	SS-14-1L3SR	1	1	3*	1.20
22F922	SS-14-1L4S	1	1	4†	1.15

NON-SHORTING TYPE

No.	Type	Poles	Decks	Positions	NET
22F923	SS-14-1L3	1	1	3	1.00
22F924	SS-14-1L3R	1	1	3*	1.15
22F925	SS-14-1L4	1	1	4†	1.10
22F926	SS-14-1L4F	1	1	4	1.10
22F927	SS-14-1L3-2	2	2	3	1.70
22F928	SS-14-1L3A	2	2	3	1.15
22F929	SS-14-1L4F2	2	2	4	1.90
22F930	MS-20-1L5A1‡	2	1	5	3.25

Switches & Solenoids

CONTROLS COMPANY OF AMERICA, INDUSTRIAL and COMMERCIAL DIV.



SERIES 701 TIME SWITCHES

The solenoid-operated time delay switch may be operated on variable time sequence 2 to 60 seconds. Silver contacts provide excellent electrical contact and overload protection. Can be mounted at any angle: 360° orientation. 60 cps. frequency.
60F951. Type 701-112. Time delay after de-energizing 110V AC.
60F955. Type 701-211. Time delay after energizing 24V AC.
60F956. Type 701-212. Time delay after energizing 110V AC.
 1-914.40 10-2412.10 25-4910.20
 50-9910.20 100-2499.00

TYPE 700 TIME DELAY SWITCH

Type 700-150 Time Delay Switch. Gives positive make and break action. Time delay is pneumatically controlled. Nonsensitive to vibration and shock. Variable—3 to 40 sec. Rating: 10 amp 250v AC; 10 amp 125v AC; 1/2hp 125/250v AC. SPDT contacts. Listed by Underwriters Laboratories, Inc. Size: 2 1/2 x 3 3/8" dia. Shpg. wt., 5 oz.

Stk. No.	Type	Travel	Press.	1-9	10-24	25-49	50-99	100-189
24F1837	700-150	1 1/4" to 1 3/4"	1 1/2 lbs.	5.10	4.59	4.08	3.57	3.32

DOUBLE T SOLENOIDS

Coil windings and terminals are imbedded in a heavy shock resistant layer of epoxy. Zinc dichromate finish. Sturdy one piece construction. Sizes: Types 801, 1 1/2 x 1 1/2 x 1 1/2"; Types 812, 101 thru 812-103, 1 3/4 x 2 1/2 x 2"; Other types 813, 2 1/2 x 2 1/2 x 2". Types 821, 2 3/4 x 5/8 x 2 1/2"; Types 860, 1 3/4 x 1 3/2 x 1 3/2". For 110-120V 60 cycles. *Duty is intermittent, others are continuous. Shp. wt. 1 1/4 lbs.

Stock No.	Type	Max. Stroke	Max. Pull	1-9	10-24	25-49	50-99	100-249
24F1600	801-101-2	3/8"	5 lbs.	5.54	4.44	4.16	3.33	2.78
24F1601	801-102-2	3/8"	6 1/2 lbs.	5.54	4.44	4.16	3.33	2.78
24F1603	812-101-2	1 1/4"	11 lbs.	7.22	5.82	5.50	4.42	3.65
24F1604	812-102-2	1 1/4"	13 lbs.	7.05	5.68	5.37	4.20	3.53
24F1606	813-101-2	1 1/4"	13 lbs.	8.14	6.48	6.06	4.85	4.05
24F1607	813-102-2	1 1/4"	15.9 lbs.	7.58	6.09	5.68	4.54	3.82
24F1609	821-101-2	1 3/8"	15 lbs.	10.35	8.27	7.75	6.24	5.23
24F1610	821-102-2	1 3/8"	24 lbs.	9.62	7.70	7.17	5.72	4.85
24F1612	860-101-2	3/8"	1 3/4 lbs.	3.00	2.70	2.55	2.10	1.80
24F1613	860-102-2	3/8"	3 lbs.	3.00	2.70	2.55	2.10	1.80

For 230v. 60 cycles

Stock No.	Type	Max. Stroke	Max. Pull	1-9	10-24	25-49	50-99	100-249
24F1602	801-103-2	5/8"	5 lbs.	5.74	4.60	4.31	3.45	2.88
24F1605	812-103-2	1 1/4"	13 lbs.	7.42	5.98	5.65	4.54	3.75

KVC200-2 EIGHT SWITCH EXPANDER KIT

A supplementary 8 switch expander kit to be used with the KVC200-1 consists of 8 SPDT snap switches, rated at 15 Amps, non inductive, 2 end brackets, 6 sets of adjustable cams, cam shaft and 4 spacer rods. Total of 8 SPDT switches can be achieved when integrated with KVC200-1. Shpg. wt. 18 oz.
24F1659. NET 19.95



KVC200-1 INDUSTRIAL RECYCLING TIMER KIT

Assembled basic timer, 4 synchronous timing motors operate on 115 V AC 60 cycle. 3 gear reductions, 2 S.P.D.T. snap switches rated at 15 Amps. Kit features 11 different total time cycles — 7 1/2 sec., 15 sec., 30 sec., 1 min., 2 min., 2 1/2 min., 5 min, 7 1/2 min., 10 min., 15 min., and 30 min. Cams adjustable from 3% to 97% of total time cycle to switch current "on" or "off". Wt. 1 3/4 lbs.
24F1658. NET 24.95



SERIES 760 SNAP SWITCHES

Direct control for high capacity in industrial uses. Easily gang mounted. Silver contacts for overload protection. Shock proof design. Completely sealed against dust, moisture and dirt. Approved to 250V AC at 7.5 amps. SPDT.

Stk. No.	Model	Type	Oper. Press.	Pre. Travel	1-9	10-24	25-49	50-99	100-249
60F964	760-150	Pin	12 oz.	3/8"	.68	.61	.55	.48	.32
60F965	760-250	Lever	12 oz.	2 1/2"	.76	.68	.61	.54	.36
60F966	760-350	Panel	12 oz.	3/8"	.94	.86	.77	.68	.53
60F967	760-280	Hinge	8 oz.	3/8"	.85	.74	.68	.60	.40

TYPE 750 SNAP ACTION SWITCHES

Instantaneous, positive make and break action. High contact pressure. Nonsensitive to vibration and shock. Stable under momentary high overload. 15 amp 125v AC; 10 amp 250v AC; 1/2hp 125/250v AC. Case: molded phenolic. Listed by Underwriters' Laboratories, Inc. Sizes: Type 750, 1 7/8 x 2 1/2 x 1 1/2". Type 755, 1 7/8 x 1 1/2 x 1 1/2". Shpg. wt., 4 oz.

Stock No.	Type	Description	Total Trav.	Oper. Press.	1-9	10-24	25-49	50-99	100-249
24F1625	750-150	Pin Plunger SPDT	3/8" - 1/8"	6 to 8 oz.	.72	.68	.62	.52	.46
24F1626	750-250	Lever Action SPDT	7/8" - 3/4"	4 to 9 oz.	.81	.78	.72	.60	.52
24F1627	750-251	Lever Action SPDT	3/8" - 3/8"	4 to 6.5 oz.	.85	.82	.76	.63	.55
24F1628	750-350	Panel Mount SPDT	1/2" - 3/4"	6 to 13 oz.	1.01	.96	.89	.74	.64
24F1629	755-150	Double Circuit DPDT Pin Plunger	3/8" - 3/8"	10 to 26 oz.	1.44	1.30	1.17	1.05	.98

831 SERIES INDUSTRIAL SOLENOIDS

Double T plunger design provides virtually level pull characteristics. No power drop off at 3/4 stroke. Beryllium copper core. Moisture proof; heavy epoxy encapsulation protected coil and frame. Universal mounting. 60 cps operation.

PULL TYPE

Stk. No.	Type	Volts	Max. Stroke	Max. Pull	1-9	10-24	25-49	50-99	100-249
60F960	831-101	115	1"	2.51 lb.	7.70	6.93	6.74	6.55	6.35
60F961	831-201	230	1"	3.93 lb.	11.85	10.67	10.37	10.07	9.78

PUSH TYPE

Stk. No.	Type	Volts	Max. Stroke	Max. Pull	1-9	10-24	25-49	50-99	100-249
60F962	831-401	115	1"	2.51 lb.	7.70	6.93	6.74	6.55	6.35
60F963	931-501	230	1"	3.93 lb.	11.85	10.67	10.37	10.07	9.78

MIDGET KNIFE SWITCHES

Midget knife switches. All are rated at 25 amps, 125 volts, 3/8" thick. Heavy duty. Suitable for limited space applications. Durable bakelite base except (±) porcelain base. Shipping wt: 4 ozs.



Stk. No.	Poles	Size	1-9	10.96	100-up
23F755	SPST	1 x 1 3/4"	.22	.20	.18
23F756	SPDT	1 x 2 3/8"	.27	.24	.21
23F757	DPST	1 5/8 x 1 3/4"	.38	.34	.30
23F758	DPDT	1 1/2 x 2 3/8"	.43	.39	.345
23F759#	SPST	1 1/2 x 3 1/8"	.35	.32	.285

MAKE NEWARK YOUR ONE DEPENDABLE SOURCE FOR EVERYTHING IN INDUSTRIAL ELECTRONICS

LICON Switches

BASIC SWITCHES

Type 10 highly sensitive utilizes one piece mechanism. No pivot points means high vibration resistance and positive snap action. 1" mounting centers rated 15 amperes 125, 250 or 480 AC. 1/2 ampere at 115 VDC 2" x 1" x 1/16". Shpg. wt., 1.3 oz.

MINIATURE SWITCH

Type 11. High capacity two circuit Double break mechanism with wiping action prevents tearing and "dead break." Rated 10 amperes at 125/250 V AC. Over 20 million operations. 1 1/4" x 1/2" x 1/2". Ship wt., 3/10 oz.

HEAVY DUTY SWITCH

Type 14 Industrial limit switch. Uses double break mechanism for high electrical rating. Nylon operating button eliminates drift in oper. point. 20 amps at 125/250/480 VAC. 1 3/4" x 3/4" x 3/4". Shpg. wt., 1 1/4 oz.

SUBMINIATURE SWITCH

Type 16 double break. 2 circuit rated 10 amps 125/250 VAC. Size 2 5/32" x 1/16" x 1/4". Double break mechanism tested over 20 million cyc. Shpg. wt., .12 oz.

SUB-SUBMINIATURE

Type 18. Double break. Rated: 8 amps @ 125/250 VAC; 4 amps inductive @ 28 VDC. 20 million cyc. life. Size: .2x.3x.38". Shpg. wt., .003 lb.

SUBMINIATURE

Type 19. Single break with standard movement differential of .003" max. Rated 5 amps @ 125/250 VAC; 4 amps resistive @ 28 VDC. Size: .78x.36x.25". Shpg. wt., .005 lb.

DOUBLE POLE SWITCH

Type 22 DPDT high current interruption. Rated: 10 amps @ 125/250 VAC; 15 amps @ RES 30 VDC. Double bearing guide Wiping action. Dust proof case. Beryllium copper switch blades. Size: 1/2" x 1 1/4" x 1/2". Shpg. wt., 1/2 oz.

HIGH CAPACITY SWITCH

Type 23. Hi-capacity single break with unique "heat dam" to omit flow of solder and flux inside models having solder terminals. UL rated 8 amps @ 125/250 VAC. 10 amps resistive and 6 amps inductive @ 30 VDC. Size: 1.34x.625x.41". Shpg. wt., 3/10 oz.

SINGLE BREAK

MINIATURE

Type 25. Internal wiping action insures high contact weld. Center line plunger rated at 12.5 amps @ 125/250 VDC. Mechanical life 20 million cycles. 5/32" x 5/16" x 1/2". Shpg. wt., 3/10 oz.

DOUBLE POLE SUBMIN.

Type 28. Two BUTTERFLY double break mechanisms. Both poles operate simultaneously due to special linkage. Uses type 78 actuators. UL rated 8 amps @ 125/250 VAC. 10 amps res., 7.5 ind. @ 28 VDC. 2 5/32" x .761" x 1/4". Shpg. wt., 3/10 oz.

BASIC SWITCHES — TYPE 10

Stk. No.	Type	Description	Microswitch Equivalent	1-9	10-19	20-49	50-99	100-199
23F151	10-122	Pin Plunger .020" gap	BZ-2RT	1.50	1.35	1.20	1.05	.975
23F154	10-222	Spring Plunger	BZ-2RST	1.90	1.71	1.52	1.33	1.235
23F155	10-322	Panel Mount Plunger	BZ-2RQIT	3.50	3.15	2.80	2.45	2.280
23F156	10-422	Leaf Spring	BZ-2RLT	1.60	1.44	1.28	1.12	1.040
23F157	10-522	Roller Leaf Spring	BZ-2RL2T	2.10	1.89	1.68	1.47	1.370
23F158	10-622	Pivoted Lever	.....	1.90	1.71	1.52	1.33	1.235
23F159	10-722	Pivoted Roller Lever	BZ-2RW82T	2.35	2.12	1.88	1.65	1.530
23F160	10-822	Compact Plunger	BZ-ROT	1.90	1.71	1.52	1.33	1.235
23F161	10-922	Roller Plunger	BZ-2RO18T	6.15	5.54	4.92	4.31	3.980

MINIATURE SWITCHES — TYPE 11

Stk. No.	Type	Description	Microswitch Equivalent	1-9	10-19	20-49	50-99	100-199
23F161	11-104	End Solder Terminal	1TB1-2	1.40	1.26	1.12	.98	.910
23F162	11-204	End Solder Terminal	1TB1-1	1.50	1.35	1.20	1.05	.975
23F163	11-304	Side Solder Terminal	1TB1-3	1.47	1.32	1.18	1.03	.956
23F164	11-114	Reset-End Solder Term	.....	1.65	1.49	1.32	1.16	1.073
23F165	11-214	Reset-End Screw Term	.....	1.75	1.58	1.40	1.23	1.138

AUXILIARY ACTUATORS FOR TYPE 11 SWITCHES

Stk. No.	Type	Description	Microswitch Equivalent	1-9	10-19	20-49	50-99	100-199
23F168	71-1040	Rigid Roller Lever	.....	.80	.72	.64	.56	.520
23F169	71-2010	Overtravel Plunger	.....	1.25	1.13	1.00	.88	.793
23F170	71-3010	Spring Lever	1T-1	.20	.18	.16	.14	.130
23F171	71-3020	Spring Roller Lever	1T-5	.60	.54	.48	.42	.390

HEAVY DUTY

Stk. No.	Type	Description	Microswitch Equivalent	1-9	10-19	20-49	50-99	100-199
23F178	14-12403	Basic Switch	.....	2.90	2.61	2.32	2.03	1.885

SUBMINIATURE SWITCH — TYPE 16

Stk. No.	Type	Description	Microswitch Equivalent	1-9	10-19	20-49	50-99	100-199
23F179	16-104	End Solder Terminal	.....	2.00	1.80	1.60	1.40	1.300
23F182	16-304	Side Solder Terminal	.....	2.25	2.03	1.80	1.58	1.463
23F183	16-404	Bottom Solder Term	.....	2.25	2.03	1.80	1.58	1.463
23F184	16-114	Reset-End Solder Term	.....	2.25	2.03	1.80	1.58	1.463
23F187	16-504	Bottom Taper Tab	.....	2.25	2.03	1.80	1.58	1.463

AUXILIARY ACTUATORS FOR TYPE 16 SWITCHES

Stk. No.	Type	Description	Microswitch Equivalent	1-9	10-19	20-49	50-99	100-199
23F188	76-1200	Rigid roller lever	.....	.90	.81	.72	.68	.585
23F189	76-1210	Rigid lever	.....	.50	.45	.40	.35	.322
23F190	76-3200	Spring lever	.....	.35	.32	.28	.25	.282
23F191	76-3210	Spring roller lever	.....	.75	.68	.60	.53	.488

SUB-SUBMINIATURE SWITCHES — TYPE 18

Stk. No.	Type	Description	Microswitch Equivalent	1-9	10-19	20-49	50-99	100-199
60F1950	18-40121	Form Y	.....	3.00	2.70	2.40	2.10	1.95
60F1951	18-40221	Form X	.....	3.00	2.70	2.40	2.10	1.95
60F1952	18-40421	Form Z Hi temps	.....	3.00	2.70	2.40	2.10	1.95

SUBMINIATURE SWITCHES — TYPE 19

Stk. No.	Type	Description	Microswitch Equivalent	1-9	10-19	20-49	50-99	100-199
60F1953	19-103	Solder terminal, silver contact	1SM1	1.20	1.08	.96	.84	.78
60F1954	19-203	Single turret, silver contact	1SM1-T	1.20	1.08	.96	.84	.78
60F1955	19-303	Double turret, silver contact	1SM1-T2	1.25	1.13	1.00	.83	.81
60F1956	79-2810/103	Push button, 1/4" bushing	1PB5	3.50	3.15	2.80	2.45	2.27
60F1957	79-4810/102	Toggle, 1/4" bushing	6AT2	3.40	3.06	2.72	2.38	2.21

DOUBLE POLE SWITCH — TYPE 22

Stk. No.	Type	Description	Microswitch equivalent	1-9	10-19	20-49	50-99	100-199
23F185	22-304	DPDT Side Term	41TB5-3	4.70	4.23	3.76	3.29	3.055

AUXILIARY ACTUATORS FOR DOUBLE POLE SWITCH

Stk. No.	Type	Description	Microswitch Equivalent	1-9	10-19	20-49	50-99	100-199
23F192	72-1150	Rigid lever	.....	.50	.45	.40	.35	.322
23F193	72-1160	Rigid roller lever	.....	1.00	.90	.80	.70	.65
23F194	72-2080	Overtravel plunger	.....	1.50	1.35	1.20	1.05	.995

HIGH CAPACITY SWITCHES — TYPE 23

Stk. No.	Type	Description	Microswitch Equivalent	1-9	10-19	20-49	50-99	100-199
60F1958	23-114	Solder terminals SPDT	V3-19	1.04	.94	.83	.73	.68
60F1959	23-124	Screw terminals SPDT	V3-1	1.10	.99	.88	.77	.71
60F1960	23-154	187 Series Amp Connect.	V3-1D8	.95	.85	.76	.66	.62

HIGH CAPACITY SINGLE BREAK MINIATURE TYPE 25

Stk. No.	Type	Description	Acro Equiv.	1-9	10-19	20-49	50-99	100-199
60F1963	25-100000*	3-6 oz O.F.	1MD1-1A	1.45	1.31	1.16	1.02	.94
60F1964	25-101000*	6-10 oz O.F.	2MD1-1A					
60F1965	25-102000*	12-16 oz O.F.	3MD1-1A					
60F1966	25-205000**	27 gr max. O.F.	1CMD1-2AXX					
60F1967	25-206000**	44 gr max. O.F.	2CMD1-2AXX					
60F1968	25-207000**	60 gr max. O.F.	3CMD1-2AXX					

*On center. **Off center plunger.

DOUBLE POLE SUBMINIATURE — TYPE 26

Stk. No.	Type	Description	Microswitch Equivalent	1-9	10-19	20-49	50-99	100-199
60F1961	26-804	Form ZZ End Solder Terminal	.....	5.50	4.95	4.40	3.85	3.57
60F1962	26-904	Form ZZ Side Solder Terminal	.....	5.75	5.18	4.60	4.03	3.74



Type 10



Type 11



Type 14



Type 16



Type 18



Type 19



Type 22



Type 23



Type 25



Type 26

Switches LICON®

DIECAST ENCLOSED

Type 30. For industrial control, limit, safety applications. Polyethylene diaphragm provides a positive switch seal with unlimited life, minimizes "pumping" by its minute movement and also eliminates customary problems of tearing and cracking. "O" ring prevents extrusion of gaskets. Aluminum diecast housing provides rugged enclosure, 1/2" — 14 internal top conduit hub, 15 amps 125/250/480 V AC, .5 amps @ 115 V DC. Size: 3"x1"x2"x 1/2". Shpg. wt., 10 oz.

TRIPLE POLE

SUBMINIATURE

Type 36. Compact triple pole double break switch. Three exclusive Butterfly double break mechanisms offer a mechanical life of 20 million cycles. Rated at 10 amps 125/250 VDC. Simultaneous handling for up to 6 circuits in a single switch. Uses 76 series actuators. 1.187x.796x.250. Shpg. wt., 1 oz.

LIGHTED PUSHBUTTON

SWITCHES

Series 01. Stationary lamp socket. There is a wide selection of lens cap shapes, sizes, and colors. Non turn positive snap on lens caps. Front of panel lamp servicing without any tool. Choice of projected color or solid colored lens illumination. Uses T-1 1/4 screw base lamp. Less lamp.

Lighted push button switches cut control console costs by combining indicating and manual switching functions in a single compact package. Serves as the color and/or legend coded panel indicator and actuates one or more subminiature snap-action switches. The single light Type 01 replaces conventional systems of separate panel lights and push-button or toggle switches, thus reducing panel size requirements and installation time. Designed for commercial and military use to meet the requirements for MIL-S-22885. Consists of a removable lens cap and a switch-lamp socket assembly. For greater reliability the lamp socket remains stationary when the pushbutton is actuated. The basic switch is the Licon type 16 subminiature doublebreak miniature doublebreak long life switch rated up to 10 amps. Maint.: 4 3/8 x 2 1/2 x 2 3/32". Moment: 4 3/8 x 1 1/2 x 2 3/32". Shpg. wt., 2 oz.

LENS CAP

Designed to serve as indicator screen and push-button. Choice of solid color (brightly illuminated when lit, color shows when unlit) and projected color, (white translucent screen color shows only when lit). Positive lens cap positioning and orientation is insured by snap on, snap off fastener and keying tab.

DIECAST ENCLOSED SWITCHES—TYPE 30

Stock No.	Type	Description	Micro Switch Equivalent	1-9	10-19	20-49	50-99	100-199
23F172	30-200	Sealed Plunger	BZE-2RN BZV-2RN	6.05	5.45	4.84	4.24	3.93
23F173	30-400	Adjustable Sealed Roller Arm	BZE-2RN2 BZV-2RN2	9.35	8.42	7.48	6.55	6.08
23F174	30-600	Sealed Palm Button	BZE-2RN4 BZE-2RQ	9.85	8.87	7.85	6.90	6.373
23F175	30-100	Overtravel Plunger	BZX-2RQ BZE-2RQ2	4.60	4.14	3.68	3.22	2.99
23F176	30-300	Adj. Roller Lever	BZE-2RQ8 BZV-2RQ8	8.25	7.43	6.60	5.78	5.368
23F177	30-500	Roller Plunger	BZE-2RQ81 BZV-2RQ81 BZE-2RQ9 BZV-2RQ9	8.25	7.43	6.60	5.78	5.363
23F186	30-030	Diecast Term Encl.	3PA1, 3PA2	1.75	1.58	1.23	1.40	1.14

TRIPLE POLE SUBMINIATURE TYPE 36

Stock No.	Type	Description	1-9	10-19	20-49	50-99	100-199
60F1969	36-604	End solder term. simul.	8.50	7.65	6.80	5.95	5.53
60F1970	36-60401	End solder term. Non-simul.	7.50	6.75	6.50	5.25	4.88
60F1971	36-704	Side solder term. Simul.	8.75	7.88	7.00	6.13	5.69
60F1972	36-70401	Side solder term. Non-simul.	7.75	6.98	6.20	5.43	5.04

SERIES 01 SINGLE LITE PUSHBUTTON SWITCH—15/32" BUSHINGS

Stock No.	Type	Description	1-24	25-99	100-499
60F1973	01-145000	Indicator	3.20	2.88	2.62
60F1974	01-145130	Maint. Cont. 1 pole form Z	7.40	6.66	6.07
60F1975	01-145230	Maint. cont. 2 pole form Z	9.35	8.42	7.67
60F1976	01-145530	Momentary 1 pole form Z	5.15	4.64	4.22
60F1977	01-145630	Momentary 2 pole form Z	7.10	6.39	5.82

SERIES 01 SINGLE LITE PUSHBUTTON SWITCH—5/8" BUSHINGS

Stock No.	Type	Description	1-24	25-99	100-499
60F1978	01-345000	Indicator	3.20	2.88	2.62
60F1979	01-345130	Maint. cont. 1 pole form Z	7.40	6.66	6.07
60F1980	01-345230	Maint. cont. 2 pole form Z	9.35	8.42	7.67
60F1981	01-345530	Momentary 1 pole form Z	5.15	4.64	4.22
60F1982	01-345630	Momentary 2 pole form Z	7.10	6.39	5.82

LENS CAPS—SOLID COLOR—5/8" SQUARE

Color	15/32" bushing		5/8" bushing		1-24	25-99	100-499
	Stk. No.	Type	Stk. No.	Type			
White	60F1983	01-911311	60F1993	01-921311	.40	.36	.328
Red	60F1984	01-911312	60F1994	01-921312			
Green	60F1985	01-911313	60F1995	01-921313			
Blue	60F1986	01-911314	60F1996	01-921314			
Yellow	60F1987	01-911315	60F1997	01-921315			

LENS CAPS—SOLID COLOR—3/4" SQUARE

Color	Stock No.	Type	Stock No.	Type	1-24	25-99	100-499
Red	60F1989	01-911412	60F1999	01-921412			
Green	60F1990	01-911413	60F2000	01-921413			
Blue	60F1991	01-911414	60F2001	01-921414			
Yellow	60F1992	01-911415	60F2002	01-921415			

LENS CAPS—SOLID COLOR—5/8" ROUND

Color	Stock No.	Type	Stock No.	Type	1-24	25-99	100-499
Red	60F2004	01-931312	60F2014	01-941312			
Green	60F2005	01-931313	60F2015	01-941313			
Blue	60F2006	01-931314	60F2016	01-941314			
Yellow	60F2007	01-931315	60F2017	01-941315			

LENS CAPS—SOLID COLOR—3/4" ROUND

Color	Stock No.	Type	Stock No.	Type	1-24	25-99	100-499
Red	60F2009	01-931412	60F2019	01-941412			
Green	60F2010	01-931413	60F2020	01-941413			
Blue	60F2011	01-931414	60F2021	01-941414			
Yellow	60F2012	01-931415	60F2022	01-941415			

LENS CAPS—PROJECTED COLOR—5/8" SQUARE

Color	Stock No.	Type	Stock No.	Type	1-24	25-99	100-499
Red	60F2024	01-911322	60F2034	01-921322			
Green	60F2025	01-911323	60F2035	01-921323			
Blue	60F2026	01-911324	60F2036	01-921324			
Yellow	60F2027	01-911325	60F2037	01-921325			

LENS CAPS—PROJECTED COLOR—3/4" SQUARE

Color	Stock No.	Type	Stock No.	Type	1-24	25-99	100-499
Red	60F2029	01-911422	60F2039	01-921422			
Green	60F2030	01-911423	60F2040	01-921423			
Blue	60F2031	01-911424	60F2041	01-921424			
Yellow	60F2032	01-911425	60F2042	01-921425			

LENS CAPS—PROJECTED COLOR—5/8" ROUND

Color	Stock No.	Type	Stock No.	Type	1-24	25-99	100-499
Red	60F2044	01-931322	60F2054	01-941322			
Green	60F2045	01-931323	60F2055	01-941323			
Blue	60F2046	01-931324	60F2056	01-941324			
Yellow	60F2047	01-931325	60F2057	01-941325			

LENS CAPS—PROJECTED COLOR—3/4" ROUND

Color	Stock No.	Type	Stock No.	Type	1-24	25-99	100-499
Red	60F2049	01-931422	60F2059	01-941422			
Green	60F2050	01-931423	60F2060	01-941423			
Blue	60F2051	01-931424	60F2061	01-941424			
Yellow	60F2052	01-931425	60F2062	01-941425			



Plunger Switch



Roller Arm



Roller Plunger



Sealed Palm Button



Type 36



Type 01

LICON Switches

TYPE 01-800 SINGLE LITE PUSHBUTTON SWITCH

Single lamp indicator/pushbutton switch designed to provide the ultimate in function and beauty. Time saving with front mounting. The bezel barrier eliminates misguided actuation. Solid color lens—brilliant hue when illuminated, color visible when unlit. Projected color lens—white translucent screen, color projected thru permanently fixed color filter. Color not visible when unlit. For panels $\frac{1}{16}$ " to $\frac{1}{8}$ " thick. Uses T-1 $\frac{3}{4}$ flange base lamp socket. U.L. listed, rated 10 amps. Switch module—supplied less lamp. Shpg. wt. 2 oz.

Stk. No.	Type	Description	1-24	25-99	100-499
42F850	01-865000	Indicator only	2.50	2.25	2.05
42F851	01-865130	Maint. contact 1 pole—Form Z	6.70	6.03	5.49
42F852	01-865230	Maint. contact 2 pole—Form Z	8.65	7.79	7.09
42F853	01-865530	Momentary 1 pole—Form Z	4.45	4.01	3.65
42F854	01-865630	Momentary 2 pole—Form Z	6.40	5.76	5.25

LENS CAP—1 $\frac{1}{8}$ x $\frac{3}{8}$ "

Color	Projected Color		1-24	25-99	100-499	Solid Color		1-24	25-99	100-499
	Stk. No.	Type				Stk. No.	Type			
White	42F855	01-951921	1.10	.99	.902	42F842	01-951911	.70	.63	.574
Red	42F856	01-951922				42F843	01-951912			
Green	42F857	01-951923				42F844	01-951913			
Blue	42F858	01-951924				42F845	01-951914			
Yellow	42F859	01-951925				42F846	01-951915			

TYPE 04 FOUR LITE PUSHBUTTON SWITCH

Complete series of four lamp lighted switches designed to conserve panel space. Combines a switching function with wide variety of high quality color displays. Module construction consists of a light module housing and switch modules which snap together for max. versatility. Uses four T-1 $\frac{3}{4}$ flange base incandescent lamps in each module. Lamps not supplied with unit. Shpg. wt. 3 oz.

LIGHT MODULES

Stk. No.	Type	Description	1-24	25-99	100-499
42F860	04-601	Full screen translucent proj. color	2.75	2.48	2.255
42F861	04-602	Vertical split translucent proj. color	3.15	2.84	2.583
42F862	04-603	Horizontal split translucent proj. color	3.15	2.84	2.583
42F863	04-607	Quad split translucent proj. color	3.55	3.20	2.91
42F864	04-604	Full screen solid color	2.75	2.48	2.255

Indicate color filter combination for projected screen color by listing color designating letters clockwise in accordance with the color key diagram at right. Example: Vertically split, green at left, red at right—order 04-602GRRG. R=red, G=green, A=amber, Y=yellow, W=white, B=blue, O=orange.

HOUSINGS

For up to $\frac{1}{4}$ " panel thickness. Flange mt.—.890" sq. panel cutout Plastic Barrier Mt.—.890 x 1.265", and push in Mt.—.890 x 1.000".

Stk. No.	Type	Description	1-24	25-99	100-499
42F865	04-71	Flange mount $\frac{1}{8}$ " panel Flush Mount	4.15	3.74	3.403
42F866	04-72	Flange mount $\frac{1}{4}$ " panel, Flush Mount	4.15	3.74	3.403
42F867	04-75	Barrier with screw mounting	3.90	3.51	3.198
42F868	04-77	Bezel mounting snap in mounting	4.15	3.74	3.403
42F869	04-79	Bezel barrier snap in mounting	4.15	3.74	3.403

SWITCH MODULES (For 04 types above and 44 types below)—U.L. Listed, rated 10 amps.

Stk. No.	Type	Description	1-24	25-99	100-499
42F870	76-2713	Maint. cont. 1 pole Form Z	4.40	3.96	3.61
42F871	76-2723	Maint. cont. 2 pole Form Z	5.55	5.00	4.55
42F872	76-2753	Momentary 1 pole Form Z	2.90	2.61	2.38
42F873	76-2763	Momentary 2 pole Form Z	3.90	3.51	3.20

BARRIERS FOR 04-75 HOUSINGS

Color	Flush Barrier		Protruding Barrier		1-24	25-99	100-499
	Stk. No.	Type	Stk. No.	Type			
Black	42F874	70-3051	42F847	70-3061	.40	.36	.328
White	42F875	70-3052	42F848	70-3062			
Gray	42F876	70-3053	42F849	70-3063			

TYPE 44 ROUND FOUR LITE PUSHBUTTON SWITCH

Round four lamp lighted pushbutton switch can be splash proof sealed. All the display features and varieties of the 04 series are found in the 44. Same type of modular construction applies. Sh. wt. 3 oz.

LIGHT MODULES (See how to order above 04 series)

All are white translucent projected screens, except "solid color.

Description	Unsealed Version					Sealed Version				
	Stk. No.	Type	1-24	25-99	100-499	Stk. No.	Type	1-24	25-99	100-499
Full screen	42F877	44-101	2.75	2.48	2.255	42F893	44-601	3.25	2.93	2.665
Vertical split	42F878	44-102	3.15	2.84	2.583	42F894	44-602	3.65	3.29	2.993
Horizontal split	42F879	44-103	3.15	2.84	2.583	42F895	44-603	3.65	3.29	2.993
Quad split	42F880	44-107	3.55	3.20	2.911	42F896	44-607	4.05	3.65	3.321
Full screen, sol. color	42F881	44-104*	2.75	2.48	2.255	42F897	44-604*	3.25	2.93	2.665

HOUSINGS

Clamp on MTG. Bracket | 42F882 | 44-28 | 4.15 | 3.74 | 3.403 | 42F888 | 44-78 | 4.65 | 4.19 | 3.813

01-700 SERIES MOMENTARY ONE LITE

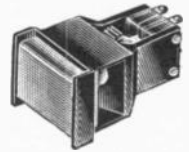
Low cost momentary one-lite switch in one piece lexan housing. UL listed, 10 amps @ 125 VAC. Order switch and lens separately. Uses screw base T $\frac{1}{4}$ incandescent lamp, not supplied. Size: $1\frac{1}{32}$ x $3\frac{9}{64}$ x $2\frac{5}{32}$ with $1\frac{1}{32}$ bushing. Shpg. wt. 2 oz.

SWITCHES

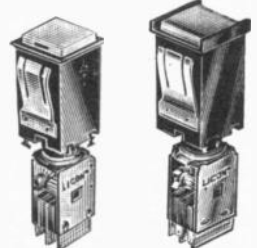
Stk. No.	Type	Description	1-24	25-99	100-499
42F883	01-745000	Indicator	1.80	1.62	1.476
42F884	01-745510	1 pole form C	3.10	2.79	2.542
42F885	01-745530	1 pole form Z	3.30	2.97	2.706
42F886	01-745610	2 pole form C	3.80	3.42	3.116
42F887	01-745630	2 pole form Z	4.20	3.78	3.444

LENS CAPS (1 $\frac{1}{32}$ " Dia.)

Stk. No.	Type	Color	1-24	24-99	100-499
42F888	80-010768	White	.20	.18	.164
42F889	80-010765	Red			
42F890	80-010764	Green			
42F891	80-010767	Blue			
42F892	80-010766	Yellow			

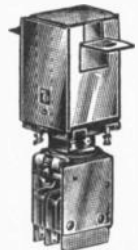


01-800

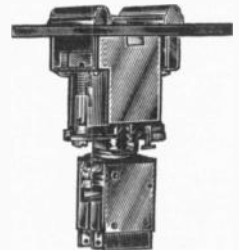


Bezel

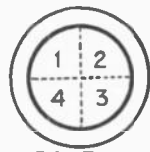
Bezel Barrier



Flange Mount



Barrier Mount



Color Key



Type 44



Type 01-700

Snap Switches by Acro Division



MINIATURE MODEL CM

Mechanical life of up to 50 million cycles. Light operating force. Electrical rating: 3 amps, 125-250 VAC; 3 amps, 28 VDC. Environmental temperature -90°F to 250°F.



ICMDI-2AXX ICMDI-1AXX-A23M



ICMDI-2AXX-A22 ICMDI-2AXX-A24



3 DO5-5P



IMDI-1A IMDI-1A-A18



IMDI-1A-A18M IMDI-1A-A14



BRD2-5L1S BRD2-LW228-1S



BRD2-24P-1S BRD2-LW8-1S



BRD2-1P-1S BRD2-10-1S



SF-BRD2-2PN-2 SF-BRD2-8PR

Stock No.	Type	Operating Force	Pretravel	Overtravel	Terminal	1-9	10-19	20-49	50-99	100-199	200-499
23F415	1CMDI-2AXX	20-27 g.	.040 in. Max.	.050 in. Max.	.....	1.45	1.31	1.16	1.02	.94	.92
23F426	2CMDI-2AXX	33-44 g.	.040 in. Max.	.050 in. Max.	Solder	1.45	1.31	1.16	1.02	.94	.92
60F1900	3CMDI-2AXX	45-60 g.	.040 in. Max.	.050 in. Max.	Solder	1.45	1.31	1.16	1.02	.94	.92
60F1901	1CMDI-2AXX-A22	2.5 g. Max.	.....	.....	Solder	1.75	1.58	1.40	1.23	1.14	1.10
60F1902	1CMDI-1AXX-A23M	5-8 oz.	.040 in. Max.	.050 in. Max.	.....	1.75	1.58	1.40	1.23	1.14	1.10
23F416	1CMDI-2AXX-A24	2.5 g. Max.	.....	.....	.....	1.75	1.58	1.40	1.23	1.14	1.10
23F427	2CMDI-2AXX-A24	4 g. Max.	.....	.....	.....	1.75	1.58	1.40	1.23	1.14	1.10

SNAP-ACTION PUSHBUTTON SWITCHES

Overtravel plug type. 250 VAC; 12 amps.

Stock No.	Type	Operating Force	Pretravel	Overtravel	Terminal	1-9	10-19	20-49	50-99	100-199	200-499
60F1905	3D05-5P	10-15 oz.	0.10"	.007"	Solder	1.75	1.58	1.40	1.23	1.14	1.10

MINIATURE MODEL M

Mechanical life of up to 10 million cycles. U.L. electrical rating: 10 amps, 125-250 VAC. All have solder terminals and stainless steel actuator pins. Temp. -90°F to 250°F.

Stock No.	Type	Operating Force	Pretravel	Overtravel	Description	1-9	10-19	20-49	50-99	100-199	200-499
23F414	1MDI-1A	6 oz. Max.	1/32 in. Max.	.025 in. Max.	Pin Plunger	1.45	1.31	1.16	1.02	.94	.92
23F428	2MDI-1A	10 oz. Max.	1/32 in. Max.	.025 in. Max.	Pin Plunger	1.45	1.31	1.16	1.02	.94	.92
23F425	3MDI-1A	16 oz. Max.	1/32 in. Max.	.025 in. Max.	Pin Plunger	1.45	1.31	1.16	1.02	.94	.92
23F432	2MC3-1A	1.5-62oz.	.....	.....	Pin Plunger	1.45	1.31	1.16	1.02	.94	.92

ACTUATORS FOR ABOVE MINIATURE MODEL M PIN PLUNGERS

Stk. No.	Type	Description	1-9	10-19	20-49	50-99	100-199	200-499
23F420	A18	Flat lead, side mount actuator.	.40	.36	.32	.28	.26	.25
23F430	A18M	Roller lead, side mount actuator.	.60	.54	.48	.42	.39	.38
60F1903	A14	Plunger actuator for two switches.	1.20	1.08	.96	.84	.78	.76

GENERAL PURPOSE MODEL B

Mechanical life of over 10 million cycles. High contact pressure rolling spring has minimum contact bounce and low traverse time. Uniform mating cover onto base. Spring loaded assembly. Contacts rated at 15 amps, 120-240-480 volts AC; 1/4 amp, 240 VDC. 1/2 amp, 120 VDC. Step Base 6-32. Screw terminals are standard. Flat base available on special order.

Stock No.	Type	Operating Force	Pretravel	Overtravel	Movement Differential	1-9	10-19	20-49	50-99	100-199	200-499
60F1904	BRD2-1A-1S	9-13 oz.	.020" Max.	.005" Min.	.003" Max.	1.65	1.49	1.32	1.16	1.07	1.04
23F402	BRD2-5L-1S	5 oz. Max.	.156" Max.	1/32" Min.	.050" Max.	1.75	1.58	1.40	1.23	1.14	1.10
23F406	BRD2-LW8-1S	2 1/2 oz. Max.	9/32" Max.	1/8" Min.	.016"-.078"	2.00	1.80	1.60	1.40	1.30	1.26
60F1905	BRD2-LW48-1S	1 oz. Max.	.156"-.328"	1/8" Min.	.016"-.078"	2.00	1.80	1.60	1.40	1.30	1.26
23F407	BRD2-2M-1S	5 oz. Max.	.156" Max.	1/32" Min.	.050" Max.	2.25	2.03	1.80	1.58	1.46	1.42
23F409	BRD2-LW228-1S	5 oz. Max.	.045"-.140"	1/80" Min.	.006"-.031"	2.50	2.25	2.00	1.75	1.63	1.58
60F1907	BRD2-LW28-1S	3 1/2 oz. Max.	.125"-.281"	1/16" Min.	.012"-.062"	2.50	2.25	2.00	1.75	1.63	1.58
23F401	BRD2-70-1S	9-13 oz.	.010"-.025"	1/16" Min.	.003" Max.	1.95	1.78	1.56	1.37	1.27	1.23
23F405	BRD2-10-1S	9-13 oz.	.010"-.025"	1/16" Min.	.003" Max.	1.95	1.78	1.56	1.37	1.27	1.23
60F1908	BRD2-3P-1S	9-13 oz.	.010"-.025"	1/16" Min.	.003" Max.	3.06	2.75	2.45	2.14	1.99	1.93
23F404	BRD2-1P-1S	9-13 oz.	.010"-.025"	1/16" Min.	.003" Max.	3.55	3.20	2.84	2.49	2.31	2.14
60F1909	BRD2-22P-1S	9-13 oz.	.010"-.025"	1/16" Min.	.003" Max.	6.25	5.63	5.00	4.38	4.06	3.94
60F1912	BRD2-24P-1S	9-13 oz.	.010"-.025"	1/16" Min.	.003" Max.	6.25	5.63	5.00	4.38	4.06	3.94
60F1913	BRD2-LW6-1S	8 oz. Max.	9/16" Max.	3/16" Min.	.020" Max.	2.95	2.66	2.36	2.07	1.92	1.85
60F1914	BRD2-LW5-1S	6 oz. Max.	9/16" Max.	1/8" Min.	.005"-.025"	2.95	2.66	2.36	2.07	1.92	1.85

HEAVY DUTY GENERAL PURPOSE MODEL F

Mechanical life of over 10 million cycles. Heavy duty horsepower rated. Contacts rated at 21 amps, 120-240-480 volts AC, 1 H.P. at 120 VAC; 2 H.P. at 240 VAC.

Stock No.	Type	Operating Force	Pretravel	Overtravel	Movement Differential	1-9	10-19	20-49	50-99	100-199	200-499
60F1915	FAD2-1A-1S	10-18 oz.	.050" Max.	.005" Min.	.0075" Max.	1.65	1.49	1.32	1.16	1.07	1.04
60F1916	FAD2-5L-1S	9 oz. Max.	11/32" Max.	1/32" Min.	.065" Max.	1.75	1.58	1.40	1.23	1.14	1.10
60F1917	FAD2-LV-1S	2 1/2 oz. Max.	9/8" Max.	1/8" Min.	.019" Max.	2.00	1.80	1.60	1.40	1.30	1.26
60F1918	FAD2-2M-1S	9 oz. Max.	11/32" Max.	1/32" Min.	.065" Max.	2.25	2.03	1.80	1.58	1.46	1.42
60F1919	FAD2-LV2-1S	2 1/2 oz. Max.	11/32" Max.	1/16" Min.	.085" Max.	2.50	2.25	2.00	1.75	1.63	1.58
60F1920	FAD2-LV22-1S	6 oz. Max.	1/4" Max.	1/32" Min.	9/64" Max.	2.50	2.25	2.00	1.75	1.63	1.58
60F1921	FAD2-LW23-1S	2 1/2 oz. Max.	.375" Max.	.093" Min.	.007"-.050"	2.20	1.98	1.76	1.54	1.43	1.39
60F1922	FAD2-10-1S	10-18 oz.	.050" Max.	1/16" Min.	.0075" Max.	1.95	1.78	1.56	1.37	1.27	1.23
60F1923	FAD2-40-1S	10-18 oz.	.050" Max.	1/32" Min.	.0075" Max.	1.95	1.78	1.56	1.37	1.27	1.23
60F1924	FAD2-1P-1S	10-18 oz.	.050" Max.	.219" Min.	.0075" Max.	3.55	3.20	2.84	2.49	2.31	2.14
60F1925	FAD2-3P-1S	10-18 oz.	.050" Max.	1/32" Min.	.0075" Max.	3.06	2.75	2.45	2.14	1.99	1.93
60F1926	SF-BRD2-2PN-1S	10-18 oz.	.050" Max.	1/16" Min.	.0075" Max.	6.25	5.63	5.00	4.38	4.06	3.94
60F1927	FAD2-22P-1S	10-18 oz.	.050" Max.	1/16" Min.	.0075" Max.	6.25	5.63	5.00	4.38	4.06	3.94

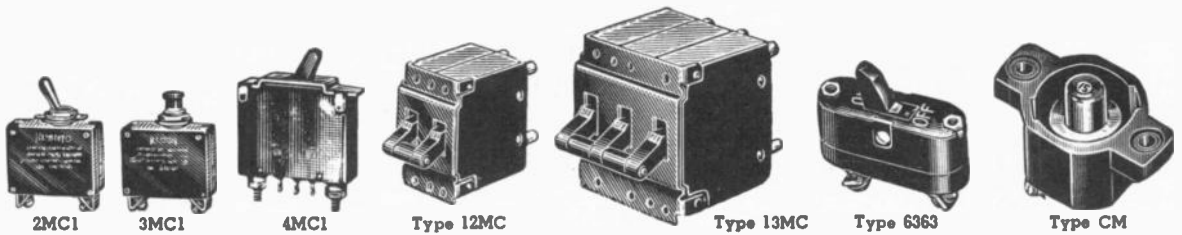
ONE-PIECE METAL ENCLOSURE MODEL BH

Each switch packaged for side or flange mounting #6-32 x 1 1/2" Round Head Machine Screws with lead sealing washers supplied for side mount. Flange mount uses #8 screws. U.L. and C.S.A. listed. Supplied with sealed plungers. Dust and oil tight. Enclosure is 3" L. x 1 1/2" H. x 1" W. Approx. shipping weight 1 lb.

Stock No.	Type	Operating Force	Pretravel	Overtravel	Movement Differential	1-9	10-19	20-49	50-99	100-199	200-499
23F410	SF-BRD2-7PN-1S	9-24 oz.	.078" Max.	.218" Min.	.003" Max.	6.05	5.45	4.84	4.24	3.93	3.81
23F411	SF-BRD2-6PQ-1S	9-13 oz.	.020" Max.	7/32" Min.	.003" Max.	4.65	4.19	3.72	3.26	3.02	2.93
23F413	SF-BRD2-8PR-1S	9-13 oz.	.020" Max.	9/64" Min.	.003" Max.	8.10	7.29	6.48	5.67	5.27	5.10
60F1928	SF-BRD2-8PR1-1S	9-13 oz.	.020" Max.	9/64" Min.	.003" Max.	8.10	7.29	6.48	5.67	5.27	5.10
23F412	SF-BRD2-8PQ2-1S	10-18 oz.	9/64" Max.	7/32" Min.	.006" Max.	8.10	7.29	6.48	5.67	5.27	5.10
60F1929	SF-BRD2-2PN2-1S	10-20 oz.	.172" Max.	7/32" Min.	.008" Max.	9.25	8.33	7.40	6.48	6.01	5.83
60F1930	SF-BRD-2PN28-1S	8-20 oz.	15/64" Max.	7/32" Min.	.008" Max.	10.70	9.63	8.56	7.49	6.96	6.74
60F1931	SF-BRD2-8PQ4-1S	10-18 oz.	.265" Max.	.219" Min.	.006" Max.	8.60	7.74	6.88	6.02	5.59	5.42
60F1932	SF-BRD2-2PN4-1S	10-20 oz.	11/64" Max.	7/32" Min.	.006" Max.	9.50	8.55	7.60	6.65	6.18	5.99
60F1933	SF-BRD2-8PQ26-1S	2-5 oz.	.718" Max.	.838" Min.	.229" Max.	8.10	7.29	6.48	5.67	5.27	5.10

Use the Services of the NEWARK Facility Nearest You — See Front Cover

KLIXON[®] Circuit Breakers



MINIATURE MAGNETIC CIRCUIT BREAKERS

Type 2MC1-100, -3. Toggle actuated. Instantaneous series trip. Current sensing to 32 VDC/120VAC. 1½x1¾x¾".

Stk. No.	AC Type Amps	Stk. No.	DC Type Amps	1-9	10-24	25-99	100-up
59F929	2MC1-100-250	59F940	2MC1-3-250	12.00	8.70	7.55	7.03
59F930	2MC1-100-500	59F941	2MC1-3-500	12.00	8.70	7.55	7.03
59F931	2MC1-100-750	59F942	2MC1-3-750	12.00	8.70	7.55	7.03
59F932	2MC1-100-1	59F943	2MC1-3-1	9.90	7.18	6.23	5.80
59F933	2MC1-100-2	59F944	2MC1-3-2	9.90	7.18	6.23	5.80
59F934	2MC1-100-3	59F945	2MC1-3-3	9.90	7.18	6.23	5.80
59F935	2MC1-100-5	59F946	2MC1-3-5	9.90	7.18	6.23	5.80
59F936	2MC1-100-7.5	59F947	2MC1-3-7.5	9.90	7.18	6.23	5.80
59F937	2MC1-100-10	59F948	2MC1-3-10	9.90	7.18	6.23	5.80
59F938	2MC1-100-15	59F949	2MC1-3-15	9.90	7.18	6.23	5.80
59F939	2MC1-100-20	59F950	2MC1-3-20	9.90	7.18	6.23	5.80

Type 2MC1-101, -4. Same as types 2MC1-100 and 2MC1-3 except for .1 to 1 second time delay at 200% rated current. 1½x1¾x¾".

Stk. No.	AC Type Amps	Stk. No.	DC Type Amps	1-9	10-24	25-99	100-up
59F951	2MC1-101-250	59F962	2MC1-4-250	12.00	8.70	7.55	7.03
59F952	2MC1-101-500	59F963	2MC1-4-500	12.00	8.70	7.55	7.03
59F953	2MC1-101-750	59F964	2MC1-4-750	12.00	8.70	7.55	7.03
59F954	2MC1-101-1	59F965	2MC1-4-1	9.90	7.18	6.23	5.80
59F955	2MC1-101-2	59F966	2MC1-4-2	9.90	7.18	6.23	5.80
59F956	2MC1-101-3	59F967	2MC1-4-3	9.90	7.18	6.23	5.80
59F957	2MC1-101-5	59F968	2MC1-4-5	9.90	7.18	6.23	5.80
59F958	2MC1-101-7.5	59F969	2MC1-4-7.5	9.90	7.18	6.23	5.80
59F959	2MC1-101-10	59F970	2MC1-4-10	9.90	7.18	6.23	5.80
59F960	2MC1-101-15	59F971	2MC1-4-15	9.90	7.18	6.23	5.80
59F961	2MC1-101-20	59F972	2MC1-4-20	9.90	7.18	6.23	5.80

Type 3MC1-100, -3. Push button actuated. Instantaneous series trips. Current sensing to 32VDC/120VAC. 1½x1¾x¾".

Stk. No.	AC Type Amps	Stk. No.	DC Type Amps	1-9	10-24	25-99	100-up
59F973	3MC1-100-250	59F984	3MC1-3-250	12.00	8.70	7.55	7.03
59F974	3MC1-100-500	59F985	3MC1-3-500	12.00	8.70	7.55	7.03
59F975	3MC1-100-750	59F986	3MC1-3-750	12.00	8.70	7.55	7.03
59F976	3MC1-100-1	59F987	3MC1-3-1	9.90	7.18	6.23	5.80
59F977	3MC1-100-2	59F988	3MC1-3-2	9.90	7.18	6.23	5.80
59F978	3MC1-100-3	59F989	3MC1-3-3	9.90	7.18	6.23	5.80
59F979	3MC1-100-5	59F990	3MC1-3-5	9.90	7.18	6.23	5.80
59F980	3MC1-100-7.5	59F991	3MC1-3-7.5	9.90	7.18	6.23	5.80
59F981	3MC1-100-10	59F992	3MC1-3-10	9.90	7.18	6.23	5.80
59F982	3MC1-100-15	59F993	3MC1-3-15	9.90	7.18	6.23	5.80
59F983	3MC1-100-20	59F994	3MC1-3-20	9.90	7.18	6.23	5.80

Type 3MC1-101, -4. Same as 2MC1-101 and 2MC1-4 except for .1 to 1 second time delay at 200% rated current. 1½x1¾x¾".

Stk. No.	AC Type Amps	Stk. No.	DC Type Amps	1-9	10-24	25-99	100-up
59F995	3MC1-101-250	59F1006	3MC1-4-250	12.00	8.70	7.55	7.03
59F996	3MC1-101-500	59F1007	3MC1-4-500	12.00	8.70	7.55	7.03
59F997	3MC1-101-750	59F1008	3MC1-4-750	12.00	8.70	7.55	7.03
59F998	3MC1-101-1	59F1009	3MC1-4-1	9.90	7.18	6.23	5.80
59F999	3MC1-101-2	59F1010	3MC1-4-2	9.90	7.18	6.23	5.80
59F1000	3MC1-101-3	59F1011	3MC1-4-3	9.90	7.18	6.23	5.80
59F1001	3MC1-101-5	59F1012	3MC1-4-5	9.90	7.18	6.23	5.80
59F1002	3MC1-101-7.5	59F1013	3MC1-4-7.5	9.90	7.18	6.23	5.80
59F1003	3MC1-101-10	59F1014	3MC1-4-10	9.90	7.18	6.23	5.80
59F1004	3MC1-101-15	59F1015	3MC1-4-15	9.90	7.18	6.23	5.80
59F1005	3MC1-101-20	59F1016	3MC1-4-20	9.90	7.18	6.23	5.80

Type 5MC1-106.—1. Instantaneous series trip with SPDT auxiliary circuit for interlocking or remote indication. Low voltage drop; 20% less than comparable units. 2½x3½x2".

Stk. No.	AC Type Amps	Stk. No.	DC Type Amps	1-9	10-24	25-99	100-up
59F1017	4MC1-106-.050	59F1030	4MC1-1-.050	9.92	7.20	6.25	5.81
59F1018	4MC1-106-.100	59F1031	4MC1-1-.100	9.92	7.20	6.25	5.81
59F1019	4MC1-106-.250	59F1032	4MC1-1-.250	9.92	7.20	6.25	5.81
59F1020	4MC1-106-.500	59F1033	4MC1-1-.500	9.92	7.20	6.25	5.81
59F1021	4MC1-106-1	59F1034	4MC1-1-1	8.38	6.08	5.28	4.91
59F1022	4MC1-106-2	59F1035	4MC1-1-2	8.38	6.08	5.28	4.91
59F1023	4MC1-106-2.5	59F1036	4MC1-1-2.5	8.38	6.08	5.28	4.91
59F1024	4MC1-106-5	59F1037	4MC1-1-5	8.38	6.08	5.28	4.91
59F1025	4MC1-106-7.5	59F1038	4MC1-1-7.5	8.38	6.08	5.28	4.91
59F1026	4MC1-106-10	59F1039	4MC1-1-10	8.38	6.08	5.28	4.91
59F1027	4MC1-106-15	59F1040	4MC1-1-15	8.38	6.08	5.28	4.91
59F1028	4MC1-106-35	59F1041	4MC1-1-35	8.38	6.08	5.28	4.91
59F1029	4MC1-106-50	59F1042	4MC1-1-50	8.38	6.08	5.28	4.91

Types 12MC and 13MC. These are 2-pole and 3-pole versions of the 4MC series and have the same general characteristics with the exception that the 12MCA and 13MCA devices do not include the SPDT auxiliary circuit.

Stk. No.	60 Cycle Type	Stk. No.	DC Type	1-9	10-24	25-99	100-Up
59F1561	12MC1-106-5	59F1573	12MC1-1-1	18.70	13.56	11.79	10.93
59F1562	12MC1-106-10	59F1574	12MC1-1-5	18.70	13.56	11.79	10.93
59F1563	12MC1-106-15	59F1575	12MC1-1-15	18.70	13.56	11.79	10.93
59F1564	12MC1-106-5	59F1582	12MC2-1-1	16.52	11.98	10.42	9.66
59F1565	12MC2-106-10	59F1583	12MC2-1-5	16.52	11.98	10.42	9.66
59F1566	12MC2-106-15	59F1584	12MC2-1-15	16.52	11.98	10.42	9.66
59F1567	13MC1-106-5	59F1576	13MC1-1-1	28.04	20.33	17.66	16.39
59F1568	13MC1-106-10	59F1577	13MC1-1-5	28.04	20.33	17.66	16.39
59F1569	13MC1-106-15	59F1578	13MC1-1-15	28.04	20.33	17.66	16.39
59F1570	13MC2-106-5	59F1579	13MC2-1-1	25.86	18.75	16.29	15.12
59F1571	13MC2-106-10	59F1580	13MC2-1-5	25.86	18.75	16.29	15.12
59F1572	13MC2-106-15	59F1581	13MC2-1-15	25.86	18.75	16.29	15.12

Type CA and CM. Commercial type circuit breakers. Will hold 100% of nominal rating. Trip ultimately at 125%. Rating 30 VDC or 110/220 VAC. Tripping time 200% load approximately 11/200 seconds for rating under 10 amps and under. Trip at 200% load 6-80 seconds for rating over 10 amps. Type CA, automatic reset; Type CM, manual. Size: 2x1½x1¼". Wt. 1 oz.

Stock No.	Type No.	Amp. Rating	1-9	10-99	100-499
59F874	CA-2	2	1.28	1.21	1.15
59F875	CA-3	3	1.28	1.21	1.15
59F876	CA-5	5	1.28	1.21	1.15
59F877	CA-10	10	1.28	1.21	1.15
59F878	CA-8	8	1.28	1.21	1.15
59F879	CA-12½	12½	1.28	1.21	1.15
59F880	CA-15	15	1.28	1.21	1.15
59F881	CA-20	20	1.28	1.21	1.15
59F882	CA-30	30	1.28	1.21	1.15
59F883	CA-40	40	1.28	1.21	1.15
59F884	CM-2	2	1.46	1.39	1.32
59F885	CM-3	3	1.46	1.39	1.32
59F886	CM-5	5	1.46	1.39	1.32
59F887	CM-8	8	1.46	1.39	1.32
59F888	CM-10	10	1.46	1.39	1.32
59F889	CM-12½	12½	1.46	1.39	1.32
59F890	CM-15	15	1.46	1.39	1.32
59F891	CM-20	20	1.46	1.39	1.32
59F892	CM-30	30	1.46	1.39	1.32
59F893	CM-40	40	1.46	1.39	1.32

Type CDA and CDM. Same as CA and CM above, except with dust cover. Size: 1½x1½x¾". CDA automatic reset; CDM manual reset.

Stk. No.	Type No.	Amp. Rating	1-9	10-99	100-499
59F889	CDA-10	10	1.92	1.83	1.74
59F890	CDA-15	15	1.92	1.83	1.74
59F891	CDA-20	20	1.92	1.83	1.74
59F892	CDA-25	25	1.92	1.83	1.74
59F893	CDA-30	30	1.92	1.83	1.74
59F894	CDA-40	40	1.92	1.83	1.74
59F895	CDM-10	10	2.48	2.36	2.25
59F896	CDM-15	15	2.48	2.36	2.25
59F897	CDM-20	20	2.48	2.36	2.25
59F898	CDM-25	25	2.48	2.36	2.25
59F899	CDM-30	30	2.48	2.36	2.25
59F900	CDM-40	40	2.48	2.36	2.25

Type CLA. Similar to CA. Ratings 35-150 amps. Automatic reset. Size: 3½x2½x1½". Wt. 3¼ oz.

Stk. No.	Type No.	Amp. Rating	1-9	10-99	100-499
59F908	CLA-40	40	2.85	2.72	2.60
59F909	CLA-60	60	2.85	2.72	2.60
59F910	CLA-90	90	2.85	2.72	2.60
59F911	CLA-105	105	2.85	2.72	2.60
59F912	CLA-150	150	2.85	2.72	2.60

Type CDLA and CDLM. Same as CLA above, but with dust cover. Type CDLA, automatic reset; Type CDLM manual.

Stk. No.	Type No.	Amp. Rating	1-9	10-99	100-499
59F913	CDLA-40	40	3.72	3.54	3.35
59F914	CDLA-60	60	3.72	3.54	3.35
59F915	CDLA-90	90	3.72	3.54	3.35
59F916	CDLA-105	105	3.72	3.54	3.35
59F917	CDLA-150	150	3.72	3.54	3.35
59F918	CDLM-50	50	4.95	4.75	4.50

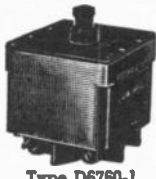
Circuit Breakers **KLIXON**



Type CA



Type 7276-1



Type D6760-1



Type 6752-12



Type 6752-2



Type 7277



Type 7274

Type PSM. Precision manual reset type. Hold 110% and trip 130% rating. Rating 2-35 amps. Size 2 1/16 x 3/4 x 1 1/8".

Stock No.	Type No.	Amp. Rating	MS No.	1-9	10-24	25-99	100-249
59F921	PSM-2	2	.....	3.95	3.78	3.58	3.04
59F922	PSM-5	5	.....	3.95	3.78	3.58	3.04

Type PDLM. Manual reset. Ratings 35-150 amp. Trip free. Same as CDLM type, except will hold 110% rating indefinitely. Will trip ultimately at 130% of nominal rating.

Stock No.	Type No.	Amp. Rating	MS No.	1-9	10-24	25-99	100-249
59F919	PDLM-105	105	7305029	5.90	5.60	5.30	4.50
59F920	PDLM-150	150	7010212	5.90	5.60	5.30	4.50

Type 7276. Three phase—trip free, low ampereage, push-pull breaker. Featuring fast companion trip. Single button opens and closes three phases. Thermal element prevents nuisance trips by withstanding transient current surges. Maximum trip: 2-20 seconds at 200% load. Ratings: 1/2-10 amps. Size: 2.000x.850x2.765". Wt. .38 lb.

Stock No.	Type No.	Amp. Rating	MS No.	1-9	10-24	25-99	100-249
59F980	7276-1-1	1	.....	40.90	38.95	37.00	31.40
59F901	7276-1-1 1/2	1 1/2	.....	40.90	38.95	37.00	31.40
59F902	7276-1-3	3	.....	40.90	38.95	37.00	31.40
59F903	7276-1-5	5	.....	40.90	38.95	37.00	31.40

Type D6760-1. Three phase, single actuator simultaneous trip circuit breaker approved under MS 21984. Very fast trip time at short circuit levels of 2500 amp, 400 cps., 120 VAC. Trip 10-70 seconds with 200% overload. Rating 5-50 amps. Size: 2 1/4 x 2 1/8 x 2 1/8". Wt. 8 oz.

Stock No.	Type No.	Amp. Rating	MS No.	1-9	10-24	25-99	100-249
59F822	D6760-1-5	5	MS21984-5	62.00	59.00	56.00	47.50
59F823	D6760-1-7.5	7.5	MS21984-7	62.00	59.00	56.00	47.50
59F824	D6760-1-10	10	MS21984-10	62.00	59.00	56.00	47.50
59F825	D6760-1-15	15	MS21984-15	62.00	59.00	56.00	47.50
59F826	D6760-1-20	20	MS21984-20	62.00	59.00	56.00	47.50
59F827	D6760-1-50	50	MS21984-50	62.00	59.00	56.00	47.50

Type D6760-4. Same as above, except 2-hole mount, 1 1/8" on centers.

Stock No.	Type No.	Amp. Rating	MS No.	1-9	10-24	25-99	100-249
59F1043	D6760-17-5	5	.....	62.00	59.00	56.00	47.50
59F1044	D6760-17-7.5	7.5	.....	62.00	59.00	56.00	47.50
59F1045	D6760-17-10	10	.....	62.00	59.00	56.00	47.50
59F1046	D6760-17-15	15	.....	62.00	59.00	56.00	47.50
59F1047	D6760-17-20	20	.....	62.00	59.00	56.00	47.50
59F1048	D6760-17-50	50	.....	62.00	59.00	56.00	47.50

Type D6756-1. Automatic Reset. Precision type thermal circuit breaker. Low amp. Rating 1/2-5 amps. 28VDC-115VAC. Size: 1 3/4 x 3/4 x 2 1/2". Mig. 150 dia. holes 1 3/8" on center. Wt. 1.25 oz.

Stock No.	Type No.	Amp. Rating	MS No.	1-9	10-24	25-99	100-249
59F906	D6756-1-1	1	.....	6.80	6.50	6.15	5.22
59F1049	D6756-1-5	5	.....	6.80	6.50	6.15	5.22

Type D6755-1. Same as above, but manual reset. Neck Mounted.

Stock No.	Type No.	Amp. Rating	MS No.	1-9	10-24	25-99	100-249
59F904	6755-1-1	1	.....	9.30	8.85	8.40	7.10
59F1050	6755-1-5	5	.....	9.30	8.85	8.40	7.10

Type D6752-2. Push-pull. Thermal magnetic circuit breaker meets MIL-C-5809. Trip free. 30VDC-120VAC. Trip 15-60 seconds at 200% load. Rupture 6000 amp-30VDC, 3500 amp-120VAC. Size 2.189x3 1/2x2". Wt. 2.5 oz.

Stock No.	Type No.	Amp. Rating	MS No.	1-9	10-24	25-99	100-249
59F806	D6752-2-5	5	MS25017-5	5.85	5.55	5.25	4.45
59F807	D6752-2-7.5	7.5	MS25017-7	5.85	5.55	5.25	4.45
59F808	D6752-2-10	10	MS25017-10	5.85	5.55	5.25	4.45
59F809	D6752-2-15	15	MS25017-15	5.85	5.55	5.25	4.45
59F810	D6752-2-20	20	MS25017-20	5.85	5.55	5.25	4.45
59F811	D6752-2-25	25	MS25017-25	5.85	5.55	5.25	4.45
59F812	D6752-2-30	30	.....	5.85	5.55	5.25	4.45
59F813	D6752-2-35	35	MS25017-35	5.85	5.55	5.25	4.45
59F814	D6752-2-50	50	.....	5.85	5.55	5.25	4.45

Type 6752-12. Ambient compensated —65° to 250°F. Trip 10-57 seconds, at 200% overload. Meets MIL-C-27715. Wt. 2.5 oz. 2.189x.75x2.37".

Stock No.	Type No.	Amp. Rating	MS No.	1-9	10-24	25-99	100-249
59F815	6752-12-2	2.5	MS24571-2	18.25	17.35	16.50	14.00
59F816	6752-12-5	5	MS24571-5	18.25	17.35	16.50	14.00
59F817	6752-12-7	7.5	MS24571-7	18.25	17.35	16.50	14.00
59F818	6752-12-10	10	MS24571-10	18.25	17.35	16.50	14.00
59F819	6752-12-15	15	MS24571-15	18.25	17.35	16.50	14.00
59F820	6752-12-20	20	MS24571-20	18.25	17.35	16.50	14.00
59F921	6752-12-50	50	MS24571-50	18.25	17.35	16.50	14.00

Type C6363. Thermal type toggle circuit breaker. 30 VDC-115 VAC. Holds 110% trip at 130% rated current. Ratings: 2-30 amps. Size: 2.203x.765x1.431. Wt. 1.75 oz.

Stock No.	Type No.	Amp. Rating	MS No.	1-9	10-24	25-99	100-249
59F800	C6363-1-2	2	.....	4.95	4.75	4.50	3.80
59F801	C6363-1-5	5	.....	4.95	4.75	4.50	3.80
59F802	C6363-1-10	10	.....	4.95	4.75	4.50	3.80
59F803	C6363-1-15	15	.....	4.95	4.75	4.50	3.80
59F804	C6363-1-20	20	.....	4.95	4.75	4.50	3.80
59F805	C6363-1-30	30	.....	4.95	4.75	4.50	3.80

Type D7270. Miniature trip free thermal breaker meets MS 24509 Toggle type, Neck mounting 1 1/8-32N2A threaded 1/4" long. Rating: 3-35 amp. Size: 1 3/8 x 3/4 x 1 1/16". 1.4 oz.

Stock No.	Type No.	Amp. Rating	MS No.	1-9	10-24	25-99	100-249
59F1051	D7270-1-3	3	MS24509-3	8.00	7.65	7.25	6.15
59F834	D7270-1-5	5	MS24509-5	8.00	7.65	7.25	6.15
59F835	D7270-1-7	7.5	MS24509-7	8.00	7.65	7.25	6.15
59F836	D7270-1-10	10	MS24509-10	8.00	7.65	7.25	6.15
59F837	D7270-1-15	15	MS24509-15	8.00	7.65	7.25	6.15
59F838	D7270-1-20	20	MS24509-20	8.00	7.65	7.25	6.15
59F839	D7270-1-25	25	MS24509-25	8.00	7.65	7.25	6.15
59F840	D7270-1-30	30	MS24509-30	8.00	7.65	7.25	6.15
59F1052	D7270-1-35	35	MS24509-35	8.00	7.65	7.25	6.15

Type D7271. Same as above, but Push-Button Type and neck bushing 1/2" Long.

Stock No.	Type No.	Amp. Rating	MS No.	1-9	10-24	25-99	100-249
59F1053	D7271-8-3	3	MS24510-3	8.00	7.65	7.25	6.15
59F841	D7271-8-5	5	MS24510-5	8.00	7.65	7.25	6.15
59F842	D7271-8-7	7.5	MS24510-7	8.00	7.65	7.25	6.15
59F843	D7271-8-10	10	MS24510-10	8.00	7.65	7.25	6.15
59F844	D7271-8-15	15	MS24510-15	8.00	7.65	7.25	6.15
59F845	D7271-8-20	20	MS24510-20	8.00	7.65	7.25	6.15
59F846	D7271-8-25	25	MS24510-25	8.00	7.65	7.25	6.15
59F847	D7271-8-30	30	MS24510-30	8.00	7.65	7.25	6.15
59F1054	D7271-8-35	35	MS24510-35	8.00	7.65	7.25	6.15

Type 7274-2. Micro-miniature. Trip free. Trip time 2-20 seconds at 200% overload. Ratings: 1/2-10 amps. Hold 115% and trip ultimately at 145% rated current. Size: .75x.562x1.45". Wt. 2 oz.

Stock No.	Type No.	Amp. Rating	MS No.	1-9	10-24	25-99	100-249
59F848	7274-2-1	1	.....	8.00	7.65	7.25	6.15
59F849	7274-2-1 1/2	1 1/2	.....	8.00	7.65	7.25	6.15
59F850	7274-2-3	3	.....	8.00	7.65	7.25	6.15
59F851	7274-2-5	5	.....	8.00	7.65	7.25	6.15
59F1055	7274-2-7 1/2	7 1/2	.....	8.00	7.65	7.25	6.15
59F1056	7274-2-10	10	.....	8.00	7.65	7.25	6.15

Type 7274-4. Same as above, but with auxiliary contacts.

Stock No.	Type No.	Amp. Rating	MS No.	1-9	10-24	25-99	100-249
59F852	7274-4-1	1	.....	8.65	8.25	7.85	6.65
59F853	7274-4-1 1/2	1 1/2	.....	8.65	8.25	7.85	6.65
59F854	7274-4-3	3	.....	8.65	8.25	7.85	6.65
59F855	7274-4-5	5	.....	8.65	8.25	7.85	6.65
59F1057	7274-4-7 1/2	7 1/2	.....	8.00	7.65	7.25	6.15
59F1058	7274-4-10	10	.....	8.00	7.65	7.25	6.15

Type 7277-1. Commercial lower cost adaption of the 7274-4 unit above. Trip time 2-35 seconds at 200% overload. Hold 110% of rated current rating indefinitely. Trip ultimately 150% of rated current. (See below for Type 7277-2, without aux. cts.)

Stock No.	Type No.	Amp. Rating	MS No.	1-9	10-24	25-99	100-249
59F856	7277-1-1/2	1 1/2	.....	7.65	7.30	6.90	5.85
59F857	7277-1-3/4	3 3/4	.....	7.65	7.30	6.90	5.85
59F858	7277-1-1	1	.....	7.65	7.30	6.90	5.85
59F859	7277-1-5	5	.....	7.65	7.30	6.90	5.85
59F1059	7277-1-7 1/2	7 1/2	.....	7.65	7.30	6.90	5.85
59F1060	7277-1-10	10	.....	7.65	7.30	6.90	5.85

Type 7277-2. Same as Type 7277-1, but without auxiliary contacts.

Stock No.	Type No.	Amp. Rating	MS No.	1-9	10-24	25-99	100-249
59F860	7277-2-1/2	1 1/2	.....	5.05	4.80	4.55	3.88
59F861	7277-2-3/4	3 3/4	.....	5.05			



Wood Electric Circuit Breakers

Wood Electric thermal and magnetic circuit breakers are precision calibrated and inspected to rigid quality control standards. All have unique trip free mechanism which prevents

SINGLE POLE MAGNETIC—TOGGLE TYPE

Model 122. Designed for use on circuits requiring protection up to 50 amps on voltages up to 250 volts AC 60 cycles. Calibrated to carry 100% of rated load and to trip between 101% and 125%. Trip times at 200% of rated load are 3-10 seconds.



Stock No.	AC Type	Amps	1-9	10-25	26-99	100-249
56F762	122-201-101	1	6.48	5.40	4.68	4.14
56F763	122-202-101	2				
56F764	122-203-101	3				
56F765	122-204-101	4				
56F766	122-205-101	5				
56F767	122-207-101	7				
56F768	122-210-101	10				
56F769	122-215-101	15				
56F770	122-220-101	20				
56F771	122-225-101	25				
56F772	122-230-101	30				
56F773	122-235-101	35				
56F774	122-240-101	40				
56F775	122-250-101	50				

contacts from closing as long as overload persists. Meet requirements of Mil-E-5272C for humidity and salt spray. Withstand vibration of 10 g's at 10-55 cps., shock of 25 g's.

SINGLE POLE THERMAL—PUSH/PULL TYPE

Model 109. Designed for circuits requiring protection from 5 to 50 amps. Maximum operating voltages are 250 volts AC and 32 volts DC. Calibrated to hold 100% of rated load indefinitely and trip within 135% at 25°C.



Stock No.	Type	Amp	1-9	10-25	26-99	100-249
56F716	109-205-101	5	3.96	3.30	2.86	2.53
56F717	109-507-101	7.5				
56F718	109-210-101	10				
56F719	109-215-101	15				
56F720	109-220-101	20				
56F721	109-225-101	25				
56F722	109-230-101	30				
56F723	109-235-101	35				
56F724	109-250-101	50				

SINGLE POLE THERMAL—PUSH/PULL TYPE

Model 111. Designed for circuits requiring protection from 1 to 4 amps. Maximum operating voltages are 250 AC or 32 volts DC. Calibrated to hold 100% of rated load indefinitely and trip within 135% at 25°C.



Stock No.	Type	Amp	1-9	10-25	26-99	100-249
56F734	111-201-101	1	7.83	6.53	5.66	5.00
56F735	111-202-101	2				
56F736	111-203-101	3				
56F737	111-204-101	4				

TWO POLE MAGNETIC—TOGGLE TYPE

Model 190. Designed for use on circuits requiring protection up to 50 amps on voltages up to 250 volts AC 60 cycles. Calibrated to carry 100% of rated load and to trip between 101% and 125%. Trip times at 200% of rated load are 3-10 seconds. Both poles are internally interlocked to insure simultaneous tripping in the event of an overload.



Stock No.	AC Type	Amps	1-9	10-25	26-99	100-249
56F780	190-201-101	1	16.92	14.10	12.22	10.81
56F781	190-202-101	2				
56F782	190-203-101	3				
56F783	190-204-101	4				
56F784	190-205-101	5				
56F785	190-207-101	7				
56F786	190-210-101	10				
56F787	190-215-101	15				
56F788	190-220-101	20				
56F789	190-225-101	25				
56F810	190-230-101	30				
56F811	190-235-101	35				
56F812	190-240-101	40				
56F813	190-250-101	50				

SINGLE POLE THERMAL—TOGGLE TYPE

Model 112. Designed for circuits requiring protection from 5 to 50 amps. Maximum operating voltages are 250 volts AC and 32 volts DC. Calibrated to hold 100% of rated load indefinitely and trip within 135% at 25°C.



Stock No.	Type	Amp	1-9	10-25	26-99	100-249
56F725	112-205-101	5	4.14	3.45	2.99	2.65
56F726	112-507-101	7.5				
56F727	112-210-101	10				
56F728	112-215-101	15				
56F729	112-220-101	20				
56F730	112-225-101	25				
56F731	112-230-101	30				
56F732	112-235-101	35				
56F733	112-240-101	40				
56F733	112-250-101	50				

THREE POLE MAGNETIC—TOGGLE TYPE

Model 220. Designed for use on circuits requiring protection up to 50 amps on voltages up to 250 volts AC 60 cycles. Calibrated to carry 100% of rated load and to trip between 101% and 125%. Trip times at 200% of rated load are 3-10 seconds. All three poles are internally interlocked to insure simultaneous tripping in the event of an overload.



Stock No.	AC Type	Amps	1-9	10-25	26-99	100-249
56F888	220-201-101	1	26.10	21.75	18.85	16.68
56F829	220-202-101	2				
56F830	220-203-101	3				
56F831	220-204-101	4				
56F832	220-205-101	5				
56F833	220-207-101	7				
56F834	220-210-101	10				
56F835	220-215-101	15				
56F836	220-220-101	20				
56F837	220-225-101	25				
65F838	220-230-101	30				
56F839	220-235-101	35				
56F840	220-240-101	40				
56F841	220-250-101	50				

SINGLE POLE THERMAL—PUSH TO RESET

Model 374. Designed for circuits requiring protection from 1 to 4 amps. Push to reset, will only cannot be interrupted manually. Will carry 100% of rated load indefinitely and will trip within 145% at 25°C.



Stock No.	Type	Amp	1-9	10-25	26-99	100-249
56F870	374-201-101	1	2.52	2.10	1.82	1.61
56F871	374-202-101	2				
56F872	374-203-101	3				
56F873	374-204-101	4				

SINGLE POLE THERMAL—PUSH TO RESET

Model 375. Designed for circuits requiring protection from 5 to 20 amps. Push to reset, only cannot be interrupted manually. Will carry 100% of rated load indefinitely and will trip within 145% at 25°C.

Stock No.	Type	Amp	1-9	10-25	26-99	100-249
56F874	375-205-101	5	1.62	1.35	1.17	1.04
56F875	375-207-101	7				
56F876	375-210-101	10				
56F877	375-215-101	15				
56F878	375-220-101	20				

SINGLE POLE THERMAL—PUSH/PULL TYPE

Model 105. Designed to meet requirements of Mil-C-5809 and MS dwg. no. 25244. Maximum operating voltages are 250 volts AC and 32 volts DC. Calibrated to hold 115% of rated load indefinitely and trip within 138% at 25°C.



Stk. No.	Type	Amp	1-9	10-25	26-99	100-249
56F708	105-205-101	5	6.84	5.70	4.94	4.37
56F709	105-507-101	7.5				
56F710	105-210-101	10				
56F711	105-215-101	15				
56F712	105-220-101	20				
56F713	105-225-101	25				
56F740	105-230-101	30				
56F714	105-235-101	35				
56F741	105-240-101	40				
56F715	105-250-101	50				

You Can Depend on NEWARK For Complete Stocks — Lowest Prices — Fastest Service and the Latest in Industrial Electronics

Control Switches

LINEMASTER FOOT SWITCHES



A. 4141-D B. 122-S C. 491-S D. B-2-S E. T-51-S F. 632-S G. L-2-S H. 476-S

Fig. A. Model 4141-D. Leave both hands free. Just press lightly with your foot or knee. You can mount this DPST single phase switch on a wall or on the side of a bench. Maintained contact unit. Precision-built for long life. Rated 20 amps. AC or DC, 125 to 250 v 1 horsepower. 4x7x3/4". Shpg. wt., 6 lbs.

24F160. 1 to 9.....	10.00
10 to 19.....	9.00
20 to 49.....	8.00
Model 4141-D1. Switch interior repl. for above.	
24F172. 1 to 9.....	3.68
10 to 19.....	3.31
20 to 49.....	2.94
Model 4141-S. Momentary contact.	
24F164. 1 to 9.....	10.80
10 to 19.....	9.72
20 to 49.....	8.64
Model 4141-S1. Switch interior repl. for above.	
24F173. 1 to 9.....	4.35
10 to 19.....	3.92
20 to 49.....	3.68

Fig. B. Model 122-S. A momentary contact switch for lightest pressure contact. Can be used as Single Pole, normally open or closed, or as an SPDT. 20 Amps at 115-200 V. 5 1/2x3 1/4x1 1/4. 1 lb.

24F161. 1 to 9.....	8.50
10 to 19.....	7.65
20 to 49.....	6.80
Fig. C. Model 491-S. Many industrial and commercial uses for this small, compact, and lightweight SPDT switch. Precision-made for accurate operation and sturdily built for long life. Steel housing. Skid-proof rubber base pad. Less cord and plug. Ratings: 10 amps. at both 115 v. and 230 v. Wt., 7 oz.	
24F165. 1 to 9.....	3.25
10 to 19.....	2.93
20 to 49.....	2.60

Model 491SC. As above but with plug and 6-ft. cord.

24F162. 1 to 9.....	4.75
10 to 19.....	4.38
20 to 49.....	3.80
Model 491-S1. Replacement interior for above.	
24F174. 1 to 9.....	1.60
10 to 19.....	1.44
20 to 49.....	1.28

Fig. D. The Executive. B-2-S. Two Switches in one using the teeter-totter principle to operate only one circuit at a time. SPDT. 15 Amps at 125-250 Volts. 4x4 1/2x1 1/2". Shpg. wt., 14 oz.

24F169. 1 to 9.....	7.50
10 to 19.....	6.75
20 to 49.....	6.00

Fig. E. The Treadlite. A small, yet versatile and rugged foot switch designed to give instantaneous and accurate control at low amperage loads. Less cord and plug set. 5 Amps at 110-250 Volts. 3 1/2x2 1/2x1". Shipping weight, 8 oz.

Model T-51-S. Single pole, double throw, momentary contact only. Can be used normally open or closed, as desired.	
24F163. 1 to 9.....	2.75
10 to 19.....	2.48
20 to 49.....	2.20
24F175. T-51-S1. Replacement interior for T-51-S. 1 to 9.....	
10 to 19.....	.75
20 to 49.....	.60

Model T-52-S. Has interiors so constructed and positioned that a partial downward stroke of the treadle actuates one interior and either opens or closes a circuit. Continued heavier pressure will either open or close a second circuit. Both are SPDT.

24F167. 1 to 9.....	4.85
10 to 19.....	4.19
20 to 49.....	3.72

Fig. F. The Clipper. A rugged Unit designed for continued operation under heavy loads. Rated 20 Amps at 125-250 Volts. SPDT. 4 1/2x3 1/2x1 1/2". Shipping weight, 2 1/2 lbs. Two models.

24F170. Model 632-S. Momentary contact. 1 to 9.....	
10 to 19.....	8.25
20 to 49.....	7.43
10 to 19.....	6.60
24F171. Model 632-D. Maintained contact. 1 to 9.....	
10 to 19.....	11.00
20 to 49.....	8.80

Fig. G. The Lektro-Lok. L-2-S. This switch operates on the teeter-totter principle with selective circuits. Mechanical interlock prevents both circuits from being operative at the same time. SPDT. Can be wired normally open or normally closed. Rated 15 amps at 125-250 Volts. AC only. 12 oz.

24F168. 1 to 9.....	5.80
10 to 19.....	5.22
20 to 49.....	4.64

Fig. H. Model 476S. Two SPDT switches in double-pressure housing. Light spring for seated operation, may be wired as Single Pole, normally open or closed, are 8 1/2x3 1/2x2". Shipping weight, 2 lbs.

24F166. 1 to 9.....	16.50
10 to 19.....	14.85
20 to 49.....	13.20

GENERAL CONTROL SWITCHES

TYPE MI

Inclined non-slip treadle type. 10-20A. 110V. *Spring return, SPDT. †Press-on-press.

Stk. No.	Type	1-9	10-24	25-49	50-99
24F152	MI-23*	11.57	10.91	10.26	9.59
24F153	MI-25†	13.29	12.53	11.78	11.02

TYPE MA

Foot type for limited space. Up to 20A. SPDT, spring return. Normal circuit: 1 open, 1 closed.

Stk. No.	Type	1-9	10-24	25-49	50-99
24F150	MA-3	5.42	5.11	4.80	4.50

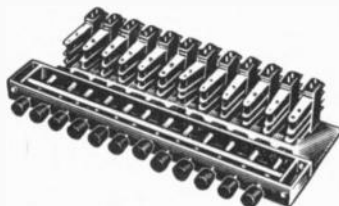
TYPE MC

Can be operated at any point on surface by foot, hand or knee. SPDT, spring return.

Stk. No.	Type	1-9	10-24	25-49	50-99
24F151	MC-13	7.70	7.26	6.83	6.39

PUSH BUTTON SWITCHES

General Control MPB push button switches offer remote centralized control; a multitude of circuits can be controlled with the many varieties of contact and plunger operation combinations possible. The MPB switch uses silver contacts permanent riveted to nickel plated phosphor bronze springs. The B-14 allows any button pushed to release any previously pressed button. Perfect for test equipment, control panels, and any application where a variety of circuits is needed. 1/8" panel. 5 amp contacts.



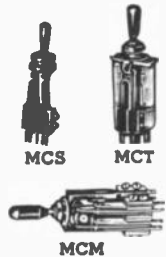
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Stk. No.	Type	Circuit	1-9	10-24	25-49	50-99
24F145	MPB6-B14-2C	6 DPDT	22.75	21.46	20.16	18.87
24F146	MPB12-B14-2C	12 DPDT	33.70	31.79	29.87	27.96

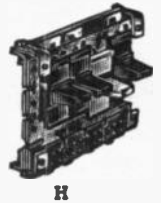
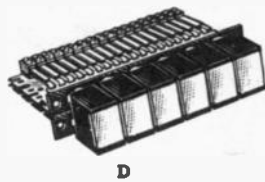
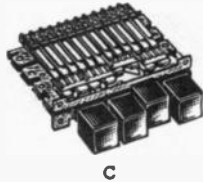
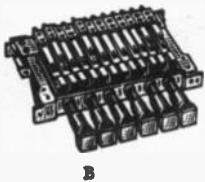
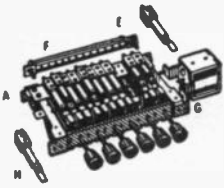


LEVER SWITCHES

Whether the application requires the rugged durability or the critical specs required for the Armed Forces, G-C switches are built to last. Riveted construction, positive lever operation, no bounce, high quality insulation material and plating. Type MCS is a small switch for instruments and communications systems. 2 contact sections. 1/2" single-hole mountings, except MCS-S1-C-C (1/16"). 1 amp. Type MCT-1 is a miniature version of telephone type lever switch. 4 contact sections. 3 amp. Type MCM is a multiple position ball bearing lever action. 4 contact sections. 5 amp. All Center Off ADPT, except †. DPDT. *Spring Return. Av. Shpg. wt., 3 1/2 oz.



Stk. No.	Type	Lgth.	1-9	10-24	25-49	50-99
24F140	MCS-S1-C-C†	2 1/4"	2.80	2.64	2.48	2.32
24F141	MCT1-T1-C-C-C-C	2 1/8"	4.66	4.40	4.13	3.87
24F142	MCT1-T3-C-C-C-C	2 1/8"	4.66	4.40	4.13	3.87
24F143	MCM-M1-C-C-C-C	2 3/4"	7.04	6.64	6.24	5.84
24F144	MCM-M3-C-C-C-C	2 3/4"	7.04	6.64	6.24	5.84



Multiple station push button switches, non-illuminated and illuminated types. Complete flexibility in number of switching stations, functions, lighting, circuitry. Available functions on all Series: Interlock — actuating a button restores to normal button previously actuated. Non-lock — each button has momentary action. All-lock — all buttons lock when depressed, all buttons

FIG. A—SERIES 7000 NON-ILLUMINATED FRAMES

Mount on panels up to 3/8" thick, 3/16" depth behind panel. Brown push-on button for each station, extra red button for release. Buttons on 1/2" centers. Function and circuit changes can be made in the field. By adjusting "Stop Plate" interlock switch changes to non-lock; by re-positioning "latch bar spring" interlock switch changes to all-lock. Only the most commonly used frames are listed; frames available from 1 to 37 stations. 1 1/2 lbs.

Stk. No.	Type	Stns.	1-9	10-24	25-49	50-249	100-499	250-999	500-999
22F350	7200	2	6.80	5.10	4.68	4.25	3.40	3.23	3.06
22F952	7400	4	9.60	7.20	6.60	6.00	4.80	4.56	4.32
22F354	7600	6	12.80	9.60	8.80	8.00	6.40	6.08	5.76
22F356	7800	8	16.00	12.00	11.00	10.00	8.00	7.60	7.20
22F358	71000	10	19.20	14.40	13.20	12.00	9.60	9.12	8.64
22F960	71200	12	22.40	16.80	15.40	14.00	11.20	10.64	10.08

FIG. B—SERIES 21000 ILLUMINATED FRAMES

Similar to Series 7000 but feature modern sq. buttons. Knurled retaining collar holds lamp securely in socket and diffuses light. Up-front lamp replacement. Buttons light in "IN" positions, other lighting available on special order. Use either 6V or 28V lamps. Frames supplied less lamps and stock switches. 1 1/2 lbs.

26F728	21200	2	11.60	8.70	7.98	7.25	5.80	5.51	5.22
26F730	21400	4	19.60	14.70	13.48	12.25	9.80	9.31	8.82
26F732	21600	6	27.60	20.70	18.98	17.25	13.80	13.11	12.42
26F734	21800	8	36.00	27.00	24.75	22.50	18.00	17.10	16.20
26F736	211000	10	44.00	33.00	30.25	27.50	22.00	20.90	19.80
26F738	211200	12	52.00	39.00	35.75	32.50	26.00	24.70	23.40

FIG. C—SERIES 35000 ILLUMINATED FRAMES

Non-illuminated frames similar to Series 7000, but new compact low silhouette design. Only 3/8" height; 2 3/8" depth behind panel. Plunger on 1/2" centers. All functions available. Interlock, Non-lock, All-lock and Push-to-Lock, Push-to-Release. Only Interlock function with "built-in" lock-out listed below — other functions available on special order. Frames furnished with modern square lock buttons for all stations. Other frames available from 1 to 18 stations. Frames supplied less stock switches. 1 1/2 lbs.

26F867	35021	2	6.80	5.10	4.68	4.25	3.40	3.23	3.06
26F868	35041	4	9.60	7.20	6.60	6.00	4.80	4.56	4.32
26F869	35061	6	12.80	9.60	8.80	8.00	6.40	6.08	5.76
26F870	35081	8	16.00	12.00	11.00	10.00	8.00	7.60	7.20
26F871	35101	10	19.20	14.40	13.20	12.00	9.60	9.12	8.64
26F872	35121	12	22.40	16.80	15.40	14.00	11.20	10.64	10.08

FIG. D—SERIES 37000 ILLUMINATED FRAMES

All operating functions described above are available in this new illuminated multiple station pushbutton switch. Each pushbutton station serves as a color and legend coded panel indicator light which actuates up to 6PDT switching. Choice of three lighting arrangements by wiring to special H83P lighting stack switches listed below. "L" type, button lights in "IN" position; "M" type, button lights in "OUT" position. "N" type, button lights in "IN" and "OUT" position. Use 6V or 28V lamps.

26F873	37021	2	9.52	7.14	6.55	5.95	4.76	4.52	4.28
26F874 <td>37041</td> <td>4</td> <td>15.44</td> <td>11.58</td> <td>10.82</td> <td>9.65</td> <td>7.72</td> <td>7.33</td> <td>6.95</td>	37041	4	15.44	11.58	10.82	9.65	7.72	7.33	6.95
26F875 <td>37061</td> <td>6</td> <td>21.36</td> <td>16.02</td> <td>14.69</td> <td>13.35</td> <td>10.68</td> <td>10.15</td> <td>9.61</td>	37061	6	21.36	16.02	14.69	13.35	10.68	10.15	9.61
26F876 <td>37081</td> <td>8</td> <td>27.68</td> <td>20.76</td> <td>19.03</td> <td>17.30</td> <td>13.84</td> <td>13.15</td> <td>12.46</td>	37081	8	27.68	20.76	19.03	17.30	13.84	13.15	12.46
26F877 <td>37101</td> <td>10</td> <td>33.60</td> <td>25.20</td> <td>23.10</td> <td>21.00</td> <td>16.80</td> <td>15.96</td> <td>15.12</td>	37101	10	33.60	25.20	23.10	21.00	16.80	15.96	15.12
26F878 <td>37121</td> <td>12</td> <td>39.52</td> <td>29.64</td> <td>27.17</td> <td>24.70</td> <td>19.76</td> <td>18.77</td> <td>17.78</td>	37121	12	39.52	29.64	27.17	24.70	19.76	18.77	17.78

NEW GLO-BUTTON

Although non-illuminated, Glo-Button provides a clear color legend display. Use on all pushbutton switches with standard .050" x .187" plungers. Good for computers control panels. Plastic.



Type X21248 Black Opaque				X51248 White Opaque			
Stk. No.	Nos.	Stk. No.	Nos.	Stk. No.	Nos.	Stk. No.	Nos.
27F008	1	27F015	8	27F022	1	27F029	8
27F009	2	27F016	9	27F023	2	27F030	9
27F010	3	27F017	10	27F024	3	27F031	10
27F011	4	27F018	11	27F025	4	27F032	11
27F012	5	27F019	12	27F026	5	27F033	12
27F013	6	27F020	ON	27F027	6	27F034	ON
27F014	7	27F021	OFF	27F028	7	27F035	OFF
1-9	10-24	25-49	50-99	100-249	250-499	500-999	
1.00	.75	.69	.62	.50	.475	.45	

restored to normal by actuating release button. Push-to-lock, push-to-release — the button locks when depressed and is released when again depressed. For a complete multiple station assembly, specify switch function, order the proper frame, necessary stack switches. Optional accessories include lock-out bar and solenoid release.

FIG. H—SERIES 39000 "MULTI SLIDE" SWITCH

Switch features full interlock, non-lock, and all-lock functions. Special slide to release cancelling operation. From 1 to 18 stations in row. To 3 PDT circuitry per station. 3/4" depth. Shpg. wt. 1 1/2 lbs.

Stk. No.	Type	Sta.	1-9	10-24	25-49	50-99	100-249	250-499	500-999
27F036	39021	2	7.60	5.70	5.23	4.75	3.80	3.61	3.42
27F037	39041	4	11.60	8.70	7.98	7.25	5.80	5.51	5.22
27F038	39061	6	14.40	10.80	9.90	9.00	7.20	6.84	6.48
27F039	39081	8	18.00	13.50	12.38	11.25	9.00	8.55	8.10
27F040	39101	10	21.60	16.20	14.85	13.50	10.80	10.26	9.72
27F041	39121	12	25.20	18.90	17.33	15.75	12.60	11.97	11.34

LAMPS FOR SERIES 21000 AND 37000

25F123. Ind. No. 328 6 volt lamp. Each .54. Lots of 10 each .325
25F122. Ind. No. 327 28 volt lamp. Each .70. Lots of 10 each .415

FIG. E—STACK SWITCHES

For Series 7000, 21000, Series 70, silver contacts for power circuits; Series 70P, welded cross bar palladium contacts for low level circuits. Both rated at 3 amps, 300 watts, max., A.C. non-inductive load. If more than one circuit is required specify two or more stacks in order to balance load on switch plunger. Two mtg. screws and one pressure plate furnished. Shpg. wt., 1 oz.

SERIES 70 SILVER CONTACTS

Stk. No.	Cont.	Type	1-9	10-24	25-49	50-99	100-249	250-499	500-999
22F361	1-A	71	.48	.36	.33	.30	.24	.228	.216
22F362	1-B	72	.48	.36	.33	.30	.24	.228	.216
22F363	1-C	73	.56	.42	.39	.35	.28	.266	.252
22F365	2-A	74	.80	.60	.55	.50	.40	.38	.36
22F366	2-B	75	.80	.60	.55	.50	.40	.38	.36
22F367	2-C	76	.92	.69	.63	.58	.46	.437	.414

SERIES 70P PALLADIUM CONTACTS

22F369	1-A	71P	.56	.42	.39	.35	.28	.266	.252
22F370	1-B	72P	.56	.42 <td>.39</td> <td>.35 <td>.28 <td>.266 <td>.252</td> </td></td></td>	.39	.35 <td>.28 <td>.266 <td>.252</td> </td></td>	.28 <td>.266 <td>.252</td> </td>	.266 <td>.252</td>	.252
22F371	1-C	73P	.72	.54	.50	.45	.36 <td>.342</td> <td>.324</td>	.342	.324
22F373	2-A	74P	.92	.69	.63	.58	.46	.437	.414
22F374	2-B	75P	.92	.69	.63	.58	.46	.437	.414
22F375	2-C	76P	1.08	.81	.74	.68	.54	.513	.486
27F042	1-D	83PD	.80	.60	.55	.50	.40	.38	.36

FIG. F—LOCK-OUT BAR

Prevents operation of more than one button at a time. Mounts on back of Series 7000, 21000 frame. Supplied with mtg. hardware.

Stk. No.	Type	Stn.	1-9	10-24	25-49	50-99	100-249	250-499	500-999
22F280	K-02	2	2.40	1.80	1.65	1.50	1.20	1.14	1.08
22F282	K-04	4	2.60	1.95	1.79	1.63	1.30	1.24	1.17
22F284	K-06	6	2.80	2.10	1.93	1.75	1.40	1.33	1.26
22F286	K-08	8	3.00	2.25	2.06	1.88	1.50	1.43	1.35
22F288	K-10	10	3.40	2.55	2.34	2.13	1.70	1.62	1.53
22F290	K-12	12	3.80	2.85	2.61	2.38	1.90	1.81	1.71

FIG. G—SOLENOID RELEASE

For Series 7000, 21000. Automatic remote release of depressed stations. 115V A.C., 60 cycle with mtg. brkt. and screws.

Stk. No.	Type	Function	1-9	10-24	25-49	50-99	100-249	250-499	500-999
22F295	1-1	Interlock	7.60	5.70	5.23	4.75	3.80	3.61	3.42
22F296	1-3	All-Lock	8.00	6.00	5.50	5.00	4.00	3.80	3.60

STACK SWITCHES FOR ILLUMINATED "MULTI-SWITCHES"

Switch stacks for Series 35000, 37000. Series 80P cross-bar welded palladium contacts rated at 3 amps, 300 watts, max., A.C. non-inductive load; Series H-83P same as 80P, but with lighting convenience blade for rear of switch frame wiring on Series 37000. Order 80P for switching only, H-83P for lighting (2 per station). With pressure plate and screws. Shpg. wt., 1 oz.

Stk. No.	Cont.	Type	1-9	10-24	25-49	50-99	100-249	250-499	500-999
28F882	1-A	81P	.56	.42	.39	.35	.28	.266	.252
28F883	1-B	82P	.56	.42	.39	.35	.28	.266	.252
28F884	1-C	83P	.72	.54	.50	.45	.36	.342	.324
28F885	1-C	H83P	1.80	.75	.88	.83	.58	.475	.450

All other Switchcraft "Multi-Switches" available from NEWARK. Write for FREE Catalog 26F739 and 26F741.

LEVER LITE 25000 SERIES SWITCH

An illuminated switch to color code switching position. Available in 2 or 3 position models. Individual colors to indicate individual circuit. Requires only 2 1/4" behind panel. Ideal for multi operation. Complete with 6 volt 200 Ma lamp and six color chips. 2 1/4 x 39/64 x 1-11/32". Wt. 5 oz. *Kit contains 5 colors: green, amber, yellow, blue and white.



2 POSITION TYPE

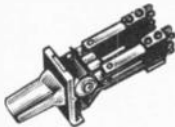
Type	Non-lock	lock-ing	Cont. Form	1-24	25-49	50-99	100-249	250-499	500-999
25201	26F704	26F700	1-A	2.40	2.20	2.00	1.60	1.52	1.44
25203	26F705	26F701	1-C	2.55	2.34	2.13	1.70	1.62	1.53
25206	26F706	26F702	2-C	3.00	2.75	2.50	2.00	1.90	1.80
25209	26F707	26F703	3-C	3.45	3.16	2.88	2.30	2.19	2.07

3 POSITION TYPE

Type	Non-lock	lock-ing	Cont. Form	1-24	25-49	50-99	100-249	250-499	500-999
25304	26F712	26F708	1-A	2.70	2.48	2.25	1.80	1.71	1.62
25306	26F713	26F709	1-C	3.00	2.75	2.50	2.00	1.90	1.80
25308	26F714	26F710	2-A	3.30	3.03	2.75	2.20	2.09	1.98
25312	27F715	26F711	2-C	3.60	3.30	3.00	2.40	2.28	2.16
K-105	26F716	Color Chip Kit*		.24	.22	.20	.16	.152	.144
531	26F740	Escutcheon Plate		.09	.08	.075	.06	.057	.054

"LEVER LITE" SWITCH SERIES 27000

Same as 25000 Series except lever and fillers. Mounts on 3/4" centers, panels to 3/8" thk., depth 2 3/8". On 2 pos., AMBER in "Neutral"; GREEN in "Down". On 3 pos., RED in "Up"; AMBER in "Neutral"; GREEN in "Down". W/6V lamp. 2 oz.



2 POSITION TYPE

Type	Non-lock	lock-ing	Cont. Form	1-24	25-49	50-99	100-249	250-499	500-999
27206	26F832	26F834	2-C	3.90	3.08	3.25	2.60	2.47	2.34
27212	26F833	26F835	4-C	4.80	4.40	4.00	3.20	3.04	2.88

3 POSITION TYPE (+Ex. sec.)

Type	Non-lock	lock-ing	Cont. Form	1-24	25-49	50-99	100-249	250-499	500-999
27306	26F836	26F839	+1-C	3.90	3.58	3.25	2.60	2.47	2.34
27307	26F837	26F840	+1-C*	3.99	3.68	3.33	2.66	2.53	2.39
27312	26F838	26F841	+2-C	4.80	4.40	4.00	3.20	3.04	2.88

*n.o. center position off

SERIES 29000 FEATHER-LEVER SWITCH

Steel frame, nylon roller, silver contacts at 2 amps., 200 W max., A.C., non-inductive load. Bushing mount, in 1/8" O.D. hole in panels to 1/8" thk. Depth behind panel, 1 1/2". + n.o. cir. position off. ‡ Inter-Conn "Talk-Listen" switch, leverlock on one side of neutral and non-locking on other. 3 oz.



2 POSITION TYPE

Type	Non-lock	lock-ing	Cont. Form	1-24	25-49	50-99	100-249	250-499	500-999
29201	26F843	26F847	1-A	1.17	1.07	.98	.78	.741	.702
29203	26F844	26F848	1-C	1.35	1.24	1.13	.96	.935	.81
29204	26F845	26F849	2-A	1.50	1.38	1.25	1.00	.95	.90
29206	26F846	26F850	2-C	1.85	1.51	1.38	1.10	1.05	.99

3 POSITION TYPE (+ex. sec.)

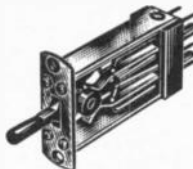
Type	Non-lock	lock-ing	Cont. Form	1-24	25-49	50-99	100-249	250-499	500-999
29304	26F852	26F857	+1-A	1.56	1.43	1.30	1.04	.988	.936
29306	26F853	26F858	+1-C	1.74	1.60	1.45	1.16	1.10	1.04
29312	26F855	26F860	+2-C	2.25	2.06	1.88	1.50	1.43	1.35

‡ Interconn. switches

Type	Non-lock	lock-ing	Cont. Form	1-24	25-49	50-99	100-249	250-499	500-999
29303T	26F861	.....	1-C	1.50	1.38	1.25	1.00	.95	.90
29307T	26F862	.....	2-C	1.77	1.62	1.48	1.18	1.12	1.06
532	26F842	Escutcheon Plate		.15	.14	.13	.10	.095	.09

10000 SERIES "LO-CAP" SWITCHES

Previously referred to as Federal Anti-Capacity switches. No. 10204L replaces Fed. No. 1427; 10205L—1426; 10307L—1425; 10313L—1424; 10325L—replaces 12494. Flat actuator springs and round contact springs are wide spaced in large molded insulating block. Actuator springs have silver contacts, rated at 1 ampere, 100 W. max., A.C. non-inductive load. †n.o. ctr. position off. Supplied with chrome escutcheon plate. *Two position types, **three position types.



Type	Non-lock	lock-ing	Cont. Form	1-24	25-49	50-99	100-249	250-499	500-999
*10204	26F886	26F891	2-A	4.08	3.74	3.40	2.72	2.58	2.45
**10205	26F887	26F892	2-B	4.08	3.74	3.40	2.72	2.58	2.45
**10307	26F888	26F893	1-C†	4.20	3.85	3.50	2.80	2.66	2.52
**10313	26F889	26F894	2-C†	4.50	4.13	3.75	3.00	2.85	2.70
**10325	26F890	26F895	4-C†	9.00	8.08	8.25	6.60	6.25	5.94

BASIC SCHEMATIC CIRCUITS



S.P.S.T.n.o.

S.P.S.T.n.c.

S.P.D.T.

S.P.D.T.

LEV-R SWITCHES SERIES 300 & L3000

Small lever action switches in two and three position types, locking and non-locking action. Types 3033 and L3033 are 3 position switches with 1 form C only. Supplied with locknut and screw-on black knob. Fine silver contacts rated at 3 amps, 300 watts, max. AC non-inductive load. Non-locking types have spring return. Series 300 mounts in panels up to 3/32" thick; Series 13000 mounts in panels up to 1/4" thick. Both series are 5/8" wide; requires 2 1/4" behind panel; mounts in single 1/2" dia. hole. 1 n.o. center position off. † Inter communications "Talk-Listen" switches, lever locks on one side of neutral and operates non-locking on the other side. 3 position switches have same contact for both sections on each side. wt.: 3 oz.



2 POSITION TYPE

Type	Stk. No.		Cont. Form	1-24	25-49	50-99	100-249	250-499	500-999
	Non-lock	lock-ing							
3001	22F300	22F311	1-A	1.20	1.10	1.00	.80	.76	.72
3002	22F301	22F312	1-B	1.20	1.10	1.00	.80	.76	.72
3003	22F302	22F313	1-C	1.41	1.29	1.18	.94	.893	.846
3005	22F303	22F314	2-B	1.56	1.43	1.30	1.04	.988	.936
3006	22F305	22F316	2-C	1.71	1.57	1.43	1.14	1.08	1.03
3033	22F306	22F317	1-C†	1.56	1.43	1.30	1.04	.988	.936
3034	22F307	22F318	1-A	1.62	1.49	1.35	1.08	1.03	.972
3035	22F308	22F319	1-B	1.62	1.49	1.35	1.08	1.03	.972
3036	22F309	22F320	1-C	1.80	1.65	1.50	1.20	1.14	1.08
3037	22F310	22F321	1-C†	1.83	1.68	1.53	1.22	1.16	1.10
13001	27F043	27F051	1-C	1.82	1.21	1.10	.88	.836	.792
13003	27F044	27F052	1-C	1.50	1.38	1.25	1.00	.95	.90
13006	27F045	27F053	2-C	1.71	1.57	1.43	1.14	1.08	1.03
13009	27F046	27F054	3-C	2.40	2.20	2.00	1.60	1.52	1.44
13033	27F047	27F055	1-C†	1.65	1.51	1.38	1.10	1.05	.99
13034	27F048	27F056	1-A	1.71	1.57	1.43	1.14	1.08	1.03
13036	27F049	27F057	1-C	2.01	1.84	1.68	1.34	1.27	1.21
13037	27F050	27F058	1-C†	2.01	1.84	1.68	1.34	1.27	1.21

SERIES 6000 TELEVER SWITCHES

Featuring "T-Beam" construction with Iridite finished steel frame. Palladium contacts rated at 3 A., 120 volts, non-inductive load. Size, 4 9/32 x 1 5/8 x 7/8". Wt., 3 oz.



2-POSITION TYPES

Non-Locking		Locking		Cont. Form	1-24	25-49	50-99	100-249	250-499	500-999
Stk. No.	Type	Stk. No.	Type							
22F322	6006	22F331	6006L	2-C	3.00	2.75	2.50	2.00	1.90	1.80
22F323	6008	22F332	6008L	4-A	3.36	3.08	2.80	2.24	2.13	2.02
		22F333	6009L	3-C	3.60	3.30	3.00	2.40	2.28	2.16
22F325	60012	22F334	60012L	4-C	4.08	3.74	3.40	2.72	2.58	2.45

3-POSITION TYPES

22F327	6036	22F336	6036L	1-C	3.00	2.75	2.50	2.00	1.90	1.80
		22F337	6038L	2-A	3.36	3.08	2.80	2.24	2.13	2.02
22F329	60312	22F338	60312L	2-C	4.08	3.74	3.40	2.72	2.58	2.45
22F330	60324	22F339	60324L	4-C	6.00	5.50	5.00	4.00	3.80	3.60
22F340.	530 Escutcheon Plate.				.36	.33	.30	.24	.228	.216

SERIES 16000 TELEVER SWITCHES

Similar to the 6000 Series. Single hole mounting; mounts in 1/2" dia. hole for panels up to 1/4" thick. Size: 4 1/4 x 1 7/8 x 7/8". Shpg. wt., 3 oz. May be converted to "locking" by removing stop plate.



2-POSITION TYPES

Non-locking		Contact Form	1-24	25-49	50-99	100-249	250-499	500-999
Stk. No.	Type							
22F215	16006	2-C	3.00	2.75	2.50	2.00	1.90	1.80
22F216	16006D	2-D	3.36	3.08	2.80	2.24	2.13	2.02
22F217	16008	4-A	3.36	3.08	2.80	2.24	2.13	2.02
22F218	16009	3-C	3.60	3.30	3.00	2.40	2.28	2.16
22F219	160012	4-C	4.08	3.74	3.40	2.72	2.58	2.45
22F220	160012D	4-D	4.50	4.13	3.75	3.00	2.85	2.70
22F221	160024	8-C	6.00	5.50	5.00	4.00	3.80	3.60

3-POSITION TYPES

22F222	16036	1-C	3.00	2.75	2.50	2.00	1.90	1.80
22F223	16036D	1-D	3.36	3.08	2.80	2.24	2.13	2.02
22F224	16038	2-A	3.36	3.08	2.80	2.24	2.13	2.02
22F225	160312	2-C	4.08	3.74	3.40	2.72	2.58	2.45
22F226	160312D	2-D	4.50	4.13	3.75	3.00	2.85	2.70
22F227	160316	4-A	5.28	4.84	4.40	3.52	3.34	3.17
22F228	160324	4-C	6.00	5.50	5.00	4.00	3.80	3.60

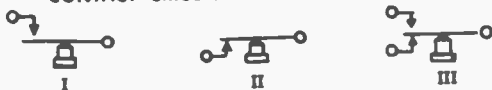
LAMPS FOR "LEVER-LITE" AND "LITTEL-LITE" SWITCHES

LITTEL SWITCHES



These are momentary contact switches, no bigger than a small phone jack. Available in three circuits with red or black, one-piece push-button (non-locking only). All contacts are thoroughly insulated from panel bushing with interlocking phenolic washers. Springs are special nickel-silver alloy. Integral contacts; recommended for low current circuits only. Plastic button and shaft need not be removed for mounting. Mounts in $\frac{3}{16}$ " dia. hole in panels up to $\frac{1}{4}$ ". Complete with locknut and washer. Shpg. wt., 1 oz.

CONTACT CIRCUITS FOR LITTEL SWITCHES



BLACK BUTTON

Stock No.	Type	Circuit Figure	Switch Action	1-24	25-49	50-99	100-249
22F207	201	I	SPST NO	.57	.52	.48	.38
22F208	202	II	SPST NC	.57	.52	.48	.38
22F209	203	III	SPDT	.66	.61	.55	.44

RED BUTTON

Stock No.	Type	Circuit Figure	Switch Action	1-24	25-49	50-99	100-249
22F210	101	I	SPST NO	.57	.52	.48	.38
22F211	102	II	SPST NC	.57	.52	.48	.38
22F212	103	III	SPDT	.66	.61	.55	.44

ILLUMINATED "LITTEL-LITE" SWITCHES



Series 210 are small, momentary contact, illuminated pushbutton types. One piece, clear plastic button and shaft is illuminated by a single miniature lamp. Includes kit of 4 color chips (red, amber, green, and yellow). Recommended for low level circuits. Switches with suffix "S" have fine silver contacts rated at 3 amps, 300 watts, max. AC, non-inductive load. Lighting circuit is independent of switching circuit. Mounts on $\frac{3}{16}$ " centers, panels to $\frac{1}{4}$ " thick.

Stock No.	Type	Circuit Figure	Switch Action	1-24	25-49	50-99	100-249
26F800	211	I	SPST NO	1.02	.94	.85	.68
26F801	212	II	SPST NC	1.02	.94	.85	.68
26F802	213	III	SPDT	1.20	1.10	1.00	.80
26F803	211S	I	SPST NO	1.17	1.07	.98	.78
26F804	212S	II	SPST NC	1.17	1.07	.98	.78
26F805	213S	III	SPDT	1.35	1.24	1.13	.90
26F806	K106	.....	Color chip kit	.18	.17	.15	.12

NEW SERIES DA SWITCH



Miniature momentary action pushbutton switch. Meets Human Factor Engineering considerations. Mounts on $\frac{1}{16}$ " centers. Available in six colors for control panel coding. Body of anodized aluminum protects the contacts. Terminals come straight out in back for easy wiring. Data Switches provide an A-A-B arrangement, which may be wired externally to provide 1-C switching. Hard-gold contacts rated 500 ma., 50 watts max. A.C., non-inductive load.

Stock No.	Type No.	Color	1-24	25-49	50-99	100-249	250-499	500-999
27F000	DA-01-3	Red	1.35	1.24	1.13	.90	.855	.81
27F001	DA-02-3	Black						
27F002	DA-03-3	Green						
27F003	DA-04-3	Blue						
27F004	DA-05-3	White						
27F005	DA-06-3	Yellow						

MINIATURE CONNECTORS



Microphone type connectors used with miniaturized audio equipment. Accepts single conductor shielded cables up to $\frac{3}{16}$ ". O.D. nickel plated brass bodies. Connectors are about $\frac{1}{2}$ the size of standard. Coupling ring on Type 5501F is removable for quick change of female to male type. Type 5501MF mounts by locknut on front side of panel in $\frac{3}{16}$ " hole. Type 5501MP mounts back side of panel in $\frac{3}{16}$ " dia. hole.

Stock No.	Type	Description	1-24	25-49	50-99	100-249	250-499	500-999
22F271	2501FT	female	.75	.69	.63	.50	.475	.45
22F272	2501MT	male	.75	.69	.63	.50	.475	.45
39F776	5501F	female	.39	.36	.33	.26	.247	.234
39F777	5501M	male	.30	.28	.25	.20	.190	.180
39F778	5501MP	male, panel	.24	.22	.20	.16	.152	.144
22F213	5501MF	pnl. con. male	.30	.28	.25	.20	.190	.180
22F214	5501MPC	pnl. con. male	.48	.44	.40	.32	.304	.288



BUTTON SWITCHES

Non-locking, push button switch. Rated at 250 mils., non-inductive load, AC, 30 watts max. Size: $\frac{1}{2}$ "Dx1"L. Wt. 2 oz. *Numerical indicates No. of sets of contacts.

Stk. No.	Type	Description	Contact* Arrange.	1-24	25-49	50-99	100-249
22FX229	903	Red button	1C	.84	.77	.70	.56
22FX230	903D	Red button	1D				
22FX233	913	Black button	1C				
22FX234	913D	Black button	1D				
22FX231	923	Red button	1C	.90	.83	.75	.60
22FX232	923D	Red button	1D				
22FX235	933	Black button	1C				

TINY SWITCHES

Subminiature design. Integral silver contacts for low level circuits where low contact resistance is not a factor. Size: $\frac{1}{16}$ "Dx $\frac{1}{16}$ "L.

Stock No.	Type	Description	Contact* Arrange.	1-24	25-49	50-99	100-249
22FX237	951	Red button	1A	.57	.52	.48	.38
22FX238	952	Red button	1B				
22FX240	961	Black button	1A				
22FX241	962	Black button	1B	.66	.61	.55	.44
22FX239	953	Red button	1C				
22FX242	963	Black button	1C				

CORD OR PENDANT SWITCHES

Nickel plated housing incorporates Series 903 and 913 button switches shown above. Dia. $\frac{1}{16}$ ". Approx. length 2 $\frac{3}{16}$ ". Wt. 3 oz.

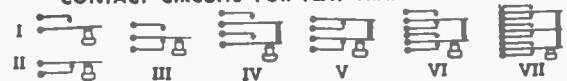
Stock No.	Type	Description	Contact* Arrange.	1-24	25-49	50-99	100-249
22FX243	E903	Red button	1C	1.35	1.24	1.13	.90
22FX244	E903D	Red button	1D				
22FX245	E913	Black button	1C				
22FX248	E913D	Black button	1D				

FLAT FRAME PUSH BUTTON SWITCHES



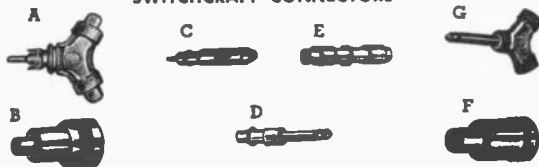
One piece, black plastic, push button, all common circuit model. Fine silver contacts used for minimum resistance. Rated at 3 amps, 300 watts, max. AC non-inductive load. Shaft and button need not be removed for mounting. Mounts in single $\frac{3}{8}$ " hole, panels up to $\frac{1}{4}$ " thick. Size: $1\frac{3}{32}$ " l. by $\frac{3}{4}$ " w. Shpg. wt., each 2 oz.

CONTACT CIRCUITS FOR FLAT FRAME SWITCHES



Stock No.	Type	Circuit Figure	Switch Action	1-24	25-49	50-99	100-249
22F200	FF1001	I	SPST NO	.69	.63	.58	.46
22F201	FF1002	II	SPST NC	.69	.63	.58	.46
22F202	FF1003	III	SPDT	.78	.72	.65	.52
22F203	FF1004	IV	DPST NO	.87	.80	.73	.58
22F204	FF1005	V	DPST NC	.87	.80	.73	.58
22F205	FF1006	VI	DPDT	1.02	.94	.85	.68
22F206	FF1009	VII	3PDT	1.38	1.27	1.15	.92

SWITCHCRAFT CONNECTORS



For PA, Hi-Fi, etc. Shpg. wt., 3 oz.

Stock No.	Type	Fig.	Input Conn.	Output Conn.	EACH
22F265	330F	A	Phono jack (two)	Phono plug	1.17
22F266	334A	B	Phono jack	Female mike	.96
22F287	336A	C	Phono jack	Phono plug	1.17
22F268	345A	D	Phono jack	Phono plug	.87
22F270	349A	E	Phono plug	Phono plug	.75
22F273	334B	F	Phono jack	Male mike	.87
22F274	330M	G	Male mike (two)	Phone plug	1.35

Plugs and Jacks



MIL. AND TELEPHONE TYPE JACKS, PLUGS AND JACK PANELS

"LITTEL-JAX" PHONE JACKS

Parts interlocked firmly to prevent rotation of contacts. Nickel-silver springs long lasting, hold mating plug firmly. Mount in $\frac{3}{16}$ " hole. C-11 equals Jan JJ-034, C12-A equals JJ-089, C-12B equals JJ-033.



*Special jack for thin-shank (.206 dia.) plugs. Also mates with S-250 and S-280 plugs below.
**S-11, S-12B, S-13B sleeve bushing to fit WE plug 309 and Signal Corps plug PL-68.

Stock No.	Mfr. Type	No. Cond.	Circuit Type	1-24	25-49	50-99	100-249	250-499	500-999
39F782	11	2	Open	.27	.25	.23	.18	.171	.162
39F662	C-11	2	Open	.39	.36	.33	.26	.247	.234
39F663	S-11*	2	Open	.30	.28	.25	.20	.190	.180
39F783	12-A	2	Single Closed	.30	.28	.25	.20	.190	.180
39F664	C12-A	2	Single Closed	.48	.44	.40	.32	.304	.288
39F665	12-B	3	Open	.36	.33	.30	.24	.228	.216
39F666	S-12B**	3	Open	.45	.41	.38	.30	.285	.27
39F667	C-12B	3	Open	.48	.41	.40	.32	.304	.285
39F668	13B	3	Single Closed	.51	.47	.43	.34	.323	.306
39F669	S-13B**	3	Single Closed	.63	.58	.53	.42	.399	.378

MIL-P-642(A) DESIGN PHONE PLUGS

These "LitteL Plugs" meet exacting JAN specs. Handle type—Black. Lug type—Screw, except * metal handle. Fit standard phone jacks. Extremely rugged. Shpg. wt., 2 oz.



Stock No.	Mfr. Type	JAN Type	Signal Corps	Cond.	1-24	25-49	50-99	100-249	250-499	500-999
39F792	440	PJ-055B	PL-55	2	.90	.83	.75	.60	.57	.54
39F791	480	PJ-068	PL-68	3	2.16	.96	1.80	1.44	1.37	1.30
22F276	430	PJ-054B	PL-54	2	.90	.83	.75	.60	.57	.54
22F277	470	PJ-055M	PL-125	2	1.26	1.16	1.05	.84	.798	.756
22F278	*475	PJ-636	.....	2	1.32	1.21	1.10	.88	.836	.792

"LITTEL-PLUGS"—MIL DESIGN

22F389	420	PJ047B	PL47	2	1.05	.96	.88	.70	.665	.63
22F391	482	PJ051R	PL51	3	2.40	2.20	2.00	1.60	1.52	1.44

"TWIN-PLUGS"—MIL DESIGN

22F392	411	PJ327	M91242	2	3.15	2.89	2.63	2.10	2.00	1.89
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"LITTEL-PLUG" PHONE PLUGS



For 2 and 3-conductor cables. Fit standard jack, except S-250* and S-280*. Solder types have cable clamp that clamps over metal braid of shielded cable, or outer cover of insulated cable. Screw terminal types have no cable clamp. *Shielded plugs nickel-plated brass handles. Size, $2\frac{3}{64} \times \frac{1}{2}$ ". Shpg. wt., 3 oz.

*Special thin-shank (.206 dia.) plug. Mates with Switchcraft S-11, S-12B, S-13B jacks above. R-280 mates with No. 126 "Ext. Jax".

**Special two-conductor plug with wide insulator between tip and sleeve for use in 3-conductor jack without shorting.

Fig. A

Stock No.	Mfr. Typ	Descrip.	No. Cond.	Lug Type	1-24	25-49	50-99	100-249	250-499	500-999
39F761	245	Red Plastic	2	Screw	.51	.47	.43	.34	.323	.306
39F674	255	Red Plastic	2	Solder	.48	.44	.40	.32	.304	.288
39F676	269	Red Plastic	3	Solder	.72	.66	.60	.48	.456	.432
39F760	240	Blk Plastic	2	Screw	.51	.47	.43	.34	.323	.306
39F763	250	Blk Plastic	2	Solder	.48	.44	.40	.32	.304	.288
39F675	260	Blk Plastic	3	Screw	.81	.74	.68	.54	.513	.486
39F771	267	Blk Plastic	3	Solder	.72	.66	.60	.48	.456	.432
39F677	S-250	Blk Plastic	2	Solder	.51	.47	.43	.34	.323	.306

Fig. B

39F765	270	Shielded	2	Screw	.72	.66	.60	.48	.456	.432
39F764	280	Shielded	2	Solder	.69	.64	.58	.46	.437	.414
39F766	290	Shielded	3	Screw	.96	.88	.80	.64	.608	.576
39F767	297	Shielded	3	Solder	.90	.83	.75	.60	.57	.54
39F678	288**	Shielded	2	Solder	.72	.66	.60	.48	.456	.432
39F762	S-280	Shielded	2	Solder	.69	.64	.58	.46	.437	.414
39F784	R-280	Shielded	2	Solder	.90	.83	.75	.60	.57	.54
22F275	170	Shielded	2	Screw	1.11	1.02	.93	.74	.703	.666

ELECTRICAL SCHEMATICS



NEW "TINI-D JAX" SUBMINIATURE PHONE JACKS

Completely enclosed molded phone jack. Mates with Type 750 "TINI-PLUG." Bifurcated beryllium copper spring contacts hold plugs tightly. Type 142A has threaded bushing, comes with locknut and washer for panel mtg. Type PC-142A is for printed circuit mounting. Both types mount on $\frac{3}{16}$ " centers. Size $\frac{3}{8} \times \frac{3}{8} \times \frac{1}{2}$ "; wt. 3.6 gms.



Stk. No.	Type	Cont. Form	1-24	25-49	50-99	100-249	250-499	500-999
27F006	142A	B	.30	.28	.25	.20	.19	.18
27F007	PC-142A	B	.33	.30	.28	.22	.209	.198

"HI-D JAX" PHONE JACKS

Compact jacks; mate with $\frac{1}{4}$ " plugs. Silver-plated, nickel silver springs. Low contact resistance and elec. leakage; mounts on $\frac{5}{16}$ " centers. For P.C. board mounting. Mounts in single $\frac{3}{8}$ " hole, in panels up to $\frac{1}{32}$ " thick. depth behind panel, $1\frac{3}{32}$ ". Wt. 7/16g.



TWO-CONDUCTOR TYPES

Stock No.	Type	Schem. No.	Mating Plug.	1-24	25-49	50-99	100-249	250-499	500-999
39F656	111	A	250	.27	.25	.23	.18	.171	.162
39F657	112A	B	250	.30	.28	.25	.20	.19	.18

THREE-CONDUCTOR TYPES

39F658	112B	C	267	.33	.30	.28	.22	.209	.198
39F659	113B	D	267	.45	.41	.38	.30	.285	.27
39F660	113F	E	267	.45	.41	.38	.30	.285	.27
39F661	114B	F	267	.51	.47	.43	.34	.323	.306

JACK PANELS



Polished Black phenolic panels, reinforced with steel, supports "T-Jax" or "MT-Jax". Slotted mounting brackets for standard 19" relay racks. Less jacks.

Series 1200. Single row $1\frac{1}{4}$ " wide for 24 jacks. Spaced so no shorting results. Shpg. wt., $3\frac{1}{4}$ lbs.

Series 2400. Double row Panel, $2\frac{1}{2}$ " wide for 48 jacks. Jacks spaced $\frac{5}{16}$ " to permit use of double plug. Shpg. wt., 5 lbs.

Series 2600. Double row Panel $1\frac{3}{4}$ " wide for 52 jacks. Jacks spaced $\frac{3}{8}$ " centers. Shpg. wt., 5 lbs.

Stk. No.	Type	1-24	25-49	50-99	100-249
22FX252	1200	8.70	7.98	7.25	5.80
22FX253	2400	9.00	8.25	7.50	6.00
22FX254	2600	10.80	9.90	9.00	7.20

"MT-JAX"

Long frame type, commonly referred to as telephone switchboard jack. Pressure welded steel frame provides rigidity. Welded cross bar palladium contacts in all switching circuits. Mating plug: (**) PJ-055.



(**) PJ-051. (†) PJ-068.

Stock No.	Type	Dia.	Mil. Spec.	Ht.	1-24	25-49	50-99	100-249	250-499	500-999
22FX255	MT-331*	A	JJ-086	$\frac{7}{16}$ "	.75	.69	.63	.50	.475	.45
22FX256	MT-332A*	B	JJ-024	$\frac{1}{2}$ "	.87	.80	.73	.58	.551	.522
22FX257	MT-332B**	C	JJ-022	$\frac{9}{16}$ "	.87	.80	.73	.58	.551	.522
22FX258	MT-332C**	D	JJ-016	$\frac{9}{16}$ "	1.02	.94	.85	.68	.646	.612
22FX259	MT-334B**	E	JJ-042	$\frac{3}{8}$ "	1.05	.96	.88	.70	.665	.63
22FX260	MT-336C**	F	JJ-073	$\frac{3}{4}$ "	1.50	1.38	1.25	1.00	.95	.90
22FX261	MT-344B†	.....	.....	$\frac{1}{2}$ "	1.20	1.10	1.00	.80	.76	.72
22F297	MT-334F*	.....	JJ035	$\frac{3}{8}$ "	1.05	.96	.88	.70	.665	.63

FLAT PLUGS

Flat design . . . projects only $1\frac{1}{32}$ " from jack! Ideal where conventional plug interferes with operation or placement of equipment. Screw-type terminals. Accept standard phone jacks. Black handle. Wt. 4 oz.



Stk. No.	Type	Cond.	1-24	25-49	50-99	100-249	250-499	500-999
39F768	220	2	.75	.69	.63	.50	.475	.45
39F769	230	3	.93	.85	.78	.62	.589	.558

"MICRO-JAX" AND "MICRO-PLUG" SERIES

TR-2A. "Micro-Jax." Ultra-Miniaturized jacks. A 2 conductor single closed circuit design with keyed nylon insulation, interlock springs and solder lugs. Size: $\frac{1}{16}$ " L, $\frac{1}{4}$ " Dia. THD .101".



Type 850. Ultra-min. plug. Features screw-on black aluminum handle. Clamp Lug. Cable up to $\frac{1}{16}$ " Dia. Size: $1\frac{1}{4}$ " L; $\frac{1}{4}$ " O.D.

Stk. No.	Type	1-24	25-49	50-99	100-249	250-499	500-999
22F394	TR-2A	.30	.28	.25	.20	.19	.18
22F395	850	.45	.41	.38	.30	.285	.27

SWITCHCRAFT®

Plugs - Jacks - Mixers

PLUG AND JACK

Make ideal connectors for hearing aids, speaker extensions, carbon microphones and other devices where space is limited. Only 1 1/8" long by 1/2" wide by 3/8" thick. Two-conductor precision. Army type Molded black bakelite case. Machined brass pins and sockets. Sockets have strong spring contacts and solder lugs. Shpg. wt., 3 oz.



Stk. No.	MIL	Type	1-24	25-49	50-99	100-249	250-499	500-999
39F788	PJ291	410 Plug	.60	.55	.50	.40	.380	.360
39F799	TJ048	810 Jack	.72	.66	.60	.48	.456	.432

"4-LEAF CLOVER JAX"

"4 Leaf Clover" molded phono jack available in four models: open circuit grounded or ungrounded; closed circuit, grounded or ungrounded. Offers dual contact surfaces for minimum shunt resistance, greater reliability. Tip spring with shunt form dual contact around the pin of a phono plug upon insertion. Molded body of high impact plastic for extra ruggedness. Special nickel silver springs for maximum life. High dielectric molded body for low leakage. Precise molded

body keys all springs, which are locked in place preventing shifting of parts and shorting. Requires no hand adjusting. Mates with Switchcraft phono plugs. Nos. 3501M, 3501MC, 3502, 3508-1, -2, -5 or any other phono jack with a 1/2 dia. pin. Mounts on 3/4" centers in a 1 1/2" hole, in panels 1 3/4" thick. Depth behind panel, 3/8". Shpg. wt., 2 oz.

Stk. No.	Type	Description	1-24	25-49	50-99	100-249	250-499	500-999
26F863	3511	Open Circuit	.18	.17	.15	.12	.114	.108
26F864	3511A	Open Circuit Grounded	.18	.17	.15	.12	.114	.108
26F865	3512	Closed Circuit	.21	.19	.18	.14	.133	.126
26F866	3512A	Closed Circuit Grounded	.21	.19	.18	.14	.133	.126

EXTENSION JACKS

A Clamp-type terminals provide solid cable anchor. Solder lug terminals mechanically interlock. Shielded types have nickel-plated brass shell. All fit standard phono plugs, except * special jack for thin-shank (.206" dia) plugs. Shpg. wt ea., 4 oz.

HANDLE TYPE—BLACK

Stock No.	Mfr. Type	Fig.	No. Cond.	Lug Type	1-24	25-49	50-99	100-249	250-499	500-999
39F670	80	A	2	Screw	.75	.69	.63	.50	.475	.450
39F671	88	A	2	Solder	.66	.61	.51	.44	.418	.396
22F269	830	A	3	Screw	1.02	.94	.86	.68	.646	.612

HANDLE TYPE—SHIELD

Stock No.	Mfr. Type	Fig.	No. Cond.	Lug Type	1-24	25-49	50-99	100-249	250-499	500-999
39F672	120	B	2	Screw	1.02	.94	.85	.68	.646	.612
22F247	121	....	2	Solder	1.08	.99	.90	.72	.684	.649
39F785	126	B	2	Solder	1.14	1.05	.95	.76	.722	.684
39F673	128	B	2	Solder	.93	.85	.78	.62	.589	.558
39F757	1230	B	3	Screw	1.32	1.21	1.10	.88	.836	.792
39F772	S-128*	B	2	Solder	.99	.91	.83	.66	.627	.594

"TINI-JAX" PHONE JACKS AND PLUGS



E



F

"Tini-Jax" is a sub-min. phone jack weighing less than 1/2 ounce. Mounts in 1/2" dia. hole in panels up to 1/8" thick. "Tini-Plug" is a sub-min. 2 conductor phone plug designed for use with the above jacks. For use with cables up to 3/16" O.D. Available in black or red plastic handles or shielded brass nickel plated handle.

Stock No.	Mfr. Type	Fig.	Description	1-24	25-49	50-99	100-249	250-499	500-999
39F744	41	E	2-conductor open circuit jack	.27	.25	.26	.18	.171	.162
39F745	42A	E	2-conductor closed circuit jack	.30	.28	.25	.20	.190	.180
39F746	750	F	Blk. plastic clamp lug handle plug	.48	.44	.40	.32	.304	.288
39F747	755	F	Red ethocel clamp lug handle plug	.48	.44	.40	.32	.304	.288
39F748	780	F	Shielded handle plug	.66	.61	.55	.44	.418	.396
22F248	125		2-cond. solder lug Shielded ext. jack	.81	.77	.68	.54	.513	.486

PHONE PLUGS



High quality general-purpose phone plugs for two or three conductors. Fit all standard phone jacks. Offered

with black plastic or nickel-plated brass handles. Shpg. wt., 5oz. *Solder term.

Stock No.	Mfr. Type	Cond.	Handle Type	Handle Length	1-24	25-49	50-99	100-249	250-499	500-999
39F679	40	2	Black	2 1/8"	.51	.47	.43	.34	.323	.306
39F680	70	2	Shield	2 1/8"	.84	.77	.70	.56	.532	.504
39F681	160	2	Shield	1"	.66	.61	.55	.44	.418	.396
39F682	60*	3	Black	2 1/8"	.69	.63	.58	.46	.437	.414
39F683	90*	3	Shield	1"	.90	.83	.75	.60	.570	.540

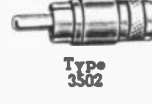
PHONO PLUGS AND JACKS



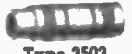
Type 3501FP



Type 3501FR



Type 3502



Type 3503



Type 3501MC

"PHONO JAX"

Model 3501FP. Standard phono jack mounts through panel and chassis with 1/4"-32 nut. Fits panels up to 1/8" thick. Outside dia. 7/16". Shpg. wt., 3 oz.

Model 3501FR. Standard phono jack mounts from rear. Uses 3/8"-32 threaded locknut on panels up to 1 1/4" thick. 1/16" mtg. hole dia. Shpg. wt., 3 oz.

Model 3502. Connects easily to cable. Terminals are designed so they may be crimped with a pliers for all temp. connection. "Handle" can be removed to expose terminals. Pin 3/8" long. Shpg. wt., 3 oz.

Model 3503. Removable handle, shielded cable clamp. Durable nickel plated body and handle. Max. cable dia. 1 1/4". Jack length 1 1/2". Shpg. wt., 3 oz.

Model 3501MC is a simple Phono Plug that provides a convenient cable clamp. It eliminates the problem of shielded cable "breaking" loose from the old style Phono Plugs.

Stk. No.	Type	1-24	25-49	50-99	100-249	250-499	500-999
39F684	3501FP	.21	.19	.18	.14	.133	.126
39F686	3501FR	.27	.25	.23	.18	.171	.162
39F685	3502	.30	.28	.25	.20	.190	.180
22F250	3503	.39	.36	.33	.26	.247	.234
39F687	3501MC	.09	.08	.08	.06	.057	.054

SWITCHCRAFT "MINI-MIX" AUDIO MIXERS



A



B



C

Dual-channel audio mixers. For 2 high impedance inputs. No external wires needed, just plug in equipment. Recessed gain control knobs are aligned to prevent confusion. Minimum lead lengths inside shielded housing end stray pickups. Size, 2 1/2 x 1 1/2 x 1 1/2".

Fig. A. Type 310. Fitted with phone jack inputs with phone plug output. Fits standard jacks. Shpg. wt., 4 oz.

Fig. B. Type 320. Has standard PA mike inputs, and output for standard PA mike connectors. Shpg. wt., 4 oz.

Fig. C. Type 311. Has long 2-conductor plug output. Suitable for recorders with jacks recessed such as latest Wilcox Gay, Webster Electric, V-M, etc. Shpg. wt., 4 oz.

Fig. C. Type 326. 3-Cond. Jack inputs. With long 2-cond. Plug Output. For Webster Recorders Series 2020, 2110, and 2130. Shipping weight, 4 oz.

Fig. C. Type 313. Short plug output to fit microphone input jack. Inputs accept short plug or 2 Cond. plug without adapter. For late models of Revere or Wollensak Recorders. Wt., 4 oz.

Stock No.	Type	EACH
39F758	310	5.37
22F251	311	5.97
22F249	313	5.97
39F759	320	5.37
39F775	326	6.57

You Can Depend on NEWARK For Complete Stocks — Lowest Prices

Sockets — Binding Posts



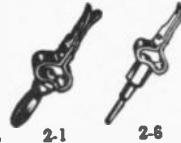
TEST CLIPS

Type 2-0. Threaded stud mounts on insulated panel. Leads of device under test slip easily in and out of clamp. Adjustable spring action. $1\frac{1}{16}$ " long. Shpg. wt., 2 oz.



28F550. NET.....20c

Type 2-4. Insulated Clip Has molded phenolic washers to insulate from metal panel. Wt., 2 oz.



28F411. NET.....35c

Type 2-1. Banana Plug Clip. For "Q" meters and other equipment with irregularly spaced jacks. $1\frac{1}{16}$ " long. Shpg. wt. 2 oz.

28F554. NET.....35c

Type 2-6 Phone Tip Clip. Mounted on standard phone tip to fit jacks. Shpg. wt. 2 oz.

28F412. NET.....35c

Type 2-7. Similar to Type 2-2 Plug-in Adapter below except adjustable from $\frac{3}{4}$ to $\frac{1}{4}$ centers.



28F413. NET 1.50

Type 2-2 Plug-in Adapter. Useful in testing resistors and other pigtail units. Two nickel-plated clips on molded phenolic board, to MIL-M-14. Banana plugs spaced on $\frac{3}{4}$ " centers. Sh. wt. 3 oz.

28F553. NET 1.40

PRINTED CIRCUIT TEST JACKS



Fig. A. Series 31. Eyelet-type jacks that rivet to printed circuit board. Take phone tips. Shpg. wt. 1 oz.

Stk. No.	Type	For	1-499	500-900
28F400	31-1	$\frac{1}{16}$ " board	.25	.20
28F401	31-2	$\frac{3}{32}$ " board		
28F402	31-3	$\frac{1}{8}$ " board		

TEST JACK INSULATING SLEEVES

Fig. B. Snap-on plastic insulators for above jacks. Lock in place. 8 colors for easy identification. $.245$ " dia. x $.29$ " high. Shpg. wt. 1 oz.

Stk. No.	Type	Color	1-499	500-999
28F403	31B-1	Black	.10	.08
28F404	31B-2	Red		
28F405	31B-3	Green		
28F406	31B-4	Grey		
28F407	31B-5	Brown		
28F408	31B-6	Blue		
28F409	31B-7	Yellow		
28F410	31B-8	White		

INSULATED ALLIGATOR CLIPS

Series 16. Fully insulated test clips that can be placed side-by-side without electrical short-circuit! Silver overlay contacts. Shpg. wt. 2 oz.



28F551. Type 16R. Red. NET 1.25

28F552. Type 16B. Black. NET 1.25

MATING INSULATING WASHERS

No. 21B78-2. Insulates jack with $\frac{3}{16}$ " bushing from panel. Molded black electric grade phenolic (MIL-P-14). Rear washer index hole fits non-turn jack tab. Front washer fits under hex mtg. nut. $\frac{1}{16}$ " min. panel thickness. Wt., 1 oz.



28F578. NET PER SET 20c

COMPACT BINDING POSTS

Series 29. $\frac{1}{2}$ " and $\frac{3}{4}$ " mounting hole. Phenolic washers to MIL-M-14, with nickel-plated brass metal parts. Integral solder studs. For panels to $\frac{3}{16}$ ". Wt., 3 oz.



Stk. No.	Type	Color	Hole	1-499	500-999
28F567	29-1B	Black	$\frac{3}{8}$ "	.40	.35
28F566	29-1R	Red	$\frac{3}{8}$ "		
28F569	29-3B	Black	$\frac{1}{2}$ "		
28F568	29-3R	Red	$\frac{1}{2}$ "		

BINDING POST BASES

Designed for use with No. 29-1 binding post to make assembled units of two, or three posts. Post placed at $\frac{3}{4}$ " centers. Insulates from chassis. Molded phenolic to MIL-M-14. Shpg. wt. 2 oz.



Stk. No.	Mfg. No.	Color	1-499	500-999
28F557	29B11-1	Black	.10	.09
28F558	29B11-2	Red	.10	.09

TRANSISTOR SOCKETS

Designed for JETEC series transistor. Leads fit 100 MIL printed circuit grid. Dia. of pin centers .200. Contacts: silver plated. 22-11 and 22-16 have bases molded of mica filled phenolic per MIL-M-14, type MFE. 22-18 bases are molded Melamine per MIL-M-14, type CMG. 22-11 fits through $\frac{1}{16}$ " hole for fastening with rivets or #2 screws. 22-16 is designed for soldering directly into printed circuits. Type 22-101-3. For TO-18, 28, and 46 out-lines. Shpg. wt. 2 oz.



Stk. No.	Type	Pins	Clr.	1-49	50-99
28F632	22-11	4	Nat	.35	.26
28F633	22-16-3	3	Nat	.30	.23
28F634	22-16-4	4	Nat	.35	.26
28F620	22-18-3-10	3	Blk	.40	.30
28F621	22-18-3-12	3	Red	.40	.30
28F622	22-18-4-10	4	Blk	.45	.39
28F623	22-18-4-12	4	Red	.45	.39
28F635	22-101-3	3	Nat	1.45	1.16

SPRING-LOADED BINDING POSTS

Series 29-33. For rapid connections. Head gives 24-oz. contact force. For $\frac{1}{2}$ " mtg. hole. $\frac{3}{16}$ " thick panel. $\frac{3}{16}$ " diam. insul. non-turn "D". phenolic washers to MIL-M-14 spec. In



Stk. No.	Type	Color	1-499	500-999
28F630	29-33R	Red	.40	.35
28F631	29-33B	Black	.40	.35

MOLDED INSULATING WASHERS

Molded insulating washers made from black electric grade phenolic. Manufactured under specifications MIL-P-14 Type CFG. The finest grade of insulating washers. For all applications. Overall dia. .500" except (*) .625 and (†) .375. Shoulder dia. .375" except (*) .500 and (†) .250. Base height .063". Shoulder height .031". Shpg. wt. 2 oz.



Stk. No.	Mfg. No.	Screw Size	1-499	500-999
28F572	21B1001-2	No. 6	.10	.08
28F573	21B1002-2	No. 8		
28F574	21B1003-2	No. 10		
28F575	21B1004-2	$\frac{1}{4}$ "		
28F576	21B1005-2	$\frac{3}{16}$ "		
28F577	21B1006-2	$\frac{3}{8}$ "		
28F578	21B1021-2†	No. 6		

MINIATURE TEST CLIPS



Type 2-20. Rapid connections without manually opening and closing jaws. Extends $\frac{3}{4}$ " above surface. Nickel plated brass with 6-32 thrd. stud. Hex nut tension adjustment. 2 oz.

28F414. NET.....25

Type 2-21. Similar to 2-20 except mounted on a standard banana plug.

28F415. NET.....40

Type 2-24. Similar to 2-20 except with 2 shoulder insulating washers.

28F416. NET.....40

Type 2-41 & 2-42. Panel area: exclusive of nut; single unit, $\frac{3}{16}$ " x $\frac{1}{8}$ ", double unit $\frac{1}{4}$ " x $\frac{1}{8}$ ". Mounting stud $\frac{3}{8}$ " long. Nickel plated brass. Hex nut tension adjustment.

28F624. 2-41 Single. NET EA.....25

28F625. 2-42 Double. NET EA.....30

PUSH POSTS

Type 29-100. Quick positive connections by depressing plunger. Extends only $\frac{7}{8}$ " above mounting surface. Nickel plated brass with a molded phenolic button cap. #8-32 threaded stud. Shpg. wt. 2 oz.



Type 29-101. Similar to 29-100 except mounted on standard banana plug.

Type 29-104. Similar to 29-100 except supplied with molded insulating washers.

Stk. No.	Mfg. No.	Color	1-499	500-999
28F417	29-100R	Red	.35	.305
28F418	29-100B	Black		
28F419	29-101R	Red	.50	.435
28F420	29-101B	Black		
28F421	29-104R	Red		
28F422	29-104B	Black		

COIL FORMS

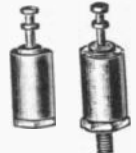
Type 28YY1003. Molded mica-filled phenolic (MIL-M-14 type MFE) for low loss at high freq. lined copper wire leads. Anchor posts. Shpg. wt. 2 oz.



Stk. No.	Body L. x D.	1-499	500-999
40F600	.500x.125"	20c	16c
40F601	.625x.187"		
40F602	.750x.187"		
40F603	.500x.250"		
40F604	.750x.250"		
40F605	1.000x.250"		
40F606	.500x.156"		

STANDOFF INSULATORS

Bodies are molded of mica-filled phenolic (MIL-M-14 type MFE) for low loss at high frequencies, low moisture absorption and fungus resistance. Brass solder terminals, silver plated. Length, front of panel, $1\frac{1}{16}$ " — diameter $\frac{5}{16}$ ". Av. shpg. wt. 3 oz.



Stk. No.	Type	Description	1-499	500-999
37F198	18-1	Female 4-40	.35	.28
37F199	18-2	Male 4-40	.40	.32

B1 PIN LAMP SOCKET

Plugs into printed circuit board and eases lamp replacement. For T 1- $\frac{3}{4}$ ", T 1- $\frac{3}{8}$ " lamps, leads must be cut to 150" long for proper fit. Molded plastic body. Terminals and contacts beryllium copper. Sh. wt. 2 oz.



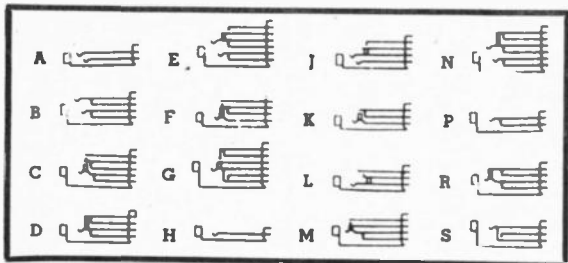
Stk. No.	Type	1-49	50-99
28F619	22-200	.90	.68

ADC Panel Connectors, Terminal Blocks

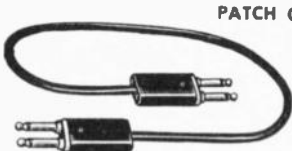
JACKS

Unique one-piece frame, which provides both dimensional stability and maximum strength. Connecting lugs are hot-tinned. Coin silver contacts are welded to springs. Insulation is XXX phenolic to meet military requirements. Shpg. wt., 3 oz.

Stock No.	Type	W.E. Equip.	Config.	NET
57F112	PJ238	238A	A	.66
57F113	PJ240	240C	E	1.23
57F114	PJ241	241A	J	1.02
57F115	PJ242	242C	N	1.23
57F116	PJ339	239A	B	.92
57F117	PJ226	226A	F	1.02
57F119	PJ318	218A	P	.66
57F120	PJ336	236C	C	1.14
57F121	PJ338	438C	G	1.23
57F122	PJ418	218C	L	.69
57F123	PJ115	215A	D	.90
57F125	PJ117	217A	H	.90
57F126	PJ123	223A	M	.60
57F127	PJ125	225A	S	1.02
57F128	PJ203	303A	S	.78



PJ-1. Equivalent, WE-241, heavy duty die cast frame. Black phenolic shell. Self aligning plug prongs on $\frac{3}{8}$ " center for use with all standard jack panels. Two tip conductors, plus sleeve connection common to both sleeves.
 57F130, 1-24..... 2.55 25-49..... 2.13



PATCH CORDS

Shielded cords made of tinned copper conductor wire. Cords, as well as cord assemblies with PJ-1 double plugs, PJ-5 or PJ-3 single plugs and standard black patch cords with shields grounded both ends.

Replacement Cords for PJ-3 Plugs

Stock No.	Type	Lgth.	1-24	25-49	Stock No.	Type	Lgth.	1-24	25-49
57F133	PJ-82	2-feet	5.28	4.40	57F136	PJ-62	2-feet	2.10	1.75
57F134	PJ-84	4-feet	5.88	4.90	57F137	PJ-64	4-feet	2.40	2.00
57F135	PJ-86	6-feet	6.60	5.50	57F138	PJ-66	6-feet	2.82	2.35

Cord With PJ-1 Plugs

57F139	PJ-10 1/2	6-inch	6.38	5.32	57F143	PJ-14	4-feet	7.13	5.94
57F140	PJ-11	1-foot	6.60	5.50	57F144	PJ-15	5-feet	7.28	6.07
57F141	PJ-12	2-feet	6.75	5.63	57F145	PJ-16	6-feet	7.58	6.32
57F142	PJ-13	3-feet	6.90	5.75					

Cord With PJ-5 Plugs

57F147	PJ-50 1/2	6-inch	3.48	2.90	57F151	PJ-54	4-feet	4.44	3.70
57F148	PJ-51	1-foot	3.63	3.03	57F152	PJ-55	5-feet	4.77	3.98
57F149	PJ-52	2-feet	3.84	3.20	57F153	PJ-56	6-feet	5.25	4.38
57F150	PJ-53	3-feet	4.11	3.43	57F154	PJ-50	10-feet	5.82	4.85

Replacement Cords for PJ-1 and PJ-5

57F157	PJ-22	2-feet	1.65	1.38	57F156	PJ-21	1-foot	1.50	1.25
57F158	PJ-23	3-feet	1.74	1.45	57F160	PJ-25	5-feet	1.89	1.58
57F159	PJ-24	4-feet	1.80	1.50	57F161	PJ-26	6-feet	2.49	2.08



TWIN PLUG

PJ-327. Twin plug. Provides two electrically independent, 2 conductor plugs in a phenolic shell. Self aligning plug sleeves are on $\frac{3}{8}$ " ctrs. For MIL P-642A & WE 327. 57F163, 1-24..... 2.55 25-49..... 2.13



PJ-3. Equivalent, PJ-051, WE-310. Designed for use with $\frac{1}{4}$ " tip, ring and sleeve jacks. Molded insulation, red plastic shell. Three conductor.
 57F131, 1-24..... 1.32 25-49..... 1.10



PJ-6. Equivalent, WE-213. Designed for applications requiring two separate 3 conductor circuits. Self aligning plug prongs on $\frac{11}{16}$ " centers.
 57F132, 1-24..... 5.40 25-49..... 4.50

BANTAM JACK PANELS



Design for more compact patchfields in modern electronic and communication equipment. Requiring only $\frac{1}{2}$ " the rack space the new panel assembly weighs only 65% of older conventional units. Offering 96 jacks 48 pairs in $1\frac{1}{4}$ "x19" standard panel. The jacks are spaced to prevent cross patching from adjacent circuits when using double plugs. Constructed of Aluminum alloy with Anodized black finish incorporating a clear plastic designation strip.

Stk. No.	Type	Description	1-9	10-24
57F173	PJ731	Dbl. pan. less jack	19.20	16.00
57F174	PJ737	Dbl. pan. w/ PJ818 jacks	92.40	77.00
57F175	PJ739	Dbl. pan. w/ PJ839 jacks	116.40	97.00
57F176	PJ724	pan. inst. 24 holes	2.40	2.00
57F177	PJ700	pan. inst. blank	1.20	1.00
57F178	PJ736	Dbl. pan. w/ PJ-818 jacks	115.20	96.00
57F179	PJ738	Dbl. pan. w/ PJ-839 jacks	138.00	115.00

BANTAM JACKS

Phenolic spacers conform with MIL Spec. Mil-P-3115B. Reduced size still provides reliable service as older regular size telephone jacks. Available in 2 and 3 conductor systems.

Stk. No.	Type	Config.	Conductor	1-99
57F180	PJ-803	S	2	.90
57F181	PJ-818	P	2	.78
57F182	PJ-823	H	2	.66
57F183	PJ-838	A	3	.75
57F184	PJ-839	B	3	1.05

BANTAM PATCH CORDS

Plastic jacketed, shielded tinned copper conductor. Plugs of connector are brass with a molded polystyrene insulation which also aids strain relief.

2 CONDUCTOR—SINGLE PLUG

Stk. No.	Type	Length	1-24	25-49
57F185	PJ-701	6"	3.30	2.75
57F186	PJ-702	12"	3.26	2.80
57F187	PJ-704	24"	3.42	2.85
57F188	PJ-706	36"	3.48	2.90
57F189	PJ-708	48"	3.54	2.95

2 CONDUCTOR—DOUBLE PLUG

57F190	PJ-751	6"	3.96	3.30
57F191	PJ-752	12"	4.02	3.35
57F192	PJ-754	24"	4.08	3.40
57F193	PJ-756	36"	4.14	3.45
57F194	PJ-758	48"	4.20	3.50

3 CONDUCTOR—SINGLE PLUG

57F195	PJ-711	6"	3.90	3.25
57F196	PJ-712	12"	3.96	3.30
57F197	PJ-714	24"	4.02	3.35
57F198	PJ-716	36"	4.08	3.40
57F199	PJ-718	48"	4.20	3.50

JACK PANELS



Panels are molded of solid phenolic, reinforced with steel to provide maximum rigidity and strength. Jacks are spaced to permit use of any standard double plug with $\frac{3}{8}$ " spacing. Mounting brackets and designation strips furnished with each panel. Fit standard relay rack.

Stk. No.	Type	Description	Hgt.	1-9	10-24
57F106	PJ-31	Dbl. pan. less jacks	2 1/8"	9.45	7.88
57F107	PJ-341	Dbl. pan. w/PJ-318 jacks	2 1/8"	42.75	35.63
57F108	PJ-30	Dbl. pan. less jacks	1 3/4"	12.90	10.75
57F109	PJ-340	Dbl. pan. w/PJ-318 jacks	1 3/4"	49.50	41.25
57F110	PJ-33	Snql. pan. less jacks	1 3/4"	8.52	7.10
57F111	PJ-343	Snql. pan. w/PJ-318 jacks	1 3/4"	25.14	20.95

TERMINAL BLOCKS

The one piece base and individual terminal separators molded. Interchangeable with popular telephone type blocks 100A through 100D and L3A through L6A. Terminals are .040 brass. Rows of terminals are graduated in length for ease of wiring and the top row of terminals is identified by numbering. The PJ-106 terminal block provides 120 terminals, six rows of 20 terminals each.



Stock No.	Type	Rows of Terms.	No. of Terms.	Height	1-9	10-24
57F100	PJ-101	1	20	1 29/32"	3.45	2.88
57F101	PJ-102	2	40	2 1/4"	4.65	3.88
57F102	PJ-103	3	60	2 19/32"	5.85	4.88
57F103	PJ-104	4	80	2 15/16"	7.05	5.88
57F104	PJ-105	5	100	3 3/8"	8.25	6.88
57F105	PJ-106	6	120	3 9/8"	9.45	7.88

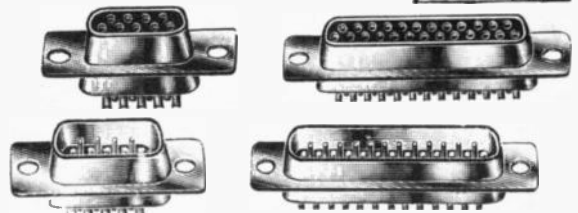
PJ-5. Equivalent, PJ-055 (old style PL-55), WE-47, fits $\frac{1}{4}$ " phone jacks. Black plastic shell. Screw terminals. Two conductor.
 57F129, 1-24..... .78 25-49..... .65

Cinch-Jones Connectors



"D" SUBMINIATURE CONNECTORS

Original "D" Connectors utilize a 2-piece nylon insulator housed in a variety of 5 basic shell sizes, E, A, B, C and D. Shell sizes contain 9, 15, 25, 37 and 50, #20 solder pot contacts. Std. contact terminations accommodate up to #20 AWG stranded wire. Current rating is .5 amperes. Operating temp. range: -65°F to +250°F. Shells: steel cadmium plated with yellow chromate supplementary coating. pin contacts: brass, gold plated (.0003) over silver plate (.0002). Phosphor bronze socket contacts, gold plated (.0003) over silver plate (.0002). Stainless steel float mounting rivets and washers. Shpg. wt. 2 oz.



ORIGINAL "D" (NYLON INSULATORS)

Stock No.	Description	DWG Number	1-9	10-49	50-99	100-249	250-499
43F200	DE 9P	019808-0002	.84	.77	.70	.63	.56
43F201	DE 9S	019808-0001	1.24	1.14	1.04	.93	.83
43F202	DA 15P	019603-0002	1.12	1.03	.94	.84	.75
43F203	DA 15S	019603-0001	1.66	1.52	1.39	1.25	1.11
43F204	DAP-15S*	019603-0016	2.12	1.94	1.77	1.59	1.41
43F205	DB 25P	019604-0002	1.66	1.52	1.39	1.25	1.11
43F206	DB 25S	019604-0001	2.76	2.48	2.28	2.07	1.86
43F207	DBF 25S*	019604-0016	2.92	2.68	2.44	2.19	1.95
43F208	DC 37P	019605-0002	2.28	2.09	1.90	1.71	1.52
43F209	DC 37S	019605-0001	3.40	3.12	2.84	2.55	2.27
43F210	DD 50P	019606-0002	2.98	2.73	2.49	2.24	1.99
43F211	DD 50S	019606-0001	4.44	4.07	3.70	3.33	2.96

* with float mounts.

JUNCTION SHELLS—STRAIGHT CLAMP TYPE

Stock No.	Description	DWG Number	1-9	10-49	50-99	100-249	250-499
43F212	(DA-19678-1)	019678-0001	.60	.55	.50	.45	.40
43F213	(DB-19678-2)	019678-0002	.60	.55	.50	.45	.40
43F214	(DC-19678-3)	019678-0003	.84	.77	.70	.63	.56
43F215	(DD-19678-4)	019678-0004	.86	.79	.72	.64	.57

JUNCTION SHELLS—RIGHT ANGLE TYPE

Stock No.	Description	DWG Number	1-9	10-49	50-99	100-249	250-499
43F216	(DA-19977-1)	019977-0001	.77	.70	.64	.58	.51
43F217	(DB-19977-2)	019977-0002	.80	.74	.67	.60	.54
43F218	(DC-19977-3)	019977-0003	.85	.78	.71	.64	.57
43F218	(DD-19977-4)	019977-0004	.94	.86	.79	.71	.63
43F220	(DE-19977-5)	019977-0005	1.21	1.11	1.01	.91	.81

MARK I GOLDEN "D" CONNECTORS

Features solder pot closed entry contacts in a monobloc insulator for improved temperature characteristics and increased moisture resistance. Shells: steel, cadmium plated with yellow chromate supplementary coating. Dialyl phthalate, glass fibre

filled insulators, per MIL-M-14F. #20 contacts: pins and sockets, brass, gold plated (.0003) over silver (.0002). Insulation resistance greater than 5,000 megohms in accordance with MIL-STD-202A, Method 302.

Stock No.	Description	DWG Number	1-9	10-49	50-99	100-249	250-499
43F233	DEM 9P	053516-0012	1.44	1.32	1.20	1.08	.96
43F234	DEM 9S	053516-0013	2.16	1.98	1.80	1.62	1.44
43F235	DAM 15P	053512-0028	2.02	1.85	1.69	1.52	1.35
43F236	DAM 15S	053512-0029	3.04	2.79	2.54	2.28	2.03
43F237	DAMF 15S*	053512-0020	3.50	3.21	2.92	2.62	2.33
43F238	DBM 25P	053513-0022	3.08	2.82	2.57	2.31	2.05
43F239	DBM 25S	053513-0023	4.60	4.22	3.84	3.45	3.07

Stock No.	Description	DWG Number	1-9	10-49	50-99	100-249	250-499
43F240	DBMF 25S*	053513-0021	5.06	4.64	4.22	3.79	3.37
43F241	DCM 37P	053514-0017	6.28	5.82	5.37	4.93	4.49
43F242	DCM-37S	053514-0018	4.44	5.90	5.37	4.83	4.29
43F243	DDM 50P	053515-0014	5.66	5.19	4.72	4.24	3.77
43F244	DDM 50S	053515-0015	8.50	7.79	7.09	6.38	5.67
43F245	DDMF 50S*	053515-0013	8.96	8.21	7.47	6.72	5.97

* with float mounts.

Fig. A—HINGE CONNECTORS

SOCKETS WITH LOCKS—FIG. A

Stk. No.	Type No.	1-24	25-49	50-99	100-249	250-499
29F906	37F20L	2.51	2.004	1.67	1.336	1.269
29F907	37F30L	2.96	2.364	1.97	1.576	1.497
29F908	37F40L	3.41	2.724	2.27	1.816	1.725
29F909	37F50L	3.86	3.084	2.57	2.056	1.963
29F910	37F60L	4.31	3.444	2.87	2.296	2.181
29F911	37F70L	4.76	3.804	3.17	2.536	2.409
29F912	37F80L	5.21	4.164	3.47	2.776	2.637
29F913	37F90L	5.66	4.524	3.77	3.016	2.865
29F914	37F100L	6.11	4.884	4.07	3.256	3.088

PLUGS W/O LOCKS Mates With Sockets At Left

Stk. No.	Type No.	1-24	25-49	50-99	100-249	250-499
29F933	37M20	2.25	1.80	1.50	1.20	1.14
29F934	37M30	2.70	2.16	1.80	1.44	1.368
29F935	37M40	3.15	2.52	2.10	1.68	1.596
29F936	37M50	3.60	2.88	2.40	1.92	1.824
29F937	37M60	4.05	3.24	2.70	2.16	2.052
29F938	37M70	4.50	3.60	3.00	2.40	2.28
29F939	37M80	4.95	3.96	3.30	2.64	2.508
29F940	37M90	5.40	4.32	3.60	2.88	2.736
29F941	37M100	5.85	4.68	3.90	3.12	2.964

SOCKETS W/O LOCKS—FIG. A

Stk. No.	Type No.	1-24	25-49	50-99	100-249	250-499
29F915	37F20	2.25	1.80	1.50	1.20	1.14
29F916	37F30	2.70	2.16	1.80	1.44	1.368
29F917	37F40	3.15	2.52	2.10	1.68	1.596
29F918	37F50	3.60	2.88	2.40	1.92	1.824
29F919	37F60	4.05	3.24	2.70	2.16	2.052
29F920	37F70	4.50	3.60	3.00	2.40	2.28
29F921	37F80	4.95	3.96	3.30	2.64	2.508
29F922	37F90	5.40	4.32	3.60	2.88	2.736
29F923	37F100	5.85	4.68	3.90	3.12	2.964

PLUGS WITH LOCKS Mates With Sockets At Left

Stk. No.	Type	For Types	Hole Size	1-24	25-49	50-99	100-249	250-499
29F924	37M20L		13/64x1 1/2"	2.51	2.004	1.67	1.336	1.269
29F925	37M30L		13/64x1 1/2"	2.96	2.364	1.97	1.576	1.497
29F926	37M40L		13/64x1 1/2"	3.41	2.724	2.27	1.816	1.725
29F927	37M50L		13/64x1 1/2"	3.86	3.084	2.57	2.056	1.963
29F928	37M60L		13/64x1 1/2"	4.31	3.444	2.87	2.296	2.181
29F929	37M70L		13/64x1 1/2"	4.76	3.804	3.17	2.536	2.409
29F930	37M80L		13/64x1 1/2"	5.21	4.164	3.47	2.776	2.637
29F931	37M90L		13/64x1 1/2"	5.66	4.524	3.77	3.016	2.865
29F932	37M100L		13/64x1 1/2"	6.11	4.884	4.07	3.256	3.088

Fig. B—CAPS TO FIT HINGE CONNECTORS LISTED ABOVE

Caps are furnished with liners, cable clamps and designed to take the alternate lock when required. Caps are finished in

black wrinkle and cable clamps are steel cadmium. Liners are formed fibre. The cable entrance hole is in the top of the cap.

Stk. No.	Type	For Types	Hole Size	1-24	25-49	50-99	100-249	250-499
29F942	37C20	M/F20	3/4"	3.49	2.79	2.33	1.86	1.77
29F943	37C30	M/F30	13/64x1"	3.53	2.82	2.35	1.88	1.79
29F944	37C40	M/F40	13/64x1"	3.56	2.85	2.38	1.90	1.81
29F945	37C50	M/F50	13/64x1"	3.60	2.88	2.40	1.92	1.82
29F946	37C60	M/F60	13/64x1 1/2"	3.64	2.91	2.43	1.94	1.84

Stk. No.	Type	For Types	Hole Size	1-24	25-49	50-99	100-249	250-499
29F947	37C70	M/F70	13/64x1 1/2"	3.68	2.94	2.45	1.96	1.86
29F948	37C80	M/F80	13/64x1 1/2"	3.71	2.97	2.48	1.98	1.88
29F949	37C90	M/F90	13/64x1 1/2"	3.70	3.00	2.50	2.00	1.90
29F950	37C100	M/F100	13/64x1 1/2"	3.79	3.03	2.53	2.02	1.92

ALTERNATE LOCK NO. 37AL

For secure locking, has hook at the top that fits into a cut-out in the cap. Prevents accidental unlocking of the cap. Shpg. wt. 2 oz

Stk. No.	Type	1-24	25-49	50-99	100-249	250-499
29F951	37AL	.45	.36	.30	.24	.228



Cinch-Jones Connectors

TWIN-CON EDGE CONNECTORS



For exacting military and aerospace requirements. Crimp-on, snap-in removable wire pins permit 2 wires per contact, 4 wire per position. Meets MIL-C-21097 latest revision, handles double sided .062" pc boards; Insulator is glass-filled diallylphthalate, type GDI-30F per MIL-M-19833. Beryllium copper contacts, 30 micro-inches gold over 200 micro-inches silver. Brass wire pins with same finish.

Stk. No.	Type	Description	1-24	25-49	50-99	100-249	250-499	
39F352	50-8TC	8-Pos. Connector	5.88	4.70	3.93	3.14	2.98	
39F353	50-15TC	15-Pos. Connector	7.33	5.86	4.88	3.91	3.71	
39F354	50-22TC	22-Pos. Connector	8.97	7.18	5.99	4.79	4.55	
39F355	50-43TC	43-Pos. Connector	18.04	14.43	12.02	9.62	9.14	
39F358	50-MP	No. 20 Wire Pins	Pkg. of 10		.50	Pkg. of 50		1.90
39F359	50-MP-1	No. 22-24 Wire Pins	Pkg. of 10		.50	Pkg. of 50		1.90
39F356	50-1B	Ins. Jumper (.156)	.51	.41	.34	.27	.26	
39F357	50-JR	Ins. Jumper (.218)	.51	.41	.34	.27	.26	
39F361	50-PK-2	Polarizing Key	Package of 10				.50	
39F360	50-IRT	Ins. & removal	All quantities \$26.00 ea. net					

TYKON EDGE CONNECTORS



Outstanding high density (.050" centers) edge connectors for .062" printed circuit boards. Potential applications include diode on insulating substrates, memory planes (standard and thin film types) and almost any type of modular plug-in unit. Tykon connectors are furnished with conventional wiring tails suitable for welding or soldering. Highly rated electrical and mechanical performances.

connectors are furnished for welding or soldering. Highly rated electrical and mechanical performances.

Stock No.	Type No.	Description	1-24	25-49	50-99	100-249	250-499
29F980	50-12A-40	6 dbl. row contacts	3.36	2.70	2.26	1.81	1.71
29F981	50-20A-40	10 dbl. row contacts	4.14	3.31	2.76	2.21	2.10
29F982	50-30A-40	15 dbl. row contacts	5.03	4.02	3.36	2.69	2.55
29F983	50-40A-40	20 dbl. row contacts	5.98	4.78	3.99	3.19	3.02
29F984	50-50A-40	25 dbl. row contacts	6.90	5.52	4.61	3.69	3.50
29F985	50-MC	Mounting Clip	.08	.06	.05	.04	.038
29F986	50-PK	Polarizing Key	.09	.072	.06	.044	.042

BIFURCATED CONTACT EDGE CONNECTORS

Have two flexing surfaces to provide positive contact. Accommodates irregularities in printed circuit boards.

TYPE 250

Insulation is glass filled diallyl phthalate, type SDGF per Mil. M-14F. Contacts are phosphor bronze with .00003 Min. Sel-Rex gold plate.



Stk. No.	Type	Cont. Pos.	Cont.	1-24	25-49	50-99	100-249	250-499
29F952	50-6A-20	6	6	1.10	.95	.79	.63	.60
29F953	50-10A-20	10	10	1.58	1.26	1.05	.84	.80
29F954	50-12A-20	12	12	1.78	1.42	1.19	.95	.90
29F955	50-15A-20	15	15	2.08	1.66	1.39	1.10	1.05
29F956	50-18A-20	18	18	2.36	1.89	1.58	1.26	1.20
29F957	50-22A-20	22	22	2.77	2.21	1.84	1.47	1.40

EDGE CONNECTORS

One plastic polarizing key is furnished unassembled with each connector.

TYPE 251

Similar to type 250 except that the contact positions have two contacts instead of one. Insulation material and finish are the same type as type 250.



Stk. No.	Type	Cont. Pos.	Cont.	1-24	25-49	50-99	100-249	250-499
29F958	50-12A-30	6	12	1.19	.95	.79	.63	.60
29F959	50-20A-30	10	20	1.58	1.26	1.05	.84	.80
29F960	50-24A-30	12	24	1.78	1.42	1.19	.95	.90
29F961	50-30A-30	15	30	2.08	1.66	1.39	1.10	1.05
29F962	50-36A-30	18	36	2.36	1.89	1.58	1.26	1.20
29F963	50-44A-30	22	44	2.77	2.21	1.84	1.47	1.40

MOLDED EDGE CONNECTORS

Meets Military Specification MIL-C-21097B. These date-coded connectors are molded of glass-filled diallyl phthalate.

Stk. No.	Type	MIL No.	25-49	25-49	50-99	100-249	250-499
28F1112	50-6A-20M	M21097/1-001	1.40	1.12	.84	.75	.71
28F1113	50-10A-20M	M21097/1-037	2.00	1.60	1.34	1.07	1.02
28F1114	50-15A-20M	M21097/1-073	2.73	2.18	1.82	1.45	1.38
28F1115	50-18A-20M	M21097/1-109	3.15	2.52	2.10	1.68	1.60
28F1116	50-22A-20M	M21097/1-145	3.74	2.99	2.50	1.99	1.89

connectors are molded of glass-filled diallyl phthalate.

Stk. No.	Type	MIL No.	1-24	25-49	50-99	100-249	250-499
28F1117	50-12A-30M	M21097/1-019	1.40	1.12	.94	.75	.71
28F1118	50-20A-30M	M21097/1-055	2.00	1.60	1.34	1.07	1.02
28F1119	50-30A-30M	M21097/1-091	2.73	2.18	1.82	1.45	1.38
28F1120	50-36A-30M	M21097/1-127	3.15	2.52	2.10	1.68	1.60
28F1121	50-44A-30M	M21097/1-163	3.74	2.99	2.50	1.99	1.89

TYPE 252

Similar to type 251 except contact tails are for DIP soldering and will fit into .051 dia. holes. Contact positions contain two contacts.



Stk. No.	Type	Cont. Pos.	Cont.	1-24	25-49	50-99	100-249	250-499
29F964	50-12B-10	6	12	1.19	.95	.79	.63	.60
29F965	50-20B-10	10	20	1.58	1.26	1.05	.84	.80
29F966	50-24B-10	12	24	1.78	1.42	1.19	.95	.90
29F967	50-30B-10	15	30	2.08	1.66	1.39	1.10	1.05
29F968	50-36B-10	18	36	2.36	1.89	1.58	1.26	1.20
29F969	50-44B-10	22	44	2.77	2.21	1.84	1.47	1.40

TYPE 253—STANDARD CONTACT

Similar to type 251 except that the contact tails are for WRAPOST connections. Contact positions contain two contacts.



Stk. No.	Type	Cont. Pos.	Cont.	1-24	25-49	50-99	100-249	250-499
29F970	50-12B-20	6	12	3.59	2.87	2.39	1.60	1.23
29F971	50-20B-20	10	20	4.29	3.43	2.86	1.97	1.59
29F972	50-24B-20	12	24	4.39	3.55	2.99	2.23	2.12
29F973	50-30B-20	15	30	5.27	4.21	3.51	2.49	2.08
29F974	50-36B-20	18	36	5.73	4.58	3.82	2.74	2.31
29F975	50-44B-20	22	44	5.99	4.79	3.99	2.88	2.44

JONES SERIES 300 PLUGS AND SOCKETS



Compact connectors with phosphor-bronze "knife switch" type socket contacts. Black crystal-finished metal caps cover bakelite body. Rated: 730 volts rms at 10 amps. 2-contact types are round, all others are rectangular. Shpg. wt., 3 oz.

lite body. Rated: 730 volts rms at 10 amps. 2-contact types are round, all others are rectangular. Shpg. wt., 3 oz.

PLUGS

WITH ANGLE BRACKETS

SOCKETS

Stock No.	Mfr. No.	Cont.	1-24	25-49	50-99	100-249	250-499
39F200	P-302-AB	2	.29	.228	.19	.152	1.44
39F201	P-303-AB	3	.33	.264	.22	.176	1.67
39F202	P-304-AB	4	.37	.294	.245	.196	1.86
39F203	P-306-AB	6	.46	.366	.305	.244	2.32
39F204	P-308-AB	8	.53	.42	.35	.28	2.66
39F205	P-310-AB	10	.59	.474	.395	.316	.30
39F206	P-312-AB	12	.66	.528	.44	.352	.334
39F207	P-315-AB	15	.78	.624	.52	.416	.448
39F208	P-318-AB	18	1.07	.852	.71	.568	.54
39F209	P-321-AB	21	1.34	1.068	.89	.712	.676
39F210	P-324-AB	24	1.62	1.296	1.08	.864	.821
39F211	P-327-AB	27	1.90	1.518	1.265	1.012	.961
39F212	P-330-AB	30	2.18	1.74	1.45	1.16	1.102
39F213	P-333-AB	33	2.45	1.956	1.63	1.304	1.239

Stock No.	Mfr. No.	Cont.	1-24	25-49	50-99	100-249	250-499
39F220	S-302-AB	2	.31	.246	.205	.164	.156
39F221	S-303-AB	3	.35	.276	.23	.184	.175
39F222	S-304-AB	4	.39	.312	.26	.208	.198
39F223	S-306-AB	6	.49	.39	.325	.26	.247
39F224	S-308-AB	8	.59	.474	.395	.316	.30
39F225	S-310-AB	10	.69	.552	.46	.368	.35
39F226	S-312-AB	12	.82	.654	.545	.436	.414
39F227	S-315-AB	15	1.04	.828	.69	.552	.524
39F228	S-318-AB	18	1.19	.954	.795	.636	.604
39F229	S-321-AB	21	1.47	1.176	.98	.784	.745
39F230	S-324-AB	24	1.75	1.398	1.165	.932	.885
39F231	S-327-AB	27	2.03	1.62	1.35	1.08	1.026
39F232	S-330-AB	30	2.33	1.86	1.55	1.24	1.178
39F233	S-333-AB	33	2.60	2.076	1.73	1.384	1.315

Jones Plugs and Sockets



JONES SERIES 300 PLUGS AND SOCKETS CONTINUED

WITH FLUSH PLATE

Stock No.	Mfr. No.	Cont.	1-24	25-49	50-99	100-249	250-499	Stock No.	Mfr. No.	Cont.	1-24	25-49	50-99	100-249	250-499
39F240	P-302-FP	2	.49	.39	.33	.26	.25	39F250	S-302-FP	2	.51	.41	.34	.27	.26
39F241	P-303-FP	3	.52	.41	.35	.28	.28	39F251	S-303-FP	3	.53	.43	.36	.28	.27
39F242	P-304-FP	4	.56	.44	.37	.30	.28	39F252	S-304-FP	4	.58	.46	.39	.31	.29
39F243	P-306-FP	6	.65	.52	.43	.34	.33	39F253	S-306-FP	6	.68	.54	.45	.36	.34
39F244	P-308-FP	8	.71	.57	.48	.38	.36	39F254	S-308-FP	8	.78	.62	.52	.42	.40
39F245	P-310-FP	10	.78	.62	.52	.42	.40	39F255	S-310-FP	10	.88	.70	.59	.47	.45
39F246	P-312-FP	12	.85	.68	.57	.45	.43	39F256	S-312-FP	12	1.01	.80	.67	.54	.51

PLUGS

WITH CABLE CLAMP IN TOP

SOCKETS

Stock No.	Mfr. No.	Cont.	1-24	25-49	50-99	100-249	250-499	Stock No.	Mfr. No.	Cont.	1-24	25-49	50-99	100-249	250-499
39F280	P-302-CCT	2	.60	.48	.40	.32	.304	39F300	S-302-CCT	2	.62	.498	.415	.332	.315
39F281	P-303-CCT	3	.66	.528	.44	.352	.334	39F301	S-303-CCT	3	.68	.54	.45	.36	.342
39F282	P-304-CCT	4	.70	.558	.465	.372	.353	39F302	S-304-CCT	4	.72	.576	.48	.384	.365
39F283	P-306-CCT	6	.80	.636	.53	.424	.403	39F303	S-306-CCT	6	.83	.66	.55	.44	.418
39F284	P-308-CCT	8	.86	.69	.575	.46	.437	39F304	S-308-CCT	8	.93	.744	.62	.496	.471
39F285	P-310-CCT	10	.95	.762	.635	.508	.483	39F305	S-310-CCT	10	1.05	.84	.70	.56	.532
39F286	P-312-CCT	12	1.03	.822	.685	.548	.521	39F306	S-312-CCT	12	1.19	.948	.79	.632	.60
39F287	P-315-CCT	15	1.37	1.098	.915	.732	.695	39F307	S-315-CCT	15	1.52	1.218	1.015	.812	.771
39F288	P-318-CCT	18	1.60	1.278	1.065	.852	.809	39F308	S-318-CCT	18	1.73	1.38	1.15	.92	.874
39F289	P-321-CCT	21	1.91	1.53	1.275	1.02	.969	39F309	S-321-CCT	21	2.05	1.638	1.365	1.092	1.037
39F290	P-324-CCT	24	2.24	1.794	1.495	1.196	1.136	39F310	S-324-CCT	24	2.37	1.896	1.58	1.264	1.201
39F291	P-327-CCT	27	2.57	2.052	1.71	1.368	1.30	39F311	S-327-CCT	27	2.69	2.154	1.795	1.436	1.364
39F292	P-330-CCT	30	2.89	2.31	1.925	1.54	1.463	39F312	S-330-CCT	30	3.04	2.43	2.025	1.62	1.539
39F293	P-333-CCT	33	3.20	2.562	2.135	1.708	1.623	39F313	S-333-CCT	33	3.35	2.682	2.235	1.788	1.699

WITH RECESSED PLATE

Stock No.	Mfr. No.	Cont.	1-24	25-49	50-99	100-249	250-499	Stock No.	Mfr. No.	Cont.	1-24	25-49	50-99	100-249	250-499
39F260	P-302-RP	2	.56	.45	.38	.30	.29	39F270	S-302-RP	2	.59	.47	.39	.31	.30
39F261	P-303-RP	3	.59	.47	.40	.32	.30	39F271	S-303-RP	3	.61	.49	.41	.32	.31
39F262	P-304-RP	4	.63	.50	.42	.34	.32	39F272	S-304-RP	4	.65	.52	.44	.35	.33
39F263	P-306-RP	6	.72	.58	.48	.38	.37	39F273	S-306-RP	6	.75	.60	.50	.40	.38
39F264	P-308-RP	8	.83	.66	.55	.44	.42	39F274	S-308-RP	8	.89	.71	.60	.48	.45
39F265	P-310-RP	10	.93	.74	.62	.50	.47	39F275	S-310-RP	10	1.03	.82	.69	.55	.52
39F266	P-312-RP	12	1.04	.83	.69	.55	.52	39F276	S-312-RP	12	1.19	.95	.80	.64	.60



CCT-L

CCT-K

FHT

PLUGS — FLARED HOLE IN TOP

Stock No.	Mfr. No.	Cont.	1-24	25-49	50-99	100-249	250-499
29F879	P-302-FHT	2	.45	.36	.30	.24	.23
29F880	P-303-FHT	3	.51	.41	.34	.27	.26
29F881	P-304-FHT	4	.56	.44	.37	.30	.28
29F882	P-306-FHT	6	.65	.52	.44	.35	.33
29F883	P-308-FHT	8	.73	.58	.49	.39	.37
29F884	P-310-FHT	10	.80	.64	.54	.43	.41
29F885	P-312-FHT	12	.88	.71	.59	.47	.45

PLUGS — CABLE CLAMP IN TOP WITH LATCHES

Stock No.	Mfr. No.	Cont.	1-24	25-49	50-99	100-249	250-499
29F859	P-302-CCT-L	2	.75	.60	.50	.40	.38
29F860	P-303-CCT-L	3	.81	.648	.54	.432	.41
29F861	P-304-CCT-L	4	.848	.678	.565	.452	.429
29F862	P-306-CCT-L	6	.945	.756	.63	.504	.479
29F863	P-308-CCT-L	8	1.01	.81	.675	.54	.513
29F864	P-310-CCT-L	10	1.10	.882	.735	.588	.559
29F865	P-312-CCT-L	12	1.18	.942	.785	.628	.597

SOCKETS — CABLE CLAMP IN TOP WITH KEEPERS

Stock No.	Mfr. No.	Cont.	1-24	25-49	50-99	100-249	250-499
29F866	S-302-CCT-K	2	.77	.618	.515	.412	.391
29F867	S-303-CCT-K	3	.83	.66	.55	.44	.418
29F868	S-304-CCT-K	4	.87	.696	.58	.464	.44
29F869	S-306-CCT-K	6	.98	.78	.65	.52	.494
29F870	S-308-CCT-K	8	1.08	.864	.72	.576	.547
29F871	S-310-CCT-K	10	1.20	.96	.80	.64	.608
29F872	S-312-CCT-K	12	1.34	1.068	.89	.712	.676

SERIES 300 SB AND DB PLUGS AND SOCKETS

Molded bakelite insulation. All contacts are cadmium plated. Black formed metal caps with fiber linings. U.L. approved. Monoblock construction.

Type SB. Sockets with shallow bracket for flush mounting.

Type DB. Sockets with deep bracket for recessed mounting.

SOCKETS

Stk. No.	Mfr. No.	Cont.	1-24	25-49	50-99	100-249	250-499	Stk. No.	Mfr. No.	Cont.	1-24	25-49	50-99	100-249	250-499
28F1082	P-302-DB	2	.72	.576	.48	.384	.365	29F873	S-302-DB	2	.74	.594	.495	.396	.376
28F1083	P-303-DB	3	.73	.582	.485	.388	.369	29F874	S-303-DB	3	.74	.594	.495	.396	.376
28F1084	P-304-DB	4	.77	.612	.51	.408	.388	28F875	S-304-DB	4	.79	.63	.525	.42	.399
28F1095	P-306-DB	6	.86	.684	.57	.456	.433	29F876	S-306-DB	6	.89	.708	.59	.472	.448
28F1096	P-308-DB	8	.92	.738	.615	.492	.467	29F877	S-308-DB	8	.99	.792	.66	.528	.502
28F1097	P-312-DB	12	1.06	.846	.705	.564	.536	29F878	S-312-DB	12	1.22	.972	.81	.648	.616
28F1098	P-315-DB	15	1.30	1.038	.865	.692	.657	29F893	S-315-DB	15	1.45	1.158	.965	.772	.733
28F1099	P-318-DB	18	1.55	1.242	1.035	.828	.787	29F894	S-318-DB	18	1.68	1.344	1.12	.896	.851
28F1100	P-321-DB	21	1.86	1.488	1.24	.992	.942	29F895	S-321-DB	21	2.00	1.596	1.33	1.064	1.011
28F1101	P-324-DB	24	2.18	1.746	1.455	1.164	1.106	29F896	S-324-DB	24	2.32	1.854	1.545	1.236	1.174
28F1102	P-327-DB	27	2.50	1.998	1.665	1.332	1.265	29F897	S-327-DB	27	2.63	2.10	1.75	1.40	1.33
28F1103	P-330-DB	30	2.81	2.25	1.875	1.50	1.425	29F898	S-330-DB	30	2.96	2.37	1.98	1.58	1.501
28F1104	P-333-DB	33	3.12	2.496	2.08	1.664	1.581	29F899	S-333-DB	33	3.27	2.616	2.18	1.744	1.657
28F1105	P-315-SB	15	1.30	1.038	.865	.692	.657	29F886	S-315-SB	15	1.45	1.158	.965	.772	.733
28F1106	P-318-SB	18	1.55	1.242	1.035	.828	.787	29F887	S-318-SB	18	1.68	1.344	1.12	.896	.851
28F1107	P-321-SB	21	1.86	1.488	1.24	.992	.942	29F888	S-321-SB	21	2.00	1.596	1.33	1.064	1.011
28F1108	P-324-SB	24	2.18	1.746	1.455	1.164	1.106	29F889	S-324-SB	24	2.32	1.854	1.545	1.236	1.174
28F1109	P-327-SB	27	2.50	1.998	1.665	1.332	1.265	29F890	S-327-SB	27	2.63	2.10	1.75	1.40	1.33
28F1110	P-330-SB	30	2.81	2.25	1.875	1.50	1.425	29F891	S-330-SB	30	2.96	2.37	1.975	1.58	1.501
28F1111	P-333-SB	33	3.12	2.496	2.08	1.664	1.581	29F892	S-333-SB	33	3.27	2.616	2.18	1.744	1.657

Depend On Newark for Everything in Industrial Electronics

- OEM Prices
- Complete Stocks
- Fast Service



Plugs, Sockets & Terminal Blocks

SERIES 400 AND 2400 PLUGS AND SOCKETS



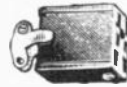
P-406-AB



S-406-AB



P-406-CCT



S-406-CCT



P-406-DB



S-2406-DB

Series 400 plugs and sockets are made in 2, 4, 6, 8, 10, and 12 contacts. Phosphor bronze knife switch type socket contacts engage both sides of plug. Plug prongs are of heavy brass $\frac{1}{4}$ " wide x $\frac{1}{16}$ " thick. Caps are finished in black crystal and equipped with fibre lining. Body of Molded Bakelite. Rated at 1100 RMS volts at 15 amps.

Series 2400 sockets and plugs are designed for high electrical and mechanical efficiency. They are similar to the 400 series except that their design increases the creepage distances and can take higher voltages. They are interchangeable with the 400 series. Rated at 1700 RMS Volts at 15 amps. Stpg. wt., 5 oz.

SERIES 400 PLUGS WITH ANGLE BRACKETS

Stock No.	Mr. No.	Cont.	1-24	25-49	50-99	100-249	250-499
39F320	P-402-AB	2	.68	.54	.45	.36	.342
39F321	P-404-AB	4	.83	.66	.55	.44	.418
39F322	P-406-AB	6	.98	.78	.65	.52	.494
39F323	P-408-AB	8	1.13	.90	.75	.60	.57
39F324	P-410-AB	10	1.28	1.02	.85	.68	.646
39F325	P-412-AB	12	1.43	1.14	.95	.76	.722

SERIES 400 SOCKETS WITH ANGLE BRACKETS

Stock No.	Mr. No.	Cont.	1-24	25-49	50-99	100-249	250-499
39F330	S-402-AB	2	.79	.63	.525	.42	.399
39F331	S-404-AB	4	1.01	.81	.675	.54	.513
39F332	S-406-AB	6	1.24	.99	.825	.66	.627
39F333	S-408-AB	8	1.46	1.17	.975	.78	.741
39F334	S-410-AB	10	1.69	1.35	1.125	.90	.855
39F335	S-412-AB	12	1.91	1.53	1.275	1.02	.969

SERIES 400 PLUGS WITH CABLE CLAMP IN TOP

Stock No.	Mr. No.	Cont.	1-24	25-49	50-99	100-249	250-499
39F340	P-402-CCT	2	1.13	.90	.75	.60	.57
39F341	P-404-CCT	4	1.28	1.026	.855	.684	.65
39F342	P-406-CCT	6	1.48	1.182	.985	.788	.749
39F343	P-408-CCT	8	1.64	1.308	1.09	.872	.828
39F344	P-410-CCT	10	1.89	1.512	1.26	1.008	.958
39F345	P-412-CCT	12	2.06	1.65	1.375	1.10	1.045

SERIES 400 SOCKETS WITH CABLE CLAMP IN TOP

Stock No.	Mr. No.	Cont.	1-24	25-49	50-99	100-249	250-499
39F346	S-402-CCT	2	1.27	1.02	.85	.68	.646
39F347	S-404-CCT	4	1.52	1.218	1.015	.812	.771
39F348	S-406-CCT	6	1.77	1.416	1.18	.944	.897
39F349	S-408-CCT	8	2.02	1.614	1.345	1.076	1.022
39F350	S-410-CCT	10	2.27	1.812	1.51	1.208	1.148
39F351	S-412-CCT	12	2.51	2.01	1.68	1.34	1.273

SERIES 400 PLUGS WITH DEEP BRACKET FOR RECESSED MOUNTING

Stock No.	Mr. No.	Cont.	1-24	25-49	50-99	100-249	250-499
29F514	P-402-DB	2	.90	.72	.60	.48	.456
29F515	P-404-DB	4	1.10	.876	.73	.584	.555
29F516	P-406-DB	6	1.29	1.032	.86	.688	.654
29F517	P-408-DB	8	1.49	1.188	.99	.792	.752
29F518	P-410-DB	10	1.68	1.344	1.12	.896	.851
29F519	P-412-DB	12	1.88	1.50	1.25	1.00	.95

SERIES 2400 SOCKETS WITH DEEP BRACKET FOR RECESSED MOUNTING

Stock No.	Mr. No.	Cont.	1-24	25-49	50-99	100-249	250-499
29F900	S-2402-DB	2	1.05	.84	.70	.56	.532
29F901	S-2404-DB	4	1.22	.978	.815	.652	.619
29F902	S-2406-DB	6	1.40	1.116	.93	.744	.707
29F903	S-2408-DB	8	1.57	1.254	1.045	.836	.794
29F904	S-2410-DB	10	1.74	1.392	1.16	.928	.882
29F905	S-2412-DB	12	1.91	1.53	1.275	1.02	.969

SERIES 2400 PLUG WITH CABLE CLAMP IN TOP

Stock No.	Mr. No.	Cont.	1-24	25-49	50-99	100-249	250-499
29F523	P-2402-CCT	2	1.25	.996	.83	.664	.631
29F524	P-2404-CCT	4	1.42	1.13	.95	.76	.72
29F525	P-2406-CCT	6	1.59	1.27	1.06	.848	.806
29F526	P-2408-CCT	8	1.76	1.41	1.175	.94	.893
29F527	P-2410-CCT	10	1.94	1.548	1.29	1.032	.98
29F528	P-2412-CCT	12	2.03	1.626	1.355	1.084	1.03

SERIES 2400 SOCKET WITH CABLE CLAMP IN TOP

Stock No.	Mr. No.	Cont.	1-24	25-49	50-99	100-249	250-499
29F529	S-2402-CCT	2	1.39	1.086	.905	.724	.688
29F530	S-2404-CCT	4	1.50	1.20	1.00	.80	.76
29F531	S-2406-CCT	6	1.68	1.344	1.12	.896	.851
29F532	S-2408-CCT	8	1.86	1.488	1.24	.992	.942
29F533	S-2410-CCT	10	2.04	1.632	1.36	1.088	1.034
29F534	S-2412-CCT	12	2.22	1.776	1.48	1.184	1.125

SERIES 400 SOCKETS WITH SHALLOW BRACKET FOR FLUSH MOUNTING

Stock No.	Mr. No.	Cont.	1-24	25-49	50-99	100-249	250-499
39F380	S-402-SB	2	.98	.78	.65	.52	.494
39F381	S-404-SB	4	1.25	.996	.83	.664	.631
39F382	S-406-SB	6	1.52	1.212	1.01	.808	.768
39F383	S-408-SB	8	1.79	1.428	1.19	.952	.904
39F384	S-410-SB	10	2.06	1.644	1.37	1.096	1.041
39F385	S-412-SB	12	2.33	1.86	1.55	1.24	1.178

SERIES 2400 SOCKETS WITH SHALLOW BRACKET FOR FLUSH MOUNTING

Stock No.	Mr. No.	Cont.	1-24	25-49	50-99	100-249	250-499
29F535	S-2402-SB	2	.98	.78	.65	.52	.494
29F536	S-2404-SB	4	1.15	.918	.765	.612	.581
29F537	S-2406-SB	6	1.32	1.056	.88	.704	.669
29F538	S-2408-SB	8	1.49	1.194	.995	.796	.756
29F539	S-2410-SB	10	1.67	1.332	1.11	.888	.844
29F540	S-2412-SB	12	1.84	1.47	1.225	.98	.931



140



140-Y

SERIES 140 AND 140-Y BARRIER TERMINAL BLOCKS

Series 140. Base: $\frac{5}{16}$ " W x $1\frac{1}{32}$ " H molded bakelite. Eyelets and binder head screws are brass, nickel plated. 5-40 x $\frac{1}{16}$ " screws. Leakage path $\frac{1}{2}$ ". Shpg. wt., 3 oz. Use

with Series 160 Fanning strips listed on following page.

Series 140-Y. Same as Series 140 but with Thru-panel solder lugs.

SERIES 140

Stk. No.	Type	Cont.	1-24	25-49	50-99	100-249	250-499
28F700	2-140	2	.23	.18	.15	.12	.114
28F701	3-140	3	.25	.21	.175	.14	.133
28F702	4-140	4	.33	.264	.22	.176	.167
28F703	5-140	5	.41	.324	.27	.216	.205
28F704	6-140	6	.47	.372	.31	.248	.236
28F705	7-140	7	.53	.426	.355	.284	.27
28F706	8-140	8	.61	.486	.405	.324	.308
28F707	9-140	9	.69	.54	.45	.36	.342
28F708	10-140	10	.75	.60	.50	.40	.38
28F709	11-140	11	.81	.648	.54	.432	.41
28F710	12-140	12	.89	.708	.59	.472	.448
28F869	13-140	13	.95	.762	.635	.508	.483
28F870	14-140	14	1.03	.822	.685	.548	.521
28F871	15-140	15	1.10	.876	.73	.584	.555
28F872	16-140	16	1.16	.93	.775	.62	.589
28F873	17-140	17	1.23	.984	.82	.656	.623
28F874	18-140	18	1.30	1.038	.865	.692	.657
28F875	19-140	19	1.37	1.092	.91	.728	.692
28F876	20-140	20	1.43	1.146	.955	.764	.726
28F877	21-140	21	1.51	1.206	1.005	.804	.764

SERIES 140-Y

Stk. No.	Type	Cont.	1-24	25-49	50-99	100-249	250-499
29F749	2-140-Y	2	.29	.228	.19	.152	.144
29F750	3-140-Y	3	.35	.282	.235	.188	.179
29F751	4-140-Y	4	.47	.372	.31	.248	.236
29F752	5-140-Y	5	.58	.462	.385	.308	.293
29F753	6-140-Y	6	.67	.534	.445	.356	.338
29F754	7-140-Y	7	.77	.618	.515	.412	.391
29F755	8-140-Y	8	.88	.702	.585	.468	.445
29F756	9-140-Y	9	.98	.786	.655	.524	.498
29F757	10-140-Y	10	1.08	.87	.725	.58	.551
29F758	11-140-Y	11	1.19	.948	.79	.632	.60
29F759	12-140-Y	12	1.29	1.03	.86	.668	.654
29F760	13-140-Y	13	1.40	1.116	.93	.744	.707
29F761	14-140-Y	14	1.50	1.20	1.00	.80	.76
29F762	15-140-Y	15	1.61	1.284	1.07	.856	.813
29F763	16-140-Y	16	1.70	1.362	1.135	.908	.863
29F764	17-140-Y	17	1.81	1.446	1.205	.964	.916
29F765	18-140-Y	18	1.91	1.524	1.27	1.016	.965
29F766	19-140-Y	19	2.01	1.608	1.34	1.072	1.018
29F767	20-140-Y	20	2.11	1.686	1.405	1.124	1.068
29F768	21-140-Y	21	2.22	1.776	1.48	1.184	1.125

Barrier Terminal Blocks & Accessories



SERIES 140 BARRIER BLOCKS AND ACCESSORIES CONT. IMPRINTED MARKER STRIPS FOR USE WITH SERIES 140

Strips are of 1/8" black fibre and have same mounting holes as barrier strips. Shpg. wt.. 2 oz.



Type MS-140

Stock No.	Type	Cont.	1-24	25-49	50-99	100-249	250-499
29F804	MS- 2-140	2	.23	.22	.21	.20	.10
29F805	MS- 3-140	3	.23	.22	.21	.20	.10
29F806	MS- 4-140	4	.23	.22	.21	.20	.10
29F807	MS- 5-140	5	.23	.22	.21	.20	.10
29F808	MS- 6-140	6	.24	.23	.22	.21	.11
29F809	MS- 7-140	7	.24	.23	.22	.21	.11
29F810	MS- 8-140	8	.24	.23	.22	.21	.11
29F811	MS- 9-140	9	.24	.23	.22	.21	.11
29F812	MS- 10-140	10	.24	.23	.22	.21	.11
29F813	MS- 11-140	11	.25	.235	.225	.215	.12
29F814	MS- 12-140	12	.25	.235	.225	.215	.12
29F815	MS- 13-140	13	.25	.235	.225	.215	.12
29F816	MS- 14-140	14	.25	.235	.225	.215	.12
29F817	MS- 15-140	15	.25	.235	.225	.215	.12
29F818	MS- 16-140	16	.26	.24	.23	.22	.13
29F819	MS- 17-140	17	.26	.24	.23	.22	.13
29F820	MS- 18-140	18	.26	.24	.23	.22	.13
29F821	MS- 19-140	19	.26	.24	.23	.22	.13
29F822	MS- 20-140	20	.26	.24	.23	.22	.13
29F823	MS- 21-140	21	.26	.24	.23	.22	.13

SOLDER TERMINALS FOR USE WITH SERIES 140

Stk. No.	Type	1-499	500-999	1000-up
28F791	3/4 W-140			
28F797	W-140	.03	.023	.02
28F794	Y-140			

JUMPERS FOR 140 BARRIER BLOCK SERIES

Units are used for making permanent connections between adjacent barrier block terminals. for Barrier block series 140.



Stock No.	Type No.	1-499	500-999	1000-up
28F833	140J-1	.02	.018	.016

SERIES 160 FANNING STRIPS

Fits 140 Series Barrier Strips. Brass, cadmium plated .032" terminals are mounted on 3/8" bakelite, 1/2" wide and on 3/8" centers. Wt., 3 oz. Mounting hole on left.



Stock No.	Type	Cont.	1-24	25-49	50-99	100-249	250-499
28F750	2-160-L	2	.36	.29	.24	.23	.12
28F751	3-160-L	3	.39	.31	.26	.25	.14
28F752	4-160-L	4	.44	.35	.29	.28	.16
28F753	5-160-L	5	.47	.37	.31	.30	.17
28F754	6-160-L	6	.51	.41	.34	.33	.19
28F755	7-160-L	7	.54	.43	.36	.35	.21
28F756	8-160-L	8	.59	.47	.39	.38	.23
28F757	9-160-L	9	.62	.49	.41	.40	.26
28F758	10-160-L	10	.66	.53	.44	.43	.29
28F759	11-160-L	11	.69	.55	.46	.45	.31
28F760	12-160-L	12	.74	.59	.49	.48	.34

Mounting hole on right.

Stock No.	Type	Cont.	1-24	25-49	50-99	100-249	250-499
28F800	2-160-R	2	.36	.29	.24	.23	.12
28F801	3-160-R	3	.39	.31	.26	.25	.14
28F802	4-160-R	4	.44	.35	.29	.28	.16
28F803	5-160-R	5	.47	.37	.31	.30	.17
28F804	6-160-R	6	.51	.41	.34	.33	.19
28F805	7-160-R	7	.54	.43	.36	.35	.21
28F806	8-160-R	8	.59	.47	.39	.38	.23
28F807	9-160-R	9	.62	.49	.41	.40	.26
28F808	10-160-R	10	.66	.53	.44	.43	.29
28F809	11-160-R	11	.69	.55	.46	.45	.31
28F810	12-160-R	12	.74	.59	.49	.48	.34

SERIES 170 TERMINAL BLOCKS

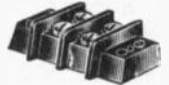
.032" brass, tin plated Solder Term. Black molded Bakelite. Size: 5/16" W. x 1/4" H. Mtg. on 3/8" ctrs.



Stock No	Type	Contact	1-24	25-49	50-99	100-249	250-499
29F740	2-170	2	.26	.204	.17	.136	.129
29F741	3-170	3	.31	.246	.205	.164	.156
29F742	4-170	4	.36	.288	.24	.192	.182
29F743	5-170	5	.41	.33	.275	.22	.209
29F744	6-170	6	.47	.372	.31	.248	.236
29F745	6-170	7	.52	.414	.345	.276	.262
29F746	8-170	8	.57	.456	.38	.304	.289
29F747	9-170	9	.62	.498	.415	.332	.315
29F748	10-170	10	.68	.54	.45	.36	.342

SERIES 164 TERMINAL BLOCKS

Same as Series 140 except has 6-32 binder head screws instead of 5-40. Maximum volts r.m.s. without marker strip: 1100; with marker strip: 1200. Max. current in amps: 15. Max. watts per terminal: 3750.



Stock No.	Type No.	Contacts	1-24	25-49	50-99	100-249	250-499
28F840	2-164	2	.23	.18	.15	.12	.114
28F841	3-164	3	.30	.24	.20	.16	.152
28F842	4-164	4	.38	.30	.25	.20	.19
28F843	5-164	5	.45	.36	.30	.24	.228
28F844	6-164	6	.53	.42	.35	.28	.266
28F845	7-164	7	.60	.48	.40	.32	.304
28F846	8-164	8	.68	.54	.45	.36	.342
28F847	9-164	9	.75	.60	.50	.40	.38
28F848	10-164	10	.83	.66	.55	.44	.418
28F849	11-164	11	.90	.72	.60	.48	.456
28F891	12-164	12	.98	.78	.65	.52	.494
28F892	13-164	13	1.06	.846	.705	.564	.536
28F893	14-164	14	1.14	.912	.76	.608	.578
28F894	15-164	15	1.22	.972	.81	.648	.616
28F895	16-164	16	1.30	1.038	.865	.692	.657
28F896	17-164	17	1.37	1.092	.91	.728	.692
28F897	18-164	18	1.45	1.158	.965	.772	.733
28F898	19-164	19	1.52	1.218	1.015	.812	.771
28F899	20-164	20	1.61	1.284	1.07	.856	.813
28F900	21-164	21	1.69	1.35	1.125	.90	.855

SERIES 141 AND 141-Y BARRIER TYPE TERMINAL BLOCKS

Increased insulation barriers placed between each terminal. Long leakage path prevents direct shorts from frayed wire at terminal. Base: 1/8" W x 1/2" H. molded bakelite. Series 141-Y has thru panel solder lugs. 6-32x1/4" screw. Use with Series 161 Fanning Strips. Shp. Wt. 3 oz.



141

141-Y

SERIES 141

Stk. No	Type	Cont.	1-24	25-49	50-99	100-249	250-499
28F711	2-141	2	.25	.198	.165	.132	.125
28F712	3-141	3	.34	.27	.225	.18	.171
28F713	4-141	4	.43	.342	.285	.228	.217
28F714	5-141	5	.52	.414	.345	.276	.262
28F715	6-141	6	.59	.474	.395	.316	.300
28F716	7-141	7	.70	.558	.465	.372	.353
28F717	8-141	8	.78	.624	.52	.416	.395
28F718	9-141	9	.86	.69	.575	.46	.437
28F719	10-141	10	.96	.768	.64	.512	.486
28F720	11-141	11	1.04	.834	.695	.556	.528
28F721	12-141	12	1.13	.90	.75	.60	.57
28F778	13-141	13	1.22	.972	.81	.648	.616
28F779	14-141	14	1.31	1.044	.87	.696	.661
28F880	15-141	15	1.39	1.11	.925	.74	.703
28F881	16-141	16	1.48	1.182	.985	.788	.749
28F882	17-141	17	1.57	1.254	1.045	.836	.794
28F883	18-141	18	1.66	1.326	1.105	.884	.84
28F884	19-141	19	1.75	1.398	1.165	.932	.885
28F885	20-141	20	1.84	1.47	1.225	.98	.931

SERIES 141-Y

Stk. No.	Type	Cont.	1-24	25-49	50-99	100-249	250-499
29F769	2-141-Y	2	.34	.27	.225	.18	.171
29F770	3-141-Y	3	.47	.378	.315	.252	.239
29F771	4-141-Y	4	.61	.486	.405	.324	.308
29F772	5-141-Y	5	.74	.594	.495	.396	.376
29F773	6-141-Y	6	.86	.69	.575	.46	.437
29F774	7-141-Y	7	1.01	.804	.67	.536	.509
29F775	8-141-Y	8	1.14	.912	.76	.608	.578
29F776	9-141-Y	9	1.27	1.014	.845	.676	.642
29F777	10-141-Y	10	1.41	1.128	.94	.752	.714
29F778	11-141-Y	11	1.54	1.23	1.03	.82	.779
29F779	12-141-Y	12	1.67	1.332	1.11	.888	.844
29F780	13-141-Y	13	1.80	1.44	1.20	.96	.912
29F781	14-141-Y	14	1.94	1.548	1.29	1.032	.98
29F782	15-141-Y	15	2.06	1.65	1.375	1.10	1.045
29F783	16-141-Y	16	2.20	1.758	1.465	1.172	1.113
29F784	17-141-Y	17	2.33	1.866	1.555	1.244	1.182
29F785	18-141-Y	18	2.47	1.974	1.645	1.316	1.25
29F786	19-141-Y	19	2.60	2.082	1.735	1.388	1.319
29F787	20-141-Y	20	2.74	2.19	1.825	1.46	1.387

SOLDER TERMINALS FOR SERIES 141 BARRIER STRIPS

Stk. No.	Type	1-499	500-999	1000-up
28F792	3/4 W-141	.04	.032	.028
28F798	W-141	.04	.032	.028
28F795	Y-141	.04	.032	.028

Solderless Terminals For Use With Cinch-Jones Barrier Blocks — See Waldom Listing



Terminal Blocks and Accessories

SERIES 141 TERMINAL BLOCKS AND ACCESSORIES

IMPRINTED MARKER STRIPS FOR USE WITH SERIES 141 BARRIER TERMINAL BLOCKS

Strips are of 1/2" black fibre and have same mounting holes as barrier strips. Serves as an insulator on metal.

Stk. No.	Type	Cont.	1-24	25-49	50-99	100-249	250-499
29F824	MS- 2-141	2	.23	.22	.21	.20	.10
29F825	MS- 3-141	3	.23	.22	.21	.20	.10
29F826	MS- 4-141	4	.23	.22	.21	.20	.10
29F827	MS- 5-141	5	.23	.22	.21	.20	.10
29F828	MS- 6-141	6	.24	.23	.22	.21	.12
29F829	MS- 7-141	7	.24	.23	.22	.21	.12
29F830	MS- 8-141	8	.24	.23	.22	.21	.12
29F831	MS- 9-141	9	.24	.23	.22	.21	.12
29F832	MS-10-141	10	.24	.23	.22	.21	.12
29F833	MS-11-141	11	.25	.235	.225	.215	.14
29F834	MS-12-141	12	.25	.235	.225	.215	.14
29F835	MS-13-141	13	.25	.235	.225	.215	.14
29F836	MS-14-141	14	.25	.235	.225	.215	.14
29F837	MS-15-141	15	.25	.235	.225	.215	.14
29F838	MS-16-141	16	.26	.24	.23	.22	.15
29F839	MS-17-141	17	.26	.24	.23	.22	.15
29F840	MS-18-141	18	.26	.24	.23	.22	.15
29F841	MS-19-141	19	.26	.24	.23	.22	.15
29F842	MS-20-141	20	.26	.24	.23	.22	.15

Type 141-J. JUMPER for Series 140 and 141 Terminal Blocks.

Stock No.	Type	1-499	500-999	1000-up
28F790	141-J	.03	.023	.02

Type QC-1. QUICK CLAMP TERMINAL for Series 141 and 541.

Stock No.	Type	1-499	500-999	1000-up
28F740	QC-1	.05	.044	.039

SERIES 142 TERMINAL BLOCKS AND ACCESSORIES

SERIES 142 AND 142-Y BARRIER TYPE TERMINAL BLOCKS



Series 142. Increased insulation is provided by having barriers placed between each terminal. Long leakage path prevents direct shorts from frayed wire at terminal.

Base: 1 1/16" W x 5/8" H. Molded bakelite. Eyelets and binder head screws are brass, nickel plated. 8-32 x 5/16" screw. Use with Series 162 Fanning Strips. Shpg. wt., 3 oz.

Stock No.	Type No.	Cont.	1-24	25-49	50-99	100-249	250-499
28F722	2-142	2	.30	.24	.20	.16	.152
28F723	3-142	3	.41	.324	.27	.216	.205
28F724	4-142	4	.51	.408	.34	.272	.258
28F725	5-142	5	.62	.492	.41	.328	.312
28F726	6-142	6	.73	.582	.485	.388	.369
28F727	7-142	7	.84	.672	.56	.448	.426
28F728	8-142	8	.95	.756	.63	.504	.479
28F729	9-142	9	1.05	.84	.70	.56	.532
28F730	10-142	10	1.17	.936	.78	.624	.593
28F731	11-142	11	1.28	1.02	.85	.68	.646
28F732	12-142	12	1.39	1.11	.925	.74	.703
28F886	13-142	13	1.50	1.20	1.00	.80	.76
28F887	14-142	14	1.61	1.29	1.075	.86	.817
28F888	15-142	15	1.73	1.38	1.15	.92	.874
28F889	16-142	16	1.84	1.47	1.225	.98	.931
28F890	17-142	17	1.95	1.56	1.30	1.04	.988

Series 142-Y. Same as above but with Thru-panel solder lugs.

29F788	2-142-Y	2	.41	.324	.27	.216	.205
29F789	3-142-Y	3	.56	.45	.375	.30	.285
29F790	4-142-Y	4	.72	.576	.48	.384	.365
29F791	5-142-Y	5	.88	.702	.585	.468	.445
29F792	6-142-Y	6	1.04	.834	.695	.556	.528
29F793	7-142-Y	7	1.21	.966	.805	.644	.612
29F794	8-142-Y	8	1.37	1.092	.91	.728	.692
29F795	9-142-Y	9	1.52	1.218	1.015	.812	.771
29F796	10-142-Y	10	1.70	1.356	1.13	.904	.859
29F797	11-142-Y	11	1.85	1.482	1.235	.988	.939
29F798	12-142-Y	12	2.02	1.614	1.345	1.076	1.022
29F799	13-142-Y	13	2.18	1.746	1.455	1.164	1.106
29F800	14-142-Y	14	2.35	1.878	1.585	1.252	1.189
29F801	15-142-Y	15	2.51	2.01	1.675	1.34	1.273
29F802	16-142-Y	16	2.68	2.142	1.785	1.428	1.357
29F803	17-142-Y	17	2.84	2.27	1.90	1.52	1.44

SOLDER TERMINALS FOR SERIES 142 TERMINAL BLOCKS

Stock No.	Mfg. No.	For Use With	1-499	NET EACH 500-999	1000-up
28F793	3/4 W-142	142	.04	.036	.032
28F799	W-142	142	.04	.036	.032
28F796	Y-142	142	.04	.036	.032

QUICK CLAMP TERMINALS

For use with 142 Barrier Block Series. For wire gauge 8-16.

Stock No.	Type No.	1-499	500-999	1000-up
28F741	QC-2	.05	.048	.042



SERIES 161 FANNING STRIPS

Series 161. Fit Series 141 Barrier Strips. Brass, cadmium plated .032" terminals are mounted on 3/32" bakelite, 5/16" wide and on 7/16" ctrs. Ave. Shpg. wt., 3 oz. Mounting holes on left.

Stk. No.	Type	Cont.	1-24	25-49	50-99	100-249	250-499
28F761	2-161-L	2	.36	.29	.24	.23	.12
28F762	3-161-L	3	.39	.31	.26	.25	.14
28F763	4-161-L	4	.44	.35	.29	.28	.16
28F764	5-161-L	5	.47	.37	.31	.30	.17
28F765	6-161-L	6	.51	.41	.34	.33	.19
28F766	7-161-L	7	.54	.43	.36	.35	.21
28F767	8-161-L	8	.59	.47	.39	.38	.23
28F768	9-161-L	9	.62	.49	.41	.40	.26
28F769	10-161-L	10	.66	.53	.44	.43	.29
28F770	11-161-L	11	.69	.55	.46	.45	.31
28F771	12-161-L	12	.74	.59	.49	.48	.34

Mounting hole on right.

28F811	2-161-R	2	.36	.29	.24	.23	.12
28F812	3-161-R	3	.39	.31	.26	.25	.14
28F813	4-161-R	4	.44	.35	.29	.28	.16
28F814	5-161-R	5	.47	.37	.31	.30	.17
28F815	6-161-R	6	.51	.41	.34	.33	.19
28F816	7-161-R	7	.54	.43	.36	.35	.21
28F817	8-161-R	8	.59	.47	.39	.38	.23
28F818	9-161-R	9	.62	.49	.41	.40	.26
28F819	10-161-R	10	.66	.53	.44	.43	.29
28F820	11-161-R	11	.69	.55	.46	.45	.31
28F821	12-161-R	12	.74	.59	.49	.48	.34

SERIES 162 FANNING STRIPS

Series 162. Fit 142 Series Barrier Strips. Brass, cadmium plated .432" terminals mounted on 3/32" bakelite, 5/8" wide on 7/16" mtg. centers. Ave. shpg. wt., 3 oz. Mounting hole on left.



Stk. No.	Type	Cont.	1-24	25-49	50-99	100-249	250-499
28F772	2-162-L	2	.39	.31	.26	.25	.12
28F773	3-162-L	3	.41	.32	.27	.26	.14
28F774	4-162-L	4	.44	.35	.29	.28	.16
28F775	5-162-L	5	.47	.37	.31	.30	.17
28F776	6-162-L	6	.50	.40	.33	.32	.19
28F777	7-162-L	7	.53	.42	.35	.34	.21
28F778	8-162-L	8	.56	.44	.37	.36	.24
28F779	9-162-L	9	.59	.47	.39	.38	.27
28F780	10-162-L	10	.62	.49	.41	.40	.29
28F781	11-162-L	11	.65	.52	.43	.42	.32
28F782	12-162-L	12	.68	.54	.45	.44	.35

Mounting holes on right.

28F822	2-162-R	2	.39	.31	.26	.25	.12
28F823	3-162-R	3	.41	.32	.27	.26	.14
28F824	4-162-R	4	.44	.35	.29	.28	.16
28F825	5-162-R	5	.47	.37	.31	.30	.17
28F826	6-162-R	6	.50	.40	.33	.32	.19
28F827	7-162-R	7	.53	.42	.35	.34	.21
28F828	8-162-R	8	.56	.44	.37	.36	.24
28F829	9-162-R	9	.59	.47	.39	.38	.27
28F830	10-162-R	10	.62	.49	.41	.40	.29
28F831	11-162-R	11	.65	.52	.43	.42	.32
28F832	12-162-R	12	.68	.54	.45	.44	.35

Waldom Solderless Terminals Produced

To eliminate circuit failure in barrier blocks, WALDOM has produced exactly the right shape and width terminal to fit the above barrier blocks. They cannot turn sideways, loosen, arc, or fail. Give neat, line appearance, available in three tongue styles:

- A. SPADE TONGUE—Easiest to install, loosen screw a few turns.
- B. FLANGED SPADE—More reliable than spade.
- C. RECTANGULAR TONGUE—Most reliable.

KRIMPITTE®—NON-INSULATED TERMINALS

For Jones Series	Wire Range	Stud Size	Spade Stk. No.	Flanged Spade Stk. No.	Rect. Stk. No.	100 For	1000 For
140	22-18	5	31F519	31F526	28F2022	1.96	14.12
	16-14		31F522	31F529	28F2023	2.05	14.77
141	22-18	6	28F2014	28F2018	28F2024	1.96	14.12
	16-14		28F2015	28F2019	28F2025	2.05	14.77
142	22-18	8	28F2016	28F2020	28F2026	1.96	14.12
	16-14		28F2017	28F2021	28F2027	2.05	14.77

INSULKRIMP—VINYL INSULATED TERMINALS

140	22-18	5	31F533	31F540	28F2008	4.06	30.05
	16-14		31F536	31F543	28F2009	4.06	30.05
141	22-18	6	28F2000	28F2004	28F2010	4.06	30.05
	16-14		28F2001	28F2005	28F2011	4.06	30.05
142	22-18	8	28F2002	28F2006	28F2012	4.06	30.05
	16-14		28F2003	28F2007	28F2013	4.06	30.05

Terminal Blocks



IMPRINTED MARKER STRIPS FOR USE WITH SERIES 142 BARRIER TERMINAL BLOCKS

Type MS-142, 1/2" black fibre. Have same mounting holes as barrier strips. Serve as an insulator on metal. Wt., 2 oz.



Stk. No.	Type	Cont.	1-24	25-49	50-99	100-249	250-499
29F843	MS- 2-142	2	.23	.22	.21	.20	.11
29F844	MS- 3-142	3	.23	.22	.21	.20	.11
29F845	MS- 4-142	4	.23	.22	.21	.20	.11
29F846	MS- 5-142	5	.23	.22	.21	.20	.11
29F847	MS- 6-142	6	.23	.22	.21	.20	.11
29F848	MS- 7-142	7	.24	.23	.22	.21	.13
29F849	MS- 8-142	8	.24	.23	.22	.21	.13
29F850	MS- 9-142	9	.24	.23	.22	.21	.13
29F851	MS-10-142	10	.24	.23	.22	.21	.13
29F852	MS-11-142	11	.24	.23	.22	.21	.13
29F853	MS-12-142	12	.25	.24	.23	.22	.15
29F854	MS-13-142	13	.25	.24	.23	.22	.15
29F855	MS-14-142	14	.25	.24	.23	.22	.15
29F856	MS-15-142	15	.25	.24	.23	.22	.15
29F857	MS-16-142	16	.30	.29	.28	.27	.19
29F858	MS-17-142	17	.30	.29	.28	.27	.19

JUMPERS FOR SERIES 142 BARRIER TERMINAL BLOCKS

Stk. No.	Type	1-499	500-999	1000-up
28F789	95B	.08	.068	.06
28F742	142J-1	.04	.032	.028
28F743	142J-2	.03	.027	.024

SERIES 150

Fits std. 50 amp. solder lug for 6 Ga. stranded wire. Base: 1 1/16" W. x 2 3/4" H. Molded bakelite. Screws: 10-32x3/16" brass, burnished nickel plate. 1 1/16" mtg. ctrs.



Stk. No.	Type	Cont.	1-24	25-49	50-99	100-249	250-499
29F731	2-150	2	.75	.60	.50	.40	.38
29F732	3-150	3	1.05	.84	.70	.56	.532
29F733	4-150	4	1.36	1.086	.905	.724	.688
29F734	5-150	5	1.67	1.332	1.11	.888	.844
29F735	6-150	6	1.97	1.578	1.315	1.052	.999
29F736	7-150	7	2.28	1.824	1.52	1.216	1.155
29F737	8-150	8	2.59	2.07	1.725	1.38	1.311
29F738	9-150	9	2.90	2.316	1.93	1.544	1.467
29F739	10-150	10	3.20	2.562	2.135	1.708	1.623

SERIES 171

Miniature 1 3/8" W. x 3/16" H. Single Screw Terminals. 2-56x1/4" binder head screws. 1/8" Dia. Mtg. Holes, 1/4" Mtg. Centers.



Stk. No.	Type	Cont.	1-24	25-49	50-99	100-249	250-499
28F901	2-171	2	.26	.21	.175	.14	.133
28F902	3-171	3	.32	.258	.215	.172	.163
28F903	4-171	4	.38	.306	.255	.204	.194
28F904	5-171	5	.44	.354	.295	.236	.224
28F905	6-171	6	.50	.402	.335	.268	.225
28F906	7-171	7	.56	.45	.375	.30	.285
28F907	8-171	8	.62	.498	.415	.332	.315

SERIES 172

Double screw terminals. 5/8" W. x 3/16" H. Mtg. on 1/4" centers. 2-56x1/4" binder head screws. 1/8" Dia. Mtg. holes.



Stk. No.	Type	Cont.	1-24	25-49	50-99	100-249	250-499
28F909	2-172	2	.45	.36	.30	.24	.288
28F910	3-172	3	.57	.456	.38	.304	.289
28F911	4-172	4	.69	.552	.46	.368	.35
28F912	5-172	5	.81	.648	.54	.432	.41
28F913	6-172	6	.93	.744	.62	.496	.471
28F914	7-172	7	1.05	.84	.70	.56	.532
28F915	8-172	8	1.17	.936	.78	.624	.593
28F916	9-172	9	1.29	1.032	.86	.688	.654
28F917	10-172	10	1.41	1.128	.94	.752	.714
28F918	11-172	11	1.53	1.224	1.02	.816	.775
28F919	12-172	12	1.65	1.32	1.10	.88	.836
28F920	13-172	13	1.77	1.416	1.18	.944	.897
28F921	14-172	14	1.89	1.512	1.26	1.008	.958

SERIES 173

Single screw terminals. 3/8" W. x 1/2" H. Mtg. on 3/8" centers. 4-40x3/16". Sems type Binder head screws. 5/32" Dia. Mtg. Holes.

28F923	2-173	2	.25	.204	.17	.136	.129
28F924	3-173	3	.34	.276	.23	.184	.175
28F925	4-173	4	.43	.348	.29	.232	.22
28F926	5-173	5	.52	.42	.35	.28	.266
28F927	6-173	6	.61	.492	.41	.328	.312
28F928	7-173	7	.70	.564	.47	.376	.357
28F929	8-173	8	.79	.636	.53	.424	.403
28F930	9-173	9	.88	.708	.59	.472	.448
28F931	10-173	10	.97	.78	.65	.52	.494

500 SERIES BARRIER TERMINAL BLOCKS

For especially critical electrical and mechanical performance requirements. Enclosed bottoms; Knockouts molded into base for Y terminals. Heavy construction adds strength to the block, minimizing warpage and shrinkage. Screws and terminals are brass-nickel plated. Material of the block is general purpose bakelite.



Series 540. 1 to 21 contacts. Base: 1 3/8" wide, barrier: 1 1/8" wide by 3/8" high, body 1 9/32" wide by 3/16" high. Web at base, 9/64" thick. 5-40x3/16" screw. Wt., 5 oz.

Stk. No.	Type	Terms.	1-24	25-49	50-99	100-249
28F1000	2-540	2	.75	.60	.40	.32
28F1001	3-540	3	.83	.66	.46	.38
28F1002	4-540	4	.90	.72	.52	.44
28F1003	5-540	5	.98	.78	.58	.50
28F1004	6-540	6	1.05	.84	.64	.56
28F1005	7-540	7	1.13	.90	.70	.62
28F1006	8-540	8	1.20	.96	.76	.68
28F1007	9-540	9	1.28	1.02	.82	.74
28F1008	10-540	10	1.35	1.08	.88	.80
28F1009	11-540	11	1.43	1.14	.94	.86
28F1010	12-540	12	1.50	1.20	1.00	.92
28F1011	13-540	13	1.58	1.26	1.06	.98
28F1012	14-540	14	1.65	1.32	1.12	1.04
28F1013	15-540	15	1.73	1.38	1.18	1.10
28F1014	16-540	16	1.80	1.44	1.24	1.16
28F1015	17-540	17	1.88	1.50	1.30	1.22
28F1016	18-540	18	1.95	1.56	1.36	1.28
28F1017	19-540	19	2.03	1.62	1.42	1.34
28F1018	20-540	20	2.10	1.68	1.48	1.40
28F1019	21-540	21	2.18	1.74	1.54	1.46
28F1064	22-540	22	2.25	1.80	1.60	1.52
28F1065	23-540	23	2.33	1.86	1.66	1.58
28F1066	24-540	24	2.40	1.92	1.72	1.64
28F1067	25-540	25	2.48	1.98	1.78	1.70
28F1068	26-540	26	2.55	2.04	1.84	1.76
28F1069	27-540	27	2.63	2.10	1.90	1.82
28F1070	28-540	28	2.70	2.16	1.96	1.88
28F1071	29-540	29	2.78	2.22	2.02	1.94
28F1072	30-540	30	2.85	2.28	2.08	2.00
28F1073	31-540	31	2.93	2.34	2.14	2.06

Series 541. 2 to 30 contacts. Base: 1 3/8" wide. Barrier: 1 3/8" wide by 1 1/8" high. Body, 3/4" wide by 3/8" high. Web 9/64" thick at base. 6-32x1/4" screw. Shpg. wt. 5 oz.

Stk. No.	Type	Terms.	1-24	25-49	50-99	100-249
28F1020	2-541	2	.90	.64	.44	.36
28F1021	3-541	3	.88	.70	.50	.42
28F1022	4-541	4	.95	.76	.56	.48
28F1023	5-541	5	1.03	.82	.62	.54
28F1024	6-541	6	1.10	.88	.68	.60
28F1025	7-541	7	1.19	.95	.75	.67
28F1026	8-541	8	1.27	1.01	.81	.73
28F1027	9-541	9	1.34	1.07	.87	.79
28F1028	10-541	10	1.42	1.13	.93	.85
28F1029	11-541	11	1.49	1.19	.99	.91
28F1030	12-541	12	1.58	1.26	1.06	.98
28F1031	13-541	13	1.65	1.32	1.12	1.04
28F1032	14-541	14	1.73	1.38	1.18	1.10
28F1033	15-541	15	1.80	1.44	1.24	1.16
28F1034	16-541	16	1.88	1.50	1.30	1.22
28F1035	17-541	17	1.97	1.57	1.37	1.29
28F1036	18-541	18	2.04	1.63	1.43	1.35
28F1037	19-541	19	2.12	1.69	1.49	1.41
28F1038	20-541	20	2.19	1.75	1.55	1.47
28F1074	21-541	21	2.27	1.81	1.61	1.53
28F1075	22-541	22	2.36	1.88	1.68	1.60
28F1076	23-541	23	2.43	1.94	1.74	1.66
28F1077	24-541	24	2.51	2.00	1.80	1.72
28F1078	25-541	25	2.58	2.06	1.86	1.78
28F1079	26-541	26	2.66	2.12	1.92	1.84
28F1080	27-541	27	2.74	2.19	1.99	1.91
28F1081	28-541	28	2.81	2.25	2.05	1.97
28F1082	29-541	29	2.89	2.31	2.11	2.03
28F1083	30-541	30	2.96	2.37	2.17	2.09

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Terminal Strips & Sockets

500 SERIES BARRIER TERMINAL BLOCKS (CON'T.)

Series 542. 2 to 26 contacts. Base: 1 1/8" wide. Barrier: 1 1/8" wide by 3/8" high. Body 3/8" wide by 1/2" high. Web at base: 1/8" thick. 8-32x1/8" screw. Shpg. wt., 5 oz.

Stk. No.	Type	Terms	1-24	25-49	50-99	100-249
28F1039	2-542	2	.85	.68	.48	.38
28F1040	3-542	3	.95	.76	.56	.46
28F1041	4-542	4	1.05	.84	.64	.54
28F1042	5-542	5	1.15	.92	.72	.62
28F1043	6-542	6	1.25	1.00	.80	.70
28F1044	7-542	7	1.35	1.08	.88	.78
28F1045	8-542	8	1.45	1.16	.96	.86
28F1046	9-542	9	1.55	1.24	1.04	.94
28F1047	10-542	10	1.65	1.32	1.12	1.02
28F1048	11-542	11	1.75	1.40	1.20	1.10
28F1049	12-542	12	1.85	1.48	1.28	1.18
28F1050	13-542	13	1.95	1.56	1.36	1.26
28F1051	14-542	14	2.05	1.64	1.44	1.34

QUICK CLAMP TERMINALS

Stock No.	Type No.	For Use With	For A.W.G.	1-499	500-999	1000-4999
28F740	QC-1	141, 541	14-22	.05	.044	.039
28F741	QC-2	142, 542	8-16	.05	.048	.042



LUG TYPE TERMINAL STRIPS

Solder coated steel lugs on 3/8" centers with .140 mtg. holes. Bakelite strips 1/16" thick and 3/8" wide. Shpg. wt., 1 oz.

Stock No.	Type No.	Description	Mtg. Ctr.	1-99	100-up
28F650	51	1 Lug	.....	.02	.01
28F567	51A	2 Lugs; 1 Grounded	.....	.02	.01
28F568	51B	1 Lug	.....	.02	.01
28F569	51C	2 Lugs; 1 Grounded	.....	.02	.01
28F570	51F	1 Lug	.....	.03	.013
28F573	51T	1 Double Lug	.....	.03	.014
28F651	52	2 Lugs	.....	.05	.024
28F574	52A	3 Lugs; 1 Grounded	.....	.03	.013
28F575	52B	2 Lugs	.....	.03	.013
28F576	52C	3 Lugs; 1 Grounded	.....	.03	.013
28F578	52T	2 Double Lugs	.....	.04	.022
28F652	53	3 Lugs	1 1/2"	.04	.022
28F582	53E	3 Lugs	.....	.03	.016
28F583	53F	4 Lugs; 1 Grounded	.....	.03	.016
28F584	53T	3 Double Lugs	.....	.20	.098
28F653	54	4 Lugs	1 7/8"	.05	.025
28F585	54A	6 Lugs; 2 Grounded	1 7/8"	.05	.025
28F586	54B	4 Lugs	.....	.04	.019
28F587	54C	5 Lugs; 1 Grounded	.....	.04	.019
28F654	55	5 Lugs	2 1/4"	.06	.028
28F588	55A	7 Lugs; 2 Grounded	2 1/4"	.06	.028
28F590	55C	7 Lugs; 2 Grounded	1 1/2"	.06	.028
28F655	56	6 Lugs	2 3/8"	.06	.03
28F591	56A	8 Lugs; 2 Grounded	2 3/8"	.06	.03
28F593	56C	8 Lugs; 2 Grounded	1 7/8"	.06	.03

SCREW TYPE TERMINAL STRIPS

Ideal for breadboard layouts. Solder coated brass term. .136" dia. mtg. holes. 1-6 lug strips 1/16" bakelite, 7-10 lug strips, 3/32" bakelite. Screws are captive to prevent removal. Terminals spaced on 1/16" centers.

Stock No.	Type No.	Description	1-99	100-up
28F551	17-1	17-1	.05	.026
28F552	17-2	17-2	.07	.037
28F553	17-3	17-3	.10	.053
28F554	17-4	17-4	.14	.069
28F555	17-5	17-5	.17	.084
28F556	17-6	17-6	.20	.10
28F557	17-7	17-7	.25	.124
28F558	17-8	17-8	.28	.14
28F559	17-9	17-9	.31	.158
28F560	17-10	17-10	.35	.174

JONES "2000" TERMINALS

Bakelite insulation with cadmium steel brackets. Terminals are made of .019" tinned brass on 1/16" centers. Wt., 3 oz.

Stk. No.	Type	Term.	1-24	25-49	50-99	100-249	250-499
28F680	2002	2	.09	.072	.06	.048	.046
28F681	2003	3	.10	.078	.065	.052	.049
28F682	2004	4	.11	.09	.075	.06	.057
28F683	2005	5	.12	.096	.08	.064	.061
28F684	2006	6	.14	.108	.09	.072	.068
28F685	2007	7	.14	.114	.095	.076	.072
28F686	2008	8	.16	.126	.105	.084	.08
28F687	2009	9	.17	.138	.115	.092	.087
28F688	2010	10	.18	.144	.12	.096	.091
28F689	2011	11	.20	.156	.13	.104	.099
28F690	2012	12	.20	.162	.135	.108	.103
28F691	2013	13	.22	.174	.145	.116	.110

Stk. No.	Type	Terms	1-24	25-49	50-99	100-249
28F1052	15-542	15	2.15	1.72	1.52	1.42
28F1053	16-542	16	2.25	1.80	1.60	1.50
28F1054	17-542	17	2.35	1.88	1.68	1.58
28F1055	18-542	18	2.45	1.96	1.76	1.66
28F1056	19-542	19	2.55	2.04	1.84	1.74
28F1057	20-542	20	2.65	2.12	1.92	1.82
28F1058	21-542	21	2.75	2.20	2.00	1.90
28F1059	22-542	22	2.85	2.28	2.08	1.98
28F1060	23-542	23	2.95	2.36	2.16	2.06
28F1061	24-542	24	3.05	2.44	2.24	2.14
28F1062	25-542	25	3.15	2.52	2.32	2.22
28F1063	26-542	26	3.25	2.60	2.40	2.30

JUMPERS FOR SERIES ABOVE

Stock No.	Type No.	For A.W.G.	1-499	500-999	1000-up
28F744	540-J	540	.15	.135	.12
28F745	541-J	541	.16	.144	.128
28F746	542-J	542	.17	.153	.136



MINIATURE SOCKETS



Stk. No.	Type	Description	1-99	100-up
38F633	7AB1	Black	.11	.063
38F634	7AM1	Mica	.11	.063

Stk. No.	Type	Description	1-99	100-up
38F636	7EB	Black	.07	.043
38F637	7EM	Mica-Filled	.10	.062

Stk. No.	Type	Description	1-99	100-up
38F674	7XB1	Black	.17	.085
38F675	7XM1	Mica-Filled	.17	.10
38F676	7XC	Ceramic	.35	.21

Stk. No.	Type	Mil. No.	Description	1-99	100-up
29F657	7C-2	TS102C01	Ceramic	.32	.158
29F658	7C-3	TS102C03	Ceramic	.29	.143
29F659	7CN-1	TS102C02	Ceramic	.29	.143
29F660	7JM-2	TS102P01	Mica	.20	.098
29F661	7JM-3	TS102P03	Mica	.17	.083
29F662	7JMN-1	TS102P02	Mica	.17	.083

Stk. No.	Type	Description	1-99	100-up
38F677	9AB	Black	.11	.065
38F678	9AM	Mica-Filled	.12	.074

Stk. No.	Type	Description	1-99	100-up
38F679	9EB	Black	.09	.051
38F680	9EM	Mica-Filled	.12	.072

Stk. No.	Type	Description	1-99	100-up
38F681	9XB	Black	.14	.086
38F682	9XM	Mica	.19	.113
38F683	9XC	Ceramic	.30	.179

9 PIN SOCKETS WITH SHIELD BASE (MIL-12883A)

Stock No.	Type	MIL No.	Mtg. Ctrs.	1-99	100-up
28F667*	9JC-2	TS103C01	.....	.39	.194
28F668*	9JC-3	TS103C03	3/8"	.33	.165
28F669*	9JCN-1	TS103C02	.....	.33	.165
28F670*	9JM-2	TS103P0125	.126
28F671*	9JM-3	TS103P03	3/8"	.20	.098
28F672*	9JMN-1	TS103P0220	.098

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Sockets and Accessories



MINIATURE TYPE SHIELDS AND SHIELD BASES



7S1



7SB3

7SP1



7 PIN—TUBE SHIELDS—"J" SLOT TYPE

Stk. No.	Type	Description	1-99	100-up
29F682	7S2	1 3/4" Long	.10	.06
29F683	7S3	1 3/4" Long	.11	.063
29F684	7S4	2 1/4" Long	.17	.10

TUBE SHIELDS—"J" SLOT TYPE (JAN S-28A)

Stk. No.	Type	Mil. No.	Description	1-99	100-999
29F673	7S12-1	TS102U01	7-pin 1 3/4" L.	.14	.072
29F674	7S13-1	TS102U02	7-pin 1 3/4" L.	.16	.08
29F675	7S14-1	TS102U03	7-pin 2 1/4" L.	.18	.089

7 PIN SHIELD BASES FOR "J" SLOT TYPE

29F685	7SB1	5/8" High Steel	.05	.027
29F686	7SB2	5/8" High Brass	.07	.036

TUBE SHIELDS WITH "J" SLOT

Stk. No.	Type	Mil. No.	Description	1-99	100-999
29F697	9S1	1 1/2" Long	.25	.152	
29F698	9S2	1 1/2" Long	.15	.09	
29F699	9S3	2 3/8" Long	.28	.165	

SHIELD BASE FOR 9 PIN WAFER OR SADDLE TYPE

29F700	9SB1	1 1/2" Mtg. Ctrs.	.07	.036
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9 PIN TUBE SHIELD "J" SLOT (JAN S-28A)

Stk. No.	Type	Mil. No.	Description	1-99	100-up
29F676	9S11-1	TS103U01	1 1/2" L.	.18	.088
29F677	9S12-1	TS103U02	1 3/4" L.	.19	.097
29F678	9S13-1	TS103U03	2 3/8" L.	.21	.105

MOLDED TUBE SOCKETS

Cinch sockets are standard! Precision-engineered for rugged use. All-brass solder-coated contacts. *Black, **Chassis thickness, †Mica, ‡Ceramic.



8AB

MOLDED OCTAL 1-5/16" MOUNTING CENTERS

Stk. No.	Type	Mtg. Hole	1-99	100-up
38F670*	8AB	.136 D.	.08	.05
38F671†	8AM	.136 D.	.11	.063

MOLDED OCTAL 1 1/2" MOUNTING CENTERS

38F672*	8EB	.143 D.	.09	.054
38F673†	8EM	.140 D.	.11	.068

RING MOUNT OCTAL

29F689*	8R1	1/16" **	.16	.097
29F690*	8R2	1/8" **	.19	.093
29F691†	8R3	1/16" **	.20	.119
29F692*	8R4	3/32" **	.19	.093
29F693†	8R5	3/32" **	.22	.110
29F694†	8R6	1/8" **	.22	.110
29F695	8R0	Retainer ring.	.04	.017

ADAPTER PLATE

Type 8AP. For use alone or in conjunction with above 8R1-8R6 Ring Mount Octal Sockets and 8R0 Retainer Ring.



Stk. No.	Type	1-24	25-49	50-99	100-249	250-499
29F696	8AP	.06	.048	.04	.032	.03

MIL-12883A MOLDED-TYPE OCTAL SOCKETS

Molded from mica-filled low loss bakelite. Silver plated phosphor bronze contacts with hot tinned tails. Heavy brass saddle nickel plated with 4 ground lug hot tinned. Mounting centers 1 1/2 in. 8JM-2 and 8JMN-2 are mica.

Stk. No.	Type	MIL No.	Mtg. Hole	1-99	100-up
29F665	8JM-2	TS101P01	.156 Dia.	.35	.177
29F666	8JMN-2	TS101P02	6-32 Tap	.54	.270

TOP MOUNTED RELAY SOCKETS

14 Contact, mica, 1 1/4" mtg. ctr.

Stock No.	Type No.	Cont.	1-99	100-999
29F710	14RS	14	.67	.405
29F987	20RS	20	1.55	.93



BOTTOM MOUNTED SOCKETS

Beryllium copper, silver-plated contacts with hot tinned tails. Steel saddle. 1 1/8" mtg. centers. Casting of mica insulation.

Stock No.	Type No.	Cont.	1-99	100-999
29F988	20RS-1	20	1.68	.84
29F989	16RS-1	16	1.44	.72
29F990	14RS-1	14	1.15	.69

Stk. No.	Type No.	Cont.	1-249	250-499	500-999
29F499	16RS-2	16	.65	.41	.389
29F498	16RS-3	16	.82	.531	.493
29F497	28RS	28	.96	.608	.576
29F496	28RS-1	28	1.25	.79	.749



VIDICON SOCKETS

Type 7VT. 7 contact socket for RCA Vidicon Tube Nos. 6198 and 7038. Casting material is mica. Contacts are silver-plated phosphor bronze. JETEC No. E8-11.

Stock No.	Type No.	1-24	25-49	50-99	100-249	250-499
29F997	7VT	3.15	2.52	2.10	1.68	1.60
29F999	8VT	3.15	2.52	2.10	1.68	1.60



PHOTO-MULTIPLIER SOCKET

Type 20-PM. 20 contact socket for RCA photo-multiplier tube nos. 6810, C7187A, C7122, and 7265. Casting material is MAI-60 Alkyd Glass Fiber. JETEC No. 20-102.

Stock No.	Type No.	1-24	25-49	50-99	100-249	250-499
29F998	20-PM	5.00	4.00	3.335	2.668	2.535



CETRON TUBE SOCKET

Designed for use in such applications as electric eye doors and motion picture projectors. Contacts spring brass.

Stk. No.	Type	Descrip.	1-99	100-up
29F652	2B2	Black	.72	.36
29F653	2M2	Mica	1.05	.525



STRAP NUTS

29F679	7SN	For 7-pin Min.	.17	.084
29F680	9SN	For 9-pin Min.	.18	.092

TRANSISTOR SOCKETS



2TS-1



2TS-2

Stk. No.	Type	Description	1-99	100-up
38F684	2TS-1	6-20 Threaded Mtg. Holes	.10	.049
38F685	2TS-2	Unthreaded	.11	.054

8-PIN RELAY SOCKET

Molded of mica filled phenolic and is attached to chassis with cold rolled steel clip that is cadmium plated. Contacts are beryllium copper, silver plated. Furnished with No. 20731 Mtg. Clip.



Stock No.	Type No.	1-99	100-999
29F729	8RS	.45	.225

NUVISTOR SOCKETS

SNS fastens to chassis by two tabs. 5NS-1, conventional mtg., screws, eyelets, etc. 5NS-2 for P.C. circuits. 5NS-3, heating dissipating.



5NS

Stk. No.	Type	1-99	100-up
29F730	5NS	.17	.112
29F992	5NS-1	.27	.18
29F993	5NS-2	.45	.30
29F991	5NS-3	.15	.075

NUVISTOR TUBE PULLER

Type TP-1. Tube removal made quick, easy with positive, sure-grip tube puller of tough heat resistant plastic. Engineered for working simplicity, plus efficient, scratch-free tube removal. 29F977. NET.....79



NOVAR SOCKETS

Molded from high dielectric black bakelite or mica-filled low-loss bakelite. Cadmium plated brass contacts. 1 1/2" mounting centers.

Stk. No.	Type	Mtg.	Desc.	1-99	100-up
29F976	9NS-B	Bottom	Black	.14	.068
29F994	9NS-M	Bottom	Mica	.17	.083
29F995	9NS-B-1	Top	Black	.15	.075
29F996	9NS-M-1	Top	Mica	.18	.09



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Sockets & Accessories

GENERAL PURPOSE TRANSISTOR SOCKET

Type 2TS-4. Transistor socket designed to triangular base layout 2"x.1" (JETEC-30) contact centers, as well as three-contact-in-line (.048x .192 contact centers). Casing molded of general purpose Bakelite; contacts are of phosphor bronze, cadmium-plated.

38F687. NET. 1-99..... .15 100-up..... .077

COMPACTRON TUBE SOCKETS

Special all-molded multi-purpose sockets designed for use with Compactron tube. 12-contact type for normal use and 8-contact type for high voltage available. Molded from high dielectric black phenolic or mica-filled low loss phenolic. Contacts cadmium-plated brass. Mounting hole centers: 1 $\frac{1}{16}$ ", diameter: .144".

*BLACK; **MICA-FILLED.

Stock No.	Type	No. of Contacts	1-24	25-49	50-99	100-249	250-499
39F386	8CS-B*	8	.44	.354	.295	.236	.224
39F387	8CS-M**	8	.48	.384	.32	.256	.243
39F388	12CS-B*	12	.54	.432	.36	.288	.274
39F389	12CS-M**	12	.58	.462	.385	.308	.293

PRINTED CIRCUIT SOCKETS WITH SHIELD BASES



These stand-off sockets have an attached bayonet-type shield base with ground tab. For use with $\frac{1}{16}$ " printed circuit boards. Castings are low-loss mica-filled phenolic (MFE). Contacts are phosphor bronze with a hot-tinned finish. Center shield and ground tab are brass, hot-tinned, and base is brass, nickel-plated.

Stk. No.	Type	Description	1-99	100-up
29F602	7PC-M2	7-pin Miniature	.85	.474
29F603	9PC-M2	9-pin Miniature	1.17	.585

CONVENTIONAL STAND-OFF TYPE PRINTED CIRCUIT SOCKETS



7PC-B 7PC-B1 8PC-B 9PC-B 9PC-B1
Stand-off sockets resting on shoulder of contact tail providing air gap for cooling and eliminating moisture. Designed for $\frac{1}{16}$ " printed circuit boards having bottom circuitry.

Stk. No.	Type	Description	1-99	100-up
29F604	7PC-B	Center shield and tabs	.07	.035
29F605	7PC-B1	No center shield or tabs	.06	.032
29F607	9PC-B	Center shield and tabs	.10	.047
29F608	9PC-B1	No center shield or tabs	.09	.043
		1-24 25-49 50-99 100-249 250-499		
29F520	8PC-B		.10	.078 .065 .052 .049

TV PICTURE TUBE SOCKETS

3M11. Mica socket. Magal-11 prong. For use with 5BP1, 2AP1, 1P21, 931A, and 3KP1 type CR tubes. Mica-filled low loss bakelite. Shpg. wt. 3 oz.

3R11. Steel mounting ring for above.

Stk. No.	Type	1-24	25-49	50-99	100-249	250-499
29F711	3M11	4.50	3.60	3.00	2.40	2.28
29F712	3R11	.30	.24	.20	.16	.152

3M12. Mica socket. Duodecal-12 prong. For use with 10BP4, 2BP1, STP4, etc. Tube types. Also RCA 6199 tube with JAN No. B12-43. Mica-filled low loss bakelite. Shpg. wt. 3 oz.

3B12. Same as above but black bakelite.

Stk. No.	Type	1-24	25-49	50-99	100-249	250-499
29F714	3M12	1.80	1.44	1.20	.96	.912
29F713	3B12	.60	.48	.40	.32	.304

3M14. Mica socket. Diheptal-14 prong. For RCA 6217, 5819 photo tubes and Jetec No. B12-37. Mica-filled low loss bakelite. 2 $\frac{1}{32}$ "x.1 $\frac{1}{16}$ ". Shpg. wt. 3 oz.

3B14. Same as above but high dielectric black bakelite.

3R14. Steel mounting ring for above.

Stk. No.	Type	1-99	100-up
29F715	3B14	1.57	.798
39F390	3M14	1.85	.836
39F391	3R14	.98	.50

CAPACITOR "PLUG IN" SOCKETS



2C5. Designed for use with Mallory and Magnavox 1" FP type condensers. Molded black bakelite. Steel mounting saddle has 4 ground lugs. 1 $\frac{1}{2}$ " mtg. ctr. Mtg. hole diam. .140". Shpg. Wt. 5 oz.

2C7. Designed for use with Mallory and Magnavox 1 $\frac{1}{2}$ " FP type condensers. Molded black bakelite. Steel saddle has 12 $\frac{1}{32}$ " mtg. ctr. Mtg. hole diam. .156". Shpg. wt., 5 oz.

Stk. No.	Type	1-99	100-up
29F549	2C5	.38	.228
29F550	2C7	.60	.356

INTEGRATED CIRCUIT SOCKETS



6-ICS. Newly designed sockets for interconnection of integrated circuits mounted in 6-lead, TO-5 case. Molded of diallyl phthalate, type SDG per MIL-M-18794. Gold plated, beryllium copper contacts.

8-ICS. Similar to above but with 8 pins.

10-ICS. Similar to above but with 10 pins.

Stock No.	Type	1-24	25-49	50-99	100-249	250-499
29F541	6-ICS	.50	.40	.334	.266	.253
29F542	8-ICS	.59	.474	.395	.314	.299
29F521	10-ICS	.65	.552	.435	.348	.331

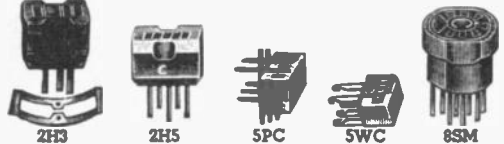
STAND-OFF TYPE PRINTED CIRCUIT SOCKETS



Sockets have contact tails so they can be pressed into chassis holes. Provides mechanical retention prior to dip soldering in $\frac{1}{16}$ " printed circuit board. Center shield on B5 and M5 models made of brass, hot tin dipped. Insulator bodies available in black phenolic or mica-filled low loss phenolic.

Stk. No.	Type	Description	1-99	100-up
29F594	7PC-B4	Black	.10	.05
29F595	7PC-M4	Mica-Filled	.10	.048
29F596	7PC-B5	Black	.10	.05
29F597	7PC-M5	Mica-Filled	.14	.069
29F598	9PC-B4	Black	.11	.057
29F599	9PC-M4	Mica-Filled	.12	.059
29F600	9PC-B5	Black	.12	.062
29F601	9PC-M5	Mica-Filled	.13	.066

MICA-FILLED SUB-MINIATURE SOCKETS



*Mounting Ring included

Stk. No.	Type	Mfr. No.	Description	1-99	100-up
38F639	2H3*	46A20928	3 prong	.18	.111
38F630	2H5*	46A11953	5 prong	.15	.09
38F631	2H6*	46A11955	6 prong	.30	.149
38F632	2H7*	46A11957	7 prong	.26	.159
38F628	5WC	46A14148	5 prong	.38	.188
38F629	8SM*	46A13686	8 prong	.39	.234
29F716	5PC	47A14273	5 prong	.48	.291
29F718	8SMP	46B14513	8 prong	.54	.27
29F719	2MR	20K13702	Mtg. ring for 8SM	.02	.009

CRYSTAL SOCKETS



2KB

Stk. No.	Type	Mfg. No.	Mtg. Ctrs.	1-99	100-up
29F705	2KB	9827	2-prong**	.15	.075
29F706	2KM	9816	2-prong**	.17	.084

** $\frac{3}{16}$ " Mtg. Ctrs.

HEAT SINKS



2W-1

2W-2

2W-3

Stk. No.	Type	Mfr. No.	Description	1-24	25-49	50-99	100-249	250-499
29F654	2W1	294457	For Mot. 2N-179, 2N-176, 2N-554	.32	.25	.21	.168	.16
29F655	2W2	294665	For Delco 2N174	.32	.25	.21	.168	.16
29F656	2W3	294666	For Tex. Inst. 2N-389	.32	.25	.21	.168	.16

MOLDED CONNECTOR PLUGS AND SOCKETS



8PB



11PB



11RB

Stk. No.	Type	Mfr. No.	Contacts	1-9	100-up
29F701	8PB	54B16021	8 plugs	.17	.102
29F702	11PB	54B13795	11 plugs	.27	.135
29F703	11RB	54A13783	11 sockets	.59	.354

Sockets and Accessories



MISCELLANEOUS PLUGS, SOCKETS AND CLAMPS



S-201



P-202-CCT



S-202B



P-101-1/4



S-101



P-201-3/4

SERIES 101 PLUGS AND SOCKETS

Entire 101 series of plugs are identical except for cable ferrule which is furnished in five sizes as shown. S-101D socket is similar to S-101 except bakelite is recessed in base. S-101-D-Mod. is same as S-101-D except two sides of the base are milled.

SERIES 101 PLUGS

Stock No.	Mfr. No.	Description	1-24	25-49	50-99	100-249	250-499
39F398	P-101-1/4"	1 1/4"	.69	.55	.46	.37	.35
29F500	P-101-.290"	1 1/4"	.83	.67	.56	.44	.42
29F501	P-101-.311"	1 3/8"	.86	.69	.58	.46	.44
39F397	P-101-3/8"	1 3/8"	.86	.69	.58	.46	.44
29F502	P-101-1/2"	1 7/8"	.68	.54	.45	.36	.34

SERIES 101 SOCKETS

Stock No.	Mfr. No.	Description	1-24	25-49	50-99	100-249	250-499
39F399	S-101	.....	.64	.51	.43	.34	.32
29F503	S-101-D	.....	.98	.78	.65	.52	.49
29F504	S-101-D Mod	.....	.98	.78	.65	.52	.49

SERIES 202 PLUGS AND SOCKETS

Stock No.	Mfr. No.	Description	1-24	25-49	50-99	100-249	250-499
29F507	P-202-CCT	Plug with cable clamps	.85	.68	.57	.45	.43
29F508	S-202-CCT	Socket with cable clamps	.87	.70	.58	.46	.44
29F509	S-202-CCT-THR	S-202-CCT w/ threaded body	1.15	.92	.77	.61	.58
29F512	S-202-B	Socket with mtg. base	1.04	.83	.69	.55	.52
29F513	P-202-B	Plug with mtg. base	1.01	.81	.68	.54	.51

PLUGS

13A. Phono plug. Nickel plated 1/8 in. dia. tube pin. 9/16 in. L. Use with 81A and 81B phono jacks. Shpg. wt. 3 oz.

13B. Motorola type antenna plug. Nickel plated 1/8 tube extends 1/2 in. from cadmium plated split brass shell. Use with 81C or 81F connector. Shpg. wt. 4 oz.



13A



13B

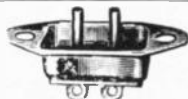
Stk. No.	Type	Mfr. No.	1-99	100-up
39F796	13A	1336	.08	.039
39F396	13B	1320	.17	.086

ANTENNA CONNECTOR

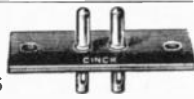
Shielded jack has flange with 1 1/16" mtg. ctrs. and 136 dia. mtg. holes. Mounts with screws or rivets. Use with 13B above.



Stk. No.	Type	Description	1-99	100-up
39F395	81F	Socket	.22	.108



2RP



2FP

TV PLUGS

Type 2RP. Recessed sub-panel mounting type plug. UL approved for 125 volts 7 amps. 1 1/4" mtg. centers. Length 1 3/8". width 3/4", depth 9/16". Shpg. wt. 4 oz.

Type 2FP connector plug. Two prongs mounted on 1/16" Bakelite. 1 3/8" x 3/4" 135 mounting holes are on 1/4" centers.

Stk. No.	Type	Mfr. No.	1-99	100-up
36F881	2RP-1	15M14684	.12	.059
29F619	2FP	15F17982	.09	.043

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PHONO JACKS

81A. Single prong positive grip phono jack mounted on 1/16" chocolate bakelite disc with 1 1/16" mtg. centers. Use 13A phono plug with this jack. Shpg. wt. 4 oz.



81A

81B. Two positive grip phono jacks mtg. on 1 1/8" bakelite panel with 1 3/8" mtg. centers. Jacks are spaced on 3/16" centers. Panel size: 1 1/2" x 1". Use 13A phono plug with this jack. Shpg. wt. 4 oz.



81B

Stk. No.	Type	Mfr. No.	1-99	100-up
39F797	81A	14H20604	.13	.063
39F795	81B	8113	.22	.113

PLUG CAP

Type 18A-1. Cadmium plated steel shell with rolled edge on 5/16" diameter neck opening. Outside diameter at base .625. Four 1/8" prongs coincide with notches on plugs. Designed for use with Cinch No. 5A1 and 5B1A type battery plugs.



18A-1

Stk. No.	Type	Mfg. No.	Description	1-99	100-up
29F612	18A-1	16A20377P24	For use with 5A1 and 5B1A listed below.	.02	.012

PLUG BUTTONS



Used to cover holes in metal, wood, fibre, etc. Nickel plated steel. Av. Shpg. wt. 2 oz.

* Screen Type for 1" diam. (Bright zinc plated)

Stk. No.	Type	Mfg. No.	Hole Dia.	1-4999	5M-up
29F633	41A	48151P34	1/4"	.02	.016
29F634	41B	48192P34	3/8"	.02	.016
29F635	41C	48152P34	1/2"	.02	.016
29F636	41D	48172P34	5/8"	.02	.016
29F637	41E	51026P34	3/4"	.02	.016
29F638	41F	48155P34	7/8"	.03	.02
29F639	41G	48143P34	1"	.04	.024
29F640	41H	50726P34	1 1/4"	.06	.04
29F641	41V	99522P24	1"	.12	.08

BATTERY PLUGS



5D

5D1



5F

Plated brass pin mounted on laminated bakelite.

Stk. No.	Type	Mfg. No.	Hole Dia.	1-4999	5M-up
39F830	5A1	2744	1 1/2" "A"	.06	.03
39F833	5A4	2793	6" "A"	.06	.028
39F834	5A5	M-77	7 1/2" "A"	.13	.065
39F835	5B1A	2730	45" "B"	.05	.027
39F839	5M	52384	67 1/2" "B"	.05	.032
39F840	5F	52383	67 1/2" "B"	.05	.032
39F829	5D	155113	45" "B"	.45	.30
39F842	5D1	155112	67 1/2" "B"	.27	.18
39F843	5D2	155104	90" "B"	.27	.18
39F841	5MFA	153965	67 1/2" "B"	.27	.18

110-250 VOLT 2 PRONG SOCKET

2R2. Rated at 15 amps 110V or 10 amps at 250V. Molded from high dielectric black bakelite. Mounts in 2 5/8" x 2 3/4" hole. .144 diam. mtg. holes on 1 1/4" centers. Shpg. wt. 4 oz.

Stk. No.	Type	Mfr. No.	1-99	100-up
39F394	2R2	54A12844	.19	.095



2R2

SECOND ANODE CONNECTOR

3A1. For diheptal based tubes. Snaps over .096 diam. prong on side of diheptal tubes. Shpg. wt. 4 oz.

Stk. No.	Type	Mfr. No.	1-99	100-up
29F649	3A1	8857P24	.45	.30



3A1

CABLE CLAMPS



85A

85B

85C

85D

85E

85F

Cadmium plated steel. Av. shpg. wt. 2 oz.

Stk. No.	Type	Mfg. No.	Dia. of Arc	1-4999	5M-up
29F627	85A	1065P24	1/8"	.01	.009
29F628	85B	1051P24	5/16"	.01	.007
29F629	85C	8545P24	3/8"	.01	.008
29F630	85D	8339P27	1/2"	.01	.005
29F631	85E	8522P24	1/2"	.01	.006
29F632	85F	292-LP24	3/8"	.01	.006



Industrial Tube & Relay Sockets



Stk. No.	Type	Description	Wt.	1-24	25-99	100-249	250-499	500-999
38F930	146-103	8 contact standard socket without tie point inserts top mounted. Molded in one piece of Melamine. Removable contacts. 1250 V. RMS, 5 amps.	8 oz.	1.50	1.25	1.051	.900	.799
38F931	146-104	8 contact socket with 4 molded-in treaded inserts for tie points. Top mounted. Molded in one piece of Melamine. Removable contacts.	8 oz.	1.90	1.59	1.337	1.145	1.017
38F933	146-203	Same as 146-103 above except bottom mounted.	8 oz.	1.50	1.25	1.051	.900	.799
38F934	146-204	Same as 146-104 above except bottom mounted.	8 oz.	1.90	1.59	1.337	1.145	1.017
38F938	146-105	4 contact bracket type. For jumbo 4 pin tubes.	6 oz.	4.68	3.92	3.285	2.813	2.498
39F1246	146-109	4 contact bracket type. For UX4-pin tubes.	6 oz.	4.89	4.09	3.431	2.938	2.609
39F1247	146-817	11 contact socket with 4 molded-in threaded inserts. 600 VRMS, 10 Amps.	10 oz.	3.42	2.91	2.438	2.088	1.854
38F920	146-101	High Voltage Octal Socket. For 5Y4-G, 5U4-G, 6L6-G and others. Molded Melamine. Underwriters shield. 2.031" mtg. ctrs.	2 oz.	.88	.73	.62	.55	.49
38F932	146-121	Photo Tube Socket. For cartridge type photo tubes. Made of one piece, molded bakelite, mica filled. Nickel plated brass contacts.	5 oz.	NET 1.80				

MINIATURE SOCKETS

147 series mount in 5/8" chassis hole and have 7/8" mounting centers with 1/8" screw holes. 59 series mount in 3/4" chassis hole and have 1 1/8" mounting centers with .095" rivet holes. Shpg. wt. 2 oz.



BOTTOM-MOUNTING TYPE—FIG. A.

Stock No.	Type	Insul.	Pins	1-49	50-249	250-499	500-999	1M-2499
38F870	147-500	Bakelite	7	.31	.259	.218	.186	.165
38F872	147-505	Mica	7	.31	.258	.216	.185	.164
38F873	59-409	Bakelite	9	.35	.292	.245	.210	.186
38F874	59-410	Mica	9	.36	.301	.253	.216	.192

TOP-MOUNTING TYPE—FIG. B (Tube Shield Base included)								
Stock No.	Type	Insul.	Pins	1-49	50-249	250-499	500-999	1M-2499
38F875	147-905	Bakelite	7	.35	.289	.242	.208	.184
38F877	147-913	Mica	7	.34	.287	.241	.206	.183
38F878	59-407	Mica	9	.41	.346	.291	.249	.221
38F879	59-406	Bakelite	9	.40	.338	.283	.243	.215

MINIATURE TUBE SHIELDS

For 7 and 9 pin miniature sockets above. Steel shell, cadmium plated. Shpg. wt., 2 oz.

Stock No.	Type	Height	For	1-49	50-249	250-499	500-999	1M-2499
38F880	5-401	1 3/8"	7 pin	.21	.176	.147	.126	.112
38F881	5-402	1 3/4"	7 pin	.22	.181	.152	.130	.115
38F882	5-405	1 1/2"	9 pin	.21	.177	.149	.128	.113
38F883	5-408	1 1/8"	9 pin	.25	.211	.177	.151	.134
38F884	5-409	2 3/8"	9 pin	.31	.256	.215	.184	.163

FLOATING SOCKET

Type 77-MIP-8FK. Vibration proofed octal socket to eliminate microphonics. Has live rubber grommets, mounting screws, nuts and washers. Mounts in 1 1/8" holes on 1/2" ctrs. Shpg. wt., 5 oz.

Stock No.	1-49	50-249	250-499	500-999	1M-2499
38F855	.39	.325	.273	.234	.208

TYPE RS SOCKETS

Molded bakelite replacement sockets. Removable adapter plate permits replacement of water sockets. Slotted mtg. holes to fit centers from 1/2 to 1 1/8". Shpg. wt., 2 oz.

Stock No.	Type	Prongs	1-49	50-249	250-499	500-999	1M-2499
38F800	78RS4	4	.25	.207	.174	.149	.132
38F801	78RS5	5	.23	.223	.187	.160	.142
38F802	78RS6	6	.29	.238	.200	.171	.152
38F803	78RS7S	7S	.31	.256	.215	.184	.163
38F806	78RS8	Octal	.27	.226	.190	.163	.144
38F807	78RS8L	Loktal	.28	.230	.269	.230	.204
38F808	78RS9	9	.30	.25	.207	.178	.158
38F809	78RS11	11	.34	.28	.235	.201	.179

TYPE RSS STEATITE SOCKETS

Low-loss steatite for high frequency transmitters, amplifiers and power supplies. Ideal for use in high temperatures. Mtg. hole, 1 1/8" except (*) 1 1/4". Universal removable mounting plate with slotted holes. Shpg. wt., 3 oz.

Stock No.	Type	Prongs	1-49	50-249	250-499	500-999	1M-2499
38F860	49RSS4	4	.62	.515	.432	.370	.329
38F861	49RSS5	5	.65	.545	.457	.391	.347
38F863	49RSS7S	7 small	.66	.550	.461	.395	.351
38F864	*49RSS7L	7 large	.81	.673	.565	.484	.430
38F865	49RSS8	Octal	.64	.534	.448	.384	.341

TYPE MIP SOCKETS

High dielectric bakelite body with molded in steel plate. *Requires 1 1/8" hole for mounting. **Requires 1 3/8" hole. All others mount in 1 1/2" hole. †Mica-filled phenolic socket. Shpg. wt., 2 oz.



Stock No.	Type	Prongs	1-49	50-249	250-499	500-999	1M-2499
38F840	77MIP4	4	.18	.148	.124	.106	.094
38F841	77MIP5	5	.20	.164	.137	.118	.104
38F842	77MIP6	6	.22	.181	.152	.130	.115
38F843	77MIP7S	7S	.24	.198	.166	.143	.127
38F844	**77MIP7L	7L	.26	.221	.185	.159	.141
38F845	77MIP8	Octal	.20	.171	.143	.123	.109
38F839	†77MIP8T	Octal	.24	.202	.169	.145	.129
39F1244	†77MIP11T	11	.30	.249	.209	.179	.159
38F846	*88-8	Octal	.23	.188	.158	.135	.120
38F847	*88-8X	Loktal	.33	.273	.229	.196	.174
38F848	77MIP9	9	.24	.197	.165	.141	.125
38F849	77MIP11	11	.27	.226	.190	.163	.144
38F850	77MIP12	12	.28	.237	.199	.170	.151
39F149	77MIP20	20	.64	.532	.447	.383	.340

TYPE S SOCKETS

Retainer ring sockets. For easy assembly to chassis or panel from 19 gauge (.044") to 16 gauge (.062") with tempered steel retainer ring. High dielectric molded bakelite. Rotation feature permits lining up contacts. All mount in 1 1/4" to 1 1/2" hole. With retainer. Wt., 2 oz.



Stock No.	Type	Prongs	1-49	50-249	250-499	500-999	1M-2499
38F810	78S4	4	.18	.146	.123	.105	.093
38F811	78S5	5	.19	.162	.136	.116	.103
38F812	78S6	6	.21	.177	.149	.128	.113
38F813	78S7S	7 small	.23	.195	.164	.140	.124
38F816	78S8	Octal	.20	.167	.140	.120	.107
39F1045	78S8T	8	.24	.198	.166	.143	.127
38F817	78S9	9	.23	.188	.158	.135	.120
38F818	78S8L	Loktal	.31	.259	.218	.186	.165
38F819	78-A7P	7 min.	.44	.371	.311	.266	.236
38F820	78-A9P	9 min.	.33	.275	.231	.198	.175
38F821	78-S11	11	.26	.221	.185	.159	.141
39F1046	78S11T	11	.30	.254	.213	.183	.162

MINIATURE RETAINER RING SOCKETS

For installation in compact electronic equipment. Black molded bakelite bodies. Mount in 5/8" round or "D" shaped hole with ring provided. Wt., 2 oz.



Stock No.	Type	Prongs	1-49	50-249	250-499	500-999	1M-2499
38F825	78-S3S	3	.11	.096	.080	.069	.061
38F826	78-S4S	4	.15	.125	.105	.090	.080
38F827	78-S5S	5	.20	.167	.140	.120	.107
38F828	78-S6S	6	.21	.176	.147	.126	.112
38F830	78-7P	7	.28	.233	.196	.168	.149

CATHODE-RAY TUBE SOCKETS

Type 59-402. Duodecal socket for cathode-ray tubes with 12 equally spaced pins on circle dia. of 1.063". Bakelite body, removable cap.

Stock No.	1-49	50-249	250-499	500-999	1M-2499
38F901	.93	.778	.653	.559	.496

MAGNAL 11-CONTACT SOCKET

Type 49-SS11L. Has 1 1/8" pin circle for C-R tubes with magnal 11-prong base. Made of low-loss steatite. Has steel retaining ring for quick assembly. Requires 1 1/2" mounting hole.

Stock No.	1-49	50-249	250-499	500-999	1M-2499
38F900	.95	.793	.666	.570	.506

Depend On NEWARK for Everything in Industrial Electronics

• OEM PRICES

• Complete Stocks

• Fast Service

Connectors, Receptacles & Plugs



TYPE 86-PM SHIELDED MULTI-WIRE CONNECTORS

Consists of Amphenol "S" type sockets or "CP" plug and snap-on black steel caps with rubber grommets. Takes cable up to 1/2" dia. Size, 1 1/2 x 1 3/4". Wt., 2 oz.



MALE

Stk. No.	Type	Contacts	1-49	50-249	250-499	500-999	1000-2499
39F120	86-PM4	4	.43	.358	.301	.258	.229
39F121	86-PM5	5	.43	.362	.304	.260	.231
39F122	86-PM6	6	.45	.376	.315	.270	.240
39F123	86-PM7S	7S	.46	.383	.321	.275	.244
39F125	86-PM8	8 oct.	.45	.378	.317	.271	.241
39F128	86-PM9	9	.46	.385	.323	.276	.245
39F127	86-PM11	11	.47	.392	.329	.281	.250
42F025	86-PM12	12	.47	.397	.333	.285	.253
42F026	86-PM20	20	.62	.510	.430	.390	.350

FEMALE

Stk. No.	Type	Contacts	1-49	50-249	250-499	500-999	1000-2499
39F140	78-PF4	4	.39	.324	.272	.233	.205
39F141	78-PF5	5	.41	.339	.285	.244	.216
39F142	78-PF6	6	.42	.355	.298	.255	.226
39F143	78-PF7S	7S	.45	.372	.312	.268	.238
39F145	78-PF8	8 oct.	.41	.345	.289	.248	.220
39F148	78-PF9	9	.44	.365	.307	.263	.233
39F147	78-PF11	11	.48	.398	.334	.286	.254

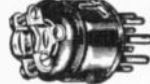
CAPS AND CABLE CLAMPS

Stk. No.	Type	Description	1-49	50-249	250-499	500-999	1000-2499
42F017	3-13	Cap. with end grommet	.14	.117	.098	.084	.074
42F018	3-17	Cap. with side grommet	.20	.171	.143	.123	.109
42F019	3-24	Cap. with cable clamp	.23	.191	.161	.138	.122

Stk. No.	Type	Description	1-24	25-99	100-249	250-499	500-999
39F150	79-CC4	Cable Clamp	.09	.075	.063	.054	.048

MULTI-WIRE CONNECTORS WITH CABLE CLAMPS

All specifications are as above, but with high quality cable clamps. Takes cable up to 1/2" dia. Size, 1 1/2 x 1 3/4". Shpg. wt. 3 oz.



MALE

Stk. No.	Type	Contacts	1-49	50-249	250-499	500-999	1000-2499
42F000	86-PM4-11	4	.52	.433	.364	.311	.276
42F001	86-PM5-11	5	.52	.437	.366	.314	.279
42F002	86-PM6-11	6	.54	.451	.378	.324	.287
42F003	86-PM7S-11	7S	.55	.458	.384	.329	.292
42F005	86-PM8-11	8	.54	.452	.380	.325	.289
42F006	86-PM9-11	9	.55	.459	.385	.330	.293
42F007	86-PM11-11	11	.56	.466	.391	.335	.297
42F027	86-PM12-11	12	.57	.472	.396	.339	.301

FEMALE

Stk. No.	Type	Contacts	1-49	50-249	250-499	500-999	1000-2499
42F009	78-PF4-11	4	.48	.398	.343	.286	.254
42F010	78-PF5-11	5	.50	.414	.347	.298	.264
42F011	78-PF6-11	6	.51	.430	.361	.309	.274
42F012	78-PF7S-11	7S	.54	.447	.375	.321	.285
42F014	78-PF8-11	8	.50	.419	.352	.301	.268
42F015	78-PF9-11	9	.53	.440	.369	.316	.281
42F016	78-PF11-11	11	.57	.473	.397	.340	.302

"CP" PLUGS

Can be assembled in any one of the plug caps or receptacle shells. Ideal for use as chassis connectors, with plug-in units. Plugs with 4, 5, 6 and 7 contacts do not have center guide post. Current rating is 5 amps except (f) 3 amps. (*) Mica filled phenolic. Size: 1 1/4 x 1 1/2". Wt. 2 oz.



Stk. No.	Type	Contacts	1-49	50-249	250-499	500-999	1000-2499
42F030	86-CP4	4	.22	.181	.152	.130	.115
42F031	86-CP5	5	.22	.184	.155	.133	.118
42F032	86-CP6	6	.24	.198	.166	.143	.127
42F033	86-CP7S	7 small	.25	.205	.172	.148	.131
42F034	86-CP8	8 oct.	.24	.200	.168	.144	.128
42F035	86-CP8*	8	.25	.207	.174	.149	.132
42F036	86-CP9	9	.25	.207	.174	.149	.132
42F037	86-CP11	11	.26	.214	.180	.154	.137
42F038	86-CP12†	12	.26	.219	.184	.158	.140

STEEL MOUNTING SHELLS

Type 23-IS extends 1/16" above or below chassis. Mounts in 1 3/4" hole. 3 notch holes for #6 screws. Type 61-61 recesses 1/16" only. Mounts in 1 1/2" hole. Two 5/32" screw holes on 1/4" center. Shpg. wt. 5 oz.



Stock No.	Type	1-49	50-249	250-499	500-999	1000-2499
39F1242	23-IS	.26	.218	.183	.156	.139
39F1243	61-61	.14	.120	.101	.086	.077

RECEPTACLES AND PLUGS



Mount on or below panels, or with cable terminals. Rated 110 volts, 15 amps or 250 volts, 10 amps. Bakelite insulation. Retainer ring types require 1 1/4" hole. Mounting plate types require 1 3/2" hole & mounting centers, slotted 1 1/2" to 1 7/8"; recessed shell types require 1 3/4" hole with mounting centers, 1 3/4". Two pole female receptacles take standard or polarized plugs. Fig. A, with retainer ring, Fig. B, with removable mounting plate. Fig. C, with recessed shell. Fig. D, with shielded cable clamp. U.L. Approved. Av. shpg. wt., 3 oz.

Stk. No.	Type	Poles	Descrip.	Fig.	1-49	50-249	250-499	500-999	1000-2499
39F100	61-F	2	Fem. univ.	A	.37	.308	.258	.221	.196
39F101	60-F	3	Fem. Pol.	A	.48	.374	.314	.269	.239
39F102	61-M	2	Male Std.	A	.37	.310	.260	.223	.198
39F103	61-MP	2	Male Pol.	A	.35	.296	.248	.213	.189
39F104	60-M	3	Male Pol.	A	.52	.435	.365	.313	.278
39F110	61-F10	2	Fem. Univ.	C	.56	.472	.396	.339	.301
39F111	61-M10	2	Male Std.	C	.57	.473	.397	.340	.302
39F112	61-MP10	2	Male Pol.	C	.51	.480	.403	.345	.304
39F105	61-F1	2	Fem. Univ.	B	.44	.369	.310	.265	.235
39F106	60-F1	3	Fem. Pol.	B	.52	.433	.364	.311	.276
39F107	61-M1	2	Male Std.	B	.46	.388	.326	.279	.248
39F108	61-MP1	2	Male Pol.	B	.43	.357	.300	.256	.226
39F109	60-M1	3	Male Pol.	B	.59	.494	.415	.355	.315
39F113	61-F11	2	Fem. Univ.	D	.58	.482	.404	.346	.307
39F114	61-M11	2	Male Std.	D	.58	.484	.406	.348	.309
39F115	61-MP11	2	Male Pol.	D	.56	.470	.394	.338	.297

39F116 Type 61-MP-61F. Molded in plate receptacle. Takes 2 pole plug. .40 .331 .277 .238 .211

MINIATURE CABLE CONNECTORS

For cables up to six conductors.

Bakelite elements are housed in cadmium plated brass shells. Plugs are 1/16" long. Chassis units mount on 1/4" centers.



SERIES 78 & 91

Stk. No.	Type	Fig.	Cont.	1-24	25-99	100-249	250-499	500-999
39F080	91-MPP3L	E	3	.47	.393	.330	.283	.251
39F082	91-MPM3L	F	3	.42	.350	.293	.251	.223
39F084	91-MPM5L	F	5	.44	.369	.310	.265	.235
39F081	91-MPP4L	E	4	.49	.409	.343	.294	.261
39F083	91-MPM4L	F	4	.43	.360	.302	.259	.230
39F085	91-MPM6L	F	6	.47	.390	.327	.280	.249

Stk. No.	Type	Fig.	Cont.	1-49	50-249	250-499	500-999	1000-2499
39F090	78-PCG3	G	3	.30	.247	.207	.178	.158
39F092	78-PCG5	G	5	.37	.306	.257	.220	.195
39F091	78-PCG4	G	4	.33	.275	.231	.198	.175
39F093	78-PCG6	G	6	.38	.315	.264	.228	.201

RECTANGULAR PLUGS AND SOCKETS

Molded of black bakelite with molded-in mounting plate. Type 70-26 is plug; 77-26 is a socket. Wt., 3 oz.



Stk. No.	Type	Pins	1-49	50-249	250-499	500-999	1000-2499
39F165	70-26	4	.15	.124	.104	.089	.079
39F166	77-26	4	.26	.219	.184	.158	.140

2-POLE GROUNDING TYPE RECEPTACLES AND PLUGS



Rated 15 amps, 110 volts. Mtg. Ctr. A mount in 1 3/2" dia. center hole and two 5/32" holes on 1 1/2" to 1 5/8" centers. Mtg. Ctr. B mount in 1 1/4" hole; two 5/32" screw holes on 1 3/4" centers. Mtg. Ctr. C 1/2" I.D. grommet or clamp to 3/8" O.D. Mtg. Ctr. D meets MIL-M-14F req. Mount in 1 1/4" keyed hole. Wt. 3 oz. * w/Grommet. † w/Clamp.

Stk. No.	Type	Description	Mtg. Ctr.	1-24	25-99	100-249	250-499	500-999
39F1230	160-2	Fem. MIP	A	.93	.78	.654	.560	.497
39F1231	160-3	Male MIP	A	1.10	.92	.772	.661	.587
39F1232	160-4	Fem. Flush Mtr.	B	1.08	.90	.758	.649	.576
39F1233	160-5	Male Flush Mtr.	B	1.25	1.05	.880	.754	.669
39F1234	160-6	Fem. Sh'd	C	.98	.83	.685	.586	.521
39F1235	160-7	Male Sh'd	C	1.14	.95	.797	.683	.606
39F1236	160-8	Fem. Sh'd	C	1.06	.88	.740	.634	.563
39F1237	160-9	Male Sh'd	C	1.22	1.00	.853	.730	.648
39F1238	160-10	Fem. Insert	D	.85	.71	.596	.510	.453
39F1239	160-11	Male Insert	D	1.01	.85	.710	.608	.539

"MS" Connector Insert Contact Arrangements

Each insert is available with all male or female contacts. Contacts are non-rotating with all solder cups aligned for maximum wiring speed. Contact sizes correspond in number coding to wire sizes. Meet MIL-C-5015.

CURRENT RATING:

Contact Size	20	16	12	8	4	0
Amperes	10	23	41	73	135	245

ALTERNATE INSERT POSITIONS—

(H) W, X, Y, or Z	(L) X or Y	(N) W or Z
(J) W, X, or Y	(M) X	(P) W or Y
(K) W, Y, or Z		

1 Contact	2 Contacts (Con't.)	2 Contacts (Con't.)	3 Contacts (Con't.)	4 Contacts (Con't.)	5 Contacts (Con't.)	5 Contacts (Con't.)	7 Contacts
85-1 (A)	145-9 (A-H)	28-7 (D-H)	22-2 (D-H)	18-13 (A-H)	165-8 (A-L)	36-2 (D)	165-1 (A-N)
10S-2 (A)	165-4 (D-H)	32-5 (D-H)	22-6 (D-H)	18-15 (A-L)	18-11 (A-L)	145-6 (Inst.)	18-9 (Inst.-H)
125-4 (D)	16-11 (A-H)	3 Contacts	22-9 (E-H)	20-4 (D-H)	18-20 (A-J)	18-12 (A-N)	20-15 (A-N)
12-5 (D)	16-13 (A-H)	10SL-3 (A)	22-21 (A-H)	20-20 (A-H)	18-29 (A-J)	20-8 (Inst.-H)	22-26
14-3 (A)	18-3 (D-H)	145-1 (A)	24-14 (A-H)	20-24 (A-H)	20-14 (A-H)	20-17 (A-J)	22-28 (A-N)
145-4 (D)	18-14 (A-H)	145-7 (A)	28-3 (E-H)	22-4 (A-H)	22-12 (D-H)	20-22 (A-H)	22-29 (A-H)
16-2 (E)	18-404	165-5 (A-H)	28-6 (D-H)	22-10 (E-A)	22-13 (D, A-H)	22-5 (D-H)	22-23 (D, A, -H)
165-3 (B)	20-5 (E-H)	165-6 (A-J)	36-4 (D, A-H)	22-22 (A-L)	22-34 (D-H)	22-15 (E, A, -H)	24-2 (D-H)
16-12 (A)	20-12 (A-H)	16-7 (A)	4 Contacts	24-4 (D-H)	24-12 (A-H)	22-24 (D, A, -H)	24-3 (D-H)
18-6 (D)	20-23 (A-H)	16-10 (A)	125L-844	24-22 (D-J)	24-17 (D-H)	28-22 (D-H)	24-10 (A-N)
18-7 (B)	22-1 (D-H)	18-5 (D-H)	145-2 (Inst.)	24-23 (D-H)	24-23 (D-H)	22-24 (D, A, -H)	24-16 (D, A, -H)
18-16 (C)	22-3 (D-H)	18-22 (D-H)	16-9 (A)	24-22 (D-J)	24-12 (A-H)	28-5 (D-H)	24-27 (E-N)
18-420	22-8 (E-H)	20-3 (D-H)	18-4 (D-H)	32-17 (D-J)	24-17 (D-H)	32-1 (E, D-H)	28-10 (D, A-H)
20-2 (D)	22-11 (B-H)	20-6 (D-H)	18-10 (A-L)	36-5 (A-L)	32-1 (E, D-H)	36-3 (D-H)	32-10 (B, D, A, E-H)
22-7 (E)	24-1 (D-H)	20-19 (A-J)		5 Contacts	32-2 (E-H)	36-6 (A-H)	
24-835	24-9 (A-H)			145-5 (Inst.-M)			
2 Contacts							
10SL-4 (A)							
125-3 (A-H)							
125-6							

"MS" Connector Insert Contact Arrangements

Service—Limiting Operating Voltages @ Sea Level

	Inst.	A	D	E	B	C
DC	250	700	1250	1750	2450	4200
AC (rms)	200	500	900	1250	1750	3000



20 16 12 8 4 0 COAXIAL

CODE OF WIRE SIZES



IRON CONSTANTAN

8 Contacts	9 Contacts (Con't.)	11 Contacts (Con't.)	14 Contacts (Con't.)	16 Contacts	23 Contacts	30 Contacts	47 Contacts
18-8 (A-N)	22-20 (A-H)	28-14 (D-H)	28-20 (A-H)	24-5 (A-H)	32-6 (A-H)	32-8 (A-H)	36-7 (A-H)
20-7 (D, A-H)	22-27 (D, A-K)	12 Contacts	32-4 (A, D-H)	24-7 (A-H)	32-13 (D-H)	40-1 (D-H)	36-8 (A-H)
20-9 (D, A-H)	24-11 (A-H)	24-19	32-9 (D-H)	36-14 (D-J)	40-2 (B, D-H)	31 Contacts	40-9 (A-H)
22-18 (A-H)	28-1 (D, A-H)	28-8 (A, D, E-H)	32-102 (A, C, D-H)	17 Contacts	40-3 (D-H)	36-9 (A-H)	40-9 (A-H)
22-23 (D, A-P)	28-4 (D, E-H)	28-9 (D-H)	32-101 (D-H)	20-29 (A-N)	40-4 (D-H)	35 Contacts	48 Contacts
22-36 (D, A-P)	32-3 (D-H)	28-18 (Inst., A, C, D-H)	28-17 (A, B, D-H)	36-13 (A, E-H)	40-3 (D-H)	28-15 (A-H)	36-10 (A-H)
22-404	10 Contacts	32-101 (D-H)	15 Contacts	19 Contacts	40-4 (D-H)	36-15 (A, D-H)	52 Contacts
24-6 (D, A-H)	18-1 (A, Inst.)	13 Contacts	32-12 (A, D, -H)	22-14 (A-H)	24 Contacts	37 Contacts	32-414 (A)
32-15 (D-H)	18-19 (A)	20-11 (Inst.)	36-405	20 Contacts	24-28 (Inst.-H)	28-21 (A-H)	36-403 (A)
9 Contacts	24-21 (D)	14 Contacts	36-407	28-16 (A-H)	26 Contacts	36-406 (A)	36-403 (A)
20-16 (A-H)	28-19 (A, B, D)	20-27 (Inst., A-H)	40-5 (A-H)	22 Contacts	28-12 (A-J)	29 Contacts	36-404 (A)
20-18 (A-H)	11 Contacts	22-19 (A-H)	40-5 (A-H)	28-11 (A-H)	42 Contacts	44-1 (D-H)	
22-16 (A-H)	20-33 (A)	28-2 (D-H)	40-5 (A-H)	36-1 (D-H)			
22-21 (A-H)	24-20 (D-H)						
22-17 (D, A-H)							



Amphenol "MS" & Miniature Connectors



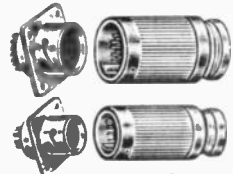
AMPHENOL 67 SERIES MINNI "E" MINIATURE CONNECTORS

Amphenol's 67 Series of MINNI "E" connectors quick-disconnect, multi-contact, miniature bayonet lock types. First miniature connectors to fully meet the "E" requirements of MIL-C-5015. MINNI "E" Connectors are available as Plugs, Cable and Panel Receptacles and Single Hole

Mounting Receptacles in four constructions, five shell sizes and 17 insert arrangements. Positive locking action. Type P construction for potting. Disposable polyethylene potting form. Type E has unitized grommet/clamp individually sealing conductor at back.

Shell Insert	67-01			67-02			67-03			67-06					
	E			P			E			E			P		
	1-24	25-99	100-199	1-24	25-99	100-199	1-24	25-99	100-199	1-24	25-99	100-199	1-24	25-99	100-199
12-60S	10.44	9.14	7.83	8.28	7.25	6.21	6.30	5.51	4.73	13.24	11.59	9.93	10.02	8.77	7.52
14-9S	10.02	8.77	7.52	7.76	6.79	5.82	6.48	5.67	4.86	7.00	6.13	5.25	10.14	8.87	7.61
14-12P	8.70	7.61	6.53	6.66	5.83	5.00	5.34	4.67	4.01	5.86	5.13	4.40	8.48	7.42	6.36
14-12S	10.14	8.87	7.61	8.10	7.09	6.08	7.14	6.25	5.36	7.66	6.70	5.75	9.92	8.68	7.44
18-24P	10.38	9.08	7.79	7.46	6.53	5.60	6.60	5.78	4.95	7.16	6.27	5.37	10.38	9.08	7.79
18-24S	13.82	12.09	10.37	10.90	9.54	8.18	9.92	8.68	7.44	10.52	9.21	7.89	13.82	12.09	10.37
18-64P	11.06	9.68	8.30	8.48	7.42	6.36	7.08	6.20	5.31	7.66	6.70	5.75	11.06	9.68	8.30
18-64S	12.04	10.54	9.03	9.46	8.28	7.10	8.12	7.11	6.09	8.70	7.61	6.53	12.04	10.54	9.03
20-37P	13.76	12.04	10.32	11.28	9.87	8.46	11.08	9.70	8.31	11.84	10.36	8.88	13.80	12.08	10.35
20-37S	18.62	16.29	13.97	16.22	14.19	12.17	14.58	12.76	10.94	15.38	13.46	11.54	18.66	16.33	14.00
22-48P	13.76	12.04	10.32	12.54	10.97	9.41	11.82	10.34	8.87	13.34	11.67	10.01	13.48	11.80	10.11
22-48S	19.86	17.38	14.90	18.64	16.31	13.98	17.66	15.45	13.25	19.18	16.78	14.39	19.58	17.13	14.69

AMPHENOL 165 SERIES MINIATURE MS TYPE CONNECTORS



Size	Small	Large
Plug diameter	5/16"	19/32"
Recept. mtg. ctrs.	29/32"	9/8"
Plug length	2 3/8"	2 3/4"
Cable opening	3/8"	21/32"
Recept. flange	1 1/8"	1 1/2"
Mounting hole	1 1/8"	1 1/2"

165 Series. The 165 series are pressure-proof and completely waterproof, mated or apart. Weights average about one third that of standard "MS" connectors. Withstand government salt-spray tests by many hours in excess of standards. Extremely efficient in operation, the contacts are bronze, gold plated over silver. Features built-in cable clamp. Av. Shpg. wt., 3 oz.

No.	Type	Description	Contacts @ AWG	1-49	50-99
38F300	165-9	Sml. plug	12-#20 male	4.08	3.25
38F301	165-10	Sml. plug	12-#20 female	6.08	4.84
38F302	165-11	Sml. recept.	12-#20 male	3.07	2.44
38F303	165-12	Sml. recept.	12-#20 female	5.04	4.00

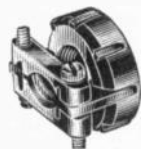
No.	Type	Description	Contacts @ AWG	1-49	50-99
38F304	165-13	Sml. plug	9-#20 - male	3.87	3.09
38F305	165-14	Sml. plug	9-#20 - fem.	5.95	4.74
38F306	165-15	Sml. recept.	9-#20 - male	2.87	2.28
38F307	165-16	Sml. recept.	9-#20 - fem.	3.67	2.93
38F308	165-17	Lge. plug	7-#20 4-#16 male	5.42	4.31
38F309	165-18	Lge. plug	7-#20 4-#16 fem.	6.63	5.28
38F310	165-19	Lge. recept.	7-#20 4-#16 male	3.42	2.72
38F311	165-20	Lge. recept.	7-#20 4-#16 fem.	4.61	3.67
38F312	165-21	Lge. plug	24-#20 - male	6.41	5.10
38F313	165-22	Lge. plug	24-#20 - fem.	8.42	6.70
38F314	165-23	Lge. recept.	24-#20 - male	4.42	3.53
38F315	165-24	Lge. recept.	24-#20 - fem.	6.41	5.10
38F316	165-25	Lge. plug	14-#16 - male	5.53	4.40
38F317	165-26	Lge. plug	14-#16 - fem.	7.68	6.12
38F318	165-27	Lge. recept.	14-#16 - male	3.56	2.84
38F319	165-28	Lge. recept.	14-#16 - fem.	5.68	4.52
38F320	165-29	Sml. plug	5-#20 - male	3.73	2.94
38F321	165-30	Sml. plug	5-#20 - fem.	5.05	4.03
38F322	165-31	Sml. recept.	5-#20 - male	2.64	2.11
38F323	165-32	Sml. recept.	5-#20 - fem.	3.20	2.54

"MS" CONNECTORS

Amphenol "MS" connectors approved under Specification MIL-C-5015-D. Connectors built to this new specification mate with connectors built to previous specs. Connectors and fittings will be furnished in olive drab finish as required by current military specs. Alternate insert positions available from stock, special insert materials and finishes are available on special order. By referring to the illustrations and the type descriptions at right, the correct number may be located to properly mate an existing connector or for a new application. Av. Shpg. wt. 3 oz.

Newark can supply the Amphenol "MS" connectors for potting, as well as the pressurized, fireproof and explosion-proof types. Literature and prices on request.

CABLE CLAMP AND BOOT



MS3057-A Series. Clamp gives aid to cable at plug or receptacle. Relieves strain placed on soldered connections. Made of die-cast aluminum, insuring strength and light weight. Both sides of cable clamp move, automatically center cable. Includes AN3420 boot for added cable support. For small O.D. cables, additional AN3420 boots may be used. Shpg. wt. 1 1/2 oz.

Part No.	Fits Connector Size	100-999			
		1-49	50-99	100-199	100-999
MS3057-4A	10SL, 12, 12S	.69	.62	.55	.45
MS3057-6A	12SL, 14, 14S	.69	.62	.55	.45
MS3057-8A	16, 16S	.72	.63	.58	.46
MS3057-10A	18	.79	.69	.62	.52
MS3057-12A	20, 22	.87	.77	.68	.56
MS3057-16A	24, 28	1.18	1.02	.92	.76
MS3057-20A	32	1.39	1.21	1.07	.89
MS3057-24A	36	1.79	1.46	1.29	1.15

Plug Dust Cap	1-49	50-99	100-999	Fits Conn. Size	1-49			50-99		
					1-49	50-99	100-999	1-49	50-99	100-999
9760-10P	.75	.63	.59	10S, 10SL	9760-10	.50	.41	.33		
9760-12P	.83	.69	.55	12, 12S, 12SL	9760-12	.56	.46	.37		
9760-14P	.95	.79	.63	14, 14S	9760-14	.60	.50	.40		
9760-16P	1.08	.90	.72	16, 16S	9760-16	.66	.55	.44		
9760-18P	1.11	.93	.74	18	9760-18	.78	.65	.52		
9760-20P	1.14	.95	.76	20	9760-20	.86	.71	.57		
9760-22P	1.43	1.19	.95	22	9760-22	.98	.81	.75		
9760-24P	1.71	1.43	1.14	24	9760-24	1.14	.95	.76		
9760-28P	1.80	1.50	1.20	28	9760-28	1.37	1.14	.91		
9760-32	2.64	2.20	1.76	32	9760-32	1.59	1.32	1.06		
9760-36P	2.73	2.28	1.82	36	9760-36	1.76	1.46	1.17		

97-3057-10-6	Step down cable clamp for size 18 connector.	1-49	50-99	100-999	100-999
		.77	.64	1.00	1.51
97-3057-12-6	Step down cable clamp for size 20 and 22 connectors.	1-49	50-99	100-999	100-999
		.81	.68	1.00	1.54

TELESCOPING BOOTS



AN3420 Series. Neoprene boot weather & dust proofs cable clamp. Telescoping boots reduce clamp I.D. for pos. grip & strain relief of smaller cables. 1/4 oz.

Part No.	1-9	100-999		
		10-49	50-99	100-999
AN3420-3	.09	.08	.07	.06
AN3420-4	.09	.08	.07	.06
AN3420-6	.10	.09	.08	.07
AN3420-8	.12	.09	.08	.07
AN3420-10	.15	.12	.11	.10
AN3420-12	.15	.12	.11	.10
AN3420-16	.19	.15	.14	.12
AN3420-20	.28	.23	.20	.18

ECONOMY CABLE CLAMPS

Cable Clamp	Fits Connector Size	100-999			Cable Clamp	Fits Connector Size	100-999			Water Proof Cable Clamp	100-999		
		1-49	50-99	100-999			1-49	50-99	100-999		1-49	50-99	100-999
3057-3	8, 10S	.56	.48	.37	3057-12	20, 22	.75	.63	.50				
3057-4	10SL, 12, 12S	.57	.48	.38	3057-16	24, 28	.92	.76	.61				
3057-6	12SL, 14, 14S	.57	.48	.38	3057-20	32	1.13	.94	.75	9767-6	.68	.56	.45
3057-8	16, 16S	.59	.49	.39	3057-24	36	1.56	1.20	1.04	9767-8	.69	.58	.46
3057-10	18	.71	.59	.47	3057-28	40	1.94	1.61	1.29	9767-10	.87	.73	.58
					3057-32	44	2.33	1.94	1.55				

Amphenol "MS" Connectors



3100A

3101A

3102A

3106A

3106B

FOR RIGHT ANGLE PLUGS
MS-3108A -3108B SEE
END OF THIS LISTING

Shell Insert	MS/3100				MS/3101				MS/3102				MS/3106							
	A				A				A				A				B			
	1-9	10-49	50-99	100-999	1-9	10-49	50-99	100-999	1-9	10-49	50-99	100-999	1-9	10-49	50-99	100-999	1-9	10-49	50-99	100-999
8S-1P	1.31	1.09	.97	.87	1.26	1.05	.93	.84	.84	.70	.62	.56	1.14	.95	.84	.76	.....	.....	.....	.....
8S-1S	1.29	1.08	.95	.86	1.25	1.04	.92	.83	.83	.69	.61	.55	1.13	.94	.83	.75	.....	.....	.....	.....
10S-2P	1.16	.96	.85	.77	.99	.83	.73	.66	.59	.49	.43	.39	1.01	.84	.74	.67	.....	.....	.....	.....
10S-2S	1.16	.96	.85	.77	.99	.83	.73	.66	.59	.49	.43	.39	1.01	.84	.74	.67	.....	.....	.....	.....
10SL-3P	1.01	.84	.74	.67	.96	.80	.71	.64	.71	.59	.52	.47	.....	.....	.....	.....	.....	.....	.....	.....
10SL-3S	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.98	.81	.72	.65	.....	.....	.....	.....
10SL-4P	.93	.78	.69	.62	.87	.73	.64	.58	.63	.53	.47	.42	.....	.....	.....	.....	.....	.....	.....	.....
10SL-4S	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.95	.79	.70	.63	.....	.....	.....	.....
12S-1P	1.04	.86	.77	.69	1.16	.96	.85	.77	.66	.55	.49	.44	1.10	.91	.81	.73	.....	.....	.....	.....
12S-1S	1.10	.91	.81	.73	1.20	1.00	.89	.80	.71	.59	.52	.47	1.14	.95	.84	.76	.....	.....	.....	.....
12S-3P	.96	.80	.71	.64	1.08	.90	.80	.72	.59	.49	.43	.39	1.01	.84	.74	.67	.....	.....	.....	.....
12S-3S	1.01	.84	.74	.67	1.13	.94	.83	.75	.63	.53	.47	.42	1.05	.88	.78	.70	.....	.....	.....	.....
12S-4P	1.04	.86	.77	.69	1.16	.96	.85	.77	.66	.55	.49	.44	1.10	.91	.81	.73	.....	.....	.....	.....
12S-4S	1.01	.84	.74	.67	1.13	.94	.83	.75	.63	.53	.47	.42	1.05	.88	.78	.70	.....	.....	.....	.....
12S-6P	3.25	2.71	2.41	2.17	3.36	2.80	2.49	2.24	2.87	2.39	2.12	1.91	3.30	2.75	2.44	2.20	.....	.....	.....	.....
12S-6S	3.44	2.86	2.54	2.29	3.56	2.96	2.63	2.24	3.06	2.55	2.26	2.04	3.48	2.90	2.58	2.32	.....	.....	.....	.....
12SL-844P	.....	.....	.....	.....	.....	.....	.....	.....	1.32	1.10	.98	.88	.....	.....	.....	.....	.....	.....	.....	.....
12SL-844S	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2.45	2.04	1.81	1.63	.....	.....	.....	.....
12-5P	1.17	.98	.87	.78	1.32	1.10	.98	.88	.71	.59	.52	.47	1.17	.98	.87	.78	.....	.....	.....	.....
12-5S	1.35	1.13	1.00	.90	1.50	1.25	1.11	1.00	.89	.74	.65	.59	1.35	1.13	1.00	.90	.....	.....	.....	.....
14S-1P	1.05	.88	.78	.70	1.28	1.06	.94	.85	.68	.56	.50	.45	1.13	.94	.83	.75	1.41	1.18	1.04	.94
14S-1S	1.11	.93	.82	.74	1.32	1.10	.98	.88	.72	.60	.53	.48	1.17	.98	.87	.78	1.46	1.21	1.08	.97
14S-2P	1.05	.88	.78	.70	1.28	1.06	.94	.85	.68	.56	.50	.45	1.13	.94	.83	.75	1.41	1.18	1.04	.94
14S-2S	1.16	.96	.85	.77	1.37	1.14	1.01	.91	.78	.65	.58	.52	1.22	1.01	.90	.81	1.50	1.25	1.11	1.00
14S-4P	.99	.83	.73	.66	1.20	1.00	.89	.80	.62	.51	.46	.41	1.05	.88	.78	.70	1.34	1.11	.99	.89
14S-4S	1.02	.85	.75	.68	1.25	1.04	.92	.83	.65	.54	.48	.43	1.10	.91	.81	.73	1.37	1.14	1.01	.91
14S-5P	1.19	.99	.88	.79	1.41	1.18	1.04	.94	.81	.68	.60	.54	1.26	1.05	.93	.84	1.53	1.28	1.13	1.02
14S-5S	1.22	1.01	.90	.81	1.44	1.20	1.07	.96	.84	.70	.62	.56	1.29	1.08	.95	.86	1.58	1.31	1.17	1.05
14S-6P	1.31	1.09	.97	.87	1.52	1.26	1.12	1.01	.93	.78	.69	.62	1.37	1.14	1.01	.91	1.65	1.38	1.22	1.10
14S-6S	1.31	1.09	.97	.87	1.52	1.26	1.12	1.01	.93	.78	.69	.62	1.37	1.14	1.01	.91	1.65	1.38	1.22	1.10
14S-7P	1.05	.88	.78	.70	1.28	1.06	.94	.85	.68	.56	.50	.45	1.13	.94	.83	.75	1.41	1.18	1.04	.94
14S-7S	1.11	.93	.82	.74	1.32	1.10	.98	.88	.72	.60	.53	.48	1.17	.98	.87	.78	1.46	1.21	1.08	.97
14S-9P	1.01	.84	.74	.67	1.22	1.01	.90	.81	.63	.53	.47	.42	1.08	.90	.80	.72	1.35	1.13	1.00	.90
14S-9S	1.04	.86	.77	.69	1.26	1.05	.93	.84	.66	.55	.49	.44	1.11	.93	.82	.74	1.38	1.15	1.02	.92
14S-10P	1.14	.95	.84	.76	1.35	1.13	1.00	.90	.77	.64	.57	.51	1.20	1.00	.89	.80	1.49	1.24	1.10	.99
14S-10S	1.25	1.04	.92	.83	1.46	1.21	1.08	.97	.86	.71	.63	.57	1.31	1.09	.97	.87	1.59	1.33	1.18	1.06
16S-1P	1.31	1.09	.97	.87	1.47	1.23	1.09	.98	.89	.74	.65	.59	1.37	1.14	1.01	.91	1.67	1.39	1.23	1.11
16S-1S	1.38	1.15	1.02	.92	1.55	1.29	1.14	1.03	.98	.81	.72	.65	1.46	1.21	1.08	.97	1.76	1.46	1.30	1.17
16S-3S	1.16	.96	.85	.77	1.32	1.10	.98	.88	.75	.63	.56	.50	1.22	1.01	.90	.81	1.52	1.26	1.12	1.01
16S-4P	1.22	1.01	.90	.81	1.38	1.15	1.02	.92	.81	.68	.60	.54	1.29	1.08	.95	.86	1.59	1.33	1.18	1.06
16S-4S	1.26	1.05	.93	.84	1.43	1.19	1.05	.95	.84	.70	.62	.56	1.32	1.10	.98	.88	1.62	1.35	1.20	1.08
16S-5P	1.22	1.01	.90	.81	1.38	1.15	1.02	.92	.81	.68	.60	.54	1.29	1.08	.95	.86	1.59	1.33	1.18	1.06
16S-5S	1.29	1.08	.95	.86	1.46	1.21	1.08	.97	.87	.73	.64	.58	1.35	1.13	1.00	.90	1.65	1.38	1.22	1.10
16S-6P	1.31	1.09	.97	.87	1.47	1.23	1.09	.98	.89	.74	.65	.59	1.37	1.14	1.01	.91	1.67	1.39	1.23	1.11
16S-6S	1.35	1.13	1.00	.90	1.52	1.26	1.12	1.01	.95	.79	.70	.63	1.43	1.19	1.05	.95	1.71	1.43	1.27	1.14
16S-8P	1.26	1.05	.93	.84	1.43	1.19	1.05	.95	.84	.70	.62	.56	1.32	1.10	.98	.88	1.62	1.35	1.20	1.08
16S-8S	1.32	1.10	.98	.88	1.49	1.24	1.10	.99	.92	.76	.68	.61	1.38	1.15	1.02	.92	1.68	1.40	1.24	1.12
16S-15P	1.31	1.09	.97	.87	1.47	1.23	1.09	.98	.89	.74	.65	.59	1.37	1.14	1.01	.91	1.67	1.39	1.23	1.11
16S-15S	1.34	1.11	.99	.89	1.50	1.25	1.11	1.00	.93	.78	.69	.62	1.41	1.18	1.04	.94	1.70	1.41	1.25	1.13
18-2P	1.20	1.00	.89	.80	1.44	1.20	1.07	.96	.81	.68	.60	.54	1.41	1.18	1.04	.94	.....	.....	.....	.....
18-2S	1.37	1.14	1.01	.91	1.61	1.34	1.19	1.07	.98	.81	.72	.65	1.58	1.31	1.17	.94	.....	.....	.....	.....
18-7P	1.53	1.28	1.13	1.02	1.77	1.48	1.31	1.18	1.14	.95	.84	.76	1.74	1.45	1.29	1.16	.....	.....	.....	.....
18-7S	1.68	1.40	1.24	1.12	1.92	1.60	1.42	1.28	1.29	1.08	.95	.86	1.88	1.56	1.39	1.25	.....	.....	.....	.....
18-9P	1.38	1.15	1.02	.92	1.62	1.35	1.20	1.08	.99	.83	.73	.66	1.59	1.33	1.18	1.06	.....	.....	.....	.....
18-9S	1.47	1.23	1.09	.98	1.70	1.41	1.25	1.13	1.08	.90	.80	.72	1.67	1.39	1.23	1.11	.....	.....	.....	.....
18-10P	1.31	1.09	.97	.87	1.53	1.28	1.13	1.02	.92	.76	.68	.61	1.50	1.25	1.11	1.00	.....	.....	.....	.....
18-10S	1.55	1.29	1.14	1.03	1.79	1.49	1.32	1.19	1.16	.96	.85	.77	1.76	1.46	1.30	1.17	.....	.....	.....	.....
18-11P	1.19	.99	.88	.79	1.43	1.19	1.05	.95	.80	.66	.59	.53	1.38	1.15	1.02	.92	.....	.....	.....	.....
18-11S	1.38	1.15	1.02	.92	1.62	1.35	1.20	1.08	.99	.83	.73	.66	1.59	1.33	1.18	1.06	.....	.....	.....	.....
18-12P	1.59	1.33	1.18	1.06	1.82	1.51	1.34	1.21	1.19	.99	.88	.79	1.79	1.49	1.32	1.19	.....	.....	.....	.....
18-13P	3.62	3.01	2.68	2.41	3.84	3.20	2.84	2.56	3.23	2.69	2.39	2.15	3.81	3.18	2.82	2.54	.....	.....	.....	.....
18-13S	4.23	3.53	3.13	2.82	4.46	3.71	3.30	2.97	3.83	3.19	2.83	2.55	4.43	3.69	3.27	2.95	.....	.....	.....	.....
18-1P	1.65	1.38	1.22	1.10	1.94	1.61	1.43	1.29	1.17	.98	.87	.78	1.83	1.53	1.35	1.22	2.27	1.89	1.68	1.51
18-1S	1.86	1.55	1.38	1.24	2.15	1.79	1.59	1.43	1.38	1.15	1.02	.92	2.04	1.70	1.51	1.36	2.48	2.06	1.83	1.65
18-3P	1.32	1.10	.98	.88	1.61	1.34	1.19	1.07	.84	.70	.62	.56	1.50	1.25	1.11	1.00	1.94	1.61	1.43	1.29
18-3S	1.55	1.29	1.14	1.03	1.83	1.53	1.35	1.22	1.08	.90	.80	.72	1.74	1.45	1.29	1.16	2.16	1.80	1.60	1.44
18-4P	1.35	1.13	1.00	.90	1.64	1.36	1.21	1.09	.87	.73	.64									



Amphenol "MS" Conectors

CONTINUED FROM PRECEDING PAGE

SEE END OF LISTING FOR RIGHT ANGLE PLUGS

Shell Insert	MS/3100 A				MS/3101 A				MS/3102 A				MS/3106							
	1-99	10-49	50-99	100-999	1-99	10-49	50-99	100-999	1-99	10-49	50-99	100-999	A				B			
	1-99	10-49	50-99	100-999	1-99	10-49	50-99	100-999	1-99	10-49	50-99	100-999	1-99	10-49	50-99	100-999	1-99	10-49	50-99	100-999
18-10S	1.88	1.56	1.39	1.25	2.16	1.80	1.60	1.44	1.41	1.18	1.04	.94	2.07	1.73	1.53	1.38	2.49	2.08	1.84	1.66
18-11P	1.67	1.39	1.23	1.11	1.95	1.63	1.44	1.30	1.19	.99	.88	.79	1.85	1.54	1.37	1.23	2.28	1.90	1.69	1.52
18-11S	1.86	1.55	1.38	1.24	2.15	1.79	1.59	1.43	1.38	1.15	1.02	.92	2.04	1.70	1.51	1.36	2.48	2.06	1.83	1.65
18-12P	1.58	1.31	1.17	1.05	1.85	1.54	1.37	1.23	1.10	.91	.81	.73	1.76	1.46	1.30	1.17	2.18	1.81	1.61	1.45
18-12S	1.71	1.43	1.27	1.14	2.00	1.66	1.48	1.33	1.25	1.04	.92	.83	1.91	1.59	1.41	1.27	2.33	1.94	1.72	1.55
18-13P	1.71	1.43	1.27	1.14	2.00	1.66	1.48	1.33	1.25	1.04	.92	.83	1.91	1.59	1.41	1.27	2.33	1.94	1.72	1.55
18-16P	1.52	1.26	1.12	1.01	1.80	1.50	1.33	1.20	1.04	.86	.77	.69	1.70	1.41	1.25	1.13	2.13	1.78	1.58	1.42
18-16S	1.79	1.49	1.32	1.19	2.07	1.73	1.53	1.38	1.31	1.09	.97	.87	1.97	1.64	1.45	1.31	2.40	2.00	1.78	1.60
18-18P	1.67	1.39	1.23	1.11	1.95	1.63	1.44	1.30	1.19	.99	.88	.79	1.85	1.54	1.37	1.23	2.28	1.90	1.69	1.52
18-18S	1.85	1.54	1.37	1.23	2.13	1.78	1.58	1.42	1.37	1.14	1.01	.91	2.03	1.69	1.50	1.35	2.46	2.05	1.82	1.64
18-19P	2.31	1.93	1.71	1.54	2.60	2.16	1.92	1.73	1.83	1.53	1.35	1.22	2.49	2.08	1.84	1.66	2.93	2.44	2.16	1.95
18-19S	2.09	1.74	1.54	1.39	2.36	1.96	1.74	1.57	1.61	1.34	1.19	1.07	2.27	1.89	1.68	1.51	2.69	2.24	1.99	1.79
18-20P	1.43	1.19	1.05	.95	1.70	1.41	1.25	1.13	.95	.79	.70	.63	1.61	1.34	1.19	1.07	2.03	1.69	1.50	1.35
18-20S	1.64	1.36	1.21	1.09	1.92	1.60	1.42	1.28	1.16	.96	.85	.77	1.82	1.51	1.34	1.21	2.25	1.88	1.67	1.50
18-22P	1.46	1.21	1.08	.97	1.74	1.45	1.29	1.16	.98	.81	.72	.65	1.64	1.36	1.21	1.09	2.07	1.73	1.53	1.38
18-22S	1.50	1.25	1.11	1.00	1.79	1.49	1.32	1.19	1.02	.85	.75	.68	1.68	1.40	1.24	1.12	2.12	1.76	1.57	1.41
18-23P	1.52	1.26	1.12	1.01	1.80	1.50	1.33	1.20	1.04	.86	.77	.69	1.70	1.41	1.25	1.13	2.13	1.78	1.58	1.42
18-23S	1.71	1.43	1.27	1.14	2.00	1.66	1.48	1.33	1.25	1.04	.92	.83	1.91	1.59	1.41	1.27	2.33	1.94	1.72	1.55
18-420P	2.67	2.23	1.98	1.78	3.09	2.58	2.29	2.06	2.49	2.08	1.84	1.66	3.41	2.84	2.52	2.27	3.77	3.14	2.79	2.51
18-420S	3.03	2.53	2.24	2.02	3.29	2.74	2.43	2.19	2.69	2.24	1.99	1.79	3.60	3.00	2.66	2.40	3.96	3.30	2.93	2.64
20-2P	2.00	1.66	1.48	1.33	2.28	1.90	1.69	1.52	1.55	1.29	1.14	1.03	2.30	1.91	1.70	1.53	2.52	2.30	1.86	1.68
20-2S	2.24	1.86	1.65	1.49	2.51	2.09	1.85	1.67	1.79	1.49	1.32	1.19	2.52	2.10	1.86	1.68	2.76	2.30	2.04	1.84
20-3P	1.61	1.34	1.19	1.07	1.88	1.56	1.39	1.25	1.16	.96	.85	.77	1.91	1.59	1.41	1.27	2.13	1.78	1.58	1.42
20-3S	2.04	1.70	1.51	1.36	2.33	1.94	1.72	1.55	1.61	1.34	1.19	1.07	2.34	1.95	1.73	1.56	2.58	2.15	1.91	1.72
20-4P	1.62	1.35	1.20	1.08	1.91	1.59	1.41	1.27	1.17	.98	.87	.78	1.92	1.60	1.42	1.28	2.15	1.79	1.59	1.43
20-4S	1.86	1.55	1.38	1.24	2.15	1.79	1.59	1.43	1.43	1.19	1.05	.95	2.16	1.80	1.60	1.44	2.40	2.00	1.78	1.60
20-5P	1.52	1.26	1.12	1.01	1.80	1.50	1.33	1.20	1.08	.90	.80	.72	1.82	1.51	1.34	1.21	2.04	1.70	1.51	1.36
20-5S	1.65	1.38	1.22	1.10	1.94	1.61	1.43	1.29	1.20	1.00	.89	.80	1.95	1.63	1.44	1.30	2.18	1.81	1.61	1.45
20-6P	1.49	1.24	1.10	.99	1.77	1.48	1.31	1.18	1.04	.86	.77	.69	1.79	1.49	1.32	1.19	2.01	1.68	1.49	1.34
20-6S	1.65	1.38	1.22	1.10	1.94	1.61	1.43	1.29	1.20	1.00	.89	.80	1.95	1.63	1.44	1.30	2.18	1.81	1.61	1.45
20-7P	1.62	1.35	1.20	1.08	1.91	1.59	1.41	1.27	1.17	.98	.87	.78	1.92	1.60	1.42	1.28	2.15	1.79	1.59	1.43
20-7S	1.83	1.53	1.35	1.22	2.12	1.76	1.57	1.41	1.38	1.15	1.02	.92	2.13	1.78	1.58	1.42	2.36	1.96	1.74	1.57
20-8P	1.95	1.63	1.44	1.30	2.24	1.86	1.65	1.49	1.50	1.25	1.11	1.00	2.25	1.88	1.67	1.50	2.48	2.06	1.83	1.65
20-8S	2.31	1.93	1.71	1.54	2.60	2.16	1.92	1.73	1.86	1.55	1.38	1.24	2.61	2.18	1.93	1.74	2.84	2.36	2.10	1.89
20-9P	1.95	1.63	1.44	1.30	2.24	1.86	1.65	1.49	1.50	1.25	1.11	1.00	2.25	1.88	1.67	1.50	2.48	2.06	1.83	1.65
20-9S	2.19	1.83	1.62	1.46	2.48	2.06	1.83	1.65	1.76	1.46	1.30	1.17	2.49	2.08	1.84	1.66	2.73	2.28	2.02	1.82
20-11P	2.09	1.74	1.54	1.39	2.36	1.96	1.74	1.57	1.64	1.36	1.21	1.09	2.37	1.98	1.75	1.58	2.61	2.18	1.93	1.74
20-11S	3.35	2.79	2.48	2.23	3.63	3.03	2.69	2.42	2.91	2.43	2.15	1.94	3.65	3.04	2.70	2.43	3.89	3.24	2.87	2.59
20-12P	1.88	1.56	1.39	1.25	2.16	1.80	1.60	1.44	1.44	1.20	1.07	.96	2.18	1.81	1.61	1.45	2.42	2.01	1.79	1.61
20-12S	1.79	1.49	1.32	1.19	2.07	1.73	1.53	1.38	1.34	1.11	.99	.89	2.09	1.74	1.54	1.39	2.31	1.93	1.71	1.54
20-15S	2.52	2.10	1.86	1.68	2.81	2.34	2.08	1.87	2.09	1.74	1.54	1.39	2.82	2.35	2.09	1.88	3.06	2.55	2.26	2.04
20-16P	1.76	1.46	1.30	1.17	2.03	1.69	1.50	1.35	1.31	1.09	.97	.87	2.04	1.70	1.51	1.36	2.28	1.90	1.69	1.52
20-16S	2.10	1.75	1.55	1.40	2.37	1.98	1.75	1.58	1.65	1.38	1.22	1.10	2.40	2.00	1.78	1.60	2.63	2.19	1.94	1.75
20-17P	1.95	1.63	1.44	1.30	2.24	1.86	1.65	1.49	1.50	1.25	1.11	1.00	2.25	1.88	1.67	1.50	2.48	2.06	1.83	1.65
20-17S	2.24	1.86	1.65	1.49	2.51	2.09	1.85	1.67	1.79	1.49	1.32	1.19	2.52	2.10	1.86	1.68	2.76	2.30	2.04	1.84
20-18P	1.98	1.65	1.47	1.32	2.27	1.89	1.68	1.51	1.53	1.28	1.13	1.02	2.28	1.90	1.69	1.52	2.51	2.09	1.85	1.67
20-18S	2.19	1.83	1.62	1.46	2.48	2.06	1.83	1.65	1.76	1.46	1.30	1.17	2.49	2.08	1.84	1.66	2.73	2.28	2.02	1.82
20-22P	2.27	1.89	1.68	1.51	2.54	2.11	1.88	1.69	1.82	1.51	1.34	1.21	2.57	2.14	1.90	1.71	2.79	2.33	2.06	1.86
20-22S	2.69	2.24	1.99	1.79	2.97	2.48	2.20	1.98	2.25	1.88	1.67	1.50	2.99	2.49	2.21	1.99	3.23	2.69	2.39	2.15
20-23P	1.82	1.51	1.34	1.21	2.10	1.75	1.55	1.40	1.37	1.14	1.01	.91	2.12	1.76	1.57	1.41	2.34	1.95	1.73	1.56
20-23S	2.18	1.81	1.61	1.45	2.46	2.05	1.82	1.64	1.74	1.45	1.29	1.16	2.48	2.06	1.83	1.65	2.70	2.25	2.00	1.80
20-24P	1.95	1.63	1.44	1.30	2.24	1.86	1.65	1.49	1.50	1.25	1.11	1.00	2.25	1.88	1.67	1.50	2.48	2.06	1.83	1.65
20-24S	2.33	1.94	1.72	1.55	2.61	2.18	1.93	1.74	1.88	1.56	1.39	1.25	2.63	2.19	1.94	1.75	2.85	2.38	2.11	1.90
20-27P	1.83	1.53	1.35	1.22	2.12	1.76	1.57	1.41	1.38	1.15	1.02	.92	2.13	1.78	1.58	1.42	2.36	1.96	1.74	1.57
20-27S	2.18	1.81	1.61	1.45	2.46	2.05	1.82	1.64	1.74	1.45	1.29	1.16	2.48	2.06	1.83	1.65	2.70	2.25	2.00	1.80
20-29P	1.98	1.65	1.47	1.32	2.27	1.89	1.68	1.51	1.53	1.28	1.13	1.02	2.28	1.90	1.69	1.52	2.51	2.09	1.85	1.67
20-29S	2.40	2.00	1.78	1.60	2.67	2.23	1.98	1.78	1.95	1.63	1.44	1.30	2.69	2.24	1.99	1.79	2.93	2.44	2.16	1.95
20-33P	2.00	1.66	1.48	1.33	2.28	1.90	1.69	1.52	1.55	1.29	1.14	1.03	2.30	1.91	1.70	1.53	2.52	2.10	1.86	1.68
20-33S	2.19	1.83	1.62	1.46	2.48	2.06	1.83	1.65	1.76	1.46	1.30	1.17	2.49	2.08	1.84	1.66	2.73	2.28	2.02	1.82
22-1P	2.00	1.66	1.48	1.33	2.18	1.81	1.61	1.45	1.44	1.20	1.07	.96	2.36	1.96	1.74	1.57	2.63	2.19	1.94	1.75
22-1S	2.42	2.01	1.79	1.61	2.60	2.16	1.92	1.73	1.85</											

Amphenol "MS" Connectors



Shell Insert	MS/3100				MS/3101				MS/3102				MS/3106							
	A				A				A				A				B			
	1-9	10-49	50-99	100-999	1-9	10-49	50-99	100-999	1-9	10-49	50-99	100-999	1-9	10-49	50-99	100-999	1-9	10-49	50-99	100-999
22-13S	2.19	1.83	1.62	1.46	2.37	1.98	1.75	1.58	1.64	1.36	1.21	1.09	2.57	2.14	1.90	1.71	2.82	2.35	2.09	1.88
22-14P	2.19	1.83	1.62	1.46	2.37	1.98	1.75	1.58	1.64	1.36	1.21	1.09	2.57	2.14	1.90	1.71	2.82	2.35	2.09	1.88
22-14S	2.63	2.19	1.94	1.75	2.81	2.34	2.08	1.87	2.07	1.73	1.53	1.38	2.99	2.49	2.21	1.99	3.26	2.71	2.41	2.17
22-15P	2.21	1.84	1.63	1.47	2.40	2.00	1.78	1.60	1.65	1.38	1.22	1.10	2.58	2.15	1.91	1.72	2.84	2.36	2.10	1.89
22-15S	2.63	2.19	1.94	1.75	2.81	2.34	2.08	1.87	2.07	1.73	1.53	1.38	2.99	2.49	2.21	1.99	3.26	2.71	2.41	2.17
22-16P	2.15	1.79	1.59	1.43	2.33	1.94	1.72	1.55	1.59	1.33	1.18	1.06	2.51	2.09	1.85	1.67	2.78	2.31	2.05	1.85
22-16S	2.42	2.01	1.79	1.61	2.60	2.16	1.92	1.73	1.85	1.54	1.37	1.23	2.78	2.31	2.05	1.85	3.03	2.53	2.24	2.02
22-17P	2.03	1.69	1.50	1.35	2.21	1.84	1.63	1.47	1.47	1.23	1.09	.98	2.40	2.00	1.78	1.60	2.66	2.21	1.96	1.77
22-17S	2.43	2.03	1.80	1.62	2.61	2.18	1.93	1.74	1.86	1.55	1.38	1.24	2.79	2.33	2.06	1.86	3.06	2.55	2.26	2.04
22-18P	1.88	1.56	1.39	1.25	2.07	1.73	1.53	1.38	1.32	1.10	.98	.88	2.25	1.88	1.67	1.50	2.51	2.09	1.85	1.67
22-18S	2.04	1.70	1.51	1.36	2.24	1.86	1.65	1.49	1.49	1.24	1.10	.99	2.42	2.01	1.79	1.61	2.67	2.23	1.98	1.78
22-19P	2.51	2.09	1.85	1.67	2.69	2.24	1.99	1.79	1.95	1.63	1.44	1.30	2.87	2.39	2.12	1.91	3.14	2.61	2.32	2.09
22-19S	2.49	2.08	1.84	1.66	2.67	2.23	1.98	1.78	1.94	1.61	1.43	1.29	2.85	2.38	2.11	1.90	3.12	2.60	2.31	2.08
22-20P	1.95	1.63	1.44	1.30	2.13	1.78	1.58	1.42	1.38	1.15	1.02	.92	2.31	1.93	1.71	1.54	2.58	2.15	1.91	1.72
22-20S	2.33	1.94	1.72	1.55	2.51	2.09	1.85	1.67	1.77	1.48	1.31	1.18	2.69	2.24	1.99	1.79	2.96	2.46	2.19	1.97
22-22-P	2.58	2.15	1.91	1.72	2.76	2.30	2.04	1.84	2.01	1.68	1.49	1.34	2.94	2.45	2.18	1.96	3.20	2.66	2.36	2.13
22-22S	3.15	2.63	2.33	2.10	3.33	2.78	2.46	2.22	2.60	2.16	1.92	1.73	3.51	2.93	2.60	2.34	3.78	3.15	2.80	2.52
22-23P	2.33	1.94	1.72	1.55	2.51	2.09	1.85	1.67	1.77	1.48	1.31	1.18	2.69	2.24	1.99	1.79	2.96	2.46	2.19	1.97
22-23S	2.99	2.49	2.21	1.99	3.17	2.64	2.34	2.11	2.43	2.03	1.80	1.62	3.35	2.79	2.48	2.23	3.62	3.01	2.68	2.41
22-26P	2.07	1.73	1.53	1.38	2.25	1.88	1.67	1.50	1.50	1.25	1.11	1.00	2.43	2.03	1.80	1.62	2.69	2.24	1.99	1.79
22-26S	2.36	1.96	1.74	1.57	2.54	2.11	1.88	1.69	1.80	1.50	1.33	1.20	2.73	2.28	2.02	1.82	2.99	2.49	2.21	1.99
22-27P	2.16	1.80	1.60	1.44	2.34	1.95	1.73	1.56	1.61	1.34	1.19	1.07	2.52	2.10	1.86	1.68	2.79	2.33	2.06	1.86
22-27S	2.66	2.21	1.96	1.77	2.84	2.36	2.10	1.89	2.10	1.75	1.55	1.40	3.02	2.51	2.23	2.01	3.29	2.74	2.43	2.19
22-28P	2.25	1.88	1.67	1.50	2.43	2.03	1.80	1.62	1.68	1.40	1.24	1.12	2.61	2.18	1.93	1.74	2.87	2.39	2.12	1.91
22-28S	3.03	2.53	2.24	2.02	3.23	2.69	2.39	2.15	2.48	2.06	1.83	1.65	3.41	2.84	2.52	2.27	3.66	3.05	2.71	2.44
22-29P	2.25	1.88	1.67	1.50	2.43	2.03	1.80	1.62	1.68	1.40	1.24	1.12	2.61	2.18	1.93	1.74	2.87	2.39	2.12	1.91
22-29S	2.57	2.14	1.90	1.71	2.75	2.29	2.03	1.83	2.00	1.66	1.48	1.33	2.93	2.44	2.16	1.95	3.18	2.65	2.35	2.12
22-34P	1.86	1.55	1.38	1.24	2.04	1.70	1.51	1.36	1.31	1.09	.97	.87	2.24	1.86	1.65	1.49	2.49	2.08	1.84	1.66
22-34S	2.33	1.94	1.72	1.55	2.51	2.09	1.85	1.67	1.77	1.48	1.31	1.18	2.69	2.24	1.99	1.79	2.96	2.46	2.19	1.97
22-36P	10.34	8.61	7.65	6.89	10.52	8.76	7.78	7.01	9.77	8.14	7.23	6.51	10.70	8.91	7.91	7.13	10.95	9.13	8.10	7.30
22-36S	11.33	9.44	8.38	7.55	11.51	9.59	8.51	7.67	10.76	8.96	7.96	7.17	11.69	9.74	8.65	7.79	11.94	9.95	8.84	7.96
22-404P	10.34	8.61	7.65	6.89	10.52	8.76	7.78	7.01	9.77	8.14	7.23	6.51	10.70	8.91	7.91	7.13	10.95	9.13	8.10	7.30
22-404S	11.33	9.44	8.38	7.55	11.51	9.59	8.51	7.67	10.76	8.96	7.96	7.17	11.69	9.74	8.65	7.79	11.94	9.95	8.84	7.96
24-1P	2.37	1.98	1.75	1.58	2.60	2.16	1.92	1.73	1.80	1.50	1.33	1.20	2.76	2.30	2.04	1.84	3.00	2.50	2.22	2.00
24-1S	2.85	2.38	2.11	1.90	3.08	2.56	2.28	2.05	2.28	1.90	1.69	1.52	3.24	2.70	2.40	2.16	3.48	2.90	2.58	2.32
24-2P	2.43	2.03	1.80	1.62	2.64	2.20	1.95	1.76	1.85	1.54	1.37	1.23	2.81	2.34	2.08	1.87	3.06	2.55	2.26	2.04
24-2S	2.90	2.41	2.14	1.93	3.11	2.59	2.30	2.07	2.31	1.93	1.71	1.54	3.27	2.73	2.42	2.18	3.51	2.93	2.60	2.34
24-5P	2.66	2.21	1.96	1.77	2.87	2.39	2.12	1.91	2.09	1.74	1.54	1.39	3.03	2.53	2.24	2.02	3.29	2.74	2.43	2.19
24-5S	2.73	2.28	2.02	1.82	2.94	2.45	2.18	1.96	2.15	1.79	1.59	1.43	3.11	2.59	2.30	2.07	3.35	2.79	2.48	2.23
24-6P	2.49	2.08	1.84	1.66	2.70	2.25	2.00	1.80	1.92	1.60	1.42	1.28	2.87	2.39	2.12	1.91	3.12	2.60	2.31	2.08
24-6S	3.26	2.71	2.41	2.17	3.47	2.89	2.56	2.31	2.67	2.23	1.98	1.78	3.63	3.03	2.69	2.42	3.89	3.24	2.87	2.59
24-7P	2.46	2.05	1.82	1.64	2.67	2.23	1.98	1.78	1.88	1.56	1.39	1.25	2.84	2.36	2.10	1.89	3.09	2.58	2.29	2.06
24-7S	2.85	2.38	2.11	1.90	3.08	2.56	2.28	2.05	2.28	1.90	1.69	1.52	3.24	2.70	2.40	2.16	3.48	2.90	2.58	2.32
24-9P	2.79	2.33	2.06	1.86	3.00	2.50	2.22	2.00	2.21	1.84	1.63	1.47	3.17	2.64	2.34	2.11	3.42	2.85	2.53	2.28
24-9S	3.00	2.50	2.22	2.00	3.23	2.69	2.39	2.15	2.43	2.03	1.80	1.62	3.39	2.83	2.51	2.26	3.63	3.03	2.69	2.42
24-10P	3.50	2.91	2.59	2.33	3.72	3.10	2.75	2.48	2.93	2.44	2.16	1.95	3.89	3.24	2.87	2.59	4.13	3.44	3.04	2.75
24-10S	4.71	3.93	3.49	3.14	4.92	4.10	3.64	3.28	4.13	3.44	3.05	2.75	5.09	4.24	3.76	3.39	5.33	4.44	3.94	3.55
24-11P	3.06	2.56	2.28	2.05	3.29	2.74	2.43	2.19	2.49	2.08	1.84	1.66	3.45	2.88	2.55	2.30	3.69	3.08	2.73	2.46
24-11S	3.83	3.19	2.83	2.55	4.05	3.38	3.00	2.70	3.26	2.71	2.41	2.17	4.22	3.51	3.12	2.81	4.46	3.71	3.30	2.97
24-12P	3.09	2.58	2.29	2.06	3.30	2.75	2.44	2.20	2.51	2.09	1.85	1.67	3.47	2.89	2.56	2.31	3.72	3.10	2.75	2.48
24-12S	3.75	3.13	2.78	2.50	3.96	3.30	2.93	2.64	3.17	2.64	2.34	2.11	4.13	3.44	3.05	2.75	4.38	3.65	3.24	2.92
24-18P	1.98	1.65	1.47	1.32	2.19	1.83	1.62	1.46	1.41	1.18	1.04	.94	2.36	1.96	1.74	1.57	2.61	2.18	1.93	1.74
24-18S	3.20	2.66	2.36	2.13	3.42	2.85	2.53	2.28	2.63	2.19	1.94	1.75	3.59	2.99	2.65	2.39	3.83	3.19	2.83	2.55
24-19P	2.49	2.08	1.84	1.66	2.70	2.25	2.00	1.80	1.92	1.60	1.42	1.28	2.87	2.39	2.12	1.91	3.12	2.60	2.31	2.08
24-19S	2.64	2.20	1.95	1.76	2.85	2.38	2.11	1.90	2.07	1.73	1.53	1.38	3.02	2.51	2.23	2.01	3.27	2.73	2.42	2.18
24-20P	2.46	2.05	1.82	1.64	2.67	2.23	1.98	1.78	1.88	1.56	1.39	1.25	2.84	2.36	2.10	1.89	3.09	2.58	2.29	2.06
24-20S	2.52	2.10	1.86	1.68	2.75	2.29	2.03	1.83	1.95	1.63	1.44	1.30	2.91	2.43	2.15	1.94	3.15	2.63	2.33	2.10
24-21S	2.78	2.31	2.05	1.85	2.99	2.49	2.21	1.99	2.19	1.83	1.62	1.46	3.15	2.63	2.33	2.10	3.41	2.84	2.52	2.27
24-22P	2.79	2.33	2.06	1.86	3.00	2.50	2.22	2.00	2.21	1.84	1.63	1.47	3.17	2.64	2.34	2.11	3.42	2.85	2.53	2.28
24-22S	3.53	2.94	2.61	2.35	3.75	3.13	2.78	2.50	2.96	2.48	2.19	1.97	3.92	3.26	2.90	2.61	4.16	3.46	3.07	2.77
24-23S	3.32	2.76	2.45	2.21	3.53	2.94	2.61	2.35	2.75	2.29	2.03	1.83	3.69	3.08						



Amphenol "MS" Connectors

CONTINUED FROM PRECEDING PAGE

Shell Insert	MS/3100				MS/3101				MS/3102				MS/3106							
	A				A				A				A				B			
	1-99	10-49	50-99	100-999	1-99	10-49	50-99	100-999	1-99	10-49	50-99	100-999	1-99	10-49	50-99	100-999	1-99	10-49	50-99	100-999
28-10P	3.81	3.18	2.82	2.54	4.22	3.51	3.12	2.81	3.06	2.55	2.25	2.04	4.38	3.65	3.24	2.92	4.38	3.65	3.24	2.92
28-10S	4.89	4.08	3.62	3.26	5.28	4.40	3.91	3.52	4.13	3.44	3.06	2.75	5.45	4.54	4.03	3.63	4.38	3.65	3.24	2.92
28-11P	3.08	2.56	2.28	2.05	3.47	2.89	2.56	2.31	2.31	1.93	1.71	1.54	3.63	3.03	2.69	2.42	3.63	3.03	2.69	2.42
28-11S	3.63	3.03	2.69	2.42	4.02	3.35	2.97	2.68	2.87	2.39	2.12	1.91	4.19	3.49	3.10	2.79	4.19	3.49	3.10	2.79
28-12P	3.11	2.59	2.30	2.07	3.50	2.91	2.59	2.33	2.34	1.95	1.73	1.56	3.66	3.05	2.71	2.44	3.66	3.05	2.71	2.44
28-12S	3.69	3.08	2.73	2.46	4.10	3.41	3.03	2.73	2.94	2.45	2.18	1.96	4.26	3.55	3.15	2.84	4.26	3.55	3.15	2.84
28-13P	3.18	2.65	2.35	2.12	3.59	2.99	2.65	2.39	2.43	2.03	1.80	1.62	3.75	3.13	2.78	2.50	3.75	3.13	2.78	2.50
28-13S	3.78	3.15	2.80	2.52	4.17	3.48	3.09	2.79	3.02	2.51	2.23	2.01	4.34	3.63	3.21	2.89	4.34	3.63	3.21	2.89
28-14P	2.94	2.45	2.18	1.96	3.33	2.78	2.46	2.22	2.18	1.81	1.61	1.45	3.50	2.91	2.59	2.33	3.50	2.91	2.59	2.33
28-14S	3.24	2.70	2.40	2.16	3.63	3.03	2.69	2.42	2.48	2.06	1.83	1.65	3.80	3.16	2.81	2.53	3.80	3.16	2.81	2.53
28-15P	3.60	3.00	2.66	2.40	3.99	3.33	2.95	2.66	2.84	2.36	2.10	1.89	4.16	3.46	3.07	2.77	4.16	3.46	3.07	2.77
28-15S	4.14	3.45	3.06	2.76	4.55	3.79	3.36	3.03	3.39	2.83	2.51	2.26	4.71	3.93	3.49	3.14	4.71	3.93	3.49	3.14
28-16P	3.23	2.69	2.39	2.15	3.62	3.01	2.68	2.41	2.46	2.05	1.82	1.64	3.78	3.15	2.80	2.52	3.78	3.15	2.80	2.52
28-16S	3.48	2.90	2.58	2.32	3.89	3.24	2.87	2.59	2.73	2.28	2.02	1.82	4.05	3.38	3.00	2.70	4.05	3.38	3.00	2.70
28-17P	2.63	2.19	1.94	1.75	3.02	2.51	2.23	2.01	1.86	1.55	1.38	1.24	3.18	2.65	2.35	2.12	3.18	2.65	2.35	2.12
28-17S	3.20	2.66	2.36	2.13	3.60	3.00	2.66	2.40	2.45	2.04	1.81	1.63	3.77	3.14	2.79	2.51	3.77	3.14	2.79	2.51
28-18P	2.99	2.49	2.21	1.99	3.39	2.83	2.51	2.26	2.24	1.86	1.65	1.49	3.56	2.93	2.63	2.37	3.56	2.93	2.63	2.37
28-18S	3.24	2.70	2.40	2.16	3.63	3.03	2.69	2.42	2.48	2.06	1.83	1.65	3.80	3.16	2.81	2.53	3.80	3.16	2.81	2.53
28-19P	2.73	2.28	2.02	1.82	3.12	2.60	2.31	2.08	1.97	1.64	1.45	1.31	3.29	2.74	2.43	2.19	3.29	2.74	2.43	2.19
28-19S	3.26	2.71	2.41	2.17	3.65	3.04	2.70	2.43	2.49	2.08	1.84	1.66	3.81	3.18	2.82	2.54	3.81	3.18	2.82	2.54
28-20P	3.20	2.66	2.36	2.13	3.60	3.00	2.66	2.40	2.45	2.04	1.81	1.63	3.77	3.14	2.79	2.51	3.77	3.14	2.79	2.51
28-20S	3.51	2.93	2.60	2.34	3.92	3.26	2.90	2.61	2.76	2.30	2.04	1.84	4.08	3.40	3.02	2.72	4.08	3.40	3.02	2.72
28-21P	3.63	3.03	2.69	2.42	4.02	3.35	2.97	2.68	2.87	2.39	2.12	1.91	4.19	3.49	3.10	2.79	4.19	3.49	3.10	2.79
28-21S	4.28	3.56	3.16	2.85	4.67	3.89	3.45	3.11	3.51	2.93	2.60	2.34	4.83	4.03	3.57	3.22	4.83	4.03	3.57	3.22
28-22P	3.74	3.11	2.76	2.49	4.13	3.44	3.05	2.75	2.97	2.48	2.20	1.98	4.29	3.58	3.17	2.86	4.29	3.58	3.17	2.86
32-4S	3.78	3.15	2.80	2.52	3.95	3.29	2.92	2.63	2.70	2.25	2.00	1.80	4.47	3.73	3.31	2.98	4.43	3.69	3.27	2.95
32-5P	4.13	3.44	3.05	2.75	4.29	3.58	3.17	2.86	3.06	2.55	2.26	2.04	4.82	4.01	3.56	3.21	4.77	3.98	3.53	3.18
32-5S	4.71	3.93	3.49	3.14	4.88	4.06	3.61	3.25	3.63	3.03	2.69	2.42	5.40	4.50	4.00	3.60	5.34	4.45	3.95	3.56
32-6P	5.54	4.61	4.10	3.69	5.70	4.75	4.22	3.80	4.46	3.71	3.30	2.97	6.23	5.19	4.61	4.15	6.17	5.14	4.56	4.11
32-6S	7.19	5.99	5.32	4.79	7.35	6.13	5.44	4.90	6.11	5.09	4.52	4.07	7.88	6.56	5.83	5.25	7.82	6.51	5.78	5.21
32-7P	4.67	3.89	3.45	3.11	4.83	4.03	3.57	3.22	3.60	3.00	2.66	2.40	5.37	4.48	3.97	3.68	5.31	4.43	3.93	3.54
32-7S	5.37	4.48	3.97	3.58	5.54	4.61	4.03	3.50	4.29	3.58	3.17	2.86	6.06	5.05	4.48	4.00	6.00	5.00	4.44	4.00
32-8P	4.52	3.76	3.34	3.01	4.68	3.90	3.46	3.12	3.45	2.88	2.55	2.30	5.22	4.35	3.86	3.48	5.16	4.30	3.82	3.44
32-8S	5.31	4.43	3.93	3.54	5.48	4.56	4.05	3.65	4.25	3.54	3.14	2.83	6.00	5.00	4.44	4.00	5.96	4.96	4.41	3.97
32-9P	4.62	3.85	3.42	3.08	4.79	3.99	3.54	3.19	3.55	2.96	2.63	2.37	5.31	4.43	3.93	3.54	5.27	4.39	3.90	3.51
32-9S	5.12	4.26	3.79	3.41	5.28	4.40	3.91	3.52	4.08	3.38	3.00	2.70	5.81	4.84	4.30	3.87	5.76	4.80	4.26	3.84
32-12P	4.44	3.70	3.29	2.96	4.61	3.84	3.41	3.07	3.36	2.80	2.49	2.24	5.13	4.28	3.80	3.42	5.09	4.24	3.76	3.39
32-12S	5.66	4.71	4.18	3.77	5.82	4.85	4.31	3.88	4.59	3.83	3.40	3.06	6.36	5.30	4.71	4.24	6.30	5.25	4.66	4.20
32-13P	3.77	3.14	2.79	2.51	3.93	3.28	2.91	2.62	2.69	2.24	1.99	1.79	4.46	3.71	3.30	2.97	4.41	3.68	3.26	2.94
32-13S	4.25	3.54	3.14	2.83	4.41	3.68	3.26	2.94	3.17	2.64	2.34	2.11	4.94	4.11	3.65	3.29	4.89	4.08	3.62	3.26
32-15P	5.45	4.54	4.03	3.63	5.61	4.68	4.15	3.74	4.38	3.65	3.24	2.92	6.14	5.11	4.54	4.09	6.09	5.08	4.51	4.06
32-15S	5.78	4.81	4.27	3.85	5.94	4.95	4.40	3.96	4.71	3.93	3.49	3.14	6.47	5.39	4.78	4.31	6.42	5.35	4.75	4.28
32-17P	5.28	4.40	3.91	3.52	5.45	4.54	4.03	3.63	4.22	3.51	3.12	2.81	5.97	4.98	4.42	3.98	5.93	4.94	4.38	3.95
32-17S	5.78	4.81	4.27	3.85	5.94	4.95	4.40	3.96	4.71	3.93	3.49	3.14	6.47	5.39	4.78	4.31	6.42	5.35	4.75	4.28
32-101P	8.79	7.33	6.50	5.86	8.96	7.46	6.63	5.97	7.73	6.44	5.72	5.15	9.50	7.91	7.03	6.33	9.44	7.86	6.98	6.29
32-102P	6.47	5.39	4.78	4.31	6.63	5.53	4.91	4.42	5.40	4.50	4.00	3.60	7.16	5.96	5.29	4.77	7.11	5.93	5.26	4.74
32-102S	7.53	6.28	5.57	5.02	7.70	6.41	5.69	5.13	6.45	5.38	4.77	4.30	8.22	6.85	6.08	5.48	8.18	6.81	6.05	5.45
32-414P	5.75	4.79	4.25	3.83	5.91	4.93	4.37	3.94	4.67	3.89	3.45	3.11	6.44	5.36	4.76	4.29	6.39	5.33	4.73	4.26
32-414S	7.64	6.36	5.65	5.09	7.80	6.50	5.77	5.20	6.57	5.48	4.86	4.38	8.34	6.96	6.17	5.56	8.28	6.90	6.13	5.52
36-1S	6.56	5.46	4.85	4.37	6.86	5.71	5.07	4.57	5.15	4.29	3.81	3.43	8.88	7.40	6.57	5.92	8.56	7.00	6.15	5.61
36-2S	7.10	5.91	5.25	4.73	7.40	6.16	5.47	4.93	5.70	4.75	4.22	3.80	9.42	7.85	6.97	6.28	7.92	6.26	5.56	5.04
36-3P	5.99	4.99	4.43	3.99	6.29	5.24	4.65	4.19	4.59	3.83	3.40	3.06	8.31	6.93	6.15	5.54	6.41	5.34	4.74	4.27
36-3S	7.76	6.46	5.74	5.17	8.06	6.71	5.96	5.37	6.58	5.30	4.71	4.24	10.08	8.40	7.46	6.72	8.18	6.81	6.05	5.45
36-4P	5.94	4.95	4.40	3.96	6.24	5.20	4.62	4.16	4.55	3.79	3.36	3.03	8.27	6.89	6.12	5.51	6.36	5.30	4.71	4.24
36-4S	7.10	5.91	5.25	4.73	7.40	6.16	5.47	4.93	5.70	4.75	4.22	3.80	9.42	7.85	6.97	6.28	7.92	6.26	5.56	5.04
36-6P	7.35	6.13	5.44	4.90	7.64	6.36	5.65	5.09	5.94	4.95	4.40	3.96	9.68	8.06	7.16	6.45	7.76	6.46	5.74	5.17
36-7P	5.94	4.95	4.40	3.96	6.24	5.20	4.62	4.16	4.55	3.79	3.36	3.03	8.27	6.89	6.12	5.51	6.36	5.30	4.71	4.24
36-7S	6.59	5.49	4.87	4.39	6.89	5.74	5.09	4.59	5.18	4.31	3.83	3.45	8.91	7.43	6.59	5.94	6.99	5.83	5.17	4.66
36-8P	5.79	4.83	4.28	3.86	6.09	5.08	4.51	4.06	4.40	3.66	3.25	2.93	8.12	6.76	6.01	5.41	6.21	5.18	4.60	4.14
36-8S	6.21	5.18	4.60	4.14	6.50	5.41	4.81	4.33	4.80	4.00	3.55	3.20	8.54	7.11	6.32	5.69	6.62	5.51	4.90	4.41
36-9P	6.65	5.54	4.92	4.43	6.95	5.79	5.14	4.63	5.25	4.38	3.89									

Amphenol "MS" Connectors



3108A

3108B

Shell Insert	MS/3108							
	A				B			
	1-9	10-49	50-99	100-999	1-9	10-49	50-99	100-999
8S-1P	1.53	1.28	1.13	1.02	.....	.....	.....	.....
8S-1S	1.52	1.26	1.12	1.01	.....	.....	.....	.....
10S-2P	1.71	1.43	1.27	1.14	1.05	.88	.78	.70
10S-2S	1.71	1.43	1.27	1.14	1.05	.88	.78	.70
10SL-3P	.....	.....	.....	.....	.....	.....	.....	.....
10SL-3S	1.77	1.48	1.31	1.18	1.22	1.01	.90	.81
10SL-4P	.....	.....	.....	.....	.....	.....	.....	.....
10SL-4S	1.74	1.45	1.29	1.16	1.19	.99	.88	.79
12S-1P	2.10	1.75	1.55	1.40	1.44	1.20	1.07	.96
12S-1S	2.15	1.79	1.59	1.43	1.49	1.24	1.10	.99
12S-3P	2.01	1.68	1.49	1.34	1.35	1.13	1.00	.90
12S-3S	2.07	1.73	1.53	1.38	1.41	1.18	1.04	.94
12S-4P	2.10	1.75	1.55	1.40	1.44	1.20	1.07	.96
12S-4S	2.07	1.73	1.53	1.38	1.41	1.18	1.04	.94
12S-6P	4.31	3.59	3.19	2.87	3.65	3.04	2.70	2.43
12S-6S	4.49	3.74	3.32	2.99	3.83	3.19	2.83	2.55
12SL-844P	.....	.....	.....	.....	.....	.....	.....	.....
12SL-844S	3.69	3.08	2.73	2.46	.....	.....	.....	.....
12-5P	1.98	1.65	1.47	1.32	1.28	1.06	.94	.85
12-5S	2.16	1.80	1.60	1.44	1.46	1.21	1.08	.97
14S-1P	1.94	1.61	1.43	1.29	1.19	.99	.88	.79
14S-1S	1.98	1.65	1.47	1.32	1.25	1.04	.92	.83
14S-2P	1.94	1.61	1.43	1.29	1.19	.99	.88	.79
14S-2S	2.03	1.69	1.50	1.35	1.29	1.08	.95	.86
14S-4P	1.86	1.55	1.38	1.24	1.13	.94	.83	.75
14S-4S	1.91	1.59	1.41	1.27	1.16	.96	.85	.77
14S-5P	2.07	1.73	1.53	1.38	1.32	1.10	.98	.88
14S-5S	2.10	1.75	1.55	1.40	1.35	1.13	1.00	.90
14S-6P	2.18	1.81	1.61	1.45	1.44	1.20	1.07	.96
14S-6S	2.18	1.81	1.61	1.45	1.44	1.20	1.07	.96
14S-7P	1.94	1.61	1.43	1.29	1.19	.99	.88	.79
14S-7S	1.98	1.65	1.47	1.32	1.25	1.04	.92	.83
14S-9P	1.88	1.56	1.39	1.25	1.14	.95	.84	.76
14S-9S	1.92	1.60	1.42	1.28	1.17	.98	.87	.78
14S-10P	2.01	1.68	1.49	1.34	1.28	1.06	.94	.85
14S-10S	2.12	1.76	1.57	1.41	1.37	1.14	1.01	.91
16S-1P	2.73	2.28	2.02	1.82	1.58	1.31	1.17	1.05
16S-1S	2.81	2.34	2.08	1.87	1.65	1.38	1.22	1.10
16S-3P	2.49	2.08	1.84	1.66	1.34	1.11	.99	.89
16S-3S	2.58	2.15	1.91	1.72	1.43	1.19	1.05	.95
16S-4P	2.64	2.20	1.95	1.76	1.49	1.24	1.10	.99
16S-4S	2.67	2.23	1.98	1.78	1.52	1.26	1.12	1.01
16S-5P	2.64	2.20	1.95	1.76	1.49	1.24	1.10	.99
16S-5S	2.70	2.25	2.00	1.80	1.55	1.29	1.14	1.03
16S-6P	2.73	2.28	2.02	1.82	1.58	1.31	1.17	1.05
16S-6S	2.78	2.31	2.05	1.85	1.62	1.35	1.20	1.08
16S-8P	2.67	2.23	1.98	1.78	1.52	1.26	1.12	1.01
16S-8S	2.75	2.29	2.03	1.83	1.59	1.33	1.18	1.06
16S-15P	2.73	2.28	2.02	1.82	1.58	1.31	1.17	1.05
16S-15S	2.76	2.30	2.04	1.84	1.61	1.34	1.19	1.07
16-2P	2.54	2.11	1.88	1.69	1.53	1.28	1.13	1.02
16-2S	2.70	2.25	2.00	1.80	1.70	1.41	1.25	1.13
16-7P	2.87	2.39	2.12	1.91	1.86	1.55	1.38	1.24
16-7S	3.02	2.51	2.23	2.01	2.01	1.68	1.49	1.34
16-9P	2.73	2.28	2.02	1.82	1.71	1.43	1.27	1.14
16-9S	2.81	2.34	2.08	1.87	1.80	1.50	1.33	1.20
16-10P	2.64	2.20	1.95	1.76	1.64	1.36	1.21	1.09
16-10S	2.90	2.41	2.14	1.93	1.88	1.56	1.39	1.25
16-11P	2.52	2.10	1.86	1.68	1.52	1.26	1.12	1.01
16-11S	2.73	2.28	2.02	1.82	1.71	1.43	1.27	1.14
16-12P	2.93	2.44	2.16	1.95	1.92	1.60	1.42	1.28
16-13P	4.95	4.13	3.66	3.30	3.95	3.29	2.92	2.63
16-13S	5.57	4.64	4.12	3.71	4.56	3.80	3.37	3.04
18-1P	3.35	2.79	2.48	2.23	2.15	1.79	1.59	1.43
18-1S	3.57	2.98	2.64	2.38	2.36	1.96	1.74	1.57
18-3P	3.02	2.51	2.23	2.01	1.82	1.51	1.34	1.21
18-3S	3.26	2.71	2.41	2.17	2.04	1.70	1.51	1.36
18-4P	3.06	2.55	2.26	2.04	1.85	1.54	1.37	1.23
18-4S	3.17	2.64	2.34	2.11	1.97	1.64	1.45	1.31
18-5P	3.51	2.93	2.60	2.34	2.31	1.93	1.71	1.54
18-5S	3.26	2.71	2.41	2.17	2.04	1.70	1.51	1.36
18-6P	3.26	2.71	2.41	2.17	2.04	1.70	1.51	1.36
18-6S	3.57	2.98	2.64	2.38	2.36	1.96	1.74	1.57
18-7P	3.06	2.55	2.26	2.04	1.85	1.54	1.37	1.23
18-7P	3.33	2.78	2.46	2.22	2.13	1.78	1.58	1.42
18-8S	3.48	2.90	2.58	2.32	2.28	1.90	1.69	1.52
18-9P	3.29	2.74	2.43	2.19	2.09	1.74	1.54	1.39

Shell Insert	MS/3108							
	A				B			
	1-9	10-49	50-99	100-999	1-9	10-49	50-99	100-999
18-9S	3.47	2.89	2.56	2.31	2.27	1.89	1.68	1.51
18-10P	3.20	2.66	2.36	2.13	2.00	1.66	1.48	1.33
18-10S	3.59	2.99	2.65	2.39	2.37	1.98	1.75	1.58
18-11P	3.36	2.80	2.49	2.24	2.16	1.80	1.60	1.44
18-11S	3.57	2.98	2.64	2.38	2.36	1.96	1.74	1.57
18-12P	3.27	2.73	2.42	2.18	2.07	1.73	1.53	1.38
18-12S	3.42	2.85	2.53	2.28	2.21	1.84	1.63	1.47
18-13P	3.42	2.85	2.53	2.28	2.21	1.84	1.63	1.47
18-16P	3.23	2.69	2.39	2.15	2.01	1.68	1.49	1.34
18-16S	3.48	2.90	2.58	2.32	2.28	1.90	1.69	1.52
18-18P	3.36	2.80	2.49	2.24	2.16	1.80	1.60	1.44
18-18S	3.56	2.96	2.63	2.37	2.34	1.95	1.73	1.56
18-19P	4.01	3.34	2.96	2.67	2.81	2.34	2.08	1.87
18-19S	3.78	3.15	2.80	2.52	2.58	2.15	1.91	1.72
18-20P	3.12	2.60	2.31	2.08	1.92	1.60	1.42	1.28
18-20S	3.33	2.78	2.46	2.22	2.13	1.78	1.58	1.42
18-22P	3.15	2.63	2.33	2.10	1.95	1.63	1.44	1.30
18-22S	3.20	2.66	2.36	2.13	2.00	1.66	1.48	1.33
18-29P	3.23	2.69	2.39	2.15	2.01	1.68	1.49	1.34
18-29S	3.42	2.85	2.53	2.28	2.21	1.84	1.63	1.47
18-420P	5.12	4.26	3.79	3.41	3.80	3.16	2.81	2.53
18-420S	5.31	4.43	3.93	3.54	3.99	3.33	2.95	2.66
20-2P	4.05	3.38	3.00	2.70	2.61	2.18	1.93	1.74
20-2S	4.28	3.56	3.16	2.85	2.84	2.36	2.10	1.89
20-3P	3.65	3.04	2.70	2.43	2.21	1.84	1.63	1.47
20-3S	4.10	3.41	3.03	2.73	2.66	2.21	1.96	1.77
20-4P	3.66	3.05	2.71	2.44	2.24	1.86	1.65	1.49
20-4S	3.92	3.26	2.90	2.61	2.48	2.06	1.83	1.65
20-5P	3.57	2.98	2.64	2.38	2.13	1.78	1.58	1.42
20-5S	3.69	3.08	2.73	2.46	2.27	1.89	1.68	1.51
20-6P	3.53	2.94	2.61	2.35	2.10	1.75	1.55	1.40
20-6S	3.69	3.08	2.73	2.46	2.27	1.89	1.68	1.51
20-7P	3.66	3.05	2.71	2.44	2.24	1.86	1.65	1.49
20-7S	3.89	3.24	2.87	2.59	2.45	2.04	1.81	1.63
20-8P	3.99	3.33	2.95	2.66	2.57	2.14	1.90	1.71
20-8S	4.35	3.63	3.22	2.90	2.93	2.44	2.16	1.95
20-9P	3.99	3.33	2.95	2.66	2.57	2.14	1.90	1.71
20-9S	4.25	3.54	3.14	2.83	2.81	2.34	2.08	1.87
20-11P	4.13	3.44	3.05	2.75	2.69	2.24	1.99	1.79
20-11S	5.40	4.50	4.00	3.60	3.96	3.30	2.93	2.64
20-12P	3.93	3.28	2.91	2.62	2.49	2.08	1.84	1.66
20-15P	3.83	3.19	2.83	2.55	2.40	2.00	1.78	1.60
20-15S	4.58	3.81	3.39	3.05	3.14	2.61	2.32	2.09
20-16P	3.80	3.16	2.81	2.53	2.36	1.96	1.74	1.57
20-16S	4.14	3.45	3.06	2.76	2.70	2.25	2.00	1.80
20-17P	3.99	3.33	2.95	2.66	2.57	2.14	1.90	1.71
20-17S	4.28	3.56	3.16	2.85	2.84	2.36	2.10	1.89
20-18P	4.02	3.35	2.97	2.68	2.60	2.16	1.92	1.73
20-18S	4.25	3.54	3.14	2.83	2.81	2.34	2.08	1.87
20-22P	4.31	3.59	3.19	2.87	2.87	2.39	2.12	1.91
20-22S	4.74	3.95	3.51	3.16	3.30	2.75	2.44	2.20
20-23P	3.86	3.21	2.85	2.57	2.43	2.03	1.80	1.62
20-23S	4.23	3.53	3.13	2.82	2.79	2.33	2.06	1.86
20-24P	3.99	3.33	2.95	2.66	2.57	2.14	1.90	1.71
20-24S	4.38	3.65	3.24	2.92	2.94	2.45	2.18	1.96
20-27P	3.89	3.24	2.87	2.59	2.45	2.04	1.81	1.63
20-27S	4.23	3.53	3.13	2.82	2.79	2.33	2.06	1.86
20-29P	4.02	3.35	2.97	2.68	2.60	2.16	1.92	1.73
20-29S	4.44	3.70	3.29	2.96	3.00	2.50	2.22	2.00
20-33P	4.05	3.38	3.00					



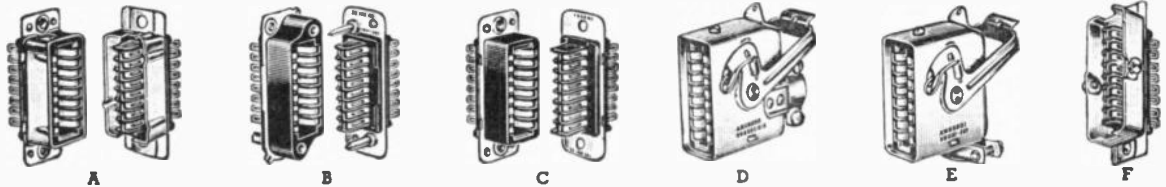
Amphenol "MS" Connectors

CONTINUED FROM PRECEDING PAGE

Shell Insert	MS/3108							
	A				B			
	1-9	10-49	50-99	100-999	1-9	10-49	50-99	100-999
22-13S	4.25	3.54	3.14	2.83	2.73	2.28	2.02	1.82
22-14P	4.25	3.54	3.14	2.83	2.73	2.28	2.02	1.82
22-14S	4.67	3.89	3.45	3.11	3.15	2.63	2.33	2.10
22-15P	4.26	3.55	3.15	2.84	2.75	2.29	2.03	1.83
22-15S	4.67	3.89	3.45	3.11	3.15	2.63	2.33	2.10
22-16P	4.19	3.49	3.10	2.79	2.67	2.23	1.98	1.78
22-16S	4.46	3.71	3.30	2.97	2.81	2.34	2.08	1.87
22-17P	4.08	3.40	3.02	2.72	2.57	2.14	1.90	1.71
22-17S	4.47	3.73	3.31	2.98	2.96	2.46	2.19	1.97
22-18P	3.93	3.28	2.91	2.62	2.42	2.01	1.79	1.61
22-18S	4.10	3.41	3.03	2.73	2.58	2.15	1.91	1.72
22-19P	4.56	3.80	3.37	3.04	3.03	2.53	2.24	2.02
22-19S	4.55	3.79	3.36	3.03	3.02	2.51	2.23	2.01
22-20P	3.99	3.33	2.95	2.66	2.48	2.06	1.83	1.65
22-20S	4.38	3.65	3.24	2.92	2.85	2.38	2.11	1.90
22-22P	4.62	3.85	3.42	3.08	3.11	2.59	2.30	2.07
22-22S	5.21	4.34	3.85	3.47	3.68	3.06	2.72	2.45
22-23P	4.38	3.65	3.24	2.92	2.85	2.38	2.11	1.90
22-23S	5.04	4.20	3.73	3.36	3.51	2.93	2.60	2.34
22-26P	4.11	3.43	3.04	2.74	2.60	2.16	1.92	1.73
22-26S	4.41	3.68	3.26	2.94	2.90	2.41	2.14	1.93
22-27P	4.22	3.51	3.12	2.81	2.69	2.24	1.99	1.79
22-27S	4.71	3.93	3.49	3.14	3.18	2.65	2.35	2.12
22-28P	4.29	3.58	3.17	2.86	2.78	2.31	2.05	1.85
22-28S	5.09	4.24	3.76	3.39	3.57	2.98	2.64	2.38
22-29P	4.29	3.58	3.17	2.86	2.78	2.31	2.05	1.85
22-29S	4.61	3.84	3.41	3.07	3.09	2.58	2.29	2.06
22-34P	3.92	3.26	2.90	2.61	2.40	2.00	1.78	1.60
22-34S	4.38	3.65	3.24	2.92	2.85	2.38	2.11	1.90
22-36P	12.38	10.31	9.16	8.25	10.86	9.05	8.04	7.24
22-36S	13.37	11.14	9.89	8.91	11.85	9.88	8.77	7.90
22-404P	12.38	10.31	9.16	8.25	10.86	9.05	8.04	7.24
22-404S	13.37	11.14	9.89	8.91	11.85	9.88	8.77	7.90
24-1P	4.82	4.01	3.56	3.21	2.85	2.38	2.11	1.90
24-1S	5.30	4.41	3.92	3.53	3.33	2.78	2.46	2.22
24-2P	4.88	4.06	3.61	3.25	2.91	2.43	2.15	1.94
24-2S	5.33	4.44	3.94	3.55	3.36	2.80	2.49	2.24
24-5P	5.10	4.25	3.77	3.40	3.14	2.61	2.32	2.09
24-5S	5.16	4.30	3.82	3.44	3.20	2.66	2.36	2.13
24-6P	4.94	4.11	3.65	3.29	2.97	2.48	2.20	1.98
24-6S	5.70	4.75	4.22	3.80	3.74	3.11	2.76	2.49
24-7P	4.91	4.09	3.63	3.27	2.94	2.45	2.18	1.96
24-7S	5.30	4.41	3.92	3.53	3.33	2.78	2.46	2.22
24-9P	5.24	4.36	3.87	3.49	3.27	2.73	2.42	2.18
24-9S	5.45	4.54	4.03	3.63	3.48	2.90	2.58	2.32
24-10P	5.94	4.95	4.40	3.96	3.98	3.31	2.94	2.65
24-10S	7.14	5.95	5.28	4.76	5.18	4.31	3.83	3.45
24-11P	5.51	4.59	4.07	3.67	3.56	2.96	2.63	2.37
24-11S	6.27	5.23	4.64	4.18	4.31	3.59	3.19	2.87
24-12P	5.54	4.61	4.10	3.69	3.57	2.98	2.64	2.38
24-12S	6.20	5.16	4.58	4.13	4.23	3.53	3.13	2.82
24-18P	4.43	3.69	3.27	2.95	2.46	2.05	1.82	1.64
24-18S	5.64	4.70	4.17	3.76	3.68	3.06	2.72	2.45
24-19P	4.94	4.11	3.65	3.29	2.97	2.48	2.20	1.98
24-19S	5.09	4.24	3.76	3.39	3.12	2.60	2.31	2.08
24-20P	4.91	4.09	3.63	3.27	2.94	2.45	2.18	1.96
24-20S	4.97	4.14	3.67	3.31	3.00	2.50	2.22	2.00
24-21S	5.22	4.35	3.86	3.48	3.26	2.71	2.41	2.17
24-22P	5.24	4.36	3.87	3.49	3.27	2.73	2.42	2.18
24-22S	5.97	4.98	4.42	3.98	4.01	3.34	2.96	2.67
24-23S	5.76	4.80	4.26	3.84	3.80	3.16	2.81	2.53
24-27P	4.67	3.89	3.45	3.11	2.70	2.25	2.00	1.80
24-27S	4.76	3.96	3.52	3.17	2.79	2.33	2.06	1.86
24-28P	5.10	4.25	3.77	3.40	3.14	2.61	2.32	2.09
24-28S	5.58	4.65	4.13	3.72	3.62	3.01	2.68	2.41
24-768P	5.42	4.51	4.01	3.61	3.45	2.88	2.55	2.30
24-768S	6.60	5.50	4.88	4.40	4.64	3.86	3.43	3.09
24-835P	4.77	3.98	3.53	3.18	2.81	2.34	2.08	1.87
24-835S	5.37	4.48	3.97	3.58	3.41	2.84	2.52	2.27
28-1P	5.93	4.94	4.38	3.95	3.89	3.24	2.87	2.59
28-2P	5.21	4.34	3.85	3.47	3.15	2.63	2.33	2.10
28-2S	5.48	4.56	4.05	3.65	3.44	2.86	2.54	2.29
28-3P	5.37	4.48	3.97	3.58	3.32	2.76	2.45	2.21
28-3S	5.88	4.90	4.35	3.92	3.83	3.19	2.83	2.55
28-5P	5.87	4.89	4.34	3.91	3.81	3.18	2.82	2.54
28-5S	6.53	5.44	4.83	4.35	4.47	3.73	3.31	2.98
28-6P	6.24	5.20	4.62	4.16	4.19	3.49	3.10	2.79
28-6S	7.19	5.99	5.32	4.79	5.13	4.28	3.80	3.42
28-7P	5.54	4.61	4.10	3.69	3.48	2.90	2.58	2.32
28-7S	6.11	5.09	4.52	4.07	4.07	3.39	3.01	2.71
28-8P	5.31	4.43	3.93	3.54	3.27	2.73	2.42	2.18
28-8S	5.66	4.71	4.18	3.77	3.62	3.01	2.68	2.41

Shell Insert	MS/3108							
	A				B			
	1-9	10-49	50-99	100-999	1-9	10-49	50-99	100-999
28-9P	5.39	4.49	3.98	3.59	3.33	2.78	2.46	2.22
28-9S	5.73	4.78	4.24	3.82	3.68	3.06	2.72	2.45
28-10P	6.35	5.30	4.71	4.24	4.31	3.59	3.19	2.87
28-10S	7.43	6.19	5.49	4.95	5.39	4.49	3.98	3.59
28-11P	5.61	4.68	4.15	3.74	3.57	2.98	2.64	2.38
28-11S	6.17	5.14	4.56	4.11	4.13	3.44	3.05	2.75
28-12P	5.64	4.70	4.17	3.76	3.60	3.00	2.66	2.40
28-12S	6.24	5.20	4.62	4.16	4.19	3.49	3.10	2.79
28-13P	5.73	4.78	4.24	3.82	3.68	3.06	2.72	2.45
28-13S	6.32	5.26	4.67	4.21	4.28	3.56	3.16	2.85
28-14P	5.48	4.56	4.05	3.65	3.44	2.86	2.54	2.29
28-14S	5.78	4.81	4.27	3.85	3.74	3.11	2.76	2.49
28-15P	6.14	5.11	4.54	4.09	4.10	3.41	3.03	2.73
28-15S	6.69	5.58	4.95	4.46	4.64	3.86	3.43	3.09
28-16P	5.76	4.80	4.26	3.84	3.72	3.10	2.75	2.48
28-16S	6.03	5.03	4.46	4.02	3.98	3.31	2.94	2.65
28-17P	5.16	4.30	3.82	3.44	3.12	2.60	2.31	2.08
28-17S	5.75	4.79	4.25	3.83	3.69	3.08	2.73	2.46
28-18P	5.54	4.61	4.10	3.69	3.48	2.90	2.58	2.32
28-18S	5.78	4.81	4.27	3.85	3.74	3.11	2.76	2.49
28-19P	5.27	4.39	3.90	3.51	3.23	2.69	2.39	2.15
28-19S	5.79	4.83	4.28	3.86	3.75	3.13	2.78	2.50
28-20P	5.75	4.79	4.25	3.83	3.69	3.08	2.73	2.46
28-20S	6.06	5.05	4.48	4.04	4.01	3.34	2.96	2.67
28-21P	6.17	5.14	4.56	4.11	4.13	3.44	3.05	2.75
28-21S	6.81	5.68	5.04	4.54	4.77	3.98	3.53	3.18
28-22P	6.27	5.23	4.64	4.18	4.23	3.53	3.13	2.82
32-4S	7.08	5.90	5.24	4.72	4.64	3.86	3.43	3.09
32-5P	7.43	6.19	5.49	4.95	4.98	4.15	3.69	3.32
32-5S	8.01	6.68	5.93	5.34	5.57	4.64	4.12	3.71
32-6P	8.84	7.36	6.54	5.89	6.39	5.33	4.73	4.26
32-6S	10.49	8.74	7.76	6.99	8.04	6.70	5.95	5.36
32-7P	7.97	6.64	5.89	5.31	5.54	4.61	4.10	3.69
32-7S	8.67	7.23	6.42	5.78	6.23	5.19	4.61	4.15
32-8P	7.82	6.51	5.78	5.21	5.39	4.49	3.98	3.59
32-8S	8.61	7.18	6.37	5.74	6.17	5.14	4.56	4.11
32-9P	7.92	6.60	5.86	5.28	5.48	4.56	4.05	3.65
32-9S	8.42	7.01	6.23	5.61	5.97	4.98	4.42	3.98
32-12P	7.74	6.45	5.73	5.16	5.30	4.41	3.92	3.53
32-12S	8.96	7.46	6.63	5.97	6.53	5.44	4.83	4.35
32-13P	7.07	5.89	5.23	4.71	4.62	3.85	3.42	3.08
32-13S	7.55	6.29	5.58	5.03	5.10	4.25	3.77	3.40
32-15P	8.75	7.29	6.47	5.83	6.30	5.25	4.66	4.20
32-15S	9.08	7.56	6.72	6.05	6.63	5.53	4.91	4.42
32-17P	8.58	7.15	6.35	5.72	6.14	5.11	4.54	4.09
32-17S	9.08	7.56	6.72	6.05	6.63	5.53	4.91	4.42
32-101P	12.09	10.08	8.95	8.06	9.66	8.05	7.15	6.44
32-102P	9.77	8.14	7.23	6.51	7.32	6.10	5.42	4.88
32-102S	10.83	9.03	8.01	7.22	8.39	6.99	6.20	5.59
32-414P	9.05	7.54	6.69	6.03	6.60	5.50	4.88	4.40
32-414S	10.94	9.11	8.09	7.29	8.51	7.09	6.29	5.67
36-1S	10.02	8.35	7.41	6.68	7.29	6.08	5.39	4.86
36-2S	10.56	8.80	7.81	7.04	7.85	6.54	5.81	

Amphenol Connectors



AMPHENOL BLUE RIBBON® CONNECTORS

Barrier polarization type connectors are designed for interconnecting electronic sub-assemblies, circuit switching, rerouting and other multi-contact applications. Interlocking design of mating dielectric bodies provide positive polarization. The dimensional stability and high tensile strength of Amphenol

"Blue" dielectric make this type of polarization possible. Float mounted receptacle corrects misalignment of plug and receptacle. Corrosion resistant, stainless steel molded-in mounting plates and housing. Rated: 5 amps, 800 volts DC at sea level, 300 volts at 70,000 ft. altitude. Av. Shpg. Wt., 3 oz.

(A) BARRIER POLARIZATION CONNECTORS WITH KEYPED SHELLS

Stk. No.	Type	Con.	Male			
			1-9	10-49	50-99	100-249
42F182	26-4101-8P	8	1.98	1.67	1.35	1.22
42F183	26-4101-16P	16	2.99	2.52	2.04	1.84
42F184	26-4101-24P	24	3.45	2.90	2.36	2.12
42F185	26-4101-32P	32	3.96	3.33	2.70	2.43
Female						
42F186	26-4201-8S	8	2.29	1.92	1.56	1.40
42F187	26-4201-16S	16	3.10	2.61	2.12	1.90
42F188	26-4201-24S	24	3.72	3.13	2.54	2.28
42F189	26-4201-32S	32	6.51	5.48	4.44	4.00

(B) PIN POLARIZATION TYPE CONNECTORS

Stk. No.	Type	Con.	Male			
			1-9	10-49	50-99	100-249
39F132	26-159-16	16	2.02	1.70	1.38	1.24
39F134	26-159-24	24	2.29	1.92	1.56	1.40
39F136	26-159-32	32	2.88	2.42	1.97	1.77
Female						
39F133	26-190-16	16	2.57	2.16	1.76	1.58
39F135	26-190-24	24	3.08	2.59	2.10	1.89
39F137	26-190-32	32	3.63	3.05	2.48	2.23

(C) BARRIER POLARIZATION TYPE CONNECTORS

Stk. No.	Type	Con.	Male			
			1-9	10-49	50-99	100-249
39F130	26-182	8	1.10	.93	.75	.68
42F150	26-4100-8P	8	1.01	.85	.69	.62
42F151	26-4100-16P	16	1.89	1.59	1.29	1.16
42F152	26-4100-24P	24	2.27	1.91	1.55	1.39
42F153	26-4100-32P	32	2.64	2.22	1.80	1.62
Female						
39F131	26-183	8	1.74	1.46	1.19	1.07
42F154	26-4200-8S	8	1.65	1.39	1.13	1.01
42F155	26-4200-16S	16	2.40	2.02	1.64	1.47
42F156	26-4200-24S	24	2.84	2.39	1.94	1.74
42F157	26-4200-32S	32	3.39	2.85	2.31	2.08

Stk. No.	Type	Con.	Male			
			1-9	10-49	50-99	100-249
42F158	26-4301-8P	8	5.10	4.29	3.48	3.13
42F159	26-4301-16P	16	6.40	5.38	4.37	3.93
42F160	26-4301-24P	24	7.17	6.03	4.89	4.40
42F161	26-4301-32P	32	7.99	6.72	5.45	4.90

Female

42F162	26-4301-8S	8	6.20	5.22	4.23	3.81
42F163	26-4301-16S	16	6.91	5.81	4.71	4.24
42F164	26-4301-24S	24	7.81	6.57	5.33	4.79
42F165	26-4301-32S	32	8.73	7.34	5.96	5.36

(E) CABLE TYPE—SIDE OUTLET—KEYED LATCH LOCK SHELLS

Stk. No.	Type	Con.	Male			
			1-9	10-49	50-99	100-249
42F174	26-4501-8P	8	5.10	4.29	3.48	3.13
42F175	26-4501-16P	16	6.40	5.38	4.37	3.93
42F176	26-4501-24P	24	7.17	6.03	4.89	4.40
42F177	26-4501-32P	32	7.99	6.72	5.45	4.90

Female

42F178	26-4501-8S	8	5.74	4.83	3.92	3.52
42F179	26-4501-16S	16	6.91	5.81	4.71	4.24
42F180	26-4501-24S	24	7.81	6.57	5.33	4.79
42F181	26-4501-32S	32	8.62	7.25	5.88	5.29

(F) CHASSIS TYPE—KEYED LATCH—LOCK SHELLS

Stk. No.	Type	Con.	Male			
			1-9	10-49	50-99	100-249
42F166	26-4401-8P	8	3.08	2.59	2.10	1.89
42F167	26-4401-16P	16	4.05	3.40	2.76	2.48
42F168	26-4401-24P	24	4.55	3.83	3.11	2.79
42F169	26-4401-32P	32	5.06	4.26	3.45	3.11

Female

42F170	26-4401-8S	8	3.74	3.15	2.55	2.30
42F171	26-4401-16S	16	4.58	3.85	3.12	2.81
42F172	26-4401-24S	24	5.17	4.35	3.53	3.17
42F173	26-4401-32S	32	5.83	4.90	3.98	3.58

PRINTED CIRCUIT CONNECTORS

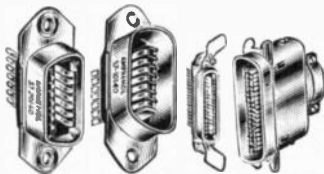
MICRO RIBBON CONNECTORS

Rt. angle 50 contact connectors provide max. contact density in min. space. With polyethylene dust covers, cadmium plated brass shell, 5 Amps, 700 VDC.



MICRO-RIBBON CONNECTORS

Series 57. For cable-to-chassis connections. Molded of diallylphthalate. Cont.: gold plated over silver. Shells: cadmium plated brass. Float: .020 V. Rating: 5 amps; 700 V. sea level, 200 at 70,000 ft. altitude. *Cable-to-chassis plug; Latch-type receptacle.



57-20140 57-10140 57-30360 57-40360

Stk. No.	Type	Cont.	Descrip.	1-9	10-49	50-99	100-249
42F190	57-10140	14	Male	1.76	1.48	1.20	1.08
42F193	57-20140	14	Female	1.80	1.52	1.23	1.11
42F191	57-10240	24	Male	2.35	1.98	1.61	1.44
42F194	57-20240	24	Female	2.40	2.02	1.64	1.47
42F192	57-10360	36	Male	2.68	2.26	1.83	1.65
42F195	57-20360	36	Female	2.75	2.31	1.88	1.69
42F126	57-31040*	14	Male	3.37	2.83	2.30	2.07
42F127	57-40140†	14	Female	2.22	1.87	1.52	1.36
42F128	57-30240*	24	Male	3.70	3.11	2.52	2.27
42F129	57-40240†	24	Female	2.64	2.22	1.80	1.62
42F130	57-30360*	36	Male	4.53	3.81	3.09	2.78
42F131	57-40360†	36	Female	2.84	2.39	1.94	1.74
42F132	57-10500	50	Male	3.54	2.98	2.42	2.17
42F133	57-20500	50	Female	3.59	3.02	2.45	2.20
42F134	57-30500*	50	Male	4.97	4.18	3.39	3.05
42F135	57-40500†	50	Female	3.72	3.13	2.54	2.28

Stk. No.	Type	Cont.	Des.	1-9	10-49	50-99	100-249
42F198	57-10500-7	50	Plug	4.20	3.53	2.87	2.58
42F199	57-10500-7	50	Recp.	4.47	3.76	3.05	2.74

PRIN-CIR CONNECTORS TYPE 143

Series 143 Receptacles. Fit .054"-.070" circuit boards or series 133 plugs. Gold-plated silver contacts have only 5 millivolt drop at 2 amps, readily withstand repeated insertions. Contacts are on .156" centers except for 28-cont. style which has .125" centers. Last 2 digits in type no. indicate contact style: -01 eyelet; -02 lug; -03 pin. Card insertion depth .333", height .458", weight 3 oz.



SERIES 133

Series 133 Plugs: Double tail solder type, rated 600V RMS, 5 amp. Height, .458".

Stock No.	Type No.	Cont.	1-49	50-99	100-249	250-999	1M-2499
42F304	143-006-01	6	1.23	1.03	.86	.74	.64
42F300	143-010-01	10	.83	.70	.58	.50	.44
42F308	143-012-01	12	1.50	1.25	1.05	.90	.78
42F301	143-015-01	15	1.08	.90	.76	.65	.57
42F302	143-018-01	18	1.31	1.10	.92	.79	.69
42F303	143-022-01	22	1.46	1.22	1.02	.88	.76
42F306	143-022-02	22	1.58	1.32	1.11	.95	.83
42F309	143-006-03	6	1.29	1.08	.91	.78	.68
42F310	143-010-03	10	.92	.77	.64	.55	.48
42F311	143-012-03	12	1.60	1.34	1.12	.96	.84
42F312	143-015-03	15	1.19	.99	.83	.71	.62
42F313	143-018-03	18	1.44	1.20	1.00	.86	.75
42F314	143-022-03	22	1.62	1.36	1.14	.98	.85
42F315	113 036 03	36	1.70	1.30	2.60	2.23	1.94

42F305 | 143 953 | polarizing key for above. NET .017

Continued on next page



Amphenol Connectors

SERIES 133 PLUGS—MATES FOR SERIES 143

Stock No.	Type No.	Cont.	1-49	50-99	100-249	250-999	1M-2499
42F307	133-006-03	6	1.73	1.44	1.21	1.04	.90
42F196	133-006-21	6	1.77	1.48	1.24	1.06	.93
42F136	133-010-21	10	2.00	1.67	1.40	1.20	1.05
42F137	133-015-21	15	2.30	1.93	1.62	1.39	1.21
42F138	133-018-21	18	2.45	2.05	1.72	1.48	1.29
42F139	133-022-21	22	2.66	2.23	1.87	1.60	1.40

MICRO-MINIATURE CONNECTORS



Series 220. Wire-Form contact has spring tension in the pin contact (wire pin contact is always recessed within the plug). Newly designed solid pin Relia-Tac contact (Relia-Tac socket contact recessed within the plug). Guide pins are used for polarization, keying, and/or pre-aligning the mating connectors. They take the place of one pair of connectors and are inserted in the plug. Wire range 22-28. Current rating: 3amps. Shpg. wt. 2 oz.

Stk. No.	Type	Description	Per Pkg. of 100		
			1-9	10-99	100 up
39F1400	220-PO2*	Pin cont. Relia-tac	3.70	2.90	2.50
39F1401	220-S02**	Sock. Cont. wireform	8.90	7.10	6.10
39F1402	220-P01*	Pin	6.10	4.90	4.20
39F1403	220-S01**	Socket	2.80	2.20	1.90
39F1404	220-S35	Guide pin	1.14	.....	.....

*Male **Female

MICRO-RAC CONNECTORS



Series 220. Designed for rack and panel or module applications. High contact density in an extremely small space. Guide hardware is supplied with receptacle and pre-aligns mating connectors. Monoblock body, injection molded of polycarbonate resin, with molded in contact identification numbers. Fifty-two contacts in a connector only 1.888" long, 104 contacts; 1.492. For 104; 2.6111. Shpg. Wt. 1 oz.

Stk. No.	Type	Contacts	Description	1-9	10-49	50-99	100-249
39F1405	220-1N052	52	plug	1.67	1.38	1.11	.95
39F1406	220-2N052	52	rec.	1.02	.83	.67	.58
39F1407	220-5	52	cable clamp	1.95	1.61	1.29	1.17
39F1408	220-1N104	104	plug	1.95	1.59	1.38	1.10
39F1409	220-2N104	104	rec.	1.35	1.11	.91	.78
39F1410	220-6	104	cable clamp	2.00	1.66	1.33	1.19

MULTI-PURPOSE STRIP CONNECTORS



Series 221. Stack several strip connectors for a block bread-board connector, or cut with a knife or hacksaw for a smaller connector. Cutting eliminates the contact cavity. Connectors can be cut to any size of your various requirements. Guide pins are used to polarize, key, and pre-align contact. Shpg. Wt. 1 oz.

Stk. No.	Type	Contacts	Description	Spacing	1-9	10-49	50-99	100-249
39F1411	221-1160	60	6" plug	.100"	1.02	.85	.69	.58
39F1412	221-1260	60	6" rec.	.100"	.70	.57	.46	.39
39F1413	221-2153	53	4" plug	.075"	1.65	1.38	1.11	.94
39F1414	221-2253	53	4" rec.	.075"	1.22	1.02	.83	.70

Depend on NEWARK for the Latest Top-Quality Equipment. Complete On-the-Shelf Stocks — Lowest Prices — Fast Service.

Stock No.	Type No.	Cont.	1-49	50-99	100-249	250-999	1M-2499
42F316	133-010-03	10	1.93	1.62	1.36	1.16	1.01
42F317	133-012-03	12	2.04	1.71	1.43	1.23	1.07
42F318	133-015-03	15	2.23	1.86	1.58	1.34	1.17
42F319	133-018-03	18	2.39	2.00	1.68	1.44	1.25
42F320	133-022-03	22	2.52	2.10	1.77	1.51	1.32

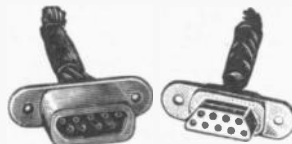
MIGHTY-MITE CABLE CONNECTORS



4-Hole Square Flange Receptacle Mighty-Mite (R) Connectors Series 222. Designed for cable to cable, or panel to panel applications. The cable clamp can be used for potting. Seven to sixty-one contacts are spaced on 0.085 centers. Shp. Wt. 3 oz.

Stock No.	Type	Contacts	Description	1-9	10-49	50-99	100-249
39F1416	222-11N19	19	plug	1.00	.83	.67	.57
39F1417	222-12N19	19	rec.	.80	.67	.54	.46
39F1418	222-518	19	cable clamp	1.68	1.39	1.13	.96
39F1419	222-11N31	31	plug	1.00	.82	.66	.57
39F1420	222-12N31	31	rec.	.80	.66	.54	.46
39F1421	222-519	31	cable clamp	1.80	1.48	1.20	1.02
39F1422	222-11N61	61	plug	1.08	.89	.72	.61
39F1423	222-12N61	61	rec.	.85	.71	.57	.49
39F1424	222-520	61	cable clamp	4.10	3.39	2.74	2.33

TINY-TIM



- Meets Mil-C 8384B
- Snap latch engagement locking device.

Series 223. Excellent for interconnection for circuit modules. For five to thirty-three contacts. Polycarbonate resin dielectric. The trapezoidal shape prevents mismatching. Guide pins are used for keying. Cable clamp used for cable to panel or cable cable applications. Clamp fit plug or to receptacle. Mounting holes 0.10. Shpg. Wt. 1 1/2 oz.

Stock No.	Type	Contacts	Description	1-9	10-49	50-99	100-249
39F1425	223-1105	5	plug	.60	.50	.41	.35
39F1426	223-1205	5	rec.	.57	.48	.38	.33
39F1427	223-1109	9	plug	.53	.44	.35	.30
39F1428	223-1209	9	rec.	.57	.48	.38	.33
39F1429	223-1117	17	plug	.62	.52	.42	.36
39F1430	223-1217	17	rec.	.60	.49	.39	.34
39F1431	223-1125	25	plug	.55	.46	.37	.32
39F1432	223-1225	25	rec.	.60	.50	.41	.34
39F1433	223-1133	33	plug	.67	.55	.45	.38
39F1434	223-1233	33	rec.	.62	.50	.41	.35

RELIA-TAC WIRE FORM TOOLS



294-123 294-137 294-205 294-188

ECONOMY CRIMPING TOOLS

Stock No.	Type	Description	Net
39F1415	294-188	Four indent	49.95

INSERTION TOOL

Stock No.	Type	Description	Net
39F1435	294-123	Contact insertion tool.	4.43

CONTACT REMOVAL TOOL

Stock No.	Type	Description	Net
39F1436	294-137	Wire Form	8.32
39F1437	294-205	Relia Tac	8.32

Amphenol Connectors



NEW AMPHENOL MIL-CRIMP BNC CONNECTORS

USE WITH AMPHENOL COAX CABLES RG58, RG58A, RG58C, RG-141, RG-141A

Stock No.	Mfg. Type	Similar UG No.	Description	1-24	25-99	100-499	500-999	1000-2499
39F1438	31-320	UG/88E	Plug	1.09	.90	.75	.65	.57
39F1439	31-335	UG/913A	Ang. Plug	3.34	2.74	2.30	.....	.....
39F1440	31-327	UG/89C	Jack	1.31	1.08	.90	.78	.69
39F1441	31-342	UG/909R	Blkhd. Jack	1.75	1.43	1.20	1.04	.....

USE WITH AMPHENOL COAX CABLES RG55, RG55A, RG55B, RG-142, RG-142A, RG-142B, RG-223

39F1442	31-326	UG/88E	Plug	1.09	.90	.75	.65	.57
39F1443	31-334	UG/913A	Ang. Plug	3.34	2.74	2.30	.....	.....
39F1444	31-333	UG/89C	Jack	1.31	1.08	.90	.78	.....
39F1445	31-341	UG/909B	Blkhd. Jack	1.75	1.43	1.20	1.04	.92

USE WITH AMPHENOL COAX CABLES RG59, RG59A, RG59B, RG62, RG62B, RG62C, RG-140

39F1446	31-321	UG/260B	Plug	1.05	.90	.75	.65	.57
39F1447	31-336	UG/913A	Ang. Plug	3.34	2.74	2.30	1.99	1.75
39F1448	31-328	UG/216C	Jack	1.38	1.14	.95	.82	.....
39F1449	31-343	UG/910B	Blkhd. Jack	1.75	1.43	1.20	.....	.....

USE WITH AMPHENOL COAX CABLES RG71, RG71A, RG71B

39F1450	31-322	UG/260B	Plug	1.09	.90	.75	.65	.....
39F1451	31-337	UG/913A	Ang. Plug	3.34	2.74	2.30	.....	.....
39F1452	31-329	UG/261C	Jack	1.38	1.14	.95	.....	.....
39F1453	31-344	UG/910B	Blkhd. Jack	1.75	1.43	1.20	.....	.....

USE WITH AMPHENOL COAX CABLES RG180, RG180A, RG180B, RG195, RG195A

39F1454	31-323	UG/1033	Plug	1.24	1.02	.85	.74	.65
39F1455	31-338	UG/913A	Ang. Plug	3.34	2.74	2.30	.....	.....
39F1456	31-330	UG/1056	Jack	1.38	1.14	.95	.....	.....
39F1457	31-345	UG/910B	Blkhd. Jack	1.75	1.43	1.20	.....	.....

USE WITH AMPHENOL COAX CABLES RG122

39F1458	31-324	.....	Plug	1.24	1.02	.85	.....	.....
39F1459	31-339	.....	Ang. Plug	3.34	2.74	2.30	.....	.....
39F1460	31-331	.....	Jack	1.75	1.43	1.20	.....	.....
39F1461	31-345	910B	Blkhd. Jack	1.75	1.43	1.20	.....	.....

39F1462	31-325	.....	Plug	1.24	1.02	.85	.74	.65
39F1463	31-340	.....	Ang. Plug	3.34	2.74	2.30	.....	.....
39F1464	31-332	.....	Jack	1.75	1.43	1.20	.....	.....
39F1465	31-347	.....	Blkhd. Jack	2.11	1.73	1.45	.....	.....

TYPE N CONNECTORS

Stk. No.	Type	Jan Type	Fig.	Description	For RG-/U Cable	Max. Jkt. Dia.	1-24	25-99	100-499	500-999	1000-2499
39F1101	82-86	UG-18B/U	C	Plug	5, 6, 21	.332	3.20	2.62	2.20	1.90	1.68
39F1119	82-203	UG-18C/U	C	Plug (3)	5, 6, 21	.332	3.71	3.04	2.55	.....	.....
39F1103	82-88	UG-20B/U	E	Jack	5, 6, 21	.332	2.76	2.27	1.90	.....	.....
39F1124	82-210	UG-20C/U	E	Jack (3)	5, 6, 21	.332	2.40	1.97	1.65	.....	.....
39F1108	82-96	UG-21C/U	C	Plug	8, 9, 10	.332	2.91	2.39	2.00	1.73	1.52
39F019	82-61	UG-21B/U	C	Plug	8, 9, 10	.332	1.28	1.05	.88	.76	.67
39F1118	82-202	UG-21D/U	C	Plug (3)	8, 9, 10	.332	1.18	.97	.81	.70	.62
39F1107	82-95	UG-22C/U	D	Panel Jack	8, 9, 10	.332	2.62	2.15	1.80	.....	.....
39F020	82-62	UG-22B/U	D	Panel Jack	8, 9, 10	.332	1.82	1.49	1.25	1.08	.95
39F1122	82-208	UG-22D/U	D	Panel Jack (3)	8, 9, 10	.332	2.62	2.15	1.80	1.56	.....
39F021	82-63	UG-23B/U	E	Jack	8, 9, 10	.332	1.53	1.25	1.05	.91	.80
39F1106	82-94	UG-23C/U	E	Jack	8, 9, 10	.332	2.18	1.79	1.50	.....	.....
39F1123	82-209	UG-23D/U	E	Jack (3)	8, 9, 10	.332	1.60	1.31	1.10	.95	.84
39F076	82-64	UG-27A/U	F	90° adapter	.....	.....	3.05	2.51	2.10	1.82	1.60
39F1109	82-98	UG-27B/U	F	90° adapter	.....	.....	4.21	3.46	2.90	2.51	2.21
39F1127	82-213	UG-27C/U	F	90° adapter	.....	.....	4.36	3.58	3.00	2.59	2.28
39F1110	82-99	UG-28A/U	F	Tee adapter	.....	.....	4.58	3.76	3.15	2.72	2.40
39F077	82-65	UG-29A/U	G	St. adapter	.....	.....	2.04	1.67	1.40	1.21	1.07
39F1112	82-101	UG-29B/U	G	St. adapter	.....	.....	2.25	1.85	1.55	1.34	1.18
39F022	82-66	UG-30/U	.....	Bulk. adapter	.....	.....	2.98	2.45	2.05	1.77	1.56
39F1117	82-201	UG-30C/U	.....	Bulk. adapter	.....	.....	5.20	4.27	3.58	3.09	2.72
39F1111	82-100	UG-57B/U	H	St. adapter	.....	.....	3.13	2.56	2.15	1.86	1.64
39F023	82-24	UG-58/U	A	Receptacle	.....	.....	.98	.80	.67	.58	.51
39F028	82-97	UG-58A/U	B	Receptacle	.....	.....	1.05	.86	.72	.63	.55
39F024	82-84	UG-94A/U	C	Plug (1)	11-13	.420	2.62	2.15	1.80	1.56	1.37
39F1104	82-89	UG-95A/U	E	Jack (1)	11-13	.420	2.25	1.85	1.55	1.34	1.18
39F025	82-90	UG-96A/U	D	Panel Jack (1)	11-13	.420	2.62	2.15	1.80	.....	.....
39F018	82-36	UG-107A/U	B	Tee adapter	.....	.....	6.90	5.66	4.75	4.10	3.61
39F078	82-102	UG-107B/U	B	Tee adapter	.....	.....	5.52	4.53	3.80	3.28	2.89
39F1113	82-105	UG-204A/U	J	Plug	14, 74	.545	8.64	7.09	5.95	.....	.....
39F1128	82-811	UG-680/U	K	Bulk. recpt.	.....	.....	2.40	1.97	1.65	1.43	1.26
39F1114	82-106	MX-913/U	.....	Cap & chain	.....	.....	.69	.56	.47	.41	.36
39F1115	82-112	.....	B	Receptacle	.....	.....	2.84	2.33	1.95	1.69	1.49
39F1129	82-835	.....	L	Angle plug	8, 9, 10	.332	4.07	3.34	2.80	2.42	2.13
39F1130	82-1275	.....	.....	Grounding lug	.....	.....	.13	.11	.09	.08	.....
39F1340	91100	UG-30D/U	C	Adpg 2F Ends	.....	.....	6.25	5.13	4.30	3.71	3.27
39F1323	34000	UG-536/U	.....	Plug R, 55, 58	.....	.....	2.84	2.33	1.95	1.69	1.49
39F1324	34025	UG-536B/U	C	Plug, Improved R, 55	.....	.....	1.44	1.18	.99	.86	.76

HEX CRIMP TOOLS

Stk. No.	Tool P/N	Die P/N Included	Connector Series	Die Cavity	Crimps	RG Cable	NET
39F1466	227-350	227-292-1	BNC/TNC	A	Braid	55, 48, 141, 142, 233, 122, 180, 195, 21-597	97.00
39F1467	227-375	227-920-2	BNC/TNC	B	Braid	421-637, 71, 59, 62, 140	97.00



AMPHENOL MIL-CRIMP BNC CONNECTORS

Terminates with 100% crimp or at the option of the user, with center contact soldered. Constant 50 ohm imped. VSWR identical to solder type BNC connectors up through 10,000 Mc. 1.25 to 1 max. cable retention equal to braid. Center contact completely captivated. Inter-mateable with all BNC connectors. Sizes: plug, 1 1/4 x 9/16" dia. right angle plug, 1 1/8 x 1 1/8" dia. cable jack, 1 1/2 x 9/16" dia. blkhd. jack, 1 3/8 x 1 1/8" dia. — 1/2" "D" mounting hole.

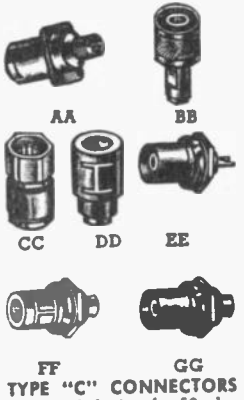
Weatherproof low-voltage connectors of constant impedance. All are 50 ohm types except (1), which are 70 ohms.





Amphenol Connectors

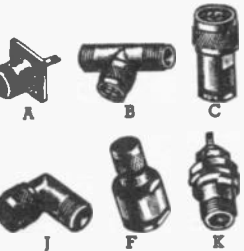
MISCELLANEOUS CONNECTORS AND ADAPTERS



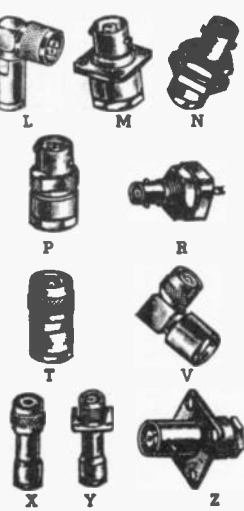
Stk. No.	Type	Jan Type	Fig.	Description	Max. Jkt. RG-/U Cables	Dia.	1-24	25-99	100-499	500-999	1000-2499
39F1171	82-21	UG-85/U	.....	Plug	(*)	.242	4.87	3.99	3.35	.....	.....
39F1174	82-42	UG-87/U	.....	Receptacle	.....	.....	3.71	3.04	2.55	.....	.....
39F1175	82-59	UG-154/U	CC	Plug	17, 18	.870	20.33	16.68	14.00	12.09	10.64
39F1178	82-80	UG-352/U	A	Receptacle	.....	.....	7.26	5.96	5.00	4.32	3.80
39F1177	82-110	UG-352A/U	A	Receptacle	.....	.....	8.86	7.27	6.10	.....	.....
39F1195	82-540	UG-565A/U	.....	.....	.....	.....	4.21	3.46	2.90	2.51	.....
39F1213	82-538	UG-943A/U	C	Plug	10, 12	.405	4.80	3.93	3.30	.....	.....
39F1187	82-312	UG-1185/U	.....	Plug	(†)	.425	1.46	1.20	1.00	.87	.76
39F1188	82-313	UG-1186/U	.....	Jack	(†)	.425	2.55	2.09	1.75	1.51	1.33
39F1190	82-320	UG-1213/U	.....	Plug	(†)	.425	5.35	4.39	3.68	3.18	2.80
39F1180	82-150	.....	.....	Splice adpt.	8-10	.420	15.25	12.51	10.50	.....	.....
39F1196	82-830	.....	DD	Push-on plug	55, 58	.206	.56	.46	.38	.33	.29
39F1197	82-831	.....	EE	Push-on recept.	.....	.....	1.03	.85	.71	.62	.54
39F1198	82-832	.....	DD	Push-on plug	62, 71	.250	.54	.44	.37	.32	.29
39F1199	82-841	.....	EE	Push-on recept.	.....	.....	1.14	.93	.78	.68	.60
39F1200	82-842	.....	DD	Push-on plug	.....	.....	.80	.66	.55	.48	.....
39F1201	82-845	.....	.....	Push-on plug	55, 58	.206	1.31	1.08	.90	.78	.69
39F1202	82-846	.....	FF	Push on jack	.....	.....	1.09	.90	.75	.65	.57
39F1205	82-888	.....	GG	.....	.....	.....	1.80	1.48	1.24	1.07	.95

*55, 58, 59, 60, 71. †8-10, 87A, 115, 115A.

FF TYPE "C" CONNECTORS
Improved design for 50 ohm RF cables. Will also fit 70 ohm cables where impedance match is not critical. Employ quick-disconnect bayonet-type lock. All metal parts are silver-coated, and all have Teflon dielectric. Shpg. wt., 4 oz.



TYPE "HN" CONNECTORS
Weatherproof high-voltage connectors for 50-ohm HF cables. Have 5 kv peak rating, when used with Amphenol 307 Silicone compound. Machined brass, with silver plating and special coating to minimize discoloration. Wt., 4 oz.



TYPE C CONNECTORS

39F087	82-530	UG-573A/U	T	Plug	8, 9	.420	2.04	1.67	1.40	1.21	1.07
39F1135	82-508	UG-564/U	.....	.....	.....	.....	2.98	2.45	2.05	1.77	.....
39F1149	82-536	UG-566A/U	B	90° adapter	.....	.....	7.63	6.26	5.25	.....	.....
39F1148	82-535	UG-567A/U	V	Teo adapter	.....	.....	5.81	4.77	4.00	3.46	.....
39F1133	82-504	UG-568/U	A	Receptacle	.....	.....	1.82	1.49	1.25	1.08	.85
39F1134	82-505	UG-569/U	R	Bulk. recept.	.....	.....	2.33	1.91	1.60	1.38	1.22
39F1131	82-502	UG-570/U	N	Bulk. jack	8, 9	.420	4.36	3.58	3.00	2.59	.....
39F086	82-501	UG-571/U	M	Panel jack	8, 9	.420	3.34	2.74	2.30	.....	.....
39F1132	82-503	UG-572/U	P	Jack	8, 9	.420	3.49	2.86	2.40	.....	.....
39F1143	82-532	UG-628A/U	T	HV plug	8, 9A	.420	2.69	2.21	1.85	1.60	1.41
39F1143	82-521	UG-632/U	N	Bulk. HV jack	8, 9A	.420	4.58	3.76	3.15	.....	.....
39F1140	82-514	UG-643/U	.....	.....	.....	.....	2.25	1.85	1.55	1.34	1.18
39F1141	82-515	UG-634/U	R	Bulk. recept.	.....	.....	3.13	2.56	2.15	1.86	1.64
39F1137	82-511	UG-705/U	R	Bulk. recept.	.....	.....	3.49	2.86	2.40	.....	.....
39F1147	82-534	UG-709A/U	C	Plug	55, 58	.206	2.47	2.03	1.70	1.47	1.30
39F1144	82-531	UG-710A/U	V	90° plug	.....	.....	4.21	3.46	2.90	2.51	2.21
39F1138	82-512	MX-1142/U	.....	Cap & chain	.....	.....	.95	.78	.65	.56	.50

TYPE HN CONNECTORS

39F026	82-804	UG-59B/U	X	Plug	8-10	.420	3.13	2.56	2.15	1.86	1.64
39F1150	82-38	UG-59A/U	X	Plug	8-10	.420	3.20	2.62	2.20	1.90	1.68
39F1151	82-39	UG-60A/U	Y	Jack	8-10	.420	3.78	3.10	2.60	.....	.....
39F1164	82-814	UG-60B/U	Y	Jack	8-10	.420	5.57	4.57	3.83	.....	.....
39F1152	82-40	UG-61A/U	Y	Panel jack	8-10	.420	3.05	2.51	2.10	.....	.....
39F1185	82-815	UG-61B/U	Y	Panel jack	8-10	.420	9.88	8.10	6.80	.....	.....
39F1156	82-91	UG-212A/U	Z	90° adapter	.....	.....	5.96	4.89	4.10	3.54	.....
39F1154	82-56	UG-333/U	AA	Jack	17, 18	.870	14.16	11.62	9.75	.....	.....
39F1159	82-107	UG-333A/U	Z	Panel jack	17, 18	.870	8.93	7.33	6.15	.....	.....
39F1160	82-108	UG-334A/U	J	Panel jack	17, 18	.870	12.49	10.25	8.60	.....	.....
39F1158	82-92	UG-496/U	A	Receptacle	.....	.....	2.25	1.85	1.55	1.34	1.18
39F027	82-805	UG-560/U	A	Receptacle	.....	.....	2.73	2.24	1.88	1.63	1.43
39F1157	82-91A	.....	F	90° adapter	.....	.....	8.28	6.79	5.70	.....	.....
39F1163	82-130	.....	.....	Cap & chain	54A	.....	1.09	.90	.75	.65	.57
39F1166	82-816	.....	BB	Plug	8-10	.250	3.20	2.62	2.20	1.90	1.68
39F1167	82-833	.....	L	Angle plug	.....	.420	6.03	4.95	4.15	3.59	3.16
39F1168	82-836	.....	K	Receptacle	.....	.....	4.21	3.46	2.90	2.51	2.21
39F1169	82-843	.....	.....	HV receptacle	8-10	.....	6.54	5.36	4.50	3.89	3.42
39F1170	82-856	.....	L	Angle plug	.....	.420	7.26	5.96	5.00	4.32	3.80

TAPERING TOOL

Model 103-301. Tapering tool for RG-/U cables. 8-10. Military No. MX-103/U. Shpg. wt., 2 oz. 42F246. NET 7.95

BETWEEN SERIES ADAPTERS

Stk. No.	MIL.	Type	Mates With	1-24	25-99	100-499	500-999	1000-2499
39F1038	UG-201/U	31-830	N female and BNC male	2.33	1.91	1.60	1.38	1.22
39F1029	UG-201A/U	31-216	N female and BNC male	1.82	1.33	1.11	.96	.85
39F074	UG-273/U	31-028	BNC male and UHF 49194	1.56	1.28	1.07	.83	.82
39F1030	UG-349A/U	31-217	N male and BNC female	2.55	2.09	1.75	1.51	1.33
39F1135	UG-564/U	82-508	C male and N female	2.98	2.45	2.05	1.77	.....
39F1185	UG-565A/U	82-540	C female and N male	4.21	3.46	2.90	2.51	.....
39F1217	.....	27-28	BNC female to 50 ohm Screw-on subminax male	1.15	.94	.79	.69	.60
39F1310	UG-146/U	4400	UHF female and N male	2.98	2.45	2.05	1.77	1.56
39F1307	UG-255/U	2900	BNC male and UHF fem.	2.84	2.33	1.95	1.69	1.49
39F1320	UG-318/U	26700	N male and UHF female	6.03	4.95	4.15	.....	.....

SOLDERLESS RF CONNECTORS

Solderless Amphenol connectors eliminate two common soldering operations in connector-cable assembly. Both are similar to the standard Amphenol 83-ISP plug.

Stock No.	Type	Max. Oper. Freq. (mc)	Shp. Wt. (lbs.)	For RG-/U Cables	Max. Jkt. Dia.	1-24	25-99	100-499	500-999	1000-2499
39F088	83-850	200	.083	11	.405	2.11	1.73	1.45	1.26	.....
39F089	83-851	200	.082	65	.....	1.53	1.25	1.05	.91	.80

83-850 — 83-851

Amphenol Connectors



TYPE UHF CONNECTORS

Stock No.	Type	Jan Type	Fig.	Description	For RG-/U Cable	Max. Jkt. Dia.	1-24	25-99	100-499	500-999	1000-2999
39F034	83-1T	M-358	F	Tea adapter (1)	.....	.....	2.84	2.33	1.95	1.69	1.49
39F035	83-58	M-359A	A	90° adapter (1)	.....	.....	2.07	1.70	1.42	1.23	1.08
39F036	83-1J	PL-258	S	St. adapter (1)	.....	.....	1.01	.83	.69	.60	.53
39F030	83-1SP	PL-259	E	Plug (1)	8-13, 63	.420	.54	.44	.37	.32	.29
39F031	83-1SPN	PL-259A	E	Plug (1)	8-13, 63	.420	.88	.72	.60	.52	.46
39F1065	83-756	49195	E	Plug (1)	8-12	.420	1.24	1.02	.85	.74	.65
39F047	83-22F	PL-275	B	Bulk adapter (2)	.....	.....	3.56	2.92	2.45	.....	.....
39F1056	83-2SP	PL-295	H	Plug (4)	57, 130	.625	5.38	4.41	3.70	.....	.....
39F039	83-1R	SO-239	D	Receptacle (1)	.....	.....	.53	.43	.36	.31	.28
39F1055	83-2R	SO-265	G	Receptacle (4)	.....	.....	4.14	3.40	2.85	.....	.....
39F043	83-22SP	UG-102/U	H	Plug (2)	22	.405	1.38	1.14	.95	.82	.73
39F048	83-22R	UG-103/U	G	Receptacle (2)	.....	.....	1.75	1.43	1.20	1.04	.92
39F044	83-22AP	UG-104/U	A	90° Bulk adapter (2)	.....	.....	3.56	2.92	2.45	2.12	.....
39F046	83-22	UG-105/U	C	St. adapter (2)	.....	.....	2.33	1.91	1.60	1.38	.....
39F037	83-1H	UG-106/U	C	Hood (1-2)	22	.405	.38	.31	.26	.23	.20
39F1064	83-750	UG-111/U	E	Plug (1)	59, 62, 71	.250	.76	.62	.52	.45	.40
39F040	83-185	UG-175/U	.....	Reducing adap.	58	.195	.16	.14	.11	.10	.09
39F041	83-168	UG-176/U	.....	Reducing adap.	59, 62, 71	.250	.16	.14	.11	.10	.09
39F038	83-765	UG-177/U	C	Hood (1)	29, 55, 58	.206	.31	.25	.21	.19	.16
39F045	83-22T	UG-196/U	.....	Tea adapter (2)	.....	.....	2.33	1.91	1.60	.....	.....
39F032	83-776	UG-203/U	E	Plug (1)	55, 59, 62, 71	.250	1.09	.90	.75	.65	.57
39F1051	83-1HP	UG-372/U	C	Hood (1)	8-13, 63	.420	.44	.36	.30	.26	.23
39F1058	83-21R	UG-357/U	D	Receptacle (2)	.....	.....	3.39	2.78	2.33	.....	.....
39F1059	83-21SP	UG-358/U	E	Plug (3)	34	.625	5.62	4.61	3.87	.....	.....
39F036	83-1F	UG-363/U	B	Bulk adapter (1)	.....	.....	2.25	1.85	1.55	1.34	1.18
39F033	83-1AP	UG-646/U	A	90° adapter (1)	.....	.....	1.60	1.31	1.10	.95	.84
39F042	83-1AC	.....	.....	Cap & chain (1-2)	.....	.....	.66	.54	.45	.39	.35
39F1050	83-1BC	.....	.....	Cap & Chain (1-2)	.....	.....	1.08	.89	.74	.....	.....
39F1052	83-1RTY	SO-239	D	Receptacle (1)	.....	.870	.67	.55	.46	.40	.35
39F1061	83-59	.....	I	90° Plug (1)	17, 18	.....	2.86	2.35	1.97	1.70	1.50
39F1062	83-65	.....	.....	Reducing adap.	.250 Diam.	.870	.21	.17	.14	.12	.11
39F1070	83-86	.....	.....	UHF cable conn.	17	.....	12.27	10.07	8.45	.....	.....
39F1063	83-716	.....	.....	Receptacle* (1)	.....	.....	3.47	2.85	2.39	2.07	.....
39F1066	83-786	.....	.....	Hood & nut (1)	29, 55, 58	.206	.90	.74	.62	.54	.48
39F049	83-798	SO-239A	D	Hood & nut (1)	.....	.....	1.14	.93	.78	.68	.60
39F1068	83-821	.....	H	Plug (2) Teflon	22	.405	2.25	1.85	1.55	1.34	1.18
39F1225	83-822	49190	E	Plug (1) Teflon	.....	.....	1.02	.84	.70	.61	.54
39F088	83-850	.....	E	Solderless plug	11	.405	2.11	1.73	1.45	1.26	1.12
39F089	83-851	.....	E	Solderless plug	8-13, 63	.420	1.53	1.25	1.05	.91	.80

*Pressurized types

- NOTES: 1) Small single-contact connectors 2) Small twin-contact connectors 3) Large single-contact connectors 4) Large twin-contact connectors

CABLE TERMINATIONS

Designed to terminate coax shield without soldering and permitting the inner conductor to extend beyond the termination. (*) Mount in 5/16" hole. Average wt., 4 oz.

Stock No.	Type	Jan Type	Fig.	RG-U Cable	Max. Jkt. Dia.	Mounting	1-24	25-99	100-499	500-999	1000-2499
39F1301	1050	MC1530/U*	J	59, 62, 71	.250	Locknut	.54	.44	.37	.32	.29
39F1300	1025	MX1684/U*	J	56, 58	.195	Locknut	.63	.52	.43	.38	.33
39F1309	4025	MX1801/U	K	55, 62, 71	.250	Rt. Strap	.58	.48	.40	.....	.....

COAXIAL PLUG-IN CONNECTORS

Commonly used on drawer-type chassis for direct plug-in connections. Plug and receptacle mount in 5/16" hole. 2,000 volts. Average wt., 4 oz.

Stock No.	IPC Type	Jan Type	Fig.	Description	1-24	25-99	100-499	500-999	1000-2499
39F1305	2225	UG1050/U	N	Male	.85	.69	.58	.50	.44
39F1304	2175	UG1051/U	N	Female	1.02	.84	.70	.61	.54
39F1306	2325	.....	.....	Right angle hood	.66	.54	.45	.39	.....
39F1308	3425	.....	.....	Male gold plated	1.02	.84	.70	.....	.....

MB COAXIAL CONNECTORS

Excellent electrical and mechanical properties at low cost! Extremely small, use up to 500 mc, 500 volts, 400°F. Bayonet lock. Average weight, 4 oz.

Stock No.	Jan Type	Fig.	Description	For RG-/U Cable	Max. Jkt. Dia.	1-24	25-99	100-499	500-999	1000-2499
39F1326	45000	P	Plug	58	.195	1.11	.91	.76	.66	.....
39F1329	46000	R	Receptacle nylon	.....	.....	.83	.68	.57	.50	.....
39F1330	46025	R	Receptacle Kel-F	.....	.....	.83	.68	.57	.50	.44
39F1334	48850	P	Plug with Jacket Clamp	195	.....	1.60	1.31	1.10	.95	.84

MHV COAXIAL CONNECTORS

Miniature high voltage connectors are small bayonet-lock connectors for use up to 50 mc 5 000 volts, 5 amps. Similar, but do not mate with BNC Connectors. Average Shpg. wt., 4 oz.

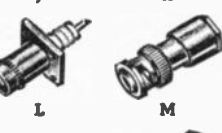
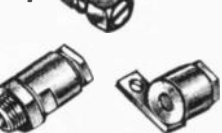
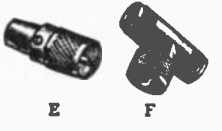
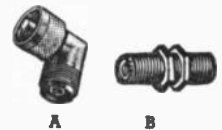
Stk. No.	IPC Type	Jan Type	Fig.	For RG-/U Cable	Max. Jkt. Dia.	1-24	25-99	100-499	500-999	1000-2499
39F1321	27000	UG931/U	L	.....	.....	2.18	1.79	1.50	1.30	1.14
39F1322	28000	UG932/U	M	59	.242	2.04	1.67	1.40	1.21	1.07

TWINAX

Have a nominal impedance of 95 ohms and are weather proof. All are polarized to preserve continuity of the individual conductors. These connectors can normally be used at frequencies up to 200 mc, and in some cases to 500 mc with caution. Maximum peak operating voltage is 500 volts. Type 309-6275 plug for RG-U 22 cable. Average shpg. wt., 4 ounces

Stk. No.	IPC Type	Jan Type	Fig.	Description	Max. Jkt. Dia.	1-24	25-99	100-499	500-999	1000-2499
39F1314	6275	HG 421/U	.....	Plug	405	3.71	3.04	2.55	2.20	1.94
39F1341	6225	UG-422/U	.....	R-ceptacle sq flange	.....	3.17	2.60	2.18	1.89	1.66
39F1342	6175	UG-423/U	O	Panel lock sq flange	.....	3.27	2.68	2.25	.....	.....

Series UHF RF connectors will operate satisfactorily at frequencies up to 200 megacycles without any special precautions, and used at frequencies up to 500 megacycles under certain conditions. These connectors will also handle all peak voltages up to 500 without danger of breakdown. Large single and twin-contact connectors are provided with rubber sealing gasket for weather-proofing, while small single and twin-contact types can be waterproofed by application of Amphenol 307 Silicone Compound to mating insulator surfaces. All metal surfaces are silver-plated and covered with a protective coating to prevent tarnishing. Beaded chains for caps are nickel-plated brass. Shipping weight each, 4 oz. approx.





Amphenol Connectors

Small, weatherproof low-voltage connectors with bayonet action for quick-disconnect applications. Non-constant impedance types for RG-55 and 58/U cables, and modified types for RG-59, 62, and 71/U cables. Shells, couplings, and male contacts are accurately machined from brass... springs are beryllium copper. All parts are silver-plated. Improved Series BNC connectors (Note 1) are constant-impedance 50 ohm types with excellent electrical performance up to 10,000 megacycles. Modified UG-290/U connector: (Note 2) are for RG-62 and 71/U cables, and are not matched. Shp. wt. 3 oz. ea.

TYPE "BNC" CONNECTORS

Stock No.	Type	IAN Type	Fig.	Description	RG/U Cables	Max. Jkt. Dia.	1-24	25-99	100-499	500-999	1M-2499
39F1000	31-006	CW-123/U	E	Cap & chain	.....	.....	.58	.48	.40	.35	.31
39F1009	31-026	CW123A/U	E	Cap & chain (1)	.....	.....	.60	.49	.41	.36	.32
39F072	31-007	CW155/U	.....	Cap	.....	.....	.58	.48	.40	.35	.31
39F1010	31-027	CW155A/U	.....	Cap	.....	.....	.44	.36	.30	.26	.23
39F1002	31-017	CW-159/U	E	Shorting plug	.....	.....	.86	.71	.59	.51	.45
39F1025	31-210	CW-282/U	E	Cap & chain (1)	.....	.....	1.02	.84	.70	.61	.54
39F063	31-002	UG-88/U	B	Plug	55, 58	.206	.72	.59	.49	.43	.38
39F1003	31-018	UG-88B/U	B	Plug	55, 58	.206	.88	.72	.60	.52	.46
39F1018	31-202	UG-88C/U	B	Plug (1)	55, 58	.206	.86	.71	.59	.51	.45
39F084	31-005	UG-89/U	D	Jack	55, 58	.206	1.17	.96	.80	.69	.61
39F1004	31-019	UG-89A/U	D	Jack	55, 58	.206	1.09	.90	.75	.65	.....
39F1021	31-205	UG-89B/U	D	Jack (1)	55, 58	.206	1.38	1.14	.95	.82	.73
39F1017	31-201	UG-291B/U	A	Panel jack (1)	55, 58	.206	2.18	1.79	1.50	1.30	1.14
39F1001	31-016	UG-254A/U	H	Receptacle*	.....	.....	4.21	3.46	2.90	2.51	2.21
39F085	31-012	UG-260/U	B	Plug	59, 62, 71	.250	.79	.65	.54	.47	.41
39F1008	31-021	UG-260A/U	B	Plug	59, 62, 71	.250	.88	.72	.60	.52	.46
39F1027	31-212	UG-260B/U	B	Plug (1)	59, 62, 71	.250	.96	.79	.66	.57	.51
39F086	31-015	UG-261/U	D	Jack	59, 62, 71	.250	1.53	1.25	1.05	.91	.80
39F1007	31-022	UG-261A/U	D	Jack	59, 62, 71	.250	1.46	1.20	1.00	.87	.....
39F1028	31-215	UG-261B/U	D	Jack (1)	59, 62, 71	.250	2.18	1.79	1.50	1.30	1.14
39F067	31-011	UG-262/U	A	Panel jack	59, 62, 71	.250	1.67	1.37	1.15	1.00	.88
39F1008	31-023	UG-262A/U	A	Panel jack	59, 62, 71	.250	1.60	1.31	1.10	.95	.....
39F1028	31-211	UG-262B/U	A	Panel jack (1)	59, 62, 71	.250	2.47	2.03	1.70	1.47	.....
39F088	31-008	UG-274/U	F	Tee adapter	.....	.....	2.33	1.91	1.60	1.38	1.22
39F1024	31-208	UG-274A/U	F	Tee adapter	.....	.....	3.34	2.74	2.30	1.99	1.75
39F069	31-003	UG-290/U	C	Receptacle	.....	.....	1.06	.87	.73	.63	.56
39F1019	31-203	UG-290A/U	C	Receptacle (1)	.....	.....	.86	.71	.59	.51	.45
39F070	31-001	UG-291/U	A	Panel jack	55, 58	.206	1.75	1.43	1.20	1.04	.92
39F1005	31-020	UG-291A/U	A	Panel jack	55, 58	.206	1.75	1.43	1.20	1.04	.....
39F071	31-009	UG-308/U	G	90° adapter	.....	.....	2.40	1.97	1.65	1.43	1.26
39F1071	31-209	UG-306A/U	G	90° adapter	.....	.....	2.62	2.15	1.80	1.56	1.37
39F1036	31-817	UG-447/U	C	Receptacle (2)	.....	.....	1.17	.96	.80	.69	.61
39F1031	31-218	UG-491A/U	.....	Adapter (1)	.....	.....	2.33	1.91	1.60	1.38	1.22
39F1337	31-236	UG-625B/U	.....	Receptacle, 1/16"	.....	.....	.82	.67	.56	.49	.43
39F073	31-102	UG-657/U	J	Receptacle*	.....	.....	1.27	1.04	.87	.75	.67
39F1033	31-220	UG-492A/U	.....	Bulk. adapter*	.....	.....	2.69	2.21	1.85	1.60	1.41
39F1022	31-206	UG-909/U	L	Bulk. jack (1)	55, 58	.206	1.38	1.14	.95	.82	.73
39F1023	31-207	UG-910/U	L	Bulk. jack (1)	59, 62, 71	.250	1.53	1.25	1.05	.91	.80
39F1339	31-238	UG-912/U	.....	Receptacle, 1 1/2"	.....	.....	2.25	1.85	1.55	1.34	1.18
39F1020	31-204	UG-913/U	K	90° plug (1)	55, 58	.206	3.56	2.92	2.45	2.12	1.87
39F1030	31-217	UG-349A/U	M	Adapter†	.....	.....	2.55	2.09	1.75	1.51	1.33
39F1032	31-219	UG-914/U	.....	St. adapter (1)	.....	.....	1.22	1.00	.84	.73	.64
39F075	31-221	UG-1094/U	.....	Receptacle (2)	.....	.....	.72	.59	.49	.43	.38
39F1034	31-222	UG-1098/U	.....	Bulk Recep.	.....	.....	2.55	2.09	1.75	1.51	1.33
39F1012	31-104	.....	C	90° Receptacle	.....	.....	1.60	1.31	1.10	.....	.....
39F1013	31-105	.....	C	Receptacle (2)	.....	.....	1.38	1.14	.95	.82	.73
39F1035	31-759	.....	.....	Ground lug	.....	.....	.13	.11	.09	.08	.08
39F1039	31-842	.....	C	Receptacle (2)	.....	.....	1.46	1.20	1.00	.....	.....
39F1040	31-850	.....	K	90° plug	59, 62, 71	.250	3.13	2.56	2.15	1.86	1.64
39F1041	31-851	.....	.....	Cable feed-thru	58	.206	.66	.54	.45	.39	.35
39F1042	31-351	.....	.....	Plug	58, 141	.....	3.05	2.51	2.10	1.82	1.60
39F1043	31-356	.....	.....	Jack	58, 141	.....	2.62	2.15	1.80	1.56	.....
39F1044	31-359	.....	.....	Plug	59, 62, 140	.....	3.05	2.51	2.10	1.82	1.60

BNC TYPE

Stock No.	Type	IAN Type	Fig.	Description	1-24	25-99	100-499	500-999	1M-2499
39F1302	1300	UG-90/U	M	Panel jack, sq. flange RG55, 58	2.62	2.15	1.80	.....	.....
39F1311	4500	UG-185/U	.....	Receptacle, sq. flange	1.75	1.43	1.20	1.04	.92
39F1331	47000	UG-414/U	.....	2 Female ends, sq. flange	2.04	1.67	1.40	1.21	1.07
39F1313	5675	UG-535/U	.....	Angle receptacle, sq. flange	2.62	2.15	1.80	1.56	1.37
39F1312	5575	UG-625/U	.....	Receptacle, 1/16" single hole mtg.	.82	.67	.56	.49	.43
39F1335	84975	UG-1033/U	L	Plug, improved, RG122	2.25	1.85	1.55	1.34	1.18
39F1315	8525	.....	.....	Angle plug, RG55, 58	2.55	2.09	1.75	1.51	1.33
39F1072	36775	.....	.....	Straight plug, RG58, 141U	.88	.72	.60	.52	.46

CAPTIVATED CONTACT CONNECTORS 50 OHM BNC SERIES

Stock No.	Type	Similar to	Fig.	Description	RG-/U Cables	Max. Jkt. Dia.	1-24	25-99	100-499	500-999	1M-2499
39F1220	31-301	UG-88C/U	D	Plug (1)	55, 58, 141, 142	.206	1.60	1.31	1.10	.95	.84
39F1221	31-302	UG-89B/U	D	Jack (1)	55, 58, 141, 142	.206	2.33	1.91	1.60	1.38	.....
39F1223	31-304	UG-260B/U	B	Plug (1)	59, 62, 71, 140	.250	1.60	1.31	1.10	.95	.84
39F1219	31-300	UG-291B/U	A	Panel jack (1)	55, 58, 141, 142	.206	2.62	2.15	1.80	1.56	.....

NOTES:

*Pressurized Types.

†Connects Male Series N and Female Series BNC.

1) Improved Series BNC Connectors.

2) Modified UG-290/U for RG-62 and 71/U Cables.

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Amphenol Connectors



TYPE 126 RACK AND PANEL CONNECTORS

Cable units have protective can and clamp. Each connector accommodates No. 16 and No. 20 wire. Molded of mica-filled phenolic. Silver-plated brass male contacts, silver-plated beryllium copper female contacts. Gold flash on all contacts. Rated at 500 volts, 60 cycles AC. Wt., 3 oz.

Stock No.	Mfr. Type	Total	Contacts #16	#20	Description	1-49	50-99	100-249
39F050	126-804	11	2	9	Chassis plug	.91	.72	.59
39F051	126-805	11	2	9	Chassis socket	.94	.74	.62
39F052	126-809	11	2	9	Cable plug	1.49	1.17	.97
39F053	126-808	11	2	9	Cable socket	1.52	1.20	1.00
39F054	126-151	11	3	12	Chassis plug	1.20	.95	.78
39F055	126-150	15	3	12	Chassis socket	.91	.72	.59
39F056	126-152	15	3	12	Cable plug	2.33	1.84	1.52
39F057	126-153	15	3	12	Cable socket	1.81	1.43	1.19
39F058	126-806	20	4	16	Chassis plug	1.44	1.13	.94
39F059	126-807	20	4	16	Chassis socket	1.15	.90	.75
39F060	126-811	20	4	16	Cable plug	2.31	1.82	1.51
39F061	126-810	20	4	16	Cable socket	2.02	1.59	1.32



MINIATURE CONNECTORS

Completely new series for interconnecting miniature electronic equipment. Designed to cover a wide range of applications by use of interchangeable nickel-plated, brass hardware and non-corrosive, gold-finished contacts. Bodies are molded of new Amphenol 1-501 dielectric, bases are silver-plated. For No. 20AWG or No. 22 JAN-C-76 wire. Has 5/8" threaded body with hex nut for panel mounting. Shpg. wt., 2 oz.

Stock No.	Mfr. Type	Contacts	Description	1-49	50-99	100-249
42F100	126-010	5	Chassis Plug	.63	.50	.41
42F101	126-011	5	Chassis Socket	1.01	.80	.66
42F104	126-191	7	Chassis Plug	.74	.58	.48
42F105	126-192	7	Chassis Socket	1.28	1.01	.84
42F102	126-012	9	Chassis Plug	.86	.68	.56
42F103	126-013	9	Chassis Socket	1.59	1.26	1.04
42F108	126-1063		Hood and clamp assembly	.53	.42	.35
42F109	126-1064		Locking sleeve for cord conn.	.31	.24	.20
42F110	126-1069		Clip retainer for chassis unit.	.05	.04	.04



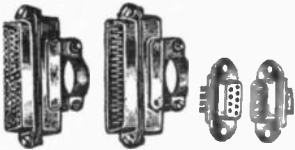
WITH LOCKING CLIP

Stk. No.	Mfr. Type	Cont.	Desc.	1-49	50-99	100-249
42F112	126-214	4	Plug	.77	.61	.50
42F113	126-216	5	Plug	.67	.53	.44
42F114	126-218	5	Socket	1.08	.85	.71
42F115	126-197	7	Plug	.80	.63	.53
42F116	126-198	7	Socket	1.35	1.07	.89
42F117	126-219	9	Plug	.92	.73	.60
42F118	126-221	9	Socket	1.66	1.31	1.09

WITH HOOD AND CLAMP

Stk. No.	Mfr. Type	Cont.	Desc.	1-49	50-99	100-249
42F119	126-215	4	Socket	1.30	1.03	.85
42F120	126-217	5	Plug	1.40	1.11	.92
42F121	126-223	5	Socket	1.81	1.43	1.19
42F122	126-195	7	Plug	1.54	1.22	1.01
42F123	126-196	7	Socket	2.09	1.65	1.37
42F124	126-220	9	Plug	1.66	1.31	1.09
42F125	126-222	9	Socket	2.39	1.89	1.57

MIN RAC 17 MINIATURE RACK AND PANEL CONNECTORS



Newest in the Amphenol line, for solder type contacts. Weight saving of 50% over old style. Uniform assembly separate from the connector plus removability at any time for circuit changes. Contacts are gold over silver plated.

RECEPTACLES Chromate finish

Stk. No.	No. of Contacts	Type	1-9	10-49	50-99	100-249	250-499	500-999	1M-2499
39F1360	9	17-10090	1.48	1.32	1.09	.97	.81	.78	.74
39F1361	15	17-10150	2.02	1.81	1.49	1.32	1.11	1.06	1.01
39F1362	25	17-10250	3.04	2.72	2.23	1.99	1.67	1.60	1.52
39F1363	37	17-10370	4.18	3.74	3.07	2.74	2.30	2.20	2.09
39F1364	50	17-10500	5.38	4.82	3.95	3.52	2.96	2.83	2.69

RECEPTACLES gold iridite fin.

Stk. No.	No. of Contacts	Type	1-9	10-49	50-99	100-249	250-499	500-999	1M-2499
39F1365	9	17-11090	1.48	1.32	1.09	.97	.81	.78	.74
39F1366	15	17-11150	2.02	1.81	1.49	1.32	1.11	1.06	1.01
39F1367	25	17-11250	3.04	2.72	2.23	1.99	1.67	1.60	1.52
39F1368	37	17-11370	4.18	3.74	3.07	2.74	2.30	2.20	2.09
39F1369	50	17-11500	5.38	4.82	3.95	3.52	2.96	2.83	2.69

PLUGS Chromate finish

Stk. No.	No. of Contacts	Type	1-9	10-49	50-99	100-249	250-499	500-999	1M-2499
39F1370	9	17-20090	1.04	.93	.76	.68	.57	.55	.52
39F1371	15	17-20150	1.26	1.13	.93	.83	.69	.66	.63
39F1372	25	17-20250	1.82	1.63	1.34	1.19	1.00	.96	.91
39F1373	37	17-20370	2.50	2.24	1.84	1.63	1.38	1.31	1.25
39F1374	50	17-20500	3.22	2.88	2.37	2.11	1.77	1.69	1.61

PLUGS gold iridite fin.

Stk. No.	No. of Contacts	Type	1-9	10-49	50-99	100-249	250-499	500-999	1M-2499
39F1375	9	17-21090	1.04	.93	.76	.68	.57	.55	.52
39F1376	15	17-21150	1.26	1.13	.93	.83	.69	.62	.59
39F1377	25	17-21250	1.82	1.63	1.34	1.19	1.00	.96	.91
39F1378	37	17-21370	2.50	2.24	1.84	1.63	1.38	1.31	1.25
39F1379	50	17-21500	3.22	2.88	2.37	2.11	1.77	1.69	1.61

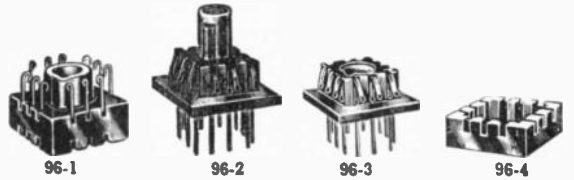
CABLE CLAMP ASSEMBLIES

Stk. No.	No. of Contacts	Type	1-9	10-49	50-99	100-249	250-499	500-999	
39F1380	9	17-310-01	1.13	.95	.76	.68	.57	.52	.49
39F1381	15	17-311-01	1.18	.99	.78	.71	.59	.54	.50
39F1382	25	17-312-01	1.24	1.02	.82	.74	.62	.57	.53
39F1383	37	17-313-01	1.28	1.07	.86	.77	.64	.59	.55
39F1384	50	17-314-01	1.31	1.09	.87	.79	.65	.60	.56

Gold iridite

Stk. No.	No. of Contacts	Type	1-9	10-49	50-99	100-249	250-499	500-999	
39F1385	9	17-310-02	1.13	.95	.76	.68	.57	.52	.49
39F1386	15	17-311-02	1.18	.99	.78	.71	.59	.54	.50
39F1387	25	17-312-02	1.24	1.02	.82	.74	.62	.57	.53
39F1388	37	17-313-02	1.28	1.07	.86	.77	.64	.59	.55
39F1389	50	17-314-02	1.31	1.09	.87	.79	.65	.60	.56

MICRO-MOD CONNECTORS



Micro-Mod connectors for modular or "stick" circuitry. Have unique double-spring design contacts with elastic reserve. Contacts, on .075" centers, are made of .010" beryllium copper wire, gold-over-silver plated. Micro-Mod connectors have durable glass-filled diallyl phthalate dielectric. The 96-4 plug mates with 96-3 receptacle, which is supplied without contacts (the module leads form the female contacts). This pair is recommended for modular or "stick" applications that have AWG #28 module leads (.012"). The 96-1 receptacle and 96-2 plug with polarizing key are supplied with contacts. The plug has a cadmium-plated molded-in brass polarizing key while the receptacle has a base and a keyway. This version can be used for cable-to-chassis, cable-to-cable, or modular applications. Dimensions: Model 96-1 Receptacle .380" sq. x .170" H; Model 96-2 plug .380" sq. x .742" H; Model 96-3 Receptacle .380" sq. x .130" H; Model 96-4 Plug .380" sq. x .577" H. Av. Wt., .03 oz.

12 Contact

Stk. No.	Type	Descriptions	1-9	10-49	50-99	100-249
39F1355	96-1	pol. receptacle	4.14	3.33	2.99	2.62
39F1356	96-2	pol. plug	6.11	4.93	4.43	3.87
39F1357	96-3	receptacle	.52	.42	.38	.33
39F1358	96-4	plug	5.16	4.16	3.74	3.27

MIN RAC LOCKING ASSEMBLIES

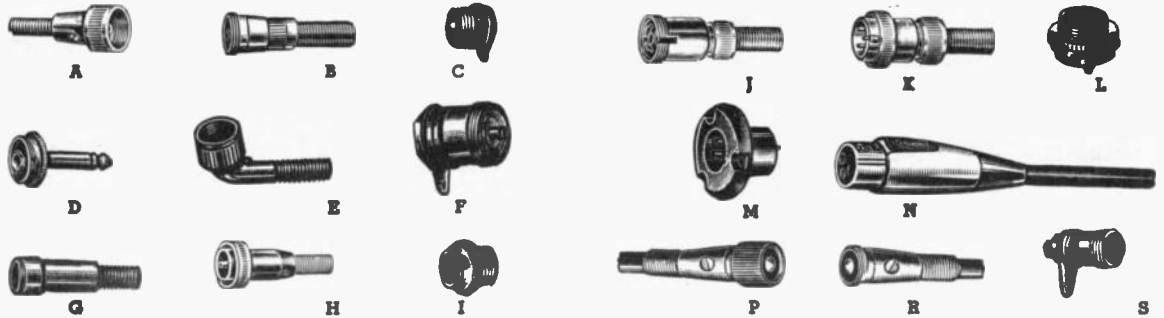
CLEAR CHROMATE FINISH

For positive latching in cable to panel applications. Use with cable clamp assemblies.

Stk. No.	Type	Use With	1-9	10-49	50-99	100-249	250-499	500-999
39F1390	17-529	All except 50 cont. spring	.65	.59	.49	.40	.36	.30
39F1391	17-768	All sizes screw	.72	.65	.54	.44	.40	.33
39F1392	17-770	50 cont. spring	.65	.59	.49	.40	.36	.30
39F1393	17-769	All float screws	.61	.55	.46	.37	.34	.28



Amphenol Connectors



MICROPHONE CONNECTORS

Top-quality microphone connectors, chrome-plated brass, threaded coupling spring clamps. All microphones listed in this Catalog are supplied less connector—choose the one to meet

your application from the complete selection below. Receptacles are for panel mounting. Plugs will fit either Jacks or Receptacles. Av. shpg. wt. 3 oz.

SERIES 75 SINGLE BUTTON CONTACT

Flat button contact means no pins to bend. Straight plug may be converted to jack by removing coupling ring. Phono plug adapter, 75 MCIP; screws into plug. Av. shpg. wt., 3 oz.

Stk. No.	Type	Fg.	Con.	Desc.	1-24	25-99	100-249	250-499	500-999
39F000	75-MC1F	A	1	Plug	.64	.53	.447	.383	.340
39F001	75-MC1M	B	1	Jack	.46	.38	.320	.274	.243
39F002	75-PC1M	C	1	Receptacle	.41	.35	.291	.249	.221
39F003	75-MC1P	D	1	Phone Plug Adapter	.52	.43	.364	.311	.276
39F004	75-MC1FA	E	1	90° Plug	1.31	1.09	.917	.785	.697
39F005	75-CL-PC1M	F	1	Receptacle Shorting Cap, Chain	.67	.56	.472	.404	.359
39F1280	75-CCC1	.....	.....	.....	.45	.37	.314	.269	.239

SERIES 75 MINIATURE MICROPHONE CONNECTORS

Miniaturized version of the single contact mike connectors, have same rugged characteristics of standard 75 series mike connectors. Available in a male, female and chassis or panel type. Female is 1 1/4" long, male is 1" long, chassis is 5/8" long. Threads are 3/8-32, all parts machined brass nickel plated. Coupling ring removable for versatility. Accepts maximum cable OD of .208 inches. Wt., 3 oz.

Stk. No.	Model	Desc.	Fig.	1-24	25-99	100-249	250-499	500-999
39F094	75-1	Str. Plug	P	.40	.34	.282	.241	.214
39F095	75-2	Cable Jack	R	.28	.24	.197	.169	.150
39F096	75-3	Receptacle	S	.50	.42	.349	.299	.265

JACKS AND PLUGS



Single-contact units of molded bakelite. Contacts recessed 1/8", to prevent shorts. All are for 3/32" jacks or plugs except * which are for 1/8", † 5/32", ‡ take standard phone tips. 2 oz.

FIG. T—SERIES 78 TIP JACKS

Stk. No.	Type	Color	1-49	50-249	250-499	500-999	1000-2499
39F180	78-1S	Red	.11	.094	.079	.068	.060
39F181	78-1S	Black					
39F182	78-1M	Red*					
39F183	78-1M	Black*					
39F184	78-1L	Red†					
39F185	78-1L	Black†					
39F186	78-1P	Red‡					
39F187	78-1P	Black‡					

FIG. W—SERIES 71 PLUGS

Stk. No.	Type	Color	1-49	50-249	250-499	500-999	1000-2499
39F188	71-1S	Red	.05	.044	.037	.031	.028
39F189	71-1S	Black					
39F190	71-1M	Red*					
39F191	71-1M	Black*					
39F192	71-1L	Red†					
39F193	71-1L	Black†					

BAKELITE MINIATURE CABLE PLUGS

For series 78 sockets. Have plated brass prongs. Wt., 2 oz.

Stk. No.	Type	Pins	1-49	50-249	250-499	500-999	1000-2499
39F180	71-3S	3	.11	.096	.080	.069	.061
39F181	71-4S	4	.14	.113	.095	.081	.072
39F182	71-5S	5	.15	.122	.102	.088	.078
39F183	71-6S	6	.17	.144	.121	.104	.092

SERIES 80 ONE PIN CONTACT

Stk. No.	Type	Fg.	Con.	Desc.	1-24	25-99	100-249	250-499	500-999
39F006	80-F	G	1F	Jack	.65	.54	.454	.389	.345
39F1281	80-F1	.....	1F	Plug	.69	.58	.483	.414	.367
39F007	80-M	H	1M	Plug	.67	.56	.469	.401	.356
39F1282	80-M1	.....	1M	Jack	.62	.52	.438	.375	.333
39F008	80-C	I	1F	Recept.	.54	.45	.375	.321	.285
39F1283	80-C1	.....	1M	Recept.	.55	.46	.387	.331	.294

SERIES 80 TWO PIN CONTACT

Stk. No.	Type	Fg.	Con.	Desc.	1-24	25-99	100-249	250-499	500-999
39F009	80-MC2F	G	2F	Jack	.71	.59	.495	.424	.376
39F1284	80-MC2F1	.....	2F	Plug	.75	.63	.526	.450	.400
39F010	80-MC2M	H	2M	Plug	.69	.57	.482	.413	.366
39F1285	80-MC2M1	.....	2M	Jack	.65	.54	.453	.388	.344
39F011	80-PC2F	I	2F	Recept.	.60	.50	.418	.358	.317
39F1286	80-PC2M	.....	2M	Recept.	.57	.48	.400	.343	.304

SERIES 91 THREE PIN CONTACT

Stk. No.	Type	Fg.	Con.	Desc.	1-24	25-99	100-249	250-499	500-999
39F012	91-MC3F	J	3F	Jack	1.07	.89	.749	.641	.569
39F1287	91-MC3F1	.....	3F	Plug	1.10	.92	.771	.660	.586
39F013	91-MC3M	K	3M	Plug	1.01	.85	.710	.608	.539
39F1288	91-MC3M1	.....	3M	Jack	.97	.81	.683	.585	.519
39F014	91-PC3F	L	3F	Recept.	.73	.61	.515	.441	.392
39F1289	91-PC3M	.....	3M	Recept.	1.14	.95	.800	.685	.608

SERIES 91 FOUR PIN CONTACT

Stk. No.	Type	Fg.	Con.	Desc.	1-24	25-99	100-249	250-499	500-999
39F015	91-MC4F	J	4F	Jack	1.10	.92	.774	.663	.588
39F1290	91-MC4F1	.....	4F	Plug	1.14	.95	.800	.685	.608
39F016	91-MC4M	K	4M	Plug	1.03	.86	.721	.618	.548
39F1291	91-MC4M1	.....	4M	Jack	.99	.83	.694	.594	.527
39F017	91-PC4F	L	4F	Recept.	.72	.60	.505	.433	.384
39F1292	91-PC4M	.....	4M	Recept.	.98	.82	.686	.588	.522

"QUICK-MIKE" MICROPHONE CONNECTORS

Figs. M & N. Body is high grade zinc alloy. Gold plated contacts for easy soldering. Nickel finish insures resistance to corrosion. M—Male; F—Female. Av. shpg. wt. 5 oz.

Stk. No.	Type	Con.	Desc.	1-24	25-99	100-249	250-499	500-999
39F151	91-853	3M	Plug	1.74	1.45	1.216	1.041	.925
39F152	91-854	3F	Jack	2.27	1.90	1.591	1.363	1.210
39F153	91-855	3M	Recept.	1.38	1.15	.968	.829	.736
39F154	91-856	3F	Recept.	3.14	2.63	2.205	1.888	1.676
39F155	91-857	4M	Plug	1.82	1.52	1.278	1.093	.970
39F156	91-858	4F	Jack	2.52	2.11	1.767	1.513	1.343
39F157	91-859	4M	Recept.	1.49	1.24	1.044	.894	.794
39F158	91-860	4F	Recept.	3.37	2.82	2.365	2.025	1.798

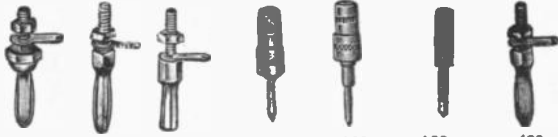
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H. H. Smith Connectors



NON INSULATED PLUGS



102 103 104 106 105 108 403

Solderless tip plugs. Wire fits through body of tip, and is wrapped around screw portion and tightened with knurled collar. Fits std. phone tip jacks.

Stk. No.	Type	Des.	L.	1-49	50-99	100-499
39F850	105	Sr. type	1.29 ₃₂ "	.11	.10	.08
39F851	106	Jr. type	1.14 ₃₂ "	.11	.10	.08

Solder type. For std. phone tip jacks.

39F854	108	Phone cord repl. tip	.03	.02	.018
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Banana plugs. Supplied with hex nut and phosphor bronze lug. Hex brass nickel plated body. Fits std. banana jacks. With phos.-spring except (*) Type 104

Stk. No.	Type	Des.	Thread	Over-all	1-49	50-99	100-499
38F292	104*	Split type cross slotted body	6-32x1/2	1 1/4"	.14	.13	.11
38F298	403	4 leaved spring	6-32x1/2	1 1/2"	.18	.16	.14
38F290	102	4 leaved spring	6-32x3/8	1 1/4"	.18	.16	.14
38F291	103	4 leaved spring	6-32x3/8	1 1/2"	.18	.16	.14

DUAL ASSEMBLIES

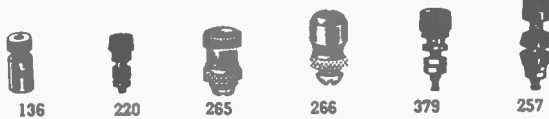
Molded black styrene washer, cross slotted to accept std. phone tips in most either forward, or side ways. Mts. in two 1/2" holes on 3/4" mtg. ctrs. in panels up to 1/4" thick. Supplied with 4 hex nuts and 2 washers. 284 connectors have captive type nylon heads with nickel plated brass insert; 269 connectors have captive type plated brass insert and accepts std. dual banana plug.



284 269

Stk. No.	Type	Color	1-49	50-99	100-499
39F1854	284BB	2 black heads	.60	.54	.45
39F1855	284RR	2 red heads			
39F1856	284RB	1 black—1 red head			
35F845	269BB	2 black heads	.66	.60	.495
35F846	269RR	2 red heads			
35F847	269RB	1 black—1 red head			

BINDING POSTS



136 220 265 266 379 257

Brass nickel plated head and body. Accepts std. phone tips or banana plug. 3/8" head dia. 1 1/4" long.

Stk. No.	Type	Description	1-49	50-99	100-499
38F293	136	Metal Binding Post	.15	.14	.11

Molded bakelite head with molded in brass threaded insert. Complete with 8-32 threaded screw 1/2" long and nickel plated brass lockwasher. 1/2" head dia.

Stk. No.	Type	Color	Description	1-49	50-99	100-499
35F827	265	Red	Blinding Post	.18	.16	.14
35F832	265	Black	Blinding Post	.18	.16	.14
35F828	266	Red	Blinding Post	.18	.16	.14
35F831	266	Black	Blinding Post	.18	.16	.14

Captive, molded plastic head and nickel plated brass body. Accepts phone tip plug, spade lug, banana plug, alligator clip or wire strand. Insulating washer supplied. 2 hex nuts supplied. 8-32 threaded stud length 1 1/4x1/2".

38F296	220	Red	5-way grd. type	.18	.16	.135
38F297	220	Black	5-way grd. type	.18	.16	.135
35F799	379	Red	grd. type	.24	.22	.18
35F748	379	Black	grd. type	.24	.22	.18
35F749	257	Black	5-way insul. washer	.36	.32	.27
35F844	257	Red	5-way insul. washer	.36	.32	.27

BRASS THREADED SPACERS—CADMIUM PLATED

Stk. No.	Type	Thread	Length	O.D.	1-49	50-99	100-499
35F551	2372	4-40	1/4"	1/4"	.06	.05	.045
35F552	2373	4-40	3/8"	1/4"	.08	.07	.06
35F553	2120	6-32	1/2"	1/4"	.04	.04	.030
35F554	2122	6-32	3/4"	1/4"	.06	.04	.045
35F555	2123	6-32	3/4"	1/4"	.08	.07	.06
35F556	2125	8-32	1/2"	1/4"	.04	.04	.030
35F557	2126	8-32	3/8"	1/4"	.05	.05	.037
35F558	2127	8-32	1/2"	1/4"	.06	.05	.045
35F559	2128	8-32	3/4"	1/4"	.07	.06	.053
35F560	2129	8-32	1"	1/4"	.10	.09	.08

GIANT BANANA PLUGS AND JACKS



186 286 285 187

GIANT BANANA PLUGS. Hex brass, nickel plated body, 6 leaved, phosphor bronze, nickel plated spring.

Stk. No.	Type	Color	Description	1-49	50-99	100-499
32F829	285	Red	Insulated. Large deep internal well. 2 1/4x3/4"	.60	.54	.45
32F830	285	Black	Insulated. Large deep internal well. 2 1/4x3/4"	.60	.54	.45
38F295	186	Nickel plated	With Screw and brass tinned lug. 1 1/4x3/4"	.30	.27	.225

INSULATED GIANT BANANA JACKS. Supplied with hex nut fibre washer, lockwasher, screw and tinned copper lug.

Stk. No.	Type	Color	1-49	50-99	100-499
35F946	286	Red	.42	.38	.315
35F947	286	Black	.42	.38	.315

GIANT BANANA JACK. With hex nut and brass tinned lug.

35F789	187	Brass	.30	.27	.225
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NYLON CABLE CLIPS

MIL P17091A. Amend 2. For Temp. -60 to 250°.

Stk. No.	Type	Hole Dia.	1-49	50-99	100-499
35F505	771	1/8"	.04	.04	.03
35F506	772	3/16"	.04	.04	.03
35F507	773	1/4"	.04	.04	.035
35F508	774	5/16"	.05	.05	.035
35F509	775	3/8"	.05	.05	.035
35F510	776	7/16"	.05	.05	.035
35F511	777	1/2"	.05	.05	.035
35F512	778	5/8"	.07	.06	.054
35F513	779	3/4"	.07	.06	.054
35F514	780	7/8"	.08	.07	.063
35F515	781	3/4"	.08	.07	.062
35F516	782	7/8"	.09	.08	.068
35F517	783	1"	.10	.08	.078
35F518	784	1 1/8"	.12	.10	.090
35F519	785	1 1/4"	.14	.13	.105

RUBBER GROMMETS

Stk. No.	Type	Hole Dia.	O.D.	Thck.	1-49	50-99	100-499
35F520	2185	1/8"	5/16"	3/16"	.02	.02	.015
35F521	2172	3/16"	7/16"	3/16"	.02	.02	.015
35F522	2170	1/4"	5/8"	1/4"	.02	.02	.015
35F523	2174	5/16"	5/8"	1/4"	.02	.02	.015
35F524	2175	3/8"	21/32"	1/4"	.02	.02	.015
35F525	2177	7/16"	3/4"	1/4"	.02	.02	.015
35F526	2186	1/2"	1 1/16"	5/16"	.05	.05	.04
35F527	2187	5/8"	1 1/8"	5/16"	.04	.04	.03
35F528	2188	3/4"	1 1/4"	5/16"	.04	.04	.03
35F529	2189	7/8"	1 1/2"	5/16"	.05	.05	.038

RECESSED RUBBER BUMPERS

* Supplied with 5/16x1/2" screw and nut.

Stk. No.	Type	Cap Dia.	O.D.	Ht.	1-49	50-99	100-499
35F530	2193	1/4"	5/8"	3/8"	.02	.02	.02
35F531	2194	5/16"	3/4"	3/8"	.03	.03	.025
35F532	2198*	3/8"	3/4"	3/8"	.08	.07	.06

BRASS SPACERS—CADMIUM PLATED

Stk. No.	Type	For screw	Length	O.D.	1-49	50-99	100-499
35F533	2340	#4	1/4"	1/4"	.03	.03	.023
35F534	2341	#4	3/8"	1/4"	.04	.04	.030
35F535	2342	#4	1/2"	1/4"	.05	.05	.038
35F536	2100	#6	1/4"	1/4"	.03	.03	.023
35F537	2101	#6	3/8"	1/4"	.04	.04	.030
35F538	2102	#6	1/2"	1/4"	.05	.05	.038
35F539	2103	#6	3/4"	1/4"	.06	.05	.045
35F540	2104	#6	1"	1/4"	.07	.06	.033
35F541	2105	#8	1/4"	1/4"	.03	.03	.023
35F542	2115	#8	1/4"	3/8"	.05	.05	.038
35F543	2116	#8	3/8"	3/8"	.06	.05	.045
35F544	2117	#8	1/2"	3/8"	.08	.07	.06
35F545	2118	#8	3/4"	3/8"	.11	.10	.09
35F546	2119	#8	1"	3/8"	.14	.13	.11

MIL-F-1148A FIBRE SPACERS

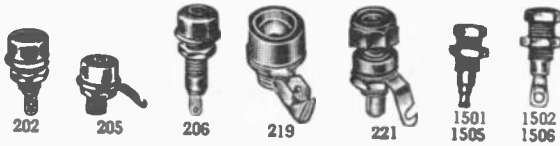
35F547	2130	#6	1/4"	1/4"	.04	.04	.030
35F548	2133	#6	3/8"	1/4"	.07	.06	.053
35F549	2134	#6	1"	1/4"	.08	.07	.060
35F550	2140	#8	1/4"	1/4"	.04	.04	.030

FIBRE WASHERS

Stk. No.	Type	Description	Hole Size	O.D.	Thk.	Per 1000
35F500	2151	Fibre Shoulder	.110"	1/4"	.062"	5.70
35F501	2154	Fibre Shoulder	.250"	1/2"	.068"	7.20
35F502	2155	Fibre Shoulder	.172"	3/8"	.093"	6.60
35F503	2162	Flat Fibre	.140"	3/8"	.063"	5.10
35F504	2163	Flat Fibre	.172"	3/8"	.063"	5.10



H. H. Smith Connectors



INSULATED PHONE TIP JACKS

Nickel plated brass body with molded $\frac{1}{16}$ inch bakelite head. Supplied w/hex nut and fibre washer. Mounts in $\frac{1}{16}$ inch holes in panels up to $\frac{3}{8}$ inch thick.

Stk. No.	Type	Color	Description	1-49	50-99	100-499
39F856	202	Red	Accepts std. Phone tip plug. Length 1".	.14	.13	.11
39F857	202	Black				
39F858	202	Green				
39F859	202	Yellow				
35F687	203R	Red	Ins. short tip plug	.12	.11	.10
35F688	203B	Black		.12	.11	.10
35F689	237R	Red	Ins. tip plug	.11	.09	.08
35F690	237B	Black	Solder type	.11	.09	.08

ALL NYLON TIP JACKS

Self insulating nylon molded body. Hex nut: brass nickel plated. Mounts in $\frac{1}{4}$ inch hole in panels up to $\frac{1}{4}$ inch thick.

Stk. No.	Type	Color	Description	1-49	50-99	100-499
35F750	1505	White	Wrap around type.			
35F751	1505	Red	Fits all standard phone tip plugs. Length: $5\frac{1}{4}$ ".	.21	.19	.16
35F752	1505	Black				
35F753	1505	Green				
35F754	1505	Blue				
35F755	1505	Yellow				
35F756	1506	White	Spade terminal type.			
35F757	1506	Red	Fits all standard phone tip plugs. Length: $6\frac{3}{4}$ ".	.30	.27	.23
35F758	1506	Black				
35F759	1506	Green				
35F760	1506	Blue	All Nylon			
35F761	1506	Yellow				
35F700	1501	White	Wrap around type.			
35F701	1501	Red	With metal shell. Meets MS-16108. Length: $5\frac{1}{4}$ ".	.29	.26	.22
35F702	1501	Black				
35F703	1501	Green				
35F704	1501	Blue	All Nylon			
35F705	1501	Yellow				
35F706	1502	White	Spade terminal type.			
35F707	1502	Red	With metal shell. Meets MS-16108. Length: $9\frac{1}{4}$ ".	.42	.38	.32
35F708	1502	Black				
35F709	1502	Green				
35F710	1502	Blue				
35F711	1502	Yellow				

INSULATED BANANA JACKS

Nickel plated brass body and molded bakelite head. Supplied w/hex nut and fibre washer. Mount in $\frac{3}{16}$ inch holes in panels up to $\frac{3}{8}$ inch thick.

Stk. No.	Type	Color	Description	1-49	50-99	100-499
39F967	219	Red	Body is recessed.			
39F968	219	Black	Also supplied w/lock washer and brass tinned lug. Length: $4\frac{1}{4}$ ".	.16	.14	.11
39F969	219	Yellow				
39F970	219	Green				
39F971	219	Blue				
39F868	205	Red	Accepts std. banana plug. Also supplied w/brass tinned lug. Length: $4\frac{3}{4}$ ".	.14	.13	.11
39F869	205	Black				
39F870	205	Green				
39F871	205	Yellow				

NYLON BANANA JACK—FULL ROUND BODY

Molded nylon per MIL-P-20893A. Brass, cadmium plated contact.

Stk. No.	Type	Color	Description	1-49	50-99	100-499
35F712	1508	White	Accepts std. banana plug. Mounts in $\frac{1}{16}$ inch hole in panels up to $\frac{1}{4}$ inch thick. $2\frac{3}{32}$ " L.	.12	.11	.09
35F713	1508	Red				
35F714	1508	Black				
35F715	1508	Green				
35F716	1508	Blue				
35F717	1508	Yellow				

INSULATED MIDGET BANANA JACK

Molded nylon $\frac{3}{16}$ " head and washer. Nickel plated brass body. W/hex nut and brass tinned lug. For std. banana plugs.

Stk. No.	Type	Color	Description	1-49	50-99	100-499
39F972	221	Red	Insulated from panel.			
39F973	221	Black	Mts. in $\frac{1}{16}$ hole			
39F974	221	Yellow	in panels up to $\frac{1}{4}$ " thick.	.19	.16	.14
39F975	221	Green				
39F976	221	Blue	Length: $1\frac{1}{8}$ ".			

COMBINATION—PHONE TIP AND BANANA JACK

Stk. No.	Type	Color	Description	1-49	50-99	100-499
39F860	206	Red	Insulated. Accepts std. phone tip or banana plug. Length: $1\frac{1}{2}$ ".	.17	.15	.13
39F861	206	Black				

NON-INSULATED JACKS

Type 107. Phone Tip Jack. Accepts std. phone tip plugs. Supplied w/hex nut.

Type 109. Banana Jack Accepts std. banana plugs. W/hex nut and brass tinned lug.

Stk. No.	Type	Description	1-49	50-99	100-499
39F855	107	Phone Top Jack, $2\frac{3}{32}$ " long	.11	.10	.08
39F867	109	Banana Jack, $\frac{5}{8}$ " long.	.11	.10	.08



INSULATED TIP PLUGS

Nickel Plated Brass Plugs. Fit Std. Phone Tip Jack.

Stk. No.	Type	Color	Description	1-49	50-99	100-499
39F852	200	Red	Tip Plug Solderless.			
39F853	200	Black	Threaded type.	.15	.14	.11
39F848	200	Green	$2\frac{1}{8}$ " long.			
39F849	200	Yellow	Bakelite handle.			
39F846	270	Red	Sub-miniature tip plug. $1\frac{23}{32}$ " long.	.18	.16	.14
39F847	270	Black	Fibre handle			
39F963	235	Red	Meter Tip Plug.	.27	.24	.20
39F964	235	Black	Bakelite handle.			
35F769	491	White	Short tip type.			
35F770	491	Red	$1\frac{3}{8}$ " long.			
35F771	491	Black	Nylon handle	.14	.13	.11
35F772	491	Green				
35F773	491	Blue				
35F774	491	Yellow				
35F775	201	Red	Solderless Insulated			
35F776	201	Black	Threaded type.	.15	.14	.11
35F777	201	Green	$1\frac{23}{32}$ " long.			
35F778	201	Yellow	Bakelite handle.			

INSULATED BANANA PLUGS AND ADAPTERS

Nickel Plated Brass Plugs. Fit Std. Banana Jack.

Stk. No.	Type	Color	Description	1-49	50-99	100-499
39F934	212	Red	4 leaved phosphor bronze nickel plated springs. $1\frac{1}{4}$ " long.	.22	.18	.16
39F935	212	Black				
39F936	212	Yellow				
39F937	212	Green	Bakelite handle.			
39F938	212	Blue				
39F939	212	White				
39F844	242	Red	Same as 212 except	.30	.27	.23
39F845	242	Black	4 leaved beryllium copper, nickel plated spring.			
39F944	211	Red	Same as 212 except	.19	.17	.14
39F940	211	Black	$1\frac{1}{8}$ " long.			
39F941	211	Yellow	Bakelite handle			
39F942	211	Green				
39F943	211	Blue				
39F945	211	White				
39F863	204	Red	With side wire locking set screw. 4	.19	.17	.14
39F864	204	Black	leaved phosphor bronze spring. $1\frac{1}{16}$ " long. Bakelite handle.			
39F865	204	Green				
39F866	204	Yellow				
39F957	213	Red	Banana Plug. Split	.18	.16	.14
39F958	213	Black	type with side screw.			
39F959	213	Yellow	Cross slotted for spring			
39F960	213	Green	tension. Set screw			
39F961	213	Blue	secures wire without			
39F962	213	White	soldering. $1\frac{1}{8}$ " long. Plastic handle.			
39F965	255	Red	Meter Banana Plug.	.36	.32	.27
39F966	255	Black	Bakelite handle.			
35F914	1511	Red	Stack Banana Plug.	.33	.30	.25
35F915	1511	Black	Fits std. banana plugs in top and side. 4 leaved phosphor bronze spring. 2" long. Plastic handle.			
35F916	1512	Red	Same as 1511 except	.36	.32	.27
35F917	1512	Black	with beryllium copper spring. Solderless.			
35F779	455	White	Solderless.	.21	.19	.16
35F780	455	Red	$1\frac{1}{2}$ " long.			
35F781	455	Black	Nylon handle.			
35F782	455	Green				
35F783	455	Blue				
35F784	455	Yellow				
35F785	215	Red	Adapter. Accepts	.15	.14	.11
35F786	215	Black	std. banana plug, adapts to std. tip plug. $1\frac{3}{4}$ " long.			

H. H. Smith Connectors



CLIP ADAPTERS

Cadmium plated steel springs. Plastic handle. With brass body and bronze phosphor spring.



Stk. No.	Type	Color	Description	1-49	50-99	100-up
28F604	304	Red	Adapts phone tip plugs to alligator clip.	.33	.30	.25
28F605	304	Black	Adapts phone tip plugs to alligator clip.	.33	.30	.25
35F948	305	Red	Permits adapting std. phone tip or banana plugs to alligator clip.	.39	.35	.30
35F949	305	Black	Permits adapting std. phone tip or banana plugs to alligator clip.	.39	.35	.30
39F1652	336	Red	Plastic insulated, adapts phone tip plugs to alligator clip.	.36	.32	.27
39F1653	336	Black	Plastic insulated, adapts phone tip plugs to alligator clip.	.36	.32	.27
39F1650	337	Red	As 336 except with solder type connection, not jack.	.24	.22	.18
39F1651	337	Black	As 336 except with solder type connection, not jack.	.24	.22	.18
35F670	338		Miniature clip, 3/16" jaw opening. Solder conn. & ears for crimp.	.05	.04	.03
35F671	301	Red	1/2" jaw opening accepts std. banana plug in rear.	.08	.07	.06
35F683	301	Black	1/2" jaw opening accepts std. banana plug in rear.	.08	.07	.06

RIGHT ANGLE PRINTED CIRCUIT TEST JACK

Stk. No.	Type	Description	1-49	50-99	100-499
35F672	430	Double entry design. Accepts probes .074"-.084".	.10	.09	.075

INSULATED JUMBO ALLIGATOR CLIPS

Solder connection with plastic handle. 5/8" jaw opening. For heavy terminal use.



Stk. No.	No.	Type	Color	1-49	50-99	100-499
35F848	337	Solid copper	Red	.24	.22	.18
35F849	337	Solid copper	Black	.24	.22	.18

MOLDED CROSS PATCH CORDS

Consist of 10,000V. rubber covered flexible wire (65 stds. #36) O.D. .140" cabled to two molded plastic banana plugs with four leaved beryllium copper, nickel plated springs. Interconnects unlimited number of multiple circuits. Contacts for banana plugs on top and side.



8" LONG

Stk. No.	Type	Color	Description	EACH	10 for
35F910	1510-8	Red	With 1 1/2" spring plug	1.00	9.00
35F911	1510-8	Black	With 1 1/2" spring plug		
35F912	1515-8	Red	With 1 1/2" spring plug	1.00	9.00
35F913	1515-8	Black	With 1 1/2" spring plug		

12" LONG

Stk. No.	Type	Color	Description	EACH	10 for
35F833	1510-12	Red	With 1 1/2" spring plug	1.00	9.00
35F834	1510-12	Black	With 1 1/2" spring plug		
35F835	1515-12	Red	With 1 1/2" spring plug	1.00	9.00
35F836	1515-12	Black	With 1 1/2" spring plug		

24" LONG

Stk. No.	Type	Color	Description	1-9	10-49	50-99	100-up
35F791	1510-24	Red	With 1 1/2" spring plug	1.05	.95	.90	.70
35F792	1510-24	Black	With 1 1/2" spring plug	1.05	.95	.90	.70
35F798	1515-24	Red	With 1 1/2" spring plug	1.05	.95	.90	.70
35F794	1515-24	Black	With 1 1/2" spring plug	1.05	.95	.90	.70

36" LONG

Stk. No.	Type	Color	Description	1-9	10-99	100-up
35F795	1510-36	Red	With 1 1/2" spring plug	1.10	.99	.83
35F798	1510-36	Black	With 1 1/2" spring plug			
35F797	1515-36	Red	With 1 1/2" spring plug	1.10	.99	.83
35F798	1515-36	Black	With 1 1/2" spring plug			

SUB-MINIATURE "CROSS PATCH" CORD

Stk. No.	Type	Color	Insul.	1-9	10-49	50-99	100-up
35F720	1590-24	Black	Polyeth.	.84	.76	.71	.63
35F721	1590-24	Red	Polyeth.	.84	.76	.71	.63

STANDARD ALLIGATOR CLIP TO BANANA PLUG

Stk. No.	Type	Color	Insul.	1-9	10-49	50-99	100-up
35F722	1866-36	Black	Polyeth.	.55	.50	.47	.41
35F723	1866-36	Red	Polyeth.	.55	.50	.47	.41

TELEPHONE PLUGS AND JACKS

TYPE 276 JACK

Telephone jack made of brass with a nickel plated bushing. Has Bakelite insulation. Comes with brass hex nut and with steel mounting washer.



276

TYPE 226 PLUG

Telephone plug made of brass and nickel plated. Has tubular insulation. Tested at 1000 VAC. Fits above jack and all standard phone jacks. Solder terminals.



226

Stk. No.	Type	Description	1-49	50-99	100-499
35787	276	2-Conductor Closed	.30	.27	.23
35788	226	2-Circuit, Solder	.60	.54	.45

1-11/16" INSULATED SPADE LUG

With jack to permit insertion of banana plug.

Stk. No.	Type	Color	Description	1-9	10-99	100-499
39F977	218	Red	.030" hot tinned steel	.11	.10	.08
39F978	218	Black	.030" hot tinned steel	.11	.10	.08



NYLON STRAIN RELIEF BUSHINGS

Stk. No.	Type	Description	1-49	50-99	100-499
35F673	937	For small mike cables.	.04	.04	.03
35F674	938	For line cords.	.04	.04	.03
35F675	939	For Co-Ax Wire.	.04	.04	.03
35F676	164	Nylon Flexible Coupling with brass bushings	1.15	.98	.86

Double Plug
Both
Ends

Shielded Double
Plug to Shielded
Double Plug

Patch
Cord

Double Jack
to
Alligator Clip

DOUBLE PLUG BOTH ENDS — 36" LENGTHS

Stk. No.	Type	Color	Insul.	1-9	10-49	50-99	100-up
35F724	1530-36	Grey	Vinyl	2.40	2.16	2.04	1.80
35F725	1540-36	Grey	Polyeth.	2.40	2.16	2.04	1.80
35F726	1580-36	Black	Polyeth.	2.40	2.16	2.04	1.80

DOUBLE JACK TO "CROSS-PATCH" PLUGS — 36" LENGTHS

Stk. No.	Type	Color	Insul.	1-9	10-49	50-99	100-up
35F727	1895-36	Grey	Vinyl	2.40	2.16	2.04	1.80
35F728	1896-36	Grey	Polyeth.	2.40	2.16	2.04	1.80
35F729	1897-36	Black	Polyeth.	2.40	2.16	2.04	1.80

DOUBLE JACK TO SHIELDED DOUBLE PLUG — 36" LENGTHS

Stk. No.	Type	Color	Insul.	1-9	10-49	50-99	100-up
35F741	1884-36	Grey	Polyeth.	5.40	4.86	4.59	4.05
35F742	1885-36	Black	Polyeth.	5.40	4.86	4.59	4.05

JUMPERS (STANDARD ALLIGATOR CLIPS BOTH ENDS)

Stk. No.	Type	Color	Description	1-9	10-49	50-99	100-up
35F677	1596-12	Red	12" Length	.40	.36	.34	.30
35F684	1596-12	Black	12" Length	.40	.36	.34	.30
35F678	1596-36	Red	36" Length	.48	.43	.41	.36
35F685	1596-36	Black	36" Length	.48	.43	.41	.36

Model 692. Patch cord. Fits standard banana jack.

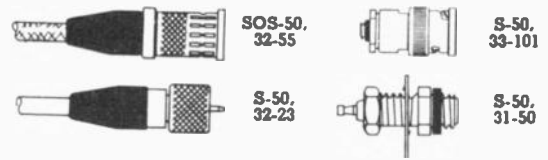
Stock No.	Type	NET Each	10 for	100 for
35F679	692	.60	5.40	45.00

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Microdot Coaxial Cable and Connectors



MINIATURE COAXIAL CABLES

The variety of Microdot coaxial cables now being stocked at Newark offer design solution for your application. Features: light weight, small diameter, convenient bend radius and high operating temperatures. The dielectric material is "Teflon" for most types. 50-3804 is polyethylene. *At 400 mc (db/ft). Av. Shipping wt., 2½ lbs. per 100 ft.

Stock No.	Type No.	Ohms	Comparable to Mil C-17C	Attenuation*	MMF per foot	O.D. PER FOOT			
						Max. (in.)	1-99	100-499	500-up
37F820	202-3927	125	Twinax	.27	11	.120	.46	.42	.39
37F814	202-3934	160	Twinax	.27	9	.168	.77	.71	.66
37F812	250-3902	50	.....	.25	17	.075	.15	.125	.116
37F817	250-4012	50	.....	.29	29	.075	.19	.169	.157
37F800	250-3804	54	Minneapolis Hi Temp	.30	29	.088	.18	.165	.15
37F808	250-3808	50	Minneapolis	.35	29	.085	.48	.45	.415
37F827	250-3957	50	RG-178 B/U	.29	29	.075	.20	.173	.161
37F802	250-3920	50	RG-196-U	.17	16	.135	.25	.218	.202
37F833	250-3960	50	RG-196 A/U	.29	29	.080	.25	.219	.204
37F829	275-3925	75	RG-179 B/U	.21	19	.105	.22	.193	.179
37F804	275-3920	75	RG-187/U	.21	19	.110	.29	.25	.232
37F819	293-3920	93	.....	.17	16	.135	.50	.46	.42
37F811	293-3913	100	Low Capacitance	.25	12	.130	.15	.127	.118

MICROMINIATURE CONNECTORS

All 50 ohm conductors are matched to 50 ohm cables with excellent results through S band. The following specifications indicate the high performance possible with Microdot. Voltage rating: rated 850 volts peak. Finish: all shield parts are silver plated .0002 min., for 48 hour salt spray rating; all center contact parts are gold plated .00003 min. Dielectrics: all "Teflon" (except for occasional Epoxy and other seals). Insulation Resistance: all over 10¹¹ ohms. Contact Resistance: all less than 0.002 ohms. The two types of connectors listed are differentiated by the prefix of the type number with "S" meaning Screw type and "SOS" meaning Slide-On type. Since cable sizes vary, the code above is completed with a suffix (of the type number) for the characteristic impedance of attaching cables, as "S-50", "SOS-93". Avg. Shipping wt., 1 oz.

SERIES S-50

Stock No.	Type	Description	1-24	25-99	100-249	250-499	500-999
39F1900	31-01	Bulkhead receptacle for 1/16" panel, has solder pot, no keying					
39F1901	31-02	Bulkhead receptacle for 1/8" panel, has solder pot, no keying	2.40	2.25	2.10	1.80	1.65
39F1902	31-03	Bulkhead receptacle for 1/4" panel, threads into panel, sold. pot	2.70	2.54	2.36	2.02	1.86
39F1903	31-50	Bulkhead receptacle for 1/8" panel with rnd. or "D" shaped hole for keying	2.19	2.06	1.92	1.64	1.51
39F1904	31-34	Jack 1/4" Dia. (A)	2.35	2.20	2.06	1.76	1.62
39F1905	31-33	Bulkhead jack (A)	2.44	2.28	2.12	1.84	1.67
39F1906	31-59	Printed Cir. Recept.	3.04	2.86	2.66	2.28	2.10
39F1907	31-61	Printed circuit recept.—Right angle	3.18	3.00	2.78	2.28	2.18
39F1908	32-15	Angle plug 1/4" Dia. (B)	5.45	5.15	4.80	4.10	3.76
39F1909	32-21	Plug—solderless (A)	2.10	1.95	1.80	1.55	1.45
39F1910	32-23	Plug with 2 Teflon bushings (A)	2.10	1.95	1.80	1.55	1.45
39F1911	33-01	Coupling	2.50	2.35	2.10	1.80	1.65
39F1912	33-53	Bulkhead feedthru for S-50 series	3.20	3.00	2.80	2.40	2.20
39F1913	33-101	S-50 jack to BNC adapter with UG-88 C/U plug end	5.45	5.10	4.78	4.10	3.75
39F1914	33-102	Same as 33-101 with UG-89B/U Jack end	8.95	8.40	7.80	6.70	6.15
39F1915	33-103	S-50 plug to BNC adapter with UG-88 C/U plug end	5.65	5.30	4.95	4.30	3.90
39F1916	33-104	Same as 33-103 with UG-89 B/U Jack end	8.05	7.55	7.05	6.05	5.55
39F1960	31-24	Ins. Bulkhead Recept.	3.88	3.62	3.38	2.90	2.66
39F1917	51-49	Hermetic Seal Recept.	4.72	4.42	4.13	3.54	3.25
39F1881	51-79	Modified 31-01.	3.63	3.41	3.17	2.72	2.50

SERIES S-70

Stock No.	Type	Description	1-24	25-99	100-249	250-499	500-999
39F1522	31-17	Bulkhead receptacle for 1/16" panel, has solder pot, no keying	2.90	2.72	2.54	2.18	2.00
39F1923	31-51	Bulkhead receptacle for 1/8" panel with round or "D" shaped hole for keying	2.44	2.30	2.16	1.84	1.68
39F1924	32-10	Plug—solderless (C)	2.10	1.95	1.80	1.55	1.45
39F1925	32-13	Plug—Right angle (B)	3.65	3.42	3.19	2.75	2.51

SERIES S-93

Stock No.	Type	Description	1-24	25-99	100-249	250-499	500-999
39F1928	31-16	Bulkhead receptacle for 1/16" panel, has solder pot, no keying	2.18	2.06	1.92	1.64	1.51
39F1929	31-37	Jack, 1/16" Dia. (D)	2.44	2.28	2.12	1.84	1.67
39F1930	31-52	Plug—right angle (E)	3.65	3.42	3.19	2.75	2.51
39F1931	31-67	Printed cir. recept.	2.28	2.14	2.00	1.72	1.57
39F1932	32-11	Plug—solderless (E)	3.16	2.98	2.78	2.38	2.18
39F1933	32-14	Plug—right angle (D)	2.10	1.95	1.80	1.55	1.45
39F1934	32-17	Plug—1/16" Diam. (D)	3.65	3.42	3.19	2.75	2.51
39F1935	32-68	Angle plug—takes 95 ohm cable (E)	2.10	1.95	1.80	1.55	1.45
39F1882	33-111	S-93 plug—as above	3.65	3.42	3.19	2.75	2.51
39F1993	31-85	Receptacle (C)	5.65	5.30	4.95	4.30	3.90
			3.12	2.92	2.74	2.36	2.14

SERIES SOS (50-70-93)

Stock No.	Type	Description	1-24	25-99	100-249	250-499	500-999
39F1940	31-49	Bulkhead recept.	2.92	2.74	2.56	2.20	2.02
39F1942	31-60	Printed circuit recept.	2.20	2.06	1.92	1.65	1.51
39F1943	31-70	Printed circuit recept.—right angle	7.10	6.70	6.25	5.35	4.90
39F1945	32-42	Receptacle plug	2.96	2.78	2.59	2.22	2.04

SERIES SOS-50

Stock No.	Type	Description	1-24	25-99	100-249	250-499	500-999
39F1946	32-55	Plug—modified for min. mating force (F)	2.46	2.31	2.16	1.85	1.69
39F1948	32-63	Right angle plug (B)	3.65	3.42	3.19	2.75	2.51

SERIES SOS-93

Stock No.	Type	Description	1-24	25-99	100-249	250-499	500-999
39F1947	32-59	Right angle plug (E)	3.65	3.42	3.19	2.55	2.51
39F1949	32-84	Straight plug	4.72	4.43	4.13	3.51	3.25
39F1992	31-82	Jack—bulkhead mt.	3.04	2.86	2.66	2.28	2.10

MICRODOT ASSEMBLY HAND TOOLS

For positive crimping of all Microdot connectors. Light weight.

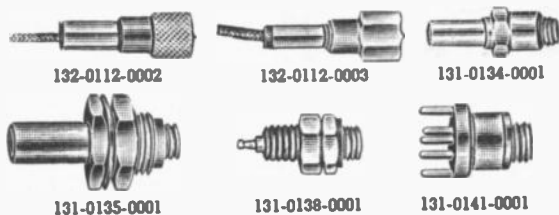
Stk. No.	Type	Description	Sh. Wt. (oz.)	Net. Ea.
39F1919	10-16	Steel	2	2.95
39F1920	10-03	Stainless steel	2	10.00
39F1921	T32-21	Aluminum	3	2.95
39F1857	T32-10	Aluminum	2	2.95
39F1858	T32-11	Aluminum	2	2.95
39F1856	10-09	Miniature Pliers	2	.95
39F1884	10-17	Stainless steel	2	2.95
39F1885	10-07	Stainless steel	2	15.00

KEY TO ASSEMBLY TOOLS FOR MICROMINIATURE CONNECTORS

- (A) Use assembly tool 10-43 or T32-21
- (B) Use assembly tool 10-16
- (C) Use assembly tool T32-10
- (D) Use assembly tool T32-11
- (E) Use assembly tool 10-17
- (F) Use assembly tool 10-07

Connectors, Clips, & Holders

MICRODOT CONNECTORS



"GOLDEN CRIMP" CONNECTORS

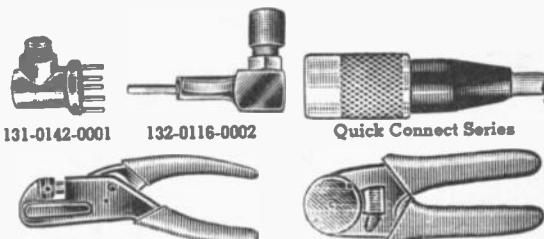
Easy to assemble. Meets MIL-SPEC-C22557A. Temperature rating of 200° C. Withstand vibrations to 2000 cps at 20 G'S.

Stock No.	Type (50 ohm RE 186)	1-24	25-49	50-99	100-249	250-499
39F1840	132-0112-0002	1.75	1.59	1.45	1.30	1.17
39F1841	132-0112-0003	1.85	1.69	1.55	1.40	1.27
39F1842	131-0134-0001	1.75	1.59	1.45	1.30	1.17
39F1843	131-0135-0001	1.75	1.59	1.45	1.30	1.17
39F1844	131-0138-0001	1.85	1.62	1.47	1.33	1.18
39F1845	131-0141-0001	2.10	1.85	1.67	1.53	1.34
39F1846	132-0116-0002	3.85	3.60	3.25	2.98	2.75

QUICK CONNECT SERIES

Stock No.	Type	Description	1-24	25-99	100-249	250-499	500-999
39F1854	32-02*	QC-50 Plug	2.10	1.95	1.80	1.55	1.45
39F1991	31-57	QC-50, QC-70 Recept.	2.35	2.20	2.08	1.78	1.62
39F1994	32-79*	QC-70 Plug	2.10	1.95	1.80	1.55	1.45

*Use assembly tool 10-07.



010-0081

010-0081

COAXIAL TERMINALS

Stock No.	Type	Cable	1-24	25-99	100-249	250-499	500-999
39F1850	53-388	93-95 ohm	.19	.18	.17	.14	.13
39F1851	53-265		.37	.31	.25	.22	.19
39F1852	53-293	50 ohm	.28	.25	.22	.20	.18
39F1918	53-249		.25	.23	.20	.18	.15
39F1985	53-249	70 ohm	.25	.23	.20	.18	.15
39F1998	53-230	93-95 ohm	.27	.25	.22	.20	.17
39F1997	53-251	70-75 ohm	.30	.28	.25	.23	.19
39F1998	53-21	70 ohm	.25	.23	.20	.18	.15
39F1999	53-22	93 ohm	.25	.23	.20	.18	.15

ASSEMBLY TOOLS FOR ABOVE

Stk. No.	Type	Description	NET
39F1849	010-0081	50 ohm shield crimp tool	58.00
39F1848	010-0065	Center conductor crimp tool	52.00

ATLEE PRODUCTS

COMPONENT HOLDERS

Protects against shock and vibration. SAE #1065 annealed carbon steel. Cadmium plated. These holders withstand vibrations of 90 G's at 500 cycles for one minute and 1750 impact shocks of 200 G's. *Three mounting holes, † 2 holes, rest have 1 hole. Diam. in inches. Approx. shpg. wt. 1 oz.



Stk. No.	Type 100-200	Comp. Dia.	Ht.	Wth.	Lg.	Mtg. dia.	1-9	10-99	100-499	500-999
43F000	1-0†	.175	.250	.20	3/8	.071	.11	.10	.089	.082
43F001	2-0†	.195	.270	.210	3/8	.071	.11	.10	.089	.083
43F002	4-0†	.235	.325	.260	3/8	.093	.12	.11	.091	.085
43F003	4A-0†	.260	.340	.280	1/2	.093	.11	.10	.089	.082
43F004	4A-1	.260	.340	.280	1/4	.093	.11	.10	.089	.082
43F005	5-0†	.312	.380	.344	3/4	.093	.12	.11	.093	.086
43F006	6-0*	.375	.480	.411	1 1/8	.103	.12	.11	.096	.089
43F007	7-0*	.400	.489	.436	3/4	.103	.12	.11	.093	.086
43F008	9-0†	.582	.690	.608	1	.127	.13	.12	.104	.095
43F009	11-0*	.670	.820	.720	1 3/8	.127	.18	.15	.134	.124
43F010	12-0*	.750	.920	.808	2	.144	.21	.19	.160	.146
43F084	11-1	.670	.820	.72	1 5/16	.128	.16	.14	.118	.109



CLIPS AND HEAT SINK

PRINTED CIRCUIT BOARD HOLDERS

High retention of printed circuit board under shock and vibration. Easy insertion and withdrawals of boards. Rigidly mounted in racks and other types of assemblies. Material: Bery Copper.

Stk. No.	Type	Length	1-9	10-99	100-499	500-999
43F150	11903-300-2	2 1/2	.56	.48	.33	.30
43F151	11903-300-3	3	.60	.50	.36	.32
43F152	11903-300-4	3 1/2	.83	.53	.38	.34
43F153	11903-300-5	4	.85	.55	.40	.36
43F154	11903-300-6	4 1/2	.87	.57	.42	.38
43F155	11903-300-7	5	.72	.82	.45	.40
43F156	11903-300-8	5 1/2	.75	.85	.47	.42
43F157	11909-300-1	2	.47	.37	.22	.20
43F158	11909-300-2	2 1/2	.49	.39	.24	.22
43F159	11909-300-3	3	.52	.42	.26	.23
43F160	11909-300-4	3 1/2	.54	.44	.27	.24
43F181	11909-300-5	4	.56	.46	.28	.25

CRYSTAL CLIP

Stock No.	Type	Material	1-9	10-99	100-499	500-999
43F162	11004	Nickel Plated Steel	.06	.043	.039	.035

Buy at Factory Competitive Prices at NEWARK

E. F. JOHNSON Plugs and Jacks

NYLON INSULATED SOLDERLESS TIP PLUG



Companion unit for the famous JOHNSON nylon tip jack. Durable molded nylon insulating sleeve designed so no metal surfaces are exposed when plug is inserted in jack. Quick, sure solderless connection of up to 16 gauge stranded wire. Withstands extremely high voltages and a wide temperature range. Current rating is 10 amperes. Standard .081 inch diameter pin fits all standard tip jacks. Size: 1 1/16" x 3/8". Shpg. wt., 2 oz.

No.	Type	Color	1-49	50-99	100-499	500-up
39F1513	105-301	White	.15	.14	12.55	11.10
39F1514	105-302	Red				
39F1515	105-303	Black				
39F1516	105-304	Green				
39F1518	105-306	Orange				
39F1519	105-307	Yellow				
39F1520	105-308	Brown				
39F1522	105-310	Blue				
39F1524	105-312	Violet				
39F1525	105-313	Gray				
					Per 100	Per 100

BANANA JACKS



Completely insulated banana jack. Retains low-loss characteristics through wide temp. range and high rel. humidity conditions. Voltage breakdown: 12,500 V. DC. For banana plugs of nom. .175" diam. Shpg. wt., 2 oz.

No.	Type	Color	1-49	50-99	100-499	500-up
39F1573	108-901	White	.10	.09	8.35	7.40
39F1574	108-902	Red				
39F1575	108-903	Black				
39F1576	108-904	Green				
39F1578	108-906	Orange				
39F1579	108-907	Yellow				
39F1580	108-908	Brown				
39F1582	108-910	Blue				
39F1584	108-912	Violet				
39F1585	108-913	Gray				
					Per 100	Per 100

NYLON TIP JACKS



Molded of tough, low-loss nylon. Have high DC breakdown, 11,000 volts, and low capacity to panel, 2.0 mmf. Contacts recessed to avoid accidental shorting. Silver plated beryllium copper contacts. Mating pin, .081" diameter, Mtg. hole req. 1 1/32". Head diam. 3/8". Body threaded 1/4"-32. Wt., 1 oz.

No.	Type	Color	1-49	50-99	100-499	500-up
39F878	105-601	White	.15	.14	12.55	11.10
39F879	105-602	Red				
39F880	105-603	Black				
39F881	105-604	Green				
39F882	105-606	Orange				
39F883	105-607	Yellow				
39F884	105-608	Brown				
39F885	105-610	Blue				
39F1558	105-612	Violet				
39F1559	105-613	Gray				
					Per 100	Per 100

NYLON JACKS AND SLEEVE ASSEMBLIES



Nylon tip jack equipped with an inside threaded molded nylon insulating sleeve. Shpg. wt., 3 oz.

No.	Type	Color	1-49	50-99	100-499	500-up
39F1500	105-701	White	.20	.18	16.75	14.80
39F1501	105-702	Red				
39F1502	105-703	Black				
39F1503	105-704	Green				
39F1505	105-706	Orange				
39F1506	105-707	Yellow				
39F1507	105-708	Brown				
39F1509	105-710	Blue				
39F1511	105-712	Violet				
39F1512	105-713	Gray				
					Per 100	Per 100

METAL-CLAD NYLON TIP JACKS



Shock-proof nylon and metal construction. Nickel-plated machined brass jacket protects nylon body—assures positive fastening to mounting surface. Current rating: 10 amperes, internal silver-plated contact re-

STANDARD TYPE

These low cost metal-clad jacks have nylon tips for extremely long wear. Each is provided with formed silver-plated phosphor-bronze contact to insure optimal performance. Voltage breakdown is 7,000 volts DC.

Stk. No.	Mfg. No.	Color	1-49	50-99	100-499 per C	500-999 per C
39F1700	105-251-1	White	.18	.17	15.10	13.35
39F1701	105-252-1	Red				
39F1702	105-253-1	Black				
39F1703	105-254-1	Dk. Green				
39F1705	105-256-1	Orange				
39F1706	105-257-1	Yellow				
39F1707	105-258-1	Brown				
39F1709	105-260-1	Dk. Blue				
39F1711	105-262-1	Violet				
39F1712	105-263-1	Gray				

BANANA PLUGS AND JACKS



Complete selection. Banana plugs have nickel silver springs. Jacks are nicked brass. Type 108-740 is 3/4" long. 108-760 is 1" long. Studs extend full length of sleeves for added support. With nuts and lugs. Shpg. wt., 2 oz.

No.	Type	Fig.	Descriptions	1-49	50-99	100-499 Per 100	500-up Per 100
39F888	108-750	A	Plug, 3/4" stud	.14	.13	11.70	10.35
39F889	108-750-2	A	Plug, 3/4" stud	.15	.14	12.55	11.10
39F890	108-753	B	Plug, 6-32 screw	.15	.14	12.55	11.10
39F891	108-770	A	Jumbo type plug	.35	.32	29.30	25.90
39F892	108-771	B	Jumbo type plug	.45	.41	37.70	33.30
39F893	108-740	C	Standard jack	.12	.11	10.00	8.90
39F894	108-760	C	Jumbo jack	.40	.37	33.50	29.60

NYLON SIX-WAY BINDING POST



Compact, completely insulated, pre-assembled 6-way binding post. Molded nylon body. Silver-plated brass shank. Current capacity 15 amps. Voltage breakdown 8000 V DC. Single 5/16"-32 nut furnished for mounting — no auxiliary hardware needed. Shpg. wt., 3 oz.

No.	Type	Color	1-49	50-99	100-499	500-up
39F1545	111-101	White	.30	.28	25.10	22.25
39F1546	111-102	Red				
39F1547	111-103	Black				
39F1548	111-104	Green				
39F1550	111-106	Orange				
39F1551	111-107	Yellow				
39F1552	111-108	Brown				
39F1554	111-110	Blue				
39F1556	111-112	Violet				
39F1557	111-113	Gray				
					Per 100	Per 100

INSULATED BANANA PLUGS



Compact high voltage insulated plug for a wide variety of applications. Easy solderless connection of up to 16 gauge stranded wire. Nylon insulating sleeve retains strength and low loss characteristics over a wide range of temperatures and withstands high voltages. Shpg. wt., 3 oz.

No.	Type	Color	1-49	50-99	100-499	500-up
39F1530	108-301	White	.19	.18	15.90	14.10
39F1531	108-302	Red				
39F1532	108-303	Black				
39F1533	108-304	Green				
39F1535	108-306	Orange				
39F1536	108-307	Yellow				
39F1537	108-308	Brown				
39F1539	108-310	Blue				
39F1541	108-312	Violet				
39F1542	108-313	Gray				
					Per 100	Per 100

LOW COST NYLON TIP JACKS



Low cost nylon tip jacks with formed silver-plated phosphor bronze contact. Current rating: 10 amps. Voltage breakdown: 9000 volts DC; capacity to 1/8" panel, 2.0 mmf 1/4"-32 nut furnished; mounts in 1/64" hole. Shpg. wt., 2 oz.

No.	Type	Color	1-49	50-99	100-499	500-up
39F1560	105-801	White	.13	.12	11.00	9.75
39F1561	105-802	Red				
39F1562	105-803	Black				
39F1563	105-804	Green				
39F1565	105-806	Orange				
39F1566	105-807	Yellow				
39F1567	105-808	Brown				
39F1569	105-810	Blue				
39F1571	105-812	Violet				
39F1572	105-813	Gray				
					Per 100	Per 100

MILITARY TYPE

Military type designed to comply with MS-16108 or MIL-STD-242A. Heavy nickel plated brass jacket. High insulation resistance of nylon body. Copper contact, silver-plated tin-dipped terminal end. Voltage breakdown: 8,000 volts DC.

Stk. No.	Mfg. No.	Color	1-49	50-99	100-499 per C	500-999 per C
39F1726	105-201-200	White	.27	.25	22.60	20.00
39F1727	105-202-200	Red				
39F1728	105-203-200	Black				
39F1729	105-204-200	Dk. Green				
39F1731	105-206-200	Orange				
39F1732	105-207-200	Yellow				
39F1733	105-208-200	Brown				
39F1735	105-210-200	Dk. Blue				
39F1737	105-212-200	Violet				
39F1738	105-213-200	Gray				

Sockets & Misc. E. F. JOHNSON

DUAL SOLDERLESS BANANA PLUG

Extremely versatile. Molded body incorporates polarity indication and strain relief hole for wire leads. Springs are high quality nickel silver—bodies are nickel-plated. Accurately machined brass studs extend the full length of pins for extra strength. Voltage breakdown: 10,000 volts DC. Capacity plug to plug: 1.3 mmf. Current carrying capacity: 15 amps.



INSULATED BANANA PLUGS

Standard size. With plastic handles, brass nickel-plated bodies, nickel-silver springs. 2 1/8" L. x 3/16" Max. Dia.

Stk. No.	Type	Color	1-49	50-99	100-499 per 100
38F897	752-1	Black	.30	.28	25.25
38F898	752-2	Red	.30	.28	25.25

BAYONET SOCKETS

Type 123-210-1. Porcelain base socket for tubes with 4 prong "UX" base. Has phosphor bronze contacts, aluminum shell. Takes 852, 860, 866 tubes. etc. HV spacing between contacts and shell. 2 mtg. holes, 2 3/16" between ctrs. Shpg. wt., 10 oz.



Type 123-211-1. Porcelain base socket for "jumbo" 4-pin tubes. Takes 211, 872, etc. 2 3/16" mtg. ctrs. Wt., 1 lb.

Type 123-209-1. Porcelain base. Top, sides glazed. For med. 4 pin tubes A4-10. 2 3/16" mtg. ctrs. Wt., 10 oz.

Stk. No.	Type	1-9	10-49	50-99
38F756	123-210-1	1.90	1.75	1.58
38F757	123-211-1	2.50	2.30	2.08
38F762	123-209-1	1.90	1.75	1.58

JUMBO STEATITE SOCKETS

Type 122-237-1. Perfect for transmitting tubes with "giant" 7-pin base. Takes 813, 8001, 3D22, 4E27, HK257, etc. 2 3/4" sq. 4 mtg. holes, 1/8" between ctrs.



Type 122-247-1. For 7-pin tubes. Aluminum shield. Ceramic base, 2 3/4" sq. Wt., 1/2 lb. Can be used with 7094 tube.

Type 122-248-1. As above, 2 3/4" sq.

Type 122-275-1. Giant 5-pin water socket for tubes such as 4-125A, 4-250A and RK-48. 190" mtg. holes on 2 3/4" sq. Shipping wt., 1/2 lb.

Stk. No.	Type	1-9	10-49	50-99
38F770	122-237-1	1.40	1.28	1.18
38F771	122-247-1	1.75	1.61	1.48
38F776	122-248-1	1.60	1.52	1.39
38F778	122-275-1	2.35	2.18	1.98

LIGHTWEIGHT BASIC SOCKET

Type 124-114-1. Insulated cathode terminals. Mounts below chassis through 1 1/8" dia. hole.



38F1528. 1-9	8.00
10-49	5.35

Stk. No.	Type	Color	1-49	50-99	100-999 per 100
38F895	202	Red	.85	.55	51.00
38F896	203	Black	.85	.55	51.00

GRID BY-PASS CAPACITORS

Type 124-113-1. 1450 mmf circular silvered-mica screen grid by-pass capacitor. Dielectric strength tested at 1000 volts DC. MIL-C-10950A. Low inductance silver plated beryllium copper screen grid contact fingers are heat treated. Shpg. wt. 4 oz



Stk. No.	Type	1-9	10-49
38F1527	124-113-1	4.25	3.75

SOCKETS FOR RCA 8072, 8121, 8122, AND SIMILAR TUBES

For high frequency tubes. Continuous heat resistance to 500°F. Glass-filled silicon base. Heat treated beryllium copper contacts. Base material of low dielectric constant, which results in low pin-to-pin and shunt capacity. Teflon chimney. Elevation pads. Socket contacts grip tube pins at base of tube—providing minimum inductance. Barriers between terminals. Direct cathode ground. Large center hole and basic configuration results in low capacity; three mounts provides stable mounting. With numbered terminals. Low inductance screen by-pass capacitor available for VHF and UHF operation.



Stk. No.	Cat. No.	Description	Net
38F772	124-311-100	Socket	1.30
38F773	124-119-1	Teflon chimney	.66

SOCKET FOR 4X150A, 4X150D, 4X250B, & 4X250F.

For ultra high freq. use with high power tubes. Two section construction. One for insulation, one for strength.



Stk. No.	Type	Desc.	1-9	10-49
38F763	124-109-1	1 3/16" Mtg.	4.25	3.98
38F766	124-107-1	Mtg. Saddle	5.30	4.70
38F767	124-108-1	Saddle, grd.	5.50	4.90
38F768	124-111-1	Steatite Chimney	.45	.41

STANDARD STEATITE WAFERS

For receiving and low-power transmitting tubes. Cadmium plated contacts reinforced with plated steel springs and recessed in wafer. Size, 2 3/16" x 1 1/16". Mtg. ctrs. 1 3/16" to 1 1/16". 4 oz.



Stk. No.	Type	Contacts	1-9	10-49	50-99
38F780	122-224-1	4	.78	.70	.64
38F781	122-225-1	5	.83	.76	.70
38F783	122-227-1	7 Med.	1.05	.97	.89
38F785	122-228-1	Octal	1.05	.97	.89

PANEL BEARINGS FOR 1/4" SHAFTS

Nickel plated brass for 1/4" shaft and up to 3/4" panels. Also 3" and 6" nickel plated brass shafts. Shpg. wt., 2 oz.

Stk. No.	Type	Fig.	Length	1-49	50-99	100-499 per C
28F244	115-255	D	Bearing only	.20	.17	16.00
28F245	115-256	D	3"	.41	.34	31.15
28F246	115-256-2	D	6"	.58	.48	43.75

1/4" FLEXIBLE SHAFTS

Phosphor bronze, non-rusting. Permit out of line or up to 90° angular control. 3 oz.

Stk. No.	Type	Fig.	Length	1-9	10-49	50-99
28F248	115-254	E	6"	.86	.79	72.45
28F247	115-253	E	3"	.60	.55	50.15

PANEL LIGHT

For front panel illumination. Has polished nickel plated hood. Rotates to any position. Fits 1/2" mounting hole. T3 3/4 or G3 3/4 type bulbs. 3 oz.



Stk. No.	Type	Base	1-9	10-49	50-99
25F320	147-330	Screw	1.15	.83	.76
25F321	147-329	Bayonet	1.25	.88	.84



COUPLINGS

Provide flexibility without backlash. Steatite insulation except bakelite, for low voltage. Wt., 2 oz.

Stk. No.	Type	Fig.	Use	1-9	10-49	50-99
26F240	104-250	A	For 1/4" shaft	1.15	.97	.89
26F241	104-251-1	A	For 3/8" shaft	1.75	1.47	1.35
26F242	104-252	B	Solid 1/4"	1.00	.78	.72
26F243	104-258	C	1/4" clamp	.45	.38	.35
26F249	104-264	A*	For 1/4" shaft	.90	.74	.69

COUNTER DIAL

Vernier dial calibrated 0-100 over 360°, making possible accurate return to any pre-determined setting. Built-in dial lock. Furnished with mounting template for easy installation. Shpg. Wt. 1 lb.

26F033. 116-208-1. 1-9	11.50	10-49	10.20
26F034. 116-201. Attractive black phenolic escutcheon as shown on above dial. Opening 1 1/4 x 3/8"			
With screws. 1-9	.65	10-49	.60
50-99	.55		



ETCHED ALUMINUM MOUNTING PLATE

Type 111-20. Pre-punched, etched aluminum mounting plate permits simple, accurate and fast mounting of either two nylon binding posts, or two nylon banana jacks in 3/16" diameter holes on exact 1/4" centers.

Shipping weight, 1 oz.

38F1528. NET EACH	.02
100-499, per 100	1.70
500-up, per 100	1.35



Plugs, Clips and Jacks

ITT-CANNON AUDIO PLUGS

XLR SERIES



(Mates with the former Cannon XL Line)

Protects against mechanical interference. Integral cable clamp, neoprene cable relief, and time tested latch-lock. 15 amp contacts. Avg. shipping wt., 3 oz.

STEEL & SATIN NICKEL FINISH SHELLS

Stk. No.	Type	Description	Pins	1-9	10-49	50-99
39F475	XLR-3-11SC	Cable Conn. F	3	4.54	4.16	3.78
39F476	XLR-3-12SC	Cable Conn. M	3	3.48	3.32	3.02
39F477	XLR-4-11SC	Cable Conn. F	4	4.62	4.24	3.85
39F478	XLR-4-12SC	Cable Conn. M	4	3.73	3.42	3.11
39F481	XLR-4-11C	Cable Conn. F	4	1.80	1.65	1.51
39F483	XLR-4-12C	Cable Conn. M	4	1.32	1.21	1.10
39F465	XLR-4-13	Panel Mt.-Flg. F	4	2.12	1.95	1.77
39F466	XLR-4-13N	Panel Mt.-Nut F	4	2.86	2.63	2.39
39F467	XLR-4-14	Panel Mt.-Flg. M	4	.96	.88	.80
39F468	XLR-4-14N	Panel Mt. Nut M	4	2.43	2.22	2.03
39F469	XLR-4-15	90° Cable Conn. F	4	4.43	4.07	3.71
39F455	XLR-4-31	Wall Mt. F	4	2.19	2.00	1.83
39F487	XLR-4-32	Wall Mt. M	4	1.59	1.46	1.33
39F480	XLR-3-11C	Cable Conn. F	3	1.42	1.30	1.19
39F482	XLR-3-12C	Cable Conn. M	3	1.24	1.13	1.03
39F455	XLR-3-13	Panel Mt.-Flg. F	3	2.04	1.89	1.71
39F456	XLR-3-13N	Panel Mt. F	3	2.78	2.55	2.31
39F457	XLR-3-14	Panel Mt.-Flg. M	3	.91	.84	.77
39F458	XLR-3-14N	Panel Mt. M	3	2.25	2.07	1.89
39F459	XLR-3-15	90° Cable Conn. F	3	4.39	4.03	3.67
39F484	XLR-3-31	Wall Mt. F	3	2.12	1.95	1.77
39F486	XLR-3-32	Wall Mt. M	3	1.21	1.11	1.01
39F460	XLR-3-35	Single Box Mt. F	3	5.24	4.81	4.37

STANDARD TELEVISION CAMERA PLUGS FOR REPLACEMENT

Replacement units for connecting TV cameras. Shells are made of die-cast aluminum with cadmium-plated finish. All are 24-contact types. Shpg. wt., 4 oz.



Stk. No.	Type	1-9	10-49	50-99
39F403	LKT-R24C-227 ₈	25.45	21.21	16.97
39F408	LKT-R24C-217 ₈	28.13	21.77	17.42

SERIES AUDIO PLUGS



P4-13

P-CG-11S

Used in sound and allied applications. All 90° plugs have split shell. Splash proof. Insulated by black phenolic. Two to 6 contact inserts accommodate No. 10 wire. 8 contact takes No. 14 wire. Panel mounting, except *Cable connector. Avg. wt., 4 oz.

Stk. No.	Pins	Male	1-24	25-99	100-499
39F531	3	P3-CG-12S*	7.20	6.12	5.40
39F532	4	P4-CG-12S*	7.22	6.14	5.42
39F533	5	P5-CG-12S*	7.47	6.35	5.60
39F534	6	P6-CG-12S*	7.90	6.72	5.93
39F535	8	P8-CG-12S*	7.27	6.18	5.45
39F543	3	P3-14	4.73	4.02	3.55
39F544	4	P4-14	5.33	4.53	4.00
39F546	6	P6-14	6.01	5.11	4.51
39F547	8	P8-14	5.54	4.71	4.16

Stk. No.	Pins	Female	1-24	25-99	100-499
39F537	3	P3-CG-11S*	7.84	6.66	5.88
39F538	4	P4-CG-11S*	8.42	7.16	6.32
39F539	5	P5-CG-11S*	8.36	7.11	6.27
39F540	6	P6-CG-11S*	8.88	7.55	6.66
39F541	8	P8-CG-11S*	8.88	7.55	6.66
39F549	3	P3-13	5.74	4.88	4.31
39F550	4	P4-13	6.74	5.73	5.06
39F551	5	P5-13	6.68	5.68	5.01
39F552	6	P6-13	7.19	6.11	5.39
39F553	8	P8-13	7.19	6.11	5.39
39F556	3	P3-35	9.57	8.13	7.18



UA RETMA STANDARD PLUGS

Standard 3-contact microphone plugs. Latch-locking, gold-plated contacts, rubber relief collar and bushings on plugs, with flat-top polarized. 15 amps. 1/2" cbl. entry. St. plg. shell. *Pin insert

Stk. No.	Type	Description	1-24	25-99	100-499
39F570	UA-3-11	*Straight cord plug	11.20	9.52	8.40
39F571	UA-3-12	*Straight cord plug	7.10	6.04	5.33
39F572	UA-3-13	*Round wall mount	8.66	7.36	6.50
39F573	UA-3-14	*Round wall mount	4.70	4.00	3.53
39F574	UA-3-31	*Rect. wall mount	7.45	6.34	5.60
39F575	UA-3-32	*Rect. wall mount	4.72	4.01	3.54

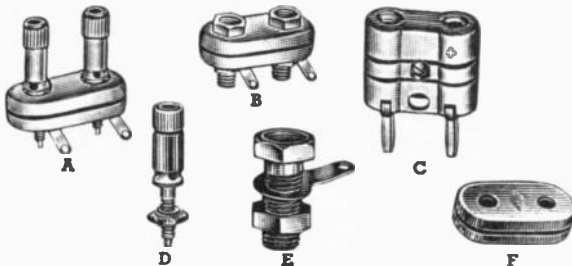
EBY BINDING POSTS



Have fully insulated bases and non-removable knobs. Molded bakelite. Shpg. wt., 2 oz.

28F581. Type 37. Stem, 5/8" x 1/8"	42
28F582. Type 40. Similar to above, knob, 9/16" dia.; stem, 8-32 x 7/8"; base 5/8 x 1/4"	57
28F583. Type 38. Stem, 6x32x3/16" with 1/16" insulating flattened boss base	45
28F584. Type 14. Sergeant. With slot 1/4 x 5/32". Nickel-plated. Stem, 5/32 x 1/2". NET	57
28F585. Type 21R. Twin Post Base 2x1 1/16 x 3/16". Distance between posts, 7/8". Wt. 4 oz. NET	150

NATIONAL PLUGS AND JACKS



28F610. Fig. A. Type FWH. Banana jack binding posts with wire holes. Shipping weight, 3 oz. NET	1.10
28F612. Fig. B. Type FWJ. Twin banana jack assembly for use with FWT plug. Shipping weight, 3 oz. NET	87c
28F613. Fig. C. Type FWT. Combination plug-socket that fits FWG, FWH and FWJ and takes additional FWT's. Leads out of side. Shipping weight, 3 oz. NET	1.56
28F614. Fig. D. Type FWA. Posts only. Brass nickel plated. Shipping weight, 3 oz. NET	42c
28F615. Fig. E. Type FWE. Brass nickel plated jacks. Shipping weight, 3 oz. NET	18c
28F616. Fig. F. Type FWC. Insulator made of R-39. Shipping weight, 3 oz. NET Per Pr.	60c

GENERAL RADIO

DOUBLE BANANA PLUG

General Radio. Type 274-MB. Rated 4000 volts, 15 amps, peak. Spacing between prong centers 3/4". Shpg. wt., 2 oz.

28F589. NET 70

AVAILABLE FROM NEWARK-FERGUSON, DETROIT, MICHIGAN STOCK, THE COMPLETE LINE OF ITT-CANNON CONNECTORS INCLUDING MS, K-LINE AD SUB-MINIATURE CONNECTORS AT FACTORY COMPETITIVE PRICES IN QUANTITIES UP TO 999 PIECES.

Superior Plugs & Connectors



INSULATED DUB-L-PLUG DUAL CONNECTOR

Dub-L-Plug dual electrical connectors are designed for making safe, rapid connections to binding posts mounted on 3/4" centers. Completely recessed integral banana plugs prevent accidental shorting. Stackable nylon body supplied in six colors. Captive black and white thumb-nuts facilitate circuit and polarity identification. All insulated except (*) which is shielded/insulated.



Stk. No.	Type	Color	1-9	10-99
5F771	SPGK2BC*	black	4.50	3.38
5F772	IPG2RC	red	2.50	1.88
5F773	IPG2WTC	white		
5F774	IPG2BLC	blue		
5F775	IPG2YC	yellow		
5F776	IPG2GNC	green		
5F778	IPG2BC	black		

*SPG series shielded/insulated.

DOUBLE ASSEMBLY 5-WAY BINDING POST

Fig. A. For instrument and equip. panels requiring 3/4" centers. Rated for a current capacity of 30 amps. & working voltage of 1000 V. Gold plated brass pts. 5 ways to make connections. Color coded captive thumbnuts.

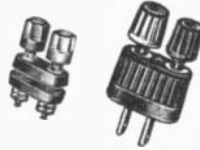


Fig. B. Dual adapter type.

Fig. A

Fig. B

Stk. No.	Type	Color Thumbnut	1-9	10-99
6F078	DAP15BWC	Black & White	1.50	1.13
6F085	DF30-2-BWTC	Black & White	.85	.64
6F086	DF30-2-BBC	Black & White		
6F087	DF30-2-BRC	Red & Black		

FUSED 5-WAY BINDING POSTS

Rated for 15 amps, 250 v. with built-in fuse holder. Metal pts. gold plated brass. Size 3 1/16 x 3/4" Dia. mig. up to 1/4 panels.



Stk. No.	Type	1-9	10-99
6F094	FPI5BGC	1.50	1.13

HEX-NUT 5-WAY BINDING POSTS



Can mount and lock in any panel from 1/16" to 1/4" thick. For permanent clamping, spade lug, clip-lead, banana plug, or looping and clamping. Shaft has 1/8" solder tip and 0.098" dia. wire holes. Rated: 1000 V, 30 amp. Gold-plated metal parts. Plastic parts are of nylon compounded to meet military specifications MIL-P-20693. Shpg. wt. 1 oz.

Stk. No.	Type	Color	1-99	100-900
5F760	DF30BC	Black	40c	30c
5F761	DF30BLC	Blue		
5F762	DF30RC	Red		
5F763	DF30GNC	Green		
5F764	DF30WTC	White		
5F765	DF30YC	Yellow		
5F769	GP30NC	Nickel		

MINIATURE 5-WAY BINDING POSTS

Rated for 15 amperes, 1000 working volts. Nylon plastic parts meet Mil Spec MIL-P-20693. Gold-plated brass parts. Fluted thumb nut design only.



Stk. No.	Type	Color	1-99	100-900
6F079	DF21RC	Red	.40	.30
6F080	DF21WTC	White		
6F081	DF21BC	Black		
6F082	DF21BLC	Blue		
6F083	DF21YC	Yellow		
6F084	DF21GNC	Green		

FLUTED NUT 5-WAY BINDING POSTS

Plastic parts of standard size types molded of Lexan polycarbonate resin; brass parts are gold-plated. Rated for 30 amperes, 1000 volts working. Shipping wt. 2 oz.



Stk. No.	Type	Color	1-99	100-900
6F088	DF31RC	Red	.40	.30
6F089	DF31BLC	Black		
6F090	DF31GNC	Green		
6F091	DF31WTC	White		
6F092	DF31BC	Blue		
6F093	DF31YC	Yellow		

SUPERCON ELECTRICAL CONNECTORS

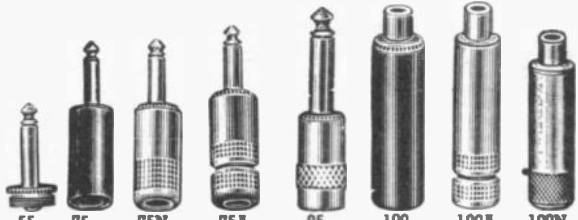
Supercon flexible soldered or solderless plugs and receptacles



Stock No.	Type	Color	Desc.	1-19	20-99	100-199
6F048	RS25GB	black	25 amp Socket Receptacles	1.75	1.40	1.23
6F049	RS25GY	yellow				
6F050	RS25GR	red				
6F051	RS25GBL	blue				
6F052	RS25GGN	green				
6F053	RS25GWT	white				
6F060	PP25GB	black	25 amp Pin Plugs	1.30	1.04	.91
6F061	PP25GY	yellow				
6F062	PP25GR	red				
6F063	PP25GBL	blue				
6F064	PP25GGN	green				
6F065	PP25GWT	white				
6F000	RS50GB	black					50 amp Socket Receptacles	2.50	2.00	1.75
6F001	RS50GY	yellow				
6F002	RS50GR	red				
6F003	RS50GBL	blue				
6F004	RS50GGN	green				
6F005	RS50GWT	white				
6F030	PP50GB	black	50 amp Pin Plugs	2.00	1.60	1.40
6F031	PP50GY	yellow				
6F032	PP50GR	red				
6F033	PP50GBL	blue				
6F034	PP50GGN	green				
6F035	PP50GWT	white				
6F036	PS100GB	black					100 amp Socket Plugs	2.50	2.00	1.75
6F037	PS100GY	yellow				
6F038	PS100GR	red				
6F039	PS100GBL	blue				
6F040	PS100GGN	green				
6F041	PS100GWT	white				
6F018	RP100GB	black	100 amp Pin Receptacles	3.00	2.40	2.10
6F019	RP100GY	yellow				
6F020	RP100GR	red				
6F021	RP100GBL	blue				
6F022	RP100GGN	green				
6F023	RP100GWT	white				
6F672	PS250GB	black					250 amp Socket Plugs	3.65	2.92	2.56
6F673	PS250GY	yellow				
6F674	PS250GR	red				
6F145	PS250GBL	blue				
6F146	PS250GGN	green				
6F147	PS250GWT	white				

Stock No.	Type	Color	Desc.	1-19	20-99	100-199
6F054	RP25GB	black	25 amp Pin Receptacles	1.75	1.40	1.23
6F055	RP25GY	yellow				
6F056	RP25GR	red				
6F057	RP25GBL	blue				
6F058	RP25GGN	green				
6F059	RP25GWT	white				
6F066	PS25GB	black					25 amp Socket Plugs	1.30	1.04	.91
6F067	PS25GY	yellow				
6F068	PS25GR	red				
6F069	PS25GBL	blue				
6F070	PS25GGN	green				
6F071	PS25GWT	white				
6F024	PS50GB	black	50 amp Socket Plugs	2.00	1.60	1.40
6F025	PS50GY	yellow				
6F026	PS50GR	red				
6F027	PS50GBL	blue				
6F028	PS50GGN	green				
6F029	PS50GWT	white				
6F006	RP50GB	black					50 amp Pin Receptacles	2.50	2.00	1.75
6F007	RP50GY	yellow				
6F008	RP50GR	red				
6F009	RP50GBL	blue				
6F010	RP50GGN	green				
6F011	RP50GWT	white				
6F012	RS100GB	black	100 amp Socket Receptacles	3.00	2.40	2.10
6F013	RS100GY	yellow				
6F014	RS100GR	red				
6F015	RS100GBL	blue				
6F016	RS100GGN	green				
6F017	RS100GWT	white				
6F042	PP100GB	black					100 amp Pin Plugs	2.50	2.00	1.75
6F043	PP100GY	yellow				
6F044	PP100GR	red				
6F045	PP100GBL	blue				
6F046	PP100GGN	green				
6F047	PP100GWT	white				
6F675	RP250GB	black	250 amp Pin Receptacles	5.50	4.40	3.85
6F676	RP250GY	yellow				
6F677	RP250GR	red				
6F148	RP250GBL	blue				
6F149	RP250GGN	green				
6F150	RP250GWT	white				

PHONE AND MICROPHONE JACKS



Type 55. Adapts standard microphone connector for use with conventional jack. Length, $1\frac{1}{8}$ ". Shpg. wt., 4 oz.

Stk. No.	Type	1-9	10-49	50-99	100-249	250-499
39F742	55	.30	.27	.25	.225	.20

Type 75. Two-way phone plug with tie-cord anchor and insulated phenolic shell. Brass terminals for either phone tips or wire. Length $2\frac{1}{8}$ ". Handle, $1\frac{1}{8}$ ". Shpg. wt., 3 oz.

Stk. No.	Type	1-9	10-49	50-99	100-249	250-499
39F708	75	.45	.41	.38	.338	.30

Type 75N. Two-way phone plug with tie-cord anchor and polished shielded nickel shell. Brass screw terminals. Overall length, $2\frac{1}{8}$ ". Handle, $1\frac{1}{8}$ ". Shpg. wt., 8 oz.

Stk. No.	Type	1-9	10-49	50-99	100-249	250-499
39F701	75N	.66	.59	.55	.495	.44

Type 75A. Two-way phone plug with tie-cord anchor and polished, shielded nickel shell and cable clamp. Brass screw terminals. Length $3\frac{1}{8}$ ". Handle, $1\frac{1}{8}$ ". Shpg. wt., 4 oz.

Stk. No.	Type	1-9	10-49	50-99	100-249	250-499
39F702	75A	1.05	.95	.88	.788	.70

Type 76. Similar to type 75. Three-way microphone plug with insulated phenolic shell. Silver-plated lug terminals. Overall length, $2\frac{1}{8}$ ". Handle, $1\frac{1}{8}$ ". Shpg. wt., 3 oz.

Stk. No.	Type	1-9	10-49	50-99	100-249	250-499
39F703	76	.90	.81	.75	.675	.60

Type 76A. Similar to 75A. Three way mike plug in polished, shielded nickel shell with cable clamp. Silver-plated lug terminals. Length, $3\frac{1}{8}$ ". Handle, $1\frac{1}{8}$ ". Shpg. wt., 4 oz.

Stk. No.	Type	1-9	10-49	50-99	100-249	250-499
39F704	76A	1.17	1.05	.98	.878	.78

Type 85. Two-way miniature phone plug. $2\frac{1}{4}$ " long. Wt., 4 oz.

Stk. No.	Type	1-9	10-49	50-99	100-249	250-499
39F743	85	.36	.32	.30	.27	.24

EXTENSION TYPE JACKS

Type 100. Two-way extension jack for type 75 phone plug. Fiber shell. $2\frac{3}{4}$ " long. Overall length, $3\frac{1}{4}$ ". Shpg. wt., 4 oz.

Stk. No.	Type	1-9	10-49	50-99	100-249	250-499
39F705	100	1.08	.97	.90	.81	.72

Type 100N. Two-way extension jack for type 75N phone plug. Highly polished, shielded nickel shell. Overall length, $3\frac{1}{4}$ ". Shpg. wt., 6 oz.

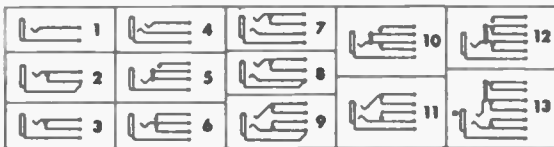
Stk. No.	Type	1-9	10-49	50-99	100-249	250-499
39F706	100N	1.08	.97	.90	.81	.72

Type 100A. Two-way extension jack for type 75A phone plug. Shielded nickel shell with built-in cable clamp. Overall length, $3\frac{1}{4}$ ". Shpg. wt., 5 oz.

Stk. No.	Type	1-9	10-49	50-99	100-249	250-499
39F707	100A	1.50	1.35	1.25	1.125	1.00



CIRCUIT DIAGRAM



LONG FRAME JACKS

Fig. A. Long-frame jacks mount in $\frac{1}{8}$ " hole in panels up to $\frac{1}{4}$ " thick by means of a $\frac{3}{16}$ " diameter threaded shank. All take standard $\frac{1}{4}$ " plugs. Nickel-plated alloy springs, silver contacts, cadmium-plated frames. Supplied with mounting nut and washer. Shpg. wt., 4 oz.

Stk. No.	Type	Cir. Diag.	1-9	10-49	50-99	100-249	250-499
39F708	1	1	.45	.41	.38	.388	.30
39F709	2	2	.57	.51	.48	.428	.38
39F710	2A	3	.57	.51	.48	.428	.38
39F711	2B	4	.57	.51	.48	.428	.38
39F712	3	5	.60	.54	.50	.45	.40
39F714	3B	7	.60	.54	.50	.45	.40
39F717	4A	10	.75	.68	.63	.563	.50
39F718	4B	11	.75	.68	.63	.563	.50
39F719	5	12	.90	.81	.75	.675	.60
39F720	6	13	1.05	.95	.88	.788	.70

JUNIOR JACKS

Fig. B. "Junior" jacks for standard $\frac{1}{4}$ " plugs. Mounts in $\frac{3}{16}$ " hole in panels up to $\frac{1}{16}$ " thick. Nickel plated brass frames and bushings. Supplied with mounting nut & washer. Shpg. wt., 3 oz.

Stk. No.	Type	Cir. Diag.	1-9	10-49	50-99	100-249	250-499
39F724	701	1	.45	.41	.38	.338	.30
39F725	702	2	.51	.46	.43	.383	.34
39F726	702A	3	.57	.51	.48	.428	.38
39F727	702B	4	.57	.51	.48	.428	.38
39F728	703	5	.60	.54	.50	.45	.40
39F729	703A	6	.60	.54	.50	.45	.40
39F730	703B	7	.60	.54	.50	.45	.40
39F731	703C	8	.60	.54	.50	.45	.40
39F732	704	9	.69	.62	.58	.518	.46
39F733	704A	10	.69	.62	.58	.518	.46
39F734	704B	11	.69	.62	.58	.518	.46
39F735	705	12	.75	.68	.63	.563	.50

SWITCHBOARD AND INDUSTRIAL JACKS

Fig. C. Industrial jacks similar to long frame jacks but have special frame angle for greater support; plain unthreaded bushing. Mount with single screw. Fits standard plugs. Shpg. wt., 4 oz.

Stk. No.	Type	Cir. No.	Description	1-9	10-49	50-99	100-249	250-499
39F721	XP-1	1	Open Cir. Jack	.63	.57	.53	.473	.42
39F722	XP-2B	3	Mike Jack	.75	.68	.63	.563	.50
39F723	XP-3B	6	Sgl. Cir. Make Brk.	.90	.81	.75	.675	.60

MIDGET TYPES

Fig. D. Midget jacks have a shorter frame and spring than the junior jack. For minimum clearance positions. Extend $1\frac{1}{2}$ " behind panel; take standard plugs. Shpg. wt., 2 oz.

Stk. No.	Type	Cir. No.	Description	1-9	10-49	50-99	100-249	250-499
39F737	A-1	1	Open Cir. Jack	.33	.30	.28	.248	.22
39F738	A-2	2	Shorting Jack	.48	.43	.40	.36	.32
39F739	A-2A	3	Closed Cir. Jack	.57	.51	.48	.428	.38
39F740	A-3A	6	Sgl. Cir. Make Brk.	.66	.59	.55	.495	.44
39F741	GJ-1	1	Aircraft Grounding Jack	.36	.32	.30	.27	.24

SC JACKS

Fig. E. SC-1A Phone Jack. 2-conductor. Commercial equivalent of military jack No. JJ-034. Requires $\frac{3}{16}$ " mounting space behind panel. Designed to receive these plugs: Mallory 75, West. Electric 47A and 47B, Signal Corps PL-47, PL-48, PL-55, PL-148, PL-155, PL-125 and Jan plugs PJ-055, PJ-155, PJ-634, PJ-636, and PJ-047. Shpg. wt., 2 oz.

Fig. F. SCA-2B. Microphone Jack. 3 conductor. Commercial equivalent of Military Jack No. JJ-033. Requires $\frac{3}{16}$ " mounting space behind panel. Designed to receive these plugs: West. Electric 109, and Signal Corps PL-68, PL-168, and Jan plugs PJ-068, PJ-168, and PJ-309. Shpg. wt., 2 oz.

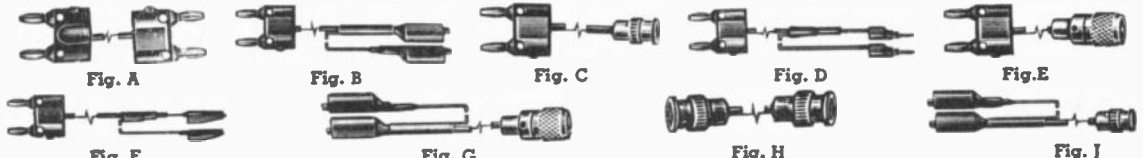
LA JACKS

Similar to SCIA and SCA2B Signal Corps jacks but have commercial construction for use in electronic equipment. Have $\frac{3}{16}$ " x 32 brass bushings, cadmium-plated. Contact springs silver plated; spring brass to assure low contact resistance. Insulation high-grade phenolic. Mounting behind panel 1". Mounting radius approximately $\frac{1}{2}$ ". Use with No. 75, 75N, 75A or 85 phone plugs. Shpg. wt., 2 oz.

Stk. No.	Type	Cir. Diag.	Description	1-9	10-49	50-99	100-249	250-499
39F780	SC-1A	1	Open Circuit	.36	.32	.30	.27	.24
39F781	SCA-2B	4	Open Circuit	.42	.38	.35	.315	.28
35F838	LA-1	1	Open Cir. Jack	.36	.32	.30	.27	.24
35F839	LA-2	2	Shorting Jack	.42	.38	.35	.315	.28
35F840	LA-2A	3	Closed	.48	.43	.40	.36	.32

Patch Cords, Test Leads and Plugs POMONA

PECO STACK-UP PATCH CORDS, TEST AND CONNECTING LEADS



3/4" double banana plug cabled to a variety of plugs, connectors, clips and tips as indicated below. The double banana plug permits parallel multiple stacking and has a clearly marked ground connection. Color of plug body matches cable

color, av. wt. 5 oz. *Two conductor twisted 18 ga. (65x36) wire. Vinyl jacket and insulation. Nom. cap. 30 mmf/ft., gray color. **Shielded microphone cable. Polyethylene insulation. Vinyl jacket. Nom. cap. 25 mmf/ft., gray color. †Coaxial shielded cable, RG 58 c/u cir: blk.

WITH DOUBLE PLUGS EACH END—Fig. A

Stk. No.	Type	Length	1-9	10-24	25-49	50-99
34F801	2BA-36*	36"	4.85	4.37	4.13	3.40
34F803	2BB-36**	36"				
34F805	2BC-36†	36"				

WITH ALLIGATOR CLIPS—Fig. B

Stk. No.	Type	Length	1-9	10-24	25-49	50-99
34F807	2BA-AL-36*	36"	5.85	5.27	4.97	4.10
34F809	2BB-AL-36**	36"				
34F811	2BC-AL-36†	36"				

WITH UG88E/U MALE BNC CONNECTOR—Fig. C

Stk. No.	Type	Length	1-9	10-24	25-49	50-99
34F813	2BB-BNC-36**	36"	5.85	5.27	4.97	4.10
34F815	2BC-BNC-36†	36"	5.85	5.27	4.97	4.10

WITH .080 DIA. PHONE TIP PLUG—Fig. D

Stk. No.	Type	Length	1-9	10-24	25-49	50-99
34F821	2BC-PP-36†	36"	7.50	6.75	6.38	5.25

WITH PL259 MALE UHF CONNECTOR—Fig. E

Stk. No.	Type	Length	1-9	10-24	25-49	50-99
34F831	2BC-UHF-36†	36"	5.85	5.27	4.97	4.10

SOCKET SAVERS

Designed to be installed on tube checkers and other electronic equipment to prevent wear and tear of sockets on original equipment. Easy to install and remove. Beryllium Copper long-life contacts.



Stk. No.	Type	Description	1-49	50-99	100-249
34F861	SS-7	7-pin min.	1.75	1.50	1.40
34F862	SS-9	9-pin min.	1.75	1.50	1.40
34F863	SS-8	8-octal	1.75	1.50	1.40

NOVAR MODEL 1751 SOCKET SAVER

Beryllium Copper—long life contacts. Shpg. wt., 2 oz.

Stock No.	1-49	50-99	100-249
34F868	1.95	1.66	1.56

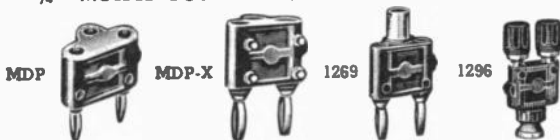
TEST SOCKET ADAPTERS

Features extended test tabs for ease of use with test prods or alligator clips. Low R.F. loss, phenolic construction; power factor less than 0.010 at 10 Mc. Insulation exceeds 500,000 megohms.



Stk. No.	Type	Description	1-49	50-99	100-249
34F527	TVS-7	7 pin min.	1.65	1.40	1.35
34F545	TVS-8	Octal	1.75	1.50	1.40
34F546	TVS-9	9 pin min.	1.85	1.57	1.52
34F548	TVS-1	Duo-Duocal	1.95		
34F869	TVS-12	Compactron	2.55	2.29	2.17
34F883	1779	Novar	2.25	1.91	1.80

3/4" MOLDED DOUBLE PLUG STACK-UP ACCESSORIES



Model MDP. Internal set screws for cable connection. Has .171" dia. stack up connections. 15A cont., 30A int. Working V.: 5000 VDC. Cap: 0.8 mmf at 10 mc.

Model MDP-X. Has internal solder bonded shorting bar. Model MDP-X. Jacks and plugs lead to 4 isolated terminals. Model 1269. Adapter: BNC jack to double banana plug. Model 1296. Adapter: binding posts to BNC plug.

Stock No.	Model	Color	1-24	25-49	50-99	100-249
34F856	MDP	Red	.75	.68	.84	.53
34F857	MDP	Black	.75	.68	.64	.53
34F858	MDP-S	Natural	.95	.86	.81	.67
34F859	MDP-X	Red	3.25	2.93	2.76	2.28
34F860	1269	Black	2.85	2.57	2.42	2.00
34F870	1296	Black	4.85	4.37	4.13	3.40

WITH MINIGATOR CLIPS—Fig. F

Stk. No.	Type	Length	1-9	10-24	25-49	50-99
34F823	2BA-MG-36*	36"	5.85	5.27	4.97	4.10
34F825	2BB-MG-36**	36"				
34F827	2BC-MG-36†	36"				

ALLIGATOR CLIPS TO PL259 UHF CONNECTOR—Fig. G

Stk. No.	Type	Length	1-9	10-24	25-49	50-99
34F835	AL-C-UHF-36†	36"	5.85	5.27	4.97	4.10

UG88E/U MALE BNC CONNECTOR BOTH ENDS—Fig. H

Stk. No.	Type	Length	1-9	10-24	25-49	50-99
34F842	BNC-C-24†	24"	5.85	5.27	4.97	4.10
34F843	BNC-C-36†	36"	5.85	5.27	4.97	4.10

ALLIGATOR CLIPS TO UG88E/U MALE BNC CONNECTOR—Fig. J

Stk. No.	Type	Length	1-9	10-24	25-49	50-99
34F839	AL-C-BNC-36†	36"	5.85	5.27	4.97	4.10

BREADBOARD SURFACE MOUNTED SOCKETS

An insulated base prevents connection from shorting to the chassis. Eliminates double chassis design. Circuits may be wired in enclosed unit, base connections are numbered for easy identification. Phosphor bronze spring contacts.



Stk. No.	Type	Description	1-49	50-99	100-249
34F864	XS-7	7-pin min.	.59	.54	.50
34F865	XS-9	9-pin min.	.69	.63	.59
34F866	XS-8	Octal	.75	.68	.64

MODEL TS-187 TRANSISTOR TEST SOCKET

For use in testing 3 lead transistors with .017 dia. leads. Beryllium copper springs for long life. Withstands temperature over 300°C. Insulation resistance 10,000 megohms min. at 40% R.H. at 24 C. Useful for aging racks, incoming inspection life testing etc. Color: Black.



Stock No.	1-24	25-49	50-99	100-249
34F867	1.75	1.58	1.50	1.23

TV TUNER SOCKET TUBE ADAPTERS

The 7, 9 or 10-HIGH adapter rises above the shields and places testing in the open. Shields or tuner covers do not have to be removed. All construction is the highest quality. Interelement distributed capacity is approximately 1.5 micro-micro farad. Voltage breakdown elements exceed 1800 VAC or DC.



Stk. No.	Type	Description	1-49	50-99	100-249
34F872	1710	10 pin min.	2.25	1.91	1.80
34F873	1449	9 pin min.	1.95	1.66	1.56
34F874	1447	7 pin min.	1.85	1.57	1.52

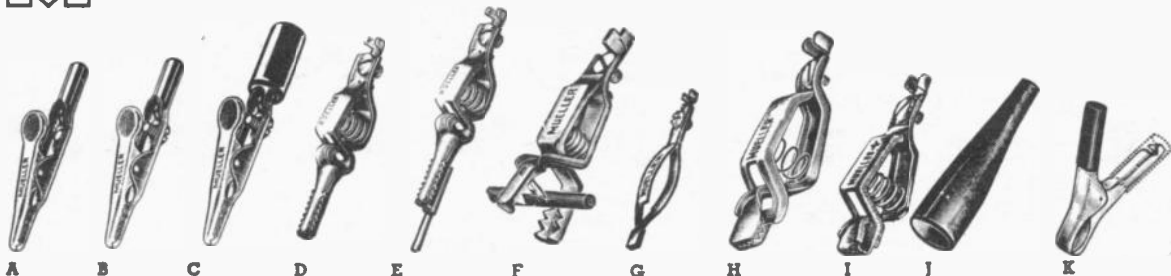
STACK-UP CONNECTING LEADS (Banana Plugs Both Ends)

Model B. Fits all standard banana jacks. Permit stack-up and side connections.

Stk. No.	Type	Length	Color	1-24	25-49	50-99	100-249
34F875	B-4	4"	Red	1.50	1.35	1.28	1.05
34F876	B-4	4"	Black				
34F877	B-8	8"	Red				
34F878	B-8	8"	Black				
34F879	B-12	12"	Red				
34F880	B-12	12"	Black				
34F881	B-18	18"	Red				
34F882	B-18	18"	Black				
34F848	B-24	24"	Red				
34F849	B-24	24"	Black				
34F850	B-36	36"	Red				
34F851	B-36	36"	Black				



Mueller Clips



For making quick temporary electrical connections. Clips are *solid copper, †cadmium-plated steel, ‡solid bronze, (§) lead plated steel.

ALLIGATOR CLIPS

Stock No.	Mfr's. Type	Fig.	Description	Size	EA.	10 for	100 for
28F500	60	A	†Solder connection	2"	.07	.48	4.20
28F501	60-S	B	†Screw connection	2"	.08	.58	5.00
28F502	60-CS	B	*Screw connection	2"	.12	.88	7.40

INSULATED PIERCING ALLIGATOR CLIP

Needle in nose pierces insulation on wire gripped in jaws. Ideal for trailer-light hook-up, etc.

28F499	60NS	B	†Screw connection	2"	.18	1.30	11.00
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INSULATED ALLIGATOR CLIPS

28F503	60-HS	C	†Screw conn. Red	2 1/2"	.12	.80	6.90
28F504	60-HS	C	†Screw conn. Black	2 1/2"	.12	.80	6.90
28F505	60-CHS	C	*Screw conn. Red	2 1/2"	.15	1.06	9.10
28F506	60-CHS	C	*Screw conn. Black	2 1/2"	.15	1.06	9.10

CROCODILE CLIPS

28F507	85	D	†Screw connection	2 1/2"	.10	.71	6.10
28F508	85-C	D	*Screw connection	2 1/2"	.19	1.30	11.20
28F509	85-T	E	†Tip Clip" phone tip	2 3/4"	.25	1.73	14.80
28F510	50-C	F	†Needle clip, screw conn.	2 1/4"	.28	2.00	16.60
28F511	51-C	F	†Less needle, screw conn.	2 1/4"	.20	1.37	11.80

PHOSPHOR BRONZE WEE-PEE-WEE CLIPS

28F512	88	G	Thin nose. Non-ferrous. For coils and HF work	1 1/2"	.24	1.67	14.30
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FLEXIBLE INSULATORS FOR CLIPS LISTED ABOVE

Protect against electric shock and short circuit. Vinylite except (*) rubber compound. Vinyl insulators available also in white, blue, yellow and green on special order. Add 10% to price. All are figure J except Type 93.

Stock No.	Type	Color	For Clip	NET EA.	10 for	100 for
28F476	47	Red	45, 45C	.08	.40	3.50
28F477	47	Blk	45, 45C	.08	.40	3.50
28F478	49	Red	48B-C, 50-51C	.09	.65	5.40
28F479	49	Blk	48B-C, 50-51C	.09	.65	5.40
28F480	35*	Red	33C	3.13	21.90	188.00
28F481	35*	Blk	33C	3.13	21.90	188.00
28F482	26	Red	24A, 25, 25C	.21	1.50	13.00
28F483	26	Blk	24A, 25, 25C	.21	1.50	13.00
28F484	23	Red	21A-21C	.40	2.80	23.70
28F485	23	Blk	21A-21C	.40	2.80	23.70

PIGMY-HIPPO CLIP

Model 46A. For trickle chargers, battery operated devices, automotive test. Choice of high solder strap on one leg for larger wires, lower strap on other leg. Shpg. wt., 5 3/4 lbs. per 100.

Stock No.	Mfr's. Type	Color	Fig.	Amp.	Size	Open	NET EACH
28F468	46A	Red	K	50	3"	1 1/8"	.15
28F467	46A	Black	K	50	3"	1 1/8"	.15

MESH-TEETH TEST CLIPS

Stock No.	Mfr's. Type	Fig.	Amp.	Size	Open	EACH	10 for	100 for
28F513	45†	1	5	1 1/2"	5/16"	.09	.60	5.00
28F514	45C*	1	10	1 1/2"	1/4"	.14	1.00	8.50

BATTERY CLIPS

28F516	24A**	1	25	2 7/8"	3/4"	.24	1.63	14.00
28F517	21A**	1	50	4"	1 1/8"	.43	3.00	28.00
28F518	11A**	1	100	6"	1 5/8"	1.12	7.80	67.00

SOLID COPPER CLIPS

28F519	25C*	H	75	3"	3/4"	.43	3.00	26.00
28F520	21C*	1	100	4 1/2"	1 1/8"	1.05	7.30	63.00
28F521	11C*	1	200	6"	1 5/8"	1.96	13.70	118.00
28F522	33C*	1	300	7 3/4"	2 1/4"	3.75	26.20	224.00

3-SIDED MESH TEETH CLIPS

28F523	27†	H	20	2 7/8"	5/8"	.15	1.00	8.60
28F524	27C*	H	40	2 7/8"	5/8"	.24	1.70	14.40
28F515	48B†	H	10	2"	1 1/2"	.12	.86	7.40
28F538	48C*	H	20	2"	1 1/2"	.17	1.20	10.40



MINI-GATOR CLIPS

Miniaturized clip designed for No. 20 wire, provides quick, strong connection even in smallest areas. Penetrates corrosion. Easily removed. 1 1/8" length, 3/16" jaw spread. Shpg. wt. 1/4 lb. per 100.

No.	Type	Description	Fig.	NET	10 for	100 for
28F528	30	Steel Cad. Plated	M	.07	.49	4.20
28F529	30C	Copper	M	.09	.61	5.30
28F472	32	Red Insul. for above	L	.05	.30	2.50
28F473	32	Blk. Insul. for above	L	.05	.30	2.50

INSULATED ALLIGATOR CLIPS



Fully insulated alligator clips. Consists of Mueller No. †60S or *60CS complete with skin-tight flexible insulation. Barrel takes wire or banana plug. 2 1/4" long.



MICRO-GATOR CLIPS

Designed for printed circuits, tight spots, and crowded tiny terminals. Tip is no bigger than the head of a pin yet will stand up straight on the smallest terminals. Uses No. 20 or smaller wire. Length, 1 3/32". Jaw spread, 1/32". Tip, 1/32" across. Shpg. wt., 1/4 lb. per 100.



SERIES 70 CLIPS

Designed similar to No. 30 mini-gator clip but with dimensions of popular No. 60 alligator. In either *solid copper or cadmium plated steel. Strong spring gives bite thru protective coatings. Fine meshing teeth and slim jaws for work in close quarters.

No.	Type	Description	NET	10 for	100 for
28F530	70	†Solder connection	.07	.42	3.60
28F531	70S	†Screw connection	.08	.50	4.30
28F532	70CS	*Screw connection	.11	.77	6.50
28F474	72	Red insul. for above	.05	.35	3.00
28F475	72	Blk. insul. for above	.05	.35	3.00

Stock No.	Mfr's. Type	Color	Construction	NET EACH	10 for	100 for
28F533	63	Black	Cadmium Ptd. Steel	.19	1.30	11.00
28F534	63	Red	Cadmium Ptd. Steel	.19	1.30	11.00
28F535	63C	Black	Solid Copper	.22	1.50	13.00
28F536	63C	Red	Solid Copper	.22	1.50	13.00

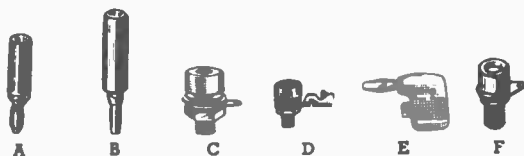
Stk. No.	Type	Description	Fig.	NET	10 for	100 for
28F496	34	Cad. Plated Steel	N	.06	.41	3.60
28F497	34C	Copper	N	.08	.53	4.60
28F498	36	Blk. Insul. for above	P	.05	.30	2.50
28F499	36	Red Insul. for above	P	.05	.30	2.50

Birnbach Electronic Components



INSULATED BANANA PLUGS

TRANSISTOR HEAT SINKS



INSULATED MIDGET BANANA PLUG FIG. A

Spring type. Fits all standard banana jacks. Wire soldered directly into plug. Size: $1\frac{1}{2} \times \frac{1}{4}$ ".

Stk. No.	Type	Color	Spring	Plating	NET
29F020	455	Black	Phos. Brz.	Nickel	.21
29F021	455	Red	Phos. Brz.	Nickel	.21
29F022	455BC	Black	Beryl. Cop.	Silver	.30
29F023	455BC	Red	Beryl. Cop.	Silver	.30
29F024	455A	Black	Phos. Brz.	Silver	.24
29F025	455A	Red	Phos. Brz.	Silver	.24
29F026	455A-BC	Black	Beryl. Cop.	Nickel	.29
29F027	455A-BC	Red	Beryl. Cop.	Nickel	.29

INSULATED GIANT PLUG FIG. B

Plug brass nickel plated. Wire can be soldered to plug. Spring type. Fits giant banana jacks. Plastic handle. Size: $2\frac{1}{2} \times \frac{3}{8}$ ".

Stk. No.	Type	Color	Spring	NET
29F028	392	Black	Phos. Brz.	.66
29F029	392	Red	Phos. Brz.	.66
29F030	392B	Black	Beryl. Cop.	.90
29F031	392B	Red	Beryl. Cop.	.90

INSULATED BANANA JACK FIG. C

Takes all standard banana plugs. Body, brass nickel plated. Mounts in $\frac{1}{16}$ " hole in panels up to $\frac{3}{8}$ " thick. Molded head. Size: $1\frac{1}{2} \times \frac{1}{16}$ ".

Stk. No.	Type	Color	NET
29F032	406	Black	.16
29F033	406	Red	.16

INSULATED BANANA JACK FIG. D

Accommodates all standard banana plugs. Body is brass nickel plated. Mounts in $\frac{3}{16}$ " hole in panels up to $\frac{3}{8}$ " thick. Complete with all hardware. Molded head. Size: $2\frac{1}{2} \times \frac{1}{2}$ ".

Stk. No.	Type	Color	NET
29F034	391	Black	.18
29F035	391	Red	.18

PUSH BUTTON BANANA PLUG FIG. E

Wire is fastened easily, speedily, and securely without soldering. Simply by pressing the push buttons the bare wire can be inserted into the opening of the plug. Size: $1\frac{1}{2} \times \frac{3}{4}$ ".

Stk. No.	Type	Color	NET
29F036	122	Black	.40
29F037	122	Red	.40

INSULATED GIANT JACK FIG. F

Accommodates all giant plugs. Body is brass nickel plated. Mounts in $\frac{3}{8}$ " hole in panels up to $\frac{3}{8}$ " thick. Molded plastic head. Size: $1\frac{1}{2} \times \frac{3}{8}$ ".

Stk. No.	Type	Color	NET
29F038	393	Black	.47
29F039	393	Red	.47

BIRNBACH HEAVY DUTY HIGH VOLTAGE TEST LEADS



Type 562. Tips, brass nickel plated. Heavy duty bakelite prods. Color coded red and black. Uses our Hi-volt kinkless test lead wire. Overall length, 60".
29F040. NET..... 1.99

HEAVY DUTY HIGH VOLTAGE TEST PROD HANDLE



Type 559. Tip, brass nickel plated. Bakelite finger guard. For 1N-34 diode and condenser for use as RF probe.
29F041. NET..... .79



BIRNBACH AIRPLANE INSULATORS

Used on mobile antenna installations. Made of white glazed low absorption porcelain.

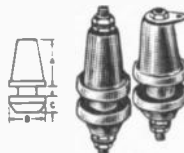
Stk. No.	Type	Color	Size	NET
29F042	473	White	2"	.22
29F043	474	White	1 1/2"	.23

Depend on Newark For All
Your Industrial Electronic Needs



Made of beryllium oxide. Gives increased transistor life and output, freedom from outgassing, extremely shock resistant, and vibration and moisture resistant. Infinite shelf life. Physical properties: Chem. Purity, 99+ per cent Beryllium Oxide. Den: 2.9g/cc. Melting point: 4650°F: 0.3 BTU/lb. Thermal Expansion: 3.2x10⁻⁶F. Thermal conductivity: 140 BTU/FT²/HR°F-FT. Transverse Strength: 25,000 PSI. Elastic Modulus: 40x10⁹PSI.

Stock No.	Type	For Jecod Transistor Case Type	NET	Stock No.	Type	For Jecod Transistor Case Type	NET
29F044	BHS-1	MT-1	1.73	29F054	BHS-10	MT-10	1.55
29F045	BHS-3	TO-3	2.28	29F055	BHS-11	TO-11	1.04
29F046	BHS-3A	MT-3	1.71	29F056	BHS-12	TO-12	1.04
With glass epoxy outline				29F057	BHS-16	TO-16	1.04
29F047	BHS-4	DO-4	1.52	29F058	BHS-18	TO-18	.78
29F048	BHS-5	TO-5	1.14	29F059	BHS-33	TO-33	1.34
29F049	BHS-5A	DO-5	1.75	29F060	BHS-36	TO-36	2.16
29F050	BHS-5B	MT-5	1.02	29F061	BHS-38	TO-38	1.80
29F051	BHS-6	TO-6	2.38	29F062	BHS-39	TO-39	1.04
29F052	BHS-8	TO-8	1.32	29F063	BHS-43	TO-43	1.04
29F053	BHS-9	TO-9	1.14	29F064	BHS-46	TO-46	.78



BIRNBACH FEEDTHRU INSULATORS
Highly vitrified, low absorption smoothly glazed porcelain. Prevents gathering of dust. Max. strength achieved by proper proportions and flat mounting surfaces. Long insulating sleeves contribute much to their performance on high voltages. Brass Nickel-plated hardware.

Stock No.	Type	Height A	Dimen. B C	Mounting Hole	Hardware	NET
29F065	458	5/8"	1 1/16" 3/4"	5/16"	6-32	.27
29F066	478	1"	1 3/16" 3/4"	7/16"	10-32	.41
29F067	478J	1"	1 3/16" 3/8"	7/16"	No. 403 Jack	.49
29F068	4125	1 1/4"	7/8" 3/8"	7/16"	10-32	.47
29F069	4125J	1 1/4"	7/8" 3/8"	7/16"	No. 403 Jack	.54
29F070	4234	2 3/4"	2" 1/8"	3/4"	1/4-20	1.05
29F071	4175	2 3/4"	1 1/4" 3/4"	5/8"	1/4-20	1.03
29F072	4175J	2 3/4"	1 1/4" 3/4"	5/8"	No. 394 Jack	1.30

CORRUGATED FEEDTHRU INSULATORS



Has more than twice the leakage path of the straight type because of increased surface of the corrugations. Recommended where a straight side insulator of equal height is not satisfactory because of shorter leakage path. Brass nickel plated hardware. Cork mounting washer supplied.

Stock No.	Type	Height A	Dimen. B C	Mounting Hole	Hardware	NET
29F073	479	1 3/8"	1 1/4" 1 1/16"	9/16"	10-32	.71
29F074	479J	1 3/8"	1 1/4" 1 1/16"	9/16"	No. 403 Jack	.87
29F075	4276	2 3/4"	1 3/4" 1"	3/4"	1/4-20	1.26
29F076	4276J	2 3/4"	1 3/4" 1"	3/4"	No. 403 Jack	1.44
29F077	4452	4 1/2"	2 1/8" 1 1/2"	1"	No. 403 Jack	1.79
29F078	4452J	4 1/2"	2 1/8" 1 1/2"	1"	No. 394 Jack	2.09

BIRNBACH STEATITE PILLARS



[Jan-1-8 and Jan-1-10 Specs. (Less Hardware)]
Unmounted and threaded pillars. One hole mounting. Parallel mounting surfaces. L5 Glazed Steatite, threaded holes on both sides.

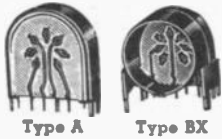
Stock No.	Type	Old Jan Type Designation	New Mil Type Designation	H	D	Length of Thread	Thread	NET
29F079	442A	NSSW0104	NL633W01-004	1/2"	3/8"	5/16"	6-32	.19
29F080	444B	NSSW0106	NL633W01-006	3/4"	3/8"	1/4"	6-32	.21
29F081	445B	NSSW0108	NL633W01-008	1"	3/8"	1/4"	6-32	.22
29F082	446B	NSSW0110	NL633W01-010	1 1/4"	3/8"	3/8"	6-32	.24
29F083	446A	NSSW0112	NL633W01-012	1 1/2"	3/8"	3/8"	6-32	.25
29F084	446C	NSSW0116	NL633W01-016	2"	3/8"	3/8"	6-32	.26
29F085	440A	NSSW0206	NL633W02-006	3/4"	1/2"	1/4"	8-32	.19
29F086	440B	NSSW0208	NL633W02-008	1"	1/2"	3/8"	8-32	.20
29F087	440C	NSSW0210	NL633W02-010	1 1/4"	1/2"	3/8"	8-32	.21
29F088	440D	NSSW0212	NL633W02-012	1 1/2"	1/2"	3/8"	8-32	.22
29F089	440E	NSSW0216	NL633W02-016	2"	1/2"	3/8"	8-32	.28
29F090	440F	NSSW0220	NL633W02-020	2 1/2"	1/2"	3/8"	8-32	.31
29F091	440G	NSSW0224	NL633W02-024	3"	1/2"	3/8"	8-32	.35
29F092	445C	NSSW0308	NL633W03-008	1"	3/4"	3/8"	10-32	.43
29F093	445D	NSSW0310	NL633W03-010	1 1/4"	3/4"	3/8"	10-32	.31
29F094	445E	NSSW0312	NL633W03-012	1 1/2"	3/4"	3/8"	10-32	.38
29F095	445F	NSSW0316	NL633W03-016	2"	3/4"	3/8"	10-32	.42
29F096	445G	NSSW0320	NL633W03-020	2 1/2"	3/4"	3/8"	10-32	.44
29F097	445H	NSSW0324	NL633W03-024	3"	3/4"	3/8"	10-32	.50

Connectors, Sockets, and Insulators

AEROVOX

RIGHT ANGLE TUBE SOCKETS

Ideal where space is at a premium. Designed to meet MIL specifications. Contacts are silver plated. Can be used in printed circuit boards. Long terminals allow use of socket on any board thickness. Template furnished with each socket. * Includes tube shield. Shpg. wt., 6 oz.



Type A Type BX

DAVEN

COMPONENT LEAD HOLDER ASSEMBLY



Model CLH-104. For use in development, qualifications and reliability assurance testing of component parts up to 200°C or better. Jaws of contact are opened by pressure in the top of the connector plunger. Angular cut on the movable jaw assures a low contact resistance. Connector body and plunger are made of brass with a heavy nickel and gold plate.

The assembly is impervious to changes in temperature from a mechanical standpoint. Body diameter 3/16". Base insulator diameter 1/2". Height above panel 5 3/8". Total length 1 1/4".

Stock No.	Model	1-99	100-999
10F130	CLH-104	.90	.85

CONSOLIDATED

ANTENNA INSULATORS



Fig. A. Low-loss white porcelain strain insulator. Overall size, 1 3/4 x 7/8" dia. Shipping wt., 2 oz.

37F140. EACH09
10 for......81 100 for.....7.29



Fig. B. Popular standard nail knob. 1 3/4 x 1 1/8" diameter. For power and telephone lines. Shpg. wt. 4 oz.

37F141. EACH07
10 for......63 100 for.....5.77

E. F. JOHNSON INSULATORS



STAND-OFF INSULATORS

135 Series. Highly glazed and smooth molded RF insulators. Nickel plated brass hardware. Types 65, 66 and 67 have drawn aluminum bases. All are threaded except * which have type 74 jack, and † which have type 76 jack. Hardware supplied. Average shpg. wt., 1 pound. Qty. prices on request.

Stock No.	Type	Fig.	Body Hgt.	Net
37F050	135-20	A	1 9/16"	.36
37F051	135-20-2*	B	1 9/16"	.40
37F052	135-22	A	1"	.22
37F053	135-22-2*	B	1"	.30
37F054	135-24	A	3/8"	.18
37F055	135-60	C	4 1/2"	1.20
37F056	135-62	C	2 3/4"	.68
37F057	135-65	C	1 3/8"	.35
37F058	135-65-2*	D	1 3/8"	.40
37F059	135-66	C	2 3/4"	.85
37F060	135-66-2†	D	2 3/4"	1.03
37F061	135-67	D	4 1/2"	1.20
37F062	135-67-2†	D	4 1/2"	1.45

LEAD-IN BUSHINGS

Ideal for use as power supply and high voltage leads. Have many applications in transmitter and antenna installations. All are steatite except * white glaze porcelain. 50, 51, 52, 55 have nickel brass rod and nuts. Average shipping weight, 8 ounces.

Stock No.	Type	Fig.	Top Hgt.	Panel Hole	Net
37F071	135-50	H	1 1/2"	1/2"	.40
37F072	135-51	H	1 3/16"	7/8"	.62
37F073	135-52	H	1 1/8"	1 1/4"	.89
37F074	135-53*	F	1 3/4"	1 7/8"	.41
37F075	135-54*	E	4"	2 3/4"	1.30
37F076	135-55	G	1/4"	1/2"	.33

Threaded Brass Rods. For use with types 53 and 54 bushings above. Complete with 4 washers and 4 nuts with 1/4"-20 thread. Average shipping weight, 2 ounces.

Stock No.	Type	Description	1-49	50-99	100-499 Per 100
37F085	115-240	8" threaded rod	.62	.57	52.15
37F086	115-241	10" threaded rod	.74	.68	62.26
37F089	135-91	Flange for type 54	.95	.88	80.00

Unglazed porcelain bars, 3/8 x 1/2", treated with Silicone to resist moisture. With No. 14 ga. wire, 2" size will provide a characteristic line impedance of approximately 500 ohms, 4" approx. 575 ohms, and 6" approx. 625 ohms. With No. 12 ga. wire, 2" approx. 475 ohms, 4" approx. 550 ohms, and 6" approx. 600 ohms. Shipping weight, 3 ounces.

Stk. No.	Type	Application	Pins	1-24	25-99	100-499
16F1073	RA7A	Gen. Purpose	7	.83	.66	.50
16F1074	RA7AX	Heavy-Duty	7	.85	.68	.51
16F1075	RA7B*	Gen. Purpose	7	.90	.72	.54
16F1076	RA7BX*	Heavy-Duty	7	1.08	.86	.85
16F1077	RA9A	Gen. Purpose	9	.99	.79	.59
16F1078	RA9AX	Heavy-Duty	9	1.01	.81	.61
16F1079	RA9B*	Gen. Purpose	9	1.06	.85	.64
16F1080	RA9BX*	Heavy-Duty	9	1.24	.99	.74

FEED THRU-PANEL INSULATORS

135 Series. Have high mechanical strength with long leakage paths. White glaze porcelain except † steatite. All are threaded, except * which have type 74 jacks. All hardware supplied. Shipping weight, 12 ounces. Quantity prices on request.

Stock No.	Type	Fig.	Top Hgt.	Panel Hole	Net
37F081	135-40†	I	1 1/4"	1/2"	.48
37F082	135-40-2†*	I	1 1/4"	1/2"	.62
37F083	135-42†	I	7/8"	1/2"	.44
37F084	135-42-2†*	I	7/8"	1/2"	.54
37F085	135-44†	J	3/8"	5/16"	.33
37F086	135-45	J	1 3/8"	1/2"	.62
37F087	135-45-2*	K	1 3/8"	1/2"	.76
37F088	135-46	J	2 3/4"	3/4"	1.40
37F090	135-47	J	4 1/2"	1"	2.75

STEATITE CONE INSULATORS

135 Series. Recommended for use at high frequencies. Low moisture absorption. Threads topped directly into steatite. Complete with screws, brass washers and cushion washer. Average shpg. wt., 5 oz.

Stock No.	Type	Size	Thread	1-49	50-99	100-499 Per 100
37F063	135-500	3/4"	6-32	.23	.21	19.25
37F064	135-501	1"	8-32	.34	.31	28.60
37F065	135-502	1 1/2"	8-32	.54	.50	45.50
37F066	135-503	2"	10-32	.80	.74	67.30
37F067	135-504	3"	10-32	1.40	1.29	117.00

ANTENNA INSULATORS

All are wet-process porcelain, with white glazing and 800 lbs. breaking strength except * dry process, 400 lbs. breaking.

Stock No.	Type	Size	Wt.	1-49	50-99	100-499 Per 100
37F068	136-104*	4x3 3/4" sq.	4 oz.	.30	.28	25.50
37F069	136-107	7x1" dia.	10 oz.	1.35	1.19	113.00
37F070	136-112	12x1" dia.	1 1/4 lbs.	1.95	1.80	164.00

FEEDER SPREADERS

Stock No.	Type	Length	1-49	50-99	100-499 Per 100
37F077	136-122	2"	.18	.17	15.20
37F078	136-124	4"	.28	.26	23.40
37F079	136-126	6"	.45	.42	37.70

Electronic Accessories

DATAK PRODUCTS



INSTANT LETTERING

Individual letters or words can be transferred quickly and neatly to any oil-free surface. Completely dry pressure sensitive ink. Gives a professional finish to chassis, schematics. Each box contains 24 sheets in easy-to-handle 3x5" size. *12 sheets. All letters and numbers 1/8" high.

Stk. No.	Type	Character	Color	Each
31F395	960*	Alphabet only	Black	2.50
31F396	961*	Alphabet only	White	2.50
31F397	962*	Numerals only	Black	2.50
31F398	963*	Numerals only	White	2.50

KIT FOR TITLING ELECTRONIC EQUIPMENT

Preprinted dry transfer titles—hundreds of pre-set words. 95% of all electronic panel markings included.

Stk. No.	Type	Character	Color	Each
31F393	958	Alph./words/numerals	Black	4.95
31F394	959	Alph./words/numerals	White	4.95

METER AND DIAL MARKINGS

Switch patterns, arcs, etc., plus letters and numbers for standard and special rotary tap switches, potentiometers; #968, etc. **4.95**

MODEL 970-2 DRAFTING SYMBOL—SPECIAL ASSORTMENT

970 Symbol Set with Rapidograph pen, ink, burnishing tool. **18.95**

31F406. NET

TERMINAL AND CHASSIS MARKING KIT



Set contains all the standard component identification letters, letter combinations, and numerals used in marking chassis, printed circuit and terminal boards, electronic panels. Marks any oil-free surface. In black or white.

Stk. No.	Type	Color	Each
31F400	967	White	4.95
31F402	966	Black	4.95

ELECTRONIC DRAFTING SYMBOL SET

All common schematic symbols. Line widths and symbol sizes fit in with standard military and industrial drawing procedures. 20 mil line width meet MIL. STD. 15-1. #970 Black. **15.95**

31F403. NET

DATAKOAT PROTECTIVE COATING KIT

Type 04176. Protective coating for instant-lettering transfers effective on metal and non-porous surfaces. Water clear, dries quickly. Kit contains 1 oz. bottle of Datacoat with brush-on cap and 1 oz. bottle of thinner. **1.00**

31F404. NET

DATAKOAT CLEAR PROTECTIVE SPRAY

Type 04177. Large, 16 oz. supply of DATAKOAT protective covering under pressure for aerosol spraying. Protects large areas. **2.95**

31F405. NET

TYPE 04178 DATAKOAT MATTE PROTECTIVE SPRAY

For panels, displays, where gloss is objectionable. **2.95**

31F407. NET

BRADY PRODUCTS

WIRE MARKERS

Sub-surface printed under tough, transparent Mylar cover. Self-sticking, thermo-resistant adhesive. Insensitive to moisture, solvents, abrasion; will not dry out or embrittle. Furnished on convenient dispenser cards. Standard strips are 1 1/2" long, for use on cable of up to 1/4" O.D. Miniature sizes are 1/2" long for use on hookup wire and miniature cable of up to 1/8" O.D. Made-to-order markers on request.

B600 STANDARD SIZE TYPES

SOLID NUMBERS

Stk. No.	Number	1-24	25-99	100-up
30F213	0-200	.22	.20	.16

When ordering, specify individual number(s) desired. Cards contain 36 markers, except numbers 100 and over come 25 per card.

SOLID LETTERS

Stk. No.	Letter	1-24	25-99	100-up
30F214	A-Z	.22	.20	.16

When ordering specify individual letter A to Z. 36 markers per card.

CONSECUTIVE NUMBERS & LETTERS

Stk. No.	Marking	1-24	25-99	100-up
30F215	1-33	.22	.20	.16
30F216	34-66	.22	.20	.16
30F217	67-99	.22	.20	.16
30F218	100-124	.22	.20	.16
30F219	A-Z	.22	.20	.16

Cards contain one marker for each number or letter in the range listed.

CONNECTOR STRIPS

B-204 black precision slit tape with transparent adhesive conforms to angles and curves readily. Strip Rolls available in 10 fractional widths. Rolls 18 yds long on 1" dia. core.

Stk No.	Type	Size	1-24	25-99	100-up
30F225	CSR015	.015x18 yds.	.75	.70	.65
30F226	CSR031	.031x18 yds.	.75	.70	.65
57F1055	CSR062	.062x18 yds.	.80	.75	.70
57F1056	CSR080	.080"x18 yds.	.80	.75	.70
57F1057	CSR093	.093"x18 yds.	.80	.75	.70
57F1058	CSR100	.100"x18 yds.	.80	.75	.70
30F227	CSR125	.125"x18 yds.	.80	.75	.70
57F1059	CSR156	.156"x18 yds.	.90	.85	.80
57F1060	CSR200	.200"x18 yds.	.90	.85	.80
30F228	CSR250	.250"x18 yds.	.90	.85	.80
30F229	CSR500	.500"x18 yds.	1.50	1.45	1.40

QUICK-ALIGN LETTER AND NUMBER KITS

Do-it-yourself lettering kits. Easy to apply lettering, interlocking notches guarantee professional results. No glueing or moistening tools necessary; self adhesive letters stick tight permanently. Kits contain letters and numbers in relation to the quantities used.



Stock No.	Type Black	Stock No.	Type White	Letter Size	Shpg. Weight	NET
57F1068	QAV533-1B	57F1076	QAV533-1W	1"	1 lb. 6 oz.	26.50
	QAV533-2B	57F1072	QAV533-2W	2"	2 lb. 5 oz.	32.00
57F1073	QAV533-3B	57F1075	QAV533-3W	3"	4 lb. 3 oz.	40.00
Stock No.	Type Yellow	Stock No.	Type Red	Letter Size	Shpg. Weight	NET
57F1069	QAV533-1Y	57F1077	QAV533-1R	1"	1 lb. 6 oz.	26.50
57F1071	QAV533-2Y	57F1078	QAV533-2R	2"	2 lb. 5 oz.	32.00
57F1074	QAV533-3Y	57F1079	QAV533-3R	3"	4 lb. 3 oz.	40.00

"IN-LINE" TYPE "U" GROUND OUTLET BOXES



Model 15



Model 17

Series stringing possible. Model 15 is control unit, with fuse or circuit breaker, on-off switch, neon pilot light, and 7 "U" ground outlets. Model 17 is slave unit with 9 outlets; can be used independently when outlets only are required. UL approved components. Size 13 $\frac{1}{8}$ "x2 $\frac{3}{8}$ "x1 $\frac{1}{8}$ "; rated 15 amps., 130v. cont. Steel case, tough neoprene cord set.

Stk. No.	Model	Description	NET
60F2407	15	fuse, 6' cd. set	8.75
60F2408	15-15	fuse, 15' cd. set	9.75
60F2440	15CB	ckt. brkr., 6' cd. set	9.75
60F2410	15CB-15	ckt. brkr., 15' cd. set	10.75
60F2410	17	5' cord set	6.75
60F2411	17-15	15' cord set	7.75

HEAVY DUTY OUTLET BOXES



Model 20



Model 24

Features of both model types include: Panel mtid. fuse or ckt. brkr.; On-Off switch; Bright neon pilot light; UL approved components; Rated 15 amps, 130V continuous duty; 12 $\frac{3}{4}$ " mtg. ctrs.; Size, 13 $\frac{1}{8}$ "x2 $\frac{3}{8}$ "x1 $\frac{1}{8}$ "; Steel case.

Model 20 2-Wire Outlet Box

St. No.	Model	Description	NET
60F2402	20	fuse, 10' cord set	5.95
60F2403	20CB	ckt. brkr., 10' cd. set	6.95

Model 24 Ground Outlet Box

60F2400	24	fuse, 6' cd. set	8.50
60F2438	24-15	fuse, 15' cd. set	9.50
60F2401	24CB	ckt.-brkr., 6' cd. set	9.50
60F2439	24CB-15	ckt.-brkr., 15' cd. set	10.50

"U" GROUND OUTLETS



Model 602 Model 603 Model 605

Models 602, 603, and 605. Tough neoprene cord set. UL approved, Rated at 15 amperes, 130 volts continuous duty. Steel case finished in silver gray textured hammertone. Fuse or push to reset circuit breaker. 8 $\frac{1}{4}$ " mounting ctrs. Size: 8 $\frac{1}{2}$ "x2 $\frac{1}{4}$ "x1 $\frac{1}{2}$ ".

Model 602-5. "U" Ground Outlets Only

Stk. No.	Model	Description	Net
60F2420	602	6' cord set	4.80
60F2421	602-15	15' cord set	5.80

Model 603-4. "U" Ground Outlets—Fuse Or Circuit Breaker

60F2422	603	Fuse 6' cord set	5.25
60F2443	603-15	Fuse 15' cord set	6.25
60F2444	603CB	Ckt. brkr. 6' cord set	6.25
60F2445	603CB-15	Ckt. brkr. 15' cd. set	7.25

Model 605-3. "U" Ground Outlets Pilot Light On-Off Switch Fuse or Circuit Breaker

60F2446	605	Fuse, 6' cord set	5.95
60F2447	605-15	Fuse 15' cord set	6.95
60F2448	605CB	Ckt. brkr. 6' cd. set	6.95
60F2449	605CB-15	Ckt. brkr. 15' cd. set	7.95

COLOR CODED SWITCH-OUTLET BOXES



Model 30



Model 32

Four color keyed switch-outlet groups. Both models available with panel mounted fuse or circuit breaker. Model 30 is the two wire type with a rugged 10' Neoprene cord set. Model 32 is the "U" ground type with a choice of six or fifteen foot Weber high quality neoprene cord set.

Model 30-2-Wire Type

Stk. No.	Model	Description	Net
60F2404	30	Fuse, 10' cord set	5.95
60F2405	30CB	Ckt. brkr. 10' cd. set	6.95

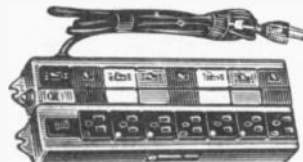
Model 32-"U" Ground Type

60F2412	32	Fuse 6' cord set	8.50
60F2413	32-15	Fuse 15' cord set	9.50
60F2414	32CB	Ckt. brkr. 6' cd. set	9.50
60F2415	32CB-15	Ckt. brkr. 15' cd. set	10.50

Model 32P. "U" Ground Type with neon lite for each switch to show power is on.

60F2450	32P	Fuse 6' cord set	10.50
60F2451	32P-15	Fuse 15' cord set	11.50
60F2452	32PCB	Ckt. brkr. 6' cd. set	11.50
60F2453	32PCB-15	Ckt. brkr. 15' cd. set	12.50

DELUXE COLOR CODED POWER CONTROL CENTER OUTLET BOXES



Model 25 and Model 35 series feature: Individual control, Master control, and Center write-on strip; Master on-off switch plus seven switch outlet sets. Plus other general characteristics featured on listed, preceding series of Weber Industrial Outlet Boxes.

Model 35-2-Wire Type

Stk. No.	Model	Description	Net
60F2418	35	Fuse 10' cord set	13.50
60F2405	30CB	Ckt. brkr. 10' cd. set	6.95

Model 25. "U" Ground Type

60F2416	25	Fuse 6' cord set	15.50
60F2417 <td>25-15</td> <td>Fuse 15' cord set</td> <td>16.50</td>	25-15	Fuse 15' cord set	16.50
60F2441	25CB	Ckt. brkr. 6' cord set	16.50
60F2442	25CB-15	Ckt. brkr. 15' cd. set	17.50

Model 25P. "U" Ground Type with neon lite for each switch to show power is on.

60F2454	25P	Fuse 6' cord set	19.50
60F2455	25P-15	Fuse 15' cord set	20.50
60F2456	25PCB	Ckt. brkr. 6' cord set	20.50
60F2457	25PCB-15	Ckt. brkr. 15' cd set	21.50

800 SERIES DUPLEX MASTER POWER CONTROLS



"U" Ground outlets. Features: 12 $\frac{3}{4}$ "x2 $\frac{3}{8}$ " mtg. ctrs.; On-Off switch; Rated at 15 amps, 130V continuous duty; Neoprene cord set; Choice of fuse or push-to-reset ckt. brkr.; Steel case of textured hammertone; bright neon pilot light. Size, 3 $\frac{1}{4}$ "x4 $\frac{1}{4}$ "x1 $\frac{1}{2}$ ".

Stk. No.	Model	Description	Net
60F2429	800	Fuse 6' cord set	13.50
60F2430	800CB-15	Ckt. brkr. 15' cd. set	15.50
60F2458	800-15	Fuse 15' cord set	14.50
60F2459	800CB	Ckt. brkr. 6' cord set	14.50

"LONG JOHN" SERIES HEAVY DUTY OUTLET BOXES



Model 700



Model 705

Giant 4' outlet boxes. Features: 48 $\frac{3}{4}$ " mtg. ctrs.; Size, 49x2x1 $\frac{1}{2}$ "; UL app'd. components; Rated at 15 amps, 130V continuous duty; Neon pilot light; Neoprene cords; On-Off switch; Steel case finished in silver gray textured hammertone.

Model 700 Series, 8 U Ground Outlets On-Off Switch, Bright Pilot Light

Stk. No.	Model	Description	Net
60F2423	700	Fuse 6' cord set	14.95
60F2424	700-15	Fuse 15' cord set	15.95
60F2406	700CB	Ckt. brkr. 6' cord set	15.95
60F2460	700CB-15	Ckt. brkr. 15' cd. set	16.95

Model 705 Series, 15 U Ground Outlets On-Off Switch, Bright Pilot Light

60F2425	705	Fuse 6' cord set	18.45
60F2426	705CB	Ckt. brkr. 6' cord set	19.95
60F2427	705CB-15	Ckt. brkr. 15' cd. set	20.95
60F2461	705-15	Fuse 15' cord set	19.95

Model 710 Series, 8 U Ground Outlets Only

60F2428	710	6' cord set	12.95
60F2462	710-15	15' cord set	13.95

Model 715 Series, 15. "U" Ground Outlets Only

60F2463	715	6' cord set	16.95
60F2464	715-15	15' cord set	17.95

"STRING BEAN" SERIES OUTLET BOXES



Space-saver size in a sturdy steel case. Completely wired for instant use. Other features include: Tough neoprene cord set; On-Off switch; UL approved components; Rated at 15 amps, 130V continuous duty; Size, 49x1 $\frac{1}{2}$ "x1 $\frac{1}{8}$ "; Steel case finished in silver gray textured hammertone.

Model 1000 Series, 12. "U" Ground Outlets On-Off Switch, Bright Pilot Light.

Stk. No.	Model	Description	Net
60F2465	1000	Fuse 6' cord set	15.95
60F2466	1000-15	Fuse 15' cord set	16.95
60F2435	1000CB	Ckt. brkr. 6' cord set	16.95
60F2468	1000CB-15	Ckt. brkr. 15' cd. set	17.95

Model 1002 Series 12. "U"-Ground Outlets Only

60F2469	1002	6' cord set	13.95
60F2470	1002-15	15' cord set	14.95

Model 1010 Series, Master On-Off Switch Pilot Light & 8 Sets of "U" Ground Outlets, Pilot Lights and On-Off Switches.

60F2467	1010	Fuse 6' cord set	19.95
60F2471 <td>1010-15</td> <td>Fuse 15' cord set</td> <td>20.95</td>	1010-15	Fuse 15' cord set	20.95
60F2436	1010CB	Ckt. brkr. 6' cord set	20.95
60F2472	1010CB-15	Ckt. brkr. 15' cd. set	21.95

VARI-FINE SPEED CONTROLLER



Model 200. For the home, lab, or school. Provides stepless control from zero to maximum. Solid state. Provides infinite control of motor speed and light intensity. Used to vary speed of AC/DC motors of universal types. Rating: 7 amps @ 117v, 60c. max. May be plugged into any standard wall outlet.

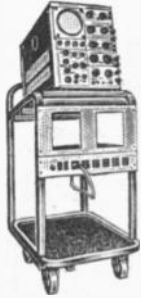
Fused for circuit protection. Has mounting ears for use for a fixed installation. Is "U" ground type with neoprene insulation on inner conductors and on overall neoprene jacket.

60F2473. EACH 14.95

Electrical Accessories

WABER

NEW METER MODELS



LAB
ON
WHEELS

- Quiet. Fast
- Adjustable shelves

Low 6

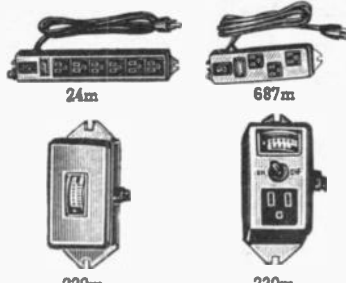


Low 3



Low 4

Lab on Wheels. For school, lab, or industrial plant. They have 1 inch square steel tubing for rigidity, strength and durability. Zinc plated with a clear, irridate post plate treatment. Heavy duty, 5 inch wheels with heavy plate casters. Quiet, fast, easy swiveling Adjustable shelves. Provisions made for mounting Waber outlet boxes. NOTE: Low 3 & 4 each have 5 hardbound shelves. **Low-3 Single Cantilever.** Size: 28x26x66" 60F2474 (less outlet box) NET 149.00 **Low-4 Double Cantilever.** Size: 48x26x71" 60F2475 (less outlet box) NET 188.00 **Low-6 "Scope" Dolly.** Size 29 1/2 x 9 1/4 x 36 1/2" 60F2476 (less outlet box) NET 89.00 62F2477 ACO-1 Plug-in Shelf NET. . . 17.50



24m

687m

220m

230m

Illuminated crystal clear wide angle, edgewise reading AC Voltmeter in a chrome slated steel case. Reads from 0 to 150v.

Model 230M. Line Voltage Checker

Stk. No.	Model	Description	Net.
60F2478	230M	Fuse, 6' cord	7.50
60F2479	230M-15	Fuse 15' cord	8.50
60F2480	230MCB	Ckt. bkr. 6' cd.	8.50
60F2481	230MCB-15	Ckt. bkr. 15' cd.	9.50

Model	Description	Net.
60F2482	607M-3. "U" Ground Outlets, On-Off Switch, Fuse or Push-to-Reset Ckt. Bkr.	8.95
60F2483	607M-15	Fuse, 15' cord 9.95
60F2484	607MCB	Ckt. bkr 6' cd. 9.95
60F2485	607MCB-15	Ckt. bkr. 15' cd. 10.95

Model	Description	Net.
60F2486	24M-6. "U" Ground Outlets, On-Off Switch, Fuse or Push-to-Reset Ckt. Bkr.	11.95
60F2487	24M-15	Fuse, 15' cord 12.95
60F2488	24MCB	Ckt. bkr 6' cd. 12.95
60F2489	24MCB-15	Ckt. bkr. 15' cd. 13.95

NEWARK Can Supply Any Special Types of Waber Outlets

PLYMOUTH RUBBER CO. ELECTRICAL TAPES

SLIPKNOT TAPE PRODUCTS

No. 7 Plastic Tape. .007" thick. Inseparable fusion of adhesive to vinyl base. Minimum dielectric strength of 10,000 V.

Stk. No.	Type	Size	1-9	10-99	100-up
36F930	3205	3/4" x 66'	1.39	1.15	.95
36F931	3206	3/4" x 44'	.94	.78	.65
36F932	3202	3/4" x 20'	.52	.43	.36

Filler Tape. Electrical Insulation Putty for filling voids and building up around sharp edges of connectors, etc. Designed for use with Slipknot Plastic Tape.

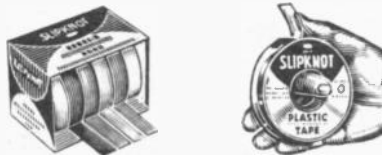
Stk. No.	Type	Size	1-47	48-144	144 up
36F933	2074	1 1/2" x 60" x 1/8"	1.17	1.05	.99

Black Friction Tape. Non-raveling, never dries out. Always fresh, exceeding all ASTM electrical specifications.

Stk. No.	Type	Description	1-99	100-399	400 up
36F994	1001	#8-3/4" x 60'	.52	.48	.445
36F935	1003	#4-3/4" x 30'	.28	.255	.24

No. 45 Color Coding Tape. Thin, pressure-sensitive vinyl tape in 6 colors for fast, permanent color coding in accordance with existing electrical codes. Accommodates any size of wire or conduit. Conforms completely to irregular surfaces.

Stk. No.	Type	Size	1-11	12-up
36F936	3165	1/2" x 20' Roll	1.50	1.35



Special (ASTM) Friction Tape. Exceeds all requirements of ASTM D-69 and U.S. Government Specification HH-T-101A and HH-1-00510 (Navy).

Stock No.	Type	Description	1-99	100-399	400 up
36F937	1011	#8-3/4" x 82 1/2'	.60	.555	.51

Special (ASTM) Splicing Compound. High voltage rubber tape guaranteed to exceed ASTM specification D-119 and U.S. Gov't. specification HH-T-111C.

Stock No.	Type	Description	1-99	100-399	400 up
36F938	2006	#8-3/4" x 30'	.65	.60	.555

P. R. Splicing Compound. Instant fusion for complete insulation. Conforms without voids to any irregular shape, and will not dry out. Perfect companion to the Slipknot Friction Tape.

Stock No.	Type	Description	1-99	100-399	400 up
36F939	2001	#8-3/4" x 23'	.60	.555	.51
36F940	2003	#4-3/4" x 11'	.31	.285	.265

RACK MOUNTS—MASTER POWER CONTROLS



Model 900

Model 900. Has 6 "U" ground outlets controlled by an on-off switch, with a pilot light, and fuse or ckt. bkr. The 6 or 15 foot cord-set is of tough neoprene.

Stk. No.	Model	Description	Net.
60F2431	900	Fuse, 6' cord set	10.95
60F2490	900-15	Fuse, 15' cord set	11.95
60F2432	900CB	Ckt. bkr. 6' cd. set	11.95
60F2491	900CB-15	Ckt. bkr. 15' cd. set	12.95

Model 904 series very similar to 900 series, but with 2 outlets in front, 4 in back. Made to be mtd. on a rack panel for remote control of other Waber power outlet boxes mtd. inside the rack cabinet. Size, 3 1/2 x 19".

Stk. No.	Model	Description	Net.
60F2433	904	Fuse, 6' cord set	12.95
60F2434	904-15	Fuse, 15' cd. set	13.95
60F2492	904CB	Ckt. Bkr. 6' cd. set	13.95
60F2493	904CB-15	Ckt. Bkr. 15' cd. set	14.95

COLOR CODED CONTROL CENTER



11

12

Built-in circuit breaker protection. 15 amps. 130v continuous duty rating. 10-ft. tough neoprene chrome plated steel case. U.L. listed. Four 2 wire outlets.

Model 11. On-Off Switch and Pilot Light 60F2494. NET 5.30
Model 12. Separate On-Off Switch for each outlet 60F2495. NET 5.30

WOODHEAD PROTEX SERVICE LIGHTS



- For hard to reach areas!
- Oil proof construction!

Type 611. For servicing hard to get at areas business machines, television equipment, and other places where lighting aid becomes necessary. Made with an oil proof "Safety Yellow" Neotex handle. Comes equipped with a 10' oil proof cord, molded 2 prong AC plug, and an insulated 8" tubular guard. The service light is available with 10 Watt shock resistant lamps. Max. O.D. 1 1/2". Handle molded from high-impact, high-visibility yellow plastic. Wt. 13 oz.

58F825. NET 3.03
No. 10C7. 10 watt lamp for Type 611 above 58F826. NET27

SCOTCH ELECTRICAL TAPE



Type 33. General purpose insulation that is strong and conformable. Dielectric strength: 10,000 volts. Is .007" thick and has black plastic backing.

Type 88. All-Weather tape. A super-tough flame-retardant black plastic backing provides excellent resistance to abrasion, oil, acids, etc. Extra pliability and conformability at temperatures down to 0°F. The thickness of Type 88 is .0085".

Stk. No.	Type	Size	Wt.	1-9	10-99
36F898	33	3/4" x 66'	8 oz.	1.39	1.15
36F899	33	3/4" x 20'	3 oz.	.52	.43
36F897	33	3/4" x 20'	2 oz.	.32	.27
36F886	88	3/4" x 66'	9 oz.	1.62	1.33
36F887	88	3/4" x 20'	4 oz.	.61	.50



Electrical Components

SPECIALIZED ELECTRICAL COMPONENTS



SCREW BASE ADAPTER

Type 5612. (Fig. A) Converts Medium Screw Base socket to female Edison. Double T-slotted to accept polarized plugs. 660 watts, 125 volts.

Stk. No.	Net Ea.	Net Ea. Ctn.—10	Net Ea. Std. Pkg.—100
32F706	.68	.60	.52

FEMALE GROUNDING-TYPE MOTOR BASE OUTLET

Type 5256. Parallel-blade with U-ground. 15 a., 125 v.

32F746	1.49	1.32	1.14
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A. C. PILOT LIGHT SWITCH

Type 1277. (Fig. B) Operates simultaneously with pilot light. Keeps you alert to equipment in operation. Single pole, 15 A. 120 VAC pilot light "presswitch" with red handle. Brown front, yellow back. Size: 3.281 x 2.437". Shpg. wt., 4 oz.

32F720	2.07	1.83	1.59
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TWIST-LOCK PLUGS

3 wire grounding type, 15 amperes, 125 volts.

Stk. No.	Type	Fig.	Description	Std. Pkg.	Ctn.	Net Ea.	Net Ea. Ctn.	Net Ea. Std. Pkg.
32F721	4700	C	Receptacle	50	10	2.81	2.48	2.15
32F722	4713	.....	Receptacle	50	10	1.87	1.65	1.43
32F723	4715	.....	Receptacle	50	10	2.06	1.82	1.57
32F724	4716	J	Plug	50	10	1.59	1.40	1.22
32F725	4720	D	Plug	50	10	1.36	1.20	1.04
32F726	4726	D	Plug	50	10	1.13	.99	.86

3-WIRE GROUNDING TYPE SINGLE OUTLETS

Polarized for grounding exposed metal parts of portable electrical equipment. 5279 has flush housing with permanent type mounting plate (2.437 Dia.). Male recessed 5278 may be permanently attached. 5207 (Dia. 1.531) is "insuldene" connector body. 5280 (1.531 Dia.) grounding cap may be anchored permanently by thumb screw. All are 15A., 125 V.

32F727	5278	.....	Male Base	50	10	1.08	.95	.83
32F728	5279	.....	Female Base	50	10	2.07	1.83	1.59
32F729	5280	E	Male Cap.	50	10	1.42	1.26	1.09
32F730	5207	F	Fem. Con.	50	10	1.46	1.29	1.12

DUPLEX GROUNDING ADAPTER

Type 5291. Converts existing parallel or "I" slot duplex receptacles to 3 wire, 15A., 125V. grounding receptacles. Captive mounting screw threads into existing receptacle. Phosphor bronze prongs connect metal plate to ground circuit. 3.328"x 1.750"x1.421". Shpg. wt., 6 oz.

32F731	5291	G	Brwn. Bak.	50	10	1.95	1.72	1.49
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Type 5286. 3-Wire grounding type caps and bodies, polarized. 15 amps. 125 v. Fitted with "U" shaped blade for grounding.

32F707	5266		Rubber Cap	50	10	.85	.75	.65
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(T) 3-WIRE GROUNDING TYPE ADAPTER

38F517. (Type 5273-L.) For grounding exposed metal parts of portable electrical equipment. Designed to adapt standard 2-wire convenience outlets for use with new 3-wire grounding caps. 15 amps. 125 volts. Shpg. wt., 4 oz. Std. pkg.—50; Carton—10.

NET EA.—Brkn. Ctn.90	Carton79	Std. Pkg.69
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SAFETY GROUNDING RECEPTACLE

Type SG-62. Accepts all U-shaped or round-pin std. grounding caps. Shunts current harmlessly around objects inserted in slots by children. Grounds tools and appliances equipped with std. grounding caps. 15 amps, 125 v. silver plated contact springs. Shpg. wt., 4 oz.

Positive contact connectors that never disconnect accidentally. Simply "plug-in"—twist—and they're locked. Wherever motor-driven tool or portable electrical apparatus are used. Twist-Lock connecting devices provide maximum safety and efficiency. Conform to National Electrical Code. UL approved.

10 AMP 2-WIRE CONNECTORS MIDGET SIZE—UNPOLARIZED

Cord-grip connectors accommodate .312" to .500" diameter cords. Brown bakelite, with metal casings plated to resist corrosion. Female receptacles will accept either polarized or non-polarized caps. 250 volts at 10 amps; 125 volts at 15 amps.

Stock No.	Type	Fig.	Description	Std. Pkg.	Ctn.	Net Ea.	Net Ea. Ctn.	Net Ea. Std. Pkg.
38F500	7428	H	Male Plug	50	10	.42	.37	.32
38F501	7427	I	Fem. Con.	50	10	.77	.68	.59
38F502	7466	J	Male Base	50	10	.91	.81	.70
38F503	7468	K	Fem. Base	50	10	1.11	.98	.85
38F518	7479*	H	Male Cap	50	10	.50	.44	.38

*Has one wide and one narrow blade to fit corresponding polarized slots of receptacles.

10 AMP 3-WIRE CONNECTORS MIDGET SIZE—POLARIZED

Cable connectors accommodate .281" to .421" diameter cords. Rated: 250 volts at 10 amps; 125 volts at 15 amps.

38F504	7485	H	Male Plug	50	10	1.00	.88	.76
38F505	7484	I	Fem. Con.	50	10	1.44	1.27	1.10
38F506	7486	J	Male Base	50	10	1.28	1.13	.98
38F507	7487	K	Fem. Base	50	10	1.56	1.37	1.19

STANDARD SIZE—POLARIZED

10 amp.-3 wire cable connectors accommodate .296" to .562" dia. cables. Type 7572 is armored cap. All metal casings and flanges are plated to resist corrosion. Bodies of black bakelite. Rated: 250 volts at 10 amps; 125 volts at 15 amps.

Stock No.	Type	Fig.	Description	Std. Pkg.	Ctn.	Net Ea.	Net Ea. Ctn.	Net Ea. Std. Pkg.
38F509	7572	L	Male Plug	50	10	1.19	1.05	.91
38F510	7555	M	Fem. Con.	50	10	1.87	1.65	1.43
38F511	7556	N	Male Base	50	10	1.56	1.37	1.19
38F512	7557	N	Fem. Base	50	10	1.72	1.52	1.32

STANDARD SIZE—POLARIZED

Heavy duty plugs and receptacles. Rated: 600 volts at 10 amps.; 250 volts at 20 amps. Cable plug and connector take .437" to .750" cables. 20 amp.-3 wire connectors.

Stk. No.	Type	Fig.	Description	Std. Pkg.	Ctn.	Net Ea.	Net Ea. Ctn.	Net Ea. Std. Pkg.
38F513	7311	P	Male Plug	30	10	1.70	1.50	1.30
38F514	7313	R	Fem. Con.	30	10	2.62	2.31	2.00
38F515	7327	S	Male Base	30	10	2.01	1.78	1.54
38F516	7328	S	Fem. Base	30	10	3.10	2.73	2.37

MIDGET TWIST LOCK

7500 series twist lock for 15 amp 115 volt Cylindrical hollow brass split ring for ground provision. Non-interchangeable unit with UL requirements.

Stk. No.	Type	Std. Pkg.	Ctn.	Net Ea.	Net Ea. Ctn.	Net Ea. Std. Pkg.
32F742	7593	50	10	1.76	1.55	1.34
32F743	7594	50	10	1.31	1.16	1.00

RUBBER FINGER GRIP CAPS

38F520. 9972. 15 amps, 125V. Parallel Blades. Without cord-grips. Cord hole dia. .312" to .437". Std. Pkg.—100; Carton—25.

NET EA.—Brkn. Ctn.36 Carton32 Std. Pkg. 28
38F508. 9754. Standard rubber plug with cord-grip. For .296" to .625" diameter cord. Rated: 125 volts at 15 amps. Std pkg.—50; Carton—10.

NET EA.—Brkn. Ctn.59 Carton52 Std. Pkg.45

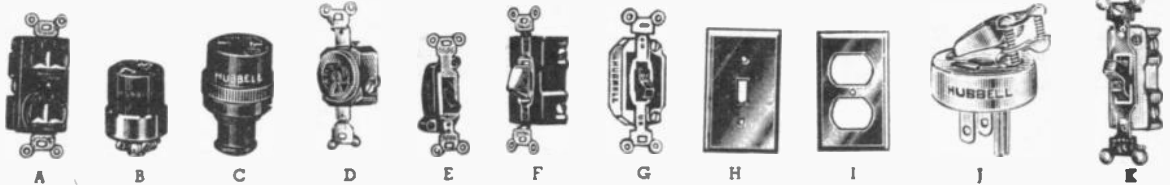
2-WIRE PLUG—ARMORED

Metals body, parallel-blade; rated 15A-125V AC/DC. Wt., 2 oz.

Stk. No.	Type	Description	Std. Pkg.	Ctn.	Net Ea.	Net Ea. Ctn.	Net Ea. Std. Pkg.
32F705	7057	Par. Blades	50	10	.64	.57	.49

Cables, Connectors & Photoelectric Systems

HARVEY HUBBELL CONNECTORS



CONVENIENCE OUTLETS

Type 8595. Duplex convenience outlets. Side wired-double T-Slots. 15 amps, 125 volts. Breakoff feature for two-circuit installations. Washer ears.

Type 5252. 3-Wire grounding type convenience outlets. Polarized side wired only. Duplex flush mounting receptacle. For grounding exposed metal parts of portable electrical equipment. Unit is side wired with 2 grounding terminals and with parallel slots.

Stock No.	Type	Fig.	Description	Std. Pkg.	Ctn.	Net Ea. Brkn. Ctn.	Net Ea. Ctn.	Net Ea. Std. Pkg.
32F700	9595	A	Brn. Bakelite	100	10	.53	.47	.40
32F701	5252	A	Brn. Bakelite	50	10	1.04	.92	.80

CORD CONNECTORS

Type 7084. Cord connector bodies with double T-Slots—Blk. Bakelite. 15 amps, 125 v. With cord grip.

Type 9852. Rubber cord connector bodies with double T-Slots. 15 amps, 125 v. Cord diameter: .312" to .468".

Type 5269. 3-Wire cord connectors grounding type. 15 amps, 125 v. With cord grip. Cord diameter: .296" to .625".

Stock No.	Type	Fig.	Description	Std. Pkg.	Ctn.	Net Ea. Brkn. Ctn.	Net Ea. Ctn.	Net Ea. Std. Pkg.
32F702	7084	B	Body	50	10	1.05	.93	.80
32F703	9852	C	Body	50	10	.68	.60	.52
32F704	5269	B	Body	50	10	1.24	1.10	.95

TYPE 'T' GROUNDING DEVICE

Fig. D. * For use in conjunction with circuits up to 20 amps. Provides for grounding as well as polarized connection. Ideal for use with kitchen appliances and movable equipment

Stk. No.	Type	Description	Std. pkg.	Ctn.	Net Ea. Brkn. Ctn.	Net Ea. Ctn.	Net Ea. Std. Pkg.
32F732	5361*	Sin. rect. slt. & U grd	50	10	1.95	1.72	1.49
32F733	5362	Dux. rect. slt. & U grd	50	10	2.77	2.45	2.12
32F734	5364	Am. cap	50	10	1.39	1.23	1.07
32F735	5374	Conn. body	50	10	2.35	2.08	1.80
32F736	5375	Insulprene Cap	50	10	1.60	1.41	1.22

With ceramic condensers Neostart

FLUORESCENT STARTERS

Stk. No.	Type	Description	Std. Pkg.	Ctn.	Net Ea.	Net Ea. Ctn.	Net Ea. Std. Pkg.
32F713	FS-2	14, 15 & 20 Watt Lamps	100	10	.26	.23	.20
32F714	FS-4	13, 30 & 40 Watt Lamps	100	10	.26	.23	.20
32F715	FS-850	90, 100 Watt Lamps	50	10	1.08	.95	.83
32F716	FS-40	40 Watt Lamp	100	10	.71	.63	.55



WALSCO

* Contains numerous varieties of labels, with spares and duplicates. A complete line of decals, for easy application and labeling of electronic equipment. With decals any electronic equipment you build will look as neat and finished as factory made instruments. Insures top appearance, safety, and usefulness.

The decal sets transfer to almost any surface. The line is researched to include the most frequently used designations, and each kit contains plenty of spares and duplicates totaling hundreds of labels. Shpg. wt. 4 oz.



Stk. No.	Type	Stk. No.	Type	Description	Net
51F908	42-123	51F903	42-122	Instruments	.99
51F909	42-127	51F904	42-126	Dials & Marks	
51F910	42-109	51F905	42-108	Studio & Intercom	
51F917	42-137	51F928	42-136	Alphabet & Numerals	
51F923	42-117	51F929	42-116	Computer & Digital	
51F924	42-119	51F930	42-118	Transistor	
51F925	42-131	51F931	42-130	Stereo & Hi-Fi	
51F926	42-129	51F932	42-128	Repairman's Titles	
51F927	42-125	51F933	42-124	Oscilloscope & Video	

SWITCHES

Type 9711. Mercury silent switches. 10 amp, 125 v. 15 amp, 120 v. AC-5 amp, 250 v. Single pole indicating.

Type 1251. 15 amp, AC single pole 120-277 v. Pressswitch with feed through terminal.

Type 8801. Flush toggle switches. T-rated—porcelain base—Bakelite handles. 125 v., 10 amp; 250 v., 5 amp.

Stock No.	Type	Fig.	Description	Std. Pkg.	Ctn.	Net Ea. Brkn. Ctn.	Net Ea. Ctn.	Net Ea. Std. Pkg.
32F708	9711	E	Brn. Handle	50	10	.94	.83	.72
32F709	1251	F	Brn. Button	50	10	1.20	1.06	.92
32F710	8801	G	Single Pole	100	10	.83	.73	.63

CHROME-X (STAINLESS STEEL) PLATES

Type 97071. Toggle switch plates.

Type 97101. Convenience outlet plates.

Stock No.	Type	Fig.	Description	Std. Pkg.	Ctn.	Net Ea. Brkn. Ctn.	Net Ea. Ctn.	Net Ea. Std. Pkg.
32F711	97071	H	1-Gang	100	10	.35	.31	.27
32F712	97101	I	1-Gang	100	10	.35	.31	.27

ANGLE CAP

Fig. J. 4 position angle cap permit cord entrance from one of four different angles without bending or squeezing behind heavy equipment which often damages or severs the power cord.

Stock No.	Type	Net Each	Ctn. of 10 Net Each	Std. Pkg. 50 Net Each
32F737	5287	1.40	1.24	1.07

AC SWITCHES — 1121 SERIES

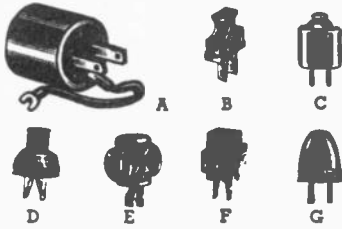
Fig. K. For use in shallow base 1 1/4" boxes. Conforms with MIL-Spec. W-S-896-A; Silver alloy contacts for long life and smooth operation. 20 amps, 120-277 v.

Stk. No.	Type	Description	Std. Pkg.	Ctn.	Net Ea. Brkn. Ctn.	Net Ea. Ctn.	Net Ea. Std. Pkg.
32F738	1121	S.P.	100	10	1.32	1.16	1.01
32F739	1122	D.P.	10	2	1.56	1.37	1.19
32F740	1123	3-Way	50	10	1.56	1.37	1.19
32F741	1124	4-Way	10	2	3.97	3.50	3.03

Electrical Accessories

ELECTRICAL PLUGS

PLUGS FOR EVERY NEED



- Fig. A. Parallel Ground Adapter.** Adapts the 3-wire grounding cap for use with 2-wire outlets. Shpg. wt. 2 oz. **36F985. NET..... .25**
- Fig. B. Bakelite Plug.** Cap size, 1 1/4 x 9/16". Brown. Wt., 4 oz. **36F983. NET..... .10**
- Fig. C. Fused Plug.** Small fuses for each side of line fit snugly in cylindrical receptacles. Blown fuse easily removed. Interchangeable with AC plug. Less 3AG fuses. Wt., 3 oz. **36F975. NET..... .45**
- Fig. D. Rubber-handle Plug.** Unbreakable soft rubber black plug. Screw terminals. U.L. Approved. Wt., 2 oz. **36F864. NET..... .10**
- Fig. E. Cube Tap.** 3 taps. Brown bakelite. Rated at 15 amps 125 volts; 10 amps 250 volts. U.L. approved 4 oz. **36F862. NET..... .15**
- Fig. F. 15-Amp Bakelite Triple Tap.** Sturdy brown plastic case. Rated 15 amps 125 V, 10 amps 250 V. **36F965. NET..... .18**
- Fig. G. Rubber Cube Tap.** New 3-way outlet of one-piece, unbreakable soft rubber. U.L. Approved. 4 ounces. **36F871. NET..... .21**
- Fig. G. Molded Rubber Plug.** **36F866. NET..... .23**

CORDS

- Replacement Cord.** 6-ft. rubber covered cord with molded plug. Wire ends tinned. **36F860. NET..... .26**
- 15-Ft. Extension Cord.** No. 18 wire with pre-molded rubber plugs. Shpg. wt., 10 oz. **36F859. NET..... .59**
- Vinyl Cube-Tap Extension Cord.** Solderless, 3-way extension cord set. With 9-ft. cord and plug. Shpg. wt., 8 oz. **36F872. NET..... .63**

AC LAMP CORD

Two conductor, U.L. approved color coded, cotton wrap, heavy rubber jacket. No. 18 (41x34). Weight per 100 feet, 3 pounds. Perfect for low current appliances and electrical accessories.



Stk. No.	Color	per Foot	250'
36F160	Black	.05	5.80
36F161	Brown		
36F162	Ivory		
36F163	White		

You Can Depend On Newark For
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GEM

PERMA-PLUG

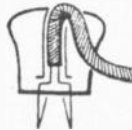
Perma-plug increases the number of available outlets. Two dual pronged plugs fit into any standard outlet doubling the current handling capacity. Safe polarized prongs, UL and CSA approved. 15 Amp. 125 V.A.C. To install, Unscrew old wall plate; plug in, and fasten. Wt. 4 oz.

36F1000. Brown. NET EA..... .59
36F1001. Ivory. NET EA..... .59
Lots of 12 of either color. **NET EA..... .53**



EAGLE

JIFFY PLUG



Model 900B. Eagle push-pull jiffy Plug gives better contact w/out stripping wires. Simple 3-step method anyone can do: 1) insert wire through side hole, 2) push wire down for contact, 3) pull wire taut.

36F1002. NET..... .15

ICORE ELECTRO PLASTICS

Spirally cut polyethylene tubing, desirable for cabling loose wires into neat cables. Replaces cable lacing, prevents wire abrasion, replaces spaghetti, and will insulate



tools. Allows individual wires to leave cable at any point, excellent insulator, low initial cost. Reusable. Shpg. wt., 1 lb./ft.



Stk. No.	Type	Min. OD	Color	Per Ft. 1-99	Per 100 Feet 100-999	Per 1000-up
36F267	SWP-1/4	1/4	Red	.08	6.00	5.55
36F269	SWP-1/4	1/4	Black	.08	6.00	5.55
36F270	SWP-3/8	3/8	White	.13	9.50	8.40
36F271	SWP-3/8	3/8	Red	.13	9.50	8.40
36F273	SWP-3/8	3/8	Black	.13	9.50	8.40
36F274	SWP-3/8	3/8	White	.07	5.30	4.95
36F275	SWP-1/4	1/4	White	.08	6.00	5.55

*Elec. cable wrapping.

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ELECTRONIC WORDS

An electronics glossary containing over 1000 words from "AC" to "zooms" in alphabetical order for easy application to control panels, prototypes, drawings, drawings terminal boards, electrical and mechanical components.

Stk. No.	1-5	6-11*	12 & up*
30F400	4.95	4.50	4.25

ALPHABET

Containing thousands of letters for universal application.

Stk. No.	Type	Size	1-5	6-11*	12 & up*
30F402	AM-1	1/8"	4.95	4.50	4.25
30F403	AM-1W	1/8"	4.95	4.50	4.25
30F404	AM-2	1/4"	4.95	4.50	4.25
30F405	AM-2W	1/4"	4.95	4.50	4.25
30F406	AM-3	3/8"	4.95	4.50	4.25
30F407	AM-3W	3/8"	4.95	4.50	4.25
30F408	AM-4	1/2"	4.95	4.50	4.25
30F409	AM-4W	1/2"	4.95	4.50	4.25
30F410	AM-5	21/32"	4.95	4.50	4.25
30F411	AM-5W	21/32"	4.95	4.50	4.25
30F412	AM-6	25/32"	4.95	4.50	4.25
30F413	AM-6W	25/32"	4.95	4.50	4.25

PRINTED CIRCUIT PADS

Containing thousands of printed circuit pads: circles (with center hole), teardrops (with vanishing point), double end teardrops, double end teardrops (with vanishing points), elbows, (terminal), T-connectors, fillets, ovals.

Stk. No.	1-5	6-11*	12 & up*
30F401	4.95	4.50	4.25

NUMERAL

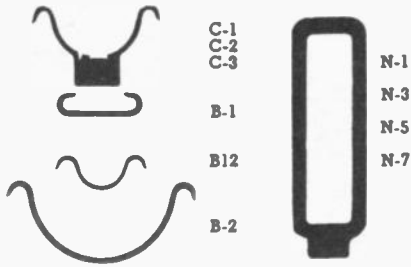
Containing thousands of numbers for easy application.

Stk. No.	Type	Size	1-5	6-11*	12 & up*
30F414	MW-1	1/8"	4.95	4.50	4.25
30F415	NM-1W	1/8"	4.95	4.50	4.25
30F416	NM-2	1/4"	4.95	4.50	4.25
30F417	NM-2W	1/4"	4.95	4.50	4.25
30F418	NM-3	3/8"	4.95	4.50	4.25
30F419	NM-3W	3/8"	4.95	4.50	4.25
30F420	NM-4	1/2"	4.95	4.50	4.25
30F421	NM-4W	1/2"	4.95	4.50	4.25
30F422	NM-5	21/32"	4.95	4.50	4.25
30F423	NM-5W	21/32"	4.95	4.50	4.25
30F424	NM-6	25/32"	4.95	4.50	4.25
30F425	NM-6W	25/32"	4.95	4.50	4.25

*assorted.

Wiring Accessories ELECTROVERT INC.

CRADLECLIP WIRING SYSTEMS



The Electrovert Cradleclip Wiring System consists of Binders and Endless Extensible Clips for unsupported wiring and Cradles and Endless Extensible Clips for supported wiring. Both the Binders and Cradles are molded from special nylon material and are virtually unbreakable. The Endless Extensible Clips are molded Neoprene which combines the right degree of toughness with the necessary flexibility to hold any type of cable securely and without damage. Temperature range of the system is approximately -76°F to $+212^{\circ}\text{F}$. Wiring systems are in accordance with MIL-STD-202A. Methods of attaching Cradles to panels include: Conventional Bolt and Nut, Speed Drives, Drive-Rivets, and Special Cradle with Captive Nut.

RECOMMENDED COMBINATIONS				
Diameter of Cable Form in inches	Use For Supported Wiring Cradle		Use For Unsupported Wiring Binder Clip	
	C0	N0	B0	N0
$1/8"$ - $3/16"$	C0	N1	B1	N1
$1/4"$ - $5/16"$	C1	N3	B1	N5
$1/2"$ - $11/16"$	C2	N3	B12	N3
$3/8"$ - $15/16"$	C2	N5	B12	N5
$15/16"$ - $1 1/16"$	C3	N3	B2	N3
$1"$ - $1 1/4"$	C3	N5	B2	N5
$1 1/4"$ - $1 1/2"$	C3	N7	B2	N7
$1 1/2"$ - $2"$	C3	N7	B2	N7

Stk. No.	Type	Desc.	Size (IN.)	1-99	Per 100	Per 1000
30F300	C1	Cradle	.937 x .562	.07	6.05	55.00
30F301	C2	Cradle	1.375 x .750	.07	6.82	62.00
30F302	C3	Cradle	1.875 x 1.000	.08	7.59	69.00
30F303	C1-M*	Cradle	.937 x .562	.10	9.35	85.00
30F304	C2-M*	Cradle	1.375 x .750	.11	10.45	95.00
30F305	C3-M*	Cradle	1.875 x 1.000	.12	11.55	105.00
30F306	B1	Binder	.875 x .187	.04	3.41	31.00
30F314	B12	Binder	.937 x .400	.05	4.73	43.00
30F307	B2	Binder	1.875 x .812	.07	6.49	59.00
30F308	N1	Clips	.500 x .937	.03	2.31	21.00
30F309	N3	Clips	1.000 x 1.000	.04	3.30	30.00
30F310	N5	Clips	1.750 x 1.000	.04	3.96	36.00
30F311	N7	Clips	2.562 x 1.000	.05	4.62	42.00
30F312	CO+NO	Min. cradle	.500 x .335	.09	8.14	74.00
30F320	BO+NO	& clip	.500 x .250	.09	8.14	74.00

*with captive nut.

ADJUSTABLE P-CLIPS

In 4 sizes to fit any loop diameter from $3/16"$ through $7/8"$. Light wt., chemical and abrasion resistant, of natural virgin nylon. Used with cables, components, piping and tubing, wherever a clamp strain or relief strap is required. High tensile strength and excellent dielectric properties.

Stk. No.	Size No.	Loop Diameter		Screw Clearance	1-99	Per 100	Per 1000
		Min.	Max.				
30F843	1	$3/16"$	$1/4"$	No. 4	.03	2.64	24.00
30F844	2	$1/4"$	$3/8"$	No. 6	.03	2.87	27.00
30F845	3	$3/8"$	$9/16"$	No. 6	.04	3.96	36.00
30F846	4	$9/16"$	$7/8"$	No. 10	.06	5.61	51.00



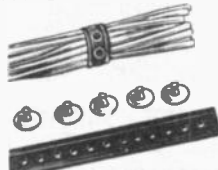
CRADLECLIP HOOKER

For attaching Clips to Cradles and Clips to Binders. **30F313 NET** **.15**
Free with orders of 500 pieces or more.

WIRE AND CABLE STRAPPING SYSTEM

- Two simple components
- Lowest Cost

High-grade PVC Strapping with holes conveniently spaced for easiest and fastest assembling. Nylon studs. Extremely strong, and applicable within a temperature range of -26° - $+180^{\circ}\text{F}$.



Type AV5. Width $3/8"$. Quantity: 75 foot coil. Wt. $10 1/2$ ozs. **30F830 AV5. NET:** 1 coil **2.25**
Type AV8. Width $1/2"$. Quantity: 75 foot coil. Wt. $17 1/2$ ozs. **30F831. Type AV8. NET:** 1 coil **3.75**
Studs for above. Quantity: 1000 in a box. **30F832. AVS Studs. Weight 4 ozs. NET:** 1 box **5.00**
Type ISS. Strap saddle for above strapping. **30F829. Each** **.07** Per 100 **6.05** Per 1000 **55.00**

SPIROBAND

Spiral wrapping for flexible electric harnesses and cables. Unusual flexibility and elasticity make it ideal for temporary and experimental as well as permanent applications. Permits lead-offs or additions of wire at any point. High dielectric strength provides excellent insulation. Moisture proof, non-staining, non-toxic, grease and oil proof at ordinary temp. Made of clear Polyethylene.



Stk. No.	Size	O.D.	Wall Thick.	Bundle	Coil Size	NET
30F839	$1/8"$	.125	.032	$1/8$ to $1/2"$	100'	3.15
30F840	$1/4"$	.250	.045	$3/8$ to 2"	100'	5.60
30F841	$1/2"$	.500	.062	$3/8$ to 4"	25'	3.40

CABLE TIE

Molded from tough, flexible Nylon.

Stk. No.	Type	Lth.	Width	For cable dia.	1-99	Per 100	Per 1000
30F836	LK-1	3"	$3/16"$	$3/16"$ to $9/16"$	.05	4.18	38.00
30F837	LK-2	$4 1/4"$	$3/16"$	$3/8$ to $1 1/8"$	.05	4.95	45.00
30F838	LK-3	9"	$3/8"$	$3/4$ to $2 1/4"$	.13	12.65	115.00

ELECTROVERT "Z" MARKERS

- Saves to 50% in installation time.
- Instant wire recognition — Ready for installation in seconds!



Cable Markers permanently identify every wire or group of wires for instant recognition. Can be installed in seconds. Feature flexible "accordion" type backs for easy installation and sturdy gripping on wires. Made of durable P.V.C. material. Comply with military, civil, and trade associations. (J.I.C., MIL-E-5400B (ASG), MIL-E-4158A (USAF), etc.).

Please specify Letter (A-Z) or Numeral (0-9) desired when ordering. Minimum order is one package of 50 of any Letter or Numeral.

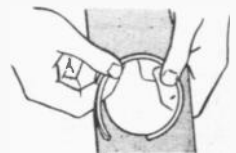
TYPE Z MARKERS—WHITE WITH BLACK MARKING

Stock No.	AWG Size	For Cable Diameter	Per Pkg. of 50
30F833	22	.045" - .065"	.69
30F834	20	.066" - .085"	.69
30F835	18	.086" - .115"	.69
30F820	16	.116" - .135"	.69
30F821	14	.136" - .160"	.69

POLYETHYLENE GROMMET STRIPS

Meet MIL-C-17D, MIL-W-76B, and MIL-C-915A.

Suitable for sizes from the smallest hole, up to 75 ft. around the peripheral of the opening, you have the advantage of one strip only application to round, square, rectangular, and oval holes. Comes in 5 sizes, for all gauges, from 20 gauge to $1/4"$ thick. Easily applied. No special tools required.



Stk. No.	Size	Application*	Pkg.	NET
30F315	GS2	20 gauge and smaller	75 ft. coil	4.50
30F316	GS3	18 to 12 gauge	75 ft. coil	5.00
30F317	GS4	11 to 8 gauge	75 ft. coil	6.00
30F318	GS5	8 gauge to $3/16"$	75 ft. coil	10.50
30F319	GS6	$3/16"$ to $1/4"$ thick	50 ft. coil	10.00

*U. S. standard sheet metal gauge.



Alpha Fit Shrinkable Products

THE INDUSTRY'S MOST COMPREHENSIVE LINE OF IRRADIATED HEAT SHRINKABLE TUBING



FIT-221 — POLYOLEFIN HEAT SHRINKABLE TUBING

Packaged Assortments — (6" lengths) FIT-221. 6" tubing in various sizes and colors. Each length identified.

Type	Stock No.	Tubing Size	Lengths Per Box	Net
FIT-221-MS-1	37F1182	3/8" x 3/16"	30	4.00
FIT-221-MS-2	37F1183	1/4" x 3/4"	16	8.00
FIT-221-MS-3	37F1184	1 - 4	10	7.00

FIT-221. This improved all purpose extruded tubing shrinks 50% (2:1 ratio) with only 5% longitudinal shrinkage. Fewer sizes cover more applications. When a temperature of approximately 275°F is applied for seven seconds, the tubing returns to predetermined size and forms permanent tight fitting mechanical bond, even over irregularly shaped materials. Tubing retains form stability throughout its temperature range of -67°F to +572°F. Shrinking

done by Heat Gun, oven radiant heat, dipping in hot liquid, or hot iron. Clear tubing may be used where jacketed, printed components or cable data is visible and inspection of components is desired. Supplied in lengths of 4 feet and 6 inches. *6 inch package colors: black, white, red, yellow, blue, clear. Specify color. 4 foot lengths stocked in black and clear. Also supplied in packaged assortments.

Type	Min. I.D. Before Shrink.	Recovered I.D. After Shrink.	Wall Thk. Recovered	Assorted Colors Stk. No.	Standard Pkg. 6" Lengths		Net	Clear or Blk. only Stk. No.	25 4-Ft. Lengths Per Box		
					Tot. Fig.	No. Lgths.			1-4	5-9	10-49
FIT-221-3/8"	.046"	.023"	.016"	37F1185	20'	40	4.00 EA.	37F398	14.10	11.70	10.20
FIT-221-1/2"	.063"	.031"	.017"	37F1186	18'	36		37F399	14.80	12.30	10.70
FIT-221-3/16"	.093"	.046"	.020"	37F1188	16'	32		37F401	17.15	14.25	12.40
FIT-221-1/8"	.125"	.062"	.020"	37F1170	14'	28		37F403	18.35	15.20	13.25
FIT-221-3/16"	.187"	.093"	.020"	37F1171	12'	24		37F404	22.35	18.50	16.15
FIT-221-1/4"	.250"	.125"	.025"	37F1173	10'	20		37F406	27.95	23.20	20.25
FIT-221-3/8"	.375"	.187"	.025"	37F1174	8'	16		37F407	31.00	25.75	22.45
									5 4-Ft. Lengths Per Box		
									1-4	5-24	25-49
FIT-221-1/2"	.500"	.250"	.030"	37F1176	7'	14	4.00 EA.	37F409	8.25	7.05	5.85
FIT-221-3/4"	.750"	.375"	.030"	37F1178	6'	12		37F411	9.00	9.40	7.80
FIT-221-1"	1.000"	.500"	.035"	37F1180	4'	8		37F413	15.40	13.16	10.92
FIT-221-1 1/2"	1.500"	.750"	.040"	37F194	2.5'	5		37F397	23.10	19.70	16.35
FIT-221-1-2"	2.000"	1.000"	.045"	37F195	1.5'	3		37F395	31.90	27.25	22.10

FIT-105 POLYVINYLCHLORIDE TUBING

Type No.	Size	I.D. Before Shrink.	I.D. After Shrink.	Nom. Wall Thick.	500 ft. Coil		2-9 Coils		10-19 Coils		100 ft. Coils		25 ft. Coils			
					Stock No.	Ea.	Ea.	Ea.	Stock No.	NET	Stock No.	EACH				
FIT-105-3/16"	3/16"	.046"	.023"	.020"	37F249	31.75	26.75	25.25	37F249A	9.15	37F249B	2.95				
FIT-105-1/8"	1/8"	.062"	.031"	.020"	37F250	33.25	29.00	26.25	37F250A	9.50	37F250B	3.06				
Type No.	Size	I.D. Before Shrink.	I.D. After Shrink.	Nom. Wall Thick.	200 ft. Coil		1-2 Coils		3-4 Coils		5-24 Coils		100 ft. Coils		25 ft. Coils	
					Stock No.	Ea.	Ea.	Ea.	Stock No.	NET	Stock No.	EACH				
FIT-105-3/32"	3/32"	.093"	.046"	.020"	37F251	20.30	15.40	13.00	37F251A	10.90	37F251B	3.48				
FIT-105-1/8"	1/8"	.125"	.062"	.025"	37F252	21.50	16.30	13.80	37F252A	11.50	37F252B	3.85				
FIT-105-3/16"	3/16"	.187"	.093"	.025"	37F253	26.30	20.00	16.80	37F253A	13.90	37F253B	4.35				
FIT-105-1/4"	1/4"	.250"	.125"	.025"	37F254	33.00	25.10	21.10	37F254A	17.25	37F254B	5.33				
FIT-105-3/8"	3/8"	.375"	.187"	.030"	37F255	36.50	27.70	23.40	37F255A	19.00	37F255B	5.84				
Type No.	Size	I.D. Before Shrink.	I.D. After Shrink.	Nom. Wall Thick.	100 ft. Coil		1-4		5-9		10-49		25 ft. Coils			
					Stock No.	NET Ea.	NET Ea.	NET Ea.	NET Ea.	NET Ea.	Stock No.	EACH				
FIT-105-1/2"	1/2"	.500"	.250"	.030"	37F256	20.75	15.75	13.30	37F256A	6.58						
FIT-105-3/4"	3/4"	.775"	.375"	.035"	37F257	27.75	21.10	17.75	37F257A	8.62						
FIT-105-1"	1"	1.000"	.500"	.040"	37F258	40.00	30.40	25.60	37F258A	12.20						



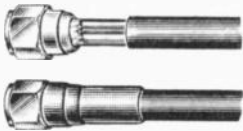
Highly flexible, ideal for cable jacketing! Conforms to MIL-1-631D, Grade C. Has 50% shrinkage ratio for insulation of components and cables with a wide variety of shape and diameter differences. FIT-105 shrinks to form a jacket like the finest extruded plastic jackets. Shrinkage temperature at 325°F. Tubing will not cold flow or melt but retains form stability within its temperature range. No radioactivity exists in or on the material, and will not emit radiation. Op. temp. cont.: 221°F. Minimum tensile strength: 1800 PSI. Supplied only in lengths shown. Color: Black.

Type FIT-105-MS. Assorted sizes. Every 6" length identified as to size. Black only.

PACKAGED ASSORTMENT OF POLYVINYLCHLORIDE TUBING

Type No.	Stk. No.	Tubing Size Range	6" Lengths Per Box	Per Box
FIT-105-MS-1	37F245	3/8" thru 1/4" (6 sizes)	10 lengths/size (60 lengths)	4.00
FIT-105-MS-2	37F246	3/8" thru 1" (4 sizes)	10 lengths/size (40 lengths)	8.00
FIT-105-MS-3	37F247	1 1/2" and 2" (2 sizes)	7 lengths/size (14 lengths)	7.00

FIT-295 POLYOLEFIN SEMI-RIGID TUBING



Engineered to provide maximum mechanical strength at stress or connection points. Strong, heavy wall abrasion-resistant, extruded tubing slips easily over object to be covered. FIT-295 is clear—can be used so that jacketed printed component or cable data is clearly visible. Also allows inspection of insulated components, cable or ter-

minations. Shrinkable temperature at 275°F or 135°C. Will not cold-flow or melt, but retains form stability throughout temperature range. Shrinkage ratio: 2:1 (50%). Tensile strength (min.): 2500 PSI. Non-corrosive. Shrinking method: hot air gun, oven heat, radiant heat, hot liquids or heating with soldering iron or flame.

Each Size of FIT-25 Sold only in the ONE color and Standard Packages as shown.

Type No.	Colors	ID Before Shrink. (Inches)	ID After Shrink. (Inches)	Nom. Wall Thick. (Inches)	Stock No.	Standard Package 6 inch Lengths		NET	Stock No.	25 4-Ft. Lengths Per Box		
						Tot. Fig.	No. Lgths.			1-4	5-9	10-49
FIT-295-3/16"	Yellow	.046	.023	.020	37F260	20'	40	4.00	37F280	14.10	11.70	10.20
FIT-295-1/8"	White	.063	.032	.020	37F261	18'	36		37F281	14.80	12.30	10.70
FIT-295-3/32"	Blue	.093	.045	.020	37F262	16'	32		37F282	17.15	14.25	12.40
FIT-295-1/16"	Red	.125	.063	.020	37F263	14'	28		37F283	18.35	15.20	13.25
FIT-295-3/16"	Green	.187	.093	.025	37F264	12'	24		37F284	22.35	18.50	16.15
FIT-295-1/8"	Slate	.250	.125	.025	37F265	10'	20		37F285	27.95	23.20	20.25
FIT-295-3/8"	Brown	.375	.187	.030	37F266	8'	16		37F286	31.00	25.75	22.45

FIT-295-MS1 37F1641 Assortment of above. 5 lengths per size. Tubing size: 3/4 thru 1/2"..... 4.00

Sold Only In Standard Packages As Listed

Heat Shrinkable Tubing

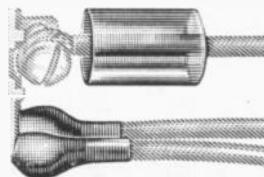


FIT-350 IRRADIATED KYNAR TUBING

High Temperature Tubing

Tough thin wall tubing with outstanding cut-through and abrasion resistance. Shrinkage is 50% when a temperature of 347°F. (175°C) is applied. Forms a tough mechanical bond on shrinking. Longitudinal shrinkage is only 5%. Will never

cold flow or melt and will not split when shrunk over sharp objects. Non-flammable. Will operate continuously at temperatures from -55°C to +175°C. Standard packages have either 6' or 4" lengths. Clear only. Sold only in standard pkgs. as shown.

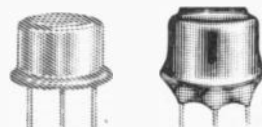


Type	Min. I.D. Before Shrink.	Recvd. I.D. After Shrink.	Stk. No. Clear Only	Standard Pkg. 6" Lengths		Net	Stk. No. Clear Only	25 Ft. Lengths Per Box				
				Total Ftg.	No. Lgths.			4.00 Ea.	Stk. No. Clear Only	Per Box		
										1-4	5-9	10-49
FIT-350-3/64"	.046	.023	37F165	16'	32	4.00 Ea.	37F1555	14.70	12.05	10.40		
FIT-350-1/16"	.063	.031	37F166	14'	28		37F1556	16.05	13.20	11.40		
FIT-350-3/32"	.093	.046	37F167	12'	24		37F1557	19.30	15.85	13.65		
FIT-350-1/8"	.125	.062	37F168	10'	20		37F1558	21.20	17.40	15.00		
FIT-350-3/16"	.187	.093	37F169	8'	16		37F1559	32.85	26.95	23.25		
FIT-350-1/4"	.250	.125	37F170	6'	12		37F1560	41.20	33.80	29.15		
FIT-350-3/8"	.375	.187	37F171	4'	8		37F1561	58.90	48.35	41.70		
									20 Ft. Net			
FIT-350-1/2"	.500	.250	37F172	2'	4	4.00 Ea.	37F1562	22.46				
FIT-350-3/4"	.750	.375	37F173	1'	2		37F1563	41.27				
FIT-350-1"	1.000	.500	37F174	5'	1		37F1564	75.88				

FIT 300 SELF ENCAPSULATING POLYOLEFIN TUBING

Easily-used encapsulation tubing product. When a temperature of 275°F (135°C) is applied, the outer wall shrinks while the inner wall melts and flows to eliminate voids and provide moisture proof encapsulation. Becomes a hard, tough,

homogenous molding upon cooling. Good for use on electrical cable junctions and splices; as a mechanical shield for rough edges; and as a vibration shield. Fraction in Type No. shows size. Sold only in standard pkgs. as shown.

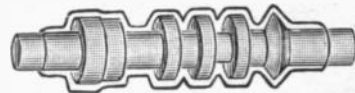


Type	Color	Min. I.D. Before Shrink.	Max I.D. After Shrink.	Stk. No.	Standard Pkg.		Net	Stk. No.	25 Ft. Lengths Per Box				
					Total Ftg.	No. Lgths.			4.00	Stk. No.	Per Box		
											1-4	5-9	10-49
FIT-300-1/8"	Brown	.125	.023	37F175	7'	14	4.00	37F1565	28.80	24.00	20.80		
FIT-300-3/16"	Gray	.187	.060	37F176	6'	12		37F1566	35.10	29.25	25.40		
FIT-300-1/16"	White	.250	.080	37F177	5'	10		37F1567	43.80	36.50	31.70		
FIT-300-3/8"	Red	.375	.135	37F178	4'	8		37F1568	48.95	40.70	35.35		
FIT-300-3/10"	Blue	.300	.050	37F181	2'	4		37F1571	100.05	83.40	74.20		
									5-4 Ft. Lengths Per Box				
									1-4	5-24	25-49		
FIT-300-1/2"	Blue	.500	.195	37F179	3'	6	4.00	37F1569	13.82	12.51	9.59		
FIT-300-3/4"	Yellow	.750	.313	37F180	2'	4	4.00	37F1570	21.35	17.77	14.81		

NEW FIT-500 HEAT-SHRINKABLE HIGH TEMPERATURE TEFLON TUBING

Offers all the outstanding physical, electrical and chemical advantages of Teflon in heat-shrinkable tubing. Continuous operating range -67°C to +250°C. Outstanding chemical and solvent resistance. Non-flammable. High mechanical

strength and lowest co-efficient of friction. At 327°C the tubing shrinks to 65% of its supplied size returning to pre-determined dia. Longitudinal shrinkage is less than 10%. (Sold only in standard pkgs. as shown.)



Type	Stock No.	(Inches) Min. I.D. Before Shrinkage	(Inches) Recovered I.D. After Shrinkage	Nominal Recovered Wall Thickness	50-2 Ft. Lengths Per Box		
					1-4	5-9	10-49
FIT-500-30	37F1625	.030	.022	.009	19.45	16.95	14.70
FIT-500-28	37F1626	.035	.025	.009	19.45	16.95	14.70
FIT-500-26	37F1627	.040	.028	.010	19.45	16.95	14.70
FIT-500-24	37F1628	.050	.032	.010	19.45	16.95	14.70
FIT-500-22	37F1629	.055	.037	.010	19.45	16.95	14.70
FIT-500-20	37F1630	.060	.044	.012	19.45	16.95	14.70
FIT-500-18	37F1631	.076	.052	.012	19.45	16.95	14.70
FIT-500-16	37F1632	.093	.063	.012	19.45	16.95	14.70
FIT-500-14	37F1633	.121	.078	.012	19.45	16.95	14.70
					25-2 Ft. Lengths Per Box		
					Ea.	2-9	10-19
FIT-500-12	37F1634	.153	.096	.012	38.28	30.63	24.53
FIT-500-10	37F1635	.191	.116	.012	38.28	30.63	24.53
FIT-500-8	37F1636	.240	.144	.015	38.28	30.63	24.53
					10-2 Ft. Lengths Per Box		
					1-4	5-24	25-49
FIT-500-6	37F1637	.302	.178	.015	31.61	28.29	22.63
FIT-500-4	37F1638	.370	.224	.015	31.61	28.29	22.63
FIT-500-2	37F1639	.430	.278	.015	31.61	28.29	22.63
FIT-500-0	37F1640	.470	.347	.015	31.61	28.29	22.63

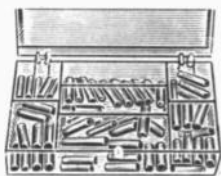
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Wiring Accessories, Insulation, Heat Guns

NEW ALPHA FIT KIT

Perfect engineering or prototype sampler. A variety of sizes and colors of all Fit Tubing types (with the exception of FIT-500, Teflon), FIT-Caps (irradiated polyolefin, molded, and self encapsulating) & FIT-Markers packaged in a handy compartmented plastic case. Especially designed for laboratory, prototype, or service work.



37F1436. NET 10.00
3 or more. NET EA. 7.50

FIT SHRINKABLE WIRE MARKERS ASSORTMENT

Preprinted lengths of abrasion-resistant irradiated polyolefin tubing designed for permanent wire and cable identification. Shrinkage ratio: 2:1. Shrinkage achieved by hot air gun, flame. Wall thk: .016". Marker length: 3/4". Pkgd. 100 per box.

FIT SHRINKABLE WIRE MARKER ASSORTMENT—

—Color: Black

Stk. No.	Type	Description	100 Net Ea.
37F239	MRK-A-NS	Numbers 1-50 (2 of ea. number)	3.00
37F240	MRK-B-NS	Numbers 1-50 (2 of ea. number)	
37F241	MRK-C-NS	Numbers 1-50 (2 of ea. number)	
37F242	MRK-A-LS	Letters A-Z (4 of ea. letter)	
37F243	MRK-B-LS	Letters A-Z (4 of ea. letter)	
37F244	MRK-C-LS	Letters A-Z (4 of ea. letter)	

MASTER APPLIANCE HEAT GUNS

A handy, quick, safe way to get instant heat in the laboratory or for plant production. Ideal for fitting heat shrinkable insulation and wire markers. The Master Heat Gun, Model 751, delivers up to 1000°F, without the dangers of open flames. Its many features include an adjustable air intake for controlling the air-blast temperature; a double jacketed heater housing; a sturdy die-cast aluminum housing and an 8 ft. neoprene-jacketed 3-wire cord and plug that is oil and grease resistant. Turbo type fan blade is efficient and quiet in operation. All models for 115V A.C. or D.C. operation. Equipped with adaptor for 2 prong receptacle. 230V models available on special order. Shipping wt. 5 lbs.



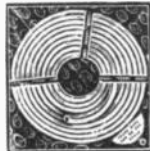
Model	Stk. No.	Voltage	Amp.	Temp. F.	Net Each	3 or More Net Ea.
HG301	37F1437	115	12	300/500	40.25	36.22
HG501	37F415	115	14	500/750	45.35	40.81
HG751	37F422	115	20	750/1000	56.25	50.82

Write or call for special price

ACCESSORIES

- Type 100. Air Flow Adaptor. Placed in nozzle to adapt for easy insertion of baffle plate below. 2.95
- 37F1197. Net
- Type 145. Baffle Plate. Used with heat guns listed above to aid in concentration of heat flow. For tubing up to 3/4" O.D. 2.75
- 37F1199. Net
- Type 150. Baffle Plate for tubing up to 1/4" O.D. 2.95
- 37F424. Net
- Type 27L. Replacement Element for HG 501 Gun. 3.75
- 37F1198. Net
- Type 27A. Replacement Element for HG751 Gun. 3.75
- 37F423. Net

PVC-105 PLASTIC ALL PURPOSE INSULATING TUBING



Conforms to MIL-I-631C, ASTM-D876, ASTM-D922. Dielectric strength 800V per MIL. 105°C temp. rating. Nonflammable. Tensile strength: 2500 psi. Insulation resistance: over 1,000,000 megs. Size No. 24 to 3/8" stocked in 100' coils, 3/4" & larger stocked in 50' coils. Longer continuous runs available special order. Min. order 100'. Wt., 2 lb. per 100 ft. Specify Color.

Stock Colors—Specify Color.

- 1—Clear
- 2—Black
- 3—White
- 4—Yellow
- 5—Red
- 6—Green

Colors—1 thru 6

Type	Stk. No.	Size	I.D.	Price Per 100' Coil			
				1-4	5-9	10-49	50-99
105-24	36F600	24	.022"	2.43	2.11	1.80	1.58
105-22	37F801	22	.027"	2.44	2.12	1.81	1.59
105-20	37F802	20	.034"	2.49	2.16	1.85	1.61
105-19	37F707	19	.038"	2.55	2.21	1.85	1.63
105-18	37F803	18	.042"	2.58	2.23	1.88	1.64
105-17	37F706	17	.047"	2.61	2.26	1.90	1.65
105-16	37F804	16	.053"	2.72	2.35	1.96	1.71
105-15	37F705	15	.059"	2.80	2.42	1.99	1.73
105-14	37F805	14	.066"	2.89	2.49	2.04	1.78
105-13	37F704	13	.076"	2.94	2.54	2.10	1.81
105-12	37F806	12	.085"	3.07	2.64	2.16	1.88
105-11	37F703	11	.095"	3.15	2.71	2.22	1.95
105-10	37F607	10	.106"	3.27	2.81	2.35	2.05

Colors—1 thru 6

Type	Stk. No.	Size	I.D.	Price Per 100' Coil			
				1-4	5-9	10-49	50-99
105-9	37F702	9	.118"	4.27	3.64	2.96	2.58
105-8	37F608	8	.113"	4.57	3.89	3.16	2.73
105-7	37F701	7	.148"	4.84	4.12	3.33	2.85
105-6	37F609	6	.166"	5.19	4.41	3.52	3.01
105-5	37F700	5	.186"	5.58	4.73	3.73	3.18
105-4	37F610	4	.208"	6.00	5.08	3.97	3.34
105-3	37F1438	3	.234"	6.38	5.40	4.19	3.54
105-2	37F611	2	.263"	6.91	5.84	4.50	3.82

Colors—1 and 2

Type	Stk. No.	Size	I.D.	Price Per 100' Coil			
				1-4	5-9	10-49	50-99
105-1	37F1439	1	.294"	7.42	6.27	4.81	4.06
105-0"	37F613	0	.330"	7.98	6.73	5.14	4.39
105-3/16"	37F612	3/16"	.312"	9.42	7.94	6.04	5.14
105-1/8"	37F614	1/8"	.375"	10.81	9.09	6.91	5.99
105-1/4"	37F1440	1/4"	.438"	11.58	9.65	7.25	6.20
105-3/8"	37F615	3/8"	.500"	12.77	10.64	8.07	6.87
105-1/2"	37F616	1/2"	.625"	18.38	15.30	11.73	9.83
105-5/8"	37F1441	5/8"	.562"	17.00	14.17	10.77	9.07

Type	Stk. No.	Size	I.D.	Price Per 50' Coil			
				1-9	10-19	20-99	100-199
105-3/4"	37F617	3/4"	.750"	12.67	10.56	8.05	6.72
105-7/8"	37F618	7/8"	.875"	14.25	11.87	9.19	7.66
105-1"	37F619	1"	1.000"	15.92	13.27	10.26	8.50
105-1 1/8"	37F1572	1 1/8"	1.125"	20.88	17.40	13.26	10.99
105-1 1/4"	37F1573	1 1/4"	1.250"	22.07	18.39	14.29	11.95
105-1 1/2"	37F1574	1 1/2"	1.375"	23.59	19.66	15.15	12.67
105-1 3/4"	37F1575	1 3/4"	1.500"	28.60	23.84	18.39	15.56
105-1 7/8"	37F1576	1 7/8"	1.750"	35.66	29.72	23.06	19.64
105-2"	37F1577	2"	2.000"	49.00	40.84	31.31	26.56
105-2 1/4"	37F1578	2 1/4"	2.250"	58.76	48.55	36.94	31.41
105-2 1/2"	37F1579	2 1/2"	2.500"	69.07	57.56	43.65	37.03

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Insulating, Tubing, Lacing Cords



TEFLON EXTRUDED TUBING TFT-200 THIN WALL TEFLON TUBING—NATURAL COLOR

Type No.	Stock No.	Size	Nom. ID	Wall Thk.	Per 100 Ft. Coil				
					Ea.	2-4	5-9	10-49	50-99
TFT-200/30	37F488	30	.012"	.009"	9.00	6.62	5.95	5.34	4.89
TFT-200/28	37F489	28	.015"	.009"	8.00	5.70	5.28	4.39	4.20
TFT-200/26	37F490	26	.018"	.010"	7.70	5.60	5.03	3.99	3.80
TFT-200/24	37F491	24	.022"	.010"	7.70	5.60	5.03	4.32	4.13
TFT-200/22	37F492	22	.027"	.010"	9.50	7.12	6.08	4.84	4.65
TFT-200/20	37F493	20	.034"	.012"	12.00	9.33	7.78	6.15	5.98
TFT-200/18	37F494	18	.042"	.012"	12.98	10.73	9.04	7.24	6.97
TFT-200/16	37F495	16	.053"	.012"	14.53	12.67	10.53	8.64	8.12
TFT-200/14	37F496	14	.066"	.012"	16.04	13.76	11.55	9.35	8.97
TFT-200/12	37F481	12	.085"	.012"	18.48	16.63	13.63	11.35	10.79
TFT-200/10	37F482	10	.106"	.012"	22.04	19.36	15.48	13.54	13.00
TFT-200/8	37F483	8	.133"	.015"	27.52	25.75	23.15	21.03	20.18
TFT-200/6	37F484	6	.166"	.015"	31.82	30.28	27.50	25.05	24.28
TFT-200/4	37F485	4	.208"	.015"	38.10	36.78	33.73	30.86	29.92
TFT-200/2	37F486	2	.263"	.015"	48.13	45.56	41.85	38.23	37.07
TFT-200/0	37F487	0	.330"	.015"	59.14	56.31	51.62	47.12	45.78

- Will not Crack or Become Brittle During Aging!
- Will not Shrink During Soldering!
- Conforms to MIL-1-22129B

Unmatched by any other type of tubing for use in electrical applications at high frequencies and temperatures; continuous operation at 250° C. retaining its flexibility throughout temperature range. At high frequencies, dielectric strength is many times that of other insulating materials; is chemically inert having a moisture absorption. Thin wall tubing, TFT 200, permits miniaturization and compactness. Application where high heat resistant, flexible, non-flammable, chemical solvent and erosion-resistant material is required. Electrical and chemical properties conform to MIL-1-22129B. Natural only. Standard wall tubing, TFT-250 has characteristics similar to TFT-200, but for use in application where additional dielectric values and mechanical strength are necessary. Colors: Natural only. Min. order 100 feet.

TFT-250 STANDARD WALL TEFLON TUBING—NATURAL COLOR

TFT-250/24	37F1590	24	.022"	.012"	10.01	8.01	6.89	5.52	5.24
TFT-250/22	37F1581	22	.027"	.012"	11.23	8.98	7.62	6.09	5.79
TFT-250/20	37F1582	20	.034"	.016"	15.19	12.15	10.31	8.37	7.96
TFT-250/19	37F1583	19	.038"	.016"	16.31	13.05	11.21	9.09	8.64
TFT-250/18	37F1584	18	.042"	.016"	18.70	14.68	12.50	9.84	9.36
TFT-250/17	37F1585	17	.047"	.016"	20.39	15.93	13.61	10.72	10.20
TFT-250/16	37F1586	16	.053"	.016"	21.78	17.64	14.90	11.46	10.94
TFT-250/15	37F1587	15	.059"	.016"	22.26	18.32	15.22	11.72	11.18
TFT-250/14	37F1588	14	.066"	.016"	24.03	18.96	15.81	12.66	12.07
TFT-250/13	37F1589	13	.076"	.016"	25.33	20.40	16.63	14.07	13.43
TFT-250/12	37F1590	12	.085"	.016"	27.41	22.02	18.25	15.20	14.53
TFT-250/11	37F1591	11	.095"	.016"	30.43	24.48	19.89	16.87	16.11
TFT-250/10	37F1592	10	.106"	.016"	33.02	25.57	21.06	18.32	17.55
TFT-250/9	37F1593	9	.118"	.020"	45.86	34.00	28.77	26.18	25.14
TFT-250/8	37F1594	8	.133"	.020"	47.43	35.96	31.60	28.73	27.57
TFT-250/7	37F1595	7	.148"	.020"	49.56	38.68	34.04	30.94	29.73
TFT-250/6	37F1596	6	.166"	.020"	53.55	41.82	36.81	33.45	32.13
TFT-250/5	37F1597	5	.186"	.020"	58.99	46.07	40.55	36.85	35.36
TFT-250/4	37F1598	4	.208"	.020"	64.09	50.07	44.07	40.00	38.38
TFT-250/3	37F1599	3	.234"	.020"	70.89	55.34	48.75	44.29	42.97
TFT-250/2	37F1600	2	.263"	.020"	73.14	60.95	53.64	48.75	47.30
TFT-250/1	37F1601	1	.294"	.020"	81.26	67.66	59.50	54.15	52.53
TFT-250/0	37F1602	0	.330"	.020"	91.38	76.16	67.02	60.95	58.57

ZIP31 ZIPPER TUBING AND SEALER



Plastic tubing equipped with a longitudinal plastic zipper that eliminates costly work of lacing and tying of harness assemblies. It can be opened and closed any time, so the conductors are readily accessible. May also be permanently sealed to protect the conductors against moisture or abrasion.

20 MIL wall thickness. Vinyl per specification MIL-1-631C. For ease in closing use tubing size 1/4" larger than O.D. of wires to be covered. One metal slider supplied with every 25 feet.

Sold Only in Standard Sizes As Shown

Sold only in standard sizes as shown. Stocked in the underlap construction. Specify Black or Clear. 100 ft. spools.

PLASTIC IMPRENATED FIBERGLASS TUBING

Conforms to MIL-1-3190B—Grade B

Used widely where tubing is subject to bending, knotting, and high torque. Will not peel or crack or lose its dielectric values even under extreme conditions. Not affected by prolonged usage as high as 130°C. Supplied in 100' lengths. Black only.

Type	Stock No.	Size	Wall Thickness		100' Spool Ea.
			Max.	Min.	
PIF-130/24	37F1603	24	.022	.016	4.79
PIF-130/22	37F1604	22	.022	.016	5.05
PIF-130/20	37F1605	20	.022	.016	5.12
PIF-130/18	37F1606	18	.022	.016	5.21
PIF-130/16	37F1607	16	.028	.020	5.45
PIF-130/14	37F1608	14	.028	.020	5.62
PIF-130/12	37F1609	12	.028	.020	6.11
PIF-130/10	37F1610	10	.028	.020	6.86
PIF-130/8	37F1611	8	.028	.020	7.51
PIF-130/6	37F1612	6	.028	.020	8.42
PIF-130/4	37F1613	4	.036	.026	10.24
PIF-130/2	37F1614	2	.036	.026	12.88
PIF-130/0	37F1615	0	.042	.030	16.50
PIF-130/3/8"	37F1616	3/8"	.042	.030	21.05
PIF-130/1/2"	37F1617	1/2"	.042	.030	36.39
PIF-130/5/8"	37F1618	5/8"	.042	.030	53.72
PIF-130/1"	37F1619	1"	.042	.030	79.37

Type No.	Black No.	Clear No.	Dia.	100'	100' Spools Per Spool		
					1-4	5-9	10-49
31-1/2"	37F642	37F622	1/2"	.34	34.00	31.00	29.00
31-3/8"	37F643	37F638	3/8"	.345	34.50	31.50	29.50
31-3/4"	37F644	37F623	3/4"	.35	35.00	32.00	30.00
31-7/8"	37F645	37F639	7/8"	.36	36.00	32.50	30.50
31-1"	37F646	37F624	1"	.36	36.00	33.00	31.00
31-1 1/8"	37F647	37F640	1 1/8"	.375	37.50	34.00	32.00
31-1 1/4"	37F648	37F625	1 1/4"	.38	38.00	34.50	32.50
31-1 1/2"	37F649	37F626	1 1/2"	.395	39.50	36.00	34.00
31-1 3/4"	37F662	37F627	1 3/4"	.41	41.00	37.00	35.00
31-2"	37F663	37F628	2"	.42	42.00	38.00	36.00

SPECIAL SEALER TYPE PB-200

Type	Stock No.	Capacity	NET
PB-200	37F634	4 oz.	1.00

LACING CORD AND TAPES

Recommended for all harness work. Prevents "cold flow". "Dacron. 3/32" size. .014" thick. 50 lb. test.

MIL-T-713A NYLON FLAT BRAID TAPE

Type	Stock No.	Color	Finish	500-Yd. Spool		
				1-9	10-24	25-49
LC132	37F658	White	Resin	8.45	7.88	7.35
LC132	37F659	Black	Resin	9.14	8.61	7.98
LC134	37F666	White	Wax	5.41	5.04	4.75
LC134	37F667	Black	Wax	6.09	5.78	5.41
LC136	37F668	White	Wax	8.45	7.88	7.35
LC136	37F669	Black	Wax	9.14	8.61	7.98
LC140	37F670	White	Rubber	8.45	7.88	7.35
LC140	37F671	Black	Rubber	9.14	8.61	7.98
LC143	37F660	White	Resin	8.45	7.88	7.35
LC143	37F661	Black	Resin	9.14	8.61	7.98
LC158*	37F664	White	Resin	8.45	7.88	7.35
LC158*	37F665	Black	Resin	9.14	8.61	7.98
LC162*	37F678	White	Wax	8.45	7.88	7.35
LC162*	37F679	Black	Wax	9.14	8.61	7.98

MIL-T-713A ROUND TWISTED NYLON 8 OZ. SPOOLS

LC113	37F672	White	Wax	4.73	4.20	3.68
LC113	37F673	Black	Wax	5.51	4.99	4.31
LC114	37F674	White	Wax	4.73	4.20	3.68
LC114	37F675	Black	Wax	5.51	4.99	4.31
LC115	37F676	White	Wax	4.73	4.20	3.68
LC115	37F677	Black	Wax	5.51	4.99	4.31



Hookup Wire

MIL-W-768 TYPE MW

Hook-up wire with thermoplastic insulation impervious to oils, acids, moisture and flame. Nom. insul., .016". Voltage rating, 1000 V. 1 lb. per 100 ft. Temp. -40°C. to +80°C. Available in colors 1-19. Specify Color.

Alp. No.	Stock No.	MIL Type	Co. Sz.	Cond. Strand	Nom. O.D.	100 Feet	Net per 1-9	1000 ft. 10-up
1550	37F500	24 (7)U	24	7/32	.059"	1.28	8.70	7.25
1551	37F501	22 (7)U	22	7/30	.064"	1.50	10.35	8.63
1553	37F502	20(10)U	20	10/30	.073"	1.80	13.20	11.00
1555	37F503	18(16)U	18	16/30	.084"	2.33	18.90	15.75

ON TRACER COLORS ADD TO ABOVE.

Available in colors 1-10. Specify Color.

1557	37F504	16(26)U	16	26/30	.095	3.30	28.35	23.63
1559	37F505	14(41)U	14	41/30	.110	4.58	41.25	34.38
1560	37F506	12(65)U	12	65/39	.125"	7.65	68.85	57.38

Available in colors 1-10. Specify Color.

1561	37F507	22(1)U	22	.060"	1.28	8.10	6.75
1563	37F508	20(1)U	20	.066"	1.58	11.10	9.25
1565	37F509	18(1)U	18	.074"	2.03	15.90	13.25

TYPE MW—SHIELDED—NYLON JACKET

Temperature rating -40° to +90°C. Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture and fungus. Available in White only.

Alp. No.	Stk. No.	MIL Type	Co. Sz.	Cond. Strand	Nom. O.D.	100 Feet	Net per 1-4	1000 ft. 5-up
1371	37F685	C22(7)S	22	7/30	.092"	5.18	43.95	36.63
1372	37F686	C20(7)S	20	7/28	.100"	5.78	50.40	42.00
1373	37F687	C18(19)S	18	19/30	.119"	6.45	57.15	47.63
1374	37F688	C16(19)S	16	19/29	.120"	8.18	74.40	62.00

MIL-W-16878

TYPE "B" UNCOVERED PLASTIC HOOKUP WIRE

Stranded tinned copper conductor, 105° C Polyvinylchloride, nominal. Lightwall insulation. Specification MIL-W-16878D, 600 V rating. F miniature and sub-miniature high temperature hook-ups. Standard spool, put-up; 100 ft., 1000 ft. Specify color. Stock colors 1 through 19.

Alp. No.	Stock No.	MIL Type	Co. Sz.	Cond. Strand	Nom. O.D.	100 Feet	Per 1000 Ft. 1-9	10-up
1850	37F593	B-32	32	7/40	.028	1.65	11.70	9.75
1851	37F544	B-30	39	7/38	.032	1.43	9.90	8.25
1852	37F545	B-28	28	7/36	.035	1.28	8.40	7.00
1853	37F546	B-26	26	7/34	.038	1.43	9.75	8.13
1854	37F547	B-24	24	7/32	.043	1.35	8.85	7.38
1854/19	37F1326	B-24	24	19/36	.043	1.58	11.10	9.25
1855	37F548	B-22	22	7/30	.049	1.43	9.90	6.25
1855/19	37F1327	B-22	22	19/34	.050	1.73	12.75	10.63
1856	37F549	B20	20	7/28	.060	1.88	14.40	12.00
1856/19	37F1328	B20	20	19/32	.058	1.88	14.25	11.88
1857	37F570	B18	18	7/26	.068	2.03	15.60	13.00
1857/19	37F1329	B18	18	19/30	.068	2.25	15.25	11.88
1858/19	37F571	B16	16	19/29	.077	2.48	20.40	17.00
1859/19	37F1331	B14	14	19/27	.091"	4.58	41.25	34.38

ON TRACER COLORS ADD TO ABOVE

.15 1.50 1.25

TYPE B PRE-BONDED UNCOVERED PLASTIC WIRE

Double tinned, then heated for easy stripping. Color coded .010" polyvinylchloride insulation. Meets MIL-W-16878D requirements. Temperature rating -55°C to +105°C. 600 volt rating. Stock colors—1 thru 10. Specify color.

Alp. No.	Stock No.	MIL Type	Co. Sz.	Cond. Strand	Nom. O.D.	100' NET	Per 1000 Ft. 1-9	10-up
3154	37F1332	B-24	24	7/32	.044	1.50	11.40	9.50
3155	37F1333	B-22	22	7/30	.051	1.73	13.80	11.50
3156	37F1334	B-20	20	7/28	.059	2.25	18.45	15.38
3157	37F1335	B-18	18	7/26	.070	3.00	25.95	21.63

TYPE B NYLON JACKET

Stranded tinned copper, color coded. Has .010" polyvinylchloride insulation. Rating -55°C to +115°C. Voltage rating 600 volts. Meets MIL-W-16878D specs. Nom. Jkt. Thk. .003", except 1869/19-.004". Stock Colors—1 thru 10. Specify color.

Alp. No.	Stock No.	MIL Type	Cond. Size	Cond. Strand	Nom. O.D.	100 Feet	Per 1000 Ft. 1-9	10-up
1864/19	37F1321	B-24	24	19/36	.049	1.88	14.25	11.88
1865/19	37F1322	B-22	22	19/34	.056	2.10	16.35	13.73
1866/19	37F1323	B-20	20	19/32	.064	2.25	17.70	14.75
1867/19	37F1324	B-18	18	19/30	.074	2.63	21.60	18.00
1868/19	37F580	B-16	16	19/29	.085"	3.08	26.25	21.88
1869/19	37F1325	B-14	14	19/27	.099"	5.85	51.00	42.50

SAVE TIME! At Newark—fast, efficient service always!

MIL-W-16878 (Continued)

TYPE C—UNCOVERED PLASTIC

Stranded tinned copper, color coded .016" polyvinylchloride insulation. Temperature rating -55°C to +105°C. Voltage rating 1000 volts. MIL-W-16878D. Available in colors 1-10. *White only.

Alp. No.	Stock No.	MIL Type	Co. Sz.	Cond. Strand	Nom. O.D.	100 Feet	Net per 1000 ft.
1830	37F550	C-24	24	7/32	.058"	1.43	10.80
1831	37F581	C-22	22	7/30	.064"	1.65	12.45
1832	37F582	C-20	20	7/28	.072"	1.95	15.75
1833	37F583	C-18	18	7/26	.082"	2.40	20.25
1834	37F551*	C-16	16	19/20	.091	3.08	26.85
1835	37F552*	C-14	14	19/27	.105"	4.58	40.65
1836	37F553*	C-12	12	19/25	.124"	8.18	74.40

TYPE C—NYLON JACKET

Stranded tinned copper, color coded .016" polyvinylchloride insulation, MIL-W-16878D. Temp. rtg. -55°C to +115°C. Volt rtg. 1000v. Wall thickness .016". Available in colors 1-10.

Alp. No.	Stock No.	MIL Type	Co. Sz.	Cond. Strand	Nom. O.D.	100 Feet	Net per 1000 ft.
1840	37F554	C-24	24	7/32	.065"	2.10	17.10
1841	37F555	C-22	22	7/30	.072"	2.25	9.90
1842	37F556	C-20	20	7/28	.079"	2.48	21.30
1843	37F557	C-18	18	7/26	.090"	2.93	25.50

Same as above—Available in white only.

1844	37F558	C-16	16	19/29	.099"	3.90	35.25
1845	37F559	C-14	14	19/27	.114"	5.78	53.70
1846	37F560	C-12	12	19/25	.135"	9.45	87.15

TYPE C—SHIELDED—NYLON JACKET

Stranded tinned copper, white .016" polyvinylchloride insulation, braided tinned copper shield. MIL-W-16878D Rating -55°C to +115°C. Voltage rating 1000 volts. White only.

Alp. No.	Stock No.	Co. Sz.	Cond. Strand	Nom. O.D.	100 Feet	NET Per 1000 Ft.	
						1-4	5-9
1471	37F1030	22	7/30	.098"	7.05	62.70	52.25
1472	37F1031	20	7/28	.105"	7.73	69.60	58.00
1473	37F1032	18	19/30	.115"	9.00	82.20	68.50

GENERAL STOCK COLORS—Check Specific Color Codes shown for wire types on this page and next page.

- 1—White
- 2—Black
- 3—Red
- 4—Green
- 5—Yellow
- 6—Light Blue
- 7—Brown
- 8—Orange
- 9—Gray (slate)
- 10—Violet (purple)
- 11—White/Black
- 12—White/Red
- 13—White/Green
- 14—White/Yellow
- 15—White/Blue
- 16—White/Brown
- 17—White/Orange
- 18—White/Gray
- 19—White/Violet

U.I. POPULAR PRICED HOOK-UP WIRE

Stranded tinned copper conductor, color coded polyvinylchloride insulation. Resistant to acids, alkalis, oil, flame, moisture, and fungus. Stocked in colors 1 thru 10. Specify color.

300 VOLT 80°C—STYLE 1007

Alp. No.	Stk. No.	Conductor Size	Strand	Nom. O.D.	100 Net	Net per 1000 1-9	10-up
3050	37F1300	24	7/32	.057	1.13	7.35	6.13
3051	37F1301	22	7/30	.065	1.28	8.63	7.19
3053	37F1302	20	10/30	.071	1.50	11.25	9.38
3055	37F1303	18	16/30	.080	1.95	15.38	12.82
3057	37F1304	16	26/30	.095	2.78	24.15	20.13

600 VOLT 105°C—STYLE 1015

3071	37F1305	22	7/30	.095	1.73	13.65	11.38
3073	37F1306	20	10/30	.102	1.95	15.45	12.88
3075	37F1307	18	16/30	.112	2.33	19.20	16.00
3077	37F1308	16	26/30	.125	2.93	25.65	21.38
3079	37F1309	14	41/30	.142	4.50	41.10	34.25

U.I. SEMI-RIGID BUSINESS MACHINE WIRE

Stranded tinned copper. Color coded semi-rigid polyvinylchloride insulation. .009" thick wall. Temperature rating: -10°C to +80°C. 300 volt rating in business machine or electronic computers only.

Stocked in colors 1-10. Specify color.

300 Volt, 80°C—Style No. 1061

Alpha No.	Stk. No.	Conductor		100' Spool Each	1000' Spool Each
		Size	Strand		
3250	37F1420	24	7x32	1.35	9.45
3251	37F1421	22	7x30	1.50	11.48
3252	37F1422	20	7x28	1.88	14.78

DUE TO THE UNSTABLE COPPER MARKET WIRES WILL BE SOLD AT PRICES IN EFFECT AT TIME OF SHIPMENT.

Wire and Cable - Shielded and Teflon



MIL-W-16878D TEFLON WRAP JACKET OVER SHIELD

FLAT RIBBON CABLE

Each conductor stranded silver plated copper. Type E extruded .010" TFE teflon insl. Color coded, cabled, braided silver plated copper shield. Sintered wrapped white teflon tape jacket overall. Temp. Rating: -65°C to +200°C, voltage rating: 600 V.

MULTI-CONDUCTOR PLASTIC INSULATION TYPE C

Each conductor stranded copper, color coded .016" polyvinylchloride insulation. Conductors bonded together to form flat ribbon cable. Temp. ratings: -55°C to +105°C. Voltage rating: 1000 V. Conductors fully color coded and easily separated for neat terminations. All size #22 (7/30) stranding.

Alpha No.	Stock No.	No. of Cond.	Co. Sz.	Cond. Strand	Nom. O.D.	100 Feet
2824	37F1029A	1	22	19/34	.102"	47.25
2824/2	37F1042A	2	22	19/34	.154"	87.15
2826	37F1028A	1	16	19/29	.130"	93.75
2826/2	37F1027A	2	16	19/29	.230"	153.00
2827	37F1045A	1	20	19/32	.110"	55.95
2827/2	37F1046A	2	20	19/32	.170"	99.75
2829	37F1049A	1	18	19/30	.120"	66.75
2829/2	37F1050A	2	18	19/30	.190"	125.25

Alpha No.	Stock No.	No. of Cond.	Nom. O.D.	100' Spl. Each	1000' Spl. Each
3504	37F1255	4	.065 x .260"	14.48	137.10
3508	37F1256	8	.065 x .520"	23.63	228.90
3512	37F1257	12	.065 x .780"	38.55	337.70
3516	37F1258	16	.065 x 1.040"	53.40	519.00
3520	37F1259	20	.065 x 1.300"	65.85	643.05

MIL-W-16878D TEFLON FEP EXTRUDED JACKET OVER SHIELD

Stranded silver plated copper type E extruded TFE insulation, color coded. Rated -65°C to +200°C. 600 v.

UNINSULATED TINNED COPPER WIRE Meet MIL-W-3861

Type S—QQ-W-343 Type S—ASTM-B-33

Pure electrolytic soft, drawn, solid, copper properly annealed and tinned. Used for coil winding, ground wire, etc.

Alpha No.	Stock No.	No. of Cond.	Co. Sz.	Cond. Strand	Nom. O.D.	100 Feet
2831	37F1053A	1	24	19/36	.085"	38.55
2831/2	37F1054A	2	24	19/36	.130"	64.35
2831/3	37F1055A	3	24	19/36	.135"	94.65
2834	37F1056A	1	22	19/34	.091"	43.50
2834/2	37F1057A	2	22	19/34	.150"	78.75
2834/3	37F1058A	3	22	19/34	.158"	103.65
2837	37F1059A	1	20	19/32	.100"	50.25
2837/2	37F1060A	2	20	19/32	.168"	89.85
2837/3	37F1061A	3	20	19/32	.178"	123.15
2839	37F1062A	1	18	19/30	.110"	60.45
2839/2	37F1063A	2	18	19/30	.188"	121.20
2839/3	37F1064A	3	18	19/30	.207"	150.60
2836	37F1065A	1	16	19/29	.123"	87.75
2836/2	37F1066A	2	16	19/29	.220"	121.20

Alpha No.	Stock No.	AWG	Cir. MIL	Nom. O.D.	100 Ft.	1000 Ft.
299/3	37F1131	30	100.5	.010"	.72	3.45
299/2	37F1132	28	159.8	.013"	.72	3.52
299/1	37F1133	26	254.1	.016"	.73	3.60
299	37F1134	24	404.0	.020"	.79	4.20
298	37F1135	22	642.4	.025"	4.20	12.30
297	37F1136	20	1022.0	.033"	1.09	7.20
296	37F1137	18	1642.0	.040"	1.57	11.40
295	37F1138	16	2583.0	.051"	1.87	14.70
286	37F1139	14	4107.0	.065"	3.07	22.95
289	37F1140	12	6530.0	.082"	4.27	35.25

AIRCRAFT HOOK-UP WIRE — MIL-W-5086A

All single conductor stranded tinned copper with white polyvinylchloride insulation. AN-22 thru AN-12 have clear nylon jacket overall. AN-10 thru AN-8 have white PVC, white glass braid, flame retardant nylon lacquered braid overall.



UNSHIELDED (MIL-W-5086A—Types I and II)

Alpha No.	Stock No.	MIL Type	Co. Sz.	Con. Strand	Nom. O.D.	100 Feet	Net per 1000 ft. 1-4	5-up
1381	37F532	AN-22	22	19/34	.068"	2.78	20.40	17.00
1382	37F533	AN-20	20	19/32	.078"	3.15	23.70	19.75
1383	37F534	AN-18	18	19/30	.088"	3.68	29.10	24.25
1384	37F535	AN-16	16	19/29	.098"	4.28	33.90	28.25
1385	37F536	AN-14	14	19/27	.117"	5.33	45.75	38.13
1386	37F537	AN-12	12	19/25	.137"	6.68	59.10	49.25

Alpha No.	Stock No.	MIL Type	Co. Sz.	Con. Strand	Nom. O.D.	100 Feet	Net per 1000 ft. 1-2	3-up
1387*	37F683	AN-10	10	49/27	.189"	13.35	126.30	105.25
1388*	37F684	AN-8	8	133/29	.240"	26.70	259.50	216.25

*Type II

MULTI-CONDUCTOR CABLE

TYPE B. PLASTIC SHIELDED, NYLON JACKET, MIL-W-18878D

Each conductor stranded tinned copper, .010" polyvinylchloride insulation. Color coded, clear nylon (polyamide) jacket, conductors cabled, braided tinned copper shield 90% coverage. White polyvinylchloride jacket overall. Temperature rating: -55°C to +105°C. Voltage rating: 600 volts. Resistant to acids, alkalis, oil, flame, moisture, fungus, and solvents. Nominal wall thickness: .010". Nominal nylon thickness: .003". Color code: 1-white, 2-black, 3-red.

Alpha No.	Stock No.	No. of Cond.	Conductor		Nom. O.D.	100 Ft.	500 Ft.
			Size	Strand			
3200	37F1500	1	26	7/34	.087	7.50	32.95
3201	37F1501	2	26	7/34	.138	10.35	45.90
3202	37F1502	3	26	7/34	.142	14.33	64.11
3203	37F1503	4	26	7/34	.162	16.35	74.50
3210	37F1260	1	24	19/36	.092	7.35	35.65
3211	37F1261	2	24	19/36	.152	11.18	54.23
3212	37F1262	3	24	19/36	.161	15.45	74.55
3213	37F1504	4	24	19/36	.162	17.25	76.23
3220	37F1263	1	22	19/34	.100	8.10	37.58
3221	37F1264	2	22	19/34	.168	12.23	58.05
3222	37F1265	3	22	19/34	.178	16.95	81.90
3223	37F1267	4	22	19/34	.174	18.53	89.70
3230	37F1266	1	20	19/32	.106	8.48	39.45
3231	37F1505	2	20	19/32	.186	12.23	61.47
3232	37F1268	3	20	19/32	.196	18.15	87.90
3233	37F1506	4	20	19/32	.193	19.80	90.09
3240	37F1269	1	18	19/30	.120	9.45	43.43
3241	37F1270	2	18	19/30	.210	15.68	75.75
3242	37F1271	3	18	19/30	.227	21.00	102.00
3243	37F1507	4	18	19/30	.218	23.78	105.69
3245	37F1508	1	16	19/29	.137	10.05	43.32
3246	37F1509	2	16	19/29	.236	16.65	74.50
3247	37F1510	3	16	19/29	.240	23.70	102.22
3248	37F1511	4	16	19/29	.274	29.93	114.35

MIL-W-16878D TEFLON WIRE TYPE E 600 VOLTS

Single conductor stranded silver plated copper. Extruded Teflon insulation. MIL type designation under this specification given below in "MIL Type" column.) Standard Put-up: 100 ft., 1000 ft. Specify color.

TYPE E—EXTRUDED INSULATION—Stock Colors—1 thru 10

Alpha No.	Stock No.	MIL Type	Co. Size	Cond. Strand	Nom. Insul.	Nom. O.D.	100 Ft.	Net per 1000 ft.
2851	37F650	E-30	30	7/40	.010"	.029	7.95	75.90
2852	37F651	E-28	28	7/36	.010"	.036"	8.48	81.00
2853	37F652	E-26	26	7/34	.010"	.040"	8.85	84.60
2854	37F653	E-24	24	19/36	.010"	.045"	10.05	96.75
2854/7	37F561	E-24	24	7/32	.010"	.044"	8.78	84.15
2855/7	37F562	E-22	22	7/30	.010"	.050"	10.28	99.00
2855	37F654	E-22	22	19/34	.010"	.051"	11.18	108.15
2856/7	37F563	E-20	20	7/28	.010"	.058"	12.68	123.00
2856	37F655	E-20	20	19/32	.010"	.059"	14.25	138.75
2857	37F656	E-18	18	19/30	.010"	.070"	16.58	158.10
2858	37F657	E-16	16	19/29	.010"	.077"	21.83	210.90

TYPE EE — EXTRUDED (1000 VOLTS)

Single conductor stranded silver plated copper, TFE extruded Teflon insulation. Temperature rating -65°C to +200°C. 1000 volts. Nom. wall thickness .014". Available in colors 1-10.

Alpha No.	Stock No.	MIL Type	Co. Sz.	Cond. Strand	Nom. O.D.	100 Feet	Net per 1000 ft.
2874	37F564	EE-24	24	19/36	.055"	10.73	103.35
2875	37F565	EE-22	22	19/34	.062"	12.45	120.75
2876	37F566	EE-20	20	19/32	.070"	16.13	153.60
2877	37F567	EE-18	18	19/30	.080"	18.75	180.00

SHIELDED TEFLON CABLES

Each conductor stranded silver plated copper, type E extruded TFE .010" insulation, braided silver plated copper shield over conductor(s). 90% coverage. Temperature rating -65°C to +200°C. Voltage rating 600 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents and fungus. NO OUTER COVERING OVER SHIELD.

Alpha No.	Stock No.	No. of Cond.	Co. Sz.	Cond. Strand	Nom. O.D.	100 Feet
2812	37F1033A	1	22	19/34	.075"	21.75
2812/2	37F1034A	2	22	19/34	.124"	45.45
2812/3	37F1035A	3	22	19/34	.132"	65.25
2812/4	37F1036A	4	22	19/34	.146"	78.75
2815	37F1037A	1	20	19/32	.083"	25.50
2815/2	37F1038A	2	20	19/32	.142"	57.75
2815/3	37F1039A	3	20	19/32	.151"	77.25
2815/4	37F1040A	4	20	19/32	.168"	96.25
2818	37F1041A	1	18	19/30	.093"	30.45

DUO TO THE UNSTABLE COPPER MARKET WIRES WILL BE SOLD AT PRICES IN EFFECT AT TIME OF SHIPMENT



Cords, Braid & Test Lead Wire

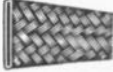
SHIELDING AND BRAIDING TUBULAR BRAID Meets MIL QQ-B-575



Woven tinned copper braid. Completely round and self-supporting. Shielding coverage is 95% or more. Current capacity in amps is rated in free air at 65°F.

Alp. No.	Stock No.	I.D.	AWG Equiv.	Cir. MIL	Amp.	100 Ft.
2160	37F1156	1/32"	22	640	7	3.38
2162	37F1157	1/16"	19	1290	11	6.60
2164	37F1158	7/64"	16	1620	19	10.20
2166	37F1159	1/8"	15	3260	25	10.95
2168	37F1160	11/64"	14	4100	32	13.50
2170	37F1161	3/16"	11	7640	46	20.70
2172	37F1162	3/8"	10	10400	53	27.60
2174	37F1163	1/2"	9	13100	62	39.60
2176	37F1164	25/62"	7	20900	88	54.00

Flat Braid



A woven braid composed of tinned copper strands which is rolled flat at the time of manufacture to a specific width. High current carrying capacity. Extremely flexible.

Alp. No.	Stock No.	Flat Width	Thick	AWG Equiv.	Cir. MILS	A.	100 Ft.	1000 Ft.
1221	37F1144	.025"	.015"	26	200	4.0	4.35	36.15
1222	37F1145	1/32"	.020	24	400	6.0	4.65	38.70
1223	37F1146	3/64"	.020	22	600	7.0	4.87	41.25
1224	37F1147	3/32"	.020	19	1200	11.0	5.47	48.45
1229	37F1148	1/8"	.020	18	1800	16.0	6.15	54.15
1230	37F1149	3/16"	.020	15	3000	25.0	6.75	60.30
1231	37F1150	1/4"	.030	14	4200	32.0	7.80	69.33

Alp. No.	Stock No.	Flat Width	Thick	AWG Equiv.	Cir. MILS	A.	100 Ft.	1000 Ft.
1232	37F1151	3/8"	.030	11	7200	46.0	67.40	70.87
1233/2	37F1152	1/2"	.030	10	9600	53.0	18.60	88.46
1233	37F1153	5/8"	.030	10	9600	53.0	19.65	93.52
1234	37F1154	3/4"	.040	7	20800	85.0	45.00	120.63
1235	37F1155	1"	.045	7	20800	85.0	48.15	227.48
1239	37F1547	1 3/8"	.050"	5	33700	100.0	5.47	48.45

Alp. No.	Stock No.	Flat Width	Thick	AWG Equiv.	Cir. MILS	A.	100 Ft.	1000 Ft.
1240	37F1548	1 1/2"	.060"	3	53064	150.0	76.50	...
1241	37F1549	1 3/4"	.080"	00	125424	280.0	153.00	...
1242	37F1550	2"	.120"	000	154368	310.0	192.00	...

Alp. No.	Stock No.	Flat Width	Thick	AWG Equiv.	Cir. MILS	A.	100 Ft.	1000 Ft.
1242/1	37F1551	2 1/4"	.150"	000	168840	320.0	207.00	...
1242/2	37F1552	2 1/2"	.170"	000	192000	340.0	271.50	...
1243/3	37F1553	2 3/4"	.180"	0000	216000	370.0	297.00	...
1242/4	37F1554	3"	.200"	0000	225000	390.0	370.50	...

TEST LEAD WIRE

For apparatus requiring extra flexible insulated wire. Single conductor, stranded tinned copper, rubber insulation.

Alp. No.	Stock No.	Color	Cond. Size	Cond. Strand	Nom. O.D.	100 Ft.	1000 Ft.
1638	37F1403	Red	18	65/36	.230"	5.63	48.60
1638	37F1404	Black	18	65/36	.230"	5.63	48.60

Military Type Meets MIL-W-13168B

1639	37F1485	Red	18	65/36	.150"	4.35	35.85
1639	37F1486	Black	18	65/36	.150"	4.35	35.85

Standard Type

Alp. No.	Stock No.	Color	Cond. Size	Cond. Strand	Nom. O.D.	100 Ft.	1000 Ft.
1632	37F1397	Red	20	41/36	.125"	2.93	25.20
1632	37F1398	Black	20	41/36	.125"	2.93	25.20
1635	37F1399	Red	20	41/36	.140"	3.00	28.40
1635	37F1400	Black	20	41/36	.140"	3.00	28.40
1636	37F1401	Red	18	65/36	.140"	3.60	28.80
1636	37F1402	Black	18	65/36	.140"	3.60	28.80

MINIATURE RETRACTILE COMMUNICATIONS CORD

A small diameter plastic cord with a 2 ft. retracted length and a 10 ft. extended length. For applications with space and weight limitations. Voltage rating: 100. Amp rating: .50.

Alp. No.	Stock No.	No. of Conds.	Conductor Size	Conductor Strand	1-9	10-24	25-up
651	37F1000	2	28	19/40	3.90	3.51	3.32
652	37F1001	4	28	19/40	4.80	4.52	4.08

NEW AIR CONDITIONER EXTENSION CORDS

Flat gray plastic cord with molded 3-blade rt. angle plug on 1 end and 3 wire U ground connector molded on other. Rated, 15 A, 125 working volts. 3 conductor U.L. approved U.L. type: SPT-3. Nom. O.D. of cord: .175" x .475".

Alpha No.	Stock No.	Conductor Size	Conductor Strand	Cord L. (feet)	1-9	10-24	25-up
645	37F1445	14	41/30	3	1.77	1.59	1.50
646	37F1446	14	41/30	6	2.23	2.01	1.90
647	37F1447	14	41/30	9	2.68	2.41	2.22
648	37F1448	14	41/30	12	3.52	3.17	2.99
649	37F1449	14	41/30	15	4.27	3.84	3.63

REPLACEMENT STRAIGHT CORD SETS



2 conductor black rubber cord with black molded plastic plug on one end, the other end has stripped conductors. They are U.L. and CSA approved. Can be used for business machines, small electrical tools, and home appliances. 300 volt rating.

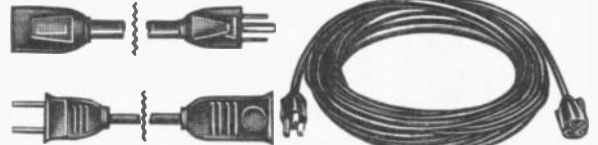
#18-7 Amp 2 Conductor Cord Sets #16-10 Amp

Alp. No.	Stock No.	Co. Sz.	Cond. Strand	U.L. Type	Cord Lgth.	1-9	10-24	25-up
600	37F1107	18	41/34	SV	6	.84	.76	.71
602	37F1108	18	41/34	SV	9	.96	.86	.82
604	37F1109	18	41/34	SV	12	1.24	1.12	1.05
606	37F1110	18	16/30	SJ	8	1.00	.90	.85
608	37F1111	18	16/30	SJ	10	1.08	.97	.92
610	37F1112	16	26/30	SJ	8	1.12	1.01	.95
612	37F1113	16	26/30	SJ	10	1.26	1.13	1.07

#18-7 Amp 3 Conductor Cord Sets #16-10 Amp

Alp. No.	Stock No.	Co. Sz.	Cond. Strand	U.L. Type	Cord Lgth.	1-9	10-24	25-up
615	37F1412	18	16/30	SJ	6	1.06	.95	.90
616	37F1413	18	16/30	SJ	9	1.38	1.24	1.17
618	37F1414	16	26/30	SJ	6	1.47	1.32	1.25
619	37F1415	16	26/30	SJ	9	1.57	1.41	1.33

EXTENSION CORD SETS



2 or 3 conductor cords with black molded plastic male and female plug on either end. 3 conductor cords have 3 pronged plugs. 15 Amps, 125 Volts. Application: Small business machines, vacuum cleaners, lamps, movie projectors, or any other home appliance. 3 conductor cord used when 1 conductor requires grounding. UL and CSA approved. All SJ except 620 and 622-SV. All 7 Amp rating except *10 Amp.

2 CONDUCTOR CORDS

Alp. No.	Stock No.	Co. Sz.	Cond. Strand	Nom. O.D.	Cord Lgth.	1-9	10-24	25-up
620	37F1114	18	41/34	.245"	6	.93	.84	.79
622	37F1115	18	41/34	.245"	9	1.05	.95	.89
624	37F1116	18	16/30	.300"	19	1.23	1.11	1.05
626	37F1117	18	16/30	.300"	25	2.85	2.57	2.42
628*	37F1118	16	26/30	.325"	10	1.41	1.27	1.20
630*	37F1119	16	26/30	.325"	25	4.21	3.79	3.58
632*	37F1120	16	26/30	.325"	50	6.15	5.54	5.23
634*	37F1121	16	26/30	.325"	100	11.10	9.99	9.44

3 CONDUCTOR CORDS

636	37F1122	18	16/30	.365"	10	1.72	1.55	1.46
638	37F1123	18	16/30	.365"	25	3.36	3.02	2.86
639	37F1416	18	16/30	.330"	50	7.42	6.68	6.31
640	37F1417	16	26/30	.365"	10	3.15	2.84	2.68
642	37F1418	16	26/30	.365"	25	6.07	5.46	5.16
644	37F1419	16	26/30	.365"	50	9.45	8.51	8.03

RETRACTILE POWER CORDS



Retracted lengths 2 & 4 feet, extended lengths 12 & 25 feet. Neoprene jacket, U.L. approved. Conductors are color coded. *If all four conductors normally carry current, amp. rating is as shown. If one lead is used as ground, amp rating is the same as 2 and 3 conductor cords.

2 Foot Lengths

Alp. No.	Stock No.	No. Co.	Co. Sz.	Cond. Strand	U.L. Type	A.	V.	1-9	10-24	25-up
680/2	37F416	2	18	41/34	SVO	7	300	4.65	4.19	3.98
681/2	37F417	2	18	41/34	SJO	7	300	5.10	4.59	4.34
682/2	37F418	3	18	41/34	SJO	7	300	6.52	5.87	5.54
683/2	37F419	4	18	41/34	SJO	5.6	300	7.65	6.69	6.50
684/2	37F420	2	16	65/34	SJO	10	300	6.37	5.73	5.41
685/2	37F421	3	16	65/34	SJO	10	300	8.25	7.43	7.01

4 Foot Lengths

Alp. No.	Stock No.	No. Co.	Co. Sz.	Cond. Strand	U.L. Type	A.	V.	1-9	10-24	25-up
660/4	37F431	2	18	41/34	SVO	7	300	8.40	7.56	7.14
661/4	37F432	2	18	41/34	SJO	7	300	9.30	8.37	7.91
662/4	37F433	3	18	41/34	SJO	7	300	12.15	10.94	10.33
663/4	37F434	4	18	41/34	SJO	5.6	300	14.40	12.96	12.2*
664/4	37F435	2	16	65/34	SJO	10	300	11.85	10.67	10.07
665/4	37F436	3	16	65/34	SJO	10	300	15.60	14.04	13.26

Retractable Power Cords, Cables



RETRACTILE COMMUNICATION CORDS

Retracted lengths 2 & 4 feet, extended lengths 12 & 25 feet. Used in communication equipment such as mobile radio equipment,

etc. Conductors are color coded for easy identification. Rated at 1 amp., 120 volts.

Alp. No.	Stock No.	No. Co.	Co. Sz.	Cond. Strand	2 Foot Lengths		
					1-9	10-24	25-up
680/2	37F446	2	23	21/36	4.12	3.71	3.50
681/2	37F447	3	23	21/36	5.10	4.59	4.34
682/2	37F448	4	23	21/36	5.78	5.20	4.91
683/2	37F449	5	23	21/36	7.50	6.75	6.38
684/2	37F450	6	23	21/36	9.30	8.37	7.91
685/2	37F451	7	23	21/36	10.35	9.32	8.80

4 Foot Lengths

Alp. No.	Stock No.	No. Co.	Co. Sz.	Cond. Strand	4 Foot Lengths		
					1-9	10-24	25-up
680/4	37F452	2	23	21/36	7.35	6.62	6.25
681/4	37F453	3	23	21/36	8.70	7.83	7.40
682/4	37F454	4	23	21/36	10.05	9.05	8.54
683/4	37F455	5	23	21/36	13.50	12.15	11.48
684/4	37F456	6	23	21/36	17.10	15.39	14.54
685/4	37F457	7	23	21/36	19.20	17.28	16.32

SHIELDED RETRACTILE COMMUNICATION CORDS

Retracted lengths 2 and 4 feet, extended lengths 12 and 25 feet. Same as coiled communication cords except that shielded con-

ductors are individually shielded with a cadmium copper shield. Shield can be pigtailed for soldering.

Alp. No.	Stock No.	No. Co.	Co. Sz.	Cond. Strand	Shield.	2 Foot Lengths		
						1-9	10-24	25-up
690/2	37F458	1	24	41/40	Shielded	6.37	5.73	5.41
692/2	37F459	1	23	21/36	Unshielded	8.62	7.76	7.33
		2	24	41/40	Shielded			
694/2	37F460	1	24	41/40	Shielded	12.22	11.00	10.39
		2	23	21/36	Unshielded			
696/2	37F461	1	24	41/40	Shielded	13.80	12.42	11.73
		2	23	21/36	Unshielded			

4 Foot Lengths

Alp. No.	Stock No.	No. Co.	Co. Sz.	Cond. Strand	Shield.	4 Foot Lengths		
						1-9	10-24	25-up
690/4	37F462	1	24	41/40	Shielded	11.25	10.13	9.56
692/4	37F463	1	23	21/36	Unshielded	15.75	14.18	13.38
		2	24	41/40	Shielded			
694/4	37F464	1	24	41/40	Shielded	22.95	20.66	19.51
		2	23	21/36	Unshielded			
696/4	37F465	1	24	41/40	Shielded	26.10	23.49	22.19
		2	23	21/36	Unshielded			

RETRACTILE POWER CORD SETS

Retracted length 18", extended length 7 1/2 feet. Has a molded male plug on one end and exposed stripped conductors on the other end. Conductors are color coded. U.L. approved.

Alp. No.	Stock No.	No. Co.	Co. Sz.	Cond. Strand	U.L. Type	1-9		
						10-24	25-up	
654	37F1100	2	18	41/34	SVO	4.20	3.78	3.57
655	37F1101	2	18	41/34	SJO	5.10	4.59	4.34
656	37F1102	3	18	41/34	SJO	7.95	7.16	6.76
657	37F1103	2	16	65/34	SJO	5.70	5.13	4.85
658	37F1104	3	16	65/34	SJO	8.40	7.56	7.14

RETRACTILE TEST LEAD WIRE

A high grade quality rubber insulation for maximum flex life extruded over a single conductor of extra flexible tinned copper which gives long life to this retractile test lead wire. Available in a 12" retracted length with a 6" straight lead on each end, the cord extends to approximately 6 feet.

Alp. No.	Stock No.	No. Co.	Co. Sz.	Cond. Strand	Amp	Volt.	Col.	1-9		
								10-24	25-up	
650	37F1105	20	41/36	4	4000	Blk.	1.20	1.08	1.02	
650	37F1106	20	41/36	4	4000	Red	1.20	1.08	1.02	

NEOPRENE SERVICE AND POWER CORDS

For use wherever rough usage power line is required. Neoprene insulation for protection against oils, acids, etc. U/L approved. Conductors stranded bare copper. Outside jacket tough black neoprene.



Alpha No.	Stock No.	U/L Type	No. of Cond.	Cond. Size	Nom. O.D.	100 Ft.		250 Ft.
						100 Ft.	250 Ft.	
1931	37F1359	SVO	2	18	.250"	5.93	25.20	
1932	37F1360	SJO	2	18	.310"	7.13	32.10	
1932/3	37F1361	SJO	3	18	.330"	8.93	39.00	
1933	37F1362	SJO	2	16	.325"	8.93	39.00	
1933/3	37F1363	SJO	3	16	.365"	12.00	54.60	
1934	37F1364	SO	2	18	.390"	11.48	51.66	
1934/3	37F1365	SO	3	18	.405"	13.79	63.00	
1935	37F1366	SO	2	16	.410"	12.53	57.00	
1935/3	37F1367	SO	3	16	.430"	17.40	79.50	
1936	37F1368	SO	2	14	.540"	20.25	93.75	
1936/3	37F1369	SO	3	14	.560"	24.45	114.00	
1937	37F1370	SO	2	12	.605"	24.90	117.00	
1937/3	37F1371	SO	3	12	.635"	30.90	147.00	
1937/4	37F1372	SO	4	12	.665"	37.50	180.00	
1938	37F1373	SO	2	10	.640"	30.45	144.00	
1938/3	37F1374	SO	3	10	.690"	41.25	187.50	
1938/4	37F1375	SO	4	10	.745"	50.55	234.00	

PLASTIC INTERCOM CABLE

For use in balanced intercom systems, annunciators, telephones, signal systems and alarm systems. Conductor tinned copper. Conductor size: #22 solid. Outer jacket: gray polyvinylchloride.



Alpha No.	Stock No.	No. of Pairs	No. of Cond.	Nom. Jacket	Nom. O.D.	100 Ft.		500 Ft.
						100 Ft.	500 Ft.	
1300	37F1383	1	2	.020"	.130"	2.78	10.88	
1302	37F1384	2	4	.020"	.195"	4.50	19.50	
1304	37F1385	3	6	.020"	.220"	5.93	26.63	
1307	37F1386	6	12	.020"	.275"	9.53	45.45	
1307/7	37F1387	7	14	.020"	.285"	12.53	60.30	
1307/9	73F1388	9	18	.020"	.310"	13.95	67.50	
1308/11	37F1389	11	22	.020"	.340"	17.25	84.00	
1309	37F1390	13	26	.025"	.380"	19.65	96.00	
1309/15	37F1391	15	30	.025"	.400"	22.35	109.50	
1310	37F1392	16	32	.025"	.420"	30.90	148.50	
1313	37F1393	27	54	.035"	.510"	41.25	203.25	
1313/31	37F1394	31	62	.035"	.555"	89.70	430.50	
1313/41	37F1395	41	82	.035"	.630"	126.00	615.00	
1314	37F1396	51	102	.045"	.735"	162.00	780.00	

MULTI-CONDUCTOR AUDIO CABLE

Outer Plastic Jacket

For unbalanced intercom systems, low voltage relay control cable, PA systems and electronic computer cable. Suitable for outdoor installations. Each conductor stranded tinned copper with polyvinylchloride insulation, color coded for easy identification. .010 wall—All .020 jacket except (*) .025" (**) .035".



Alpha No.	Stock No.	No. of Cond.	Nom. O.D.	Cond. Size	Cond. Strand	100 Ft.		500 Ft.
						100 Ft.	500 Ft.	
1172	37F1366	2	.140"	22	7/30	12.53	57.00	
1173	37F1367	3	.145"	22	7/30	3.67	15.37	
1174	37F1368	4	.170"	22	7/30	4.72	20.55	
1175	13F1339	5	.175"	22	7/30	5.70	25.50	
1176	37F1340	6	.185"	22	7/30	8.02	37.12	
1177	37F1341	7	.190"	22	7/30	9.23	43.12	
1178	37F1342	8	.200"	22	7/30	10.20	47.92	
1179	37F1343	9	.225"	22	7/30	11.10	53.25	
1180	37F1344	10	.235"	22	7/30	12.15	58.50	
1181	37F1345	12	.255"	22	7/30	13.12	63.30	
1181/15	37F1346	15	.280"	22	7/30	32.25	148.50	
1181/20	37F1347	20	.310"	22	7/30	44.25	203.25	
1181/25	37F1348	25	.340"	22	7/30	56.25	262.50	
1181-30	37F1349	30	.365"	22	7/30	70.50	322.50	
1181/40*	37F1512	40	.425"	22	7/30	114.00	510.00	
1181/50**	37F1513	50	.500"	22	7/30	138.00	622.50	
1181/60	37F1514	60	.530"	22	7/30	163.50	750.00	

UNSHIELDED RUBBER CABLE

Designed for heavy duty use. Each conductor stranded tinned copper with tough black rubber jacket. Size #20, strand 26/34. Nom. wall thickness .020", Nominal jacket .035".



Type	Stock No.	No. of Cond.	Nom. O.D.	100 Ft.	500 Ft.
1244	37F1350	2	.280"	12.53	59.70
1245	37F1351	3	.285"	13.73	66.38
1246	37F1352	4	.300"	15.45	75.15
1247	37F1353	5	.340"	20.70	97.50
1247/6	37F1354	6	.360"	25.20	120.00
1247/7	37F1355	7	.380"	27.68	132.38
1247/8	37F1356	8	.400"	31.20	150.00
1247/10	37F1357	10	.440"	51.00	237.00
1247/12	37F1358	12	.540"	69.00	330.00

DEPEND ON NEWARK FOR EVERYTHING IN INDUSTRIAL ELECTRONICS

Due to Unstable Copper Market, Wire Will Be Sold At Prices in Effect at Time of Shipment

NEWARK 477



Audio, Control & Instrumentation Cable

UNSHIELDED AUDIO CABLE

Multi-conductor cable with plastic jacket. Each conductor tinned copper, color-coded polyvinylchloride insulation. Conductors twisted. Gray jacket. Suitable for outdoor installations, intercoms, remote control switches, telephones. Operating temperature: -20 C to +60 C. Nominal jacket: .020".

SOLID

Alpha No.	Stock No.	No. of Cond.	Conductor		Nom. O.D.	100 Feet	500 Feet
			Sz.	Strand			
1793	37F1642	2	22	1	.130"	3.30	13.35
1794	37F1643	3	22	1	.140"	4.50	19.58
1794/4	37F1644	4	22	1	.160"	6.45	27.60
1795	37F1645	2	20	1	.170"	5.48	24.45
1796	37F1646	3	20	1	.180"	7.50	34.50
1796/4	37F1647	4	20	1	.200"	9.00	41.85
1797	37F1648	2	18	1	.190"	6.00	27.15
1798	37F1649	3	18	1	.200"	8.33	38.70
1798/4	37F1650	4	18	1	.220"	10.50	49.43
1799	37F1651	2	16	1	.215"	10.65	50.85
1799/3	37F1652	3	16	1	.230"	12.68	61.05
1799/4	37F1653	4	16	1	.250"	17.25	84.00

STRANDED

Alpha No.	Stock No.	2	22	7/30	Nom. O.D.	4.20	16.20
1893	37F1654	2	22	7/30	.135"	4.20	16.20
1894	37F1655	3	22	7/30	.145"	5.25	23.33
1894/4	37F1656	4	22	7/30	.170"	7.13	32.55
1895	37F1657	2	20	10/30	.180"	4.80	20.93
1896	36F1658	3	20	10/30	.190"	8.18	37.88
1896/4	37F1659	4	20	10/30	.215"	9.75	45.60
1897	37F1660	2	18	16/30	.200"	6.53	29.55
1898	37F1661	3	18	16/30	.210"	10.35	48.75
1898/4	37F1662	4	18	16/30	.240"	14.18	67.80
1899	37F1663	2	16	26/30	.225"	9.15	43.50
1899/3	37F1664	3	16	26/30	.245"	16.05	74.10
1899/4	37F1665	4	16	26/30	.270"	21.60	102.00
1891	37F1666	2	14	41/30	.260"	15.45	74.25
1891/3	37F1667	3	14	41/30	.280"	20.63	100.20
1892	37F1668	2	12	65/30	.300"	21.45	105.00
1892/3	37F1669	3	12	65/30	.320"	32.25	159.00

SHIELDED MICROPHONE CABLE

Single conductor stranded tinned copper, white polyethylene insulation. Braided or spiral wrapped shield, gray polyvinylchloride jacket overall. For lapel, ribbon, crystal mikes, and Hi-Fi connections. B-Braid, S-Spiral.

Type	Stock No.	Cond. Size	Cond. Strand	Nom. O.D.	Shield Type	100 Ft.	1000 Ft.
1702	37F1376	26	7/34	.110"	S	4.20	38.10
1703	37F1377	24	10/34	.145"	B	4.43	40.05
1704	37F1378	24	10/34	.200"	B	5.93	55.65
1705	37F1379	24	10/34	.110"	S	5.03	46.50
1706	37F1380	20	26/34	.175"	B	8.55	78.00

2 CONDUCTOR MIKE CABLE

Alpha No.	Stock No.	24	10/34 <th>.190" <th>S <th>10.28</th> <th>95.10</th> </th></th>	.190" <th>S <th>10.28</th> <th>95.10</th> </th>	S <th>10.28</th> <th>95.10</th>	10.28	95.10
1709	37F1381	24	10/34	.190"	S	10.28	95.10
1710	37F1382	22	16/34	.235"	B	8.93	81.60

LOW CAPACITANCE SHIELDED MICROPHONE CABLE PLASTIC JACKET CELLUAR FOAM POLYETHELENE INSULATION

Stranded tinned copper conductor (S), white foam low loss polyethylene insulation. Braided tinned copper shield, chrome gray polyvinylchloride jacket. All .030" jacket except 2310 which is .020". Foam polyethylene provides lower capacitance and loss for long runs of cable. All single Cond. except 2323 which is 2 conductor.

Alpha No.	Stock No.	Cond. Size	Cond. Strand	Capacity* Nom./Ft.	Nom. O.D.	100 Ft.	1000 Ft.
2310	37F1295	26	3/34**	30 MMF	.115"	30.90	60.30
2311	37F1296	24	10/34	20 MMF	.180"	8.10	74.10
2312	37F1297	24	10/34	15 MMF	.225"	10.58	98.10
2323	37F1298	22	16/34	11 MMF	.300"	17.70	162.00

*Between one cond. and remaining cond. connected to shield
**3 strands of tinned copper and 4 strands of tinned copper/weld

SHIELDED MICROPHONE CABLE Neoprene Jacket—Heavy Duty



Each conductor stranded tinned copper, color coded rubber insulation, cotton wrap, braided tinned copper shield, cotton wrap, tough black neoprene jacket overall. Shielded microphone and electronic power cable. Control circuits. Video and Audio interconnecting cable. Oil and acid resistant. Will resist aging and rough usage. All .035" nom. jacket thickness.

Alpha No.	Stock No.	No. Cond.	Co. Sz.	Cond. Strand	Nom. O.D.	100 Feet	500 Feet
1449	37F689	1	18	41/34	.250"	18.15	87.75
1450	37F690	2	18	41/34	.305"	23.85	117.00
1451	37F691	3	18	41/34	.325"	44.10	202.50
1452	37F692	4	18	41/34	.335"	54.00	252.00
1450/16	37F470	2	16	65/34	.345"	45.90	211.50
1451/16	37F471	3	16	65/34	.365"	55.20	258.00
1452/16	37F472	4	16	65/34	.390"	62.85	296.25

CONTROL AND INSTRUMENTATION CABLE



MULTI-CONDUCTOR SHIELDED PLASTIC CABLE PER MIL-W-16878D

Each conductor stranded tinned copper. Color coded, polyvinylchloride insulation, cabled, mylar wrap. Braided tinned copper shield 90% coverage, chrome gray polyvinylchloride jacket overall. Temperature rating: -55°C to +105°C. Resistant to acids, alkalis, oils, flame, moisture, fungus, and solvents. May be used as interconnecting cables for electronic equipment, instrumentation and control cable, for telemetry data, or for remote control of sensitive recording instruments.

Miniature Shield Control Cable—600 Volt							
All: Cond. Sz., B-28; Cond. Strand, 1/8"; .010" thick							
Alpha No.	Stock No.	Cond. No.	Nom. Jacket	Nom. O.D.	100 Feet	1000 Feet	
3302	37F1272	2	.012"	.125"	11.10	103.80	
3303	37F1273	3	.012"	.130"	14.63	138.60	
3304	37F1274	4	.012"	.140"	17.70	169.20	
3306	37F1275	6	.015"	.170"	22.35	216.30	
3308	37F1276	8	.015"	.175"	25.35	246.90	
3310	37F1277	10	.018"	.210"	32.03	312.75	
3312	37F1278	12	.018"	.215"	36.90	354.00	
3315	37F1279	15	.020"	.230"	44.40	430.20	
3320	37F1280	20	.022"	.260"	55.20	537.00	

Heavy Duty Shielded Control Cable—1000 Volt							
All: Cond. Sz., C-18; Cond. Strand, 1/8"; .016" thick							
Alpha No.	Stock No.	Cond. No.	Nom. Jacket	Nom. O.D.	100 Feet	1000 Feet	
3405	37F1281	5	.025"	.300"	45.00	436.20	
3410	37F1282	10	.035"	.405"	79.50	780.00	
3415	37F1283	15	.040"	.470"	108.00	1,065.00	
3420	37F1284	20	.045"	.530"	145.50	1,440.00	
3430	37F1285	30	.050"	.650"	217.50	2,130.00	

SHIELDED PLASTIC JACKET CABLE SPIRAL WRAPPED COPPER SHIELD



Each conductor stranded or solid tinned copper, color coded polyvinylchloride insulation, conductors twisted, spiral wrapped copper shield, gray polyvinylchloride jacket overall. Provides close to 100% shielded coverage for audio and RF frequencies.

Alpha No.	Stock No.	No. Cond.	Cond. Size	Cond. Strand	Nom. O.D.	100 Feet	500 Feet
2254	37F1086	2	22	7/30	.195"	5.55	26.55
2254/3	37F1087	3	22	7/30	.190"	7.80	35.93
2255	37F1088	2	22	1/30	.170"	4.80	22.88
2256/1†	37F1089	1	20	10/30	.130"	4.80	22.95
2256	37F1090	2	20	10/30	.195"	5.78	27.83
2256/3†	37F1091	3	20	10/30	.210"	8.10	37.58
2258	37F1092	2	18	16/30	.230"	7.28	33.45
2258/3	37F1093	3	18	16/30	.235"	9.60	44.85

† 2256/1 formerly 2156, 2256/3 formerly 3256. .020 wall jacket.

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Audio & Control Cables



SHIELDED PLASTIC JACKETED CABLE Braided Copper Shield

Each conductor tinned copper, color coded polyvinylchloride insulation, conductors twisted, braided copper shield—gray polyvinylchloride jacket overall. Suitable for outdoor installation. A conventional type of braided shield providing approximately 75% coverage is particularly desirable where flexibility is required. All have .016" wall except 1750 and 1751—.020". 350 V. suggested working voltage. Except (*) 450 V.



Stranded

Alp. No.	Stock No.	No. Cond.	Cond. Size	Cond. Strand	Nom. O.D.	100 Feet	500 Feet
1736	37F1075	2	22	7/30	.185"	7.20	32.85
1737	37F1076	3	22	7/30	.200"	9.53	44.48
1738	37F1299	4	22	7/30	.210"	12.15	59.90
1741	37F1077	2	20	10/30	.200"	9.08	42.45
1742	37F1078	3	20	10/30	.220"	11.40	54.00
1743	37F1407	4	20	10/30	.230"	16.65	81.00
1746	37F1079	2	18	16/30	.240"	11.55	55.35
1747	37F1080	3	18	16/30	.245"	16.43	79.95
1748	37F1081	2	16	26/30	.250"	16.43	79.98
1749	37F1408	3	16	26/30	.255"	22.50	110.25
1750*	37F1082	2	14	41/30	.290"	22.05	108.00
1751*	37F1409	3	14	41/30	.295"	31.20	150.00

SHIELDED MULTI-CONDUCTOR CABLE



Plastic Jacket—Heavy Duty

Gray polyvinylchloride jacket overall. .035" jacket. .014" wall thickness. Suggested operating voltage 600V.

Alp. No.	Stock No.	No. Cond.	Co. Sz.	Cond. Strand	Nom. O.D.	100 Feet	500 Feet
1712	37F1515	2	20	26/34	.230"	11.40	53.85
1713	37F1410	3	20	26/34	.250"	11.40	54.08
1715	37F1411	4	20	26/34	.260"	13.20	62.93
1716	37F473	5	20	26/34	.275"	15.15	72.60
1717	37F474	6	20	26/34	.300"	30.00	147.75
1719	37F475	8	20	26/34	.330"	38.55	190.50
1721	37F476	10	20	26/34	.375"	48.00	237.00
1723	37F1516	12	20	26/34	.380"	75.00	372.00
1726	37F1517	15	20	26/34	.410"	118.50	577.50
1728	37F1518	20	20	26/34	.455"	153.00	750.00

SHIELDED PLASTIC JACKETED CABLE

MYLAR SUPPORTED ALUMINUM FOIL SHIELD



Each conductor stranded tinned copper, color coded polyethylene insulation. Conductors cabled, wrapped mylar supported aluminum foil shield, 100% coverage, with drain wire laid parallel. Aluminum foil facing outward to provide maximum grounding contact. Chrome gray polyvinylchloride jacket overall. Temperature rating: -20°C to +60°C. Voltage rating: 400 V. Wall thickness: .016". Jacket thickness: .020".

Alpha No.	Stock No.	No. Cond.	Cond. Size	Cond. Strand	Nom. O.D.	100 Feet	500 Feet
2402	37F1286	2	22	7/30	.195	4.65	20.10
2403	37F1287	3	22	7/30	.210	5.63	25.05
2404	37F1288	4	22	7/30	.225	9.30	43.43
2412	37F1289	2	20	10/30	.210	5.55	24.60
2413	37F1290	3	20	10/30	.225	6.83	31.13
2414	37F1291	4	20	10/30	.240	11.18	52.80
2422	37F1292	2	18	16/30	.230	6.38	28.88
2423	37F1293	3	18	16/30	.245	8.40	39.08
2424	37F1294	4	18	16/30	.265	12.75	61.65
2432	37F1531	2	16	26/30	.255	11.93	57.38
2433	37F1532	3	16	26/30	.275	15.60	75.53
2442	37F1533	2	14	41/30	.290	16.35	79.50
2443	37F1534	3	14	41/30	.310	22.05	108.08

SHIELDED AUDIO & DATA CABLE

INDIVIDUALLY Shielded Multiple Pairs—Plastic Jacket



For audio, R.F. and pulse applications requiring superior circuit isolation. Each conductor tinned copper, color coded, high density polyethylene, conductors twisted into pairs, 22 gauge tinned copper drain wire. Mylar supported aluminum foil shield. Chrome grey PVC jacket overall. .010" wall thickness.

No. 22 SOLID

Alp. No.	Stock No.	No. Cond.	Cond. Strand	Nom. Jkt. Thick. (In.)	Nom. O.D.(In.)	100 Feet	500 Feet
6000	37F1535	6	1	.025	.295	11.55	48.21
6002	37F1536	12	1	.030	.318	20.10	93.52
6004	37F1537	18	1	.030	.371	29.55	130.35
6006	37F1538	22	1	.035	.414	35.40	155.25
6008	37F1539	30	1	.040	.485	46.20	205.04

No. 22 STRANDED

Alp. No.	Stock No.	No. Cond.	Cond. Strand	Nom. Jkt. Thick. (In.)	Nom. O.D.(In.)	100 Feet	500 Feet
6010	37F1540	6	7/30	.025	.252	12.75	58.93
6012	37F1541	12	7/30	.030	.282	23.55	113.11
6014	37F1542	18	7/30	.035	.410	33.45	160.63
6016	37F1543	22	7/30	.040	.457	40.50	187.28
6018	37F1544	30	7/30	.040	.523	50.25	242.36
6020	37F1545	38	7/30	.050	.570	72.00	383.36
6022	37F1546	54	7/30	.055	.687	106.20	512.24

RUBBER & NEOPRENE JACKETED CABLE

SHIELDED CONTROL CABLE

Rubber Insulated — Rubber Jacket



General purpose multi-conductor. For control circuits, video and audio interconnecting cable, broadcast and heavy duty studio use. Each conductor stranded tinned copper, color coded rubber insulation. Black rubber jacket over cotton wrap and braided tinned copper shield. Suggested operating temperature: -20°C to +60°C. Wall thickness: .020".

Alp. No.	Stock No.	No. Cond.	Cond. Size	Cond. Strand	Nom. O.D.	100 Ft.	500 Ft.
1250/18	37F1519	2	18	41/34	.295"	21.15	103.50
1250	37F1520	2	20	26/34	.270"	13.05	63.08
1251	37F1521	3	20	26/34	.285"	14.48	137.25
1252	37F1522	4	20	26/34	.305"	16.35	79.50
1253	37F1523	5	20	26/34	.330"	21.15	103.50
1254	37F1524	6	20	26/34	.345"	26.10	124.50
1255	37F1525	7	20	26/34	.355"	28.80	139.50
1255/8	37F1526	8	20	26/34	.385"	32.25	156.75
1255/10	37F1527	10	20	26/34	.440"	66.00	315.00
1255/12	37F1528	12	20	26/34	.525"	91.50	442.50
1255/15	37F1529	15	20	26/34	.595"	118.50	577.50
1255/20	37F1530	20	20	26/34	.660"	147.00	720.00

SHIELDED MULTI-CONDUCTOR CABLE

Neoprene Jacket—Heavy Duty

Designed for outdoor rough usage as interconnecting cables for electronic equipment, control cables for generator units, video and audio interconnecting cables, and for ground support equipment related to guided missile systems. .035" jacket.

Alp. No.	Stock No.	No. Cond.	Co. Sz.	Cond. Strand	Nom. O.D.	100 Feet	500 Feet
1454	37F693	6	18	41/34	.430"	74.70	355.50
1456	37F478	8	18	41/34	.465"	98.25	473.25
1458	37F479	10	18	41/34	.545"	120.30	583.50
1459	37F480	12	18	41/34	.625"	165.00	793.50

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BELDEN Mil Spec and U/L Hookup Wire

COLOR CODING

First color in stripe combination is body color and second color is tracer.

Specify color when ordering. All colors not available in all types. See stock color columns. *Tracer colors: add .12 per 100 ft.

1. Brown	6. Light Blue	11. Tan	*15. White/Red	*19. White/Brown
2. Red	7. Violet	12. Pink	*16. White/Green	*20. White/Orange
3. Orange	8. Gray	13. Dark Blue	*17. White/Yellow	*21. White/Gray
4. Yellow	9. White	*14. White/Black	*18. White/Blue	*22. White/Violet
5. Green	10. Black			

MIL-W-76B TYPE MW — VINYL AND VINYL-NYLON — 1000V

Tinned copper conductor with vinyl insulation rated to 80°C, and color No. when ordering—SEE CHART ABOVE. except +nylon-jacketed vinyl, rated to 90°C. Flame and ozone resistant; insert to most chemicals, oils and solvents. Specify

Type	Mil No.	AWG	Nom. O.D.	25' Spools		100' Spools		500' Spools		1000' Spools		Stock Colors*
				Stk. No.	Net	Stk. No.	Net	Stk. No.	Net	Stk. No.	Net	
8525	MW-C-24-7U	24(7x32)	.058			36F641A	1.17	36F641F	4.05	36F641	7.50	1-22
8530	MW-C-20-10U	22(solid)	.059		.54	36F640A	1.08	36F640F	3.60	36F640	6.90	1-22
8524	MW-C-22-7U	22(7x30)	.064		.57	36F660A	1.28	36F660F	4.80	36F660	8.85	1-22
8537+	MW-C-22-7J	22(7x30)	.069			36F633A	1.89			36F633	13.05	1-10 14-22
8529	MW-C-20-1U	20(solid)	.066		.57	36F650A	1.28	36F650F	4.50	36F650	8.40	1-22
8523	MW-C-20-10U	20(10x30)	.070		.65	36F670A	1.50	36F670F	5.40	36F670	10.05	1-22
8536+	MW-C-20-10J	20(10x30)	.076			36F634A	2.01			36F634	15.15	1-10
8528	MW-C-18-1U	18(solid)	.074			36F642A	1.28	36F642F	6.10	36F642	11.55	1-13
8522	MW-C-18-16U	18(16x30)	.080		.75	36F690A	1.88	36F690F	7.15	36F690	13.85	1-22
8535+	MW-C-18-16J	18(16x30)	.086			36F635A	2.81			36F635	19.90	1-10
8521	MW-C-16-26U	16(26x30)	.098			36F632A	2.48	36F632F	9.90	36F632	19.30	1-22
8520	MW-C-14-41U	14(41x30)	.111			36F643A	3.38	36F643F	15.40	36F643	28.80	1-22
8527	MW-C-12-65U	12(65x30)	.130			36F644A	4.90	36F644F	21.40	36F644	40.50	1-10

MIL-W-16878D TYPE B VINYL 600V-105C TIGHT NO-FRAY STRANDING

Tinned copper wire; stranded for greater flexibility. Wall thickness .010. Vinyl insulation for high resistance to moisture, flame, ozone, solvents and most chemicals. SPECIFY COLOR AND COLOR NO. WHEN ORDERING. Colors available only in sizes listed. See stock color columns. *For tracer colors add .12 per 100 ft. Shpg wts. 100' 1 lb; 1000' 6 lbs.

Mfr. Types	Mil. Types	AWG	O.D.	100' and 1000' Stock Colors		Stk. No.	100 Ft.	Stk. No.	500 Ft. Spools Colors 1-10 Only	Stk. No.	1000 Ft.
				Colors	Colors						
8505	B-26	26(7x34)	.039"	1-10, 14-22*	36F595A	1.29	36F595F	4.90	36F595	9.00	
8509	B-24	24(19x36)	.045"	9, 14-22**	36F602A	1.43			36F602	9.70	
8504	B-24	24(7x32)	.044"	1-10, 14-22*	36F594A	1.25	36F594F	4.35	36F594	8.05	
8508	B-22	22(19x34)	.051"	9, 14-22*	36F603A	1.58			36F603	10.20	
8503	B-22	22(7x30)	.050"	1-10, 14-22*	36F593A	1.31	36F593F	4.80	36F593	8.70	
8507	B-20	20(19x32)	.059"	9, 14-22*	36F604A	1.65			36F604	12.15	
8502	B-20	20(7x28)	.058"	1-10, 14-22*	36F592A	1.49	36F592F	5.25	36F592	9.70	
8501	B-18	18(7x26)	.068"	1-10, 14-22*	36F591A	1.62	36F591F	6.40	36F591	12.15	
8500	B-16	16(19x29)	.077"	1-10, 14-22*	36F590A	1.95	36F590F	8.25	36F590	15.55	

MIL-W-16878D TYPE E — TFE TEFLON — 600V — 200°C

Silver coated copper conductor, concentrically stranded, with extruded TFE Teflon insulation rated to 600V and 200°C. 25' spools are one piece, exact length; larger spools may contain several pieces of min. length 25'. Specify color and color No. See chart above. Plain colors only.

Mfr. Type	MIL. Type	AWG (Stranding)	O.D.	Colors	Stock No.	25 Ft.	Stock No.	100 Ft.	Stock No.	500' Spools
8301	E-28	28(7x36)	.036"	1-10	36F611C	2.05	36F611A	5.25	36F611F	23.50
8302	E-26	26(7x34)	.041"	1-10	36F612C	2.05	36F612A	5.50	36F612F	24.38
8303	E-24	24(19x36)	.046"	1-10	36F613C	2.35	36F613A	6.55	36F613F	28.33
8304	E-24	24(7x32)	.045"	1-10	36F614C	2.25	36F614A	5.85	36F614F	26.63
8305	E-22	22(7x30)	.051"	1-10	36F615C	2.50	36F615A	7.05	36F615F	31.13
8306	E-22	22(19x34)	.052"	1-10	36F616C	2.65	36F616A	7.45	36F616F	34.00
8307	E-20	20(19x32)	.060"	1-10	36F617C	2.85	36F617A	8.80	36F617F	40.50
8308	E-20	20(7x28)	.059"	1-10	36F618C	2.95	36F618A	8.55	36F618F	39.00
8309	E-18	18(19x30)	.071"	1-10	36F619C	3.45	36F619A	10.75	36F619F	49.50
8310	E-16	16(19x29)	.080"	1-10	36F620C	4.50	36F620A	13.00	36F620F	61.50

U/L TYPE HOOKUP AND LEAD WIRE — 600V

CSA Type TEW vinyl insulated; rated 600V to 105°. Specify color & color No.—see chart above and stock color column.

Type	AWG	O.D.	Stk. Colors	Stk. No.	100'	Stk. No.	500'	Stk. No.	1000'
8920	22(7x30)	.095"	1-5,9,10,13	36F580A	1.43			36F580	10.00
8919	20(10x30)	.102"	1-5,9,10,13	36F581A	1.82			36F581	12.00
8918	18(16x30)	.112"	1-5,9,10,13	36F582A	1.95			36F582	14.85
8917	16(26x30)	.126"	1-5,9,10,13	36F583A	2.70	36F583F	10.90		
8916	14(41x30)	.141"	1-5,9,10,13	36F584A	3.60	36F584F	14.95		

CSA type TRB, vinyl insulation, lacquered cotton braid jacket; rated 600V to 90°C.

Type	AWG	O.D.	Stk. Colors	Stk. No.	100'	Stk. No.	500'	Stk. No.	1000'
8937	22(7x30)	.091"	1-5,9,10,13	36F585A	1.65			36F585	12.25
8936	20(10x30)	.098"	1-5,9,10,13	36F586A	1.88			36F586	14.55
8935	18(16x30)	.113"	1-5,9,10,13	36F587A	2.40			36F587	18.60
8934	16(26x30)	.126"	1-5,9,10,13	36F588A	3.00	36F588F	12.60		
8933	14(41x30)	.177"	1-5,9,10,13	36F589A	4.50	36F589F	19.50		

BELDEN WORKBENCH HOOKUP WIRE KITS

For R&D labs, engineers, servicemen, hobbyists. Belden hookup wire in an assortment of colors. Each kit contains a portable metal dispenser rack for work bench or wall mounting. The dispenser rack provides a complete, compact, and convenient wire department for every working area. See the chart at the top of this page for colors in each kit.



Type	Stk. No.	No. of Spools	Spool Lengths	Type of Wire	Colors in kit	NET
8822	36F179	10	25'	20 solid Type MW vinyl (8529-25)	1,2,3,4,5, 6,7,8,9,10	5.70
8823	36F180	5	100'	20 solid Type MW vinyl (8529-100)	2,5,6,9,10	6.40
8824	36F181	8	25'	20 strd. Type MW vinyl (8505-25)	1,2,3,4,5, 6,9,10	5.20
8825	36F182	5	100'	20 strd. Mil-W-16878D vinyl (8505-100)	9,14,15, 16,17	8.73
8826	36F183	5	100'	22 strd. Mil-W-16878D vinyl (8505-100)	9,14,15, 16,17	8.38

—Microphone and Instrumentation Cable Belden

MICROPHONE AND INSTRUMENTATION CABLES—SHIELDED

General purpose shielded cables, for all stage, studio and instrumentation applications. Rubber types have rubber-insulated tinned copper conductors, tinned copper-braid shield, black rubber jacket overall, except +black neoprene jacket. Vinyl types are similar, but have polyethylene-insulated conductors, chrome vinyl jacket. *Miniature cables having tinned cadmium-bronze

conductors. Rubber cables have greater abrasion and impact resistance, are extra-flexible—will lie flat without kinking. Plastic cables have lower capacitance, greater ozone and oil resistance, lighter weight. Neoprene and rubber types are recommended for outside use, cold weather applications. All types available only in spool sizes listed.

SINGLE CONDUCTOR — RUBBER

Type	A.W.G. and Cond.	O.D.	Work Volt.	Stk. No.	15 Ft.	Stk. No.	25 Ft.	Stk. No.	50 Ft.	Stk. No.	100 Ft.	Stk. No.	250 Ft.	Stk. No.	500 Ft.
8410	25-1	.245"	3000			36F010C	2.70	36F010B	4.75	36F010A	8.65	36F010E	20.25	36F010F	40.50
MULTIPLE CONDUCTORS — RUBBER															
8413*	24-2	.190"	300	36F026D	1.80	36F026C	2.65	36F026B	4.80	36F026A	8.95	36F026E	20.65	36F026F	41.30
8406*	24-3	.223"	300							36F202A	11.10	36F202E	26.25	36F202F	52.50
8412	20-2	.268"	600			36F011C	2.65	36F011B	5.10	36F011A	9.55	36F011E	21.75	36F011F	43.50
8423	20-3	.277"	600	36F012D	2.25			36F012B	5.95	36F012A	11.10	36F012E	25.90	36F012F	51.75
8424	20-4	.295"	600	36F013D	2.55			36F013B	6.70	36F013A	12.60	36F013E	30.45	36F013F	59.25
8425	20-5	.323"	600							36F014A	15.00	36F014E	36.75		
8426	20-6	.349"	600							36F015A	18.40	36F015E	45.00		
8427	20-7	.360"	600							36F016A	19.90	36F016E	48.00		
8418	20-8	.386"	600							36F018A	21.90	36F018E	54.00		
8428†	18-2	.295"	600							36F017A	12.90			36F017F	61.50
8407†	16-4	.422"	600							36F132A	22.15	36F132E	53.50		

SINGLE CONDUCTORS — VINYL PLASTIC

Type	A.W.G.	O.D.	Work Volt.	Stk. No.	100 Ft.	Stk. No.	250 Ft.	Stk. No.	500 Ft.	Stk. No.	1000 Ft.				
8401	25-1	.200"	5000	36F020D	1.13	36F020C	1.47	36F020B	2.60	36F020A	4.80	36F020E	10.15	36F020F	20.30
8411	25-1	.144"	3500	36F021D	.90	36F021C	1.23	36F021B	1.95	36F021A	3.75	36F021E	7.90	36F021F	15.75

MULTIPLE CONDUCTORS — VINYL PLASTIC

Type	A.W.G.	O.D.	Work Volt.	Stk. No.	100 Ft.	Stk. No.	250 Ft.	Stk. No.	500 Ft.	Stk. No.	1000 Ft.				
8420*	24-2	.185"	500	36F027D	1.65	36F027C	2.50	36F027B	3.70	36F027A	6.90	36F027E	17.85	36F027F	32.40
8422	22-2	.231"	1000	36F022D	1.43	36F022C	2.20	36F022B	3.90	36F022A	7.00	36F022E	15.40	36F022F	30.75
8403	20-3	.244"	600	36F023D	1.80			36F023B	4.90	36F023A	9.00	36F023E	20.25	36F023F	40.50
8404	20-4	.255"	600	36F024D	2.18			36F024B	5.10	36F024A	10.15	36F024E	23.50	36F024F	47.00

SHIELDED CABLE FOR AUDIO AND INSTRUMENTATION APPLICATIONS

Shielded cables for a variety of AF applications. Types with patented BELDFOIL aluminum-mylar shield provide 100% shielding, are recommended for the most critical audio and instrumen-

tation applications; these types have tinned copper drain wire for shield connection. Spiral and braid shields are made of tinned copper for direct connection. Stocked in listed spool sizes only.

2 CONDUCTOR CABLES — TEFLON

Black and White Fep Insulated Cond, Cabled, Tinned Copper Braid Shield, White Fep Jkt. Oper. Temp. -70°C to +200°C.

Type	A.W.G.	Nom. O.D.	Work Volt.	Stk. No.	NET 100 ft.	Stk. No.	250 ft.	Stk. No.	500 ft.	Stk. No.	1000 ft.
8390	22 Strd.	.180"	1000	36F1326C	36.75			36F1306F	183.75		

2 CONDUCTOR CABLES—VINYL PLASTIC

Broadcast cable; black vinyl jacket, copper braid shield. *Miniature cable; has BELDFOIL shield.

Type	A.W.G.	Nom. O.D.	Work Volt.	Stk. No.	NET per 100	Stk. No.	250 Ft.	Stk. No.	500 Ft.	Stk. No.	NET per 1000
8450*	22 Solid	.118"	200	36F028A	3.45	36F028E	7.00	36F028F	12.75	36F028	25.50
8451*	22 Strd.	.135"	200	36F029A	3.90	36F029E	8.55	36F029F	16.15	36F029	32.30
8437	22 Solid	.200"	200					36F093F	20.25	36F093	40.50
8441	22 Strd.	.210"	200	36F036A	5.20			36F036F	23.25	36F036	46.50

Chrome vinyl jacket; BELDFOIL shield and polyethylene insulation, except *spiral shield, vinyl insulated; †braided shield, rubber insulation.

8641	24 Strd.	.160"	350	36F157A	3.30			36F157F	13.20	36F157	26.40
8781	22 Strd.	.167"	350					36F165F	13.50	36F165	27.00
8782	20 Strd.	.196"	350	36F166A	4.05	36F166E	9.25	36F166F	17.10	36F166	34.20
8760	18 Strd.	.222"	450			36F164E	10.75	36F164F	20.25	36F164	40.50
8739*	22 Solid	.160"	350	36F081A	3.30			36F081F	14.00	36F081	28.00
8737*	22 Strd.	.170"	350	36F084A	3.75	36F084E	8.25	36F084F	15.40	36F084	30.80
8759*	20 Strd.	.195"	350	36F085	4.35			36F085F	18.40	36F085	36.80
8760*	16 Strd.	.266"	450	36F106A	6.60			36F106F	30.40	36F106	60.80
8790*	18 Strd.	.231"	450	36F107A	5.40	36F107E	12.30	36F107F	23.65	36F107	47.30
8208†	18 Strd.	.255"	200	36F185A	6.90			36F195F	30.30	36F195	60.60

Braided shield, vinyl insulated, no outer jacket.

8738	22 Solid	.130"	350					36F086F	16.50	36F086	27.00
8758	20 Strd.	.165"	350	36F086A	4.00			36F102F	23.65	36F102	47.30

3 CONDUCTOR CABLES — TEFLON

Blk, Red, & White Fep Insulated Cond, Cabled, Tinned Copper Braid Shield, White Fep Jkt. Oper. Temp. -70°C to +200°C.

Type	A.W.G.	Nom. O.D.	Work Volt.	Stk. No.	NET 100 ft.	Stk. No.	250	Stk. No.	500 ft.	Stk. No.	1000 ft.
8391	22 Strd.	.190"	1000	36F1327C	45.00			36F1327F	225.00		

3 CONDUCTOR CABLES—VINYL PLASTIC

Chrome vinyl jacket; polyethylene insulation with BELDFOIL shield, except *braided shield, vinyl insulated.

Type	A.W.G.	Nom. O.D.	Work Volt.	Stk. No.	100 Ft.	Stk. No.	250 Ft.	Stk. No.	500 Ft.	Stk. No.	1000 Ft.
8735*	22 Strd.	.199"	350	36F080A	4.95			36F083F	21.40	36F083	42.80
8771	22 Strd.	.175"	350			36F168E	8.70	36F168F	16.95	36F168	33.90
8772	20 Strd.	.200"	350					36F169F	21.40	36F169	42.80
8770	18 Strd.	.236"	450					36F167F	26.65	36F167	53.30
8791	18-3 Strd.	.236"	450	36F135A	6.60					36F135	59.30

4 CONDUCTOR CABLES — TEFLON

Blk, Red, White & Green Fep Insulated Cond, Cabled, Tinned Copper Braid Shield, White Fep Jkt. Oper. Temp. -70°C to +200°C.

Type	A.W.G.	Nom. O.D.	Work Volt.	Stk. No.	NET 100 ft.	Stk. No.	250 ft.	Stk. No.	500 ft.	Stk. No.	1000 ft.
8392	22 Strd.	.205"	1000	36F1329C	54.00			36F1329F	270.00		



Type 8759



Type 8450



Type 8208



Type 8758

You Can Depend on
NEWARK For
Complete Stocks—
Lowest Prices—
Fastest Service
and the Latest in
Industrial Electronics

BELDEN Retractable Cords/Instrumentation Cables

RETRACTILE (COILED) MICROPHONE CABLES—SHIELDED AND UNSHIELDED

Cadmium bronze wire microphone cables with neoprene or vinyl jacket. Retracts when not in use. Neoprene cables are resistant to effects of sun, oil and ozone and are recommended for outside use.



Type	Stock No.	AWG (standing)	Retracted Length (in.)	Extended Length (ft.)	Nom. OD (in.)	Jacket Material	Conductors	NET
8409	36F1329	28 (7x36)	12"	6'	.165	Neoprene	4 unshielded	1.05
8415	36F038	23 (21x36)	11 1/2"	6'	.250	Neoprene	4 unshielded	1.41
8497	36F207	23 (21x36)	11 1/2"	6'	.250	Neoprene	3 cond-1 shield	1.46
8499	36F208	24 (45x40)	7 1/2"	4'	.160	Neoprene	1 shielded	.98
8491	36F1330	23 (21x36)	12"	6'	.300	Neoprene	2 unshielded	1.73
8490	36F1331	23 (21x36)	11 1/2"	6'	.265	Neoprene	5 unshielded	1.50

RETRACTILE NEOPRENE POWER CONTROL CABLES—UNSHIELDED

For telephone use. Cadmium bronze, black vinyl jacket. 8494 has one end stripped 7/8", spade terminals attached and hook strain relief clamped over jacket. Other end stripped 6/4" and spade terminals attached. 8495 is similar, but end with strain relief stripped 2 3/4", other end stripped 3/16".



Type	Stock No.	AWG (standing)	Retracted Length (in.)	Extended Length (ft.)	Nom. OD (in.)	Jacket Material	Conductors	NET
8494	36F203	23 (21x36)	10"	4 1/2'	.245	Vinyl	4 Unshielded	1.56
8495	36F204	23 (21x36)	10"	4 1/2'	.220	Vinyl	3 Unshielded	1.31
8601	36F1342	18 (41x34)	12"	6'	.270	Neoprene	2 "SVO"	1.05
8602	36F1343	18 (41x34)	12"	6'	.360	Neoprene	3 "SJO"	1.59
8603	36F1344	18 (41x34)	12"	6'	.370	Neoprene	3 "SJO"	1.62
8604	36F1345	18 (41x34)	22"	12'	.370	Neoprene	3 "SJO"	2.52

SPECIAL PURPOSE SHIELDED CABLES

Multiple conductor cables having a variety of shielding arrangements for special applications. Types having BELDFOIL aluminum-mylar shield provide 100% shielding and are recommended for the most critical AF and instrumentation applications. Sold only in spool sizes listed.

Strain Gauge Cable. 8434 has chrome vinyl jacket; BELDFOIL shield overall; one pair of conductors has individual BELDFOIL shield. 8723 is similar, but has both pairs individually BELDFOIL shielded.

Type	AWG & No.	Nom. O.D.	Work. Volt.	Stk. No.	100'	Stk. No.	500'	Stk. No.	1000'
8434	25-4	.179"	400	36F1032A	5.50	36F1032F	24.75	36F1032	49.50
8723	22-4	.165"	400	36F1033A	5.10	36F1033F	22.50	36F1033	45.00

Shielded and Unshielded Conductor Cables. All have chrome vinyl jacket, polyethylene or vinyl insulated tinned copper stranded conductors, and BELDFOIL shields with drain wire for ground connection (except *copper braid shield, tinned for direct connection). Individually shielded. Rated 350 volts.

Type	Cond.: AWG & No.		Nom. O.D.	Stk. No.	100'	Stk. No.	500'	Stk. No.	1000'
	Shielded	Unshielded							
8724	22-2	22-2	.165"	.....	.....	36F1346F	22.50	36F1346	45.00
8722	20-2	20-2	.260"	.....	.....	36F185F	26.85	36F185	53.70
8732	22-2*	22-2	.296"	36F173A	5.80	36F173F	24.40	36F173	48.80
8734	22-1*	22-2	.194"	36F186A	4.45	36F186F	18.75	36F186	37.50
8763	20-2	20-1	.210"	.....	.....	36F187F	21.25	36F187	42.50
8733	22-3*	.....	.205"	36F188A	5.65	36F188F	25.05	36F188	50.10

38- and 51-Pair Cables. Have 22 AWG solid copper conductors, 8751 vinyl insulated, 8752 polypropylene insulated. BELDFOIL shield overall, chrome vinyl jacket. Cut to length—min. order 25 ft.

Type	No. Cond.	Nom. O.D.	Lbs. per 100'	Stk. No.	Per 1000'	Price Per Ft.
8751	51 pr.	.725"	32	36F079	837.00	.98
8752	38 pr.	.600"	22	36F074	765.00	.89

Miniature Instrumentation Cables. Solid copper. BELDSOL enamel film (solderable—no stripping required) insulated paired conductors; each pair BELDFOIL shielded; white vinyl jacket.

Type	AWG & Cond.	Nom. O.D.	Work. Volt.	Stk. No.	100'	Stk. No.	250'	Stk. No.	500'	Stk. No.	1000'
8640	26-2	.089"	100	.....	.....	36F087E	6.45	36F087F	12.15	.....	.....
8642	26-6	.140"	100	.....	.....	36F088E	17.85	36F088F	33.15	.....	.....

Solid copper conductor, polypropylene insulation, copper braid shield in coaxial construction; black vinyl jacket. May be steam sterilized—ideal for medical research instrumentation.

Type	AWG & Cond.	Nom. O.D.	Work. Volt.	Stk. No.	25'	Stk. No.	50'	Stk. No.	100'	Stk. No.	250'
8700	28-1	.054"	100	36F082C	1.55	36F082B	2.52	36F082A	4.50	36F082E	10.15

Multiple-Pair Individually Shielded Audio Cable. All have #22 AWG solid tinned copper .013 vinyl insulated conductors, each pair with drain wire under a BELDFOIL aluminum-mylar shield. Chrome vinyl jacket. Recommended for superior circuit isolation.

Type	No. Pairs	Nom. O.D.	Stock No.	100'	Stock No.	250'	Stock No.	500 Ft.	Stock No.	1000'
8767	3	.270"	36F190A	8.05	36F190E	19.35	36F190F	36.75	36F190	73.50
8768	6	.394"	36F191A	15.75	36F191E	37.50	36F191F	75.00	36F191	150.00
8764	9	.440"	36F192A	21.75	36F192E	54.00	36F192F	108.00	36F192	216.00
8765	11	.485"	36F193A	26.25	36F193E	64.50	36F193F	127.50	36F193	255.00
8766	15	.540"	36F194A	35.25	36F194E	84.75	36F194F	169.50	36F194	339.00

Multiple Pair Individually Shielded Cables. Same as above, except .010 Polypropylene insulated. Recommended for audio, pulse, & radio frequency applications—operating temperature 105° C.

Type	No. Pairs	Nom. O.D.	Stock No.	100'	Stock No.	250'	Stock No.	500'	Stock No.	1000'
8777	3	.270"	36F1332A	9.75	36F1332C	23.95	36F1332F	47.90	36F1332	95.80
8778	6	.394"	36F1333A	19.50	36F1333C	48.00	36F1333F	96.00	36F1333	192.00
8774	9	.440"	36F1334A	27.90	36F1334C	66.40	36F1334F	132.80	36F1334	265.60
8775	11	.485"	36F1335A	33.00	36F1335C	79.15	36F1335F	158.30	36F1335	316.60
8776	15	.540"	36F1336A	43.90	36F1336C	105.75	36F1336F	211.50	36F1336	423.00
8769	19	.620"	36F1337A	60.00	36F1337C	142.50	36F1337F	285.00	36F1337	570.00
8773	27	.760"	36F1338A	.....	.....	.....	.....	.....	36F1338	846.00

Cut to Order—25' Min.—.96 Per Ft.

Shielded Grid and Hookup Wire. #20 (10x30) AWG stranded tinned copper conductor, rubber insulated, tinned copper braid shield. Jacketless.

Type	Nom. O.D.	Work. Volt.	15'	Net	25'	Net	100'	Net	500'	Net
8885	.117"	300	36F151D	.96	36F151C	1.28	36F151A	3.75	36F151F	17.25

Note: All types are sold only in spool lengths shown EXCEPT types listed "per foot" are cut to order — min. order 25 feet.

TV Studio/Audio /Instrumentation Cable BELDEN

TV STUDIO CABLE

- Fits RG 59/U connectors
- Tinned copper braid shield
- Polyethylene insulated



Fig. A

- For color or b&w TV transmission
- Vinyl insulated
- Cut to customer's specified length



Fig. B

Type 8281. 75 ohm precision video cable. Single #20 AWG solid copper conductor, polyethylene insulated, double copper-braid shield, black polyethylene jacket. Nominal O.D., .304", nom. capacitance, 21mm/ft. 100% sweep tested. Wt. 10 lbs per 500 ft.

36F141F. 500 ft. spool. NET. **76.90**
36F141. 1000 ft. spool. NET. **153.80**

Type 8299 Adapter. For use with 8281 cable only; increases OD to fit PL-259 connector. **3.75**

36F143. Box of 25. NET. **3.75**
Type 8280. 28 conductor TV (monochrome) camera cable. Conductors arranged as follows: 4-#18 and three groups of 7-#22 AWG stranded tinned copper conductors, all color-coded and vinyl insulated; three color-coded coaxial cables of 51 ohm nom. impedance; tinned copper-braid shield and chrome vinyl jacket overall. Nom. O.D. is .750". Cut to order. Min. order 25 ft. **80**

36F140. NET, per foot **80**
Type 8286. Miniature 75 ohm video cable similar to Type 8280 except BELDFOIL shield over the 4 #18 AWG conductors. BELDFOIL shield over one group of seven conductors. 3-75 ohm coaxial cables, jacket over shield is black hypalon. .730 O.D. Cut to order (25' min.). **82**
36F1399. NET, per foot **82**

Type 8283. 82 conductor TV (color) camera cable. Conductor arrangement: 4 #41 and 3 #16 AWG stranded tinned copper conductors, color-coded and vinyl insulated, all inside a BELDFOIL aluminum-mylar shield: 67-#22 AWG stranded tinned copper, color-coded and vinyl insulated, of which 7 are under a conductive textile shield, the rest unenclosed; 8 coaxial cables, of 53.5 ohm nom. impedance, color coded; tinned copper braid shield and chrome vinyl jacket overall. Nom. O.D., 1.22". Cut to order. Min order 25 ft. **2.94**
36F1300. NET, per foot **2.94**

Type 8279. Similar to 8281 except with 23 AWG conductor, single tinned copper braid shield, and .220 O.D.

36F1340A. 100' NET **9.00**
36F1340C. 250' NET **21.00**
36F1340F. 500' NET **39.00**

Type 8284. 24 conductor TV camera cable, for Type 16 GA color coded vinyl insulated conductors, beldfoil shield over 3 of the 17 Type 22 GA color coded vinyl insulated conductors, 2-53.5 ohm coaxial cables tinned copper braid, heavy cotton braid, chrome vinyl jacket. 800 O.D.
36F1341. NET, per ft. **.99**

SHIELDING & BONDING CABLE

Type	I.D.	Cir. Mil. Area	Stk. No.	10'	Stk. No.	50'	Stk. No.	250'
8676	1/2"	400	36F215G	.54	36F215B	.98	36F215E	4.50
8674	3/8"	600	36F216G	.60	36F216B	1.46	36F215E	6.55
8660	1/8"	3800	36F220G	.65	36F220B	1.94	36F220E	8.80
8668	1 1/4"	4700	36F223G	.90	36F223B	2.55	36F223E	11.25
8663	1/4"	6700	36F225G	.96	36F225B	3.25	36F225E	15.00
8661	3/8"	7600	36F221G	.90	36F221B	3.15	36F221E	14.50
8659	1/2"	13,300	36F224G	1.56	36F224B	6.70	36F224E	31.15
8672	5/8"	13,200	36F217G	1.75	36F217B	7.60	36F217E	34.50
8662	2 3/8"	22,900	36F222G	2.16	36F222B	9.40	36F222E	45.45
8670	3/4"	48,000	36F218G	3.00	36F218B	14.10	36F218E	67.50
8671	1"	20,800	36F219G	2.45	36F219B	10.95	36F219E	52.50



Tinned copper braid provides approx. 90% shield coverage when applied over recommended diameter. Spool may contain several pieces; min. length of any piece: 25'.

HI-FI AND STEREO CABLES

Phono Pick-Up Cable. Except 6421, Hi-Fi connecting cable. All have tinned copper braid shield and brown cotton jacket; 6431 is rubber insulated shielded and brown cotton braid 8419, 8429, 8430 Conductors are vinyl insulated. *No shield, no jacket. ** Rubber insulated conductors. †Spiral wrapped shield, chrome vinyl jacket, cellular polyethylene insulated conductor.

Type	No. of Cond.	AWG and (stranding)	Nom. O.D.	Nom. mmf/ft.	Stock No.	10 Ft.	Stock No.	15 Ft.	Stock No.	25 Ft.	Stock No.	100 Ft.	Stock No.	250 Ft.	Stock No.	500 Ft.
8430*	2	32 (7x40)	.050"	21	36F158G	.57	36F158C	.75	36F158C	.75	36F158C	.....	36F158E	4.50	36F158E	.....
8429	2	32 (7x40)	.067"	22	36F150G	.80	36F150C	1.30	36F150C	1.30	36F150C	.....	36F150E	8.95	36F150E	.....
8419	3	32 (7x40)	.083"	30	36F159G	.90	36F159C	1.58	36F159C	1.58	36F159C	.....	36F159E	11.35	36F159E	.....
8431**	1	24 (16x36)	.095"	96	36F152G	.66	36F152D	.75	36F152C	1.17	36F152A	3.75	36F152A	4.50	36F152F	17.35
8421†	1	25 (7x33)	.180"	18	36F226D	1.13	36F226C	1.43	36F226C	1.43	36F226A	4.50	36F226E	10.05	36F226E	.....

Dual-Channel Audio Cable. Designed for stereo and language lab hookup applications. Tinned copper/copperweld conductors, with color-coded polyethylene insulation and individual spiral wrapped shields; chrome vinyl jacket. *per channel, †50 ft. Fig. A below.

Miniature Audio Connecting Cable. Double BELDFOIL aluminum-mylar shields provide total shielding for critical audio and instrumentation applications. Copper-copperweld conductor. cellular polyethylene insulation, chrome vinyl jacket. Fig. B below.

Juke Box Control Cable. Tinned, stranded copper conductors, vinyl insulated, with chrome vinyl jacket.

Mfr. No.	AWG & Cond.	Nom. O.D.	Work. Volt.	100'	Net	500'	Net
8783	20-1, 16-2	.250"	450	36F108A	5.40	36F108F	24.40
8786	24-4, 22-2	.256"	350	36F138A	6.25	36F138F	30.00

UNSHIELDED CABLE FOR AUDIO AND INSTRUMENTATION APPLICATIONS

High-quality unshielded cables for instrumentation and intercom hookup, speaker lines, signal circuits, etc. Available only in spool lengths listed.

TWO CONDUCTOR CABLES

Unjacketed. Twisted pair cable, vinyl insulated. Fig. C.

Mfr. No.	AWG	Nom. O.D.	Work. Volt.	Stk. No.	100'	Stk. No.	250 Ft.	Stk. No.	500'	Stk. No.	1000'
8481	22 (solid)	.112"	350	36F068A	1.65	.....	.....	36F068F	5.40	36F068	10.80
8482	19 (solid)	.130"	350	36F1009A	2.10	.....	.....	36F1009F	7.50	36F1009	15.00
8460	18 (strd.)	.175"	450	36F1010A	3.00	.....	.....	36F1010F	11.70	36F1010	23.40

Jacketed. As above, but with chrome vinyl overall jacket. Fig. D.

Mfr. No.	AWG	Nom. O.D.	Work. Volt.	Stk. No.	100'	Stk. No.	250 Ft.	Stk. No.	500'	Stk. No.	1000'
8470	16 (strd.)	.195"	600	.....	.....	36F1011F	15.40	36F1011	30.80	36F1011	30.80
8748	22 (solid)	.150"	200	36F060A	2.06	36F060E	4.20	36F060F	7.30	36F060	14.55
8442	22 (strd.)	.165"	350	.....	.....	36F039F	9.00	36F039F	9.00	36F039	18.00
8205	20 (strd.)	.190"	350	36F197A	2.75	.....	.....	36F197F	10.65	36F197	20.85
8481	18 (strd.)	.226"	450	36F1014A	3.90	.....	.....	36F1014F	15.40	36F1014	30.80
8471	16 (strd.)	.256"	600	.....	.....	36F1015F	19.45	36F1015F	19.45	36F1015	38.90
8473	14 (strd.)	.332"	600	.....	.....	36F1021F	32.65	36F1021F	32.65	36F1021	65.30



Fig. A



Fig. B



Fig. C



Fig. D

ALL BELDEN WIRE & CABLE AVAILABLE ONLY IN SPOOL LENGTHS LISTED

Due to Unstable Copper Market, Wire Will Be Sold At Prices in Effect at Time of Shipment

BELDEN Unshielded Cable

MULTIPLE CONDUCTOR CABLES — PAIRED

Solid. All types below have #22 AWG solid tinned copper conductors, vinyl insulated and cabled in pairs. Chrome vinyl jacket overall.

Mfr. No.	No. of Pairs	Nom. O.D.	Work. Volt.	Stk. No.	100'	Stk. No.	250'	Stk. No.	500'	Stk. No.	1000'
8741	2	.201"	200	36F061A	3.55	36F061E	7.80	36F061F	14.00	36F061	28.00
8742	3	.240"	200	36F062A	4.60	36F062E	10.30	36F062F	19.30	36F062	38.60
8757	4	.255"	200	.....	.....	.....	.....	36F069F	24.75	36F069	49.50
8743	6	.305"	200	36F063A	7.30	36F063E	17.65	36F063F	33.00	36F063	66.00
8744	9	.354"	200	36F064A	10.05	36F064E	24.75	36F064F	47.25	36F064	94.50
8753	11	.384"	200	36F067A	12.75	36F067E	31.50	36F067F	60.40	36F067	120.80
8745	15	.420"	200	36F065A	16.65	36F065E	40.80	36F065F	79.50	36F065	159.00

Stranded. As above, but Type 22 AWG stranded (7x30) conductors provide greater flexibility, can be run in intricate bands.

Type	No. of Pairs	Nom. O.D.	Work. Volt.	Stk. No.	100'	Stk. No.	250'	Stk. No.	500'	Stk. No.	1000'
8747	6	.340"	200	36F075A	9.00	36F075E	21.55	36F075F	41.50	36F075	82.50
8748	9	.389"	200	36F078A	12.70	36F078E	30.75	36F078F	60.00	36F078	120.00
8749	15	.425"	200	36F077A	21.75	36F077E	51.60	36F077F	102.75	36F077	205.50
8750	27	.595"	200	.....	.....	.....	.....	.....	.....	36F078	390.00

Cut to order: 25' min. order. Price per 1000'

See preceding pages ("Special Purpose Shielded Cable") for 38-pr. (8752) and 51-pr. (8751).

MULTIPLE CONDUCTOR CABLES — NOT PAIRED

Fig. E. Stranded copper conductors, color-coded, vinyl plastic insulated, with vinyl jacket overall. Ideal for a multitude of audio, instrumentation, and control applications. Voltage ratings: #22 AWG types, 200V; #18 types, 400V; #16 types, 600V. Available only in spool sizes listed.

Mfr. No.	AWG & No. of Cond.	Nom. O.D.	Lbs. 100'	Stk. No.	25'	Stk. No.	100'	Stk. No.	250'	Stk. No.	500'	Stk. No.	1000'
8443	22-3	.150"	2	36F040C	1.05	36F040A	2.70	36F040E	5.85	36F040F	10.75	36F040	21.45
8444	22-4	.168"	2 1/4	36F041C	1.23	36F041A	3.40	36F041E	7.75	36F041F	14.25	36F041	28.50
8445	22-5	.180"	2 1/2	36F042C	1.31	36F042A	4.20	36F042E	9.15	36F042F	17.25	36F042	34.50

ALL BELDEN HI FI CABLE, AUDIO, & INSTRUMENTATION CABLE COMES IN EXACT LENGTH ONE-PIECE SPOOLS



Fig. E

Mfr. No.	AWG & No. of Cond.	Nom. O.D.	Lbs. 100'	Stk. No.	15'	Stk. No.	100'	Stk. No.	250'	Stk. No.	500'	Stk. No.	1000'
8446	22-4, 18-2	.222"	4	36F043D	1.35	36F043A	6.15	36F043E	14.05	36F043F	26.65	36F043	53.30
8447	22-5, 18-2	.246"	4 1/2	.....	.....	36F044A	6.85	36F044E	15.75	36F044F	30.30	36F044	60.60
8448	22-6, 18-2	.250"	5	36F045D	1.50	36F045A	7.35	36F045E	17.25	36F045F	33.00	36F045	66.00
8449	22-7, 18-2	.261"	5 1/2	36F046D	1.65	36F046A	8.05	36F046E	18.75	36F046F	36.75	36F046	73.50

Mfr. No.	AWG & No. of Cond.	Nom. O.D.	Lbs. 100'	Stk. No.	100'	Stk. No.	250'	Stk. No.	500'	Stk. No.	1000'
8456	22-10	.260"	6	36F200A	8.10	.....	.....	36F200F	37.15	36F200	74.30
8457	22-12	.260"	6	36F201A	8.55	.....	.....	36F201F	39.75	36F201	79.50
8458	22-15	.320"	8	36F198A	15.00	.....	.....	36F198F	66.75	36F198	133.50
8459	22-25	.370"	12	36F199A	23.25	.....	.....	36F199F	105.00	36F199	210.00
8465	18-5	.272"	6	36F1017A	7.20	36F1017E	17.05	36F1017F	33.40	36F1017	66.80
8467	18-7	.320"	7	36F1018A	10.05	36F1018E	24.00	36F1018F	46.15	36F1018	92.30
8469	18-9	.375"	8	36F1019A	13.50	36F1019E	33.00	36F1019F	60.00	36F1019	120.00
8466	18-12	.402"	14	36F144A	19.90	36F144E	48.75	36F144F	93.00	36F144	186.00
8468	18-15	.490"	18	36F145A	25.90	.....	.....	36F145F	120.00	36F145	240.00
8620	16-4	.375"	8	36F146A	9.75	.....	.....	36F146F	45.00	36F146	90.00
8621	16-7	.455"	13	36F147A	16.35	.....	.....	36F147F	74.65	36F147	149.30
8622	16-12	.600"	21	36F148A	27.75	.....	.....	36F148F	130.50	36F148	261.00

PRIMARY, SPEAKER & PORTABLE POWER CABLES

2, 3, AND 4-CONDUCTOR PRIMARY WIRE

Cables especially designed for ignition primary circuits and other applications requiring heavily insulated high amperage cable. All types are color coded. Sold only in lengths listed.

Duplex. Two parallel conductors, stranded and tinned, with vinyl insulation and chrome vinyl jacket.

Mfr. No.	AWG & Cond.	Nom. Width	Insul. Thickness	Stk. No.	100 Ft.	Stk. No.	500 Ft.
8677	16-2	.164 x .276	.032"	36F170A	5.10	36F170F	24.15
8675	14-2	.189 x .326	.037"	36F171A	6.75	36F171F	31.65
8673	12-2	.213 x .384	.040"	36F172A	8.70	36F172F	42.60

Three- and four-conductor. Bonded-parallel-conductor construction, jacketless. Stranded, tinned copper with vinyl insulation.

Mfr. No.	AWG & Cond.	Nom. Width	Insul. Thickness	Stk. No.	100 Ft.	Stk. No.	500 Ft.
8475	16-3	.102 x .295	.023"	36F124A	5.65	36F124F	25.50
8476	16-4	.102 x .400	.023"	36F125A	8.10	36F125F	36.40

SPEAKER CABLE

Parallel conductor cables especially designed for speaker lines, but also ideal for a variety of other audio and instrumentation applications. Chrome vinyl insulation. Solid, except *stranded.

Mfr. No.	AWG & Cond.	Cable Width	Work. Volt.	25'	NET	50'	NET	100'	NET	500'	NET	1000'	NET
8781	22-2	.120"	100	.....	.....	.....	.....	36F133A	1.62	36F133F	4.60	36F133	9.15
8782	24-2*	.115"	300	36F105C	.66	36F105B	.98	36F105A	1.47	36F105F	4.90	36F105	9.80
8701	22-3	.190"	100	.....	.....	.....	.....	36F134A	2.20	36F134F	7.75	36F134	15.50

RUBBER-VINYL MULTICONDUCTOR PORTABLE CORDAGE — 300V-60°C

A variety of power cables for stage, studio, home and industrial use. Types 8462 and 8888 are standard household "lamp cord"; other types have color-coded rubber insulation, black rubber jacket overall. All conductors stranded copper. Available only in quantities listed. *vinyl insulated.

Mfr. No.	U/L Type	AWG & Cond.	Nom. O.D.	Stk. No.	25'	Stk. No.	50'	Stk. No.	100'	Stk. No.	250'	Stk. No.	500'	Stk. No.	1000'
8462	SP-1	18-2	.223"	36F047C	1.20	.....	.....	36F047A	3.60	36F047E	8.20	.....	.....	.....	.....
8888*	SPT-1	18-2	.207"	36F048C	1.13	.....	.....	36F048A	2.95	36F048E	6.40	.....	.....	.....	.....
8452	SV	18-2	.245"	36F030C	1.88	36F030B	3.15	36F030A	5.40	36F030E	12.75	36F030F	25.50	36F030	51.00
8453	SV	18-3	.265"	.....	.....	36F031B	3.60	36F031A	7.20	.....	.....	36F031F	38.45	.....	.....
8454	.....	18-4	.285"	.....	.....	36F032B	4.60	36F032A	8.25	.....	.....	36F032F	38.65	.....	.....
8472	SJ	16-2	.325"	36F049C	2.50	.....	.....	36F049A	8.55	36F049E	20.25	.....	.....	.....	.....
8474	.....	14-2	.360"	.....	.....	.....	.....	36F050A	10.15	36F050E	24.00	.....	.....	.....	.....

TV/Coaxial/Hi Voltage/Test Lead BELDEN

TWIN LEAD AND ANTENNA ROTOR CABLE



Fig. 1



Fig. 3



Fig. 5



Fig. 2



Fig. 4



Fig. 6

Type 8290. SHIELDED & JACKETED ENCAPSULATED TWIN LEAD. TV lead-in for best color and 82 channel reception. Low losses per 100 ft., eliminates interference caused by line pick up, can run thru gutters, conduits, and underground. No matching transformers. Terminals on both ends.

Fig. 2. Type 8285. PERMOHM All-Weather 300-ohm twinlead. 2 parallel Copperweld conductors, orange polyethylene insulation and web between conductors, encapsulated in cellular polyethylene oval jacket. Delivers 3 to 136 times more power than ordinary flat lead-in for strong, clear signals on all channels despite industrial contamination, salt spray, wet weather, rain, ice, fringe area reception. An excellent color, UHF, VHF cable. See Antenna Hardware page for "E-Z" standoff insulators.

Fig. 3. Type 8275. CELLULINE. 2 parallel Copperweld conductors with inert-gas-filled unicellular polyethylene core. Lower

losses because of lower dielectric constant. Uniform electrical characteristics, because moisture between conductors is eliminated. Thick polyethylene outer jacket and less wind-resistant round shape result in longer lasting, more efficient line for UHF, VHF and color. No end sealing required.

Fig. 4. Type 8230. WELDOHM. Copperweld conductors have 1/2 times greater strength than plain copper for long-lasting installation.

Type 8225. 300-ohm flat twinlead with bare copper conductors, brown polyethylene insulation for best weathering.

Fig. 5. Type 8222. 72-ohm transmission line. 2 parallel copper conductors, brown polyethylene insulation.

Fig. 6. Type 8464. 4-conductor flat rotor cable. Bare copper conductors, one tinned for polarity. Chrome vinyl insulation. **Type 8488.** Eight-conductor round rotor cable. Bare copper conductors, color-coded insulation, chrome vinyl jacket.

Mfr. No.	AWG & Cond.	Imp. Ohms	O.D.	50'	NET	75'	NET	100'	NET
8290	.....	.....	.....	36F2000B	5.80	36F2000H	7.80	36F2000A	9.90
8285	22-2	300	.468"	36F211B	2.85	36F211H	3.85	36F211A	4.90
8275	20-2	300	.400"	36F212B	2.63	36F212H	3.70	36F212A	4.50
8225	20-2	300	.400"	36F210B	1.17	36F210H	1.52	36F210A	1.91
8230	20-2	300	.400"	36F209B	1.29	36F209H	1.73	36F209A	2.16
8222	20-2	72	.128"	.....	.....	.....	.....	36F213A	1.65
8463	20-5	.....	.375"	36F232B	2.18	36F232H	3.10	36F232A	4.00
8464	20-4	.....	.390"	36F231B	1.88	36F231H	2.55	36F231A	3.30
8488	22-8	.....	.205"	.....	.....	.....	.....	36F056A	4.85



RG/U TRANSMISSION LINE CABLE
Has low-loss flexible polyethylene inner jacket covered by copper shield, with either vinyl or polyethylene outer jacket overall. All are single conductor type. *MIL spec.

Type	RG/U No.	JAN Spec.	Nom. Imp.	AWG and stranding	Nom. O.D.	Stk. No.	100'	Stk. No.	250'	Stk. No.	500'	Stk. No.	1000'
8237	RG-8/U	C-17A	52.0	13 (7x21)	.405"	36F113A	12.40	36F113E	26.25	36F113F	49.65	36F113	99.30
8238	RG-11/U	C-17A	75.0	18 (7x26)	.405"	36F114A	11.25	36F114E	26.25	36F114F	45.30	36F114	90.60
8240	RG-58/U	C-17A	53.5	20 solid	.195"	36F111A	4.60	36F111E	9.90	36F111F	16.90	36F111	33.80
8259	RG-58A/U	C-17A	50.0	20 (19x.0071)	.195"	36F118A	5.40	.....	.....	36F118F	19.95	36F118	39.90
8262	RG-58C/U	C-17D*	50.0	20 (19x.0071)	.195"	.....	.....	.....	.....	36F057F	21.75	36F057	43.50
8241	RG-59/U	C-17A	73.0	22 Copperweld	.242"	36F110A	5.35	36F110E	12.00	36F110F	18.60	36F110	37.20
8254	62/U	C-17A	93	22 Copperweld	.242"	36F1347A	5.85	.....	.....	36F1347F	21.75	36F1347	43.50
8216	RG-174/U	.....	50.0	26 (7x34)	.100"	36F058A	3.45	.....	.....	36F058F	12.30	36F058	24.60

SPECIAL PURPOSE RF WIRE AND GROUNDWIRE

Type 8014. Indoor Aerial Wire. 25# (13x36) tinned copper conductor with chrome vinyl insulation. Nom. OD: .044"; wt. 4 oz/25 ft.
36F153C. Type 8014. 25 ft. spool. **NET**..... **57**

Type 8018. Ground Wire. Soft-drawn #2 AWG solid aluminum wire, approved for all grounding applications in TV, FM, Amateur, and other antenna systems.
36F763. 50 ft. spool. **NET**..... **1.05**

Type 8817. Litz Wire. 5x44 Celenamel insulated strands with nylon wrap; .008" nom. O.D. Ideal for winding loop antennas, etc. 1 1/4 oz/100'.
36F154A. 100 ft. spool. **NET**..... **.65**

All Belden Products Sold in Listed Lengths Only

HIGH VOLTAGE AND CATHODE RAY TUBE CABLE

Type 8868. CRT cable. #22(7x30) conductor, with conductive polyethylene wrap, polyethylene insulation, and red vinyl jacket. 50KV breakdown voltage. Nom. O.D., .150".
36F070C. 25' **NET**.....1.05 36F070A. 100' **NET**..... **2.60**
36F070F. 500' **NET**..... **10.20**

Type 8869. 22GA with conductive polyethylene, polyethylene insulated, black vinyl jacket, 35 KV, O.D. .120".
36F1325A. 25' **NET**......90 36F1325C. 100' **NET**..... **2.10**
36F1325F. 500' **NET**..... **8.10**

Type 8870. 80 KV DC high voltage cable. #22 AWG solid Copperweld conductor, polyethylene dielectric and jacket. Conductive polyethylene wrap over inner conductor combined with copper braided equipotential shield over dielectric. Breakdown: 160 KVDC. Nom. O.D., .440 inch.
36F059A. 100 ft. **NET**..... **32.25**

TEST PROD WIRE — STRAIGHT AND COILED

Stranded tinned copper conductors, separator wrapping, red or black rubber insulated. Working voltage s listed are AC RMS values Straight types. 8897 is manufactured per MIL-W-13169 specs; 8890 is miniature type. See following page for retractable types.

Type	Color	A.W.G.	Nom. OD	WV	10'	NET	25'	NET	100'	NET	500'	NET	1000'	NET
8898	Black	18-65x36	.230"	10000	36F001G	1.05	36F001C	1.95	36F001A	5.05	36F001F	21.00	.....	.....
8898	Red	18-65x36	.230"	10000	36F000G	1.05	36F000C	1.95	36F000A	5.05	36F000F	21.00	.....	.....
8899	Red	18-65x36	.144"	5000	36F005G	.75	36F005C	1.15	36F005A	3.60	36F005F	13.00	36F005	24.30
8899	Black	18-65x36	.144"	5000	36F006G	.75	36F006C	1.15	36F006A	3.60	36F006F	13.00	36F006	26.00
8897	Red	18-65x36	.144"	5000	.....	.....	.....	.....	.....	.....	36F128F	14.65	36F128	29.30
8897	Black	18-65x36	.144"	5000	.....	.....	.....	.....	.....	.....	36F129F	14.65	36F129	29.30
8890	Black	24-45x40	.066"	1000	.....	.....	36F007C	.90	36F007A	2.10	36F007F	8.70	.....	.....
8890	Red	24-45x40	.066"	1000	.....	.....	36F008C	.90	36F008A	2.10	36F008F	8.70	.....	.....

36F004J. Type 8899. 14 Ft. Spool, consists of 7 Ft. Red and 7 Ft. Black. Ready for use. **NET**..... **.81**

ALL BELDEN WIRE AND CABLE AVAILABLE ONLY IN SPOOL LENGTHS

Due to Unstable Copper Market, Wire Will Be Sold At Prices in Effect at Time of Shipment

BELDEN Bus Bar/Magnet Wire & Power Cords

BUS BAR WIRE

Made in accordance with Federal spec. QQ-W-343. Solid tinned copper; available in spools of 100' and 1000' only. Use where a high current conductor is needed.

Type	AWG	Stk. No.	100'	Stk. No.	1000'	Type	AWG	Stk. No.	100'	Stk. No.	1000'
8025	30	36F1022A	.66	36F1022	2.70	8020	20	36F1027A	.81	36F1027	5.50
8024	28	36F1023A	.66	36F1023	3.00	8019	18	36F1028A	1.03	36F1028	7.75
8023	26	36F1024A	.66	36F1024	3.10	8013	16	36F1029A	1.50	36F1029	12.10
8022	24	36F1025A	.66	36F1025	3.40	8012	14	36F1030A	2.22	36F1030	18.40
8021	22	36F1026A	.67	36F1026	4.00	8011	12	36F1031A	3.00	.....	.....

SINGLE BELDSOL-130° C

Dual film insulated magnet wire that combines excellent dielectric characteristics of polyurethane and the known toughness and solvent resistance of nylon. May be soldered without insulation removal at 750°F. One pound spools.

Mir. No.	AWG	Feet	Stk. No.	NET	Mir. No.	AWG	Feet	Stk. No.	NET
8047	14	40	36F1310	1.08	8054	28	1020	36F1317	1.26
8048	16	63	36F1311	1.08	8055	30	1615	36F1318	1.40
8049	18	100	36F1312	1.10	8056	32	2515	36F1319	1.58
8050	20	160	36F1313	1.10	8057	34	4060	36F1320	1.67
8051	22	254	36F1314	1.10	8058	36	6400	36F1321	1.95
8052	24	404	36F1315	1.13	8055	38	5070	36F1322	1.43
8053	26	645	36F1316	1.19	8046	40	8050	36F1323	1.95

HEAVY POLYTHERMALEZE HIGH TEMPERATURE MAGNET WIRE

Dual polyester film insulated magnet wire, rated for use to 180°C. Has exceptional ability to resist chemical solvents and abuse in intricate windings. One pound spools.

Mir. No.	AWG	Feet	Stk. No.	NET	Mir. No.	AWG	Feet	Stk. No.	NET
8073	14	80	36F767	1.85	8080	28	1990	36F774	2.46
8074	16	126	36F768	1.92	8081	30	3140	36F775	2.78
8075	18	199	36F769	2.03	8082	32	4880	36F776	3.02
8076	20	315	36F770	2.03	8083	34	7860	36F777	3.56
8077	22	501	36F771	2.03	8084	36	12400	36F778	4.53
8078	24	793	36F772	2.10	8085	38	19400	36F779	5.61
8079	26	1260	36F773	2.25	8086	40	32100	36F780	7.30

COILED (RETRACTILE) TEST PROD WIRE



Retracted length 8". Stretches to 5'. 8878 with prods. 8879 without prods. One black, one red lead.

Type	AWG (Stranding)	O.D.	WV	Stk. No.	PR.
8878	20(42x36)	.173"	5000	36F130	3.10
8879	20(42x36)	.173"	5000	36F131	1.38

TWO CONDUCTOR POWER SUPPLY CORDS

For small appliances and electronic equipment. U/L green flag label. All are rubber, except **vinyl, neoprene. Molded plugs.

Mir. No.	Stk. No.	Length, ft.	AWG (stranding)	U/L Type	Color	Fig.	1-24	25-up	Bulk Pkd.—50. or *100 Stk. No.	Each
17126S	36F854	6	18 (41x34)	SP-1	brown	A	.38	.35	36F854A*	.25
17128S	36F839	9	18 (41x34)	SP-1	brown	A	.48	.43	.....	.....
17205S	36F840	6	18 (41x34)	SVT**	black	B	.51	.46	36F840A	.35
17206S	36F851	6	18 (41x34)	SV	gray	B	.59	.53	36F851A	.40
17249S	36F841	1-6	.....	SVO†	black	C	1.14	1.02	.....	.....

THREE CONDUCTOR POWER SUPPLY CORDS

For applications requiring grounding wire. Rubber, except neoprene. All have molded vinyl plugs.

Mir. No.	Stk. No.	Length, ft.	AWG (stranding)	U/L Type	Color	Fig.	1-24	25-up	Bulk Pkd.—50. or *100 Stk. No.	Each
17236S	36F1037	6	18 (41-34)	SV	black	.....	.70	.63	36F1037A	.50
17238S	36F1038	8	18 (41-34)	SV	black	.....	.80	.72	36F1038A	.59
17406S	36F842	6	18 (16x30)	S	black	.....	.75	.67	36F842A	.53
17408S	36F857	8	18 (16x30)	S	black	.....	.87	.77	36F857A	.63
17419S	36F843	9	16 (65x34)	S	black	.....	1.14	1.02	36F843A	.86
17425S	36F849	15	16 (65x34)	S	black	.....	1.71	1.53	.....	.....
17447S	36F844	1-6	18 (41x34)	S/O†	black	.....	1.47	1.32	.....	.....
17448S	36F845	1-6	16 (65x34)	S/O†	black	.....	1.73	1.55	.....	.....

TWO CONDUCTOR EXTENSION CORDS

Standard cube-tap cords for general light-duty. Vinyl cord and plug with phenolic 3-way socket.

Mir. No.	Stk. No.	Length, ft.	AWG (stranding)	U/L Type	Color	Fig.	1-24	25-up	Bulk Pkd.—50. or *100 Stk. No.	Each
17156S	36F1301	6	18 (41x34)	SPT-1	brn, ivory	D	.42	.37	.....	.....
17159S	36F1302	9	18 (41x34)	SPT-1	brn, ivory	D	.48	.43	.....	.....
17162S	36F1307	12	18 (41x34)	SPT-1	brn, ivory	D	.59	.53	.....	.....
17165S	36F1308	15	18 (41x34)	SPT-1	brn, ivory	D	.67	.60	.....	.....

Standard rubber extension cord with vinyl connectors.

17259S	36F846	9	18 (41x34)	SV	gray	E	.80	.72
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All-rubber extension cord with round female connector.

17370S	36F1004	10	16 (26x30)	SJ	black	F	1.12	1.00
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THREE CONDUCTOR EXTENSION CORDS

For equipment and appliances requiring grounding; have U/L Blue Flag Label. Rubber, except *vinyl, neoprene. Molded vinyl connectors.

Mir. No.	Stk. No.	Length, ft.	AWG (stranding)	U/L Type	Color	Fig.	1-24	25-up	Bulk Pkd.—50. or *100 Stk. No.	Each
17194S	36F847	25	16 (26x30)	SPT-3*	yellow	G	2.35	2.10	.....	.....
17460S	36F1039	10	18 (16x30)	SJ	black	G	1.18	1.06	.....	.....
17491S	36F848	25	18 (16x30)	SJT*	yellow	G	2.13	1.90	.....	.....

SPECIAL PURPOSE AND APPLIANCE CORDS

Replacement appliance cord; rated 10 amps, 125V. Neoprene.

17806S	36F1036	6	18 (41x34)	HPN	black	A	.42	.37	36F1036A	.30
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Neoprene cord has standard appliance plug with contacts on 11/16" centers for waffle irons, etc. Rated 10 amps, 125V.

17866S	36F873	6	17 (52x34)	HPN	black	H	.58	.52	36F873A	.42
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Has asbestos insulation, glazed cotton braid, eyelets for #8 screw; recommended for irons. Rated 10A/125V.

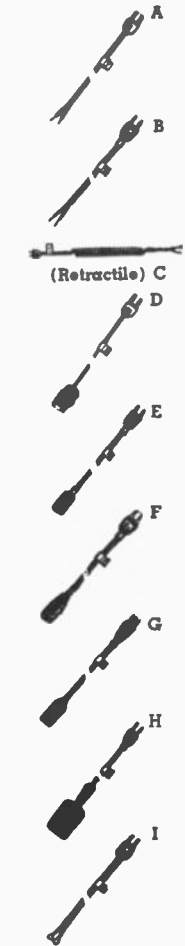
17706S	36F867	6	18 (41x34)	HPD	blk/wht	I	.66	.59	36F867A	.52
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Air-conditioner extension cord, rated 15A/125V. Rubber.

17659S	36F1035	9	14 (41x30)	S	gray	2.58	2.29
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3 conductor business machine cord for Friden, Victor, Marchant, & Hewlett Packard. Also for Revere & Kodak projectors—Dukane audio eq.

17258S	36F1324	8	18 (41x34)	SVT	gray	E	.96	.86
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Make NEWARK Your One Dependable Source for Everything in Electronics

Amphenol Coaxial Cable



Fabricated in accordance with the rigid requirements set forth in the latest military specs. Polyethylene dielectric for general RF and HF applications. Teflon permits operation at temperatures from -73°C to +200°C. All cables meet the latest Navy, Air Force and Signal Corps specifications. Connector selection chart available upon request.



RG-/U COAXIAL CABLES—Polyethylene and Teflon Dielectrics

Stock No.	Amphenol Number	RG-/U No.	Jacket O.D.	Dielectric O.D.	Dielectric Type*	Center Cond.	V.P. %	Cap. MMF/FT	Max. Oper. VRMS	Nom. IMP Ohms	Uses Connector Series	Per Ft.	100 Ft.	500 Ft.	1000 Ft.
36F1101	21-330	6A/U	.332	.185	P	21CW	65.9	20	2700	75	N,C	.23	20.91	94.10	
36F240	21-004	8/U	.405	.285	P	7/21C	65.9	29.5	5000	52	N,C,HN,UHF	.139	12.78	46.32	86.10
36F234	21-290	8A/U	.405	.285	P	7/21C	65.9	29.5	5000	52	N,C,HN,UHF	.15	14.41	72.85	133.00
36F484	21-332	9B/U	.420	.280	P	7/21S	65.9	30	5000	50	N,C,HN,UHF	.45	41.49	188.70	
36F241	21-007	11/U	.405	.285	P	7/26T	65.9	20.5	5000	75	N,C,HN,UHF	.132	12.08	40.80	74.20
36F235	21-296	11A/U	.405	.285	P	7/26T	65.9	20.5	5000	75	N,C,HN,UHF	.13	12.40	47.78	85.35
36F1107	21-336	14A/U	.545	.370	P	10C	65.9	29.5	7000	52	N,C,UHF	.37	33.65	151.47	
36F487	21-298	17A/U	.870	.680	P	.188C	65.9	29.5	11000	52	N,C,HN,LC	.69	63.68	284.57	
36F1113	21-310	22B/U	.420	.285	P	Two 7/0152C	65.9	16	1000	95	Twin	.32	29.26	131.85	
36F1114	21-792	34B/U	.630	.460	P	7/02-49C	65.9	21.5	6500	75	UHF	.41	37.99	171.15	
36F1116	21-802	55B/U	.206	.116	P	20S	65.9	28.5	1900	53.5	TNC,BNC,BN,C,UHF	.12	11.03	49.70	
36F1117	21-313	57A/U	.625	.472	P	Two 7/21C	65.9	15/5	3000	95	Twin	.45	41.59	187.52	
36F243	21-024	58/U	.195	.116	P	20C	65.9	28.5	1900	53.5	TNC,BNC,BN,C,UHF,N	.052	4.78	16.17	29.65
36F245	21-199	58A/U	.195	.116	P	19/0-071T	65.9	30	1900	50	TNC,BNC,BN,C,UHF,N	.06	5.62	18.37	33.35
36F491	21-316	58C/U	.195	.116	P	19/0-071T	65.9	30	1900	50	TNC,BNC,BN,C,UHF,N	.06	5.92	29.62	54.85
36F244	21-025	59/U	.242	.146	P	22CW	65.9	21.5	2300	73	TNC,BNC,BN,C,UHF,N	.06	5.55	17.50	31.80
36F1118	21-794	59B/U	.242	.146	P	.023CW	65.9	21	2300	75	TNC,BNC,BN,C,UHF,N	.06	5.93	21.47	38.45
36F472	21-026	62/U	.242	.146	SSP	22CW	84	13.5	750	93	TNC,BNC,BN,C,UHF,N	.06	5.88	19.77	35.60
36F493	21-318	62A/U	.242	.146	SSP	22CW	84	13.5	750	93	TNC,BNC,BN,C,UHF,N	.07	6.77	33.85	62.80
36F1160	21-771	62B/U	.242	.146	SSP	7/32CW	84	13.5	750	93	TNC,BNC,BN,C,UHF,N	.07	6.64	33.22	61.55
36F1119	21-320	63B/U	.405	.285	SSP	22CW	84	10	1000	125	N,C,HN,UHF	.18	16.25	73.00	
36F1120	21-804	71B/U	.250*	.176	SSP	22CW	84	13.5	750	93	TNC,BNC,BN,C,UHF,N	.12	11.02	55.12	99.90
36F1124	21-327	108A/U	.235	.079 ea.	P	Two 7/28T	68	23.5	1000	78	Twin	.10	8.90	40.12	
36F1126	21-520	114A/U	.405	.285	SSP	33CW	88	6.5	1000	185	N,C,HN,UHF	.19	17.25	77.80	
36F482	21-441	122/U	.160	.096	P	27/36T	65.9	29.5	1900	50	TNC,BNC	.07	6.45	29.05	
36F496	21-598	174/U	.100	.060	P	3/4CW	65.9	30	1500	50	Subminax	.05	4.94	24.72	44.30
36F1143	21-790	212/U	.332	.185	P	.0556S	65.9	29.5	3000	50	N,C,HN,UHF	.33	30.68	130.10	
36F1159	21-779	213/U	.405	.285	P	7/0296C	65.9	29.5	5000	50	UHF,N,C,HN	.124	11.41	52.12	93.60
36F1145	21-780	214/U	.425	.285	P	7/02-96S	65.9	29.5	5000	50	N,C,HN,UHF	.44	40.70	183.17	
36F1154	21-788	223/U	.216	.116	P	.035S	65.9	29.5	1900	50	TNC,BNC,BN,C,UHF,N	.18	16.12	72.60	
36F497	21-597		.150	.100	P	7/00-56CW	69.5	20	2500	75	Subminax	.06	5.62	28.12	50.95

(†) RG TYPE

Stock No.	Amphenol Number	RG-/U No.	Jacket O.D.	Dielectric O.D.	Dielectric Type*	Center Cond.	V.P. %	Cap. MMF/FT	Max. Oper. VRMS	Nom. IMP Ohms	Uses Connector Series	1-99 Per Foot	100-249 Per Foot	250-499 Per Foot
36F410	421-250	87A/U	.425	.280	TF	7/20S	69.5	29.5	5000	50	N,C,HN,UHF	2.18	1.97	1.75
36F1127	421-699	115A/U	.415	.250	TT	7/21S	70	29.5	5000	50	N,C,HN,UHF	1.60	1.45	1.28
36F431	421-379	140/U	.233	.146	TF	.025SCW	69.5	21	2300	75	BN,TNC,BNC,N,C,UHF	.75	.676	.598
36F1132	421-139	141A/U	.190	.116	TF	.039SCW	69.5	28.5	1900	50	TNC,BNC,N,C,UHF	.48	.437	.385
36F1133	421-140	142A/U	.206	.116	TF	.039SCW	69.5	28.5	1900	50	BN,TNC,BNC,C,N,UHF	.56	.504	.447
36F434	421-106†	187/U	.110†	.060	TF	7/38SCW	69.5	19.5	1200	75	Subminax	.19	.164	.164
36F433	421-105†	188/U	.110†	.060	TF	7/00-67SCW	69.5	29	1200	50	Subminax	.18	.158	.158
36F436	421-111†	195/U	.155†	.102	TF	7/38SCW	69.5	15	1500	95	Subminax	.33	.288	.288
36F435	421-109†	198/U	.080†	.034	TF	7/38SCW	69.5	28.5	1000	50	Subminax	.11	.098	.098
36F1141	421-100	210/U	.242	.146	SST	22SCW	84	14.5	750	93	N,C,TNC,BNC,BN,UHF	.72	.645	.572
36F1156	421-135	225/U	.430	.285	TF	7/03-12S	69.5	29.5	5000	50	N,C,HN,UHF	2.18	1.97	1.75

*S—Silvered Copper C—Copper T—Tinned Copper KW—Karma Wire CW—Copperweld P—Polyethylene
 SSP—Semi-Solid Polyethylene TF—Teflon SST—Semi-Solid Teflon N—Nichrome SCW—Silver-coated Copperweld
 TT—Teflon Tape †Maximum.

POLYFOAM COAXIAL CABLES

Cellular polyethylene dielectric material provides lower weight, cost, capacitance, and attenuation than standard RG types. Widely used in commercial transmitter applications such as community TV and in ham stations. The dielectric constant is 1.50 as compared to 2.25 for solid polyethylene. It has a specially compounded non-contaminating black polyethylene jacket providing improved weather and abrasion resistance.

Stock No.	Amphenol No.	RG Equiv.	Lbs./1000 ft.	Jacket O.D.	Jacket Type	Dielectric OD	Center Cond.	Cap. MMF/FT	Max. Oper. Volts	Nom. Imp. Ohms	Net Per Foot	Net Per 100 Ft.	Net Per 500 Ft.	Net Per 1000 Ft.
36F1208	621-111	8/U	104	.405	Black Vinyl	.285	7/19C	24.5	1,500	50	.16	14.73	73.85	133.00
36F1211	621-186	59/U	32	.242	Black Poly.	.146	20CW	17.3	1,000	75	.04	4.17	20.85	37.70

SAVE WORK! Make Newark Your Complete One-Point Stock Source!
SAVE MONEY! Quantity Prices Competitive with Manufacturer!

Due to Unstable Copper Market, Wire Will Be Sold At Prices in Effect at Time of Shipment

Wire and Cable

AMPHENOL TWIN LEAD TRANSMISSION LINE



Twin lead recommended for UHF-VHF television and FM antenna installations. Use of brown virgin polyethylene dielectric assures minimum signal loss and a more constant im-

pedance over its exceptionally long life. Resistant to sur., chemical fumes, salt laden and gas polluted air.



*Coils, unassembled.

AMPHENOL TWIN LEADS—300 Ohm Television Receiving Types

Description	Type	Lbs. 100 Ft.	25 Ft. Pre-Assembled Hank		50 Ft. Pre-Assembled Hank		75 Ft. Pre-Assembled Hank		100 Ft. Pre-Assembled Hank		500 Feet		1000 Feet	
			NET	NET	NET	NET	NET	NET	Stk. No.	NET	Stk. No.	NET		
Standard 7/28 Copper Conductors. Brown Poly. 60 Mil Web.	214-056	1 1/2	36F249D	.76	36F249A	1.13	36F249B	1.52	36F249C	1.73	36F249E	7.85	36F249	15.60
Indoor 7/28 Copper Conductors. Clear Poly. 60 Mil Web.	214-318	1 1/2	36F1200A	.84	36F1200B	1.31	36F1200C	1.66	36F1200D	1.92	36F1200E	8.55	36F1200	16.55
Air-Core Tubular. 7/28 Copper Conductors. Brown Poly..	214-271	2 3/4	.....	.....	36F248A*	2.26	36F248B*	2.95	36F248C*	3.67	36F248D	15.67	36F248	30.62
100 Mil 7/28 Copper Conductors. Brown Poly.	214-100	2 1/4	.....	.....	36F1201A	1.58	36F1201B	2.19	36F1201C	2.84	36F1201D	12.19	36F1201	23.58
Steelcore Tough, Long-Run Type. 7/28 Copper-Coated Steel Conductors. Brown Poly. 72 Mil Web.	214-559	1 3/4	.....	.....	36F1202A	1.48	36F1202B	2.01	36F1202C	2.51	36F1202D	10.47	36F1202	20.13
Rotator Cable 4 Conductor Control Cable. 7/28 Copper Conductors. Brown Poly.	214-298	2 1/2	.....	.....	36F1204A	1.88	36F1204B	2.61	36F1204C	3.36	36F1204D	14.17	36F1204	27.50

AMATEUR TRANSMITTING TYPES

Description	Type	Lbs./100 Ft.	Stock No.	NET	Stock No.	NET	Stock No.	NET
75 Ohm Transmitting—Rated 1KW RF Power. 7/21 Copper Conductors. Brown Poly.	214-023	5	100 ft. Coil 36F1205A	7.40	500 ft. Reel 36F1205B	32.60	1000 ft. Reel 36F1205	64.07
150 Ohm Experimental Type. 7/28 Copper Conductors. Brown Poly.	214-079	1-1/5	.....	.....	36F237A	11.34	36F237	22.68
300 Ohm Air-Core Transmitting. 1 KW RF Power. Super Deluxe Reception. 7/26 Copper Conductors. Brown Poly.	214-076	3 1/2	36F1206A	6.68	36F1206B	27.92	36F1206	53.30
300 Ohm Extra Strength. Size 16 Copperweld Conductors. Brown Poly.	214-022	4	36F239A	5.76	36F239B	25.23	36F239	49.33

CONSOLIDATED WIRE

SOLID ENAMELED COPPER ANTENNA WIRE

Stk. No.	Mfg. No.	Description	NET
36F260A	3851	100-ft. Coil #14 Solid Enamel Copper Wire	2.25
36F260B	3851	200-ft. Coil #14 Solid Enamel Copper Wire	4.50
36F260	3851	1000-ft. Spool #14 Solid Enamel Copper Wire	22.50
36F261A	3861	100-ft. Coil #12 Solid Enamel Copper Wire	3.30
36F261B	3861	200-ft. Coil #12 Solid Enamel Copper Wire	6.60
36F261	3861	1000-ft. Spool #12 Solid Enamel Copper Wire	33.00
36F262A	3871	100-ft. Coil #10 Solid Enamel Copper Wire	6.00
36F262B	3871	200-ft. Coil #10 Solid Enamel Copper Wire	12.00
36F262	3871	1000-ft. Spool #10 Solid Enamel Copper Wire	53.63
36F263	3891	100-ft. Coil #8 Solid Enamel Copper Wire	7.50

TINNED COPPER BUS BAR WIRE

Solid soft drawn copper and brightly tinned for all types of soldering connections and other applications. 1000-ft. and 100-ft. spools only.

Type	Nom. Dia.	Size Solid	Circular Mil. Area	Stk. No.	1000 Ft. NET	Stk. No.	100 Ft. NET
3845	.129"	8	16510	36F296	80.25	36F296A	8.51
3841	.102"	10	10380	36F295	55.13	36F295A	5.93
3831	.082"	12	6530	36F294	32.18	36F294A	3.23
3821	.064"	14	4110	36F293	20.93	36F293A	2.10
3815	.051"	16	2583	36F292	12.75	36F292A	1.73
3816	.040"	18	1624	36F291	10.88	36F291A	1.43
3817	.032"	20	1022	36F290	6.90	36F290A	.90
3818	.025"	22	642	36F289	4.43	36F289A	.68
3819	.020"	24	404	36F285	3.75	36F285A	.65
3846	.016"	26	254.1	36F286	3.53	36F286A	.66
3847	.013"	28	159.8	36F287	4.73	36F287A	.63
3848	.010"	30	100.5	36F288	2.85	36F288A	.53

HEAVY FORMVAR MAGNET WIRE

For use in transformers, chokes, transmitters, and the repair and construction of motors. 1 lb. spools.

Stk. No.	Type	Size	NET
36F521	2000	#14	1.59
36F522	2000	#15	1.59
36F523	2000	#16	1.67
36F524	2000	#17	1.68
36F525	2000	#18	1.79
36F526	2000	#19	1.80
36F527	2000	#20	1.80
36F528	2000	#21	1.86
36F529	2000	#22	1.80
36F530	2000	#23	1.84
36F531	2000	#24	1.89
36F532	2000	#25	1.93
36F533	2000	#26	2.04
36F534	2000	#27	2.16
36F535	2000	#28	2.22
36F536	2000	#29	2.40
36F537	2000	#30	2.52
36F538	2000	#31	2.75
36F539	2000	#32	2.79
36F540	2000	#33	2.85
36F541	2000	#34	3.36
36F542	2000	#35	3.67
36F543	2000	#36	4.22
36F544	2000	#37	5.14
36F545	2000	#38	5.61
36F546	2000	#39	7.20
36F547	2000	#40	7.30



Insul. copper wire of highest quality. Standard B&S Ga. We can supply magnet wire in all sizes, types. Write for quantity prices.

PLAIN ENAMELED 1/2-LB. SPOOLS

Stk. No.	Size	Feet	NET
36F700	14	38	.78
36F701	16	63	.83
36F702	18	101	.86
36F703	20	159	.89
36F704	22	253	.92

MAGNET WIRE ON SPOOLS

PLAIN ENAMELED (Continued)

Stk. No.	Size	Feet	NET
36F705	24	253	.95
36F706	26	640	1.01
36F707	28	1013	1.07
36F708	30	1602	1.14
36F709	32	2543	1.20
36F710	34	4042	.94
36F711	36	6410	1.09

DOUBLE COTTON 1/2-LB. SPOOLS

Stk. No.	Size	Feet	NET
36F720	14	40	1.02
36F721	16	60	1.05

DOUBLE COTTON SPOOLS (Continued)

Stk. No.	Size	Feet	NET
36F722	18	95	1.14
36F723	20	150	1.23
36F724	22	225	1.23
36F725	24	350	1.50
36F726	26	525	1.64
36F727	28	825	1.74
36F728	30	1200	1.99
36F729	32	1750	2.57
36F730	34	2500	3.23
36F731	36	3725	3.63

Lamps, Sockets & Clips

GENERAL ELECTRIC PILOT LAMPS

GE NEON GLOW LAMPS

For 105-125 volts except (*) 210-250 volts. Screw types have series resistor in base, others require external resistor as listed. S.C. stands for single contact; D.C. for double contact. Prices include Fed. Excise Taxes. Av. shpg. wt., 3 oz.



Stk. No.	Type	Watts	Ohms	Base	Starting V.		Bulb Style	NET EACH	Box of 10
					AC	DC			
25F030	NE-2	1/17	150,000	Wire Term.	65	90	T-2	.10	.80
25F029	NE-2Z	1/12	100,000	S. C. Midget Flange	65	90	T-2	.78	6.24
25F027	NE-2E	1/12	100,000	Wire Terms	65	90	T-2	.10	.80
25F026	NE-2H	1/4	30,000	Wire Term.	95	135	T-2	.11	.88
25F050	NE-2J	1/4	30,000	S. C. Midget Flange	95	135	T-2	.78	6.24
25F051	NE-2X	1/15	100,000	Wire Terms.	65	90	T-2	.10	.80
25F037	NE-16			D. C. Bay.	67	T-4 1/2	.63	5.04	
25F038	NE-17	1/4	30,000	D. C. Bay.	65	90	T-4 1/2	.86	6.88
25F035	NE-21	1/4	30,000	S. C. Bay.	65	90	T-4 1/2	.90	7.20
25F041	NE-30	1	7,500	Med. Screw	65	90	S-11	1.14	9.12
25F042	NE-31	1	7,500	Sk. Cand. Screw	65	90	G-10	2.83	22.64
25F043	NE-32	1	7,500	D. C. Bay.	65	90	G-10	1.14	9.12
25F044	NE-34	2	3,500	Med. Screw	65	90	S-14	1.76	14.08
25F045	NE-36	2	3,500	Sk. D. C. Bay.	65	90	S-14	2.28	18.24
25F046	NE-40	3	2,200	Med. Screw	60	85	S-14	2.56	20.48
25F047	NE-42	6	2,200	Sk. D. C. Bay.	60	85	S-14	2.52	20.16
25F034	NE-45	1/4	30,000	Cand. Screw	65	90	T-4 1/2	.81	6.48
25F033	NE-48	1/4	30,000	D. C. Bay.	65	90	T-4 1/2	.67	5.36
25F031	NE-51	1/25	220,000	S. C. Bay. Min.	65	90	T-3 1/4	.20	1.60
25F028	NE-51H	1/7	47,000	S. C. Bay. Min.	95	135	T-3 1/4	.22	1.76
25F040	NE-56*	1	33,000	Med. Screw	65	90	S-11	1.19	9.52
25F032	NE-57	1/4	30,000	Cand. Screw	65	90	T-4 1/2	.94	7.52
25F036	NE-58*	1/2	100,000	Cand. Screw	65	90	T-4 1/2	.90	7.20
25F052	NE-79	1	7,500	D.C. Bay.	65	90	S-7	1.28	10.24

CIRCUIT COMPONENT NEON LAMPS

For use as voltage indicators, regulators, switching etc. T-2 bulbs. Parallel post electrodes. Temp. range: -0° - +165°F. Wire terminal base.

Stk. No.	Type	Starting DCV	Oper. DCV	DC Ma	NET EACH	Box of 10
25F065	NE83	60-100	61	10.0	.20	1.60
25F053	NE96	120-150	60-80	0.5	.20	1.60

PANEL & PILOT BULBS



†Miniature bayonet base. ††Single-contact bayonet base. †††Double-contact bayonet. ††††Single-contact midget flanged. †††††Mid-groove. ††††††Min. 2-pin. *D.C. Pref. Others have min. screw base. Prices include F.E. Tax. Shpg. wt., 2 oz.; 10, 4 oz.; 100, 2 1/2 lbs.

Stk. No.	Lamp No.	Volt	Amp	EA.	10 for	100 for	Stk. No.	Lamp No.	Volt	Amp	EA.	10 for	100 for
25F166	10***	6.3	.15	.24	1.32	16.56	25F073	755†	6.3	.15	.26	1.58	14.22
25F066	39†	6.3	.37	.34	1.89	17.01	25F074	756†	14	.08	.34	1.89	17.01
25F100	40	6.3	.15	.14	.81	7.29	25F075	757†	28	.08	.43	2.51	22.59
25F101	41	2.5	.50	.21	1.27	11.43	25F076	1021†	4.5	1.25	1.10	6.58	59.22
25F116	42	3.2	.35	.26	1.58	14.22	25F057	1130**	6.4	21 c.p.	.38	2.26	20.34
25F102	43†	2.5	.50	.21	1.27	11.43	25F117	1133†	6.2	32 c.p.	.39	2.29	20.61
25F103	44†	6.3	.25	.14	.81	7.29	25F182	1446	12	.20	.24	1.45	13.05
25F104	45†	3.2	.35	.17	1.06	9.54	25F111	1447	18.0	.15	.19	1.16	10.44
25F105	46	6.3	.25	.14	.81	7.29	25F183	1487	14	.20	.24	1.45	13.05
25F106	47†	6.3	.15	.14	.81	7.29	25F112	1490†	3.2	.16	.17	1.06	9.54
25F107	48	2.0	.06	.21	1.27	11.43	25F181	1493**	6.5	2.75	1.02	6.08	54.72
25F108	49†	2.0	.06	.17	1.06	9.54	25F180	1630*	6.5	2.75	1.36	8.10	72.90
25F109	50	7.5	1 c.p.	.15	.87	7.83	25F181	1630*	6.5	4.10	.82	4.93	44.37
25F113	51†	7.5	1 c.p.	.13	.79	7.11	25F149	1768	6.0	.20	.87	5.21	47.09
25F164	53†	14.4	1 c.p.	.13	.79	7.11	25F127	1813†	14.4	.10	.24	1.45	13.05
25F110	55†	7.0	2 c.p.	.13	.79	7.11	25F118	1815†	14	.20	.19	1.16	10.44
25F129	57†	14	2 c.p.	.13	.79	7.11	25F119	1816†	13	.33	.23	1.38	12.42
25F121	81†	6.5	6 c.p.	.21	1.26	11.34	25F133	1819†	28	.04	.35	2.07	18.63
25F120	82**	6.5	6 c.p.	.21	1.26	11.34	25F167	1820†	28	.10	.31	1.84	16.56
25F056	88**	6.75	15 c.p.	.33	1.98	17.82	25F115	1829†	28	.07	.34	2.03	18.27
							25F180	1835†	55	.05	.63	3.77	33.93
							25F059	1847†	6.0	.15	.17	1.06	9.54
							25F070	1891†	12	.24	.16	.96	8.64

TELEPHONE LAMPS—T-2 BULBS

Bulb slide base lamps used for a variety of purposes in switchboards. In most instances the lamp functions in conjunction with other pieces of equipment and its design is controlled by the circuit characteristics.



Stk. No.	Type	Base	Volts	Amps	Ea.	10 for	100 for
25F178	8AA-1	Tel. Slide	55		.63	5.04	33.66
25F060	24B-1	Tel. Slide	24	.035-.045	.63	3.74	33.66
25F061	24E-1	Tel. Slide	24	.032-.038	.63	3.74	33.66
25F062	24X-1	Spec. Tel. Slide	24	.032-.038	.63	3.74	33.66
25F063	48C-1	Tel. Slide	48	.032-.038	.68	4.04	38.36
25F071	55C-1	Tel. Slide	55	.045-.06	.68	4.04	38.36

HERZOG 120 V 4-WATT PILOT LAMP



Clear, candelabra base. 9/16" dia., 1 1/8" length. Wt., 4 oz.

Stk. No.	Color	EACH	10 for
25F174	Clear	.45	4.00

FLASHLIGHT BULBS



High mechanical strength, long life, top efficiency, and overall operating performance. No. 224 has

special base slightly smaller dia. than miniature base and with approx. one and one-half turns of thread. Nos. PR-2, 3, 4, 6, 7, 8, and 12 are S.C. min. flanged. Others have min. screw base for Radar Lamps. Shpg. wt., 3 oz.

Stock Lamp No.	Cell	Volts	Amp	Ea.	Box of 10	100 for	
25F142	PR-2	2D	2.36	0.50	.19	1.16	10.44
25F144	PR-3	3D	3.57	0.50	.19	1.16	10.44
25F138	PR-4	2C	2.33	0.27	.19	1.16	10.44
25F140	PR-6	2D	2.47	0.30	.19	1.16	10.44
25F150	PR-7	3D	3.70	0.30	.24	1.44	12.96
25F152	PR-12	5D	5.95	0.50	.19	1.16	10.44
25F143	13	3D	3.70	0.30	.16	.99	8.91
25F132	14	2D	2.47	0.30	.16	.99	8.91
25F145	31	5D	6.15	0.30	.21	1.26	11.34
25F130	112	1AA	1.20	0.22	.16	.99	8.91
25F131	136	6A	1.25	0.60	.19	1.16	10.44
25F135	222	2AA	2.25	0.25	.16	.99	8.91
25F136	223	2AA	2.25	0.25	.19	1.16	10.44
25F147	224	2AAA	2.15	0.22	.19	1.16	10.44
25F137	233	2C	2.33	0.27	.19	1.16	10.44
25F054	243	2C	2.33	0.27	.19	1.16	10.44
25F151	425	4F	5.00	0.50	.19	1.16	10.44
25F146	605	5D	6.15	0.50	.19	1.16	10.44
25F179	965	8D-8F	9.84	0.50	.24	1.45	13.05

56 120 VOLT PILOT LAMP



Rated 1500 hours. Clear color. Candelabra base. 1 1/8" long. Shipping weight, 4 oz. *230V.

Stk. No.	Type	Watts	Each	10 up. Ea.
25F170	6S6	6	.31	.19
25F173	3S6	3	.37	.33
25F176	10S6	10*	.50	.45

Type 7C7. As above, but conical shaped. 2 1/8" long. 7 watts. Shpg. weight, 4 oz.

Stk. No.	Color	Each	10 up. Ea.
25F171	Clear	.21	.19
25F172	White	2/49	.22

6S6/DC—120 V. double contact bayonet base bulb.

25F175	Clear	.31	.28
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T-1 1/4 MIDGET FLANGED BULBS



Single contact, tiny incandescent bulbs. *Recommended for use with transparent lenses only. 1 1/8" L. Shpg. wt., 4 oz.

Stock No.	Lamp No.	Volt	Amp	Ea.	10 for	100 for
25F122	327	28	.04	.70	4.15	37.35
25F123	328	6	.20	.54	3.25	29.25
25F124	330	14	.08	.78	4.61	41.49
25F125	331*	1.35	.06	.84	5.01	45.09
25F126	338*	2.7	.06	.84	5.01	45.09
25F160	344*	10	.015	1.46	8.46	76.14

SOCKETS FOR NEON LAMPS



Sockets for neon type lamps. Edison Medium bases are for standard bulbs. *Denotes hard rubber insert in metal shell. S.C. stands for single contact type; D.C. for double contact type. 3 oz.

Stk. No.	Base	Fig.	NET	10 for
25F300	Edison Med.	A	.21	1.79
25F303	Cand. Screw	A	.15	1.28
25F304	D.C. Bay. Cand.	C*	.45	3.95
25F305	D.C. Bay. Cand.	B	.49	4.40
25F306	S.C. Bay. Cand.	B	.46	4.10

Chicago Miniature Lamps

Specialists in the design and manufacture of miniature illuminating, indicating and energy emitting devices.

Lamps listed in this catalog are the more popular types available from Chicago Miniature. If your application requires a special lamp or a lamp not shown, send Newark your application needs. We will be pleased to submit our recommendation. *Items are not illustrated

SINGLE FILAMENT STYLES



GENERAL SERVICE LAMPS

Stock No.	Type	Design V. (Amps)	Life Hours	Base	Bulb	1-9	10 For	100 For	Stock No.	Type	Design V. (Amps)	Life Hours	Base	Bulb	1-9	10 For	100 For	
27F100	PR-2	2.38 .50	15	4	B-3 1/2	.19	1.16	10.44	26F511	342	6.0 .03			T-1 3/4	1.45	8.76	78.84	
27F101	PR-3	3.57 .50	15	4	B-3 1/2	.19	1.16	10.44	26F554	344	10.0 .014	10000	7	T-1 3/4	1.46	8.46	76.19	
27F102	PR-4	2.33 .27	10	4	B-3 1/2	.19	1.16	10.44	26F555	345	6.0 .04	10000			1.45	8.76	87.84	
27F103	PR-6	2.47 .30	30	4	B-3 1/2	.19	1.16	10.44	26F914	346	18.0 .04	1000	2	T-1 3/4	1.26	7.53	67.77	
27F104	PR-7	3.70 .30	30	4	B-3 1/2	.24	1.44	12.86	27F164	363	14.0 .20	250	6	G-3 1/2	.21	1.26	11.34	
27F105	PR-12	4.95 .50	15	4	B-3 1/2	.19	1.16	10.44	27F165	365	3.69 .50	15	5	G-3 1/2	.21	1.26	11.34	
27F106	PR-13	5.75 .50	15	4	B-3 1/2	.19	1.16	10.44	26F915	367	10.0 .01			G-3 1/2	1.55	9.09	81.81	
27F107	PR-16	12.5 .25	50	4	B-3 1/2	.24	1.47	13.23	27F166	370	18.0 .04	1000	7		1.26	7.53	67.77	
27F108	6	6.4 3.0	500	11	S-8	.34	1.99	17.91	27F167	375	3.0			T-1 3/4	2.03	12.22	109.98	
27F109	8	8.4 2.2	5000	11	S-8	.34	1.99	17.91	26F916	380	6.3	50000	7	T-1 3/4	1.74	10.61	95.49	
27F110	8F	8.0 2.2	500	11	S-8	.45	2.70	24.30	26F917	381	6.3	20	50000	7	T-1 3/4	1.10	6.58	59.22
27F111	13	3.7 .30	15	5	G-3 1/2	.16	0.99	8.91	26F918	382	14.0 .08				1.26	7.53	67.77	
27F112	14	2.47 .30	15	5	G-3 1/2	.16	0.99	8.91	26F168	386	14.0 .08	50000	2	T-1 3/4	1.26	7.53	67.77	
27F113	27	4.9 .30	30	5	G-4 1/2	.19	1.16	10.44	26F919	387	28.0 .04	25000	7	T-1 3/4	.73	4.37	39.33	
27F114	31	6.15 .30	15	5	G-4 1/2	.21	1.26	11.34	27F169	388	28.0 .04	25000	2	T-1 3/4	1.35	8.06	72.54	
27F115	40	6.3 .15	3000	5	T-3 1/4	.14	0.81	7.29	27F170	407	4.9 .30	50	5	G-4 1/2	.20	1.22	10.98	
27F116	42	3.2 .35	3000	5	T-3 1/4	.28	1.58	14.42	27F171	425	5.0 .50	15	5	G-4 1/2	.19	1.16	10.44	
27F117	43	2.5 .50	3000	6	T-3 1/4	.21	1.27	11.43	27F172	428	12.5 .25	250	5	G-4 1/2	.16	0.99	8.91	
27F118	44	6.3 .25	3000	6	T-3 1/4	.14	0.81	7.29	27F173	430	14.0 .25	250	5	G-4 1/2	.21	1.96	11.34	
27F119	45	3.2 .35	3000	6	T-3 1/4	.17	1.06	9.54	27F174	431	14.0 .25	250	5	G-4 1/2	.28	1.58	14.42	
27F120	46	6.3 .25	3000	5	T-3 1/4	.14	0.81	7.29	27F175	432	18.0 .25	250	5	G-4 1/2	.21	1.26	11.34	
27F121	47	6.3 .15	3000	6	T-3 1/4	.14	0.81	7.29	27F176	433	18.0 .25	250	5	G-4 1/2	.26	1.58	14.42	
27F122	48	2.0 .06	1000	5	T-3 1/4	.21	1.27	11.43	27F177	461	14.0 .33	250	5	G-5	.34	1.99	17.01	
27F123	49	2.0 .06	1000	6	T-3 1/4	.17	1.06	9.54	27F178	502	5.1 .15	100	5	G-4 1/2	.16	0.99	8.91	
27F124	50	7.5 .22	1000	5	G-3 1/2	.15	0.87	7.83	27F179	503	5.1 .15	100	6	G-4 1/2	.21	1.26	11.34	
27F125	51	7.5 .22	1000	6	G-3 1/2	.13	0.79	7.11	27F180	509	24.0 .18	1000	8	G-6	.63	3.77	33.93	
27F126	53	14.4 .12	1000	6	G-3 1/2	.13	0.79	7.11	27F181	958	5.5 2.00	50/000	*	G-16 1/2	3.40	18.85	169.65	
27F127	55	7.0 .41	500	6	G-4 1/2	.13	0.79	7.11	27F182	965	9.8		15	T-4 1/2	.24	1.45	13.05	
27F128	57	14.0 .24	500	6	G-4 1/2	.13	0.79	7.11	27F183	1003	12.8	94	10	B-6	.30	1.79	16.11	
27F129	64	7.0 .63	1000	11	G-6	.24	1.47	13.23	27F184	1004	12.8	94	10	B-6	.30	1.79	16.11	
27F130	67	13.5 .59	L	10	G-6	.17	1.01	9.09	27F185	1016	12.8	1.34	200	S-8	.53	3.13	28.17	
27F131	68	13.5 .59	L	11	G-6	.28	1.70	15.30	27F186	1021	4.5 1.25	75	*	RP-11	1.10	6.58	59.22	
27F132	72	22.0 .17	200	11	G-6	.34	1.90	17.10	27F187	1034	12.8 1.80	200	*	S-8	.34	2.01	18.09	
27F133	82	6.5 1.05	500	11	G-6	.21	1.26	11.34	27F188	1047	26.0 2.70	25	*	RP-11	.68	4.07	36.63	
27F134	87	6.8 1.91	300	10	S-8	.33	1.98	17.82	27F189	1073	12.8 1.80	200	10	S-8	.30	1.79	16.11	
27F135	88	6.8 1.90	300	11	S-8	.33	1.98	17.82	27F190	1129	6.4 2.63	200	10	S-8	.30	1.79	16.11	
27F136	88L	6.8 2.0	750	11	S-8	.96	6.00	54.00	27F191	1130	6.4	200	9	S-8	.38	2.26	20.34	
27F137	90	13.0 .58	750	11	G-6	.21	1.26	11.34	27F192	1133	6.2 3.91	200	10	RP-11	.39	2.29	20.34	
27F138	93	12.8 1.04	500	10	S-8	.30	1.79	16.11	27F193	1141	12.8 1.44	500	10	S-8	.30	1.79	16.11	
27F139	94	12.8 1.0	500	11	S-8	.33	1.98	17.82	27F194	1142	12.8 1.44	500	9	S-8	.33	1.98	17.82	
27F140	113	1.3 .22	15	5	GTL-3	.21	1.26	11.34	27F195	1143	12.5 2.00	400	10	RP-11	.50	2.96	26.64	
27F141	114	1.2 .20	5	5	GTL-23/4	.21	1.26	11.34	27F196	1154	6.4 2.63	200	*	S-8	.38	2.26	20.34	
27F142	123	1.25 .30	10	5	G-3 1/2	.16	0.99	8.91	27F197	1158	6.4 2.63	200	*	S-8	.38	2.26	20.34	
27F143	131	1.3 .10	50	5	G-3 1/2	.17	1.06	9.54	27F198	1184	5.5 6.36	100	9	RP-11	.58	3.52	31.68	
27F144	136	1.25 .60	75	5	G-4 1/2	.19	1.16	10.44	27F199	1209	6.1 3.93	125	*	RP-11	1.17	7.03	63.27	
27F145	209	6.5 1.78	100	10	B-6	.33	1.98	17.82	27F200	1224K	32.0 .16	200	8	G-6	.52	3.13	28.17	
27F146	210	6.5 1.78	100	9	B-6	.33	1.98	17.82	27F201	1240	32.0 3.5	50	*	G-16 1/2	1.84	10.99	96.91	
27F147	222	2.25 .25	5	5	GTL-3	.16	0.99	8.91	27F202	1251	28.0 .23	L	10	G-6	.39	2.34	21.06	
27F148	224	2.15 .22	5	*	GTL-2 3/4	.19	1.16	10.44	27F203	1252	24.0 .23	L	9	G-6	.44	2.83	25.47	
27F149	233	2.33 .27	10	5	G-3 1/2	.19	1.16	10.44	27F204	1385	28.0	300	10	R-12	2.18	13.10	117.00	
27F150	240	6.3 .36	L	6	T-3 1/4	.21	1.26	11.34	27F205	1446	12.0 .20	250	5	G-3 1/2	.24	1.45	13.05	
27F151	245	2.46 .50	15	5	G-3 1/2	.21	1.26	11.34	27F206	1447	18.0 .15	250	5	G-3 1/2	.19	1.16	10.44	
27F152	252	2.5 .35	1000	4	GTL-1 3/4	2.50	15.20	136.80	27F207	1449	14.0 .20	250	5	G-3 1/2	.15	0.94	8.46	
27F153	253X	2.5 .35	1000	2	GTL-1 3/4	3.30	20.40	183.60	27F208	1458	20.0 .25	250	6	G-5	.26	1.58	14.22	
27F154	261	2.5 .35	1000	2	GTL-1 3/4	7.20	43.60	392.40	27F209	1471	12.0 .26	250	8	G-6	.58	3.45	31.05	
27F155	301	28.0 .17	500	10	G-5	.39	2.32	20.88	27F210	1476	18.0 .17	250	5	T-3	.43	2.51	22.59	
27F156	304	28.0 .30	500	9	G-6	.39	2.32	20.88	27F211	1477	24.0 .17	250	5	T-3	.52	3.13	28.17	
27F157	305	28.0 .51	300	10	S-8	.50	2.99	26.91	27F212	1482	6.0 4.5	100	5	G-4 1/2	.26	1.58	14.22	
27F158	307	28.0 .66	300	10	S-8	.50	2.99	26.91	27F213	1483	6.0 .04	250	5	G-4 1/2	.26	1.58	14.22	
27F159	309	28.0 .90	300	10	S-11	.68	4.07	36.63	27F214	1487	14.0 .21	3000	5	T-3 1/4	.24	1.45	13.05	
27F160	313	28.0 .17	300	10	T-1 3/4	.30	1.78	16.02	27F215	1488	14.0 .15	200	6	T-3 1/4	.26	1.58	14.22	
26F500	323	3.0 .19	500	6	T-1 1/4	.87	5.18	46.62	27F216	1489	6.5 2.75	125	10	T-5	2.70	16.70	150.30	
27F161	323R	3.0 .19	350	*	T-1 1/4	1.02	6.10	54.90	27F217	1490	3.2 .16	3000	6	T-3 1/4	.17	1.06	9.54	
26F537	324	3.0 .19	350	*	T-1 1/4	.58	3.45	31.05	27F218	1491	2.4 .80	75	11	G-8	.47	2.82	25.38	
26F538	325	3.0 .19	350	*	T-1 1/4	1.21	7.28	65.34	27F219	1492	2.5 1.50	15	9	S-8	1.42	8.48	76.32	
26F501	327	28.0 .04	350	*	T-1 3/4	.70	4.15	37.35	27F220	1493	6.5 2.80	100	11	S-8	1.02	6.08	54.72	
26F502	327AS15	28.0 .04			T-1 3/4	1.97	11.78	108.02	27F221	1503	5.9 6.53	200	*	RP-11	1.36	8.20	73.80	
26F503	327AS25	28.0 .04				1.26	7.90	71.10	27F222	1606	6.4 2.69	200	9	S-8	.60	3.67	33.03	
26F913	327LSV	28.0 .06		4	T-1 3/4	1.40	8.50	76.50	27F223	1630	6.5 2.75	100	*	S-8	1.36	8.10	72.90	
26F504	328	6.0 .20	25000	4	T-1 3/4	.54	3.25	29.25	27F224	1651	5.0 .60	20	10	S-8	.63	3.77	33.93	
26F507	328L	6.0 .20	1000			1.53	9.50	85.50	26F556	1705	14.0 .08	750	*	T-1 3/4	.63	3.77	33.93	
26F541	330	14.0 .08		4	T-1 3/4	.78	4.61	41.49	26F557	17								

Chicago Miniature Lamps



BASE STYLES



BULB SHAPES



GENERAL SERVICE LAMPS (CONT'D)

Stock No.	Type	Design		MS CP	Life Hours	Base	Bulb	1-9	10 For	100 For
		V.	Amps							
26F513	1768	6	.20	.63	1000	3/4	T-1	.87	5.21	46.89
26F516	1768L	6.3	.20	.55	3000	3/4	T-1	1.46	9.00	81.00
26F564	1775	6.3	.075					.84	5.01	45.09
27F226	1783	2.5	.20	.22	500	3/4	T-1	.52	3.13	28.17
27F227	1813	14.4	.10	.86	1000		T-3/4	.24	1.45	13.05
27F228	1815	14	.20	1.4	3000		T-3/4	.19	1.16	10.44
27F229	1816	13	.33	3.0	1000	6	T-3/4	.23	1.38	12.42
27F230	1819	28	.04	.34	1000	6	T-3/4	.35	2.07	18.63
27F231	1820	28	.10	1.6	1000	6	T-3/4	.31	1.84	16.56
27F232	1821	28	.17	1.6	500	5	T-3/4	.63	3.77	33.93
27F233	1822	36	.10	2.5	1000	6	T-3/4	.58	3.48	31.32
27F234	1828	37.5	.05	.65	L	6	T-3/4	.63	3.77	33.93
27F235	1829	28	.075	1.0	1000	6	T-3/4	.34	2.03	18.27
27F236	1847	6.3	.15	.38	2000	6	T-3/4	.17	1.06	9.54
27F237	1850	5	.09	.25	1500	6	T-3/4	.24	1.45	13.05
27F238	1855	6.3	.80	3.6	3000	6	T-4 1/2	.34	1.89	17.01
26F570	1854	10.0	.015					1.35	8.25	74.25
27F239	1866	6.3	.25	.65	20000	6	T-3/4	.21	1.26	11.34
27F240	1869	10.0	.014	.002	10000	*	T-1 3/4	1.10	6.58	59.22
27F241	1891	14.0	.233	1.8	500	6	T-3/4	.16	.98	8.64
27F242	1892	14.4	.12	.75	1000	6	T-3/4	.24	1.46	13.14
27F243	1893	14.0	.33	2.0	L	6	T-3/4	.20	1.14	10.26
27F244	2102	18.0	.04	.15	1000	*	T-1 3/4	.74	4.40	39.80
27F245	2107	10.0	.04	.08	3000	*	T-1 3/4	1.26	7.53	67.77
27F246	2112	6.3	.20	.55	3000	*	T-1 3/4	.74	4.40	39.80
27F247	2124	2.5	.35		10000	*	GTL-1 3/4	1.92	11.60	104.40
27F248	2136	2.5	.35		10000	*	GTL-1 3/4	3.50	21.50	193.50
27F249	2158	3.0	.015	.002	10000	*	T-1 3/4	3.72	22.16	199.44
27F250	2162	14.0	.088	.50	10000	*	T-1 3/4	.58	3.46	31.14

NEON FLOW LAMPS

Stock No.	Type	V	Watts	Life Hours	Base	Bulb	Ex.	Box of 10
27F251	NE2(A1A)	105-125	1/25	25060+	*	T-2	.10	.80
27F252	NE2D(C7A)	105-125	1/10	5000+	*	T-2	.78	6.24
27F253	NE2H(C2A)	105-125+	1/4	5000+	*	T-2	.11	.88
27F254	NE45(V7A)	110-125	1/4	7500	8	T-4 1/2	.81	6.48
27F255	NE48(V9A)	110-125	1/4	7500	11	T-4 1/2	.67	5.36
27F256	NE51(B1A)	110-125	1/25	15000+	6	T-3/4	.20	1.60
27F257	NE51H(B2A)	110-125+	1/4	5000+	6	T-3/4	.22	1.76
27F258	NE83(S8H)	60-100			*	T-2	.23	1.84

†VDC

STANDARD VOLTAGE LAMPS

Stock No.	Type	V	Watts	Life Hours	Base	Bulb	1-9	10 Each
27F259	3S6/5	120	3	3000	8	S-6	.37	.33
27F260	6S6	115	6	1500	8	S-6	.21	.19
27F261	6S6	145	6	1500	8	S-6	.43	.38
27F262	6S6/DC	120V	6	1500	11	S-6	.31	.28
27F263	6T4 1/2	115-125	6	1500	8	T-4 1/2	.67	.54
27F264	7C7	115-125	7	3000	8	C-7	.21	.19
27F265	10C7	115-125	10		8	C-7	.26	.23
27F266	10C7DC	115-125	10		11	C-7	.28	.25
27F267	10S6/10	230	10	1500	8	S-6	.50	.45

CM7-SERIES BI-PIN LAMPS

Stock No.	Type	Design V.	Amps	Life Hours	Base	Bulb	1-9	10 For	100 For
27F268	CM7-327	28.0	.04	1000	*	T-1 3/4	1.58	9.87	88.33
27F269	CM7-328	6.0	.20	1800	*	T-1 3/4	1.44	9.00	81.00
27F270	CM7-330	14.0	.08	750	*	T-3/4	1.71	10.70	96.30
27F271	CM7-338	2.7	.06	6000	*	T-1 3/4	2.23	14.00	126.00
27F272	CM7-799	3.0	.015	10000	*	T-1 3/4	3.02	19.10	171.90

CM8-SERIES MINIATURE & SUB-MINIATURE LAMPS

Stock No.	Type	Design V	Amps	Life Hours	Base	Bulb	1-9	10 For	100 For
27F273	CM8-60	6.0	5.5	9000	10	RP-11	1.06	6.60	59.40
27F274	CM8-71	6.0	.73	7500	10	G-6	.32	2.10	18.90
27F275	CM8-108	6.15	4.45		*	T-8	7.78	77.80	700.20
27F276	CM8-109	6.0	1.0	1000	10	T-5	6.24	39.00	351.00
27F277	CM8-220	6.3	.33	50	6	TL-2 3/4	4.08	25.50	229.50
27F278	CM8-255	2.75	.32	50	5	T-2 3/4	2.50	15.60	140.40
27F279	CM8-282	3.8	.33		*	SL-3 3/4	3.96	24.80	223.20
27F280	CM8-299	2.5	.35	10000	3	TL-1 3/4	1.67	10.50	94.50
27F281	CM8-308	28.0	.72	300	11	S-8	1.32	8.25	74.25
27F282	CM8-363	28.0	.04		*	TL-1 1/2	.76	4.23	38.07
27F283	CM8-373	2.5	.35	10000	2	TL-1 3/4	2.50	15.20	136.80
27F284	CM8-388	28.0	.04	25000	3	TL-1 3/4	1.42	8.90	80.10
27F285	CM8-428	5.0	.18	3000	7	T-1 3/4	2.23	14.00	126.00
27F286	CM8-374	2.5	.35	10000	*	TL-1 3/4	2.10	12.60	113.40
27F287	CM8-428L	6.0	.22	3000	7	T-1 3/4	2.50	15.60	140.40
27F288	CM8-503	6.3	.35	1000	6	TL-3/4	4.61	28.80	259.20
27F289	CM8-505	6.4	2.6	2000	11	S-8	.92	5.80	52.20
27F290	CM8-506	6.3	1.29	100	11	G-6	2.42	15.20	136.80
27F291	CM8-508	6.3	4.0	2000	*	G-6	5.28	33.00	297.00
27F292	CM8-610	6.3	.20	3000	*	T-1 1/4	.61	3.80	34.20
26F571	CM8-623	28.0	.04	1000	*	T-1 1/4	1.97	12.90	110.70
27F293	CM8-624	28.0	.04	1000	3	T-1 1/4	1.71	10.70	96.30
26F518	CM8-627	28.0	.04	1000	*	T-1 1/4	1.19	7.41	66.69
26F574	CM8-628	6.0	.20	500	7	T-1 1/4	1.55	9.72	87.48
26F577	CM8-631	1.35	.06	1000	7	T-1 3/4	1.32	8.25	74.25
26F581	CM8-634	6.0	.20	500	7	T-1 1/4	.57	3.54	31.86
26F588	CM8-637	3.0	.19	350	7	T-1 1/4	1.85	11.60	104.40
26F589	CM8-640	14.0	.08	1000	*	T-1 1/4	1.32	8.25	74.25
26F605	CM8-661	6.0	.04		*	T-3/4	1.32	8.25	74.25
26F922	CM8-666	5.0	.08	3000	*	T-3/4	1.92	12.00	108.00
26F521	CM8-680	5.0	.06	20000	*	T-1	3.10	18.62	167.58
26F522	CM8-680				*	T-1	3.10	18.62	167.58
26F523	AS15%	5.0	.06	20000	*	T-1	3.59	22.00	196.00
26F524	CM8-682	5.0	.06	20000	1	T-1	3.10	23.17	208.53
26F525	AS15%	5.0	.06	20000	*	T-1	4.37	26.50	238.50
26F526	CM8-683	5.0	.06	10000	*	T-1	3.10	18.62	167.58
26F527	AS15%	5.0	.06	100000	*	T-1	3.59	22.00	196.00
26F528	CM8-685	5.0	.06	100000	1	T-1	3.89	23.17	208.53
26F529	AS15%	5.0	.07	16000	1	T-1	3.20	19.60	176.40
26F530	CM8-713	5.0	.06	10000	1	T-1	4.37	26.50	238.50
26F531	AS15%	5.0	.075	16000	*	T-1	3.59	22.00	196.00
26F532	CM8-714	5.0	.075	16000	1	T-1	4.00	24.40	219.60
26F533	AS15%	5.0	.075	16000	1	T-1	4.37	26.50	238.50
26F534	CM8-715	5.0	.115	4000	*	T-1	3.10	18.62	167.58
27F294	CM8-715F1	5.0	.125	5000	*	T-1	2.74	17.16	153.90
26F535	CM8-718	5.0	.195	4000	1	T-1	3.88	23.17	208.53
26F536	AS15%	5.0	.115	4000	1	T-1	4.37	26.50	238.50
26F537	CM8-725	5.0	.115	16000	1	T-3/4	1.92	12.00	108.00
27F295	CM8-740	3.8	.38	500	1	SL-2 1/2	3.82	28.90	242.10
27F296	CM8-750	6.3	.19		1	TL-2 3/4	3.07	19.20	172.80
27F297	CM8-805	5.0	.06	20000	1	T-1 3/4	1.42	8.90	80.10
27F298	CM8-806	5.0	.06	10000	1	T-1 3/4	1.42	8.90	80.10
27F299	CM8-807	5.0	.115	4000	1	T-1 3/4	2.24	14.00	126.00
27F095	CM8-820	5.0	.060	5000	1	T-3/4	1.92	12.00	108.00
27F096	CM8-825	5.0	.060	7500	1	T-3/4	1.92	12.00	108.00
27F097	CM8-826	2.5	.40	30	1	T-1 1/4	3.91	24.50	220.50
27F099	CM8-967	11.0	.02	5000	6	T-2	.45	4.30	38.70

*Not Illustrated.

DIALCO Datalites

ULTRA-MINIATURE INDICATOR LIGHTS



Ideal for data-processing equipment, computers and automation applications. All units fully insulated. Conform to applicable military specifications. Lamp Cartridges consist of unbased NE-2E Neon Lamps or T-1 $\frac{3}{4}$ wire-lead incandescent Lamps, mounted in aluminum sleeves and capped with plastic lenses.

Connections are brought out as stainless steel pins mounted in nylon insulation and offset to provide polarization. Datalites with permanent NE-2 Series Neon Glow Lamps are designed for use where lamp replacement is not necessary. Legends can be hot-stamped on the flat front surfaces of the cylindrical lenses.

See below for listing of Dialco Holders

(A-B) NEON GLOW

The NE-2E Neon Glow Lamp has formed tip and double length electrodes; 1/25 watt; starting voltage of 65 AC and 90 DC. Use 100K ohm resistor for 105 to 125 volts. Overall size of lamp cartridge, 1 $\frac{1}{8}$ " x $\frac{3}{16}$ ". Ave. Shpg. Wt., 1 oz.

(A) STOVEPIPE TRANSPARENT NEON CARTRIDGES

Stk. No.	Type	Lens Color	1-99	100-299
25F1100	507-3835-0931-600	Red	.86	.62
25F1101	507-3835-0933-600	Amber	.86	.62
25F1102	507-3835-0935-600	White	.86	.62
25F1103	507-3835-0936-600	Lt. Yel.	.86	.62
25F1104	507-3835-0937-600	Clear	.86	.62

As above, but with NE-2H High Brightness Lamp.

25F1229	507-3836-0931-600	Red	.86	.62
25F1230	507-3836-0933-600	Amber	.86	.62
25F1231	507-3836-0935-600	White	.86	.62
25F1232	507-3836-0936-600	Lt. Yel.	.86	.62
25F1233	507-3836-0937-600	Clear	.86	.62

(B) LONG CYLINDRICAL NEON GLOW LAMP CARTRIDGES

25F1105	507-3835-1531-600	Red	.86	.62
25F1106	507-3835-1533-600	Amber	.86	.62
25F1107	507-3835-1535-600	White	.86	.62
25F1108	507-3835-1536-600	Lt. Yel.	.86	.62
25F1109	507-3835-1537-600	Clear	.86	.62

As above, but with NE-2H High Brightness Lamp.

25F1234	507-3836-1531-600	Red	.86	.62
25F1235	507-3836-1533-600	Amber	.86	.62
25F1236	507-3836-1535-600	White	.86	.62
25F1237	507-3836-1536-600	Lt. Yel.	.86	.62
25F1238	507-3836-1537-600	Clear	.86	.62

(D) STOVEPIPE INCANDESCENT LAMP CARTRIDGES (TRANSLUCENT) (Continued)

With Long Life Bulb. (6.3 -Volt, 0.2-Amp.)

Stk. No.	Type	Lens Color	1-99	100-299
25F1235	507-3909-0971-600	Red	1.27	.98
25F1240	507-3909-0972-600	Green	1.27	.98
25F1241	507-3909-0973-600	Amber	1.27	.98
25F1242	507-3909-0974-600	Blue	1.27	.98
25F1243	507-3909-0975-600	White	1.27	.98
25F1244	507-3909-0976-600	Lt. Yel.	1.27	.98

(14-Volt, 0.08-Amp.)

25F1116	507-3913-0971-600	Red	1.17	.89
25F1117	507-3913-0972-600	Green	1.17	.89
25F1118	507-3913-0973-600	Amber	1.17	.89
25F1119	507-3913-0974-600	Blue	1.17	.89
25F1120	507-3913-0975-600	White	1.17	.89
25F1121	507-3913-0976-600	Lt. Yel.	1.17	.89

As above, but with Long Life Bulb of approximately 50,000 hours.

25F1245	507-3914-0971-600	Red	1.27	.98
25F1246	507-3914-0972-600	Green	1.27	.98
25F1247	507-3914-0973-600	Amber	1.27	.98
25F1248	507-3914-0974-600	Blue	1.27	.98
25F1249	507-3914-0975-600	White	1.27	.98
25F1250	507-3914-0976-600	Lt. Yel.	1.27	.98

(28-Volt, 0.04 Amp.)

25F1122	507-3917-0971-600	Red	1.17	.89
25F1123	507-3917-0972-600	Green	1.17	.89
25F1124	507-3917-0973-600	Amber	1.17	.89
25F1125	507-3917-0974-600	Blue	1.17	.89
25F1126	507-3917-0975-600	White	1.17	.89
25F1127	507-3917-0976-600	Lt. Yel.	1.17	.89

(A-C) LAMP CARTRIDGES

For Twin Lamp & Single Lamp Holder. NE-2E Neon Lamps or T-1 $\frac{3}{4}$ wire-lead incandescent Lamps, in alum. sleeves with plastic lenses. Connections - stainless steel pins in nylon insul. and offset to provide polarization.

(C) SHORT CYLINDRICAL INCANDESCENT LAMP CARTRIDGES (6-Volt, 0.2-Amp.)

Stk. No.	Type	Lens Color	1-99	100-299
25F1128	507-3906-1471-600	Red	1.17	.89
25F1129	507-3906-1472-600	Green	1.17	.89
25F1130	507-3906-1473-600	Amber	1.17	.89

(C) SHORT CYLINDRICAL INCANDESCENT LAMP CARTRIDGES (Continued)

Stk. No.	Type	Lens Color	1-99	100-299
25F1131	507-3906-1474-600	Blue	1.17	.89
25F1132	507-3906-1475-600	White	1.17	.89
25F1133	507-3906-1476-600	Lt. Yel.	1.17	.89

(14-Volt, 0.08-Amp.)

25F1134	507-3913-1471-600	Red	1.17	.89
25F1135	507-3913-1472-600	Green	1.17	.89
25F1136	507-3913-1473-600	Amber	1.17	.89
25F1137	507-3913-1474-600	Blue	1.17	.89
25F1138	507-3913-1475-600	White	1.17	.89
25F1139	507-3913-1476-600	Lt. Yel.	1.17	.89

(28-Volt, 0.04 Amp.)

25F1140	507-3917-1471-600	Red	1.17	.89
25F1141	507-3917-1472-600	Green	1.17	.89
25F1142	507-3917-1473-600	Amber	1.17	.89
25F1143	507-3917-1474-600	Blue	1.17	.89
25F1144	507-3917-1475-600	White	1.17	.89
25F1145	507-3917-1476-600	Lt. Yel.	1.17	.89

NEON CARTRIDGES

Has BUILT-IN RESISTOR (1/10 watt). For the 507-4537, the resistance value is 56,000 ohms for use on 105-125 volts AC or DC. For the 507-4538 (High Brightness), the resistance value is 22,000 ohms for use on 110-125 volts AC.

Type 507-4537. With built-in 56K resistor for 105-125 volts, AC or DC. *Colorless

Fig. A. Stovepipe

Stock No.	Type	Stock No.	Type	Lens Color
25F1180	-0931-640	25F1185	-1531-640	Red
25F1181	-0933-640	25F1186	-1533-640	Amber
25F1182	-0935-640	25F1187	-1535-640	White
25F1183	-0936-640	25F1188	-1536-640	Lt. Yel.
25F1184	-0937-640	25F1189	-1537-640	Clear*

Fig. B Long Cyl.

Type 507-4538. With built-in 22K resistor for 110-125 volts AC.

Fig. A. Stovepipe

Stock No.	Type	Stock No.	Type	Lens Color
25F1190	-0931-610	25F1195	-1531-610	Red
25F1191	0933-610	25F1196	-1533-610	Amber
25F1192	0935-610	25F1197	-1535-610	White
25F1193	0936-610	25F1198	-1536-610	Lt. Yel.
25F1194	0937-610	25F1199	-1537-610	Clear*

1-99 1.14 100-29991

CARTRIDGE CONNECTORS

For use with above cartridges

Type 515-0050. Molded phenolic; solder lug terminals are of beryllium copper, cadmium plated, with elongated slots.

Stk. No.	Type	Ea.
25F1251	515-0050	.15

Type 515-0012. Sleeve of aluminum with black anodized finish. Insulation of black molded phenolic. Solder cup terminals of phosphor bronze, gold plated.

Stk. No.	Type	Ea.	100-299
25F1252	515-0012	.62	.50

DATALITE HOLDERS



SINGLE LAMP HOLDER

Compact. Two terminals insulated, marked, and offset for correct polarity when replacing lamps in DC circuits. Shown, lamp holder less cartridge. 1 $\frac{1}{2}$ " x $\frac{1}{2}$ " overall, less lamp. 1 $\frac{1}{8}$ " long with lamp. Mounting hardware. 2 oz. *with turret terminals.

Stock No.	Type No.	1-99	100-299
25F1167	508-7538-504	1.22	.93
25F1291	508-8738-504*		

SINGLE LAMP HOLDER

Similar to 508-7538-504 but is $\frac{1}{8}$ " longer to accommodate the new Neon Cartridges 4537 & 4538. *with turret terminals.

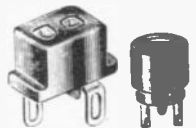
Stock No.	Type No.	1-99	100-299
25F1290	508-7545-504	1.22	.93
25F1292	508-8745-504*		

SPRING CLIP

Effective when conventional mounting is not practical. For all Dialco Plug-in Neon and Incandescent Lamp Cartridges. Self-retaining. Of tubular heat treated spring steel. For use with above cartridges.



Stock No.	Type	Each
25F1253	515-0051	.05



515-0050 515-0012

TWIN LAMP ASSEMBLY

No. 253-6939-1437-504. Compact dual unit housing 2 Dialco lamp cartridges. Mounts in $\frac{3}{4}$ " clearance hole. Conform. to mil specs. Permits independent operation of each lamp. Indicates 4 possible conditions, or lamps can be parallel wired. Cartridges replace from front. Clear plastic lens. Less cartridge.

Stock No.	Type No.	1-99	100-299
25F1166	253-6939-1437-504	3.30	2.55

No. 253-6939-1435-504. Dual unit housing 2 Dialco Lamp Cartridges. Similar to 253-6939-1437, above. White lens. 1 $\frac{3}{4}$ " x $\frac{7}{8}$ "

Stock No.	Type No.	1-99	100-299
25F1254	253-6939-1435-504	3.30	2.55

Sub-Minature Lights **DIALCO**

DATALITES WITH PERMANENT NEON LAMPS

Lamps are built-in—not replaceable. Units mount in $\frac{3}{8}$ " clearance hole.

Built-in: a rugged, long-life NE-2E Neon Glow Lamp with formed tip and double length electrodes—1/25 watt, starting voltage of 65 AC and 90 DC. (*) With built in resistor of 100,000 ohms for 105-125 V. service. Resistors to Mil-R-11 spec.

Lightweight construction of aluminum, black anodized finish. Plastic lenses give wide angle visibility. 2 insulated terminals of low carbon steel, solder plating. With mounting hardware.

Conform to military specifications (Mil-L-3661)



Stovepipe: Without Built-In Resistor
($1\frac{1}{2} \times \frac{1}{2}$ " Overall; $1\frac{1}{2}$ Oz. Shpg. Wt.)

Stock No.	Type	Lens	1-99	100-299
25F1146	249-7840-0931-504	Red	1.07	.79
25F1147	249-7840-0933-504	Amber	1.07	.79
25F1148	249-7840-0935-504	White	1.07	.79
25F1149	249-7840-0936-504	Lt. Yellow	1.07	.79
25F1150	249-7840-0937-504	Clear	1.07	.79

(*) With Built-In 100-K Resistor
($1\frac{1}{2} \times \frac{1}{2}$ " Overall; 2 Oz. Shpg. Wt.)

Stock No.	Type	Lens	1-99	100-299
25F1151	249-7841-0931-574	Red	1.34	1.02
25F1152	249-7841-0933-574	Amber	1.34	1.02
25F1153	249-7841-0935-574	White	1.34	1.02
25F1154	249-7841-0936-574	Lt. Yellow	1.34	1.02
25F1155	249-7841-0937-574	Clear	1.34	1.02

GREEN or BLUE LENSES are not recommended for use with Neon lamps.

Short Cylindrical: Without Built-In Resistor
($1\frac{1}{2} \times \frac{1}{2}$ " Overall; $1\frac{1}{2}$ Oz. Shpg. Wt.)



Stock No.	Type	Lens	1-99	100-299
25F1156	249-7840-1431-504	Red	1.07	.79
25F1157	249-7840-1433-504	Amber	1.07	.79
25F1158	249-7840-1435-504	White	1.07	.79
25F1159	249-7840-1436-504	Lt. Yellow	1.07	.79
25F1160	249-7840-1437-504	Clear	1.07	.79

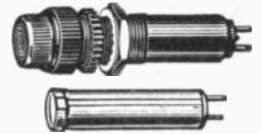
(*) With Built-In 100-K Resistor
($1\frac{1}{2} \times \frac{1}{2}$ " Overall; 2 Oz. Shpg. Wt.)

Stock No.	Type	Lens	1-99	100-299
25F1161	249-7841-1431-574	Red	1.34	1.02
25F1162	249-7841-1433-574	Amber	1.34	1.02
25F1163	249-7841-1435-574	White	1.34	1.02
25F1164	249-7841-1436-574	Lt. Yellow	1.34	1.02
25F1165	249-7841-1437-574	Clear	1.34	1.02

SERIES 257 INCANDESCENT DATALITE ASSEMBLY

Complete indicator assembly. Takes the lamp cartridge illustrated, available in voltages from 6V to 60V. Polycarbonate lens with matted back. Cartridge fits into assembly leaving slots to permit easy removal. Unit designed for insertion from the rear of the panel in a $\frac{3}{8}$ " clearance hole. Comes with screw-on "Data

Cap" for high light transmission. Transparent lenses available in 6 colors. Terminals phosphor bronze, gold plated. Max. dim. .2022" L. x .515" dia.



COMPLETE ASSEMBLIES

Stock No.	Data Cap Lens Color	Solder Cup Terminals	1-99	100-299
60F1216	Red	257-7558-3331-504	1.49	1.13
60F1217	Green	257-7558-3332-504		
60F1218	Amber	257-7558-3333-504		
60F1219	Blue	257-7558-3334-504		
60F1220	White	257-7558-3335-504		
60F1221	Clear	257-7558-3337-504		

Stock No.	Data Cap Lens Color	Turret Terminals	1-99	100-299
60F1222	Red	257-8758-3331-504	1.49	1.13
60F1223	Green	257-8758-3332-504		
60F1224	Amber	257-8758-3333-504		
60F1225	Blue	257-8758-3334-504		
60F1226	White	257-8758-3335-504		
60F1227	Clear	257-8758-3337-504		

DATALAMP CARTRIDGE FOR ABOVE

Stk. No.	Type*	Volts	1-99	100-299
60F1228	507-5819-0747-600	6	1.09	.97
60F1229	507-5820-0747-600	12		
60F1230	507-5821-0747-600	28		

Stk. No.	Type*	Volts	1-99	100-299
60F1231	507-5822-0747-600	48	1.09	.97
60F1232	507-5823-0747-600	60	1.09	.97

*Lens color: Clear (Colorless) Lens with matted back.

SUB-SUB MINIATURE INDICATOR LIGHTS MS25446

High reliability T-1 filament lamp in high impact plastic cap. Molded to mounting bushing. Dustproof, moistureproof. Anti-rotation construction. Flexible 6" Type E wire leads. .193" panel mounting hole clearance. Lens cap dia. $\frac{3}{32}$ " $\frac{9}{32}$ " long. Lamp rating: 5.0 volt at .06 amps. 60,000 hr. of life. 6.3 volts, .07 amps. 6000 hrs. Sealed unit, non-replaceable lamp.



Lens	Stock No.	Type No.	Mil. Spec.	1-9	10-24	25-99
Blue	25F1293	252-9951-0974	25446-2	2.96	2.77	2.58
Green	25F1294	252-9951-0972	25446-3			
Red	25F1295	252-9951-0971	25446-4			
White	25F1296	252-9951-0975	25446-5			
Amber	25F1297	252-9951-0973	25446-6			
Clear	25F1298	252-9951-0937	25446-7			

1 TERMINAL LIGHT SHIELD ASSEMBLY SUB-MINIATURE FOR DIALS, INSTRUMENTS, CONTROL PANELS

Mtg. hole $1\frac{1}{2}$ " d. Opening is $\frac{1}{4} \times \frac{3}{16}$ ". Shpg. wt. $1\frac{1}{2}$ oz. Same features as the 2-terminal assemblies except for use on grounded circuits and with either soldering or binding screw terminal. Molded phenolic insulation material of military specification grade. Meets MIL-SPEC. MIL-L-7806A. Uses T-1 $\frac{1}{2}$ lamp. Black nickel finish. Overall size, approx. $1\frac{1}{4} \times \frac{1}{2}$ ". unscrews for bulb replacement. With lockwasher and nut. Less lamp. Shpg. wt., $1\frac{1}{2}$ ozs. *Translucent unfrosted.



Stk. No.	Mtg. No.	Description	1-9	10-24	25-99
25F910A	4-1930-2900-201	Blk Nkl. Solder Term	1.61	1.49	1.39
25F911A	4-1830-2900-201	Blk Nkl. Screw Term	1.61	1.49	1.39
25F911B	4-1830-2900-301	Chrome. Screw Term	1.88	1.74	1.62
25F910B	4-1930-2900-301	Chrome. Solder Term	1.88	1.74	1.62

2-TERMINAL DIMMER TYPES—SUB-MIN. MECHANICAL OR POLAROID

Conforms to all applicable MIL specifications. Polaroid: produces some reduced intensity at all settings but gives full diameter opening. Mechanical: varies opening size to complete blackout or has permanent small opening as in "semi-blackout" type. Complete with lockwasher and nut; use T-1 $\frac{1}{2}$ lamp. Less lamps. Shpg. wt. $1\frac{1}{2}$ ozs. All frosted on back except *Translucent unfrosted. Mounts in $1\frac{1}{2}$ " dia. hole.



Semi-Blackout					
Lens Color	No.	Type No.	1-9	10-24	25-99
Red	25F582	109-3830-0111-201	2.15	2.02	1.89
Green	25F583	109-3830-0112-201			
Amber	25F584	109-3830-0113-201			
Blue	25F585	109-3830-0114-201			
White*	25F586	109-3830-0115-201			
Yellow	25F587	109-3830-0116-201			
Clear	25F588	109-3830-0117-201			

Complete Blackout					
Lens Color	No.	Type No.	1-9	10-24	25-99
Red	25F575	108-3830-0111-201	2.15	2.02	1.89
Green	25F576	108-3830-0112-201			
Amber	25F577	108-3830-0113-201			
Blue	25F578	108-3830-0114-201			
White*	25F579	108-3830-0115-201			
Yellow	25F580	108-3830-0116-201			
Clear	25F581	108-3830-0117-201			

Polaroid					
Lens Color	No.	Type No.	1-9	10-24	25-99
Red	25F589	112-3830-0111-201	2.09	1.97	1.85
Green	25F590	112-3830-0112-201			
Amber	25F591	112-3830-0113-201			
Blue	25F592	112-3830-0114-201			
White*	25F593	112-3830-0115-201			
Yellow	25F594	112-3830-0116-201			
Clear	25F595	112-3830-0117-201			

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NEWARK 493

DIALCO® Sub-Miniature Lights



SUB-MINIATURE PILOT LIGHTS TWO TERMINALS—FULLY INSULATED

Conform to all applicable Military Specs. Overall average length approx. 1 1/4". Use tiny T-1 3/4 bulbs; voltages from 1.35 to 28. Lamp replaceable from front of panel. For either front or back mounting (Figs. A-1 & C-1) through a 1 5/32" clearance hole; or front panel mounting (Fig. B-1) through a 1 1/2" clearance hole. Units are ideal for every miniaturization use, civilian or military. Caps unscrew from face of panel, and replacement of lamp is easy and rapid. The stovepipe style (dome) lens is made from high heat plastic and affords 180° visibility of light. Positive insulation is assured—lamp, socket, and all connections are completely insulated from the bushing and panel. Phenolic material of military specification grade. Ruggedly made of brass with standard finish of black-nickel. Will withstand usual vibration and corrosion tests. Terminals are brass, hot-tinned with elongated slot. Size range, average, approx. 1/2x1 1/4". Comes with lockwasher and nut. Less lamp Shpg. wt. 1 1/2 oz.

Fig. B-1 FRONT MOUNTING, TYPE 101-5030

Stock No.	Lens Color	Trans-parent	Stock No.	Trans-lucent	1-9	10-24	25-99
25F1255	Red	0931-201	25F562	0971-201	1.26	1.17	1.08
25F1256	Green	0932-201	25F563	0972-201			
25F1257	Amber	0933-201	25F564	0973-201			
25F1258	Blue	0934-201	25F565	0974-201			
25F1259	White	0935-201	25F566	0975-201			
25F1260	Yellow	0936-201	25F567	0976-201			
25F1261	Clear	0937-201					

Fig. A-1 FRONT OR BACK MTG., TYPE 101-3830

Stock No.	Lens Color	Trans-parent	Stock No.	Trans-lucent	1-9	10-24	25-99
25F1262	Red	0931-201	25F558	0971-201	1.26	1.17	1.08
25F1263	Green	0932-201	25F557	0972-201			
25F1264	Amber	0933-201	25F558	0973-201			
25F1265	Blue	0934-201	25F559	0974-201			
25F1266	White	0935-201	25F560	0975-201			
25F1267	Yellow	0936-201	25F561	0976-201			
25F1268	Clear	0937-201					

HOLDER FOR ABOVE BACK MOUNTING TYPES

Stk. No.	Type	1-9	10-24	25-99
25F1228	101-3830-09-201	1.01	.94	.87

LENS CAP FOR HOLDER 101-3830-09-201

Lens	TRANSLUCENT		TRANSPARENT		1-9	10-24	25-99
	Stk. No.	Mfg. No.	Stk. No.	Mfg. No.			
Red	25F1269	101-0971	25F1588	101-0931	.25	.23	.21
Green	25F1270	101-0972	25F1589	101-0932	.25	.23	.21
Amber	25F1271	101-0973	25F1590	101-0933	.25	.23	.21
Blue	25F1272	101-0974	25F1591	101-0934	.25	.23	.21
White	25F1273	101-0975	25F1592	101-0935	.25	.23	.21
Yellow	25F1274	101-0976	25F1593	101-0936	.25	.23	.21

Fig. C-1—FROSTED BACK With Convex Lens
Complete with internal tooth lockwasher and nut. Less lamp. Shpg. wt., 1 1/2 oz. Mounts in 1 5/32" hole. Non-dimming. *Trans-lucent unrotated.

Lens Color	Stk. No.	Mfg. No.	1-9	10-24	25-99
Red	25F568	111-3830-0111-201	1.63	1.53	1.43
Green	25F569	111-3830-0112-201			
Amber	25F570	111-3830-0113-201			
Blue	25F571	111-3830-0114-201			
White*	25F572	111-3830-0115-201			
Yellow	25F573	111-3830-0116-201			
Clear	25F574	111-3830-0117-201			

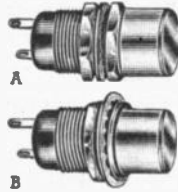
INCANDESCENT SUB-MINIATURES MS 25256
Similar to MS25257 except it uses T-1 3/4 incandescent lamps of 1.35 to 28 v. Overall unit size: 1 3/8" x 5/8" Shipping weight, 1 1/2 oz. Less lamp.

Stock No.	Type No.	Mil. Std. Dwg. No.	Len Color	1-9	10-24	25-99
25F1203	162-8430-0933-502	MS25256-2	Aviat. Yel.	1.21	1.13	1.05
25F1204	162-8430-0932-502	MS25256-4	Aviat. Green	1.21	1.13	1.05
25F1205	162-8430-0931-502	MS25256-6	Ident. Red	1.21	1.13	1.05
25F1206	162-8430-0937-502	MS25256-8	Aviat. White	1.21	1.13	1.05
25F1207	162-8430-0975-502	MS25256-10	Transl White	1.21	1.13	1.05
25F1208	162-8430-0934-502	MS25256-12	Aviation Blue	1.21	1.13	1.05

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SERIES 140 INDICATOR LIGHTS



Subminiature indicator lights with high heat cylindrical plastic lens. Affords all-angle visibility. Two fully insulated solder terminals. Units conform to all applicable Military Specifications. Phenolic insulation. Use T-1 3/4 lamps. Less lamp.

(A) Series 140-5030: Mounts from front of panel in 1 5/32" clearance hole.

(B) Series 140-3830: Mounts from front or back of panel in 1 1/2" clearance hole.

FRONT MOUNTING, TYPE 140-5030

Stk. No.	Len Color	Trans-parent	Stk. No.	Trans-lucent	1-9	10-24	25-99
25F1462	Red	1431-201	25F1450	1471-201	1.26	1.17	1.08
25F1463	Green	1432-201	25F1451	1472-201			
25F1464	Amber	1433-201	25F1452	1473-201			
25F1465	Blue	1434-201	25F1453	1474-201			
25F1466	White	1435-201	25F1454	1475-201			
25F1467	Yellow	1436-201	25F1455	1476-201			
25F1468	Clear	1437-201					

FRONT OR BACK MOUNTING, TYPE 140-3830

Stk. No.	Len Color	Trans-parent	Stk. No.	Trans-lucent	1-9	10-24	25-99
25F1469	Red	1431-201	25F1456	1471-201	1.26	1.17	1.08
25F1470	Green	1432-201	25F1457	1472-201			
25F1471	Amber	1433-201	25F1458	1473-201			
25F1472	Blue	1434-201	25F1459	1474-201			
25F1473	White	1435-201	25F1460	1475-201			
25F1474	Yellow	1436-201	25F1461	1476-201			
25F1475	Clear	1437-201					

NEON SUB-MINIATURES MS25257



Uses tiny T-2 Neon Glow Lamp (designated as NE-2J). Since Neon lamps require a resistor to limit the lamp current, in Dialco assemblies the resistor is BUILT-IN as an integral part of the unit (a patented feature—U.S. Pat. No. 2,421,321). For use on 105-125 volts AC or DC with high heat plastic. Stovepipe lens is molded of high heat plastic, gives 180° lens spread. Shank of lens holder is crimped in 3 evenly spaced places to

secure the lamp. Lens holder unscrews from front of panel for easy replacement of lamp. An anti-rotation notch on the face of the flange prevents rotation of unit while mounting nut is being tightened. Mounting bushing is aluminum with black anodize finish. Steel internal-tooth lockwasher and hex mounting nut are cadmium plated and coated with iridite. Terminals are brass, hot-tinned, with elongated slots. Less lamp. Size 1 1/2 x 3/8". Shpg. wt. 2 oz.

Stock No.	Type No.	Mil. Std. Dwg. No.	Len Color	1-9	10-24	25-99
25F1200	137-8836-0933-552	MS25257-2	Aviat. Yel.	2.02	1.88	1.74
25F1201	137-8836-0931-552	MS25257-4	Ident. Red	2.02	1.88	1.74
25F1202	137-8836-0937-552	MS25257-6	Clear	2.02	1.88	1.74

SERIES 137-8864

For bright light when used with NE-2J on 110-125 VAC 22-K res.

Stock No.	Type No.	Color	1-9	10-24	25-99
25F1275	137-8864-0931-512	Red	2.02	1.88	1.74
25F1276	137-8864-0933-512	Amber			
25F1277	137-8864-0935-512	White			
25F1278	137-8864-0937-512	Clear			

SERIES 137-8864

Same as above. except 33K resistor, 25,000 hour lamp life, 110-125 VAC.

Stk. No.	Type No.	Len Color	1-9	10-24	25-99
25F1279	137-8864-0931-532	Red	2.02	1.88	1.74
25F1280	137-8864-0933-532	Amber			
25F1281	137-8864-0935-532	White			
25F1282	137-8864-0937-532	Clear			

SERIES 181-8836

Same as 137-8836 Series, except with retained "O" ring seal, water-tight construction. With 62K resistor.

Stock No.	Type No.	Color	1-9	10-24	25-99
25F1283	181-8836-0931-553	Red	2.46	2.30	2.14
25F1284	181-8836-0933-553	Amber			
25F1285	181-8836-0935-553	White			
25F1286	181-8836-0937-553	Clear			

SERIES 181-8864

Same as 137-8864 Series except with retained "O" ring seal, water-tight construction. With 22K resistor.

Stk. No.	Type No.	Color	1-9	10-24	25-99
25F1287	181-8864-0931-513	Red	2.46	2.30	2.14
25F1288	181-8864-0933-513	Amber			
25F1289	181-8864-0935-513	White			
25F1290	181-8864-0937-513	Clear			

Indicator Lights **DIALCO**

HALF-INCH ENCLOSED INDICATOR LIGHT

Meets Mil Specs

Series 81-0410. (With Soldering Lug) . . . and Series 81-1310 (With Screw Terminals). Newly designed aviation type. Socket shell encased in moulded phenolic of Mil-M-14 grade. Ideal for use under severe conditions. Smooth faced jewels in 1/2" brass holder with black nickel finish. For T-3/4 lamp, removable from front of unit. 2 1/2" long, mounts in 1 1/8" hole in panels up to 3/8" thick. Less lamp. Shpg. wt. 3 ozs.



NEON INDICATOR LIGHTS WITH BUILT-IN RESISTORS

Series 52-0408 differs from series 95-0408 only in the lens, which is an internally fluted stovepipe rather than a plain stovepipe. FOR NE-51 NEON LAMP 52-0408, 95-0408 (lugs), and 52-1308, 95-1308 (screws). 56K ohm, 1/2 watt built-in resistor. 105-125V. AC-DC. FOR NE-51H HIGH BRIGHTNESS NEON LAMP: 52-0463, 95-0463 (lugs) and 52-1363, 95-1363 (screws). 22K ohms resistor, built-in. 110-125 V. AC. Assemblies 2 1/8" L., mount in 1 1/8" clearance hole. Meet Mil-L-3661. Assemblies supplied less lamps.



Lens Color	Stk. No.	Type (Lug)			Stk. No.	Type (Screw)		
		1-9	10-24	25-99		1-9	10-24	25-99
Red	25F1095	81-0410-0111-201			25F1042	81-1310-0111-201		
Green	25F1096	81-0410-0112-201			25F1043	81-1310-0112-201		
Amber	25F1097	81-0410-0113-201			25F1044	81-1310-0113-201		
Blue	25F1098	81-0410-0114-201			25F1045	81-1310-0114-201		
White	25F1099	81-0410-0135-201			25F1046	81-1310-0135-201		
Yellow	25F1040	81-0410-0116-201			25F1047	81-1310-0116-201		
Clear	25F1041	81-0410-0117-201			25F1048	81-1310-0117-201		

As above, but with plastic stovepipe lens.

Lens Color	Stock No.	Type (Lug)			Stock No.	Type (Screws)		
		1-9	10-24	25-99		1-9	10-24	25-99
Red	25F1020	95-0410-0931-201			25F1027	95-1310-0931-201		
Green	25F1021	95-0410-0932-201			25F1028	95-1310-0932-201		
Amber	25F1022	95-0410-0933-201			25F1029	95-1310-0933-201		
Blue	25F1023	95-0410-0934-201			25F1030	95-1310-0934-201		
White	25F1024	95-0410-0935-201			25F1031	95-1310-0935-201		
Yellow	25F1025	95-0410-0936-201			25F1032	95-1310-0936-201		
Clear	25F1026	95-0410-0937-201			25F1033	95-1310-0937-201		

LOW VOLTAGE ENCLOSED SIGNAL ASSEMBLIES

Signal assemblies in 1/2" white nickel-plated brass holders. Use T-3/4 bayonet base lamp, replaceable from front. 2 1/4" long; requires 1 1/8" mtg. hole. For panels up to 3/8" thick. Less lamp.



Lens Color	Stk. No.	Type No. (Lugs)	Type (Screws)		
			1-9	10-24	25-99
Red	25F1075	81-9110-0111-102	.82	.77	.72
Green	25F1076	81-9110-0112-102			
Amber	25F1077	81-9110-0113-102			
White	25F1078	81-9110-0135-102			
Blue	25F1079	81-9110-0114-102			

SMOOTH LENS

Lens Color	Stk. No.	Type No. (Lugs)	Type (Screws)		
			1-9	10-24	25-99
Red	25F1492	81-9110-0431-102	.82	.77	.72
Green	25F1493	81-9110-0432-102			
Amber	25F1494	81-9110-0433-102			
Blue	25F1495	81-9110-0434-102			
White	25F1496	81-9110-0435-102			
Lt. Yel.	25F1497	81-9110-0436-102			
Clear	25F1498	81-9110-0437-102			

FOR T-3/4 LAMPS. WITHOUT INTEGRAL RESISTOR.

Like assembly shown on right but less resistor for applications in which low voltage, T-3/4 min. bayonet base lamps are needed.

Lens	Stk. No.	Type (Lugs)	Type (Screws)		
			1-9	10-24	25-99
Red	25F1060	95-9110-0931-102	.73	.69	.65
Green	25F1061	95-9110-0932-102	.73	.69	.65
Amber	25F1062	95-9110-0933-102	.73	.69	.65
Blue	25F1063	95-9110-0934-102	.73	.69	.65
White	25F1064	95-9110-0935-102	.73	.69	.65
Yellow	25F1065	95-9110-0936-102	.73	.69	.65
Clear	25F1066	95-9110-0937-102	.73	.69	.65

PLAIN STOVEPIPE LENS CAPS FOR Series 52-0408, 52-0463, 52-1708, 52-1763

Lens	Stock No.	Type No.	Type (Screws)		
			1-9	10-24	25-99
Red	25F466	95-0931	.19	.18	.17
Green	25F465	95-0932			
Amber	25F467	95-0933			
Blue	25F474	95-0934			

FOR NE-51 LAMP Fluted Stovepipe Lens

Stk. No.	Type (Lugs)	Stk. No.	Type (Screws)	Lens
25F1476	52-0408-0991-241	25F1484	52-1308-0991-241	Red
25F1477	52-0408-0993-241	25F1485	52-1308-0993-241	Amber
25F1478	52-0408-0995-241	25F1486	52-1308-0995-241	White
25F1479	52-0408-0997-241	25F1487	52-1308-0997-241	Clear

Plain Stovepipe Lens

Stk. No.	Type (Lugs)	Stk. No.	Type (Screws)	Lens
25F1010	95-0408-0931-241	25F1014	95-1308-0931-241	Red
25F1011	95-0408-0933-241	25F1015	95-1308-0933-241	Amber
25F1012	95-0408-0935-241	25F1016	95-1308-0935-241	White
25F1013	95-0408-0937-241	25F1017	95-1308-0937-241	Clear

FOR NE-51H HIGH BRIGHTNESS LAMP Fluted Stovepipe Lens

Stk. No.	Type (Lugs)	Stk. No.	Type (Screws)	Lens
25F1480	52-0463-0991-211	25F1488	52-1363-0991-211	Red
25F1481	52-0463-0993-211	25F1489	52-1363-0993-211	Amber
25F1482	52-0463-0995-211	25F1490	52-1363-0995-211	White
25F1483	52-0463-0997-211	25F1491	52-1363-0997-211	Clear

Plain Stovepipe Lens

Stk. No.	Type (Lugs)	Stk. No.	Type (Screws)	Lens
25F1085	95-0463-0931-211	25F1089	95-1363-0931-211	Red
25F1086	95-0463-0933-211	25F1090	95-1363-0933-211	Amber
25F1087	95-0463-0935-211	25F1091	95-1363-0935-211	White
25F1088	95-0463-0937-211	25F1092	95-1363-0937-211	Clear

Enclosed neon pilot light assemblies now available in two types: (1) With built in 56,000 ohm resistor for NE-51 105-125V. AC or DC, or (2) With built-in resistor of 22K for use with NE-51H high brightness neon glow lamp 110 125V. AC. Green and blue lenses not recommended for use with neon lamps. Plastic lens phenolic body. 2 1/8" long, 1 1/8" mtg. hole. Less lamp. UL approved. Shpg. wt., 3 oz.

FOR NE-51 LAMP. INTEGRAL RESISTOR

Stk. No.	Type (lugs)	Lens Color	Type (Screws)		
			1-9	10-24	25-99
25F1050	95-9108-0931-142	Red	.87	.82	.77
25F1051	95-9108-0933-142	Amber	.87	.82	.77
25F1052	95-9108-0935-142	White	.87	.82	.77
25F1053	95-9108-0937-142	Clear	.87	.82	.77

FOR NE-51H HIGH BRIGHTNESS LAMP. INTEGRAL RESISTOR.

Stk. No.	Type (lugs)	Lens Color	Type (Screws)		
			1-9	10-24	25-99
25F1170	95-9163-0931-112	Red	.87	.82	.77
25F1171	95-9163-0933-112	Amber	.87	.82	.77
25F1172	95-9163-0935-112	White	.87	.82	.77
25F1173	95-9163-0937-112	Clear	.87	.82	.77

INTERIOR FLUTED STOVEPIPE LENS CAPS FOR Series 52-0408, 95-0408, 52-0463, 52-1308, 52-1363

Short fluted stovepipe type, except (*) long fluted stovepipe.

Lens	Stk. No.	Type No.	Stk. No.	Type No.	Type (Screws)		
					1-9	10-24	25-99
Red	25F340	53-0991*	25F334	52-0991	.19	.18	.17
Green	25F341	53-0992*	25F335	52-0992			
Amber	25F342	53-0993*	25F336	52-0993			
Blue	25F343	53-0994*	25F337	52-0994			
Clear	25F344	53-0997*	25F338	52-0997			
White	25F345	53-0995*	25F339	52-0996			

DIALCO

Pilot Light Assemblies



SERIES 270 For Plastic Plate Edge Lighting

For Mil-P-7788 plastic plate panels. Emits light through red filter into the plastic panel. Meets Mil-L-7806. Mounts in 1 3/16" clearance hole. Complete unit, hardware, supplied. Less T-1 3/4 lamp. Available with light emitting top in various colors. 1/2" x 1 1/16". Shpg. wt. 1 1/2 oz.

EDGE LIGHTING ASSEMBLIES

*MS25010A11A †MS25010B11A **MS25010A12A ††MS25010B12A

No.	Type No.	Filter Color	Term.	1-9	10-24	25-99
25F967	270-1930-0111-702	Red*	Solder	.75	.68	.62
25F968	270-1830-0111-702	Red†	Screw	.90	.81	.72
25F969	270-1930-0121-702	Green	Solder	.90	.81	.72
25F970	270-1830-0121-702	Green	Screw	1.05	.95	.83
25F971	270-1930-0131-702	Amber	Solder	.90	.81	.72
25F972	270-1830-0131-702	Amber	Screw	1.05	.95	.83
25F973	270-1930-0171-702	Clear††	Solder	.90	.81	.72
25F974	270-1830-0171-702	Clear	Screw	1.05	.95	.83

LIGHT EMITTING TOP ASSEMBLIES

*MS25010A13A †MS25010B13A

No.	Type No.	Filter	Term.	1-9	10-24	25-99
25F975	270-1930-3111-702	Red*	Solder	.75	.68	.62
25F976	270-1830-3111-702	Red†	Screw	.90	.81	.72
25F977	270-1930-3221-702	Green	Solder	.90	.81	.72
25F978	270-1830-3221-702	Green	Screw	1.05	.95	.83
25F979	270-1930-3331-702	Amber	Solder	.90	.81	.72
25F980	270-1830-3331-702	Amber	Screw	1.05	.95	.83
25F981	270-1930-3771-702	Clear	Solder	.90	.81	.72
25F982	270-1830-3771-702	Clear	Screw	1.05	.95	.83

T-1 3/4 LAMPS

All of the Dialco sub-miniature lights are to be used with T-1 3/4 bulbs, referred to as the midjet flange base type.

*MS25237-327. **MS25237-328.

No.	Lamp No.	Volts	Amps	Life	NET EA.	10 For	100 For
25F125	331	1.35	.06	500 hr.	.84	5.01	45.09
25F126	338	2.7	.06	500 hr.	.84	5.01	45.09
25F129	328**	6.0	.2	1000 hr.	.54	3.25	29.25
25F124	330	14.0	.08	750 hr.	.78	4.61	41.49
25F122	327*	28.0	.04	1000 hr.	.70	4.15	37.35

2-TERMINAL SUB-MINIATURE WATER-TIGHT INDICATOR LIGHTS

(Also see other Dialco pages for large oil-tight indicator lights)



With retained "O" ring seal. Front mounting in 1 3/16" clearance hole. Takes T-1 3/4 midjet flange base incandescents (MS-25237). From 1.35 to 28 volts. Translucent stovepipe lens. Two terminals. Lugs of brass and hot-tinned. Lockwasher, hex-nut supplied. Overall size, 5/8" x 1 1/16" long. Less lamp. Avg. wt., 2 oz.

Stk. No.	Type No.	Lens Color	1-9	10-24	25-99
25F1212	177-8430-0971-503	Red	1.51	1.41	1.32
25F1213	177-8430-0972-503	Green			
25F1214	177-8430-0973-503	Amber			
25F1215	177-8430-0974-503	Blue			
25F1216	177-8430-0975-503	White			
25F1217	177-8430-0976-503	Yellow			

TELEPHONE SLIDE BASE INDICATOR LIGHTS



Series 70-0428



Series 37-0428

Mount from back of panel in 9/16" clearance hole. Accommodates T-2 incandescent bulb with telephone slide base. Stovepipe lenses with smooth face and back. Lamp protrudes into lens cavity for easy replacement from front of panel without tools. Furnished with knurled ring, internal-tooth lockwasher, and hex mounting nut. Soldering terminals. Overall size, 1 3/16" dia. x 2 1/16" long. Less lamps. Avg. shpg. wt., 3 oz.

Stk No.	Type No.	Lens Color	1-9	10-24	25-99
25F1218	70-0428-1131-306	Red	1.76	1.67	1.58
25F1219	70-0428-1132-306	Green			
25F1220	70-0428-1133-306	Amber			
25F1221	70-0428-1134-306	Blue			
25F1222	70-0428-1135-306	White			

Same as above, but lens shape is convex. *Translucent.

Stk No.	Type No.	Lens Color	1-9	10-24	25-99
25F1223	37-0428-0111-306	Red	1.57	1.48	1.40
25F1224	37-0428-0112-306	Green			
25F1225	37-0428-0113-306	Amber			
25F1226	37-0428-0114-306	Blue			
25F1227	37-0428-0115-306	White*			

FOR LOW VOLTAGE T-3 1/4 MINIATURE BAYONET BASE LAMP Fluted Stovepipe Lens Frosted Back Stovepipe Lens



Stock No.	Type No.	Color	Stock No.	Type No.
25F537	125-0410-1191-403	Red	25F544	125-0410-1111-403
25F538	125-0410-1192-403	Green	25F545	125-0410-1112-403
25F539	125-0410-1193-403	Amber	25F546	125-0410-1113-403
25F540	125-0410-1194-403	Blue	25F547	125-0410-1114-403
25F541	125-0410-1195-403	White*	25F548	125-0410-1115-403
25F542	125-0410-1196-403	Yellow	25F549	125-0410-1116-403
25F543	125-0410-1197-403	Clear	25F550	125-0410-1117-403

*Translucent unfrosted. Less lamp.

Prices	1-9	10-24	25-99
	1.81	1.72	1.62

OIL-TIGHT PILOT LIGHTS FOR USE WITH NE 51

For 11/16" Mounting Hole



Fluted Stovepipe Lens			Plain Stovepipe Lens	
Stock No.	Type No.	Color	Stock No.	Type No.
25F528	125-0408-1191-443	Red	25F532	125-0408-1131-443
25F529	125-0408-1193-443	Amber	25F533	125-0408-1133-443
25F530	125-0408-1196-443	Yellow	25F534	125-0408-1136-443
25F531	125-0408-1197-443	Clear	25F535	125-0408-1137-443
.....	.....	.....	25F536	125-0408-1117-443

*Translucent unfrosted. Less lamp.

Prices	1-9	10-24	25-99
	1.98	1.88	1.77

OIL-TIGHT ASSEMBLIES



Enclosed assemblies for heavy duty industrial applications. Gasketed lens. Glass lens gives 180° light spread. Takes 6S6 incandescent (bayonet or screw mt.) lamp. Supplied less lamp. 1 3/16" x 1 7/16". Mounting hardware supplied. Wt. 3 oz.

FOR 6S6 SCREW BASE LAMP

Torpedo Faceted Lens			Dome Lens (Frosted Back)	
Stk. No.	Type No.	Color	Stk. No.	Type No.
25F500	103-3101-1331-403	Red	25F507	103-3101-1211-403
25F501	103-3101-1332-403	Green	25F508	103-3101-1212-403
25F502	103-3101-1333-403	Amber	25F509	103-3101-1213-403
25F503	103-3101-1334-403	Blue	25F510	103-3101-1214-403
25F504	103-3101-1335-403	White	25F511	103-3101-1235-403
25F505	103-3101-1336-403	Yellow	25F512	103-3101-1216-403
25F506	103-3101-1337-403	Clear	25F513	103-3101-1217-403

Prices	1-9	10-24	25-99
	2.64	2.40	2.20

SAME AS ABOVE, BUT FOR 6S6 BAYONET BASE LAMP

Torpedo Faceted Lens			Dome Lens (Frosted Back)	
Stk. No.	Type No.	Color	Stk. No.	Type No.
25F514	103-3502-1331-403	Red	25F521	103-3502-1211-403
25F515	103-3502-1332-403	Green	25F522	103-3502-1212-403
25F516	103-3502-1333-403	Amber	25F523	103-3502-1213-403
25F517	103-3502-1334-403	Blue	25F524	103-3502-1214-403
25F518	103-3502-1335-403	White	25F525	103-3502-1235-403
25F519	103-3502-1336-403	Yellow	25F526	103-3502-1216-403
25F520	103-3502-1337-403	Clear	25F527	103-3502-1217-403

Prices	1-9	10-24	25-99
	2.64	2.40	2.20



PILOT BULB REMOVER

Type 506-0045. Molded of rubber. Has two hollow ends which stretch over and engage lamps tightly. One end for T-3 1/4 type bulbs; the other for T-4 1/2 type bulbs. Core of solid rubber provides needed rigidity for sure grip. Wt., 4 oz.

Stock No.	Type No.	1-9	10-24	25-99
25F1544	506-0045	.26	.23	.20

Type 506-0073. Molded rubber. One end for T-3 1/4 types. Other for S6 candelabra screw base bulbs.

Stock No.	Type No.	1-9	10-24	25-99
25F480	506-0073	.26	.23	.20

ADAPTOR SET

Type 515-1316. For mounting any 1" Dialco assembly in 1 3/16" clearance hole. Reducer, (A) is equipped with gasket (B) to fit the 1 3/16" clearance hole, and a washer (C) for under panel mounting. Retained oil-resistant gasket on the reducer assures the same oil-water-and-dust tightness that is obtained on standard Dialco assemblies. Wt., 1 oz.



Stock No.	Type No.	1-9	10-99
25F912	515-1316	.73	.60

Pilot Light Assemblies

DIALCO

U.L. APPROVED NEON PANEL ASSEMBLY



SERIES 32-0914. A line of assemblies for use with NE-45 neon glow lamps in 115 volt circuits. Candelabra socket; lamp removable from front. 2 3/4" long. Require 1" hole for mounting. Available in four colors. Supplied less neon glow lamps. 4 oz.

Stk. No.	Type	Color	1-9	10-24	25-99
25F410	32-0914-0111-302	Red	1.74	1.59	1.45
25F411	32-0914-0113-302	Amber			
25F413	32-0914-0117-302	Clear			
25F414	32-0914-0135-302	White			

1" ENCLOSED PILOT LIGHTS

SERIES 32-3101



U.L. approved types. 115 volt enclosed pilot light assemblies. Brass and phenolic. Faceted jewel chrome plated brass holder. Candelabra socket. S6 bulb removable from front. Requires 1" clearance hole for mounting. Less bulb. Weight, 5 oz.

Stk. No.	Type	Color	1-9	10-24	25-99
25F370	32-3101-0431-302	Red	1.46	1.33	1.22
25F371	32-3101-0432-302	Green			
25F372	32-3101-0433-302	Amber			
25F373	32-3101-0437-302	Clear			

OIL-TIGHT ASSEMBLIES FOR 1" MOUNTING HOLE

Uses Neon Glow Lamps

For use with the NE-45 candelabra screw base lamp. Resistor built-in the lamp base. Overall size approx. 1 3/8 x 2 1/2". Comes with split lockwasher and hex nut. Less lamp. Shpg. wt., 3 ozs.



Dome Style Unfrosted Lens except † Frosted back.

Stk. No.	Type No.	Lens	1-9	10-24	25-99
25F551	103-3114-1231-403	Red	2.64	2.40	2.20
25F552	103-3114-1233-403	Amber			
25F553	103-3114-1236-403	Yellow			
25F554	103-3114-1237-403	Clear			
25F555	103-3114-1217-403	Clear†			

SERIES 159-5437 PILOT LIGHT ASSEMBLIES



These pilot light assemblies use NE-79 Neon lamps, which have long lives, low wattage, and excellent resistance to shock. 3000 ohm resistors are built-in for bright light on 105-125 volts.

Stock No.	Type No.	Color	1-9	10-24	25-99
25F1528	159-5437-0931-403	Red	3.95	3.61	3.29
25F1529	159-5437-0933-403	Amber			
25F1530	159-5437-0935-403	White			
25F1531	159-5437-0937-403	Clear			

SERIES 125-0463

For use with NE-51H Neon lamp. 22K resistor for bright light on 110-125 VAC.

Fluted Lens

Stock No.	Type No.	Lens	1-9	10-24	25-99
25F1532	125-0463-1191-413	Red	1.98	1.88	1.77
25F1533	125-0463-1193-413	Amber			
25F1534	125-0463-1197-413	Clear			

Plain Lens

Stk. No.	Type No.	Lens	1-9	10-24	25-99
25F1535	125-0463-1131-413	Red	1.98	1.88	1.77
25F1536	125-0463-1133-413	Amber			
25F1537	125-0463-1137-413	Clear			

PRESS-TO-TEST SERIES 820-2701

Conform to All Applicable Military Specifications



Press-to-test assemblies (without dimmer). Mounts in 1" clearance hole. Overall size approx. 1 1/4 x 3 1/4". Three rugged binding screw terminals: 2 for "normal" circuit; 1 for "test" circuit. Uses S6 bulbs with candelabra screw base. Supplied less lamp. Shpg. wt. 3 oz.

*Translucent unfrosted.

Stk. No.	Type No.	Lens	1-24	25-99	100-499
25F999	820-2701-0111-502	Red	4.96	4.34	3.91
25F1000	820-2701-0112-502	Green			
25F1001	820-2701-0113-502	Amber			
25F1002	820-2701-0114-502	Blue			
25F1003	820-2701-0135-502	White*			
25F1004	820-2701-0116-502	Yellow			
25F1005	820-2701-0117-502	Clear			

PRESS-TO-TEST INDICATOR LIGHTS



806-1710



804-1710



803-1710



813-1030



800-1030



812-1030

Built-in bulb-testing device. Units light when pressed if lamp is satisfactory. Optional shutter dimming device. 3 solder lugs. 180° visible light beam for daylight, indirect "halo" light for night. Use T-1 3/4" midget flange base lamps and T-1 3/4" min. bay base lamps. Less lamps. Replace from front. Shpg. wt., 1 oz.

FOR T-3 3/4 LAMP

Formerly Series VM-911. Assemblies take T-3 3/4 lamp. (*) Has 5/8" lens. (**) Has 1/2" lens. (†) Has 1" lens. Mount in 3/8" clearance hole. Size approx. 7/8" x 2 1/4". Shpg. wt., 1 1/2 oz.

WITH MECHANICAL SHUTTER DIMMER*

Stk. No.	Type	Mil. Type No.	Lens Color
25F998	804-1710-0337-504	MS25331-1	Clear
25F991	804-1710-0331-504	MS25331-2	Red
25F992	804-1710-0332-504	MS25331-3	Green
25F993	804-1710-0333-504	MS25331-4	Amber
25F1507	804-1710-0334-504	MS25331-4	Blue

1-24	1.95	25-49	1.84	50-99	1.70	100-249	1.60
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WITHOUT DIMMER**

Stk. No.	Type	Mil. Type No.	Lens Color
25F994	603-1710-0337-504	MS25331-5	Clear
25F995	803-1710-0331-504	MS25331-6	Red
25F996	803-1710-0332-504	MS25331-7	Green
25F997	803-1710-0333-504	MS25331-8	Amber
25F1508	803-1710-0334-504	MS25331-8	Blue

1-24	1.87	25-49	1.74	50-99	1.62	100-249	1.50
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WITHOUT DIMMER†

Stk. No.	Type	Mil. Type No.	Lens Color
25F1509	806-1710-0437-504	MS25331-9	Clear
25F1510	806-1710-0431-504	MS25331-9	Red
25F1511	806-1710-0432-504	MS25331-9	Green
25F1512	806-1710-0433-504	MS25331-9	Amber
25F1513	806-1710-0434-504	MS25331-9	Blue

1-24	1.95	25-49	1.84	50-99	1.70	100-249	1.60
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FOR T-1 3/4 LAMP

Formerly VM-911M Series. 5/8" x 1 3/8". 3/8" lens. Mounts in 1 1/2" clearance hole.

WITH MECHANICAL SHUTTER DIMMER

Stk. No.	Type	Mil. Type No.	Lens Color
25F983	801-1030-0337-504	MS25041-1	Clear
25F984	801-1030-0331-504	MS25041-2	Red
25F985	801-1030-0332-504	MS25041-3	Green
25F986	801-1030-0333-504	MS25041-4	Amber
25F1514	801-1030-0334-504	MS25041-10	Blue

1-24	1.92	25-49	1.75	50-99	1.63	100-249	1.52
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WITHOUT DIMMER

Stk. No.	Type	Mil. Type No.	Lens Color
25F987	800-1030-0337-504	MS25041-5	Clear
25F988	800-1030-0331-504	MS25041-6	Red
25F989	800-1030-0332-504	MS25041-7	Green
25F990	800-1030-0333-504	MS25041-8	Amber
25F1515	800-1030-0334-504	MS25041-11	Blue

1-24	1.81	25-49	1.64	50-99	1.50	100-249	1.37
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As above, but with transparent 1/2" cylindrical lens.

Stk. No.	Type	Lens Color	1-24	25-49	50-99	100-249
25F1516	813-1030-1437-506	Clear	1.81	1.64	1.50	1.37
25F1517	813-1030-1431-506	Red	1.81	1.64	1.50	1.37
25F1518	813-1030-1432-506	Green	1.81	1.64	1.50	1.37
25F1519	813-1030-1433-506	Amber	1.81	1.64	1.50	1.37

As above, but with translucent 1/2" cylindrical lens.

Stk. No.	Type	Lens Color	1-24	25-49	50-99	100-249
25F1520	813-1030-1437-506	White	1.81	1.64	1.50	1.37
25F1521	813-1030-1471-506	Red	1.81	1.64	1.50	1.37
25F1522	813-1030-1472-506	Green	1.81	1.64	1.50	1.37
25F1523	813-1030-1473-506	Amber	1.81	1.64	1.50	1.37

As above, but with 1/2" translucent stovepipe lens.

Stk. No.	Type	Lens Color	1-24	25-49	50-99	100-249
25F1524	812-1030-0975-506	White	1.81	1.64	1.50	1.37
25F1525	812-1030-0971-506	Red	1.81	1.64	1.50	1.37
25F1526	812-1030-0972-506	Green	1.81	1.64	1.50	1.37
25F1527	812-1030-0973-506	Amber	1.81	1.64	1.50	1.37

DIALCO

Switches and Indicator Lights

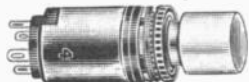


SELF-FLASHING INDICATOR LIGHT ASSEMBLIES

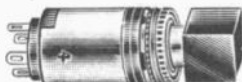
Series 928. Self-flashing units accommodate a replaceable NE-2J high brightness Neon lamp for 110-125 VAC. Mount from rear of panel in 1/2" MTG. Clearance hole up to 3/16" panel thickness. Solder eyelet terminals. Lens cap is cylindrical with refractive inner surface. Units flash at approx. 120 cycles per min. The two terminal unit will be a straight flasher operation.

Stock No.	Color	Mfg. No.	1-9	10-24	25-99	100-249	250-499	500-999	1000-Up
25F1595	Red	928-1422-1631-638	4.60	4.30	4.00	3.75	3.50	3.25	3.05
25F1596	Amber	928-1422-1633-638	4.60	4.30	4.00	3.75	3.50	3.25	3.05

SUB-MINIATURE PUSHBUTTON SWITCHES AND INDICATOR LIGHTS



Switch with Round Lens



Switch with Square Lens



Indicator light with fixed flange



Indicator light with Knurled Flange



Round and Square Lens Caps



Fits a 1/2" mounting hole in panels up to 3/16" thick. Lenses are interchangeable from switches to indicators of the same grouping. All are momentary contact. Aluminum base assembly. 1250-VAC

breakdown. Contact parts silver on series 513-0101-604, 513-0201-604, 513-0301-604. Gold on 513-0401-604, 513-0501-604, 513-0601-604. 3 amps, 125 VAC. 3 amps VDC (non-conductive). To relamp pushbutton, simply pull it out. Uses T 1 1/4 lamp.

SWITCH BASE ASSEMBLIES FOR DRY CIRCUITS

Stock No.	Type	Description	1-24	25-99	100-499	500-999	1000-2499
60F1003	513-0401-604	1 Cir. N.O.	3.25	2.98	2.71	2.59	2.46
60F1004	513-0501-604	1 Cir. N.C.	3.25	2.98	2.71	2.59	2.46
60F1005	513-0601-604	2 Cirs. N.O.N.C.	3.55	3.26	2.96	2.84	2.71

PUSH BUTTON SWITCH BASE ASSEMBLIES

Stock No.	Type	Description	1-24	25-99	100-499	500-999	1000-2499
60F1000	513-0101-604	1 Cir. N.O.	2.95	2.71	2.46	2.34	2.21
60F1001	513-0201-604	1 Cir. N.C.	2.95	2.71	2.46	2.34	2.21
60F1002	513-0301-604	2 Cirs. N.O.N.C.	3.25	2.98	2.71	2.59	2.46

MATCHING INDICATOR LIGHTS

Companion series designed to match pushbutton switches. Lens caps can be used as illuminated pushbutton on the switch or as a lens cap on the indicator light. Incorporates unique anti-rotation (locked) feature for secure locking of socket terminal assembly in the mounting bushing and of the center terminal to the insulating disc. Insulation 1250 VAC breakdown.

Base with fixed flange for front mounting in 1 5/16" clearance hole.

Stock No.	Type	1-24	25-99	100-499	500-999	1000-2499
60F1006	183-9730-14-602	.86	.79	.72	.69	.65

Base with movable knurled flange nut for front or rear mounting in 1/2" clearance hole.

60F1007	183-9830-14-604	.86	.79	.72	.69	.65
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1/2" AND 3/4" LENS CAPS FOR ABOVE SWITCH AND INDICATOR LIGHT BASES

Seven colors of round or square caps; rotatable and non-rotatable units. High strength plastic. Brass shank, white nickel plated.

Rotatable lens allow alignment after installation; non-rotatable lens position is determined by base mount.

1/2" LENS CAPS WITH SOLID COLOR TRANSLUCENT FACE AND SIDES

Color	Round Caps				Square Caps				1-24	25-99	100-499	500-999	1000-2499
	Stock No.	Rotatable	Stock No.	Non-Rotatable	Stock No.	Rotatable	Stock No.	Non-Rotatable					
Red	60F1047	183-1471	60F1054	186-1471	60F1061	185-1871	60F1068	184-1871	.49	.45	.41	.39	.37
Green	60F1048	183-1472	60F1055	186-1472	60F1062	185-1872	60F1069	184-1872					
Amber	60F1049	183-1473	60F1056	186-1473	60F1063	185-1873	60F1070	184-1873					
Blue	60F1050	183-1474	60F1057	186-1474	60F1064	185-1874	60F1071	184-1874					
White	60F1051	183-1475	60F1058	186-1475	60F1065	185-1875	60F1072	184-1875					
Lt. Yellow	60F1052	183-1476	60F1059	186-1476	60F1066	185-1876	60F1073	184-1876					
Ivory	60F1053	183-1478	60F1060	186-1478	60F1067	185-1878	60F1074	184-1878					

1/2" LENS CAPS WITH TRANSLUCENT COLORED FACE, BLACK OPAQUE SIDES

Red	60F1075	183-5071	60F1082	186-5071	60F1089	185-5071	60F1096	184-5071	.49	.45	.41	.39	.37
Green	60F1076	183-5072	60F1083	186-5072	60F1090	185-5072	60F1097	184-5072					
Amber	60F1077	183-5073	60F1084	186-5073	60F1091	185-5073	60F1098	184-5073					
Blue	60F1078	183-5074	60F1085	186-5074	60F1092	185-5074	60F1099	184-5074					
White	60F1079	183-5075	60F1086	186-5075	60F1093	185-5075	60F1100	184-5075					
Lt. Yellow	60F1080	183-5076	60F1087	186-5076	60F1094	185-5076	60F1101	184-5076					
Ivory	60F1081	183-5078	60F1088	186-5078	60F1095	185-5078	60F1102	184-5078					

1/2" LENS CAPS WITH TRANSLUCENT COLORED FACE, GRAY OPAQUE SIDES

Red	60F1103	183-5171	60F1110	186-5171	60F1117	185-5171	60F1124	184-5171	.49	.45	.41	.39	.37
Green	60F1104	183-5172	60F1111	186-5172	60F1118	185-5172	60F1125	184-5172					
Amber	60F1105	183-5173	60F1112	186-5173	60F1119	185-5173	60F1126	184-5173					
Blue	60F1106	183-5174	60F1113	186-5174	60F1120	185-5174	60F1127	184-5174					
White	60F1107	183-5175	60F1114	186-5175	60F1121	185-5175	60F1128	184-5175					
Lt. Yellow	60F1108	183-5176	60F1115	186-5176	60F1122	185-5176	60F1129	184-5176					
Ivory	60F1109	183-5178	60F1116	186-5178	60F1123	185-5178	60F1130	184-5178					

3/4" LENS CAPS WITH SOLID COLOR TRANSLUCENT FACE AND SIDES

Stock No.	Type	Color	ROUND CAPS					SQUARE CAPS							
			1-24	25-99	100-499	500-999	1000-2499	Stock No.	Type	Color	1-24	25-99	100-499	500-999	1000-2499
60F1138	188-1471	Red	.79	.73	.66	.63	.60	60F1152	187-1871	Red	.79	.73	.66	.63	.60
60F1139	188-1472	Green						60F1153	187-1872	Green					
60F1140	188-1473	Amber						60F1154	187-1873	Amber					
60F1141	188-1474	Blue						60F1155	187-1874	Blue					
60F1142	188-1475	White						60F1156	187-1875	White					
60F1143	188-1476	Lt. Yel.						60F1157	187-1876	Lt. Yel.					
60F1144	188-1478	Ivory						60F1158	187-1878	Ivory					

DEPEND ON NEWARK FOR EVERYTHING IN INDUSTRIAL ELECTRONICS

• OEM Factory Prices.

• Same Day Shipment From On-the-Shelf Stocks

To Serve You Better — Seven Stocking Warehouses from Coast-to-Coast

Switches & Indicator Lights **DIALCO**



Series 913



Series 922



Series 915

ILLUMINATED PUSHBUTTON SWITCHES

Series 913. SPST mom. cont., N.O.; 0.1 amp, 125 VAC; 0.1 amp, 30 VDC non-inductive. NE-2E Neon lamp—non-replaceable; min. 5000 hr. life. For use on 110-125 AC-DC. Integral 56K ohm resistor. Gold plated contact parts. Mts. from back of panel in 3/8" clear. hole for 1/8" panel thickness. Double turret (soldering) terminals.

No. Stock	Type	Color	1-24	25-99	100-999	500-999	1000-2499
60F1028	913-1152-1631-523	Red	2.39	2.22	2.05	1.89	1.74
60F1029	913-1152-1633-523	Amber	2.39	2.22	2.05	1.89	1.74
60F1030	913-1152-1635-523	White	2.39	2.22	2.05	1.89	1.74
60F1031	913-1152-1637-523	Clear	2.39	2.22	2.05	1.89	1.74

Series 922. SPST mom. cont. N.O.; 0.1 amp, 125 VAC; 0.1 amp, 30 VDC Non-inductive. Life of over 1,000,000 operations at rated values. Gold plated contact parts. Mts. from back of panel in 3/8" clear. hole for 1/8" panel thickness. Uses replaceable T-1-3/4 incand. lamp. Double turret (soldering) terminals. Less lamp.

Stock No.	Type	Color	1-24	25-99	100-999	500-999	1000-2499
60F1032	922-1141-1631-523	Red	3.29	3.04	2.82	2.60	2.40
60F1033	922-1141-1632-523	Green	3.29	3.04	2.82	2.60	2.40
60F1034	922-1141-1633-523	Amber	3.29	3.04	2.82	2.60	2.40
60F1035	922-1141-1634-523	Blue	3.29	3.04	2.82	2.60	2.40
60F1036	922-1141-1635-523	White	3.29	3.04	2.82	2.60	2.40
60F1037	922-1141-1637-523	Clear	3.29	3.04	2.82	2.60	2.40

NEON INDICATOR LAMP†

Series 915. Neon Indicator Lights. *stovepipe lens cap; **long cylindrical lens cap. All have internal Fresnel diffusing rings. Integral 56K resistor. Mounts from back of panel in 3/8" hole for 1/8" panel thickness.

Stock No.	Type	Color	1-99	100-299	300-499	500-999
60F1042	915-1120-1631-523	Red	1.75	1.49	1.38	1.29
60F1043	915-1120-1633-523	Amber				
60F1044	915-1120-1635-523	White				
60F1045	915-1120-1637-523	Clear				
60F1038	915-1120-1731-523	Red	1.75	1.49	1.38	1.29
60F1039	915-1120-1733-523	Amber				
60F1040	915-1120-1735-523	White				
60F1041	915-1120-1737-523	Clear				

†Non-replaceable NE-2E lamp—Min. 5000 Hr. life on 110-125V AC or DC.

MOUNTING WRENCHES

Type 506-0375. No-Mr mounting wrench for quick, secure fastening of series 913, 922 and 915 to mounting panel.
 60F1046 NET 3.00
 Type 506-0500. Similar to above, but for mounting base assemblies 513 Series sub-min. switches.
 60F1215. NET..... 3.00

LENS CAP ASSEMBLIES FOR PILOT LIGHTS

SERIES 514-2512, 514-1012, 514-0512 ASSEMBLIES

Threaded shanks 3/8" long. Required 1/16", 1/8", and 9/32" mounting holes.

FIG. A SERIES 514-2512

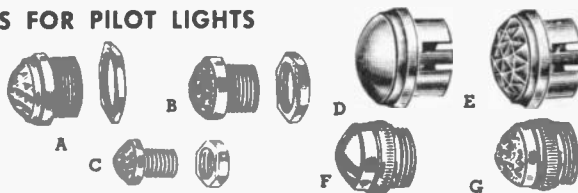
Lens	Stk. No.	Type No.	Dia.	1-9	10-24	25-99
Red	25F430	514-2512-0431-302	5/8"	.50	.46	.42
Green	25F431	514-2512-0432-302	5/8"			
Amber	25F432	514-2512-0433-302	5/8"			
Blue	25F433	514-2512-0434-302	5/8"			
White	25F434	514-2512-0435-302	5/8"			

FIG. B SERIES 514-1012

Lens	Stk. No.	Type No.	Dia.	1-9	10-24	25-99
Red	25F435	514-1012-2131-102	1/2"	.18	.16	.14
Green	25F436	514-1012-2132-102	1/2"			
Amber	25F437	514-1012-2133-102	1/2"			
Blue	25F438	514-1012-2134-102	1/2"			
White	25F439	514-1012-2135-102	1/2"			

FIG. C SERIES 514-0512

Lens	Stk. No.	Type No.	Dia.	1-9	10-24	25-99
Red	25F440	514-0512-2131-102	1/8"	.17	.15	.14
Green	25F441	514-0512-2132-102	1/8"			
Amber	25F442	514-0512-2133-102	1/8"			
Blue	25F443	514-0512-2134-102	1/8"			
White	25F444	514-0512-2135-102	1/8"			



(F) & (G) SERIES 81 LENS HOLDERS

Replacement lens caps for 81-2210, 81-5910, 502-8140 and 502-8137-8136 Series. (White Nickel). *Translucent White Unfrosted.

Fig. F Convex Frosted Back

Lens	Stk. No.	Type	1-9	10-24	25-99
Red	25F1555	81-0111-100	.28	.26	.24
Green	25F1556	81-0112-100			
Amber	25F1557	81-0113-100			
Blue	25F1558	81-0114-100			
White	25F1559	81-0135-100*			
Lt. Yellow	25F1560	81-0116-100			
Clear	25F1561	81-0117-100			

Fig. G Faceted

Lens	Stk. No.	Type	1-9	10-24	25-99
Red	25F1562	81-2131-100	.19	.18	.17
Green	25F1563	81-2132-100			
Amber	25F1564	81-2133-100			
Blue	25F1565	81-2134-100			
White	25F1566	81-2135-100			
Lt. Yellow	25F1567	81-2136-100			
Clear	25F1568	81-2137-100			

FIG. F SERIES 81-0410 & 81-1310 ASSEMBLIES

Replacement lens cap assemblies for series 81-0410 and 81-1310 Black nickel finish to meet requirements of MIL-L-3661A. *Translucent White Unfrosted.

Lens	Stock No.	Type No.	1-9	10-24	25-99
Red	25F1569	81-0111-200	.38	.35	.33
Green	25F1570	81-0112-200			
Amber	25F1571	81-0113-200			
Blue	25F1572	81-0114-200			
White	25F1573	81-0135-200			
Lt. Yel.	25F1574	81-0116-200			
Clear	25F1575	81-0117-200			

SERIES 32 LENS CAP ASSEMBLIES

Polished chrome finish. For use with 502-3228, 32-2901 and 502-3241 Series Pilot Lights.

Lens	Convex Frosted Back, Fig. D		Faceted Fig. E		1-9	10-24	25-99
	Stk. No.	Type	Stk. No.	Type			
Red	25F1576	32-0111-300	25F1582	32-0431-300	.43	.40	.37
Green	25F1577	32-0112-300	25F1583	32-0432-300			
Amber	25F1578	32-0113-300	25F1584	32-0433-300			
Blue	25F1579	32-0114-300	25F1585	32-0434-300			
Lt. Yellow	25F1580	32-0116-300	25F1586	32-0436-300			
Clear	25F1581	32-0117-300	25F1587	32-0437-300			

NEWARK STOCKS THE WORLD'S MOST COMPLETE INVENTORY OF INDUSTRIAL ELECTRONIC EQUIPMENT

Indicator Lights, Sockets, and Accessories

DIALCO



HALF-INCH MINIATURE OPEN TYPE
Miniature screw and bayonet socket assemblies with faceted jewels. Mounts in $\frac{1}{16}$ " hole. Bulb removable from front. With tinned solder lugs. Uses T-3/4 Bulb. Less bulbs. Wt., 3 oz.

Color	Stk. No.	Type	Stk. No.	Type	
Red	25F400	502-8137-2131-102	25F405	502-8136-2131-102	
Green	25F401	502-8137-2132-102	25F406	502-8136-2132-102	
Amber	25F402	502-8137-2133-102	25F407	502-8136-2133-102	
Blue	25F403	502-8137-2134-102	25F408	502-8136-2134-102	
White	25F404	502-8137-2135-102	25F409	502-8136-2135-102	
1-9	.50	10-24	.46	25-99	.43



HALF-INCH OPEN BAYONET TYPE
Open type pilot light assembly. Has min. bay. socket. Half-inch jewel. 2" long. Requires $\frac{1}{16}$ " mtg. hole. Designed for mounting on panels up to $\frac{1}{4}$ " thick. With mtg. washers. Uses T-3/4 lamp. Less lamp. Tinned lugs. 4 oz.

Color	Faceted			Convex-irusted Back		
	Stk. No.	Type	Stk. No.	Type	Type	
Red	25F470	502-8140-2131-100	25F1548	502-8140-0111-100		
Green	25F471	502-8140-2132-100	25F1549	502-8140-0112-100		
Amber	25F472	502-8140-2133-100	25F1550	502-8140-0113-100		
Blue	25F473	502-8140-2134-100	25F1551	502-8140-0114-100		
White	25F1545	502-8140-2135-100	25F1552	502-8140-0115-100		
Yellow	25F1546	502-8140-2136-100	25F1553	502-8140-0116-100		
Clear	25F1547	502-8140-2137-100	25F1554	502-8140-0117-100		
Faceted			Convex			
	1-9	10-24	25-99	1-9	10-24	25-99
Prices	.63	.58	.53	.63	.58	.53



1/4-INCH CANELABRA SOCKET

115 volt pilot light assemblies with faceted jewels, chrome-plated brass holder. Candelabra socket for S6 Lamp requires $\frac{1}{16}$ " hole for mounting. Less lamp. 4 oz.

Color	Stk. No.	Type	1-9	10-24	25-99
Red	25F395	502-2511-0431-302	.70	.65	.58
Green	25F396	502-2511-0432-302			
Blue	25F397	502-2511-0434-302			
Amber	25F398	502-2511-0433-302			



HALF-INCH OPEN TYPE

Complete with candelabra, bayonet or min. screw base sockets for standard pilot light bulbs. Faceted jewels in nickel plated brassholders. Lug terminals. Requires $\frac{1}{16}$ " hole for mtg. Uses T-3/4 Bulb. Less bulbs. Wt., 2 oz.

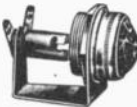
Color	Screw	Type		Candelabra		
		502-1015-	Min Bayonet	Type 502-1024	Stock No.	Type 502-1010
Red	25F350	2131-102	25F355	2131-102	25F360	2131-102
Green	25F351	2132-102	25F356	2132-102	25F361	2132-102
White	25F352	2135-102	25F359	2135-102	25F364	2135-102
Amber	25F353	2133-102	25F357	2133-102	25F362	2133-102
Blue	25F354	2134-102	25F358	2134-102	25F363	2134-102
Screw & Min Bayonet			Candelabra			
	1-9	10-24	25-99	1-9	10-24	25-99
Prices	.34	.31	.28	.41	.38	.35



1" 115 VOLT CANELABRA ASSEMBLIES

115 volt pilot light assemblies with faceted jewels in holder. Candelabra socket for S6 lamp. Require 1" hole. Less Lamp. Wt. 5 oz.

Color	Stk. No.	Type	1-9	10-24	25-99
Red	25F374	502-3228-0431-303	.98	.91	.83
Green	25F375	502-3228-0432-303			
Amber	25F376	502-3228-0433-303			
Blue	25F377	502-3228-0434-303			
White	25F378	502-3228-0435-303			



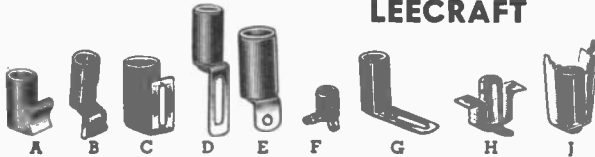
1-INCH OPEN PLATED TYPE ASSEMBLY

Highly polished chrome-plated brass jewel holders. Use T-3/4 and S6 lamps, replaceable from front. $\frac{1}{2}$ " L. Req. $\frac{1}{16}$ " mtg. holes. Excellent for power panels, test instruments and electronic equipment. Less lamps. 3 oz.

Color	Stk. No.	502-3241-		502-3242-		502-3214-	
		431-302	25F385 <th>431-302</th> <th>25F390 <th>431-302</th> <th>25F394 </th></th>	431-302	25F390 <th>431-302</th> <th>25F394 </th>	431-302	25F394
Red	25F380	0432-302	25F386	0432-302	25F391	0432-302	
Green	25F381	0433-302	25F387	0433-302	25F392	0433-302	
Amber	25F382	0434-302	25F388	0434-302	25F393	0434-302	
Blue	25F383	0435-302	25F389	0435-302	25F394	0435-302	
White	25F384						
		Types 3241 & 3242		Type 3214			
		1-9	10-24	25-99	1-9	10-24	25-99
Prices		.88	.81	.75	.92	.84	.77

LEECRAFT

OPEN TYPE LAMP SOCKETS



Series 200. Miniature bayonet sockets with insulating sleeves. Brackets made of .025/.032" steel cadmium plated. Wire leads, 22 gauge, 6" long.

Stk. No.	Type	Fig.	1-24	25-99	100-249	250-499	500-999
25F1300	2-01	A	.35	.25	.20	.135	.105
25F1301	2-04	B	.35	.25	.20	.135	.105
25F1302	2-06	D	.35	.25	.20	.135	.105
25F1303	2-13	C	.35	.25	.20	.135	.105
25F1304	2-15	H	.35	.25	.20	.135	.105

Series 300. Miniature bayonet sockets of molded bakelite. 300 type housing provides insulation where low voltage lamps are to be used. UL listed and CSA approved. Wire leads, 22 gauge, 6" long.

Stk. No.	Type	Fig.	1-40	40-30	30-25	25-195	195-165
25F1305	3-01	A	.40	.30	.25	.195	.165
25F1306	3-02	B	.40	.30	.25	.195	.165
25F1307	3-05	C	.40	.30	.25	.195	.165
25F1308	3-06	D	.40	.30	.25	.195	.165
25F1309	3-13	G	.40	.30	.25	.195	.165
25F1310	3-15	H	.40	.30	.25	.195	.165
25F1311	3-20	F	.40	.30	.25	.195	.165

Series 400. Candelabra screw base in molded bakelite. #18 gauge wire leads in black and white, 6" long, ends stripped $\frac{1}{2}$ ". UL listed, CSA App.

Stk. No.	Type	Fig.	1-24	25-99	100-249	250-499	500-999
25F1312	4-01	A	.40	.30	.25	.197	.167
25F1313	4-04	B	.40	.30	.25	.197	.167
25F1314	4-05	C	.40	.30	.25	.197	.167
25F1315	4-06	D	.40	.30	.25	.197	.167
25F1316	4-08	F	.40	.30	.25	.197	.167
25F1317	4-15	H	.40	.30	.25	.197	.167

Series 500. Miniature screw sockets with soldering terminals. Terminals are tinned and brackets are cadmium plated.

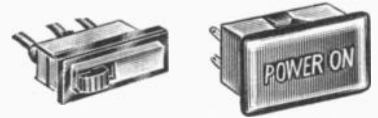
Stk. No.	Type	Fig.	1-24	25-99	100-249	250-499	500-999
25F452	5-01	A	.25	.20	.15	.085	.075
25F453	5-04	B	.25	.20	.15	.085	.075
25F450	5-05	C	.25	.20	.15	.085	.075
25F454	5-06	D	.25	.20	.15	.085	.075
25F451	5-07	E	.25	.20	.15	.085	.075
25F447	5-08	F	.25	.20	.15	.085	.075
25F1318	5-13	G	.25	.20	.15	.085	.075
25F1319	5-15	H	.25	.20	.15	.085	.075

Series 600. Candelabra screw sockets with solder terminals. Brackets are .025/.032" Cad. plated steel for G6 and S6 lamps.

Stk. No.	Type	Fig.	1-30	30-20	20-15	15-09	078
25F463	6-01	A	.30	.20	.15	.09	.078
25F461	6-05	C	.30	.20	.15	.09	.078
25F446	6-06	D	.30	.20	.15	.09	.078
25F462	6-07	E	.30	.20	.15	.09	.078
25F448	6-08	F	.30	.20	.15	.09	.078
25F1321	6-13	G	.30	.20	.15	.09	.078

Series 700. Miniature bayonet sockets with soldering terminals, for low voltage incand. lamps. For printed circuits

Stk. No.	Type	Fig.	1-30	30-20	20-15	15-085	075
25F457	7-01	A	.30	.20	.15	.085	.075
25F458	7-04	B	.30	.20	.15	.085	.075
25F455	7-05	C	.30	.20	.15	.085	.075
25F459	7-06	D	.30	.20	.15	.085	.075
25F456	7-07	E	.30	.20	.15	.085	.075
25F449	7-08	F	.30	.20	.15	.085	.075
25F1323	7-11	F	.30	.20	.15	.085	.075
25F1324	7-13	G	.30	.20	.15	.085	.075
25F1325	7-15	H	.30	.20	.15	.085	.075
25F460	7-20	D	.30	.20	.15	.085	.075
25F1326	7-35	*	.50	.40	.30	.25	.17



SIDELITE SLIDE SWITCH/LIGHT COMBINATION

Switch rating 3 amps. A.C. or 5 amps D.C. at 125v.6" $\frac{1}{4}$ " tab snap in mounting for hole size 1.281X.395". 115v lamp with 230v resistor. U.L. listed.

NEON With resistor

Color	Stk. No.	110-125 Volts		210-250 Volts	
		Type	Stk. No.	Type	Stk. No.
Red	60F1400	51-2151T	60F1403	51H-2151T	
Amber	60F1401	51-2153T	60F1404	51H-2153T	
White	60F1402	51-2155T	60F1405	51H-2155T	
1-24	1.75		25-99		1.45

Incandescent

Color	Stk. No.	6 Volts .20 Amps		14 Volts .08 Amps	
		Type	Stk. No.	Type	Stk. No.
Red	60F1406	2151T	60F1411	2151T	
Green	60F1407	2152T	60F1412	2152T	
Amber	60F1408	2153T	60F1413	2153T	
Blue	60F1409	2154T	60F1414	2154T	
White	60F1410	2155T	60F1415	2155T	
1-24	2.20		25-99		1.90

SERIES 47 INDICATOR LIGHT

Fits into $\frac{3}{16}$ x $\frac{3}{16}$ panel opening. Built in lamps, resistor and solder terminals.

Color	Stk. No.	110-125 Volts		210-250 Volts	
		Type	Stk. No.	Type	Stk. No.
Red	60F1416	47-3	60F1420	47H-3	
Amber	60F1417	47-9	60F1421	47H-9	
White	60F1418	47-2	60F1422	47H-2	
Clear	60F1419	47-8	60F1423	47H-8	
1-24	.75		25-99		.50
1.00					.392

Indicator Lights & Sockets



SNAPLITE NEON PILOT LIGHTS

Longlasting, irreplaceable lamp. One piece nylon housing snaps into standard 1/2" hole with the following tolerances: 510-500 dia. Within housing is resistor suiting applied circuit voltage. Current carrying components affixed to a common base to eliminate possibility of short circuits. Body size: 1 1/8" behind panel x .495" dia. Retainer: 1/16" thick x 5/8" O.D. Lens: 2 1/4" O.D. Have #18 gauge, 6" wire leads, except "T" suffix indicates .187" tab terminals. All rated 110-125V except * 210-250V. UL and CSA approved.

Lens Color	Flush Lens—Fig. A		Stovepipe—Fig. B		Cyl. Lens—Fig. C	
	Stk. No.	Type	Stk. No.	Type	Stk. No.	Type
Red	60F1282	32-2311	60F1274	32-2211	25F1375	32-2111
Amber	60F1283	32-2313	60F1275	32-2213	25F1376	32-2113
Clear	60F1284	32-2317	60F1276	32-2217	25F1377	32-2117
White	60F1285	32-2315	60F1277	32-2215	25F1378	32-2115
Red	60F1286	32-2311T	60F1278	32-2211T	25F1379	32-2111T
Amber	60F1287	32-2313T	60F1279	32-2213T	25F1380	32-2113T
Clear	60F1288	32-2317T	60F1280	32-2217T	25F1381	32-2117T
White	60F1289	32-2315T	60F1281	32-2215T	25F1382	32-2115T
Red*	60F1424	35-2311	60F1426	35-2211	60F1428	35-2111
Red*	60F1425	35-2311T	60F1427	35-2211T	60F1429	35-2111T

1-24	25-99	100-249	250-499	500-999
.75	.60	.40	.37	.335

Square Lens — Fig. D		Lens Color	1-24	25-99	100-249	250-499	500-999
Stk. No.	Type						
60F1290	32R2911	Red	.80	.65	.43	.405	.37
60F1291	32R2913	Amber					
60F1292	32R2915	White					
60F1293	32R2911T	Red					
60F1294	32R2913T	Amber					
60F1295	32R2915T	White					

NEW INCANDESCENT SNAPLITES

As above, except incandescent lamps: 6V-2A, and 14V-.08A. All have chrome bezel to fit .500-.513" hole. 18 AWG, 6" wire leads, except "T" suffix indicates .187 tab terminals.

FLUSH LENS CAP — FIG. A

Lens Color	6-Volt Types		14-Volt Types	
	Stk. No.	Type	Stk. No.	Type
Red	60F1430	32R-G1-2311	60F1440	32R-G3-2311
Green	60F1431	32R-G1-2312	60F1441	32R-G3-2312
Amber	60F1432	32R-G1-2313	60F1442	32R-G3-2313
Blue	60F1433	32R-G1-2314	60F1443	32R-G3-2314
White	60F1434	32R-G1-2315	60F1444	32R-G3-2315
Red	60F1435	32R-G1-2311T	60F1445	32R-G3-2311T
Green	60F1436	32R-G1-2312T	60F1446	32R-G3-2312T
Amber	60F1437	32-G1-2313T	60F1447	32R-G3-2313T
Blue	60F1438	32R-G1-2314T	60F1448	32R-G3-2314T
White	60F1439	32R-G1-2315T	60F1449	32R-G3-2315T

STOVEPIPE LENS CAP — FIG. B

Red	60F1450	32R-G1-2211	60F1460	32R-G3-2211
Green	60F1451	32R-G1-2212	60F1461	32R-G3-2212
Amber	60F1452	32R-G1-2213	60F1462	32R-G3-2213
Blue	60F1453	32R-G1-2214	60F1463	32R-G3-2214
White	60F1454	32R-G1-2215	60F1464	32R-G3-2215
Red	60F1455	32R-G1-2211T	60F1465	32R-G3-2211T
Green	60F1456	32R-G1-2212T	60F1466	32R-G3-2212T
Amber	60F1457	32R-G1-2213T	60F1467	32R-G3-2213T
Blue	60F1458	32R-G1-2214T	60F1468	32R-G3-2214T
White	60F1459	32R-G1-2215T	60F1469	32R-G3-2215T

CYLINDRICAL LENS CAP — FIG. C

Red	60F1470	32R-G1-2111	60F1480	32R-G3-2111
Green	60F1471	32R-G1-2112	60F1481	32R-G3-2112
Amber	60F1472	32R-G1-2113	60F1482	32R-G3-2113
Blue	60F1473	32R-G1-2114	60F1483	32R-G3-2114
White	60F1474	32R-G1-2115	60F1484	32R-G3-2115
Red	60F1475	32R-G1-2111T	60F1485	32R-G3-2111T
Green	60F1476	32R-G1-2112T	60F1486	32R-G3-2112T
Amber	60F1477	32R-G1-2113T	60F1487	32R-G3-2113T
Blue	60F1478	32R-G1-2114T	60F1488	32R-G3-2114T
White	60F1479	32R-G1-2115T	60F1489	32R-G3-2115T

SQUARE LENS CAP — FIG. D

Red	25F1362	32R-G1-2911	25F1367	32R-G3-2911
Green	25F1363	32R-G1-2912	25F1368	32R-G3-2912
Amber	25F1364	32R-G1-2913	25F1369	32R-G3-2913
Blue	25F1365	32R-G1-2914	25F1370	32R-G3-2914
White	25F1366	32R-G1-2915	25F1371	32R-G3-2915

PRICES FOR INCANDESCENT TYPES

Type	1-24	25-99	100-249	250-499	500-999
G1 (6V)	1.20	.85	.587	.585	.546
G3(14V)	1.15	1.00	.607	.583	.551

PRESS FIT MINIATURE NEON TINEON INDICATORS WITH ALUMINUM BEZELS

Long-life, high-brightness neon lamps. Press fits into 5/16" diameter hole. Bezel is aluminum anodized. Housing, white nylon. Has transparent plastic lens available in various colors. Wire leads are #18 gauge insulated plastic. Standard length: 6", 1/2" stripped. Speed nut furnished for maximum security. Tineon 36EN Series. With built-in resistor for 110-125V.

Lens Color	Flush Lens — Fig. E		High-hat Lens — Fig. F	
	Stk. No.	Type	Stk. No.	Type
Red	60F1254	36EN2311-6	60F1250	36EN2111
Amber	60F1255	36EN2313-6	60F1251	36EN2113
Clear	60F1256	36EN2317-6	60F1252	36EN2117
White	60F1257	36EN2315-6	60F1253	36EN2115

Tineon 41EN Series. Less resistor, external resis. required.				
Lens Color	Flush Lens — Fig. E		High-hat Lens — Fig. F	
	Stk. No.	Type	Stk. No.	Type
Red	60F1262	41EN2311	60F1258	41EN2111-6
Amber	60F1263	41EN2313	60F1259	41EN2113-6
Clear	60F1264	41EN2317	60F1260	41EN2117-6
White	60F1265	41EN2315	60F1261	41EN2115-6

WITHOUT BEZEL — FLUSH LENS CAP

3600 Series. With built-in resistor for 110-125V. 4100 Series. Less resistor; ext. resistance required. Both types are similar to Fig. E.

Lens Color	With Resistor		Less Resistor	
	Stk. No.	Type	Stk. No.	Type
Red	60F1266	36N2311	60F1270	41N2311
Amber	60F1267	36N2313	60F1271	41N2313
Clear	60F1268	36N2317	60F1272	41N2317
White	60F1269	36N2315	60F1273	41N2315

Type	1-24	25-99	100-249	250-499	500-999
36EN (with res.)	.85	.70	.50	.445	.372
41EN (less res.)	.80	.65	.46	.420	.348
3600 (with res.)	.70	.55	.40	.370	.335
4100 (less res.)	.65	.50	.40	.345	.290

WITH BEZEL — INCANDESCENT LAMPS

Similar to 41EN units above, but with incandescent lamps: 6V-.2A, and 14V-.08A. Plastic flush lens.

Lens Color	6-Volt Types		14-Volt Types	
	Stk. No.	Type	Stk. No.	Type
Red	25F1400	41EN-G1-2311	25F1405	41EN-G3-2311
Green	25F1401	41EN-G1-2312	25F1406	41EN-G3-2312
Amber	25F1402	41EN-G1-2313	25F1407	41EN-G3-2313
Blue	25F1403	41EN-G1-2314	25F1408	41EN-G3-2314
White	25F1404	41EN-G1-2315	25F1409	41EN-G3-2315

Type	1-24	25-99	100-249	250-499	500-999
41EN-G1 (6V)	1.25	.90	.602	.570	.558
41EN-G3(14V)	1.20	.85	.622	.598	.578

WITH INCANDESCENT LAMPS

6V-.2A and 14V-.08A With .250 tab terminals

Lens Color	6-Volt Types		14-Volt Types	
	Stk. No.	Type	Stk. No.	Type
Red	25F1410	31-G1-2111T	25F1415	31-G3-2111T
Green	25F1411	31-G1-2112T	25F1416	31-G3-2112T
Amber	25F1412	31-G1-2113T	25F1417	31-G3-2113T
Blue	25F1413	31-G1-2114T	25F1418	31-G3-2114T
White	25F1414	31-G1-2115T	25F1419	31-G3-2115T

Type	1-24	25-99	100-249	250-499	500-999
31-G1 (6V)	1.15	.95	.592	.57	.549
31-G3(14V)	1.15	1.00	.612	.598	.569

RECTANGULAR 3100 AND 3100T SERIES

Rectangular pilot lights. Housing: white nylon, bezel, chrome plated. Neon or incandescent lamps. Mounting hole size: 1.281 x .395". Housing depth: .2152". Lens size: 1 1/4" x 1 1/4" W. Lens is made of plastic. UL and CSA approved. 3100 Series: 6" wire leads, 18 AWG. 3100T Series: .250 brass tab terminals.

WITH NEON LAMPS

Lens Color	3100 Series		3100T Series	
	Stk. No.	Type	Stk. No.	Type
Red	25F1391	31-2111	25F1395	31-2111T
Amber	25F1392	31-2113	25F1396	31-2113T
Clear	25F1393	31-2117	25F1397	31-2117T
White	25F1394	31-2115	25F1398	31-2115T
Trans.				

Type	1-24	25-99	100-249	250-499	500-999
3100	.80	.65	.43	.39	.36
3100T	.80	.65	.43	.39	.36

HARRY DAVIES Knobs

POINTER KNOBS



Black bakelite knobs for volume and tone controls, test instruments, and almost all types of electronic equipment. Figs. A through E all have white indicator lines. will fit 1/4" shaft. All parts can be made available to JAN specifications at 10% extra. *Brass insert. †2 oz. ‡1 oz.

Stock No.	Type	Fig.	Size In.	1-24	25-99	100-499	500-999	1000-up
26F107	2150	A†	1 1/4	.13	.10	.09	.078	.075
26F100	2300	B†	1 1/4	.10	.08	.07	.062	.059
26F101	2300A	B†	1 1/4	.14	.12	.105	.098	.093
26F103	2350	C†	2	.18	.16	.137	.127	.121
26F102	2350A	C†	2	.22	.19	.162	.151	.144
26F115	1550	D‡	1 1/8	.12	.10	.086	.056	.070
26F116	1550C	D‡	1 1/8	.16	.14	.12	.112	.104
26F117	1500	E‡	1 1/8	.14	.11	.096	.084	.080
26F146	1580	E†	2	.74	.64	.555	.518	.481
26F214	1510	D†	3/4	.16	.14	.12	.111	.103
26F215	1520	E	1 1/2	.29	.26	.22	.204	.190

CONTROL KNOBS



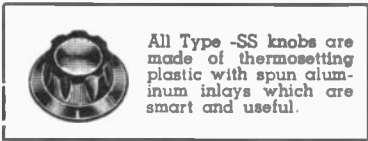
Black Bakelite knobs for all control and indicating uses. For 1/4" shaft. Set screw furnished. Types 1470 and 1400 have molded pointers, 1600 and 1610 have paint filled indicator lines on skirt. *Brass insert. Wt. 1 oz. †Ivory ‡walnut.

Stock No.	Type	Bottom Diameter	Hole Depth	1-24	25-99	100-499	500-999	1000-up
26F106†	1700	3/4"	1 5/32"	.13	.12	.099	.092	.086
26F105†	1700	3/4"	1 5/32"	.12	.11	.093	.087	.081
26F110	1470	1"	7/16"	.14	.12	.108	.101	.094
26F109	1475	1"	7/16"	.13	.11	.093	.081	.075
26F123	1450	1 1/16"	1 1/32"	.09	.08	.071	.06	.053
26F122	1400	1 1/16"	1 1/32"	.09	.08	.071	.06	.053
26F118	1600	1 1/2"	9/16"	.15	.13	.116	.108	.100
26F119	1600A	1 1/2"	9/16"	.22	.19	.162	.151	.140
26F120	1610	1 5/16"	7/8"	.14	.12	.107	.099	.092
26F121	1610A	1 5/16"	7/8"	.20	.16	.15	.14	.13

FINGER GRIP KNOBS



Stock No.	Type	Knob Size Dia.	Height	Hole Size	1-24	25-99	100-499	500-999	1000-up
26F147	#1905/1910	1 1/16"	1 3/16"	1/4"	.49	.43	.37	.35	.32
26F216	#1906/1914	1 1/16"	1 13/16"	1/4"	.59	.52	.45	.42	.40
26F217	#1907/1510	1 1/16"	1 13/16"	1/4"	.45	.40	.34	.32	.30
26F126	1910	3/4"	1 1/2"	1/4"	.14	.12	.105	.098	.093
26F127	1910-C	3/4"	1 1/2"	1/4"	.22	.19	.17	.154	.143
26F133	1913	1 1/8"	5/8"	1/4"	.19	.16	.141	.132	.122
26F134	1913-C	1 1/8"	5/8"	1/4"	.26	.23	.20	.182	.170
26F139	1914	3/4"	1 1/2"	1/4"	.23	.20	.173	.161	.153
26F140	1914-C	3/4"	1 1/2"	1/4"	.33	.29	.250	.234	.217
26F128	†1915/1910	1 1/4"	1 9/16"	1/4"	.41	.36	.301	.284	.264
26F218	#1916/1914	1 1/4"	1 1/4"	1/4"	.45	.39	.34	.32	.30
26F219	#1917/1510	2"	1 5/8"	1/4"	.31	.27	.23	.22	.21
26F135	1919	1 1/4"	5/8"	1/4"	.22	.19	.17	.16	.144
26F136	*1919-2*	1 1/4"	5/8"	1/4"	.28	.25	.210	.20	.182
26F129	1920	1 1/4"	3/4"	1/4"	.20	.18	.15	.14	.13
26F130	1920-C	1 1/4"	3/4"	1/4"	.26	.23	.20	.182	.169
26F148	1922	1 1/8"	3/4"	.267"	.32	.28	.24	.230	.209
26F141	1925	1 1/4"	3/4"	1/4"	.20	.18	.15	.14	.13
26F142	*1925-M	1 1/4"	3/4"	1/4"	.26	.23	.20	.182	.17
26F131	1930	1 1/2"	7/8"	1/4"	.21	.19	.16	.15	.138
26F132	1930-C	1 1/2"	7/8"	1/4"	.27	.21	.203	.189	.178
26F143	†1935/1914	1 1/2"	1 9/16"	1/4"	.54	.47	.402	.39	.34
26F144	1935-A	1 1/2"	1 9/16"	1/4"	.59	.52	.443	.371	.314
26F228	#1937/1510	1 1/2"	1 5/8"	1/4"	.49	.43	.365	.340	.316
26F137	1940	2"	1 5/16"	1/4"	.31	.27	.230	.191	.155
26F138	1940-C	2"	1 5/16"	1/4"	.37	.32	.278	.236	.187
26F229	1913-SS	1 1/8"	5/8"	1/4"	.43	.37	.321	.300	.278
26F230	1922-SS	1 1/8"	5/8"	.267"	.44	.39	.332	.309	.287
26F231	1925-SS	1 1/4"	3/4"	1/4"	.32	.28	.24	.224	.208
26F232	1930-SS	1 1/2"	7/8"	1/4"	.45	.40	.339	.316	.294
26F233	1940-SS	2"	1 5/16"	1/4"	.58	.50	.43	.40	.38



All Type -SS knobs are made of thermosetting plastic with spun aluminum inlays which are smart and useful.

Finger Grip Knobs. Are Black bakelite fluted knobs for use on 1/4" shafts. Set screw mounting. *Brass insert. Some are available with Spring Mount and CRL Knurl—(Write for prices). †Have dual concentric control (1/4" bottom hole and 1/8" top hole). ‡Dual concentric control (.267" bottom hole and 3/16" top hole). Can be furnished in compliance with government specifications—M-14E. Shpg. Wt., 1 oz.

INSTRUMENT KNOBS



Black Bakelite finger grip knobs for use on 1/4" shafts. Complete with brass insert and set screw. Can be supplied to Jan specs. at 10% extra, as well as in compliance with MS-91531. Can also be furnished with imprinted skirt. Shpg. Wt., 3 oz.

Stk. No.	Type	Fig.	Knob Size	1-24	25-99	100-499	500-999	1000-up
26F013	4103	F	2 3/8"	.42	.36	.31	.29	.27
26F014	4102	F	1 5/8"	.28	.25	.213	.199	.185
26F015	4101	F	1 3/8"	.25	.22	.186	.174	.161
26F016	4100	F	1 1/8"	.24	.21	.18	.168	.156
26F017	4103W	F	2 3/8"	.54	.48	.408	.381	.354
26F018	4102Q	F	1 5/8"	.40	.35	.30	.28	.26
26F019	4101J	F	1 3/8"	.37	.33	.279	.260	.242
26F020	4100Q	F	1 1/8"	.37	.33	.279	.260	.242
26F234	4100-SS	F	1 1/8"	.51	.45	.383	.357	.332
26F235	4101-SS	F	1 3/8"	.52	.45	.389	.362	.337
26F236	4102-SS	F	1 5/8"	.58	.51	.438	.409	.380
26F237	4103-SS	F	2 3/8"	.74	.64	.552	.515	.478

KNOBS WITH SKIRTS

Stk. No.	Type	Fig.	Skirt Dia.	1-24	25-99	100-499	500-999	1000-up
26F021	4109	H	3"	.75	.65	.561	.523	.486
26F022	4108	H	2 1/2"	.56	.49	.423	.392	.364
26F023	4107	H	1 3/4"	.47	.41	.353	.329	.306
26F024	4104	H	1 1/2"	.46	.40	.342	.319	.296

LEVER KNOBS



Black bakelite lever knobs for any lever application. Available with metal pointer. (Write for details.) Fit 1/4" shaft. Furnished with set screw. *Brass insert. Available to JAN specifications at 10% extra. Wt., 2 oz.

Stock No.	Type	Size	1-24	25-99	100-499	500-999	1000-up
26F111	2100	2 1/2"	.21	.18	.155	.144	.134
26F112	2100E	2 1/2"	.15	.13	.113	.105	.098
26F113	2110	1 5/8"	.20	.18	.150	.140	.130
26F114	2110E	1 5/8"	.14	.13	.108	.101	.094

Jacks — Knobs & Accessories

RAYTHEON

TEST JACKS . . . Meets MS16108 (Rev. F) Specs

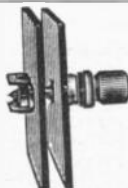
Meets all requirements of MS16108 (ships). Consists of a heavy nickel-plated brass bushing, protected by nylon sleeve. Contact assembly is silver plated with a gold wash for lowest contact resistance. Mounts in .261" dia. hole.



Stk. No.	Type	Mil. No.	Color	1-24	25-99	100-499	500-999
26F329	TJ101Y	MS16108-8A	Yellow	.35	.28	.25	.21
26F330	TJ102B	MS16108-4A	Brown				
26F331	TJ103R	MS16108-2A	Red				
26F333	TJ105BL	MS16108-3A	Black				
26F334	TJ106GN	MS16108-5A	Green				
26F335	TJ107MB	MS16108-7A	Blue				
26F336	TJ108W	MS16108-1A	White				

THUMBSCREWS . . . Meets MIL-16400 Specs

Raytheon captive hardware, a line of stainless steel fastening hardware meeting government specifications. A slotted head thumb screw, insert bushing, captivated floating nut, gasket, and gasket retainer make up the full assembly. Meets MIL-E-16400 (Ships) specifications.



Stk. No.	Type	Thread Size	L	1-499	500-999	1000-2499	2500-4999
26F349	CS-112	10-24NC-2	1"	.55	.468	.44	.40
26F350	CS-130	1/4-20NC-2	3/8"	.65	.553	.52	.472
26F351	CS-131	1/4-20NC-2	1"	.65	.553	.52	.472
26F352	CS-132	1/4-20NC-2	1 1/8"	.65	.553	.52	.472
26F353	CS-133	1/4-20NC-2	1 1/4"	.65	.553	.52	.472
26F355	CS-135	1/4-20NC-2	1 1/2"	.65	.553	.52	.472
26F356	CS-136	1/4-20NC-2	1 3/4"	.65	.553	.52	.472
26F359	CS-142	5/16-18NC-2	1 1/2"	.86	.808	.76	.69
26F360	CS-143	5/16-18NC-2	1 3/4"	.85	.808	.76	.69
26F361	CS-144	5/16-18NC-2	2"	.85	.808	.76	.69
26F362	CS-100	8-32NC-2	3/8"	.50	.425	.40	.363
26F363	CS-101	8-32NC-2	3/4"	.50	.425	.40	.363
26F364	CS-102	8-32NC-2	7/8"	.50	.425	.40	.363
26F368	CS-122	10-32NC-2	1"	.55	.468	.44	.40

PANEL INSERT

Thread Size: 10-24NC-2

Stk. No.	Type	Thread Size	For Panel	1-499	500-999	1000-2499	2500-4999
26F377	PIN-113	10-24NC-2	.188	.23	.196	.184	.167
26F378	PIN-114	10-24NC-2	.250	.23	.196	.184	.167

Thread Size: 1/4-20NC-2

Stk. No.	Type	Thread Size	For Panel	1-499	500-999	1000-2499	2500-4999
26F381	PIN-132	1/4-20NC-2	.119-.156	.27	.23	.216	.196
26F383	PIN-134	1/4-20NC-2	.250	.27	.23	.216	.196

Thread Size: 5/16-18NC-2

Stk. No.	Type	Thread Size	For Panel	1-499	500-999	1000-2499	2500-4999
26F384	PIN-140	5/16-18NC-2	.048-.072	.39	.332	.312	.284
26F386	PIN-142	5/16-18NC-2	.119-.156	.39	.332	.312	.284
26F387	PIN-143	5/16-18NC-2	.188	.39	.332	.312	.284

Thread Size: 8-32NC-2

Stk. No.	Cat. No.	Thread Size	For Panels	1-499	500-999	1000-2499	2500-4999
26F389	PIN-100	8-32NC-2	.048-.072	.22	.187	.176	.16
26F390	PIN-101	8-32NC-2	.074-.109				
26F391	PIN-102	8-32NC-2	.119-.156				

Thread Size: 10-32NC-2

Stk. No.	Type	Thread Size	For Panel	1-499	500-999	1000-2499	2500-4999
26F394	PIN-121	10-32NC-2	.074-.109	.25	.213	.20	.182
26F395	PIN-122	10-32NC-2	.119-.156				
26F397	PIN-124	10-32NC-2	.250				

NUT BRACKET

Stk. No.	Type	Thread Size	1-499	500-999	1000-2499	2500-4999
26F369	NB-100	8-32NC-2	.10	.085	.08	.073
26F371	NB-102	10-32NC-2	.12	.102	.10	.09
26F372	NB-103	1/4-20NC-2	.18	.153	.144	.131
26F373	NB-104	5/16-18NC-2	.22	.187	.176	.16

GASKETS

Stk. No.	Type	Screw Size	1-499	500-999	1000-2499	2500-4999
26F399	GS101	1/4-20	.02	.017	.016	.015
26F401	GS103	8-32				

GASKET RETAINER

Stk. No.	Type	Thread Size	1-499	500-999	1000-2499	2500-4999
26F402	GSR-115	10-24 or 10-32	.06	.051	.048	.045
26F403	GSR-116	1/4-20				
26F404	GSR-117	5/16-18				
26F405	GSR-118	8-32				

NEW SUBMINIATURE FIXED-CONTACT JACK

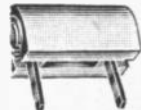
Model MC122. Suitable for equipment of standard, miniature, or subminiature sizes. Beryllium-copper spring pin contact. No nuts or washers allows for fast and easy mounting. Accepts any standard test prod. Over all length .655" max. Insulator diameter .286. Insulator is made from DuPont Zytel (Nylon). Contact sleeve is brass, gold-plated. Mounting hole dia. .219. Range of acceptable panel thickness .031-.093. Weight is 1 lb. each.



Stock No.	Type	Color	1-24	25-49	50-249	250-499
26F939	TJ400N	Natural	.23	.21	.18	.17
26F940	TJ401Y	Yellow				
26F941	TJ402B	Brown				
26F942	TJ403R	Red				
26F943	TJ404OR	Orange				
26F944	TJ405BL	Black				
26F945	TJ406G	Green				
26F946	TJ407MB	Marine Blue				
26F947	TJ408W	White				

NEW RIGHT ANGLE PRINTED CIRCUIT TEST JACKS

Model MC123. Single .080" contact for use with closely spaced printed circuit boards. .3" mtg. centers. Rated: 5 amps. Oper. volts: 2000 RMS @ sea level. All metal surfaces are heavy gold over silver plating. Size: .231 x .48 x .449". Shpg. wt., 3 oz.



Stock No.	Type	Color	1-24	25-49	50-249	250-499
26F948	TJ201Y	Yellow	.21	.19	.17	.16
26F949	TJ202BR	Brown				
26F992	TJ203R	Red				
26F993	TJ204OR	Orange				
26F994	TJ205BL	Black				
26F995	TJ206GN	Green				
26F996	TJ207MB	Marine Bl				
26F997	TJ208W	White				
26F998	TJ209GY	Gray				
26F999	TJ210V	Violet				

NEW PRINTED CIRCUIT TEST JACKS

Model MC121. For dip board application. Simple mounting on any circuit panel up to 1/4" thick. Accepts any standard test prod. Temperature cycling from -65°C to +85°C. Beryllium-Copper spring pin contact. 95% Relative humidity @ 40°C for 250 hrs. Gold plated contact sleeve. Maximum L .546. Maximum insulator dia. .228.



Stock No.	Type	Color	1-24	25-49	50-249	250-499
26F928	TJ300N	Natural	.21	.19	.17	.16
26F929	TJ301Y	Yellow				
26F930	TJ302B	Brown				
26F931	TJ303R	Red				
26F932	TJ304OR	Orange				
26F933	TJ305BL	Black				
26F934	TJ306G	Green				
26F935	TJ307MB	Marine-Blue				
26F936	TJ308W	White				

PANEL BRACKETS

Formed from .090" cold-rolled carbon steel, the bracket is available in four sizes to accommodate panels ranging in width from 1 3/4" to 3 1/4". A pair of brackets will mount either one or two panels. Meet the requirements of MIL-E-16400A (ships), MIL-E-5400, and MIL-P-11268B (Sig. C) Cadmium plated. Shpg. wt., 3 oz.



Stk. No.	Type	Wide Range	1-99	100-199	200-499	500-999
26F316	MB-125	1 3/4"-1 3/4"	.20	.17	.16	.15
26F317	MB-126	2-2 1/4"	.21	.179	.168	.157
26F318	MR-127	2 1/2-2 1/4"	.22	.187	.176	.165
26F319	MB-128	3-3 1/4"	.23	.196	.184	.172

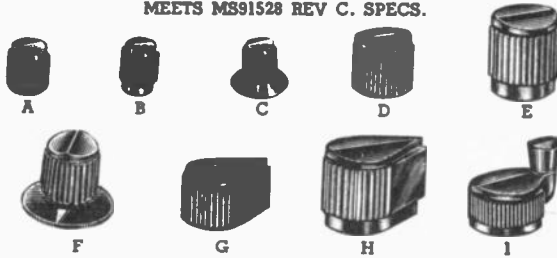
SHAFT LOCKS

Mounted on the control bushing in place of the nut and washer, the shaft lock fits snugly around the control shaft, providing a constant drag which resists rotation caused by accidental contact, vibrations, etc., but which permits smooth adjustment. Shpg. wt., 1 oz.



Stock No.	Type	Shaft	Thread NEF2	1-99	100-199	200-499	500-999
26F314	SL100B	1"	3/8 32	.28	.238	.224	.203
26F317	SL101R	1/4"	1/4	.28	.238	.224	.203
26F315	SL105B	1/4"	3/32	.22	.187	.176	.159
26F938	SL110B	1"	1/4	.22	.187	.176	.159

**STANDARD CONTROL KNOBS
MEETS MS91528 REV C. SPECS.**



Molded plastic knobs fitted with an aluminum insert. Two Allen head set screws fasten to the control shaft. * after type number indicates mirror finish for commercial equipment. G after type number indicates a non-reflecting "matte" finish, which conforms to military specifications. Ave. shp. wt. 3 oz.

50 Series—.45" Dia. For 1/8" shafts

Stk. No.	Type	Description	Fig.	1-99	100-199	200-499
26F194	50-1-1*	Unskirted knob	A	.55	.47	.44
26F195	50-1-1G	Unskirted knob	A	.61	.52	.49
26F196	50-2-1*	Skirted knob	B	.64	.54	.51
26F197	50-2-1G	Skirted knob	B	.70	.60	.56
26F198	50-3-1*	Dil. Skt. Rd. w/pt.	C	.72	.61	.58
26F199	50-3-1G	Dil. Skt. Rd. w/pt.	C	.78	.66	.62

70 Series—.72" Dia. 1/8" Shaft Knobs

Stk. No.	Type	Description	Fig.	1-99	100-199	200-499
26F339	70-1-1*	Round	D	.76	.65	.61
26F340	70-2-1*	Skirted Round	E	.85	.72	.68
26F341	70-1-1G	Round	D	.82	.70	.66
26F342	70-2-1G	Skirted Round	E	.91	.77	.73
26F343	70-3-1G	Dil. Skt. Rd. w/pt.	F	1.00	.85	.80
26F344	70-5-1*	Skirted Pointer	H	.85	.72	.68
26F345	70-4-1G	Pointer	G	.82	.70	.66
26F346	70-5-1G	Skirted Pointer	H	.91	.77	.73

70 Series—.72" Dia. For 1/4" shafts

Stk. No.	Type	Description	Fig.	1-99	100-199	200-499
26F150	70-1-2*	Round	D	.70	.60	.56
26F151	70-1-2G	Round	D	.76	.65	.61
26F152	70-2-2*	Skirted Round	E	.79	.67	.63
26F153	70-2-2G	Skirted Round	E	.85	.72	.68
26F154	70-3-2*	Dil. Skt. Rd. w/pt.	F	.88	.75	.70
26F155	70-3-2-G	Dil. Skt. Rd. w/pt.	F	.94	.80	.75
26F156	70-4-2*	Pointer	G	.70	.60	.56
26F157	70-4-2G	Pointer	G	.76	.65	.61
26F158	70-5-2*	Skirted Pointer	H	.79	.67	.63
26F159	70-5-2G	Skirted Pointer	H	.85	.72	.68

90 Series—.928" Dia. For 1/4" shafts

Stk. No.	Type	Description	Fig.	1-99	100-199	200-499
26F160	90-1-2*	Round	D	.74	.63	.59
26F161	90-1-2G	Round	D	.80	.68	.64
26F162	90-2-2*	Skirted Round	E	.83	.71	.66
26F163	90-2-2G	Skirted Round	E	.89	.76	.71
26F164	90-3-2*	Dil. Skt. Rd. w/pt.	F	.92	.78	.74
26F165	90-3-2G	Dil. Skt. Rd. w/pt.	F	.98	.83	.78
26F166	90-4-2*	Pointer	G	.79	.67	.63
26F167	90-4-2G	Pointer	G	.85	.72	.68
26F168	90-5-2*	Skirted Pointer	H	.88	.75	.70
26F169	90-5-2G	Skirted Pointer	H	.94	.80	.75

125 Series—1.269" Dia. For 1/4" shafts

Stk. No.	Type	Description	Fig.	1-99	100-199	200-499
26F170	125-1-2*	Round	D	.79	.67	.63
26F171	125-1-2G	Round	D	.85	.72	.68
26F172	125-2-2*	Skirted Round	E	.88	.75	.70
26F173	125-2-2G	Skirted Round	E	.94	.80	.75
26F174	125-3-2*	Dil. Skt. Rd. w/pt.	F	.96	.82	.77
26F175	125-3-2G	Dil. Skt. Rd. w/pt.	F	1.02	.87	.82
26F176	125-6-2*	Crank	I	2.02	1.72	1.62
26F177	125-6-2G	Crank	I	2.08	1.77	1.66

175 Series—1.772" Dia. For 1/4" shafts

Stk. No.	Type	Description	Fig.	1-99	100-199	200-499
26F178	175-1-2*	Round	D	.92	.78	.74
26F181	175-2-2G	Skirted Round	E	1.07	.91	.86
26F182	175-3-2*	Dil. Skt. Rd. w/pt.	F	1.14	.97	.91
26F183	175-3-2G	Dil. Skt. Rd. w/pt.	F	1.20	1.02	.96
26F184	175-6-2*	Crank	I	2.20	1.87	1.76
26F185	175-6-2G	Crank	I	2.26	1.92	1.81

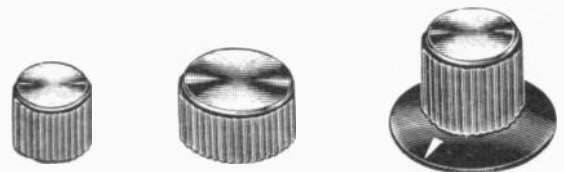
225 Series—2.272" Dia. For 1/4" shafts

Stk. No.	Type	Description	Fig.	1-99	100-199	200-499
26F186	225-1-2*	Round	D	1.05	.89	.84
26F187	225-1-2G	Round	D	1.11	.94	.89
26F189	225-3-2*	Dil. Skt. Rd. w/pt.	F	1.27	1.08	1.02
26F191	225-3-2G	Dil. Skt. Rd. w/pt.	F	1.33	1.13	1.06
26F192	225-6-2*	Crank	I	2.28	1.94	1.82
26F193	225-6-2G	Crank	I	2.34	1.99	1.87

125 Series—2.516" Dia. For 1/4" shafts—No skirt

Stk. No.	Type	Description	Fig.	1-99	100-199	200-499
26F338	125-7-2G	Bar Pointer	...	1.32	1.12	1.06

"DESIGNER" SERIES



Molded black plastic knobs with spun aluminum cap inserts. Knobs withstand 25 in./lbs. of torque. Temperature: —55°C to 125°C. Ave. shp. wt. 3 oz.

70 Series—.127 Shafts

Stk. No.	Type	Description	1-99	100-199	200-499	500-999
26F450	DS 70-1-1	Rd. No Skt.	.78	.72	.68	.59
26F451	DS 70-1-1G	Rd. No Skt.	.80	.74	.70	.61
26F452	DS 70-1BD-1	Rd. No Skt. Dot	.94	.86	.82	.71
26F453	DS 70-1BD-1G	Rd. No Skt. Dot	.96	.88	.84	.73
26F454	DS 70-2-1	Rd. Pin. Skt.	.93	.86	.81	.71
26F455	DS 70-2-1G	Rd. Pin. Skt.	.95	.87	.83	.72
26F456	DS 70-2BD-1	Rd. Pin. Skt. Dot	1.04	.96	.90	.79
26F457	DS 70-2BD-1G	Rd. Pin. Skt. Dot	1.06	.98	.92	.81
26F458	DS 70-3-1	DI. Skt. Rd. w/pt.	1.02	.94	.89	.78
26F459	DS 70-3-1G	DI. Skt. Rd. w/pt.	1.04	.96	.90	.79
26F460	DS 70-4-1	Pt. No Skt.	.84	.77	.73	.64
26F461	DS 70-4-1G	Pt. No Skt.	.86	.79	.75	.65
26F462	DS 70-5-1	Pt. Pin. Skt.	.93	.86	.81	.71
26F463	DS 70-5-1G	Pt. Pin. Skt.	.95	.87	.83	.72

70 Series—.252 Shafts

Stk. No.	Type	Description	1-99	100-199	200-499	500-999
26F464	DS 70-1BD-2	Rd. No Skt. Dot	.88	.81	.77	.67
26F465	DS 70-1BD-2G	Rd. No Skt. Dot	.90	.83	.78	.68
26F466	DS 70-1-2	Rd. No Skt.	.78	.72	.68	.59
26F467	DS 70-1-2G	Rd. No Skt.	.80	.74	.70	.61
26F468	DS 70-2-2	Rd. Pin. Skt.	.88	.81	.77	.67
26F469	DS 70-2-2G	Rd. Pin. Skt.	.90	.83	.78	.68
26F470	DS 70-2BD-2	Rd. Pin. Skt. Dot	.98	.90	.85	.74
26F471	DS 70-2BD-2G	Rd. Pin. Skt. Dot	1.00	.92	.87	.76
26F472	DS 70-3-2	DI. Skt. Rd. w/pt.	.96	.88	.84	.73
26F473	DS 70-3-2G	DI. Skt. Rd. w/pt.	.98	.90	.85	.74
26F474	DS 70-4-2	Pt. No Skt.	.78	.72	.68	.59
26F475	DS 70-4-2G	Pt. No Skt.	.80	.74	.70	.61
26F476	DS 70-5-2	Pt. Pin. Skt.	.87	.80	.76	.66
26F477	DS 70-5-2G	Pt. Pin. Skt.	.89	.82	.77	.68

70 Series—.190 Shafts

Stk. No.	Type	Description	1-99	100-199	200-499	500-999
26F478	DS 70-1-3	Rd. No Skt.	.88	.81	.77	.67
26F479	DS 70-1-3G	Rd. No Skt.	.90	.83	.78	.68

90 Series—.127 Shafts

Stk. No.	Type	Description	1-99	100-199	200-499	500-999
26F480	DS 90-1-1	Rd. No Skt.	.98	.90	.85	.74
26F481	DS 90-1-1G	Rd. No Skt.	1.00	.92	.87	.76
26F482	DS 90-1BD-1	Rd. No Skt. Dot	1.04	.96	.90	.79
26F483	DS 90-1BD-1G	Rd. No Skt. Dot	1.06	.98	.92	.81

90 Series—.252 Shafts

Stk. No.	Type	Description	1-99	100-199	200-499	500-999
26F484	DS 90-1-2	Rd. No Skt.	.88	.81	.77	.67
26F485	DS 90-1-2G	Rd. No Skt.	.90	.83	.78	.68
26F486	DS 90-1BD-2	Rd. No Skt. Dot	.98	.90	.85	.74
26F487	DS 90-1BD-2G	Rd. No Skt. Dot	1.00	.92	.87	.76
26F488	DS 90-2-2	Rd. Pin. Skt.	.98	.90	.85	.74
26F489	DS 90-2-2G	Rd. Pin. Skt.	1.00	.92	.87	.76
26F490	DS 90-2BD-2	Rd. Pin. Skt. Dot	1.08	.99	.94	.82
26F491	DS 90-2BD-2G	Rd. Pin. Skt. Dot	1.10	1.01	.96	.84
26F492	DS 90-3-2	Rd. DI. Skt. w/pt.	1.05	.97	.91	.80
26F493	DS 90-3-2G	DI. Skt. Rd. w/pt.	1.07	.98	.93	.81
26F494	DS 90-4-2	Pt. No Skt.	.93	.86	.81	.71
26F495	DS 90-4-2G	Pt. No Skt.	.95	.87	.83	.72
26F496	DS 90-5-2	Pt. Pin. Skt.	1.02	.94	.89	.78
26F497	DS 90-5-2G	Pt. Pin. Skt.	1.04	.96	.90	.79

90 Series—.190 Shafts

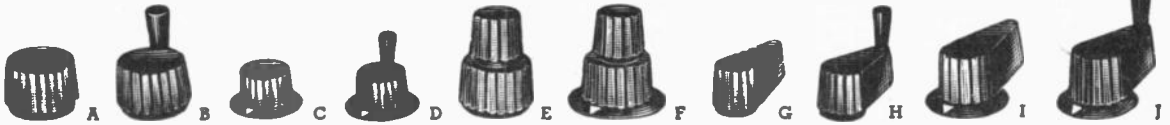
Stk. No.	Type	Description	1-99	100-199	200-499	500-999
26F498	DS 90-1-3	Rd. No Skt.	.98	.90	.85	.74
26F499	DS 90-1-3G	Rd. No Skt.	1.00	.92	.87	.76

125 Series—.252 Shafts

Stk. No.	Type	Description	1-99	100-199	200-499	500-999
26F444	DS 125-1-2	Rd. No Skt.	.98	.90	.85	.74
26F445	DS 125-1-2G	Rd. No Skt.	1.00	.92	.87	.76
26F446	DS 125-2-2	Rd. Pin. Skt.	1.08	.99	.94	.82
26F447	DS 125-2-2G	Rd. Pin. Skt.	1.10	1.01	.96	.84
26F448	DS 125-3-2	DI. Skt. Rd. w/pt.	1.14	1.05	.99	.87
26F449	DS 125-3-2G	DI. Skt. Rd. w/pt.	1.16	1.07	1.01	.88

Knobs, Dial Plates and Accessories

RAYTHEON



DESIGNER SERIES 400 CONTROL KNOBS

High impact acrylonitrile-styrene (ABS), with lustreless black finish. Supplied with metal bushings and two set screws.

407 SERIES—1/8" SHAFTS—.720 DIA.

Stk. No.	Type	Description	Fig.	1-99	100-199	200-499
26F671	407R1K1	Round	A	.38	.32	.30
26F672	407D1K1	Round dial skirted	C	.47	.40	.38

407 SERIES—1/4" SHAFTS—.720 DIA.

26F675	407R2K1	Round	A	.35	.30	.28
26F676	407D2K1	Round dial skirted	C	.44	.37	.35
26F677	407P2K1	Bar pointer	G	.39	.33	.31
26F678	407PD2K1	Bar pointer dial skirted	I	.48	.41	.38

409 SERIES—1/8" SHAFTS—.875 DIA.

26F679	409R1K1	Round	A	.40	.34	.32
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409 SERIES—1/4" SHAFTS—.875 DIA.

26F682	409R2K1	Round	A	.37	.32	.30
26F683	409D2K1	Round dial skirted	C	.46	.39	.37
26F684	409RB2K1	Round—for assemblies	A	.40	.34	.32
26F685	409P2K1	Bar pointer	E	.44	.37	.35
26F686	409PC2K1	Bar pointer w/crank	H	.59	.50	.47
26F687	409PD2K1	Bar pointer dial skirted	I	.53	.45	.42
26F688	409PDC2K1	Bar pointer w/crank, dial skirted	J	.68	.58	.54
26F689	409DB2K1	Round dial skirted—for assemblies	C	.47	.40	.38

SPECIAL POINTER KNOB

With knob lock listed at right. Knob features pointer arm which curves over skirt of lock toward chassis to increase accuracy. For 1/4" shafts. Shpg. wt., 2 oz.



Stk. No.	Type	Series	Finish	1-99	100-199	200-499	500-999
26F302	70-1LK-2	70	mirror	.93	.79	.74	.65
26F303	70-1LK-2G	70	matte	.99	.84	.79	.69
26F304	90-1LK-2	90	mirror	.99	.84	.79	.69
26F305	90-1LK-2G	90	matte	1.05	.89	.84	.74
26F307	125-1LK-2G	125	matte	1.11	.94	.89	.78

DIRECT-DRIVE DIALS

For transmitting and test equip 2 3/4" and 4" types have knob skirts 1 1/2" have small knurled knob only instead of fluted type. 2 3/4" and 4" have micrometer for 1/10 of one digit control shafts and 0-100 scale except 302A has 0-360 scale. 12 oz.



Stk. No.	Type	Dia.	Rot.	NET
25F639	27084	1 1/2"	180°	1.30
25F640	27085	1 1/2"	270°	
25F641	27086	1 1/2"	325°	
25F642	27087	1 1/2"	360°	
25F630	27068	1 3/4"	180°	1.40
25F631	27069	1 3/4"	270°	
25F643	27080	1 3/4"	325°	
25F644	27081	1 3/4"	360°	2.30
25F632	294	2 3/4"	180°	
25F633	295	2 3/4"	270°	
25F645	27082	2 3/4"	325°	
25F646	303	2 3/4"	360°	3.00
25F634	292	4"	180°	
25F635	293	4"	270°	
25F647	27083	4"	325°	
25F648	302	4"	360°	
25F638	302A	4"	360°	

INDUSTRIAL TYPE MODERN KNOBS

Desirable when smooth finishes and simplicity are required. 1/4" dia. hole—brass insert. Set screw

Stk. No.	Type	Dia.	NET
25F769	6126	3/8"	.25
25F770	6129	7/8"	.40



WALDUM PLATES

AZIMUTH DIALS

Outer numerals read 0 to 360 c-c. v. Inner numerals read 0 to 360 c-c. v. Etched on heavy aluminum with black graduations. Shpg. wt., 2 oz.



Stk. No.	Type	Dia.	Shaft Dia.	NET
25F691	27010	6"	3/8"	4.50
25F692	27011	6"	1/2"	4.50
25F693	KD-12	4"	1/4"	3.28

PLANETARY DRIVES

Type 599. Two speed. For slow speed at 5:1 ratio, high speed at 1:1. Used as a single-speed drive by omitting knob on high-speed sleeve. Shaft sizes: Inner: 1/8", outer: 1/4" dia. Size, 2 1/2" x 1 1/2". Shpg. wt 3 oz.



25F636. NET 7.40
Type 6665. Concentric pair of Knobs. For two-speed planetary unit above.
25F621. NET68
Type 27067. One speed. Same as 599 but with threaded sleeve for high speed knob. 1/4" dia. knob shaft and fits 1/4" dia. shaft.
25F628. NET 7.25



Made of molded plastic, they can be drilled out to take any type of instrument. Covers available for all cases. Wt. 1 lb.

412 SERIES—1/4" SHAFTS—1.25 DIA.

Stk. No.	Type	Description	Fig.	1-99	100-199	200-499
26F680	412R2K1	Round	A	.39	.33	.31
26F691	412RC2K1	Round w/crank	B	.54	.46	.43
26F692	412D2K1	Round dial skirted	C	.48	.41	.38
26F693	412DC2K1	Rnd. dial sktd. w/crank	D	.63	.54	.50
26F694	412RB2K1	Round—for assemblies	A	.41	.35	.33
26F695	412P2K1	Bar pointer	G	.49	.42	.39
26F696	412PC2K1	Bar pointer w/crank	H	.64	.54	.51
26F697	412PD2K1	Bar pointer dial skirted	I	.58	.49	.46
26F698	412PDC2K1	Bar pointer dial skirted w/crank	J	.73	.62	.58
26F699	412DB2K1	Rnd. dial sktd. for assem.	C	.49	.42	.39

CONCENTRIC ASSEMBLIES—FIG. E AND F. Consist of two separate knobs which should be ordered separately from the Series 400 listings on this page. Easily assembled.

FIG. E.—ROUND/ROUND

Top Knob—1/4" Shaft		Bottom Knob—1/4" Shaft	
407R1K1	.720 dia.	409RB2K1	.875 dia.
409R1K1	.875 dia.	412RB2K1	1.25 dia.

FIG. F.—ROUND/ROUND DIAL SKIRTED

407R1K1	.720 dia.	409DB2K1	.875 dia.
409R1K1	.875 dia.	412DB2K1	1.25 dia.

KNOB LOCKS

For standard control knobs. Holds precise or critical control settings under shock or vibration. Use with 70, 90, and 125 round standard control knobs. Mirror finish except "Matte. 3/8-32 thread. Shpg. wt., 2 oz.



Stk. No.	Type	Series	Dia.	1-99	100-199	200-499	500-999
26F308	KL701	70	1"	.77	.65	.62	.54
26F309	KL701G*	70	1"	.83	.71	.66	.58
26F310	KL901	90	1 1/8"	.88	.75	.70	.62
26F311	KL901G*	90	1 1/8"	.94	.80	.75	.66
26F312	KL1251	125	1 1/2"	.93	.79	.74	.65
26F313	KL1251G*	125	1 1/2"	.99	.84	.79	.69

ETCHED ALUMINUM PLATES



Dial plates are calibrated *0-10 in 300° *0-100 in 180° *0-100 in 270°. Dial center hole: 260-264 1/2", 272 1 1/2", 551 & 905 1 1/2". H 1 1/2" x 1 1/2". T 1/2" dia. 2 oz.

No.	Type	Fig.	Description	NET
25F700	260	A	3" dia.**	.85
25F701	261	A	3" dia.†	.85
25F702	262	A	1 1/2" dia.**	.43
25F703	263	A	1 1/2" dia.†	.43
25F704	264	A	2 1/4" dia.**	.85
25F715	272	C	On-Off††	.17
25F718	278	B	On-Off††	.17
25F772	551	A	1 1/2" Dia.†	.45
25F773	905	A	1 1/2" Dia.†	.28

POLISHED ALUMINUM PLATES

Distinctive black lettering. All 2 3/16" high x 2 5/8" wide. Wt., 3 oz.



No.	Type	Title	NET
25F720	410	Plain 0-10	.34
25F724	414	Record 0-10	
25F729	423	Arrow-Increase	
25F732	426	Volume 0-10	

INSTRUMENT CASES AND COVERS

Type 260: 6 1/4" x 5 1/2" x 2 3/8". Type 240: 3 3/4" x 6 1/4" x 1 1/2". Type 220: 2 1/2" x 3 3/4" x 1 1/2".

Stk. No.	Type	1-24	25-49	50-99
26F124	260	.96	.72	.60
26F125	240	.72	.66	.48
26F145	220	.42	.37	.32



Millen Knobs, Dials & Terminals

SHAFT LOCKS

Type A061. Clearance for 1/8" D. shaft. Total length is 1/2". Wt. 2 oz.

26F276. NET40

Type A062. Same as above except has knurled face.

26F277. NET53

Type M017. Flexible Coupling. Plastic insulated and miniaturized. Fits 1/8" diameter shafts. 1 1/2" L. x 1 1/16" D. Bronze yoke. Wt., 2 oz.

26F289. NET82

Molded Coupling. Small size, high flexibility. 4000 volt insul. High torque. 1 1/16" dia., 1 1/32" thick. For 1/4" shafts. Wt., 2 oz.

26F206. 39016. NET66

Type 39017. Same as above except dia. for 3/16" shaft.

26F278. NET83



SHAFT AND DIAL LOCKS

#10061 is combination mtg. nut and shaft lock; #10062 is similar, but with knurled control knob; and #10063 is chuck type lock w/lever control. 1/4" shaft. Wt. 2 oz.

26F045. (A) Type 10061. NET40

26F046. (B) Type 10062. NET58

Fig. D. Dial Lock. Has captive head for front of panel mounting. Wt. 2 oz.

26F048. Type 10050. NET59

Type A050. Miniature Dial Lock. Same as above, but for specialized miniaturized applications. Wt., 2 oz.

26F288. NET58

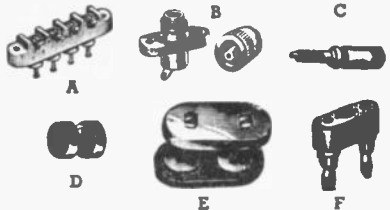
FLEXIBLE COUPLINGS

Type 39001 is for angle drives up to 45°. Type 39006 is a slide action coupling for eccentric shafts. Wt., 2 oz.

Stk. No.	Type	Fig.	Insulation	NET
26F200	39001	A	Ceramic	.66
26F201	39002	B	Ceramic	
26F202	39005	A	All metal	
26F203	39006	B	Steatite	

Type 39003. Solid coupling with 1/4" shaft 3/4" long. Includes two 3/8" head screws made of hardened steel. Coupling is solid brass and is nickel plated. Wt. 2 oz.

26F275. NET26



BARRIER TERMINAL

Fig. A. Terminals are used for terminating high voltages in power supplies, receivers, and transmitters. Has 5/32 B.H. screws; rated 3500 V. Shpg. wt., 3 oz.

Stock No.	Type	Term	Mtg.	EA.
28F645	37302	2	1 1/2"	.84
28F646	37303	3	2"	.96
28F647	37304	4	2 1/2"	1.20
28F648	37305	5	3"	1.42
28F649	37306	6	3 1/2"	1.71



MINIATURE COUPLINGS

Model M003. Solid coupling for 1/8" dia. shaft, 3/8" long. N.P. brass. Wt., 2 oz.

26F272. NET42

Model M006. Universal joint style flexible coupling. Spring finger. Steatite insulation. 1/8" dia. shaft hole. Nickel plated brass. Wt., 2 oz.

26F273. NET92

Model M001. Insulated universal joint style flexible coupling for 1/8" dia., 1 1/16" long shafts. Wt., 2 oz.

26F285. NET82

Model M005. Universal joint flex. coupling for 1/8" dia. shafts, 1 1/16" long, uninsulated. Ext. hub for max. flexibility. Wt., 2 oz.

26F286. NET82

Model M004. Universal joint flex. coupling for 1/8" dia. shafts, uninsulated. Inverted hubs for short length. Wt., 2 oz.

26F287. NET82

Model M008A. Illustrated above, Insulated coupling, with N.P. brass inserts for 1/8" dia. shafts, 1 1/32" long. 6000 v. Wt., 2 oz.

26F274. NET60

MILLEN AO12 RIGHT ANGLE DRIVE

Designed for use in Millen equipment. Right angle drive. 1/8" diam. shafts. Single hole mounting bushing 1/4"-32 diam. Wt., 6 oz.

26F213. NET5.25

MILLEN RIGHT ANGLE DRIVES

Type 10012. Compact bevel gear drive with 1:1 ratio. Mounts by threaded bushing; tapped holes in frame or "stand off" rods. Size, 1 1/2 x 3/4". Wt., 4 oz.

26F210. NET6.55

Type 10000. Right angle worm drive assembly. May be panel or base mounted. Standard ratio, 16:1. Spring loaded split gears eliminate backlash. Cast aluminum frame. Wt. 4 oz.

26F211. NET13.50

26F212. As above, with 48:1 ratio.....13.50

BAR KNOB DIAL

Type 10007. 1 1/4" dial with rectangular bar knob calibrated 10 to 0. 180° clockwise. 1/4" shaft. Wt. 7 oz.

26F044. NET82

26F049. As above but 280° rotation. NET82

Type A014. 1" dial calibrated from 0 to 10. 180° clockwise rotation. 1/8" shaft. 3 oz.

26F270. NET78

26F271. Same as above but 280° rotation. NET78

TERMINALS AND BINDING POSTS

HV TERMINALS

Fig. B. Type 37001. Mount with insulated bushing extending thru chassis. Bakelite. Tapered plug and socket. Pin is swivel mounted in cap to prevent twisting of lead wire. 2 oz.

Stk. No.	Color	EACH
28F638	Red	.48
28F639	Black	.45

BINDING POSTS

Fig. C. Type 37222. Non-turning types with captive head. Banana jack tops. Mount on single or dual plates. Wt., 5 oz. Brass. Non-insulated.

Stk. No.	EACH
28F640	.30

SINGLE DISC

Fig. D. Type 37201. Bakelite. This single plate is used with binding post type 37222. 2 oz.

Stk. No.	Descrp.	EACH
28F641	Black	.24
28F657	Mica filled	.24

MINIATURE KNOBS FOR 1/8" SHAFT



No. A018. Blk. plastic knob w. brass insert. Skt. diam. 3/8". Screwdriver slot on top. 5/8" Hx 1/4" D. Avg. wt., 1 oz.

26F281. NET43

No. A019. Above without flange.

26F282. NET40

No. A007. A018 w. 3/8" diam. indexed dial.

26F283. NET46

No. A006. Like std. knobs. 1/2" Hx 3/4" D.

26F284. NET53

LIGHTED DIAL



Type 10035. Slide rule panel dial w. 2 pilot lights. 12:1 drive ratio knob. 1 0-100 log scale reads left to right. 8 1/2 x 6 1/2". Wt. 2 1/2 lbs.

26F040. NET9.24

MIDGET DIAL



Type 10039. Midget panel dial. 8:1 ratio. Self-contained mech. cuts interference. 0-100 log reads left to right. 5 blank scales. 4x3 3/4". Wt., 1 1/4 lbs.

26F041. NET6.80

KNOB DIALS



Nickel silver dials with finger-grip knobs. Bakelite hub insulates metal scale from shaft. Calibrated 0-100 clockwise 180°. 1/4" shaft. Wt., 7 oz.

26F042. Type 10008, 3 1/2" dia. NET2.60

26F043. Type 10009, 2 3/4" dia. NET1.80

INSULATED SHAFT EXTENSION



Type 39023. Safety insulated shaft extension. 1/4" shaft. Nickel-plated. 3/8-32 thr. Phenolic tubing. 5500 V. Length, 2". Shpg. wt., 2 oz.

26F205. NET1.55

Type 39024. Same as above but includes shaft lock. Wt., 2 1/2 oz.

26F280. NET1.85

DOUBLE DISC BINDING POSTS

Fig. E. Type 37202. Dual plates. Bakelite. Have captive heads and keyed mountings. Meets most requirements. 5 oz.

Stk. No.	Color	EACH
28F642	Black	.38
28F658	Red	.38

DOUBLE BANANA PLUG

Fig. F. Type 37212. Bakelite. Fits 37222 posts on dual plates. Wt., 3 oz.

Stk. No.	Color	EACH
28F643	Black	.84
28F636	Red	.84

PHENOLIC BINDING POST

The posts have captive heads and keyed mounting. Insulated. Type 37223. 6 oz.

Stk. No.	Color	EACH
28F587	Red or Black	.32

BINDING POST PLATES

Type 37291. For 37222, 37223. Phenolic. For 1/2" dia or keyed hole.

Stk. No.	Color	Ex. of 2 prs.
28F588	Black	.18
28F559	Red	.18

Millen Miniaturized Components



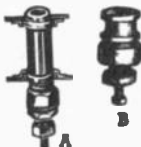
MINIATURE TERMINAL STRIPS

These miniature steatite ceramic terminal strips are only $\frac{1}{8}$ " wide. Terminals are spaced $\frac{3}{16}$ " centers. Have rating of 1400 volts DC. One piece brass turret soldering lugs with bright alloy finish. #4-40 binding head screws. Shpg. wt. 1 oz.

Stk. No.	Type	Term.	Mfg. Ctrs.	NET
28F941	E302A	2	1 $\frac{1}{2}$ "	.84
28F942	E303A	3	1 $\frac{1}{2}$ "	.96
28F943	E304A	4	1 $\frac{1}{2}$ "	1.20
28F944	E305A	5	2 $\frac{1}{4}$ "	1.42

FORMS FOR RF COILS

Type A: Ceramic permeability tuned unshielded forms perfect for any application. Supplied with all mounting hardware.



Type B: Compact forms for UHF coils. Feature high "Q" at minimum capacity. *Have copper slugs; have powdered iron cores. Wt., 4 ounces.

Stk. No.	Type	Winding Length	Freq. Mc.	NET
40F439	69044*	$\frac{3}{8}$"	.....	1.40
40F440	69051*	$\frac{3}{8}$ "	14-300	.95
40F441	69052†	$\frac{3}{8}$ "	10-30	.95
40F442	69057*	$\frac{5}{8}$ "	14-300	.85
40F443	69058†	$\frac{5}{8}$ "	10-30	.85
40F444	69061*	$\frac{3}{4}$ "	14-300	.95
40F445	69062†	$\frac{3}{4}$ "	10-30	.95
40F725	69041*	$\frac{3}{8}$ "	14-320	1.52
40F722	69042†	$\frac{3}{8}$ "	18-35	1.52
40F727	69045*	1 $\frac{1}{4}$ "	1-30	.76
40F728	69046†	1 $\frac{1}{4}$ "	1-30	.76
40F723	69047*	$\frac{3}{4}$ "	35-100	1.46
40F724	69048†	$\frac{3}{4}$ "	35-100	1.46
40F726	69043†	$\frac{3}{4}$ "	12-25	.94

PERMEABILITY SHIELDED FORMS

Permeability tuned, shielded form, plugs into octal socket. Low-loss octal base. Polystyrene $\frac{1}{2}$ " dia. coil form with iron tuning slug for frequencies up to 35 mc. Adjusting screw extends through socket hole. Heavy aluminum shield.



40F729. Type 74001. NET..... 2.31
40F730. Type 74002 less slug. NET..... 1.89

MIDGET COIL FORMS

Low loss mica filled brown bakelite forms. For short-wave receivers and low-power transmitters. Size: 1" dia., 1 $\frac{1}{32}$ " winding length; 2 $\frac{1}{16}$ " overall. Shpg. wt., 2 oz.



40F732. Type 45004. 4 prongs. NET .51
40F731. Type 45000. Without prongs.... .39
40F733. Type 45005. Five prongs. NET .51

OCTAL BASE AND SHIELD

Model 74400. Low loss phenolic base with octal socket plug and aluminum shield can. $1\frac{1}{8}$ " x $1\frac{1}{8}$ " x $3\frac{1}{8}$ ".

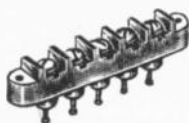


40F734. NET..... 1.55

Depend on NEWARK
For All Millen
Electronic Components

BINDING POSTS AND INSULATORS

Type E202 black plastic double binding post insulator is only $1\frac{1}{32}$ " wide. Mounts in $\frac{1}{16}$ " dia. holes, $\frac{1}{4}$ " between centers. For use with Type E222 binding post. Shpg. wt. 2 oz.
28F938. Black or Red. NET TA..... 42
Type E201 binding post insulators are the same as above except—single insulator. Shpg. wt. 2 oz.
28F939. Black. NET..... 26
28F937. Red. NET..... 26
Type E222 miniature binding post for use with above. Has jack top for miniature banana plug. Max. height: $1\frac{1}{4}$ ". Shpg. wt. 2 oz.
28F940. Single Post. NET EACH..... 42



Type E305



E201



E202

MINIATURE IF TRANSFORMERS

Extremely high Q—approximately 200-variable coupling—(under, critical, and over) with all adjustments on top. Small size: $1\frac{1}{2}$ " x $1\frac{1}{2}$ " x $1\frac{1}{2}$ ". Molded terminal base. Air capacitor tuned. Coils completely enclosed in cup cores. Tapped primary and secondary. Rugged construction. High electrical stability. Shpg. wt. 4 oz.



Stk. No.	Type	Application	NET
40F418	61455	455 kc. Universal	9.00
40F417	61453	455 kc. BFO	7.50
40F418	61160	1600 kc. Universal	9.00
40F419	61163	1600 kc. BFO	7.50

MINIATURE POWDERED IRON CHOKES



Powdered iron core chokes are $\frac{1}{4}$ " long. Have current capacity of 100 ma. Hi-Q. Designed for application in radio components. Excellent for use where miniaturization is paramount. Shipping weight 1 oz.

Stk. No.	Type	UH	NET
40F386	3300-25	25	.64
40F387	3300-50	50	
40F388	3300-100	100	
40F389	3300-250	250	
40F390	3300-500	500	.73
40F391	3300-1000	1000	.73
40F392	3300-2500	2500	.83

SMALL RF PI WOUND CHOKES

Expertly made and designed to operate under extremely trying conditions; chokes are dependable and have a long life. 250 ma current. Lead lengths $1\frac{1}{2}$ ". Sh. wt., 1 oz.



Stk. No.	Type	UH	Ohms	NET
40F393	34300-25	25	3.1	.45
40F394	34300-50	50	5.2	
40F395	34300-100	100	7.1	
40F396	34300-250	250	12.1	
40F397	34300-500	500	22.3	
40F398	34300-750	750	30.4	
40F399	34300-1000	1000	21.7	

RF CHOKES

Pie-wound on steatite forms. *Supplied with standoff insulator; have solid ends, have 6-32 threaded ends. **One threaded end. Shipping weight 2 oz.

Stk. No.	Type	Mh.	Mc	NET
40F400	34100*	2.5	250	.73
40F401	34101**	2.5	250	.73
40F402	34103†	2.5	250	.58
40F403	34104*	2.5	250	.65
40F404	34105**	1.0	300	.76
40F405	34106**	1.0	300	.76
40F406	34108†	1.0	300	.56

PLATE CAPS

Ceramic except 36011 and 36012 which are bakelite. Shpg. wt. 2 oz.



Stk. No.	Type	Size	EACH
28F950	36001	$\frac{3}{8}$ " for 866's	.26
28F951	36002	$\frac{3}{8}$ " for 807	.29
28F952	36004	$\frac{1}{4}$ "	.30
28F953	36011	$\frac{3}{8}$ "—snap lock	.79
28F959	36012	$\frac{3}{8}$ "—snap lock	.79

TUBE CLAMPS

For holding down metal tubes to chassis. Fastens to socket mtg. plate. Wt., 2 oz.



Stk. No.	Type	For	Each
28F955	33087A	1.125" Base	.40
28F956	33087B	1.165" Base	
28F957	33087C	1.250" Base	
28F958	33087D	1.275" Base	
28F954	33087E	1.375" Base	
28F965	33087F	1.156" Base	
28F967	33087G	1.625" Base	

ALUMINUM SHIELD CANS

Effective RF shielding for coils and transformers. Square shape except 80006 which is round. Shpg. wh. 5 oz.

Stk. No.	Type	Size	Each
28F985	80003	$1\frac{1}{2}$ " x $1\frac{3}{4}$ " x 4"	.54
28F986	80004	$1\frac{1}{2}$ " x $1\frac{1}{2}$ " x $4\frac{1}{2}$ "	.80
28F987	80005	2" x 2" x $4\frac{1}{8}$ "	.68
28F988	80006	$2\frac{1}{2}$ " x 4"	.51

CRYSTAL SOCKETS

Sockets for crystal holders. Steatite base for low-loss. Silver-plated phosphor-bronze contacts. Tinned solder lugs extend below chassis. *For CR-7 crystals. Shpg. wt., 2 ozs.



Stk. No.	Type	Space	Pins	NET
38F655	33002	$\frac{3}{4}$ "	.125	.38
38F656	33102	.487"	.095	.38
38F657	33202	$\frac{1}{2}$ "	.125	.38
38F658	33302*	.487"	.050	.26

STEATITE SOCKETS

Designed for use in transmitters and power supplies. Have higher body providing long "flashover" path to chassis. Mounting hole $\frac{3}{4}$ ". Shipping weight, 3 ounces.



Stk. No.	Type	Contacts	Each
38F650	33004	4	.75
38F651	33005	5	
38F653	33008	8	

BAYONET SOCKET

Dual contact bayonet sockets for type 991 neon voltage-regulator tube. Metal construction with choice of black or low-loss mica-filled phenolic insulation. Mounting centers, $1\frac{1}{4}$ ". Av. wt., 3 oz.



25F322. 33991. Black. NET..... 69
25F323. 33992. Mica. NET..... 78

Dials, Coils and Plastics

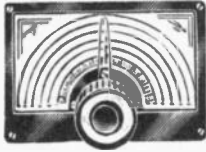
NATIONAL



DIAL KNOBS

Type N. Position 4" engine divided scale 5 to 1 ratio planetary drive. Fits 1/4" shaft. Has decimal vernier. Wt., 12 oz.

Stk. No.	Type	Description	Net
26F053	N2	0-100...180°C	12.68
26F056	N5	200-0...360°C	12.68



Type MCN. Has three blank calibration rows and a 0-to-100, 180-degree logging scale. Holes in pointer make calibration marks. 5-to-1 "velvet vernier" drive. Operated by a 1/2-inch chrome Circle Tenite knob. Supplied with two spare calibration charts. Fits 1/4" shaft. Mounts on 3/4" rack panel. Height: 2 3/4" (mechanism extends 3/8" inch below dial frame). Width: 3 1/8". Frame depth: 1/16". Shpg. wt. 10 oz.

26F052. NET..... **7.20**

Type AM. 3" "Velvet Vernier" metal dial. 5:1 drive ratio. Fits 1/4" shaft. Wt., 8 oz.

Stk. No.	Type	Description	Net
26F075	AM-2	0-100...180°C	5.25
26F077	AM-4	150-0...270°C	
26F078	AM-5	200-0...360°C	



Type HRP. Bar knob less pointer. Size, 1 1/4 x 1/2". Wt., 2 oz.

26F080. NET..... **.36**

Type HRP-P. Bar knob with pointer. Used on type R dial. Size, 1 1/4 x 1/2". Wt., 2 oz.

26F081. NET..... **.44**

TYPE HRS KNOBS

Plastic knobs with 1 1/8" diam. chrome flanges. Set screw types No. 3 marked "0-10" through 300° clockwise. No. 4 marked with single etched line, for use as center line index. No. 5 marked "0-10" through 180°C. Wt., 4 oz.

Stk. No.	Type	Color	NET
26F065	HRS-3	Black	.66
26F066	HRS-3	Gray	
26F087	HRS-4	Black	
26F088	HRS-4	Gray	
26F089	HRS-5	Black	
26F090	HRS-5	Gray	

Type HR Knobs. As above, less flange. Dial has white dot.

Stk. No.	Type	Color	NET
26F087	HR	Black	.39
26F088	HR	Gray	.39

TYPE HRT KNOBS

Plastic knob with chrome trim. Fits 1/4" shaft. Set screw type. Diameter, 2 1/8". Wt., 4 oz.

26F057. Black.
26F058. Gray. NET EA..... **1.04**

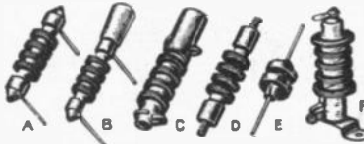
Type HRT-M. Chrome inlay. 1 1/2" dia.
26F059. Gray. NET
26F060. Gray. EACH..... **.58**



Type R Dial. Black bakelite bar knob. Marked 0-10 over 180° clockwise. 1 1/8" dia. For 1/4" shaft. 3 oz.

26F084. NET..... **.69**

RF CHOKES



For use in transmitters, receivers, VFO's, etc. Wound on ceramic forms. *With small standoff insulators for vertical mounting. †Microhenries. Av. wt., 2 oz.

No.	Type	Fig.	mh	Ma	NET
40F322	R-51	E	2.5	125	.42
40F300	R-100	A	2.5	115	.57
40F301	R-100	A	5	70	.90
40F302	R-100	A	10	60	1.12
40F303	R-300	A	1	400	.57
40F304*	R-100U	B	2.5	115	.74
40F306*	R-100U	B	10	60	1.28
40F308*	R-100S	C	2.5	115	.89
40F311*	R-300S	C	1	400	1.00
40F315	R-300ST	D	2.5	375	.80
40F323	R-33	E	11 1/2	350	.36
40F317	R-33	E	50 1/2	225	.38
40F318	R-33	E	100 1/2	200	.36
40F320*	R-154U	F	1	600	2.01
40F321*	R-175A	F	145 1/2	800	4.46

COIL FORMS

XR-60. Ceramic coil forms conform to JAN specifications. Can be wound as desired to provide a permeability-tuned coil. Extra lugs provided. Slug, 1 1/8" long, 3/4" dia. Shpg. wt., 4 oz.



40F479. NET..... **5.10**

GRID CAPS FOR TRANSMITTING & RECEIVING TUBES



SPP types (fig. A) have ceramic insulation. All others (fig. B) released by slight pressure. Wt., 3 oz.

No.	Type	Description	NET
28F960	SPP-9	9/16" dia. for 866	.24
28F961	SPP-3	3/8" dia. for 807	.24
28F962	GG-8	3/4" dia. for octals	.08
28F963	GG-24	3/8" dia. for regulars	.05
28F964	GG-12	9/16" dia. for 866	.08

Write for quantity prices up to 5000 on 28F960 and 28F961, up to 10,000 on 28F962, 963 and 964.

SHAFT COUPLINGS



Designed for shafts 1/4" in diameter. Made of *Stellite or †Bakelite. Av. shpg. wt., 1 oz.

No.	Type	Fig.	Description	NET
26F222	TX-8*	B	1" Rigid	1.17
26F223	TX-9*	B	1 1/2" Flexible	1.80
26F224	TX-10†	B	1 1/8" Flexible	.87

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ICORE POLYSTYRENE

RODS, TUBES AND SHEETS



Used for electronic application at ultra high frequencies because of its very low loss factor. Ideal for insulators, coil forms, shields, etc. Has excellent arc resistance, is non-tracking, has splendid insulating properties. Water absorption is practically zero.

TUBING IN 12" LENGTHS

Stk. No.	O.D.	I.D.	EACH
37F310	1/4"	1/8"	.14
37F312	3/8"	1/4"	.20
37F313	1/2"	3/8"	.36
37F314	5/8"	1/2"	.38
37F315	3/4"	5/8"	.45
37F316	1"	7/8"	.61

CLEAR POLYSTYRENE SHEETS

Stk. No.	Overall Size	Thick-ness	NET EACH
37F317	12x12"	1/8"	2.42
37F319	12x12"	1/4"	3.22
37F320	12x12"	3/8"	4.05
37F321	12x12"	1/2"	4.98

ROD IN 12" LENGTHS

Stk. No.	Dia.	NET	No.	Dia.	NET
37F300	1/8"	.05	37F301	5/16"	.08
37F302	1/4"	.11	37F303	3/8"	.19
37F304	3/8"	.24	37F305	1/2"	.41
37F306	5/8"	.62	37F307	3/4"	.79
37F308	7/8"	1.08	37F309	1"	1.45

POLYSTYRENE SHEETS UP TO 24" x 24" AND 1" THICKNESS AVAILABLE ON SPECIAL ORDER. ROD AND TUBING AVAILABLE IN 48" LENGTHS.

BIRNBACH COUPLINGS AND EXTENSIONS



Couplings are for extending shafts, or for ganging. Extenders decrease or increase shaft diameter. 2 oz.

Coupling, 1/4" to 1/4". Fig. A.

Stk. No.	Mater.	Each	10 for	100 for
26F250	Brass	.18	1.82	14.68
26F260	Insul.	.20	1.80	16.28

Coupling, 3/8" to 3/8". Fig. A.

26F251	Brass	.18	1.62	14.68
26F261	Insul.	.20	1.80	16.20

Coupling, 1/4" to 3/8". Fig. A.

26F252	Brass	.18	1.62	14.68
26F262	Insul.	.20	1.80	16.20

Coupling, 1/4" to 1/4". Fig. B.

26F253	Brass	.22	1.98	17.82
26F263	Insul.	.20	1.80	16.20

Coupling, 3/8" to 1/4". Fig. B.

26F254	Brass	.22	1.98	17.82
26F264	Insul.	.20	1.80	16.20

Coupling, 1/4" to 3/8". Fig. B.

26F255	Brass	.25	2.25	20.25
26F265	Insul.	.20	1.80	16.20

Fig. C. Split Bushing. Reduces diameter of hole from 3/8" to 1/4". Shipping wt., 2 oz.

26F256. NET EACH..... **.15**

10 for..... **1.40**

100 for..... **13.50**

Chokes, Coils & Capacitors

HAMMARLUND

MC MIDGET CAPACITORS

Stearite-insulated condensers with plated brass plates. Double-bearing design. Wide bearing for perfect contact. Ideal for mobile units. 1/4" shaft. Single-spaced types .0245", test at 1,000 volts AC; double-spaced types, .0715", test at 1,750 volts AC. Capacity increases clockwise. *Semi-circular plates, all others midline. Shpg. wt., 10 oz.



SINGLE-SPACED MIDGETS

No.	Type	Range-mm	NET
41F300	*MC-20-S	5.5-20	2.40
41F301	*MC-35-S	6.0-35	2.45
41F302	*MC-50-S	6.5-50	2.60
41F303	MC-50-M	6.3-50	2.55
41F304	*MC-75-S	8.0-80	2.85
41F305	MC-75-M	7.3-80	2.75
41F306	*MC-100-S	8.3-100	2.95
41F307	MC-100-M	7.7-100	2.90
41F308	MC-140-M	9.0-140	3.00
41F309	*MC-140-S	10.0-140	3.15
41F310	MC-200-M	10.3-200	3.40
41F311	MC-250-M	12.0-250	3.70
41F312	MC-325-M	13.5-320	4.20

DOUBLE-SPACED MIDGETS

No.	Type	Range-mm	NET
41F314	*MC-20-SX	6.8-20	2.60
41F315	*MC-35-SX	8.5-32	2.75
41F316	MC-35-MX	7.8-32	2.75
41F317	*MC-50-SX	11.5-53	3.00
41F318	MC-50-MX	10.5-53	3.00
41F319	*MC-100-SX	16.5-100	3.95

DUAL MIDGETS

No.	Type	Range-mm	NET
41F320	MCD-50-M	5.5-50	7.25
41F321	MCD-100-M	6.3-100	7.85
41F323	MCD-140-M	7.8-140	8.35

DOUBLE-SPACED DUAL MIDGETS

No.	Type	Range-mm	NET
41F324	MCD-35-MX	6.0-31	7.85
41F325	*MCD-35-SX	6.8-31	7.50

APC MICROS

Air-dielectric condensers. Stearite base. Air gap .015". Will fit 1/4" diameter coil frames. Screwdriver adj. Wt., 4 oz.



No.	Type	Range-mm	NET
41F326	APC-25	3.0-25	1.20
41F327	APC-50	3.9-50	1.35
41F328	APC-75	4.6-75	1.45
41F329	APC-100	5.5-100	1.60
41F330	APC-140	7.8-140	1.80

Type MAPC. A scaled-down version of the A P C. Nickel plated. Stearite insulation. Screwdriver adjustment. Wt., 6 oz.

No.	Type	Range-mm	NET
41F343	MAPC-15	2.3-15	1.00
41F344	MAPC-25	2.6-25	1.05
41F345	MAPC-35	2.9-35	1.10
41F346	MAPC-50	3.2-50	1.15
41F347	MAPC-75	3.9-75	1.20
41F348	MAPC-100	4.5-100	1.30

HF MICROS

For tuning or trimming critical HF circuits. Nickel plated. Stearite insulation. H F D are split stator. *Double space. 6 oz.



No.	Type	Range-mm	NET
41F331	HF-15	2.8-17.5	1.30
41F332	HF-35	3.2-36	1.40
41F333	HF-50	3.7-52	1.60
41F334	HF-100	5.3-102	1.80
41F335	HF-140	6.3-142	1.95
41F336	*HF-15-X	3.6-15	1.30
41F337	*HF-30-X	5.2-30	1.70

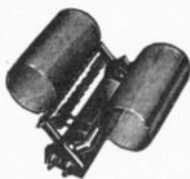
Type MAC. VHF trimmer. Nickel plated. Stearite insulation. Screwdriver adjustment. Air gap: 00.017. Wt., 7 oz.

No.	Type	Range-mm	NET
41F349	MAC-5	1.3-5.4	.90
41F350	MAC-10	1.5-9.6	.95
41F351	MAC-15	1.9-15.8	1.00
41F352	MAC-20	2.2-21.5	1.10

B & W COILS

BALUN INDUCTORS

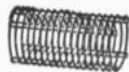
Type 3976
Sturdy bifilar air-wound balun inductor designed to match 300 ohm antenna feed lines to transmitters having unbalanced PI matching networks. Will also match 75 ohm unbalanced outputs to 75 and 300 ohm balanced feed lines. Two of these coils serve as compact, highly efficient multi-band (80 to 10 meters) unit for matching feed line systems to both transmitters and receivers. Specially designed for use with Collins 32-V series, Johnson Viking and similar transmitters. 250W. input. With base, connectors and coils. Shpg. wt., 1 lb.



40F927. NET. 25.25

B & W "MININDUCTORS"

Low-loss coil lengths for the experimenter. Air-wound turns molded in polystyrene strips. 1/2", 3/8" and 3/4" diameters are 2" long. The lengths for other diameters are noted in the tables below. All are etched to desired length. Shpg. wt., 5 oz.



Stock No.	Mfrs. Type	Dia.	Turns Per In.	NET EACH
40F930	3001	1/2"	4	.68
40F931	3002	3/8"	8	.86
40F932	3003	3/8"	16	1.01
40F933	3004	1/2"	32	1.26
40F934	3005	3/8"	4	.80
40F935	3006	3/8"	8	.95
40F936	3007	3/8"	16	1.10
40F937	3008	3/8"	32	1.32

Length, 3 inches

Stock No.	Mfrs. Type	Dia.	Turns Per In.	NET EACH
40F938	3009	3/4"	4	.86
40F939	3010	3/4"	8	1.02
40F940	3011	3/4"	16	1.16
40F941	3012	3/4"	32	1.35
40F942	3013	1"	4	.95
40F943	3014	1"	8	1.10
40F944	3015	1"	16	1.25
40F945	3016	1"	32	1.55

Length, 4 inches

Stock No.	Mfrs. Type	Dia.	Turns Per In.	NET EACH
40F860	3017	1 1/4"	4	1.13
40F861	3018	1 1/4"	8	1.32
40F862	3019	1 1/4"	16	1.68
40F863	3020	1 1/4"	32	2.10
40F864	3021	1 3/4"	4	1.19
40F865	3022	1 3/4"	8	1.40
40F866	3023	1 3/4"	16	1.76
40F867	3024	1 3/4"	32	2.18

Standard Inductors. 10" long. Wt., 5 oz.

Stock No.	Mfrs. Type	Dia.	Turns Per In.	NET EACH
40F949	3900	2"	8	2.52
40F946	3905-1	2 1/2"	6	4.26
40F947	3906-1	2 1/2"	8	3.54
40F948	3907-1	2"	10	2.67

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OHMITE

RF PLATE CHOKES



Small high frequency chokes wound on steatite or plastic cores. Insulated moisture-proof coating. Single layer winding avoids harmonic effects and prevents breakdown from high RF potentials. Z-7 has mounting brackets. *600 ma; all others 1000 ma rating. Wt., 3 oz.

No.	Type	MC	μh	NET
40F250	Z-4504	320-520	0.20	.42
40F251	Z-2354	160-350	0.84	.42
40F252	Z-1444	80-200	1.8	.42
40F253	Z-504	35-110	7.0	.45
40F254	Z-284	20-60*	21.0	.58
40F255	Z-144	7.35*	44.0	.67
40F256	Z-74	3-20	84.0	1.34

PARASITIC SUPPRESSOR

Type P-300. Prevents UHF parasitic oscillations in plate and grid leads of push-pull circuits. Non-inductive 50 ohm vitreous resistor with overwound .3 μh choke in parallel. Size, 1 3/4 x 2 1/2" dia. 2 oz.



40F264. NET. 1.55

POWER LINE CHOKES

Prevent high frequency currents of transmitters and diathermy equipment from feeding into power lines. All 20 amps except *5, and *10. Use as filter with two .1 mid capacitors. Wound on ceramic core with moisture-proof coating. Shipping weight, 2 oz. to 1 1/2 lbs.



No.	Type	μh	Ohms	Size	NET
40F280	Z-20*	14	0.15	4x9/16"	1.93
40F281	Z-21†	15	0.07	6 1/2 x 3/4"	2.54
40F282	Z-22	18	0.045	8 1/2 x 1 1/8"	5.84
40F283	Z-30	104	0.085	8 1/2 x 1 1/8"	7.19

BUD CHOKES

BUD LATTICE WOUND RF CHOKES

Unshielded type on ceramic bobbin. All are 125 ma except *100, †90, †80. Mounts with 6-32 screw. Dia., 1 1/8". With soldering lugs. 4 oz.



No.	Type	MH	Ohms	1-49	50-99
40F200	CH-1212	2.5	28	.63	.57
40F202	CH-1214	5.5	46	.83	.75
40F203	CH-1215	8	60	.83	.75
40F205	CH-1217	16	84	.83	.75
40F206	CH-1218*	30	190	.85	.76
40F207	CH-1219†	60	279	1.01	.91
40F208	CH-1220†	80	332	1.08	.97

BUD SHIELDED IRON CORE CHOKES

Improves "Q" of choke by providing 40 to 50% less DC resistance over air core types with equivalent reactance. Have finely divided molded metallic cores. Windings are silk-covered enamel. Solder lugs. Mounted in small shield cans. 1 1/2" h x 1 1/8" dia. All 125 ma except* 100 ma and † 90 ma. Shpg. wt., 4 oz.



No.	Type	MH	Ohms	1-49	50-99
40F215	CH-1283	16	53	1.46	1.31
40F216	CH-1284*	30	82	1.50	1.35
40F217	CH-1285*	60	131	1.71	1.54
40F218	CH-1286†	80	163	1.83	1.65
40F219	CH-1287†	125	221	2.03	1.83
40F220	SH-294	Shield only	221	.36	.32

E. F. JOHNSON Capacitors



TYPE "L" CAPACITORS

The rotor bearing and stator support rods are soldered directly to the Steatite end frames, making the unit virtually vibration-proof. Threaded $\frac{3}{8}$ -.32, mounting nut provided. Plate spacing .030". Heavy brass soldered plates and large diameter tie rods provide great rigidity. Plating is heavy nickel. Mounting posts soldered to end frame are available on special order. Removable chassis mounting brackets can be used to mount auxiliary equipment. Shaft diameter: .250 shaft length: 25/32". Size: $1\frac{1}{2}$ w.x $1\frac{1}{2}$ h.xlength. A special slit sleeve tension bearing and silver plated beryllium copper contact provide constant torque and smooth, silent capacity variation. Av. shpg. wt. 6 oz.

nickel. Mounting posts soldered to end frame are available on special order. Removable chassis mounting brackets can be used to mount auxiliary equipment. Shaft diameter: .250 shaft length: 25/32". Size: $1\frac{1}{2}$ w.x $1\frac{1}{2}$ h.xlength. A special slit sleeve tension bearing and silver plated beryllium copper contact provide constant torque and smooth, silent capacity variation. Av. shpg. wt. 6 oz.

Single Section—Single End Plate

Stk. No.	Cat. No.	Type	MMFD	Lgth.	1-9	10-49	50-99
41F176	167-1	10L15	2.8-11	$\frac{3}{4}$ "	1.90	1.75	1.59
41F177	167-2	25L15	3.5-27	$\frac{6}{16}$ "	2.05	1.88	1.72
41F178	167-3	50L15	4.6-51	$1\frac{1}{4}$ "	2.30	2.12	1.93
41F179	167-4	75L15	5.7-75	$1\frac{9}{16}$ "	2.50	2.30	2.09

Single Section—Double End Plate

Stk. No.	Cat. No.	Type	MMFD	Lgth.	1-9	10-49	50-99
41F180	167-11	100L15	6.8-99	$2\frac{1}{8}$ "	4.10	3.77	3.43
41F181	167-12	200L15	11.6-202	$2\frac{3}{8}$ "	5.25	4.83	4.40

Butterfly

Stk. No.	Cat. No.	Type	MMFD	Lgth.	1-9	10-49	50-99
41F182	167-21	10LB15	2.8-10.5	$\frac{5}{8}$ "	2.35	2.15	1.96
41F183	167-22	25LB15	4.3-26	$1\frac{1}{4}$ "	2.75	2.53	2.30
41F184	167-23	50LB15	6.8-51	$1\frac{3}{4}$ "	3.35	3.08	2.81

Differential

Stk. No.	Cat. No.	Type	MMFD	Lgth.	1-9	10-49	50-99
41F186	167-32	25LA15	3.5-27	$\frac{6}{16}$ "	2.50	2.31	1.94
41F187	167-33	50LA15	4.6-51	$1\frac{1}{4}$ "	2.90	2.68	2.25

Dual Section

Stk. No.	Cat. No.	Type	MMFD	Lgth.	1-9	10-49	50-99
41F188	167-51	25LD15	5-27	$\frac{1}{2}$ "	4.00	3.70	3.10
41F189	167-52	50LD15	6.5-51	$\frac{1}{2}$ "	4.45	4.12	3.45
41F190	167-53	100LD15	9.8-99	$\frac{3}{4}$ "	5.90	4.90	4.11



TYPE "M" JOHNSON MINIATURES

With .188" dia. x $\frac{1}{2}$ " slotted shaft. $\frac{1}{4}$ " mounting bushing. Steatite end frames. $\frac{3}{4}$ " H x $\frac{3}{8}$ " W. Shpg. wt. 4 oz.

SINGLE TYPE

Stk. No.	Cat. No.	Type	MMFD	Depth	1-9	10-49	50-99
41F200	160-102	5M11	1.5-5.0	$\frac{4}{16}$ "	.90	.83	.76
41F201	160-104	9M11	1.8-8.7	$\frac{5}{16}$ "	.95	.88	.80
41F202	160-107	15M11	2.3-14.2	$\frac{7}{16}$ "	1.00	.92	.85
41F203	160-110	20M11	2.7-19.6	$1\frac{1}{16}$ "	1.10	1.00	.92

DIFFERENTIAL TYPE

Stk. No.	Cat. No.	Type	MMFD	Depth	1-9	10-49	50-99
41F204	160-303	6MA11	1.5-5.0	$\frac{4}{16}$ "	1.25	1.16	1.06
41F206	160-308	15MA11	2.3-14.2	$\frac{7}{16}$ "	1.65	1.52	1.39
41F207	160-311	19MA11	2.7-19.6	$1\frac{1}{16}$ "	1.85	1.72	1.58

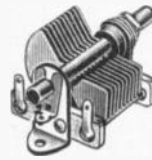
BUTTERFLY TYPE

Stk. No.	Cat. No.	Type	MMFD	Depth	1-9	10-49	50-99
41F208	160-203	3MB11	1.5-3.1	$\frac{4}{16}$ "	1.20	1.11	1.02
41F209	160-205	5MB11	1.8-5.1	$\frac{5}{16}$ "	1.30	1.20	1.10
41F210	160-208	8MB11	2.2-8.0	$\frac{7}{16}$ "	1.45	1.33	1.22
41F211	160-211	11MB11	2.7-10.8	$1\frac{1}{16}$ "	1.60	1.47	1.35

SUB-MINIATURE TYPE "U" VARIABLE CAPACITORS



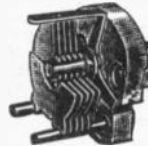
This unique sub-miniature variable capacitor requires less than 0.2 square inch for chassis or panel mounting. Rotor and stator are precision machined from one piece of solid brass, providing outstanding mechanical stability and uniformity. All metal parts are silver plated. ceramic is steatite Grade L-4 or better. Exceptionally uniform delta C and voltage characteristics high "Q", high torque to mass ratio. Has extra low temperature coefficient. Types 189-1 to 189-6 air gap is .010"; Types 189-26 to 189-28 air gap is .016". Volt peak breakdown of types 189-1 to 189-6 is 850; 1300 volt peak



TYPE "R" CAPACITORS

Featuring extra heavy steatite support insulators and .023" thick brass plates. All metal parts are heavy nickel plated for corrosion resistance. Plate spacing .024". bearing threaded $\frac{3}{8}$ -.32. Heavy brass end frames provide superior rigidity. Double bearing construction and silver plated beryllium copper wiring contacts provide smooth, reliable performance. Av. shpg. 6 oz.

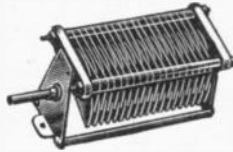
Stk. No.	Cat. No.	Type	MMFD	Lgth.	1-9	10-49	50-99
41F191	149-1	20R12	5-20	$1\frac{3}{8}$ "	2.50	2.31	1.94
41F192	149-2	35R12	6-35	$1\frac{1}{2}$ "	2.60	2.40	2.02
41F193	149-3	50R12	6.5-50	$1\frac{3}{8}$ "	2.70	2.50	2.09
41F195	149-5	100R12	8.5-102	$1\frac{13}{32}$ "	3.00	2.78	2.33
41F196	149-6	140R12	13.5-140	$1\frac{15}{32}$ "	3.30	3.05	2.56



TYPE "K" CAPACITORS

Features DC200 impregnated steatite end frames, slotted stator contacts and extra rigid soldered plate construction. Square mounting studs tapped 4-40 on $2\frac{1}{8}$ " centers. Plates are brass, nickel plated. Range is in mmf per section. Plate spacing is .015". Peak voltage rating 1,000 volts. Size: $1\frac{3}{4}$ w.x $1\frac{1}{2}$ h. Av. shpg. 4 oz.

Stk. No.	Cat. No.	Type	MMFD	Lgth.	1-9	10-49	50-99
41F168	158-1	10K10	2-9-10	$\frac{7}{8}$ "	1.25	1.16	.97
41F169	158-2	25K10	3.7-25	$1\frac{1}{8}$ "	1.35	1.25	1.05
41F170	158-3	50K10	4.6-50	$1\frac{3}{8}$ "	1.55	1.43	1.20
41F171	158-4	75K10	5.5-75	$1\frac{3}{8}$ "	1.70	1.57	1.32
41F172	158-5	100K10	6.4-100	$1\frac{5}{8}$ "	1.85	1.71	1.43



TYPE "E" CAPACITORS

Aluminum plates .032" thick with rounded edges—stainless steel shafts—heavy phosphor bronze contact springs—center contact on duals—large $\frac{1}{4}$ " tie rods. Panel or chassis mounting. Shaft dia. $\frac{1}{4}$ ". Shaft length: $\frac{5}{8}$ ". Size: $2\frac{1}{8}$ w.x $2\frac{3}{8}$ h. Av. shpg. wt. 1 lb.

SINGLE SECTION

Spacing .075" except * .045" and † .125"

Stk. No.	Cat. No.	Type	MMFD	Pk.V	Lgth.	1-9	10-49
41F129	154-1	*250E20	12-244	2000	$3\frac{7}{8}$ "	7.90	6.97
41F130	154-2	*350E20	15-353	2000	$3\frac{13}{16}$ "	8.90	7.85
41F134	154-7	100E30	11-100	3000	3"	7.00	6.17
41F136	154-9	250E30	20-251	3000	$5\frac{3}{4}$ "	9.80	8.64
41F137	154-11	†35E45	9-38	4500	$2\frac{3}{4}$ "	6.40	5.64
41F138	154-12	†50E45	11-53	4500	$3\frac{1}{8}$ "	7.05	6.22
41F139	154-13	†70E45	13-74	4500	$4\frac{1}{8}$ "	7.50	6.62
41F140	154-14	†100E45	16-101	4500	$4\frac{13}{16}$ "	8.10	7.14
41F141	154-15	†150E45	20-145	4500	$6\frac{1}{8}$ "	9.40	8.29
41F142	154-16	†250E45	32-241	4500	10"	12.25	10.80

DUAL SECTION

Spacing .125"

41F150	154-510	100ED45	15-100	4500	$9\frac{3}{32}$ "	14.05	12.39
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MAKE NEWARK YOUR DEPENDABLE SOURCE FOR ALL ELECTRONIC COMPONENTS

Whether ordering in quantity for production or in small lots for specialized use, make Newark your headquarters for every electronic component.—Get the exact part you need from an inventory of over 70,000 units! Top Quality, Lowest Prices, Fastest Service.

Indiana General Corp. Ferrites & Magnets



FERRIMIC CUP CORE ASSEMBLIES

Temperature Compensated Cup Core Assemblies. Designed for filter applications requiring precision tuneable inductors having low loss characteristics over a wide temperature range. Used at frequencies from audio to 500 KC with Q value as high as 850. Specific inductance (L/1000 turns) is accomplished by inserting a precision ground air gap in center post of one or both cup cores in a matched pair. Size and tolerance of air gap controls inductance per 1000 turns. Adjustment beyond specific inductance of cup cores is provided by trimmer assembly. All cup cores have a positive linear temperature coefficient of effective permeability and inductance. Over a given temperature interval this is expressed as:

MINIMUM Q FACTOR

Part #	Q	Test Frequency (KC)	Test Coil
TC7-01	280	300	50T 20/44 LITZ
TC7-02	450	150	100T 20/44 LITZ
TC7-04	500	75	100T 60/44 LITZ
TC7-06	625	50	75T 100/44 LITZ

$$TC. = \frac{\Delta L (10^6)}{L (\Delta T)} \text{ PPM}/^\circ\text{C}$$

Stk. No.	Part #	W1000T (MH)	Core Size (MM)	Ht.	Dimensions Dia.	(%a) Mt. Hole Spacing	T.C. PPM	1-24	25-49	50-99	100-249	250-499	500-999
59F1500	TC7-01	100	14x8	.467	.591	.748	45-150	3.35	2.50	2.15	1.43	1.18	.95
59F1501	TC7-02	250	18x11	.553	.749	.906	100-300	3.35	2.65	2.25	1.55	1.28	1.02
59F1502	TC7-04	400	26x16	.770	1.062	1.292	150-350	3.65	3.10	2.55	1.90	1.70	1.25
59F1503	TC7-06	1000	36x22	1.986	1.463	1.693	200-500	5.35	4.10	3.45	2.45	2.10	1.85

For quantity prices of 1000 or more on TC or CF series, call or write NEWARK.

FERRIMIC® TOROIDS

For applications in filter coils, pulse transformers, loading coils, converter and wide band and impedance matching transformers.

Stk. No.	Type	Mat'l.	O.D.	LD.	Thick	1-24	25-49	50-99	100-249	250-499	500-999
59F1504	CF101	0-5	.230	.120	.060	1.10	.80	.60	.40	.20	.14
59F1505	CF101	H	.230	.120	.060						
59F1506	CF101	Q-1	.230	.120	.060						
59F1507	CF102	0-5	.375	.187	.125	1.20	.85	.65	.45	.25	.20
59F1508	CF102	H	.375	.187	.125						
59F1509	CF102	Q-1	.375	.187	.125						
59F1510	CF111	0-6	.870	.540	.250	2.05	1.55	1.35	1.15	.85	.55
59F1511	CF111	H	.870	.540	.250	2.05	1.55	1.35	1.15	.85	.55
59F1512	CF111	Q-1	.870	.540	.250	2.00	1.50	1.30	1.10	.80	.50
59F1513	CF117	0-5	1.875	1.375	.375	2.65	2.15	1.95	1.75	1.35	1.05
59F1514	CF117	H	1.875	1.375	.375	2.65	2.15	1.95	1.75	1.35	1.05
59F1515	CF117	Q-1	1.875	1.375	.375	2.30	1.80	1.60	1.40	1.10	.80
59F1516	CF123	0-5	2.400	1.400	.500	5.70	3.30	2.30	2.00	1.70	1.40
59F1517	CF123	H	2.400	1.400	.500	5.70	3.30	2.30	2.00	1.70	1.40
59F1518	CF123	Q-1	2.400	1.400	.500	5.50	3.10	2.10	1.80	1.50	1.20

FERRIMIC PROPERTIES

Material Properties	0-5	0-5	H	Q-1
Max. Freq.	400KC	400KC	1 MC	20 MC
Permeability	4700 @ 100KC	3000 @ 100KC	850 @ 1 MC	125 @ 1 MC
Sat'n Induc. Gauss	4700	4700	3400	3300

FERRIMIC ANTENNA RODS

Stk. No.	Part	Material	Dia.	L.	1-24	25-49	50-99	100-249
59F1519	CF 501	Q-1	.250	7.500	1.25	.90	.60	.40
59F1520	CF 502	Q-1	.330	7.500	1.35	1.00	.70	.50
59F1521	CF 503	Q-1	.500	7.500	2.50	1.75	1.25	.90
59F1522	CF 504	Q-1	.620	7.500	4.00	3.00	2.50	2.00

INDOX I PERMANENT MAGNETS

Indox I is a non-oriented, barium ferrite permanent magnet material with an outstanding ability to withstand demagnetizing influences. The

Coercive Force (H) 1825 gersted. The residual induction (B) 2200 gauss. A peak energy product (B H max.) 1.0x10⁶.

Stk. No.	Type	Fig.	DIMENSIONS (INCHES)				1-49	50-99	100-249	250-499
			A	B	C	D				
59F1523	F-1109	1	.937 x .650	.210		1.00	.74	.524	.344	
59F1524	F-1201	1	1.000 x .750	.177 x .187		1.05	.31	.253	.203	
59F1525	F-1203*	1	1.000 x 1.000	.250 x .218		1.15	.80	.568	.358	
59F1526	F-1302	2	.519 x .274			.95	.70	.493	.333	
59F1527	F-1303	2	1.079 x .250			1.00	.78	.548	.360	
59F1528	F-1403	2	1.079 x .597	.250		1.15	.84	.570	.348	

* With counter bore hole to .312" x .062" deep. Note: All magnetized through thickness.

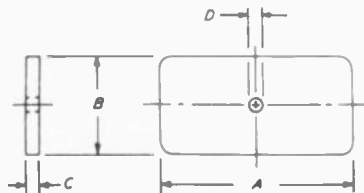


Figure 1

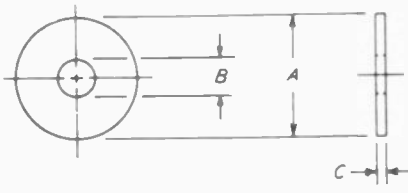
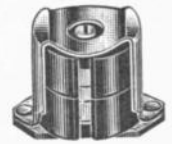


Figure 2

To Serve You Better—7 Stocking Warehouses from Coast-to-Coast.
Use the Services of the Facility Nearest You—See Front Cover



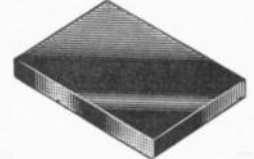
TC7 & Assembly Parts



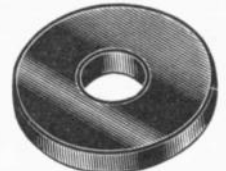
CF100



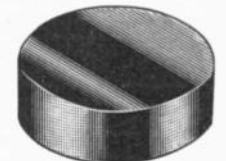
CF-500



F-1201



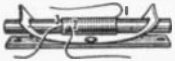
F-1203



F-1303



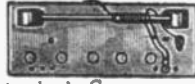
J. W. Miller Antennas - If's - Coils - Chokes



A



B



C



D



E

Ferrite Rod loop antennas designed to receive the standard broadcast band (540-1850Kc) when used with proper tuning capacitor. Figures C, D & E are supplied with a mounting board which can be easily removed if an alternate method of mounting is desired, others have mtg. bracket. They make excellent antenna for conventional vacuum tube and transistor receivers. Type 705-A has adjustable inductance to permit peaking antenna stage by sliding coil along ferrite rod. The 2000 series have a secondary which is over-coupled for maximum gain stability with a variation of output and are designed to match an input impedance of approximately 600 ohms. Type 6300 antenna coil replaces a loop antenna and is supplied with 18" of antenna wire. It is screw adjustable. Average Shpg wt.: 3 oz.

Stock No.	Type	Fig.	Size	Inductance	Max. Tun. Cap.	NET
40F194	705A	C	3 1/4 x 9 1/2"	Adj.	400mmf	2.13
40F193	2000	D	3/4 x 9"	240uh	365mmf	2.04
40F158	2001	A	3/4 x 3 3/4"	240uh	365mmf	1.80
40F159	2002	B	1/2 x 2 1/2"	40-300uh	450mmf	1.35
40F164	2003	A	3/4 x 3 3/4"	700uh	130mmf	1.80
40F156	2004	E	3/4 x 3 3/4"	240uh	365mmf	1.98
40F157	2005	E	3/4 x 3 3/4"	700uh	130mmf	1.98
40F165	2007	B	1/2 x 2 1/2"	150-1000uh	250mmf	1.77
40F128	6300	B	3/8 x 2 1/2"	Adj.	500mmf	1.02

MINIATURE TRANSISTOR I.F. TRANSFORMERS



Freq. 455KC
Miniature I.F. xformer having tuned primary and untuned secondary windings. Proper impedance match between primary and secondary insures optimum performance. Wt. 2 oz.

Stk. No.	Type	Imp.—Ohms	Use	NET
40F138	2031	10K600	Input	2.52
40F139	2032	10K1000	Output	
40F141	2042	25K1000	Output	
40F142	2051	100K-1000	Input	

SUB-MINIATURE

Dimensions: 3/8" sq. x 5/8" high. Wt. 2 oz.
I. F. Freq. 455KC

Stk. No.	Type	Imp.—Ohms	Use	NET
40F136	9-C1	25K-600	Input	2.40
40F137	9-C2	25K-1000	Output	2.40
59F377	2021	B.C. osc. (Tuning cap. 78 (mm f.))		2.10

MICRO MINIATURE

Dimensions: 9/32" sq. x 1 1/2" high. Wt. 2 oz.
Freq. 455kc.

Stk. No.	Type	Imp.—Ohms	Use	NET
59F378	2061	50k-800	Input	2.10
59F379	2062	30k-500	Instage	2.10
59F380	2063	20k-5k	Output	2.10

MINI MINIATURE

Dimensions: 1 1/2" sq. x 1 1/2" high. Wt. 2 oz.
Freq. 455kc.

Stk. No.	Type	Imp.—Ohms	NET
59F385	2065	B.C. osc. (Tuning cap. 78 to 110 mmfd, max.)	2.10

MINIATURE IF TRANSFORMERS



Shell core permeability tuned type. Assembled in molded plastic frames, with built-in silver mica condensers. Tunes from top and bottom of aluminum can. Supplied with snap ring mtg. clip and adapter plate for use over a standard tube socket hole. Dimensions, 3/4" square x 2" high. *With diode filter condensers. Wt. 4 oz.

262 KC TRANSFORMERS	
40F115.	12-H1 Input. NET .....1.74
40F117.	12-H6* Output. NET .....1.80

455 KC TRANSFORMERS	
40F022.	12-C1 Input. NET .....1.62
40F023.	12-C2 Output. NET .....1.62

1500 KC IF TRANSFORMERS	
40F020.	Type 12W-1. Input. NET .....1.98

10.7 MC FM TRANSFORMERS	
40F024.	Type 1463. Inp. or int. NET .....1.95

4.5-MC MINIATURE IF'S



Shell core permeability tuned transformers with built-in silver-mica capacitors. Tuning from top and bottom of aluminum shield. Dimensions: 3/4" square by 2" high. Supplied with a snap spring mounting clip and adapter plate for use over standard tube socket hole. Wt., 8 oz.

40F078.	Type 6203. Inp. or int. NET.....1.98
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FM IF TRANSFORMERS



10.7 mc. In aluminum shields. Overcoupled to provide standard RTMA bandwidth. 1 1/4" sq. x 2 1/2" high. Spade bolt mtg. Shpg. wt., 5 oz.
40F018. Type 1451. Inter2.01
40F019. Type 1452. Discrim. NET2.76
40F0131. Type 1453. Ratio Det. NET2.76

TV ANTENNA COUPLING TRANSFORMERS



For using 52 or 72 ohm coax cable on 300-ohm receiver inputs. Two transformers required.—one at antenna, other at receiver. Wt., 2 ozs.
59F111. Type 6182. 72 ohm.1.95
59F110. Type 6161. 52 ohm.1.95
NET1.95

TRANSISTOR OSCILLATOR COIL



For use with transistor to supply local oscillator energy to mixer stage. Used with a variable capacitor having a maximum capacity of 365 mmf. Intermediate frequency 455 kc. Mounting clip fits into 9/16" dia. hole. Size: 3/8x1" high. Frequency: 540-1650 kc. Wt. 1 oz.
40F135. Type 2020. NET.....1.65
40F166. Type 2022. As above, but used with cut section variable. NET.1.65
40F167. Type 2023. (6-lug). For use when separate transformers are required for oscillator and mixer. Padder needed with 365-mmfd variable. NET1.65

UNSHIELDED RF COILS



High "Q" adjustable iron core coils for general replacement use. All 540-1600 KC. Type 70 Osc. has a primary and a tapped secondary. These may be adjusted to track with 100-500 KC IF's. Shg. wt., 4 oz. NET EACH
40F125. Type 70-OSC. Osc.1.14
40F123. Type 70-A. Antenna.1.14

MIDGET OSCILLATOR COIL



Dowel type coils. For use with pentagrid converter tubes, antenna and RF coils or for general replacement. Cover the broadcast-band from 540 to 1600 kc with a 365 mmf variable condenser. Unshielded. *For use with 6SA7 and similar mixer tubes. \$Requires .0004 mfd Padder. Size, 1" dia., 1" high. Wt., 5 oz.

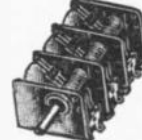
Stk. No.	Type	Frequency	NET
40F013	5481-C*	455 kc	1.29

UNIVERSAL ADJUSTABLE OSCILLATOR COIL



Operates properly in all broadcast band receivers. Has 2 taps, allowing 6 different feed back combinations. Mtg. Clip fits 3/16" hole. Wt. 4 oz.
40F127. Type 71-OSC. NET1.65

VARIABLE CAPACITORS



Split outer plates permit accurate alignment. High frequency trimmers are on short side of capacitor. Mounting by tapped holes in frame. Counterclockwise rotation—capacity increase. Shaft diameter, 1/4". Capacity Range: 10-365 mmf. except *Type, 1461BS, 6.6-23, used for FM or band spread.

No.	Type	Sec. Oz.	Size—Inches	NET
41F000	1461*	3	5 3/4 x 1 1/2 x 1 1/2	4.05
40F180	2111	1	3 1/2 x 1 1/2 x 1 1/2	2.10
40F191	2112	2	6 2/3 x 1 1/2 x 1 1/2	2.55
40F182	2113	3	9 3/4 x 1 1/2 x 1 1/2	3.10
40F195	2110	2	2 1/2 x 1 3/8 x 1 1/2	2.10

FM STEREO MULTIPLE INDUCTORS

Stk. No.	Type	Description	NET
59F387	1351	Low pass Filter	1.95
59F388	1352	Band Pass Filter Series	1.80
59F389	1353	Band Pass Filter Shunt	1.80
59F390	1354	Locked Oscillator 19 KC	2.55
59F391	1355	Output Xformer 38 kc.	2.40

SUB-MIN 3-GANG VARIABLE CAPACITOR

Type 1460. Min cap. 5.7 uuf/sect. Trim range: 2.0 uuf. Shaft: .250" dia. x 15/16" L. Size: 1-1/16 x 1-3/16 x 2". L. Size: 1-1/16 x 1-3/16 x 2".
59F394. NET3.96

F.M. TRANSISTOR I.F. TRANSFORMERS

Makes possible the construction of a self-contained battery F.M. receiver. 3/4" sq. x 2" high. 10.7 Mc Freq.

Stk. No.	Type	Use	NET
40F143	1601	1st IF Trans.	2.28
40F144	1602	2nd IF Trans.	2.37
40F145	1603	3rd IF Trans.	2.37
40F146	1604	Discrim. Trans	2.55
40F147	1605	Ratio Det. w/Diod.	4.80
40F148	1606	Ratio Det. w/o Dio.	2.55

BAKELITE TERMINAL PLATES



Provides rigid mounting and means for assembling groups of resistors and capacitors. Lugs are on 3/16" thick bakelite sheet stock, terminal spacing 1/8". * indicates number lugs per side. Shipping wt., approx. 1/2 oz.

No.	Type	Lugs*	Size	NET
40F183	420	6	1x3"	.45
40F184	430	5	1 3/8 x 2 1/2"	.51
40F185	440	14	1 x 5 3/4"	.66
40F186	450	8	1 3/4 x 3 3/4"	.81
40F187	460	11	1 3/4 x 5 1/4"	1.02
40F188	470	19	1 3/4 x 8 3/4"	1.14

MILLER IRON CORE CHOKES



Single section duo-lateral wound types. Core is 3/8" dia. x 1/2" long. Solder lugs. Single-hole mounting. Impregnated. All 125 ma except *100 ma. Size, 1 1/2" dia x 3/4" high. Wt., 4 oz.

Stk. No.	Type	Mh	Ohms	NET
40F032	953	2.5	19	.99
40F035	956	10.0	47	1.20
40F036	957*	25.0	83	1.32
40F037	958*	50.0	130	1.50
40F038	959*	75.0	170	1.65
40F039	960*	100.0	200	1.86
40F040	961*	150.0	280	1.98

J. W. Miller - Coils - Chokes



Versatile series of sub-miniature iron core R.F. chokes. Designed to meet industries' demand for high reliability miniature components. Ideally suited to network and filter design, delay lines and computer application. Rated at 50 ma. Av. Shpg. wt. 2 oz.

SUB-MINIATURE RF CHOKES

Stock No.	Type	Induct. Q @ F	Min. Q @ F	1-24	25-49	50-99	100-249
59F212	70F106A1	1.0uH 41 @ 7.9 Mc					
59F213	70F126A1	1.2uH 44 @ 7.9 Mc					
59F214	70F156A1	1.5uH 48 @ 7.9 Mc					
59F215	70F186A1	1.8uH 39 @ 7.9 Mc					
59F216	70F226A1	2.2uH 48 @ 7.9 Mc					
59F217	70F226A1	2.7uH 39 @ 7.9 Mc					
59F218	70F336A1	3.3uH 48 @ 7.9 Mc					
59F219	70F396A1	3.9uH 44 @ 7.9 Mc					
59F220	70F476A1	4.7uH 46 @ 7.9 Mc					
59F221	70F566A1	5.6uH 44 @ 7.9 Mc					
59F222	70F686A1	6.8uH 44 @ 7.9 Mc					
59F223	70F826A1	8.2uH 40 @ 7.9 Mc					
59F224	70F105A1	10 uH 48 @ 2.5 Mc					
59F225	70F125A1	12 uH 52 @ 2.5 Mc					
59F226	70F155A1	15 uH 52 @ 2.5 Mc					
59F227	70F185A1	18 uH 52 @ 2.5 Mc					
59F228	70F225A1	22 uH 51 @ 2.5 Mc					
59F229	70F275A1	27 uH 49 @ 2.5 Mc					
59F230	70F335A1	33 uH 50 @ 2.5 Mc					
59F231	70F395A1	39 uH 48 @ 2.5 Mc					

*0.1 to 1.0 uH ±20%, 1.1 to 10uH ±10%, over 10 uH ±5%.

RF CHOKES WITH AXIAL LEADS



Phenolic Form—Single Layer Solenoid

Stock No.	Type	Induct. uH	Ohms Max.	ma	1-24	25-49	50-99	100-249
59F264	4580	0.1	.012	3000				
59F265	4582	0.15	.014	2900				
59F266	4584	0.22	.024	2800				
59F267	4586	0.33	.023	2600				
59F268	4588	0.47	.026	2500				
59F269	4590	0.68	.036	2400				
59F270	4592	0.75	.039	2200				
59F271	4594	0.82	.042	2100				
59F272	4602	1.0	.060	2000				
59F273	4604	1.5	.096	1800				
59F274	4606	2.4	.192	1500				
59F275	4608	3.9	.600	1000				
59F276	4609	5.5	.828	850				
59F277	4610	6.2	.900	700				
59F278	4611	8.2	1.34	600				
59F279	4612	10.0	1.80	500				

Iron Core Form—3 Section Pi Windings

Stock No.	Type	Induct. mH	Ohms Max.	ma	1-24	25-49	50-99	100-249
59F302	4662	1.0	8.4	125	.75	.68	.64	.53
59F303	4664	1.5	10.8	125	.78	.73	.69	.57
59F304	4666	2.4	14.4	125	.84	.76	.72	.59
59F305	4668	3.9	20.4	125	.93	.84	.79	.65
59F306	4669	5.5	26.4	125	1.05	.95	.89	.74
59F307	4670	6.2	39.6	100	1.05	.95	.89	.74
59F308	4671	8.2	54.0	100	1.11	1.00	.94	.78
59F309	4672	10.0	56.4	50	1.29	1.16	1.10	.90

Permeability tuned coils wound on silicone impregnated ceramic forms. Forms alone supplied with freq. range of 1-30 Mc, for other ranges add suffix to type number (Y) 50-1000 Kc, (W) 30-300 Mc.

Standard RF Coils and Forms (1/16" Dia., 1-1/16" Long)

Stk. No.	Type	Ind. uH	1-24	25-49	50-99	100-249
59F337	4400	Form only	1.32	1.19	1.12	.92
59F338	4403	9-1.6	1.62	1.46	1.38	1.13
59F339	4404	1.5-3.2	1.65	1.49	1.40	1.16
59F340	4405	3.1-6.8	1.68	1.51	1.43	1.18
59F341	4406	6.7-15	1.74	1.57	1.48	1.22
59F342	4407	14.8-31	1.80	1.62	1.53	1.26
59F343	4408	30-69	1.83	1.65	1.56	1.28
59F344	4409	68-130	1.89	1.70	1.61	1.32
59F345	4410	126-250	1.92	1.73	1.63	1.34
59F346	4411	245-475	1.95	1.76	1.66	1.37
59F347	4412	450-800	1.98	1.78	1.68	1.39
59F348	4413	750-1400	2.01	1.81	1.71	1.41
59F349	4414	1300-2100	2.01	1.81	1.71	1.41

Subminiature Adjustable RF Coils (3/16" Dia., 3/8" Long)

59F319	4300	Form only	1.08	.97	.92	.76
59F320	4301	0.17-0.27	1.50	1.35	1.28	1.05
59F321	4302	0.27-0.41	1.50	1.35	1.28	1.05
59F322	4303	0.40-0.65	1.56	1.40	1.33	1.09
59F323	4304	0.64-0.95	1.59	1.43	1.35	1.11
59F324	4305	0.94-1.55	1.65	1.49	1.40	1.16
59F325	4306	1.5-2.57	1.71	1.54	1.45	1.20
59F326	4307	2.5-4.40	1.77	1.59	1.50	1.24

Stock No.	Type	Induct.	Min. Q @ F	1-24	25-49	50-99	100-249
59F232	70F475A1	47 uH	48 @ 2.5 Mc				
59F233	70F565A1	56 uH	45 @ 2.5 Mc				
59F234	70F685A1	68 uH	45 @ 2.5 Mc				
59F235	70F825A1	82 uH	44 @ 2.5 Mc	.69	.62	.59	.48
59F236	70F104A1	100 uH	40 @ 790 Kc				
59F237	70F154A1	150 uH	44 @ 790 Kc				
59F238	70F224A1	220 uH	45 @ 790 Kc				
59F239	70F334A1	330 uH	47 @ 790 Kc				
59F240	70F474A1	470 uH	47 @ 790 Kc				
59F241	70F684A1	680 uH	44 @ 790 Kc				
59F242	70F824A1	820 uH	42 @ 790 Kc	.75	.68	.64	.53
59F243	70F103A1	1.0 mh	40 @ 790 Kc				
59F244	70F153A1	1.5 mh	40 @ 250 Kc				
59F245	70F223A1	2.2 mh	40 @ 250 Kc	.81	.73	.69	.57
59F246	70F333A1	3.3 mh	56 @ 250 Kc	.84	.76	.71	.59
59F247	70F473A1	4.7 mh	54 @ 250 Kc	.84	.76	.71	.59
59F248	70F683A1	6.8 mh	51 @ 250 Kc	.84	.76	.71	.59
59F249	70F823A1	8.2 mh	48 @ 250 Kc	.99	.89	.84	.69
59F250	70F102A1	10.0 mh	48 @ 250 Kc				

type of powdered iron allows operation up to UHF region. Tol. ±5%. Dimensions: Phenolic form—3/16" dia., 3/8" L. Iron core form: 1/2" dia., 7/8" long. Av. Shpg. wt. 2 oz.

Iron Core Form—Single Layer Solenoid

Stock No.	Type	Induct.	Ohms Max.	ma	1-24	25-49	50-99	100-249
59F282	4622	10uH	.072	1500	.60	.54	.51	.42
59F283	4624	15uH	.170	1000	.60	.54	.51	.42
59F284	4626	24uH	.336	800	.63	.57	.54	.44
59F285	4628	39uH	.780	600	.63	.57	.54	.44
59F286	4629	55uH	1.10	500				
59F287	4630	62uH	1.20	475	.66	.59	.56	.46
59F288	4631	82uH	1.92	450				
59F289	4632	100uH	2.40	400				

Phenolic Form—3 Section Pi Winding

59F292	4642	0.1 mH	4.92	125	.66	.59	.56	.46
59F293	4644	0.15mH	6.84	125				
59F294	4646	0.24mH	8.16	125				
59F295	4648	0.39mH	12.0	125				
59F296	4649	0.55mH	13.2	125	.72	.65	.61	.50
59F297	4650	0.62mH	15.1	125				
59F298	4651	0.75mH	16.4	125				
59F299	4652	1.00mH	19.8	125				

Ferrite Core RF Chokes

High permeability ferrite cores. Combine high inductance with low DC resistance and small physical size. 3-pi universal windings insure low distributed capacity. Dimensions of core: 1/4" dia., 7/8" long. 1/2" long axial leads.

59F312	6302	2.5mH	9.36	200	.93	.84	.79	.65
59F313	6304	5.0mH	14.9	200	1.08	.98	.92	.76
59F314	6306	10.0mH	36.0	125	1.20	1.08	1.02	.84
59F315	6308	25.0mH	83.4	75	1.26	1.13	1.07	.88
59F316	6310	50.0mH	133	75	1.44	1.30	1.22	1.01

ADJUSTABLE CERAMIC FORMS AND RF COILS



Miniature Adjustable RF Coils (1/4" Dia., 3/8" Long)

Stk. No.	Type	Ind. uH	1-24	25-49	50-99	100-249
59F352	4500	Form only	1.17	1.05	.99	.82
59F354	4502	1.0-1.6	1.50	1.35	1.28	1.05
59F355	4503	1.6-2.8	1.56	1.40	1.33	1.09
59F356	4504	2.8-5	1.59	1.43	1.35	1.11
59F357	4505	5-9	1.65	1.49	1.40	1.16
59F358	4506	9-16	1.71	1.54	1.45	1.20
59F359	4507	16-24	1.77	1.59	1.50	1.24
59F360	4508	24-35	1.80	1.62	1.53	1.26
59F361	4509	35-60	1.83	1.65	1.56	1.28
59F362	4511	60-120	1.86	1.67	1.58	1.30
59F363	4512	110-200	1.89	1.70	1.61	1.32
59F364	4513	190-300	1.92	1.73	1.63	1.34
59F365	4514	320-500	1.95	1.76	1.66	1.37

59F327	4308	4.3-7.15	1.80	1.62	1.53	1.26
59F328	4309	7.1-12.5	1.83	1.65	1.56	1.28
59F329	4310	12.4-20.3	1.86	1.67	1.58	1.30
59F330	4311	20.1-32.8	1.89	1.70	1.61	1.31
59F331	4312	32.5-51.5	1.92	1.73	1.63	1.34
59F332	4313	51-102				
59F333	4314	101-180	1.95	1.76	1.66	1.37
59F334	4315	178-300				

Buy at Factory Competitive Prices at NEWARK



J. W. Miller Chokes & Coils

MIL-SPEC MOLDED R.F. CHOKES



Small, hermetically sealed, R.F. chokes wound on Tiron or phenolic cores. Conform to MIL-C-15305 Class 7. Designed for use in transmitters, receivers, VFO's and all other electronic devices which require high quality, dependable performance and small sized chokes. Average shipping weight: 2 oz.

Series 9310

Conform to MS-16225 & MS-18130. Size: .155" dia. x .375" long. Leads: #22 TCW; 1.437" long. Power rating: 1/4 watt max. at 90°C.

Stk. No.	Type	uh	% Tol.	MA.	1-24	25-49	50-99	100-249
59F100	9310-10†	.82	10	900	.60	.53	.48	.40
59F101	9310-12†	1.00	10	830	.60	.53	.48	.40
59F102	9310-42†	18.0	10	280	.66	.59	.53	.44
59F103	9310-44†	22.0	10	265	.66	.59	.53	.44
59F104	9310-46†	24.0	5	265	.75	.66	.59	.50

Series 9320

Conform to MS-16224 & MS-75008. Size: .185" dia. x .437" long. Leads #22 TCW; 1.437" long. Power rating: 1/3 watt max. at 90°C.

Stk. No.	Type	uh	% Tol.	MA.	1-24	25-49	50-99	100-249
59F106	9320-12†	1.5	10	700	.60	.53	.48	.40
59F107	9320-16†	2.7	10	460	.60	.53	.48	.40
59F108	9320-18†	3.3	10	1350	.66	.59	.53	.44
59F109	9320-20†	3.9	10	1250	.66	.59	.53	.44
59F110	9320-22†	4.7	10	1100	.66	.59	.53	.44

INDUSTRIAL TYPE ADJUSTABLE R.F. COILS

Wound on ceramic forms. Feature terminal rings machined from the ceramic form material. They have high Q and good stability. The adjusting core is held rigidly at any setting through the use of a tension device on the bushing.



7/32" dia. x 1 1/2" L.

Sub-Miniature Coils

Stock No.	Type	uh max.	uh min.	1-24	25-49	50-99	100-249
59F131	40A107CBI	.125	.091	1.98	1.78	1.65	1.32
59F132	40A157CBI	.188	.124				
59F133	40A227CBI	.220	.184				
59F134	40A337CBI	.413	.265				
59F135	40A477CBI	.587	.327	2.01	1.81	1.68	1.34
59F136	40A687CBI	.850	.482	2.01	1.81	1.68	1.34
59F137	40A827CBI	1.02	.630	2.10	1.89	1.75	1.40
59F138	40A106CBI	1.25	.730	2.10	1.89	1.75	1.40
59F139	40A156CBI	1.88	1.06	2.10	1.89	1.75	1.40
59F140	40A226CBI	2.75	1.50	2.13	1.91	1.78	1.42
59F141	40A336CBI	4.13	2.15	2.13	1.91	1.78	1.42
59F142	40A476CBI	5.87	3.00	2.22	1.99	1.85	1.48
59F143	40A686CBI	8.50	4.40	2.22	1.99	1.85	1.48
59F144	40A826CBI	10.2	5.25	2.22	1.99	1.85	1.48
59F145	40A105CBI	12.5	8.06	2.28	2.05	1.90	1.52
59F146	40A155CBI	18.8	11.9	2.28	2.05	1.90	1.52
59F147	40A225CBI	27.5	17.1	2.34	2.10	1.95	1.56
59F148	40A335CBI	41.3	26.6	2.34	2.10	1.95	1.56
59F149	40A475CBI	58.7	39.0	2.43	2.18	2.03	1.62
59F150	40A685CBI	85.0	58.0	2.43	2.18	2.03	1.62
59F151	40A825CBI	102	69.0	2.61	2.35	2.18	1.74
59F152	40A104CBI	125	84.0	2.61	2.35	2.18	1.74
59F153	40A000CBI	Coil Form w/hdw. and Core		1.44	1.29	1.20	.96

3/4" dia. x 1" L.

Standard Coils

Stock No.	Type	uh max.	uh min.	1-24	25-49	50-99	100-249
59F181	42A106CBI	1.25	.68	2.10	1.89	1.75	1.40
59F182	42A156CBI	1.87	1.00	2.10	1.89	1.75	1.40
59F183	42A226CBI	2.75	1.35	2.10	1.89	1.75	1.40
59F184	42A336CBI	4.10	2.12	2.13	1.91	1.78	1.42
59F185	42A476CBI	5.80	2.40	2.13	1.91	1.78	1.42
59F186	42A686CBI	8.50	3.60	2.16	1.95	1.80	1.44
59F187	42A826CBI	10.0	4.45	2.16	1.95	1.80	1.44
59F188	42A105CBI	12.5	6.05	2.28	2.05	1.90	1.52
59F189	42A155CBI	18.7	9.40	2.28	2.05	1.90	1.52
59F190	42A225CBI	27.5	12.9	2.31	2.08	1.92	1.54

Series 9330

Series conform to MS-16222. Size: .215" dia. x .560" long. Leads: #22 TCW; 1.437" long. Power rating: 1/2 watt max. at 90°C.

Stk. No.	Type	uh	% Tol.	MA.	1-24	25-49	50-99	100-249
59F112	9330-18†	5.6	10	1340	.75	.66	.59	.50
59F113	9330-20†	6.8	10	1080	.75	.66	.59	.50
59F114	9330-24†	8.2	10	1030	.75	.66	.59	.50
59F115	9330-24†	10.0	10	950	.75	.66	.59	.50
59F116	9330-30†	18.0	10	580	.75	.66	.59	.50

Series 9340

Conform to MS-16221 & MS-91189. Size: .280" dia. x .900" long. Leads: #22 TCW 1.437" long. Power rating: 1 watt max. at 90°C.

Stk. No.	Type	uh	% Tol.	MA.	1-24	25-49	50-99	100-249
59F118	9340-04†	2.2	10	1600	.78	.68	.61	.52
59F119	9340-06†	2.7	10	1350	.78	.68	.61	.52
59F120	9340-08†	3.3	10	1150	.78	.68	.61	.52
59F121	9340-10†	3.9	10	955	.78	.68	.61	.52
59F122	9340-12†	4.7	10	860	.78	.68	.61	.52

Series 9350

Conform to MS-16223 & MS-75052. Size: .250" dia. x .560" long. Leads #22 TCW; 1.437" long. Power rating: 3/4 watt at 90°C.

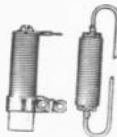
Stk. No.	Type	uh	% Tol.	MA.	1-24	25-49	50-99	100-249
59F124	9350-00†	47	10	195	1.02	.90	.81	.68
59F125	9350-02†	56	10	185	1.02	.90	.81	.68
59F126	9350-04†	68	10	255	1.08	.95	.86	.72
59F127	9350-06†	82	10	245	1.08	.95	.86	.72
59F128	9350-08†	100	10	235	1.08	.95	.86	.72

1/4" dia. x 1 1/16" L.

Miniature Coils

Stock No.	Type	uh max.	uh min.	1-24	25-49	50-99	100-249
59F156	41A106CBI	1.25	.69	2.10	1.89	1.75	1.40
59F157	41A156CBI	1.87	1.20				
59F158	41A226CBI	2.75	1.42				
59F159	41A336CBI	4.10	2.00	2.13	1.91	1.78	1.42
59F160	41A476CBI	5.80	2.80				
59F161	41A686CBI	8.50	4.00				
59F162	41A826CBI	10.0	4.50	2.16	1.95	1.80	1.44
59F163	41A105CBI	12.5	6.50				
59F164	41A155CBI	18.7	10.8				
59F165	41A225CBI	27.5	15.2	2.22	1.99	1.85	1.48
59F166	41A335CBI	41.0	26.0				
59F167	41A475CBI	58.0	32.5				
59F168	41A685CBI	85.0	48.5	2.28	2.05	1.90	1.52
59F169	41A825CBI	100	61.0				
59F170	41A104CBI	125	65.0				
59F171	41A154CBI	187	110	2.34	2.10	1.95	1.56
59F172	41A224CBI	275	160				
59F173	41A334CBI	410	253				
59F174	41A474CBI	580	390	2.55	2.30	2.12	1.70
59F175	41A684CBI	850	560				
59F176	41A824CBI	1000	670				
59F177	41A103CBI	1250	700	2.76	2.48	2.30	1.84
59F155	41A000CBI	Coil Form w/hdw. and core						1.50	1.34	1.25	1.00

Designed for maximum efficiency and highest impedance at specific operating frequencies. Eliminates the designer's task of attempting to choose the best coil for a particular application from miscellaneous and often insufficient design data. Designed to cover the major amateur, industrial and citizens bands and will also operate efficiently at frequencies approximating the recommended frequencies.

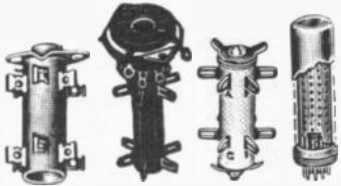


FREQUENCY SELECTIVE R.F. CHOKES

Stk. No.	Type	uh	Freq. Mc.	1-24	25-49	50-99	100-249
59F253	RFC-3.5	266	1.8-5	1.26	1.16	1.10	.90
59F254	RFC-7	208	3-13	1.26	1.16	1.10	.90
59F255	RFC-14	84	7-20	1.11	.99	.94	.78
59F256	RFC-21	38.5	15-30	.87	.78	.74	.61
59F257	RFC-28	24	25-40	.99	.89	.79	.69
59F258	RFC-50	8.2	30-90	.84	.76	.69	.59
59F259	RFC-144	1.72	75-180	.60	.54	.51	.42
59F260	RFC-220	.82	160-340	.60	.54	.51	.42
59F281	RFC-420	.22	350-500	.72	.65	.61	.50

Sockets will fit either 3-in-line or "top-hat" transistor pins. Saddle has 2 ground lugs and topped 4/40 mounting holes spaced 3/4". Socket requires 1 1/2" dia. hole. Those without saddle** have 4/40 nut. Turret post is grade XXXP phenolic. Casting is mica filled phenolic. Terminals are brass with fused tin finish. Wt., 2 oz.

TRANSISTOR TURRETS



6-A-12T 10-0-12T 6-12 G2.1-8-4

Stk. No.	Type	Size	1-49	50-199	200-499	500-999
38F437	6-A-12T	7/8x1 1/2x1 1/2"	1.06	.95	.74	.71
38F438	8-A-12T	1 1/2x1 1/2x2 1/2"	1.08	.97	.76	.72
38F439	7-A-12T-440**	7/8x1 1/2x1 1/4"	1.04	.94	.73	.70

TUBE SOCKET-TURRETS

Phenolic cylinders bonded to sockets. Mica-filled. Components mount on form. Coils can be wound on turret and iron cores inserted. Turrets are 1/2" dia. Octals mount in 1" hole; novals, 3/4" hole, min., 5/8" hole. Wt., 3 oz. For octal sockets. Have 9 or 12 terminals in 2 rings 1 3/8" apart. 2 1/2" Turrets 9 or 12 terminals in 2 rings 1 3/8" apart.

Stk. No.	Type	Socket	1-49	50-199	200-499	500-999
38F600	10-O-9T	Octal	.69	.62	.48	.46
38F429	10-O-12T	Octal	.73	.66	.51	.49
38F435	10-MB-12T	7-pin	.81	.73	.57	.54
38F436	10-NB-12T	9-pin	.81	.73	.57	.54

2" Turrets. 9 or 12 terminals in 2 rings 1" apart.

Stk. No.	Type	Socket	1-49	50-199	200-499	500-999
38F601	8-O-9T	Octal	.65	.59	.46	.44
38F602	8-M-9T	7-pin miniature	.69	.62	.48	.46
38F603	8-N-9T	9-pin noval	.69	.62	.48	.46
38F430	8-M-12T	7-pin	.72	.65	.50	.48
38F431	8-N-12T	9-pin	.72	.65	.50	.48
38F428	8-O-12T	Octal	.69	.62	.48	.46

1 1/2" Turrets. Have 6 terminals in 1 ring.

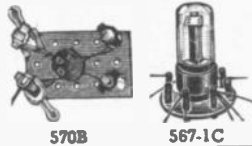
Stk. No.	Type	Socket	1-49	50-199	200-499	500-999
38F604	6-O-6T	Octal	.59	.53	.41	.40
38F605	6-M-6T	7-pin miniature	.63	.57	.44	.42
38F606	6-N-6T	9-pin noval	.63	.57	.44	.42

Terminal Turrets. Bolt to chassis.

Stk. No.	Type	Socket	1-49	50-199	200-499	500-999
38F432	6-12	tubular terminal	.50	.45	.35	.34
38F433	8-12	tubular terminal	.53	.48	.37	.36
38F434	10-12	tubular terminal	.56	.50	.39	.38

SOLDERLESS TUBE AND TRANSISTOR SOCKETS

Provide quick solderless connection of up to 6 leads to any one tube or transistor lead through SPRING-CLIP Terminals surrounding socket contacts. Tube unit mounts with screws; transistor unit has 4 leads on .2 circle and press-fits into .093 holes centered spaced .265.



570B 567-1C

Stk. No.	Type	Description	1-49	50-199	200-499	500-999
38F1000	567-1C	Octal Socket	1.50	1.35	1.05	1.01
38F1001	568-1C	9 Pin Miniature	1.65	1.49	1.16	1.11
38F1002	569-1C	7 Pin Miniature	1.35	1.22	.95	.90
38F1046	570B	4 Lead Transistor	1.20	1.08	.84	.80

TRANSISTOR PLUG-IN UNITS

Round-case plug-ins. Available in 3 diameters: 1.25" for octal-type plugs; 3/4" for noval plugs and 5/8" for 7 pin miniature plug. —4 in Type No. indicates vertical terminal board inside case mounted to plug. Shpg. wt., 1 oz.

Stk. No.	Type	Dia. x L.	1-49	50-199	200-499	500-999
38F453	G2-10	1.25x2 1/2"	1.05	.95	.74	.70
38F455	G2-1-8N	3/4x2"	2.04	1.84	1.43	1.37
38F454	G2-1-8	3/4x2"	1.32	1.19	.82	.88
38F456	G2-2-8	3/4x2"	1.27	1.14	.89	.85
38F476	G2-10-4	1.25x2 1/2"	2.04	1.84	1.43	1.37
38F477	G2-1-8-4	3/4x2"	1.90	1.71	1.33	1.27
38F478	G2-2-8-4	3/4x2"	1.88	1.69	1.32	1.26

CURRENT TEST ADAPTERS

Permit making current measurements in operating tube circuits without cutting leads from tube side of chassis. Special dual sided test probe. Also allows voltage and waveform checks when probe leads joined and connected to meter. Fits inside shield bases and tube clamps. Weight: 2 oz.; Kit-10 oz.



Stk. No.	Type	1-49	50-199	200-499	500-999
38F1041	T-7-M-C 7-Pin Min.	2.30	2.07	1.93	1.54
38F1042	T-9-N-C 9-Pin Min.	2.45	2.21	2.06	1.64
38F1043	T-8-O-C Octal	2.90	2.61	2.44	1.94
38F1044	P-2 Probe—Required with above	.75	.68	.63	.50
38F1045	T789C Kit of 3 with probe in case	8.85	7.97	7.43	5.93

TUBE SOCKET TEST ADAPTER KIT



Tube Socket Test Adapters are inserted between the socket and the tube and provide test tab elements for making voltage, resistance, and wave form measurements from tube side of chassis. Connections are wired straight through from plug to socket. Beryllium copper socket contacts for long-life—molded tan phenolic bodies. Shpg. wt., 3 oz. *Shpg. wt., 1/2 lb.

Stock No.	Type	Socket	1-19	20-99	100-199	200-999
38F617	T-7-M	7 Pin Miniature	1.85	1.49	1.39	1.11
38F616	T-8-O	8 Pin Octal	1.75	1.58	1.47	1.17
38F615	T-9-N	9 Pin Octal	1.85	1.67	1.55	1.24
38F466	PI Probe	Probe for above	.52	.47	.44	.35
38F618	T-789	Set of above in case*	5.90	5.31	4.96	3.95

ADAPTERS AND EXTENDERS

Basic plug and socket structure used in standard test adapters. Circuits can readily be opened for current measurements, or cross-connected in many ways for experimental purposes. Models 1262, 1263, and 1264 are socket extenders. These shift wear from the socket itself to the adapter. Sockets have highest grade beryllium copper contacts. Av. shipping wt., 2 oz.

ADAPTERS

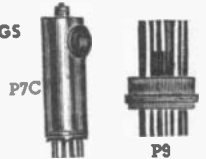
Stk. No.	Type	Socket	1-19	20-99	100-199	200-999
38F400	TX-8-0	8 pin octal	1.30	1.17	1.09	.87
38F401	TX-9N	9 pin noval	.85	.77	.71	.57
38F402	TX-7M	7 pin min.	.80	.72	.62	.54

EXTENDERS

Stk. No.	Type	Socket	1-19	20-99	100-199	200-999
38F404	1262	8 pin octal	1.75	1.58	1.47	1.17
38F405	1263	9 pin noval	1.75	1.58	1.47	1.17
38F406	1264	7 pin min.	1.75	1.58	1.47	1.17

TUBE BASE AND CABLE CONNECTOR PLUGS

Tube base plugs are designed to fit 7-pin min. and 9-pin noval sockets. Castings are mica-filled phenolic. Pins are of phosphor bronze and cadmium plated. Aluminum shell. Weight, 1 oz.



Stk. No.	Type	For Socket	1-49	50-199	200-499	500-999
38F407	P7	7-pin min.	.47	.42	.33	.31
38F408	P7A	7-pin min.	.47	.42	.33	.31
38F411	P9	9-pin noval	.52	.47	.36	.35
38F412	P9A	9-pin noval	.52	.47	.36	.35

Cable connector plugs are for connections with miniature and noval tube sockets. Wt., 1 oz.

Stk. No.	Type	Outlet	Pins	1-19	20-99	100-199	200-999
38F409	P7C	Side	7	1.13	1.02	.95	.76
38F410	P7D	End	7	1.58	1.42	1.33	1.06
38F413	P9C	Side	9	1.28	1.13	1.08	.84
38F414	P9D	End	9	1.67	1.50	1.40	1.12

MODULAR PLUG-IN CASES

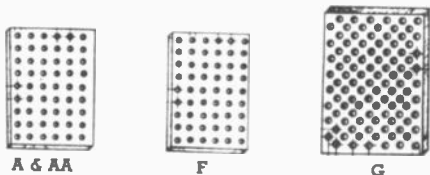
Consist of tube socket, tubular terminal post, octal plug and shield can. Can be made into a variety of plug-in circuits with short leads for instant replacement. Tube shield base with bayonet lock included. *7-pin miniature. †9-pin noval. ††Has two 9-pin noval sockets. C10MM, C10NN, and C12NN are 2-tube types. Wt., 6 oz.



Stk. No.	Type	Size	1-49	50-199	200-499	500-999
38F440	B-8	1 3/8x2 1/2x1 3/8"	1.33	1.20	.93	.89
38F442	†B-8-N	1 3/8x2 1/2x1 3/8"	2.18	1.96	1.53	1.46
38F441	*B-10	1 3/8x2 1/2x1 3/8"	1.18	1.06	.83	.79
38F809	*B-10-M	1 3/8x2 1/2x1 3/8"	2.07	1.86	1.45	1.39
38F610	†B-10-N	1 3/8x2 1/2x1 3/8"	2.24	2.02	1.57	1.50
38F443	B-10-T	1 3/8x2 1/2x1 3/8"	1.73	1.56	1.21	1.16
38F445	C-10	2x2 1/2x2 1/2"	1.28	1.15	.90	.86
38F613	*C-10-M	2x2 1/2x2"	2.21	1.99	1.55	1.48
38F614	*C-10-MM	2x2 1/2x2"	2.84	2.56	1.99	1.90
38F611	†C-10-N	2x2 1/2x2"	2.24	2.02	1.57	1.50
38F612	§C-10-NN	2x2 1/2x2"	3.08	2.77	2.16	2.06
38F446	C-10-T	2x2 1/2x2"	1.85	1.67	1.30	1.24
38F447	C-12	2x3x2"	1.31	1.18	.82	.88
38F449	*C-12-M	2x3x2"	2.24	2.02	1.57	1.50
38F451	C-12-MM	2x3x2"	2.94	2.65	2.06	1.97
38F450	†C-12-N	2x3x2"	2.27	2.04	1.59	1.52
38F452	§C-12-NN	2x3x2"	3.11	2.80	2.18	2.08
38F448	C-12-T	2x3x2"	1.92	1.73	1.34	1.29

Vector Structures For Circuitry

VECTORBOARD AND MICRO VECTORBOARD



Vectorboard and new Micro Vectorboard pre-punched terminal board provide overall grids of holes especially useful in bread-boarding as well as production. New Micro Vectorboard patterns accept flat pack leads spaced multiples of .05" and is useful for cordwood packaging. Fig. A and AA have 0.093" holes on .265" centers. Fig. F: 0.062" holes on .2" centers. Fig. G: 0.062" holes on alternate intersections of 0.1" grid. Pattern H (not shown) has 0.062" holes on 0.1" centers. "B" has 0.062" holes on 1/16" centers. Pattern M has .025" holes on .05" centers. "P" has .042" holes on 0.1" centers. #4 self-tap screws can be engaged in the .093" holes or #2 in the .062" holes. Boards may be broken off along the hole lines as desired. Pattern G is especially useful for subminiature circuitry. The holes on alternate intersections of a standard 0.1" grid make it possible to mount most "top-hat" transistors base down by passing the leads directly through the holes. *2 oz. copper, 1 side. **2 oz. copper, 2 sides.

Stock No.	Type	Pat-tern	Size	1-19	20-99	100-199	200-999
Epoxy Paper							
38F423	64AA18EP	AA	3/16x4 1/2x17"	2.73	2.46	2.29	1.83
38F425	32AA18EP	AA	3/16x4 1/2x8 1/2"	1.40	1.26	1.18	.94
38F426	85F24EP	F	1/8x4 1/2x17"	2.06	1.85	1.73	1.38
38F1047	85F42EP	F	1/8x8.5x17"	3.17	2.85	2.66	2.12
38F427	85G24EP	G	1/16x4 1/2x17"	2.06	1.85	1.73	1.38
38F459	85G42EP	G	1/16x17x8 1/2"	3.17	2.85	2.66	2.12

XXXP Phenolic							
Stock No.	Type	Pat-tern	Size	1-19	20-99	100-199	200-999
38F422	64AA18	AA	3/16x4 1/2x17"	1.60	1.44	1.34	1.07
38F424	32AA18	AA	3/16x4 1/2x8 1/2"	.84	.76	.71	.56
38F420	32AA9	AA	3/16x7 1/2x8 1/2"	.60	.54	.50	.40
38F421	64A18	A	1/8x4 1/2x17"	1.25	1.13	1.05	.84
38F460	64AA32	AA	3/16x17x8 1/2"	2.45	2.21	2.06	1.64
38F1048	45B30	B	1/16x5.69x8.51"	.84	.76	.71	.56
38F1049	90B30	B	1/16x5.69x16.97"	1.62	1.46	1.36	1.09
38F393	42F22C1*	F	8/32x4 1/2x1 1/8"	1.00	.90	.84	.67
38F392	42F22C2**	F	8/32x4 1/2x1 1/8"	1.32	1.19	1.11	.88

Epoxy Glass							
Stock No.	Type	Pat-tern	Size	1-19	20-99	100-199	200-999
38F463	64A18WE	A	1/16x4 1/2x17"	3.72	3.35	3.12	2.49
38F391	42G22WEC1*	G	8/32x4 1/2x1 1/8"	2.55	2.30	2.14	1.71
38F390	42G22WEC2**	G	8/32x4 1/2x1 1/8"	2.60	2.34	2.18	1.74
38F1050	42G24WE	G	1/16x4 1/2x17"	1.89	1.70	1.59	1.27
38F464	85G24WE	G	1/16x4 1/2x17"	3.81	3.43	3.20	2.55
38F1051	85G42WE	G	1/16x8.5x17"	5.42	4.88	4.55	3.63
38F1052	166M76/032	M	1/32x8.5x4"	7.25	6.53	6.09	4.86
38F1053	169P59/032	P	1/32x17x6"	4.82	4.34	4.05	3.23
38F1019	170H48WE/032	H	1/16x4 1/2x17"	3.57	3.21	3.00	2.39

PATCHBOARDS

Panels of black phenolic with beryllium copper gold flashed contacts spaced .285 for panels requiring program flexibility. Single conductor patch-cords plug in wherever required. Front and back have white alpha numeric legend Aluminum frame encloses panels

for custom appearance and strength. Boards may be stacked or ganged. Mfg. brackets incl. Max. current 5 amps. Contact resist. less than .001Ω. Max. voltage: 1 KVAC, 1.5 KVDC.

Stock No.	Type	Description and Size	1-49	50-199	200-499
38F1054	PB210-2	20 cont., 2.98x .865	4.25	3.83	2.98
38F1055	PB510-2	50 cont., 2.98x1.66	6.45	5.81	4.52
38F1056	PB1010-2	100 cont., 2.98x2.98	10.85	9.77	7.60
38F1057	PB1020-2	200 cont., 5.63x2.98	21.60	19.44	15.05
38F1058	PB1520-2	300 cont., 5.63x4.31	32.35	29.12	22.65

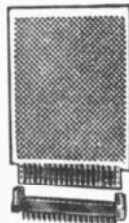
BUNDLE OF 25 PATCH CORDS FOR ABOVE

Stock No.	Type	Size	Color	Per Bundle
38F479	K2.06	6"	Black	2.60
38F480	K2.09	9"	Yellow	2.68
38F481	K2.15	15"	Blue	3.08

PIGGY BACK PATCH CORDS FOR MULTIPLE CONNECTIONS

Stk. No.	Type	Size	Color	Net Each
38F1024	K9.06	6"	Black	.93
38F1025	K9.09	9"	Yellow	
38F1026	K9.15	15"	Blue	

PLUGBOARDS AND RECEPTACLES



- Plug-In Test Circuits
- Prototype of To-Be-Printed Circuit Cards
- Modular Plug-In Cards

Standard Plugboards made from 1/16" thick Epoxy Paper material or Epoxy Glass (WE) with all-over grid of .062" holes on alternate .1" centers. Locate Vector T-28 Push-In Mini-clip Terminals and eyelets where required and lay out components to exactly duplicate printed card, if desired.

Elco Vancon contacts come attached to board or etched connector supplied on 838A and 838. Different sizes, hole patterns and materials readily available to order.

PLUGBOARDS

Stock No.	Type	Size	Contact	1-19	20-99	100-199	200-999
38F471	837	3 x 4 1/2"	12 Varicon	2.13	1.92	1.79	1.43
38F472	812	4 1/2x6 1/2"	16 Varicon	2.73	2.46	2.29	1.83
38F482	837WE	3 x 4 1/2"	12 Vancon	2.36	2.12	1.98	1.58
38F483	812WE	4 1/2x6 1/2"	16 Varicon	3.23	2.91	2.71	2.16
38F484	838A	4 1/2x6 1/2"	22 Etched	2.57	2.42	2.33	2.08
38F485	838	4 1/2x6 1/2"	43 Etched	3.34	3.17	3.06	2.77
38F395	848WE	4 1/2x6 1/2"	35 Varicon	5.58	5.02	4.69	3.74

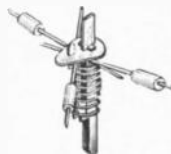
Receptacles for Varicon plugboards above.

Stk. No.	Type	Size	Cnts.	1-99	100-249	250-999
38F397	R612-1	2.880	12	1.64	1.12	1.02
38F396	R616-1	2.680	16	2.04	1.58	1.35
38F394	R635	3.934	35	4.46	2.97	2.48

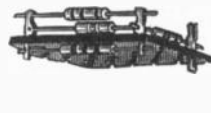
RECEPTACLES FOR ALL ETCHED PLUGBOARDS

Stk. No.	Type	Size	Cnts.	1-24	25-49
38F487	R644	3.584	44	2.62	2.10

PUSH-IN AND SOLDERLESS U-CLIP TERMINALS



T-32 Series



T-28 Series



T-9.4

Use with .093" or .062" holes in 1/16" or 3/32" VECTORBOARD and hold without staking (may be staked for maximum holding). Each terminal has serrated slots to grip inserted wires. Large slot holds most resistor and capacitor wires, small slot holds transistor leads. T9.6 also has a special slot for diodes. Both types have thru-shank construction. All fit .093" holes except .062".

Fused tin plated push-in type. T9.4 Brass, T9.6 Heat treated Beryllium Copper.

		Bags of 100			
Type	Stk. No.	1-19	20-99	100-199	200-999
T9.4	38F457	1.25	1.13	1.05	.84
T9.6	38F458	2.10	1.89	1.76	1.41
T28	38F465	1.55	1.40	1.30	1.04

		Bags of 1000			
Type	Stk. No.	1-4	5-24		25-49
T9.4	38F1059	8.90	7.48		7.11
T9.6	38F1060	13.69	12.32		11.50
T28	38F1061	11.00	9.90		9.24

NEW SOLDERLESS T32 SERIES U-CLIP TERMINALS

New reliable solderless terminal for experimenting, life, or burn-in testing. "U" shaped slot opens instantly at a push of a finger and holds up to six leads in a low resistance (less than .002 ohms) connection. Nickel-plated brass with steel nickled spring. May be re-used over and over. T-32-1 version fits .062" holes; all others .093" holes. T30N-2 is nickel plated. T30-2 is silver plated and has a flanged washer on top of spring lead (held in body slot).

		Bags of 10		Bags of 100		Bags of 1000	
Type	Stock No.	1-19	20-99	Stock No.	1-19	20-99	Stock No.
T30-2	38F468	.99	.89	38F1062	7.40	6.66	38F1063
T30N-2	38F388	.95	.86	38F1064	6.95	6.25	38F1065
							48.50
							43.65
							1-4
							5-24
T32A	38F1066	1.35	1.35	38F1040	9.90	9.90	38F1039
							75.00
							67.50

		Insertion Tool.				
Stk. No.	Type	Use	1-19	20-99	100-199	200-999
38F469	P-91	For T28	.50	.45	.35	.34
38F470	P-92A	For T30	.50	.45	.35	.34
38F1027	P-122	For 9.4, 9.6	1.00	.....	.....	.....

Circuit and Grid Board Sets

VECTOR

ETCHED CIRCUIT KIT

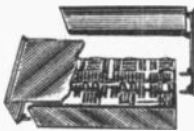
Model 27XA. Make etched circuits quickly and inexpensively. Kit contains: 1 XXXP Phenolic Vectorboard clad on 1 side with 2 oz. copper. Pre-punched grid of .062" holes on .2" centers. 1 XXXP Phenolic, unpunched 2 oz. copper clad 1 side. 1 Vector-resist, sheet 10"x15". 1 box with 2 polyethylene bags and etchant. 12 clips. 3 sheets grid layout paper. Complete etching and Vector-resist instructions. Shpg. wt., 24 oz.



Stk. No.	Type	1-49	50-199	200-499	500-999
38F1028	27XA	5.95	5.36	4.17	3.99

CHASSIS AND CASE SIDES

Extruded 2" w. Frame-Loc aluminum rails have .100 grooves spaced .0875 for 1/8 and 3/32 thick. Vectorboards or metal panels. Covers push together and lock with furnished screws, brackets. Sold in pairs for board dimension listed.



Stock No.	Type	Description	1-49	50-199	200-499	500-999
38F1029	SR2-3/093	Rails for 3" Lgth panel	.69	.62	.48	.46
38F1030	SR2-4.8/093	Rails for 4.8" Lgth panel	.79	.71	.55	.53
38F1031	SR2-7/093	Rails for 7" Lgth panel	.91	.82	.64	.61
38F1032	SR2-8.5/093	Rails for 8 1/2" Lgth panel	.99	.89	.69	.66
38F1033	SR2-10/093	Rails for 10" Lgth panel	1.05	.95	.74	.70
38F1034	SR2-12/093	Rails for 12" Lgth panel	1.19	1.07	.83	.80
38F1035	SR2-17/093	Rails for 17" Lgth panel	1.43	1.29	1.00	.96
38F1036	PL-4.8/8.5	4.8x8 1/2 Alum. panel	.63	.57	.44	.43
38F1037	PL-4.8/17	4.8x8 1/2 Alum. panel	1.07	.96	.75	.72
38F1038	PL-8.5/17	8.5x17 Alum. panel	1.63	1.47	1.14	1.09

"RUB-ON" VECTORESIST

Type R322. To prepare circuit boards for etching. Place sheet on copper-clad board or VECTORBOARD, rub; resist pattern transfers. Eliminates resist tapes and pens. Sheet contains lines, contact pads, etc.



38F1015. NET. per sheet..... **2.00**

Type 2594 Etchant. 2 plastic bags of dry etchant and activator ready for addition of water.

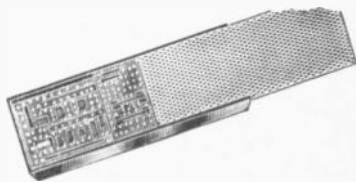
Stk. No.	Type	1-49	50-199	200-499	500-999
38F1016	2594	1.25	1.13	.88	.84

28X HIGH FREQUENCY CIRCUIT PACKING KIT

New inexpensive method for constructing and packaging circuits in the UHF and VHF ranges on up to where "plumbing" is generally used. Allows quick, easy circuit and component changes. 3 x 8.6 x 2" case provides RF tight, completely shielded enclosure with 2 slide-out shield sides for ready accessibility to the enclosed copper

clad circuit board. Included in the 28X kit parts are 3 tetrode transistor sockets, 2 power transistor sockets, wrench socket holder, roll #24 copper vinyl covered wire and a roll tinned copper wire. Shpg. wt. 2 lbs.

Stk. No.	1-49	50-199	200-499	500-999
38F1014	25.00	22.50	17.50	16.75



TUBE BASE SHIELDS

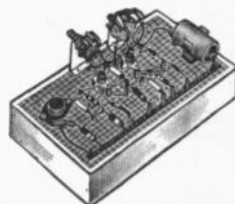
TUBE BASE SHIELDS are intended to be mounted above the socket as a base for convenient bayonet type tube shields.



Stk. No.	Type	Description	1-499
38F607	S7	7 Pin Steel Cad. Plated	.07
38F608	S9	9 Pin Steel Cad. Plated	.05

CHASSIS KITS

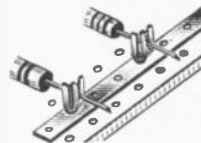
Provide quick set up of electronic circuitry with simple hand tools. Models 20X and 21X are intended mainly for mock-ups. Wiring deck made of XXXP Phenolic 3/32" thick. Holes .093" in dia. and spaced 0.265" on centers. 22X is supplied with transistor sockets. Push-in terminals. Shpg. wt., 24 oz. Kit 25X is a solderless circuit Set-up System for rapid testing on all electric circuits. Contact resistance less than .002 ohms. Deck made of XXXP Phenolic 3/32" thick with holes .093" in dia. and spaced 0.265" on centers. Mounted on wooden frame. Shpg. wt., 2 lbs.



Stk. No.	Type	Size	1-49	50-199	200-499	500-999
38F417	20X	4 3/4 x 8 1/2 x 3/8"	6.25	5.63	4.38	4.19
38F418	21X	4 3/4 x 17 x 3/8"	15.25	13.73	10.68	10.22
38F419	22X	8 1/2 x 4 3/4 x 3/8"	10.50	9.45	7.35	7.04
38F475	25X	8 1/2 x 17 x 3/8"	19.50	17.55	13.65	13.07

BUS STRIP

Punched brass tin plated strip punched with .093" holes spaced .265 or .062" holes spaced .2 to match VECTORBOARD A, C, F and G patterns. Fasten to board with Zip Push-In Terminals to speed wiring.



Stk. No.	Type	Description	Hole Size	1-49	50-199
38F1007	T-57	Pkg. X 10 pc. 8" L.x.020"W	.093"	1.10	.99
38F1008	T-58	Pkg. X 10 pc. 16" L.x.020"W	.093"	.70	.63
38F1067	T104	Pkg. X 10 pc. 17" L.x.125"W	.062"	1.10	.99

VECTORBORDS

Type 3070-1XXXXP. Tan phenolic Vectorbord. 2 oz. copper clad. One side overall punched grid of .062" holes on .2" centers. 4 1/2" x 6 1/2" x 1/16".

Stk. No.	Type	1-19	20-99	100-199	200-999
38F1017	3070-1XXXXP	.84	.76	.71	.56

Type CU65/45-1XXXXP. Phenolic 4 1/2" x 6 1/2" x 1/16". Copper clad. One side unpunched.

Stk. No.	Type	1-19	20-99	100-199	200-999
38F1018	CU65/45-1XXXXP	.55	.50	.46	.37

POT AND SWITCH BRACKET

Mounts easily on the Vectorboards listed above.

Type B-20. Handy aluminum brackets for mounting pots and switches on breadboards. Two slots accommodate 3/8" or 1/2" diameter shaft bushing. Furnished with two 1/8" base mounting holes spaced .265" for easy mounting on any A or AA pattern Vectorboard.

38F1006. Bracket Pkg. (4) NET

MAKE NEWARK YOUR DEPENDABLE SOURCE FOR ALL ELECTRONIC COMPONENTS

Whether ordering in quantity for production or in small lots for specialized use, make Newark your headquarters for every electronic component. — Get the exact part you need from an inventory of over 70,000 units! Top Quality, Lowest Prices, Fastest Service.

KePRO P. C. Kits & Materials

KEPRO PRINTED CIRCUIT KITS AND MATERIALS

Provide industrial with every means for establishing printed circuit facilities to answer the demands of bread-boarding, prototype productions and full quantity production. KePRO kits supply the materials, equipment and know-how to assure successful professional results from the initial stages of your program. Write for Quantity Prices.



STANDARD KIT

Type S-101A. An etching kit designed to custom fabricate your own circuit board. A liquid or tape resistant is manually applied to the XXXP Phenolic copper clad sheet in the desired pattern, then etched. A perforated copper clad panel is supplied with this kit to speed component mounting.

Contents: 2 sheets 3x6x1/16" copper clad phenolic, unsensitized. 1 sheet 3x6x1/16" perforated copper clad phenolic, unsensitized. 1-Resist. Marking Pen. 1-Package assorted Tapes and Dots. 2-Bottles Etching Solution. 1-Plastic Etching Tray. 1-Cleaning Pad and instructions. Shpg. wt. 2 lbs.

19F2000. NET **3.95**

Type S-101A-G. Identical to S-101A Kit except, base material is G-10 Glass Epoxy. Copper Clad.

19F2001. NET **5.25**



PROFESSIONAL KIT

Type P-101A. An etching kit designed to custom fabricate your own circuit board utilizing a photo engraving process. A sensitized sheet of XXXP Phenolic copper clad is exposed through your prepared negative, then developed and etched. Contents: 2 sheets 3x6x1/16" photosensitized copper clad phenolic, 1 sheet 3x3x1/16" photosensitized copper clad phenolic. 3 sheets Mech. Neg. 1-Print Frame Glass. 2-Print Frame Clamps. 1-Bottle Developer. 2-Bottles Etching Solution. 1-Aluminum Developing Tray. 1-Plastic Etching Tray. 1-Cleaning Pad. With complete instructions. Shpg. wt., 3 lbs.

19F2002. NET **5.85**

Type P-101A-G. As above except base is G-10 Glass Epoxy. Copper Clad.

19F2003. NET **7.40**



ETCHED CIRCUIT LAB

Type L-505A. A complete lab which contains all materials required for circuit board development. Uses high quality photo processing. Contains: 1-8 1/2x12 Developing Tray. 1-8 1/2x12 Etching Tray. 1-Safelight. 1-Printing Frame. 1-Photo Flood Lamp. 1-KEPRO Photo Layout Kit (PL-2A). 1-40x10 Mech. Neg. 1-Etching Solution (1 Pint). 1-Developing Solution (1 Pint). Resist. marking pen. 1-3/16x7/16x1 1/2" Plastic Tray and Lid. 1-Aluminum Tray. 1-Etching Solution (4 oz.). 1-Developing Solution (4 oz.). 1-Eyelet Assortment. 1-Cleaning Pad. 1-Set of Instructions. Shpg. wt., 19 lbs.

19F2004. NET **34.75**

Type L-505A-G. Identical to L505A, except, base material is G-10 Glass Epoxy, Copper Clad. Shipping weight 20 pounds.

19F2005. NET **42.85**

PHOTO REVERSING KIT

Type FK-701. Simple two-step process prepares line negatives and positives from taped or inked artwork or reverses existing negatives or positives. No darkroom needed. Includes two pieces 10" x 24" reversing film, chemicals and instructions. Shpg. wt., 2 lbs.

19F2010. NET **7.20**

ETCHED CIRCUIT COPPER CLAD MATERIALS

A quality selection of laminated 1 oz. (.00135) copper clad materials, one or two sides, both in 1/16" XXXP paper base phenolic and 1/16" G-10 glass epoxy. All copper clad materials meet standard NEMA grade tolerances. Materials supplied unsensitized (unsen.) for screen processed parts and photosensitized

XXXP PAPER BASE PHENOLIC Individually Packaged

Stk. No.	Type	Description	Size	Wt. (oz.)	EACH
19F3200	P1-33	Unsen. 1 side	3x3	1 3/4	.40
19F2012	P1-36	Unsen. 1 side	3x6"	2 1/2	.54
19F2013	P1-1212	Unsen. 1 side	12x12"	9 3/4	2.48
19F2014	P1-36PB	Unsen. 1 side	3x6"	2 1/2	.62
19F2015	P2-1212	Unsen. 2 side	12x12"	10 1/2	3.26
19F2016	S1-36	Sen. 1 side	3x6"	2 1/2	.86
19F3201	S1-66	Sen. 1 side	6x6	3 1/2	1.47
19F2017	S1-710	Sen. 1 side	7x10"	5 3/4	2.63
19F2018	S1-1212	Sen. 1 side	12x12"	9 3/4	5.08
19F2019	S2-36	Sen. 2 side	3x6"	2 1/2	1.18
19F2020	S2-66	Sen. 2 side	6x6"	3 1/2	2.11
19F2021	S2-1212	Sen. 2 side	12x12"	10	7.43

PHOTO LAYOUT KIT



Type PL-2A. For preparing camera-ready artwork without inking and lettering. Reduced layout time by use of pressure-sensitive tapes, dots, letters and numerals. Contents: 96-1/4" Tape Dot Terminations. 108"-1/16" Tape Conductor Strips. 216"-1/16" Tape Conductor Strips. 1-translucent-type (letters and numerals, assorted sizes) sheet. 1-Acetate Sheet (8"x10"). 1-Mech. Neg. (8"x10"). 2-Sheets of Graph paper, 1/10" grid, 8x10". 1-Instruction sheet. Wt., 1 lb.

19F2006. NET **3.95**

MASTER PHOTO LAYOUT KIT



Type PL-200. This package includes all necessary materials to make Master artwork on stable base drafting films. Utilizes the same time saving methods as the PL-2A. Contents: 2 pcs. 18"x24" Matte Surface Mylar. 2 pcs.—18"x24" Mech. Neg. mylar base. 4 pcs.—17"x21" Graph paper, 1/10" grid. 432-1/8" tape dot termination. 576-1/4" tape dot termination. 252-1/2" dot terminations. 18 yds.—1/16" tape conductor strips. 21 yds.—1/4" tape conductor strips. 18 yds. 1/4" tape conductor strips. 1 sheet—8 1/2" x11" translucent-type (letters and numerals, assorted sizes) sheet. 1 btl. —Opacuing fluid. 1-Brush. 1-Bow Compass (with knife cutters). 1-Center Dot Cutter. 1-Tweezers. 1-Cutting Knife Set. 1-Peeling Stylus. 1-Instruction and Data Sheet. Shpg. wt., 4 lbs.

19F2007. NET **36.30**

NAMEPLATE & PANEL KIT



Type NP-303A. Kit prepares nameplates by a simple photographic process. Plates are exposed to light source through artwork made from supplied materials. Panels are then dev., no fixing nec. Finished plates are aluminum and contrasting dk. blue. Contents: 2-8"x10" Aluminum Sheets. 1-8"x10" Acetate Sheet. 1/4-Sheet translucent-type, 1-8"x10" Print Glass. 1-1 oz. Bottle developer. 2-2x2x3/4" Apprs. (sponges). 2-(8x10") pressure sensitive adhesive. Shpg. wt. 1 lb. 1 oz.

19F2008. NET **7.25**

ETCHED ANODIZED NAMEPLATE & PANEL KIT



Type NP-404. Produces etched nameplates and panels using anodized aluminum stock. Processed by exposing, developing, and etching plates. Finished plates are black anodized aluminum and natural color aluminum finish. Contents: 3-3x6" Aluminum Panels. 3-3x6" Acetate Sheets. 1/4-Sheet translucent type. 1-Print Glass. 2-3" Clamps. 1-4 oz. Bottle Developer. 1-2 oz Package Etchant. 1-Dev. Tray. 1-Etch Tray. 3-(3x6") pressure sensitive adhesive. 1 1/2 lbs.

19F2009. NET **6.55**

SILK SCREEN KIT



Type SC-601A. Professional materials and equipment for producing lacquer resistant film type photo stencils with print area up to 7"x9" and to use these stencils to screen-print 1000 or more impressions per day. No dark room needed. Kit includes screen printing frame with one stretched silk in place plus silk and emulsion for two additional patterns, mounting hinges, squeegee, black and white inks, film printing frame, safe-light, photo-flood lamp, trays and all necessary chemicals and solutions. Shpg. wt., 13 lbs.

19F2011. NET **35.00**

(sen.) for photo processed boards. Photosensitized materials are ready for exposure with no other sensitizing required. Materials 1/2", 1/16", 3/32" and 1/8", 1 oz. or 2 oz. foil weight, 1 or 2 sides cut and photosensitized to specification quoted upon request. Materials are individually packed.

XXXP PAPER BASE PHENOLIC 5 Pieces Per Package

Stk. No.	Type	Description	Size	Wt.	1-4	5-10	11-15	16-20
19F3202	P1-365	Unsen. 1 side	3x6 11 oz.	2.00	1.80	1.70	1.60	
19F3203	P1-12125	Unsen. 1 side	12x12 3 lb.	10.50	9.40	8.85	8.30	
19F3204	P2-365	Unsen. 2 sides	3x6 11 oz.	2.55	2.30	2.20	2.05	
19F3205	P2-12125	Unsen. 2 sides	12x12 3.3 lb.	14.20	12.90	11.55	9.85	
19F3206	S1-365	Sen. 1 side	3x6 11 oz.	3.55	3.15	3.00	2.80	
19F3207	S1-665	Sen. 1 side	6x6 1.4 lb.	6.30	5.65	5.30	4.95	
19F3208	S1-7105	Sen. 1 side	7x10 1.9 lb.	11.45	10.25	9.65	9.05	
19F3209	S1-12125	Sen. 1 side	12x12 3 lb.	22.60	17.25	15.95	15.00	
19F3210	S2-365	Sen. 2 sides	3x6 11 oz.	5.05	4.55	4.25	4.00	
19F3211	S2-665	Sen. 2 sides	6x6 1 lb.	9.90	8.95	7.85	7.35	
19F3212	S2-12125	Sen. 2 sides	12x12 3.3 lb.	31.65	24.65	23.50	22.50	

Printed Circuit Boards, Etchant & Resist Tapes

KEPRO

COPPER CLAD GLASS EPOXY BOARDS

G-10 glass epoxy circuit boards, 1 oz. copper clad, 1/16" thick. Meet standard NEMA grade tolerances. Supplied unsensitized (Unsen.) for screen processed parts, or photosensitized (Sen.) for photo processed boards. Photosensitized materials are ready for exposure with no other sensitizing required.

G-10 GLASS EPOXY—INDIVIDUALLY PACKAGED

Stk. No.	Type	Description	Size	Wt. (oz.)	EACH
19F2022	P1-36G	Unsen. 1 side	3x6"	3 1/8	1.08
19F2023	P1-1212G	Unsen. 1 side	12x12"	10 3/4	6.74
19F3213	P2-36G	Unsen. 2 sides	3x6"	3 1/8	1.14
19F2024	P2-1212G	Unsen. 2 sides	12x12"	11 1/2	7.14
19F2025	S1-36G	Sen. 1 side	3x6"	3 1/8	1.52
19F3214	S1-66G	Sen. 1 side	6x6"	4 1/2	2.78
19F2026	S1-710G	Sen. 1 side	7x10"	6 3/4	5.18
19F2027	S1-1212G	Sen. 1 side	12x12"	10 3/4	10.24
19F2028	S2-36G	Sen. 2 sides	3x6"	3 1/8	1.84
19F3215	S2-66G	Sen. 2 sides	6x6"	4 1/2	3.48
19F2029	S2-1212G	Sen. 2 sides	12x12"	11 1/2	12.84

G-10 GLASS EPOXY—PACKAGES OF FIVE

Stk. No.	Type	Description	Inches	1-4	5-10	11-15	16-20
19F3216	P1-365G	Unsen. 1 side	3x6	4.60	4.10	3.85	3.60
19F3217	P1-12125G	Unsen. 1 side	12x12	29.90	22.40	21.25	.....
19F3218	P2-365G	Unsen. 2 sides	3x6	4.85	4.35	4.10	3.85
19F3219	P2-12125G	Unsen. 2 sides	12x12	31.60	23.70	22.50	.....
19F3220	S1-365G	Sen. 1 side	3x6	6.65	5.95	5.60	5.25
19F3221	S1-665G	Sen. 1 side	6x6	12.40	11.15	10.25	9.55
19F3222	S1-12125G	Sen. 1 side	12x12	40.80	31.15	30.00	.....
19F3223	S2-365G	Sen. 2 sides	3x6	8.15	7.35	6.90	6.45
19F3224	S2-665G	Sen. 2 sides	6x6	15.75	13.45	11.60	10.75
19F3225	S2-12125G	Sen. 2 sides	12x12	56.55	50.90	.....	.....

.004" COPPER CLAD MYLAR BOARDS

Mylar, copper clad, for flexible circuitry. Overall thickness .004" with one side one-ounce copper clad. Available with copper clad side unsensitized or photosensitized. Photosensitized material is ready for exposure; no other sensitizing required.

CORNING FOTOCERAM® GRID BOARD KITS

Contains all the materials necessary to build a printed circuit of your own design in your own lab. A complete kit provides two copper plated FOTOCERAM® grid boards, 3x5", 1/16" thick; two packets of chemical etchant, a ball point chemical resistant pen, and resistant tape. The plastic box the kit comes in can be used as an etching tray. The glass ceramic FOTOCERAM® board has 0.052" holes spaced 0.1" apart on centers. Hole plating is done with the same material used for center run conductors. Shpg. wt. 1 1/2 lbs.



8.95

19F557. NET

RESIST TAPE. For Corning Fotoceram® Printed Circuit Grid Boards above. Chemical resistant vinyl tape in package of 10 strips 3/8"x9", plus 40 circles 3/16" diameter.

RESIST TAPE

ETCHED CIRCUIT PROCESSING CHEMICALS

Stk. No.	Type	Description	Weight	EACH
19F2030	R-2	2 oz. Paint Etch Resist	6 oz.	.60
19F2031	T-2	2 oz. Paint Resist Thinner	6 oz.	.50
19F2032	D-1PT	1 pt. Developing Solution	2 3/4 lb.	1.15
19F2033	D-1G	1 gal. Developing Solution	16 lb.	5.00
19F2034	E-1PT	1 pt. Etching Solution	2 1/2 lb.	.85
19F2035	E-1G	1 gal. Etching Solution	16 lb.	3.00

POLYESTER LAMINATE CIRCUIT BOARDS

Polyester laminate boards, one-ounce copper clad on one or both sides. Overall thickness is 1/16 inch. Electrical characteristics of this material exceed G-10 glass epoxy boards; mechanical characteristics approach those of G-10 laminates. Material is available unsensitized for silk-screen processing, etc., or photosensitized for photoprocessing. Sensitized materials are ready for exposure; no other processing is required. One board per package.

1/16" POLYESTER LAMINATE—INDIV. PKGD.

Stk. No.	Type	Description	Size	Wt. oz.	EACH
19F3226	P1-36M	Unsen. 1 side	3x6"	3 1/8	.44
19F3227	P1-1212M	Unsen. 1 side	12x12"	10 3/4	2.73
19F3228	P2-36M	Unsen. 2 sides	3x6"	3 1/8	.73
19F3229	P2-1212M	Unsen. 2 sides	12x12"	11 1/2	3.59
19F3230	S1-36M	Sen. 1 side	3x6"	3 1/8	.95
19F3231	S1-66M	Sen. 1 side	6x6"	4 1/2	1.62
19F3232	S1-1212M	Sen. 1 side	12x12"	10 3/4	5.59
19F3233	S2-36M	Sen. 2 sides	3x6"	3 1/8	1.30
19F3234	S2-1212M	Sen. 2 sides	12x12"	11 1/2	8.17

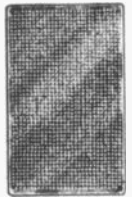
1/16" POLYESTER LAMINATE—INDIV. PKGD.

Stk. No.	Type	Description	Size	Lbs.	EACH
19F3235	PI-621F	Unsen. 1 side	6x21"	1	2.52
19F3236	S1-621F	Photosen. 1 side	6x21"	1	4.95

CORNING

CORNING FOTOCERAM® GRID BOARDS

Sets the stage for top quality printed circuits for prototype work in 15 minutes! The base material, non-organic glass-ceramic Fotoceram®, is used for other high quality printed circuit applications where high strength, high temperature resistance, non-flammability and dimensional stability are required. These qualities are further augmented with high quality metalizing and unexcelled through-hole plating. Units are completely copper clad before processing. Copper plated over base electroless copper. . . . no adhesives used. Grid pattern: standard component mfg. holes on 0.1" centers.



Stock No.	Size	1-24	25-99	100-249
19F1059	3 x 5"	3.95	3.50	3.25

Stock No.	Description	1-24	25-99	100 Up
19F555	Pkg. of 10	.75	.60	.50

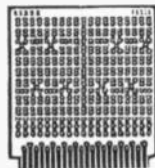
TRIAD

UNIVERSAL CIRCUIT CARD

Type 13510. Land pattern is compatible with standard .1 grid design. Hole size, .052. Base material is 1/16" paper base epoxy. Gold-plated finish. 42 holes per card. Electro-Solder plat or roll solder finish is available on special order, 4x4 1/2".

Type 13511. Similar to 13510 but with more than 300 mounting pads, more than 650 holes per card. Card size, 4x7".

Type 13500. Similar to 13510 but with 223 mounting pads, 444 holes per card. 22 fingers fits card to any standard plug-in with .156 spacing. Hole size .052. 4x4 1/2".

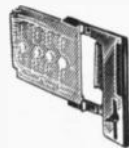


Type 13540. Two-sided card of 1/16", 3.00x3.187". TO-5 pads have .032" hole size. Interconnection pads have .040" hole size. Mates with the Winchester PC25D62D4-1, a 25 contact double-side readout connector.

CIRCUIT CARD EXTRACTORS

Type CE-1. Cam action, quick release. One-handed operation with 60-lb. pull. Small space requirement. Becomes integral part of card until release. Sturdy plastic. 4 1/4x2 1/2".

Type CE-4. Adjusts to fit card widths from 4 to 6". Heavy gauge steel, nickel finish. 6 1/4x4 3/8".



Type CE-5. For cards from 1" to 4" in width. Ideal for miniature integrated circuit cards and modules. Measured 4 1/4x4 1/2".

Stk. No.	Type	1-9	10-24	25-49	50-99
2F967	CE-1	9.92	8.92	8.03	7.47
2F968	CE-4	11.50	10.35	9.32	8.67
2F978	CE-5	10.85	9.77	8.79	8.17

Type 13541. Two-sided card of 1/16", 2.97x3.273". Connector strips and TO-5 pads have .032" hole size. Interconnection pads have .040" hole size. Mates with Winchester 8B36D, an 18-contact double-side readout connector.

Stk. No.	Type	1-9	10-24	25-49	50-99
2F969	13510-1	6.60	5.95	5.35	4.95
2F970	13511	14.25	12.85	11.55	10.75
2F971	13500-1	6.60	5.95	5.35	4.95
2F976	13540	6.60	5.95	5.35	4.95
2F977	13541	6.60	5.95	5.35	4.95

PLATED CIRCUIT CARDS WITH WINCHESTER CONNECTORS

Stk. No.	Type	Connector	1-9	10-24	25-49	50-99
2F982	CO-13500-1	8B44S	9.30	8.10	7.15	6.55
2F980	CO-13540	PC25D62D4-1	13.60	12.25	11.00	10.25
2F981	CO-13541	8B36S	9.00	8.10	7.30	6.80

Other circuit cards with connectors also available.

LEAD BENDING GAUGES

A set of 4 MK lead bending gauges; MK-1 (.375 to 1.50 ctrs.) for 1/4-watt resistors, MK-2 (.50 to 1.50 ctrs.) for 1/2-watt resistors, MK-3 (.75 to 2.50 ctrs.) for 1-watt resistors, MK-4 (.875 to 2.50 ctrs.) for 2-watt resistors. MK gauges may also be used on other similar components. With 40 numbered positions.



Stk. No.	Type	1-9	10-24	25-49	50-99
2F972	MK-1	3.58	3.22	2.90	2.70
2F973	MK-2	3.58	3.22	2.90	2.70
2F974	MK-3	4.42	3.98	3.58	3.33
2F975	MK-4	4.42	3.98	3.58	3.33

BURGESS • EVEREADY Radio and Industrial Batteries



BURGESS AND EVEREADY RADIO BATTERIES

Your choice of equivalent Burgess and Eveready batteries for portable radios, tape recorders and hearing aids; NEDA numbers are included in tables for your con-

venience. These well-known brands are used in government and industrial research labs. and are noted for high quality, dependable performance, and long life.

COMBINATION "A" AND "B" PACKS

BURGESS						EVEREADY					
Stk. No.	Type	Std. Pack	Each	Neda #	Volts	Max Dimensions	Stk. No.	Type	Std. Pack	Each	
49F203	6TA60	1	6.95	410	1½A, 90B	93½x21½x4¾	48F732	W369	1	6.96	
49F206	TSZ50	1	6.22	403	6, 7½A, 75B	89½x34x27½	48F786	7553	1	5.08	
49F208	F6A60	1	6.22	401	7½, 9A, 90B	91½x21½x4¼	48F784	753	1	5.43	
49F209	T6Z60	1	6.35	405	7½, 9A, 90B	81½x21½x3½	48F787	756	1	4.87	
49F213	T6Z60P	1	6.35	428	9A, 90B	81½x21½x3½	.....	727	.....	.....
49F210	F6A60P	1	6.35	406	9A, 90B	97½x23½x4½	.....	757	.....	.....
49F211	G6B60	1	6.35	400	9A, 90B	141½x21½x4¾	48F718	752	1	5.78	
49F214	TSZ50P	1	6.22	431	7½A, 75B	81½x3½x2¾	.....	785	.....	.....
49F146	4TZ60	1	5.33	425	1½A, 90B	71½x27½x3¾	.....	729	.....	.....
.....	17GD60	1	7.95	413	1½A, 90B	151½x4¾x7¼	48F788	759	1	7.95	

PORTABLE "B" BATTERIES

49F180	U30	1	1.75	213	45	1½x5½x311½	49F351	415	1	1.75
49F160	XX45	1	2.70	200	67½	21½x1½x34¼	49F353	467	1	2.70
49F171	P45	6	2.70	211P	67½	129½x6x5½	49F354	477	1	2.70
49F161	K45	1	2.97	203	67½	21½x1½x34¼	48F708	457	1	2.70
49F179	XX50	1	3.15	212	75	113½x1½x61½	48F709	437	1	3.15
49F163	V60	1	3.15	204	90	329½x13½x31½	48F706	490	1	3.15
49F173	U15	1	1.05	215	22½	114x5x2	49F350	412	1	1.05
49F183	P60	1	2.97	214	90	183x1½x71½	49F355	479	1	2.97
49F195	UX45	1	2.07	217	67½	121½x6x3½	49F352	416	1	2.07
49F196	N60X	1	3.47	216	90	117x1½x7½	.....	495	.....	.....
49F148	V45	6	2.77	200C	67½	294x11½x31¾	.....	468	.....	.....

PORTABLE "A" BATTERIES

49F261	1	24	.13	14F	1½	114xDx11½	49F381	935	24	.13
49F127	2F	1	1.22	11	1½	219½x1½x4¼	48F722	W353	1	1.22
49F144	21R	1	.42	20	1½	111½xDx4½	49F358	964	1	.42
49F100	2D	1	1.15	18	1½	223½x113½x3½	.....	720	.....	.....
49F101	2R	48	.13	813	1½	111½xDx21¾	49F380	950	48	.13
49F143	D3	1	1.23	19	4½	444x17½x21¾	.....	726	.....	.....
49F107	Z4	1	.87	2	6	174x1½x27½	48F711	724	1	.87
49F108	B5	1	2.27	8	7½	329½x7x27½	48F710	713	1	2.27
49F109	C5	6	1.23	9	7½	274x11½x31½	49F357	717	6	1.23
49F104	F3	1	1.23	3	4½	4x1½x4½	48F712	736	1	1.23
49F106	F4PI	1	1.15	6	6	221½x22½x4½	48F713	744	1	1.15
49F215	4D	1	1.35	1	1½	2½x2½x21¾	.....	.....	.....	.....

TRANSISTOR RADIO AND HEARING AID BATTERIES

BURGESS						EVEREADY					
Stk. No.	Type	Std. Pack	Each	Neda #	Volts	Max Dimensions	Stk. No.	Type	Std. Pack	Each	
49F292	NE	6	.08	910	1½	445Dx1.18	49F385	904	6	.08	
49F189	D6PI	1	1.92	1601	3, 6, 9	213½x119½x8	48F719	2506	1	1.92	
49F186	ZN6	1	1.30	1602	9	114x2x11½x2¾	49F371	246	1	1.30	
49F187	D6	1	1.36	1603	9	291x21½x3½	49F373	276	1	1.36	
49F184	XX9	1	1.77	1900	9, 13½	121½x11½x21½	49F370	239	1	1.30	
49F188	2U6	12	.48	1604	9	114x11½x21¾	49F368	216	12	.48	
49F191	P5	6	.62	1600	9	1Dx11½	49F369	226	6	.62	
49F199	230	24	.21	13	1½	114xDx21¾	48F366	1050	48	.19	
49F194	Z23	1	1.36	1610	4½	114x2x113½x2¾	48F752	243	1	1.30	
49F326	A4	1	.78	.....	6	194x219½x21½	.....	.....	.....	.....
49F327	D5	1	1.15	26	7½	291x21½x21½	49F356	707	1	1.15	
49F331	C6X	1	1.64	1612	9	291x13½x6¼	48F758	2356	1	1.64	
49F198	130	12	.19	14	1½	114xDx11½	49F384	1035	12	.19	
49F197	930	12	.16	15	1½	114xDx11½	49F386	1015	24	.16	
49F190	M6	1	1.36	1605	9	114xDx11½	49F372	266	1	1.36	
49F330	D6S	1	2.45	1608	9	114xDx11½	48F749	2761	1	2.45	
49F124	8R	1	.87	23	1½	114xDx4½	.....	960P	.....	.....
49F172	XX15	1	1.58	.....	22½	123½x11½x31½	48F733	425P	1	1.37
49F332	Y6 (YL6)	12	.83	.....	9	35x4x1910	.....	E177	.....	.....
49F334	L6	6	.62	1606	9	¾Dx2	49F367	206	6	.62	
49F339	1306	1	.62	1611	12	1Dx21½	48F751	333	6	.62	
49F340	PM8	1	1.05	1306	4½	¾4Dx13½	49F383	228	1	1.05	
.....	.....	.....	.....	1810	9	114x2x4¾x41½	49F392	2709N	1	1.05

PREMIUM GRADE TRANSISTOR RADIO BATTERIES

49F336	2MN6	12	.65	1604D	9	114x2x113½x29½	48F894	222	12	.65
49F335	PM6	6	.80	1600D	9	1Dx11½	.....	226	.....	.....

TAPE RECORDER BATTERIES

49F238	2VT8	1	2.00	1700	12	1½x114x31¾	.....	.....	.....	.....
49F237	2X62X	1	3.20	.....	1½, 9	21½x12½x21½	.....	.....	.....	.....
49F298	2X7	1	1.82	.....	10½	21½x13½x21½	.....	.....	.....	.....

Industrial Type Batteries BURGESS



BURGESS AND EVEREADY INDUSTRIAL-TYPE BATTERIES



All the batteries listed below are guaranteed fresh when they leave our stock and carry additional manufacturers' guarantees. Made to high standards and fully inspected, these batteries are of the highest quality. All types listed below have

binding post terminals, except where U or K in the type number indicate flat terminals. Similarly, PI denotes plug-in, SC screw type terminals. Equivalent NEDA numbers are included in tables for your convenience.

INDUSTRIAL AND ELECTRONIC "A" BATTERIES

BURGESS							EVEREADY			
Stk. No.	Type	Std. Pkg.	Each	Neda #	Volts	Max Dimension	Stk. No.	Type	Std. Pkg.	Each
49F261	1	24	.13	814	1 1/2	1 1/2 x 1 1/2 x 1 1/2	49F381	935	24	.13
49F112	2FBP	5	.79	700	1 1/2	2 1/2 x 1 1/2 x 1 3/8	48F723	711	1	.79
49F102	4F	1	1.15	4	1 1/2	2 1/2 x 2 1/2 x 4 3/8	48F782	742	1	1.15
49F103	6F	1	2.69	5	1 1/2	4 3/8 x 2 1/2 x 4 1/2	48F757	743	1	2.69
49F113	2F2BP	1	5.35	.....	3	5 1/2 x 1 1/2 x 4 5/8	.....	.....	.....	.....
49F114	5F	5	1.75	703	3	2 5/8 x 2 5/8 x 4 1/8	48F724	W356	1	1.75
49F115	B2BP	1	2.42	.....	3	1 5/8 x 1 1/2 x 2 1/8	.....	.....	.....	.....
49F116	F2BP	5	1.33	701	3	2 1/2 x 1 1/2 x 4 9/16	48F721	W352	1	1.33
49F117	422	1	.79	704	3	1 1/2 x 2 1/2 x 2 1/2	48F742	750	1	.79
49F118	432	1	.87	705	4 1/2	2 x 1 1/2 x 2 1/2	48F743	751	1	.87
49F119	532	1	1.36	706	4 1/2	2 1/4 x 2 1/4 x 3 1/16	48F740	703	1	1.36
49F142	2F4	1	2.97	.....	6	4 x 2 1/2 x 5 1/4	.....	.....	.....	.....
49F120	F4BP	1	.82	915	6	2 5/8 x 2 3/8 x 4 3/8	48F754	510S	1	.92
49F131	SR	12	.48	.....	1 1/2	4 1/8 x 2 1/8	.....	.....	.....	.....
49F133	8F	1	2.76	17	1 1/2	3 2/8 x 2 3/8 x 5 1/2	.....	.....	.....	.....

INDUSTRIAL AND ELECTRONIC "B"

49F178	U10	1	.81	208	15	1 1/2 x 5/8 x 1 2/4	48F704	411	1	.81
49F293	Y10	1	.81	220	15	5/8 x 1 1/2 x 1 3/8	48F775	504	1	.81
49F173	U15	1	1.05	215	22 1/2	1 1/2 x 5/8 x 2	49F350	412	1	1.05
43F294	Y15	1	1.05	221	22 1/2	5/8 x 1 1/2 x 1 3/8	48F776	505	1	1.05
49F166	4156	1	1.61	710	22 1/2	3 1/2 x 2 1/2 x 2 1/4	48F744	763	1	1.61
49F167	5156PI	1	4.16	721	22 1/2	4 1/4 x 2 3/8 x 2 5/8	.....	.....	.....	.....
49F168	5156SC	5	4.16	708	22 1/2	4 1/4 x 2 1/2 x 3 7/16	48F747	778	1	4.16
49F175	U20	1	1.23	210	30	1 1/2 x 5/8 x 2 1/8	48F705	413	1	1.23
49F295	Y20	1	1.30	223	30	1 3/8 x 5/8 x 1 1/2	48F769	506	1	1.30
49F129	K10	1	1.28	224	15	1 3/8 x 5/8 x 1 1/2	48F714	417	1	1.23
49F130	K15	1	1.44	225	22 1/2	1 3/8 x 5/8 x 2 1/8	48F715	420	1	1.37
49F174	K20	1	1.72	226	30	1 3/8 x 1 x 2 1/8	.....	.....	.....	.....
49F177	XX30PI	1	2.27	.....	45	2 1/2 x 1 1/2 x 4 3/8	48F734	455P	1	2.27
49F170	Z30NX	5	2.67	711	22 1/2, 45	3 1/2 x 1 1/2 x 4 3/8	48F720	W350	1	2.69
49F169	5308	1	3.05	709	22 1/2, 45	4 3/8 x 2 1/2 x 5 1/8	48F767	762S	1	3.05

INDUSTRIAL AND ELECTRONIC "B" BATTERIES

BURGESS							EVEREADY			
Stk. No.	Type	Std. Pkg.	Each	Neda #	Volts	Max Dimension	Stk. No.	Type	Std. Pkg.	Each
49F155	2308SC	1	7.10	723	45	8 1/2 x 2 3/8 x 2 7/8	48F731	W365F	1	7.66
49F156	10308PI	1	7.66	726	45	8 1/2 x 2 1/2 x 7 9/8	48F727	W363F	1	7.66
49F157	10308SC	1	7.30	716	45	8 1/2 x 2 1/2 x 7 9/8	48F728	W363P	1	7.66
49F158	21308PI	1	7.66	727	45	8 1/2 x 4 1/2 x 7 11/16	48F729	W364F	1	7.66
49F159	21308SC	1	7.50	715	45	8 1/2 x 4 1/2 x 7 11/16	48F730	W364P	1	7.66
49F165	U-200	1	8.37	722	300	2 3/4 x 2 3/8 x 3 3/8	48F738	493	1	8.37
49F150	A30	2	2.92	206	45	3 1/8 x 2 1/2 x 4 1/2	48F726	W359	1	3.15
49F151	B30	2	3.47	207	45	4 1/8 x 2 1/2 x 5 1/8	48F716	484	1	3.47
49F152	M30	1	2.97	202	45	3 1/8 x 1 3/8 x 5 1/2	48F770	482	1	2.97
49F153	XX30	1	2.27	201	45	2 1/2 x 1 1/2 x 3 1/4	48F707	455	1	2.27
49F154	Z30	1	2.76	205	45	3 x 2 1/2 x 4 1/2	48F768	788	1	2.76
49F162	A60	1	14.50	.....	90	4 1/2 x 3 3/8 x 4 1/2	.....	.....	.....	.....
49F164	XX69	1	4.86	227	103 1/2	1 1/2 x 1 1/2 x 1 1 3/4	.....	.....	.....	.....
49F296	Y20S	1	1.30	222	30	5/8 x 1 1/2 x 2 1/8	48F717	507	1	1.30
49F176	XX22	1	2.27	.....	33	2 1/2 x 1 1/2 x 3 1/2	.....	.....	.....	.....
49F136	Z30T	1	2.62	.....	45	3 x 2 1/2 x 4 1/2	.....	.....	.....	.....
49F138	Z60BP	1	17.50	.....	90	3 3/4 x 2 1/4 x 2 1 3/8	.....	.....	.....	.....

INDUSTRIAL "C" CELL SIZE

49F230	A3BPX	1	4.60	.....	4 1/2	1 3/8 x 2 3/8 x 2 1/4	.....	.....	.....	.....
49F231	2370PI	1	2.14	718	4 1/2	4 1/8 x 1 2/4 x 3 1/4	48F745	771	1	2.07
49F232	2370ST	5	2.10	712	4 1/2	4 1/8 x 1 3/8 x 3 1/2	.....	.....	.....	.....
49F233	5360	1	1.23	714	4 1/2	2 1/8 x 2 5/8 x 3	48F748	781	1	1.23
49F234	W5BP	6	2.05	.....	7 1/2	2 3/8 x 2 3/8 x 1 3/4	48F746	773	1	1.75
49F235	5540	5	1.80	713	7 1/2	4 x 7/8 x 3 1/8	.....	.....	.....	.....
49F236	A8BP	1	10.20	.....	12	2 1/2 x 1 1/2 x 2 1 3/8	.....	.....	.....	.....
49F239	A9BP	1	8.75	13 1/2	2 3/8 x 2 3/8 x 2 1 3/8

INDUSTRIAL "D" CELL SIZE

49F265	210	48	.16	1 1/2	1 1/2 x 2 1 3/8	49F364	1150	48	.16
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IGNITION AND TELEPHONE BATTERIES

49F250	4FH	12	.84	900	1 1/2	2 5/8 x 2 5/8 x 4 3/8	48F741	735	1	.84
49F251	4F2H	1	1.92	901	3	3 3/8 x 2 1/4 x 5 1 3/8	48F725	W357	1	1.92
49F252	4F4H	1	3.70	902	6	8 1/2 x 2 1 1/8 x 5 7/8	48F755	706	1	4.86
49F253	4F5H	1	4.86	903	7 1/2	7 1/4 x 4 1/2 x 5 7/8	48F756	715	1	4.86
49F254	4F6H	1	5.53	904	9	8 3/4 x 4 1/2 x 5 7/8	48F773	716	1	5.53
49F140	6 Ign.	12	.91	905	1 1/2	2 5/8 x 6 5/8	49F390	6 Ign.	1	.91
49F266	6 Ind.	12	.90	911	1 1/2	2 5/8 x 6 5/8	.....	.....	.....	.....
49F141	S461	4	3.70	907	6	10 1/2 x 2 3/8 x 7 1 3/8	48F774	1461	1	3.70
.....	.....	.....	.....	906	1 1/2	2 5/8 x 6 5/8	49F363	6GL	1	.91

Batteries, Lanterns and Accessories

BURGESS & EVEREADY BATTERIES

FLASHLIGHT AND LANTERN BATTERIES

BURGESS				EVEREADY						
Stk. No.	Type	Std. Pkg.	Each	Neda #	Volts	Max. Dimension	Stk. No.	Type	Std. Pkg.	Each
49F260	2	48	.13	813	1 1/2	1 1/2x2x2 1/2 D	49F380	950	48	.13
49F265	210	48	.16	813	1 1/2	1 1/2x2x2 1/2 D	49F364	1150	48	.16
49F261	1	24	.13	814	1 1/2	1 1/2x2x2 1/2 D	49F399	D99	48	.19
49F262	2	12	.10	15	1 1/2	1 1/2x2x1 1/2 C	49F381	935	24	.13
49F263	7	12	.10	826	1 1/2	9/16x1 3/4 AA	49F382	915	24	.13
49F292	NF	6	.08	910	1 1/2	1 3/8x2x1 3/4 AAA	49F359	912	12	.10
49F264	F4M	12	.92	916	6	0.445x5Dx1.18	49F385	904	6	.08
49F316	TW1	1	1.96	918	6	29x27x27x4 1/2	48F771	409	1	.86
49F305	TW2	1	1.96	926	12	53x27x27x4 1/2	49F361	731	1	1.96
49F323	TW1-X	1	.240	918	6	53x27x27x4 1/2	48F789	732	1	1.96
49F346	2G8H	1	.....	922	12	10 1/2x7 1/2	48F750	1463	.....	4.01
49F264	4FM	12	.84	900	1 1/2	29x25x25x4	48F759	2744N	.....	.85
49F264	F4BW	1	.....	920	6	24 1/2x2 1/2x2 1/2x4 1/2	49F360	509	.....	.92
49F264	F4M	12	.92	908	6	29x25x25x4 1/2	48F761	2746N	.....	.85
.....	.....	.....	.....	925	6	23 1/2x23 1/2x3 3/8	48F762	2780N	.....	2.37
.....	.....	.....	.....	923	12	51 1/2x27 1/2x27 1/2	48F895	520	.....	3.31
.....	.....	.....	.....	930	6	51 1/2x27 1/2x27 1/2	.....	.....	.....	.....

PHOTO FLASH BATTERIES										
Stk. No.	Type	Std. Pkg.	Each	Neda #	Volts	Max. Dimension	Stk. No.	Type	Std. Pkg.	Each
49F342	120	24	.19	.....	1 1/2	1 1/2x2x2 1/2 C	49F388	835	24	.19
49F343	220	12	.19	.....	1 1/2	1 1/2x2x2 1/2 D	49F389	850	12	.19
49F344	720	24	.13	.....	1 1/2	1 1/2x2x2 1/2 D	.....	.....	.....	.....
49F345	920	24	.13	.....	1 1/2	9/16x2x1 3/4 AA	49F387	815	24	.16
49F173	U15	1	1.05	215	2 1/2	1 1/2x2 1/2x2 1/2	49F350	412	1	1.05
49F277	XX150	1	7.20	.....	225	41 1/2x21 1/2x43 1/2	48F735	489	1	6.96
49F278	N150	1	7.65	.....	225	39 1/2x29 1/2x43 1/2	48F737	492	1	7.65
49F279	U160	1	7.20	.....	240	21 1/2x2 1/2x4 1/2	48F736	491	1	5.56
49F275	U320	1	13.00	.....	510	3x11 1/2x25 3/8	48F739	497	1	11.16
49F152	M30	1	2.97	202	45	1 3/4x2x1 3/4 AAA	48F783	812	12	.13
.....	.....	.....	.....	.....	.....	3 1/2x2x1 3/4x5 1/2	48F770	482	1	2.97



BATTERIES, CHARGERS, ACCESSORIES

BATTERY APPLICATIONS AND ENGR. DATA BOOK

Contains the basic data on All "Eveready" batteries currently in production. Complete line specifications, discharge curves and cross reference information is included.

48F898. NET 4.00

EVEREADY UTILITY LITE

TYPE 333. Designed for hard work and years of service. Ideal for tool box or shop. Resists oils, most chemicals and withstands temperature extremes. Has insulated case, non-breakable lens and built-in bulb protector. Shpg. wt., 1 lb.

48F761. Type 330. NET 70c

48F778. Type 337. As above, w/magnet. NET 94c



FLASH LIGHTS FOR INDUSTRY



1251



1259



308CT

TYPE 1251

For heavy duty use. Tough, insulated, impervious to water, gasoline, alcohol, temperature extremes: Bureau of Mines and U.L. listed. Shpg. Wt. 3/4 lb.

48F901. NET 1.93

TYPE 1259

Made for heavy duty use. Resistant to extreme temperatures. Approved by Bureau of Mines and U.L. listed for use in hazardous locations. Shpg. Wt. 3/4 lbs.

48F902. NET 2.74

TYPE 308 CT

Combination spotlight-continuity tested. High quality tool for professionals. Shpg. Wt. 3/4 lbs.

48F903. NET 4.00

SILVER OXIDE BATTERIES

Provide a higher voltage and greater milliwatt-hour ratings than existing batteries of similar size. Silver oxide batteries have good low temperature characteristics compared to existing batteries and their impedance is low and uniform. Silver oxide batteries are well suited, for example, for use in hearing aids, electric watches and as reference voltage sources.

NEW RECHARGEABLE LANTERN

- Over 1 hour of light per charge
- Comes in compact carrying case

Type 3400. 1 amp sealed beam provides a bright light of 13,000 candle-power. Lantern comes with its own cord, and can be operated in home, car, or boat. Powered by "EVEREADY" NICKEL CADMIUM BATTERIES. Can be recharged from any standard AC household outlet. Guaranteed — listed by Underwriters Laboratories. Shpg. wt.; pkg. of 2-11 lbs.

48F900. NET 23.27



RECHARGEABLE "CAPTAIN" FLASHLIGHT

Type 3300. Bright light equals a standard 3 cell flashlight. 4 volt power pack. Over 60 min. of dependable light per charge. Guaranteed — listed by Underwriters Laboratories. Powered by "Eveready" Nickel Cadmium batteries, recharges from any standard AC household outlet. Smooth-action, 3-way "rocker" switch — on, off, and flasher. Rugged, functional and smartly styled.

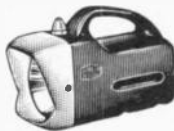
48F897. NET 9.96



ALL-AMERICAN LANTERNS

Type 108. Weatherproof switches and wiring. "Cord-ahide" construction—practically indestructible yet light in weight. Resists oils, greases, most chemicals, temp. extremes. Easy-to-hold large handle. In colors of red, black, or white.

48F896. NET 2.53



ALKALINE RECHARGEABLE BATTERIES

Unique rechargeable power source. Use a new electrochemical system, are maintenance free, hermetically sealed, and will operate in any position. Specifically designed for electronic applications where low initial and low operating cost are of paramount importance. Particularly suited for portable battery operated televisions and portable phonographs.

Stk. No.	Type	Volts	Size	Unit Pkg.	EACH
48F793	560	7.5	2 1/2x2 1/2x1 1/2x7 5/8"	1	4.33
48F794	561	15	8 1/2x2 1/2x1 1/2x7 5/8"	1	10.62
48F795	563	4.5	1 2/3x2 1/2x1 1/2x5 5/8"	3	2.76
48F796	564	13.5	8 5/8x2 1/2x1 1/2x5 5/8"	1	9.94

Stk. No.	Type	Volts	Size	Unit Pkg.	Each
49F397	S41	1.5	.455Dx.165	8	.27
49F398	S76	1.5	.445Dx.20	6	.30

Batteries, Lanterns and Accessories

BURGESS

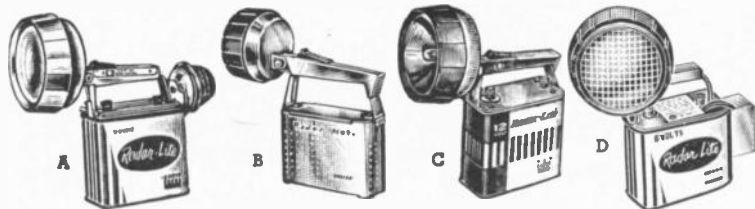


Fig. A—HANDY RADARLITE

Model TW3. Safety lantern for emergency use. 40,000 CP sealed beam headlight unit penetrates a half mile. Automatic red flasher is visible a mile down the highway. Complete with battery. Size 5 3/8 x 2 7/8 x 4 13/16". Shpg. wt. 5 1/4 lbs.

- 49F314. NET **8.96**
 Model TW4. Not shown. As above, but less red flasher.
 49F315. NET 7.06
 49F316. TW1 battery for above. NET 1.96
 25F148. Replacement lamp. NET 2.50
 49F329. TW1-G battery in grey finish. NET 1.96
 49F323. TWIX extended life battery. NET 2.40

Fig. B—BURGESS RADAR MATE

Model JR1. The Radarlite concept applied to a smaller portable light. Features: separate head and battery container. Light beam from sealed head, weatherproof switch and corrosion-proof construction. Uses 3 Burgess No. 2 (D) flashlight batteries. Less batteries. Shpg. wt., 1 1/2 lbs.

49F319. NET **3.32**



No. 357.—Enamel finish; chrome trim. Locking on-off switch. Requires two No. 2 cells. Shpg. wt., 8 oz. Less battery.

49F300. NET **1.43**
 No. 257.—Baby-sized version of No. 357. Requires two No. 1 cells. 5 oz. Less battery.

49F301. NET **1.30**

No. 361. Same as 357 except all-chrome finish. Requires two No. 2 cells. Shpg. wt., 8 oz. Less battery.

49F192. NET **.70**

In Std. Pkg. of 6 **.64**

No. 457. Preloaded 4 cell flashlight for extra strong beam.

49F324. NET **2.25**

No. 563. Penlight. Smart chrome pocket-size pen-type case with new push button switch. Requires two No. 7 cells. Shipping weight, 2 ounces. Less battery.

49F241. EACH **.82**

No. 663. Heavy duty penlight. Handsome chrome penlite case with push button switch. Requires two No. Z cells. Shipping weight, 3 ounces. Less battery.

49F242. EACH **.82**

No. 263. Same as #363, but with permanent Alnico magnet of 15 lb. gripping force. Shpg. wt., 10 oz. Less battery.

49F349. NET **1.33**



Model 164. Features an air pocket in head which makes the lantern float when in water. Uses a Burgess Number F4M battery.

Comes without batteries. All plastic—weatherproof. Rustproof.

49F341. NET **1.97**



NEW BURGESS SAFARI LIGHT

Safe, bright, economical fluorescent lantern for tents, boats, patios. Battery or AC powered. Requires 2 no. Z46 batteries. Operates for only a few cents per hour. Size: 4" x 7 3/4" x 1 29/64". Shpg. wt., 4 1/2 lbs. (Less Battery)

49F801. **12.45**
 49F802. Pkg. of 2 batteries **5.86**

Fig. C—12-VOLT PORTABLE LIGHT

Model TW-12. 12 volt Radar-Lite offers the brightest light possible in a portable light. Combines heavy-duty 12 volt Burgess battery with powerful reflector type lamp. Reflector is made from multi-faceted, vacuum aluminized material to provide a more powerful even distributed light. Complete with battery.

49F322. NET **6.88**

Model TW-2. Replacement battery.

49F305. NET **1.96**

Fig. D—POWER FAILURE EMERGENCY LANTERN

Automatic relay turns lamp on the instant AC-power fails. Plug and 6-ft. extension cord connect to any 110 volt, 60 cycle outlet. 40,000 Candlepower, sealed beam. Shpg. wt., 6 lbs.

Stk. No.	Type	Description	1-6	7-48
49F320	TW6E	Flood beam (Lamp No. 4512)	14.98	13.61
49F321	TW4E	Spot beam (Lamp No. 4546)	14.98	13.61
49F316	TW1	Replacement battery for above	1.96	.....
49F323	TWIX	Extended life battery	2.40	.....



No. 763. Snap lite. Slim-line pocket lite with push-button control. Uses 2 No. 7 cells and No. 224 lamp. Less battery. 2 oz.

49F240. NET EACH **.90**

In Std. Pkg. of 12 EACH **.82**

Type 163. Tuffy flashlight. Non-breakable case, full-size reflector, positive-action switch. Comes in variety of colors. Uses two No. 2 cells. Less battery.

49F338. EACH **.69**

Type 161. Magnet light which adheres to all metal surfaces. Non-breakable brite-glo head, positive action switch, aluminized reflector, and alnico magnet. Less battery. Shpg. wt., 8 oz.

49F337. NET EACH **1.67**

No. 363. Industrial flashlight with steel reinforced reflector. Flexible vinyl head. Replaceable switch. Uses 2 No. 2 cells and PR2 lamp. Less battery. Shpg. wt., 8 ounces.

49F313. EACH **1.14**

49F299. 161 **1.46** Pkg. of 6 Each **1.33**

Type E30P-K. Battery and bulb kit includes a 45 volt metal jacketed battery (type K30P), designed especially for wink-light operation and type 428 bulb.

49F337. NET EACH **1.67**

No. 363. Industrial flashlight with steel reinforced reflector. Flexible vinyl head. Replaceable switch. Uses 2 No. 2 cells and PR2 lamp. Less battery. Shpg. wt., 8 ounces.

49F313. EACH **1.14**

49F313. EACH **1.14**

DOLPHIN LANTERN

MALLORY

SPECIAL APPLICATION POWER-PAK BATTERIES

Stk. No.	Type	Application	Volts	Each
49F526	302642	Fire Alarm	7.	5.20
49F524	302351	Fire Alarm	5.4	6.30
49F521	302478	Recorder	9.8	6.90
49F528	303314	Forestry	16.8	10.80
49F588	302250	Radiation Equip.	9.45	3.15
49F589	302358	Radiation Equip.	10.8	4.10
49F590	302435	Radiation Equip.	6.75	3.46
49F593	302465	Geophysical	47.25	22.50
49F594	302702	Geophysical	2.8	3.80
49F595	302651	Electronic	1.35	4.80
49F596	302904	Meter	5.4	6.75
49F597	302905	Test Equip.	6.75	8.05
49F578	303145	Test Equip.	8.4	6.75

ROTATING BEACON GUARDSMAN LANTERN

Model 999. Portable lantern. 3-position beam & red beacon. Suction cup anchor. With 3 mang. batt. 3 lbs.

49F599. NET **9.75**

Model 899. Bypass cord for above.

Shpg. wt., 8 oz.

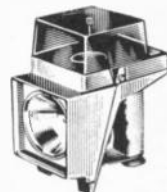
49F529. NET **2.40**

MALLORY POWER BEAM COMPACT FLASHLIGHT

Model 807B. Throws 250-ft. beam. Unique flat shape won't roll. With 2 Mallory MN-1500 Mang. batteries for over 5 hrs. cont., 8 hrs. on-off lighting.

Shpg. wt., 5 oz.

49F598. NET **1.40**





BURGESS Batteries

MERCURY BATTERY COMPARISON

		MALLORY				EVEREADY				BURGESS			
Volts	Dimension	Stk. No.	Type	Std. Pkg.	Each	Stk. No.	Type	Unit Pkg.	Each	Stk. No.	Type	Std. Pkg.	Each
1.4	5/8Dx1/4	49F563	RM1	4	.52	48F843	L1	4	.52	49F750	Hg-1	4	.52
1.35	5/8Dx1/4	49F500	RM1R	4	.64	48F844	E1N	4	.64	49F751	Hg-1R	4	.64
1.35	5/8Dx1/4	49F564	RM1RT	4	.69								
1.35	5/8Dx1/4	49F565	RM1RT2	4	.74								
1.35	1Dx2 1/2	49F501	RM3R	4	1.05	48F845	E3	4	1.05	49F752	Hg-3R	4	1.05
1.35	1.2Dx2 1/2	49F502	RM4R	4	1.31	48F846	E4	4	1.31	49F753	Hg-4R	4	1.31
1.35	1.2Dx2 1/2	49F503	RM4RT	4	1.36								
1.4	1.2Dx1 1/2	49F504	RM4Z	4	1.00								
1.4	1 1/2Dx1 3/4	49F530	ZM9	4	1.64	48F847	E9	4	.64	49F754	Hg-9	12	.64
1.35	5/8Dx2	49F532	RM12	24	.87	48F849	E12	2	.87	49F755	Hg-12	2	.87
1.35	5/8Dx2	49F505	RM12R	2	1.05	48F850	E12N	2	1.05	49F756	Hg-12R	2	1.05
1.35	5/8Dx2	49F566	RM12RT	2	1.10								
1.35	5/8Dx2	49F567	RM12RT2	2	1.15								
1.4	2 1/4Dx3/4	49F428	RM24	12	.53								
1.4	1.2Dx2 3/8	49F423	RM42	1	2.68	48F851	E42	1	2.44				
1.35	1.2Dx2 3/8	49F506	RM42R	1	3.15	48F852	E42N	1	2.76	49F757	Hg-42R	1	3.15
1.35	1.2Dx2 3/8	49F507	RM42RT	1	3.20								
1.35	1.2Dx2 3/8	49F568	RM42RT2	1	3.25								
4.05	2 1/2Dx2 3/4	49F533	TR113R	2	1.72	48F853	E113	1	1.72	49F758	H-113R	2	1.72
5.4	2 1/2Dx2 1 1/16	49F534	TR114R	2	1.85	48F854	E114	1	1.85	49F759	H-114R	2	1.85
6.75	2 1/2Dx2 1 1/16	49F535	TR115R	2	2.06	48F856	E115N	1	2.06	49F760	H-115R	2	2.06
11.2	2 1/2Dx2 1 1/2	49F450	TR118	2	2.80								
8.4	3/4Dx2	49F570	TR126	12	1.31	48F857	E126	1	1.31	49F761	H-126	12	1.31
2.8	2 1/2Dx1 3/16	49F431	TR132	2	1.05	48F858	E132	2	1.05				
2.7	2 1/2Dx1 3/16	49F508	TR132R	2	1.17	48F859	E132N	2	1.17	49F762	H-132R	2	1.17
4.2	2 1/2Dx2	49F536	TR133	12	1.17	48F860	E133	12	1.17	49F763	H-133	12	1.17
4.05	2 1/2Dx2	49F571	TR133R	2	1.35	48F861	E133N	2	1.35	49F764	H-133R	2	1.35
5.4	2 1/2Dx2 3/16	49F510	TR134R	2	1.72	48F862	E134N	2	1.72	49F765	H-134R	2	1.72
6.75	2 1/2Dx3 1/4	49F537	TR135R	2	2.00	48F863	E135N	2	2.06	49F766	H-135R	2	2.00
8.1	2 1/2Dx3 2 3/32	49F538	TR136R	2	2.40	48F864	E136N	1	2.40	49F767	H-136R	2	2.40
9.45	2 1/2Dx4 1 9/32	49F435	TR137R	2	2.76					49F768	H-137R	1	2.76
7.0	2 1/2Dx1 3/16	49F572	TR145	2	1.72	48F865	E145	1	1.72	49F769	H-145	2	1.72
8.4	1 1/2Dx1 1 1/16	49F511	TR146X	6	1.31	48F866	E146X	6	1.31	49F770	H-146	6	1.31
2.7	2 1/2Dx1 1/8	49F539	TR152R	2	1.05	48F867	E152N	1	1.05	49F771	H-152R	2	1.05
4.05	1 1/2Dx1 1 1/16	49F540	TR153R	2	1.35	48F868	E153N	1	1.39	49F772	H-153R	2	1.35
2.7	2 1/2Dx2 7/8	49F541	TR162R	2	1.05	48F869	E162	1	1.05	49F773	H-162R	2	1.05
4.2	2 1/2Dx1 3/16	49F542	TR163	2	1.17	48F870	E163	2	1.17	49F774	H-163	2	1.17
4.05	2 1/2Dx1 3/16	49F437	TR163R	2	1.29					49F775	H-163R	2	1.29
5.6	2 1/2Dx1 3/8	49F544	TR164	12	1.51	48F871	E164	12	1.44	49F776	H-164	12	1.51
5.4	2 1/2Dx1 3/8	49F439	TR164R	2	1.57					49F777	H-164R	2	1.57
7.0	2 1/2Dx2 1/8	49F546	TR165	2	1.70	48F872	E165	2	1.70	49F778	H-165	2	1.70
6.75	2 1/2Dx2 3/16	49F438	TR165R	2	1.90					49F779	H-165R	2	1.90
12.0	2 1/2Dx3 1/4	49F426	TR169	1	3.50	48F873	E169	1	3.50	49F800	H-169	1	3.50
9.8	3/4Dx1 3/32	49F428	TR175	1	1.05	48F874	E175	10	1.05				
4.2	1 1/16Dx1 3/16	49F549	TR177	12	1.31	48F701	E177	1	1.29	49F780	H-177	12	1.31
4.05	1 1/16Dx1 3/16	49F512	TR233	1	2.27	48F875	E233	1	2.27	49F781	H-233	1	2.27
5.6	1Dx2 1 3/32	49F440	TR233R	1	2.62								
5.4	1Dx2 1 3/32	49F424	TR234R	1	3.15	48F876	E234N	1	3.15				
6.75	1Dx3 1/4	49F527	TR235R	1	3.67	48F877	E235N	1	3.64				
8.1	1Dx3 3/4	49F442	TR236R	1	4.15								
8.4	1Dx2 1 1/2	49F573	TR286	6	1.35	48F878	E286	6	1.35				
12.6	1Dx2 2 1/4	49F574	TR289	6	2.27	48F879	E289	6	2.27				
1.4	2 1/4Dx3/8	49F425	RM312	6	.24	48F880	E312	6	.24	49F782	Hg-312	6	.24
1.4	2 1/4Dx3/8	49F443	RM400	6	.24					49F783	Hg-400	6	.24
1.35	2 1/4Dx3/8	49F513	RM400R	6	.35	48F881	E400N	6	.35	49F784	Hg-400R	6	.35
1.35	2 1/4Dx3/8	49F445	RM400RT2	6	.45								
1.4	2 1/4Dx1 1/8	49F514	RM401	3	.50	48F882	E401	3	.44	49F785	Hg-401	3	.51
1.35	2 1/4Dx1 1/8	49F444	RM401R	1	.60					49F786	Hg-401R	2	.60
14.0	1 1/2Dx2 1 3/32	49F550	RM411	1	2.00								
22.4	1 1/2Dx2 1 3/16	49F551	RM412	1	2.76								
28.0	1 1/2Dx2 2 1/2	49F552	RM413	1	3.46								
42.0	1 1/2Dx3 1/2	49F553	RM415	1	5.10								
10.7	1 1/2Dx3 1/16	49F451	TR431	1	2.70								
1.35	1 1/2Dx1 1/8	49F554	RM450R	4	.53	48F883	E450	4	.53	49F787	Hg-450R	4	.53
1.35	1 1/2Dx1 3/32	49F519	RM502R	2	.87	48F884	E502	1	.87	49F788	Hg-502R	2	.87
1.4	1 1/2Dx1 7/16	49F427	RM520	6	.17	48F885	E520	6	.17	49F789	Hg-520	6	.17
1.4	1 1/2Dx1 7/8	49F446	RM575	6	.24								
1.35	5/8Dx1 3/32	49F555	RM601R	2	.83	48F886	E601	1	.83	49F790	Hg-601	2	.83
1.4	5/8Dx1 1/2	49F447	RM625	4	.42					49F791	Hg-625	4	.42
1.35	5/8Dx1 1/4	49F556	RM625R	4	.53	48F887	E625N	4	.53	49F792	Hg-625R	4	.53
1.35	5/8Dx1 1/4	49F520	RM625RT	4	.58								
1.35	5/8Dx1 1/4	49F575	RM625RT2	4	.63								
1.4	5/8Dx1 1/8	49F557	RM630	4	.42	48F888	E630	4	.42	49F793	Hg-630	4	.42
1.35	5/8Dx1 1/8	49F448	RM630R	4	.53					49F794	Hg-630R	4	.53
1.4	5/8Dx1 1/8	49F559	RM640	4	.42	48F889	E640	4	.42	49F795	Hg-640	4	.42
5.6	2 1/4Dx1 3/4	49F561	RM675	6	.32	48F890	E675	6	.32	49F797	Hg-675	6	.32
8.4	1 1/4Dx4 4 1/8					48F891	EPX-4	1	1.57	49F798	HPX-4	1	1.57
1.35	610Dx.233					48F840	EPX-6	1	2.75	49F799	HPX-6	1	2.75
2.7	655Dx.614					48F841	EPX-13	4	.50				
1.5	90Dx.220	49F452	PX825	4	.50	48F842	EPX-14	1	1.05				

ALKALINE BATTERIES

1.5"N"	3/4Dx1 1/8	49F586	MN9100	2	.27	48F700	E90	2	.27	49F723	AL-N	3	.27
1.5"AA"	1 1/2Dx1 3/32	49F583	MN1500	12	.33	49F376	E91	24	.33	49F720	AL-9	12	.33
1.5"AAA	1 1/2Dx1 1/8	49F585	MN2400	12	.33	48F790	E92	12	.33	49F722	AL-7	12	.33
1.5"C"	3/4Dx1 1/16	49F582	MN1400	6	.50	49F374	E93	12	.39	49F721	AL-1	6	.50
1.5"1/2D"	1 1/2Dx2 1 3/32					49F377	E94	12	.33				
1.5"D"	1 1/2Dx2 1 3/32	49F580	MN1300	12	.65	49F378	E95	12	.49	49F719	AL-2	24	.65
1.5	1 1/2Dx2 5 1/32					49F379	E97S	12	.73				
4.5XSTR	662D	49F581	MN1306	12	.84	48F702	S23	1	.82	49F524	AL-133	12	.84
4.5	662D					48F792	S31	1	.82				

Rechargeable Nickel Cadmium Batteries

BURGESS



GULTON BATTERIES

Very low operating cost. Ideal for transistor radio, portable TV, industrial electronic purposes, photoflash, etc. Provide longer life in any operating situation, even after lengthy storage periods. Outstanding service over a wide temperature range. May be recharged many times, have relatively constant potential during discharge, and have excellent charge retention properties. Stand more abuse than any other cell and have good low temperature performance characteristics. Are storage batteries which use one of the best electrochemical systems.

Simple half-wave circuit is all that's required for recharging. Outlast conventional rechargeable batteries by as much as 20 times. Sealed non-gassing, long life, may be stored indefinitely without loss of efficiency. Sintered plate construction, maintenance-free. 1 hour rate capacity.



1.25 VOLTS

Burgess			Eveready			
Max Dimension	Stk. No.	Type	Each	Stk. No.	Type	Each
.460Dx.225	49F850	CD1	1.05	48F797	B20	1.05
.610Dx.236	48F851	CD2	.74	48F798	B50	.70
.988Dx.232	49F852	CD8	.85	48F799	B100	.77
.988Dx.257	49F853	CD8L	.95	48F800	B100T	.90
.988Dx.275	48F854	CD3	.87	48F801	B150	.80
.988Dx.300	49F855	CD3L	.97	48F802	B150T	.93
.988Dx.350	49F856	CD4	.88	48F803	B225	.83
.988Dx.375	49F857	CD4L	1.03	48F804	B225T	.97
.988Dx.347				48F805	BH225	.97
.988Dx.347				48F806	BH225T	1.10
1.700Dx.300	49F858	CD5	1.47	48F807	B450	1.47
1.700Dx.325	49F859	CDSL	1.60	48F808	B450T	1.60
1.355Dx.38				48F809	BH500	1.75
1.355Dx.38				48F810	BH500T	1.88
1.984Dx.394				48F811	B1	2.66
1.984Dx.394				48F812	BH1	2.79
1.984Dx.394				48F813	BH1T	2.92
1.984Dx.719				48F814	B2	4.69
1.984Dx.719				48F815	B2T	4.82
1.984Dx.988				48F816	B3	5.70
1.984Dx.988				48F817	R3T	5.83
.560Dx1.950	49F661	CD6L(AA)	1.92	48F818	C450T	2.10
.560Dx2.275	49F660	CD6(AA)	1.82	48F819	C450	1.93
.560Dx3.680	49F662	CD9	3.01	48F820	C900	3.17
1.310Dx2.425	49F669	CD12	2.51	48F821	CH750	2.58
1.310Dx2.775	49F696	CD12L	2.57	48F822	CH750T	2.71
1.031Dx1.969				48F822	CH1.5	4.06
1.344Dx1.508	49F670	CD13	4.03			
1.344Dx1.508	49F697	CD13L	4.16			
1.01Dx1.945	49F695	CD14	3.40			
1.344Dx2.425	49F663	CD7(D)	4.03	48F823	C2	4.06
1.344Dx2.425	49F664	CL7L(D)	4.09		C2T	4.19
1.300Dx2.425	49F667	CD11(D)	4.53			
1.300Dx2.425	49F668	CD11L(D)	4.80			
1.344Dx2.426	49F665	CD10(D)	5.71	48F824	CH4	5.69
1.344Dx2.775	49F666	CD10L(D)	5.84		CH4T	5.82

6 VOLTS

1.065Dx1.525	49F671	CD21	5.32			
1.065Dx2.625	49F672	CD22	5.32	48F825	N66	4.85
1.800Dx1.175	49F673	CD23	9.48			

9.6 VOLTS

1.065Dx3.200	49F674	CD24	9.22			
1.065Dx1.975	49F675	CD25	9.16			
1.065Dx3.200	49F676	CD25L	9.09			
1.800Dx2.575	49F677	CD26	15.52			

12 VOLTS

1.065Dx2.925	49F678	CD27	11.04			
1.065Dx3.600	49F679	CD28	11.82			
1.800Dx3.100	49F680	CD29	17.86			

6 VOLTS

1.52Dx4.20	49F681	CD30	19.96	48F826	N67	18.38
3.875x1.562x4.03	49F682	CD31	25.65	48F827	N70	29.62

1.25 VOLTS

1.35x.75x3.36	49F683	CD100	6.43			
1.39x1.39x2.53	49F684	CD101	6.05	48F828	R2	5.97
1.39x1.39x3.50	49F685	CD102	7.12	48F829	R3.5	7.12
1.57x.92x4.01	49F686	CD103S	12.40			
2.02x1.72x3.22	49F687	CD104	9.35	48F830	R4.5	9.35
2.02x1.72x3.75	49F688	CD105	10.19	48F831	R6	10.21
1.57x1.48x4.01	49F689	CD106S	13.43			
2.02x1.93x4.28	49F690	CD107	11.17	48F832	R7.5	11.17
1.02x1.56x4.03				48F833	RH7	11.96
3.61x1.08x4.97	49F691	CD108	13.83	48F834	R11	13.79
3.61x1.34x4.97	49F692	CD109	16.56	48F835	R15	16.78
3.05x1.23x4.97				48F836	RH15	21.57
3.61x1.72x4.97	49F693	CD110	19.87	48F837	R19	19.90
3.61x2.03x4.97	49F694	CD111	22.92	48F838	R23	22.94

GULTON STANDARD FLASHLIGHT SIZES



Cylindrically shaped, sintered plate, rechargeable nickel cadmium battery. Spiral plate design for max. cap. Nom. V. 1.25.

Stk. No.	Type	Size	1-10	11-50	51-100	101-up
49F950	R-400	D	5.00	4.50	4.25	3.75
49F951	R-200	1/2D	3.85	3.35	3.10	2.70
49F952	R-190	C	3.80	3.30	3.05	2.65
49F953	R-070	1/2C	2.90	2.40	2.15	1.90

.080 AMPERE-HOUR CAPACITY

Stk. No.	Type	Nom. V	L Dim.*	Oz.	1-10	11-50	51-100
49F600	2VO-080	2.4	.670	0.98	6.50	5.40	4.75
49F601	3VO-080	3.6	.870	1.30	6.95	5.80	5.10
49F602	4VO-080	4.8	1.070	1.62	8.55	7.15	6.25
49F603	5VO-080	6.0	1.270	1.94	10.15	8.45	7.45
49F604	6VO-080	7.2	1.470	2.26	11.75	9.80	8.60
49F605	7VO-080	8.4	1.670	2.58	13.35	11.10	9.80
49F606	8VO-080	9.6	1.870	2.90	14.95	12.45	10.95
49F607	9VO-080	10.8	2.070	3.22	16.55	13.80	12.10
49F608	10VO-080	12.0	2.270	3.54	18.15	15.10	13.30

.180 AMPERE-HOUR CAPACITY

Stk. No.	Type	Nom. V	L Dim.*	Oz.	1-10	11-50	51-100
49F612	2VO-180	2.4	.816	1.30	6.75	5.60	4.95
49F613	3VO-180	3.6	1.106	1.78	7.30	6.10	5.35
49F614	4VO-180	4.8	1.392	2.26	9.00	7.50	6.60
49F615	5VO-180	6.0	1.680	2.74	10.70	8.95	7.85
49F616	6VO-180	7.2	1.968	3.22	12.45	10.35	9.10
49F617	7VO-180	8.4	2.256	3.70	14.15	11.80	10.35
49F618	8VO-180	9.6	2.544	4.18	15.85	13.20	11.60
49F619	9VO-180	10.8	2.832	4.66	17.55	14.65	12.85
49F620	10VO-180	12.0	3.120	5.14	19.25	16.05	14.10

.250 AMPERE-HOUR CAPACITY

Stk. No.	Type	Nom. V	L Dim.*	Oz.	1-10	11-50	51-100
49F624	3VO-250	3.6	.944	3.10	8.95	7.45	6.55
49F625	4VO-250	4.8	1.154	3.84	11.00	9.20	8.05
49F626	5VO-250	6.0	1.364	4.58	13.05	10.90	9.60
49F627	6VO-250	7.2	1.574	5.32	15.10	12.60	11.10
49F628	7VO-250	8.4	1.784	6.06	17.15	14.30	12.60
49F629	8VO-250	9.6	1.994	6.81	19.20	16.00	14.10
49F630	10VO-250	12.0	2.414	8.28	23.35	19.45	17.10

.500 AMPERE-HOUR CAPACITY

Stk. No.	Type	Nom. V	L Dim.*	Oz.	1-10	11-50	51-100
49F632	3VO-500	3.6	1.454	4.16	10.85	9.05	7.95
49F633	4VO-500	4.8	1.834	5.25	13.50	11.25	9.90
49F634	5VO-500	6.0	2.214	6.34	16.20	13.50	11.85
49F635	6VO-500	7.2	2.594	7.44	18.85	15.70	13.80
49F636	7VO-500	8.4	2.974	8.53	21.55	17.95	15.75
49F637	8VO-500	9.6	3.354	9.62	24.20	20.15	17.75
49F638	9VO-500	10.8	3.734	10.72	26.85	22.40	19.70
49F639	10VO-500	12.0	4.114	11.81	29.55	24.60	21.65

.750 AMPERE-HOUR CAPACITY

Stk. No.	Type	Nom. V	L Dim.*	Oz.	1-10	11-50	51-100
49F900	3VO-750	3.6	1.390	6.95	20.60	17.17	15.08
49F901	4VO-750	4.8	1.726	9.15	26.30	21.92	19.25
49F902	5VO-750	6.0	2.062	11.35	32.00	26.67	23.42
49F903	6VO-750	7.2	2.398	13.55	37.70	31.42	27.59
49F904	7VO-750	8.4	2.734	15.75	43.40	36.17	31.76
49F905	8VO-750	9.6	3.070	17.95	49.10	40.92	35.93
49F906	9VO-750	10.8	3.406	20.15	54.80	45.67	40.10
49F907	10VO-750	12.0	3.746	22.35	60.50	50.42	44.27

1.75 AMPERE-HOUR CAPACITY

Stk. No.	Type	Nom. V	L Dim.*	Oz.	1-10	11-50	51-100
49F910	3VO-1.75	3.6	2.046	12.80	30.65	25.57	22.58
49F911	4VO-1.75	4.8	2.628	16.84	39.70	33.12	29.25
49F912	5VO-1.75	6.0	3.210	20.90	48.75	40.67	35.92
49F913	6VO-1.75	7.2	3.792	24.94	57.80	48.22	42.59
49F914	7VO-1.75	8.4	4.374	29.00	66.85	55.77	49.26
49F915	8VO-1.75	9.6	4.956	33.04	75.90	63.32	55.93
49F916	9VO-1.75	10.8	5.538	37.10	84.95	70.87	62.60
49F917	10VO-1.75	12.0	6.120	41.14	94.00	78.42	69.27

terado Inverters and Voltage Adjusters

MOBILE POWER INVERTERS SOLID STATE — TRANSISTORIZED WITH AUTOMATIC FREQUENCY CONTROL ● NEW DUAL CONTINENTAL

Model 50-202. Converts 12 VDC to 110 VAC, 60 cycles. Output: 550 watts continuous and 800 watts intermittent. Features a variable AC outlet. Frequency stable within 1/2 cycle with changing input and load. Filtered for use with tape recorders. Complete with remote control and battery cables. Heavy copper clad case with ventilating fan. Size: 10 3/4" x 13" x 7 1/4". Shipping wt., 60 lbs.
66F300. NET 307.77



● NEW CONTINENTAL

Model 50-191. Similar to 50-202 except output: 275 watts continuous and 300 intermittent. Heavy copper clad case with ventilating fan. With remote control and battery cables. Filtered for use with tape recorders. Size: 10 3/4" x 6" x 6". Shipping wt., 30 lbs.
66F301. NET 153.13



● NEW ATLAS

Model 50-200. Similar to Model 50-202 except output of 175 watts continuous to 200 watts intermittent. Size: 10 3/4" x 6" x 6". Shipping wt., 21 lbs.
66F302. NET 114.53

WITHOUT AUTOMATIC FREQUENCY CONTROL

● NEW GEMINI

Model 50-128. Converts 12 VDC to 110 VAC 60 cycle. Designed for equipment not sensitive to frequency change. Perfect for lights, electric blankets, TV, and AC-DC electric motors. Capacity of 450 watts continuous and 500 intermittent. Complete with 12 ft. battery cables. (Not recommended for refrigerators with compressor.) Size: 12 1/2" x 6" x 6". Shpg. wt., 20 lbs.
66F303. NET EACH 97.17



● NEW FALCON

Model 50-129. Similar to Model 50-128 except features a capacity of 275 watts continuous and 300 intermittent. Size: 12 1/2" x 6" x 6". Shpg. wt., 20 lbs.
66F304. NET EACH 74.25

Model 50-130. Remote control for Gemini and Falcon Units. 5 lbs.
66F314. NET 11.50

● NEW GALAXY

Model 50-205. Similar to Falcon. Converts 12 VDC to 110 VDC. Capacity of 140 watts continuous and 175 intermittent. Adjustable voltage and frequency. Heavy copper clad steel case. Size: 10 3/4" x 6" x 6". Shpg. wt., 9 1/2 lbs.
66F305. NET EACH 36.76



VIBRATOR TYPES WITH AUTOMATIC FREQUENCY CONTROL

● NEW SUPREME

Model 50-153. Converts 12 VDC to 115 VAC, 60 cycle. Output: 175 watts continuous and 200 watts intermittent. Remote control has variable AC output switch and signal light indicating proper AC output voltage. Filtered for tape recorders. Complete with battery cables. Copper clad ventilated steel case. Size: 12 1/2" x 6" x 6". Shpg. wt., 25 lbs.
66F306. NET 84.07



(Vibrator Types Con't. on Next Column)

(Vibrator Types—Con't.)

● NEW SUPER

Model 50-127. Converts 12 VDC to 170 VAC. Output: 75 watts continuous and 100 watts intermittent. Easy installation into cigarette lighter of car. AC plug-in receptacle in front of case. Sealed brown baked enamel steel case. Size: 3 1/2" x 6 1/2" x 4". Shpg. wt., 8 lbs.
66F307. NET 38.47



● NEW SENIOR

Model 50-116. Converts 12 VDC to 110 VAC, 60 cycle. Output: 40 watts continuous and 50 watts intermittent. Simple to install into cigarette lighter. Seal brown baked enamel aluminum case. Size: 2 1/2" x 4 1/2" x 2 1/4". Shpg. wt., 3 lbs.
66F308. NET 18.47



● NEW AUTO SHAVER

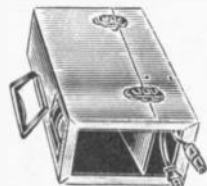
Model 50-103. Operates all electric shavers from a 12 VDC battery. AC output: 15-20 watts. Poly-ethylene non-breakable case. Simply plug into cigarette lighter. Size: 3 5/8" x 2 1/4" x 4 1/4". Shpg. wt., 2 lbs.
66F309. NET EACH 9.31



PORTABLE POWER SUPPLY

● NEW "TRAV-ELECTRIC"

Model 50-160. Operates anything using 117 VAC, 60 cps from 25 amps. Rechargeable wet storage battery enclosed. Capacity of 125 watts continuous and 175 intermittent. Frequency stable within 1/2 cps with load change. Plugs into AC outlet or car cigarette lighter to recharge the battery. Charger has automatic overcharge protection. Meter shows charge rate and hours of anticipated output. Package silent electric power with self-contained power supply. Charger operates on AC, tapers from 6 to 0 amps. Copper clad steel case. Size: 12" x 5 1/2" x 8"



66F310. NET EACH 60.63

VOLTAGE ADJUSTERS

POLARIS

- Restores full fidelity in sound
- Improves TV reception

Model 50-204. Capacity: 300 W. continuous and 500 W. intermittent. Input: 110 v. AC line. Change high or low volt. over a 95-135 v. range.
66F111. NET EACH 9.20



SATURN

- Visible voltage correction
- Accurate AC voltmeter
- Six position switch

Model 50-172. Capacity: 300 to 500 watts. 5 1/2" x 3" x 2 1/4". Weight: 3 lbs.
66F112. NET EACH 14.65



APPOLLO

Model 50-141. Increases line voltage in two steps—10v and 15v. Especially designed to give peak efficiency to office duplicator copy machines when low voltage is encountered. Makes better copies faster. Capacity: 1200 watts continuous and 1500 watts intermittent. Size: 3 1/2" x 6 1/2" x 4". Shipping wt., 8 lbs.
66F113. NET EACH 22.75



DEPEND ON NEWARK FOR EVERYTHING IN INDUSTRIAL ELECTRONICS

• OEM Factory Prices

• Same Day Shipment from On-the-Shelf Stocks

• To Serve You Better — Seven Stocking Warehouses Coast-to-Coast

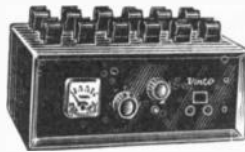
Battery Charger & Power Supplies

VINCO BATTERY CHARGERS

MALLORY

TASKMASTER

Represents the ultimate in chargers for secondary batteries. With 12½ V., one amp limit. Features include: integral holders for one to ten standard "D" cells, banana jack outlet for batteries of other sizes, transistorized adjustable charge rate, 2½" ammeter for charge rate, integral timer to allow automatic charging cycles up to 14 hrs., isolation transformer, fused primary, and circuit breaker (manual) in secondary. Two-tone grey 18 ga. steel case. Shpg. wt. 15 lbs.



60F1545. NET **98.50**

BUTTONAIRE

• Charger for Button Cells

• Includes 0-25 MA Meter

One to 3 button cell capacity. Same configuration as Variamp, but with 0-25 milliammeter and integral holder for button cells. Adjustable charge rate, reverse charge safeguard. Isolation transformer featured. Dimensions are 3½x3½x4". Shpg. wt. 2 lbs.

60F1546. NET **19.00**

VARIAMP

One to 5 cell capacity. Adaptable to all rechargeable cells. Adjustable charge rate. Dual scale ammeter (0-100 MA and 0-2 Amps) Transistorized circuitry lowers charge rate as cells reach full charge Reverse charge safeguard. Voltmeter to test cells under load. Isolation transformer. With banana plugs and instructions. 4¼x4¼x3¼". Shpg. wt., 17½ lbs.

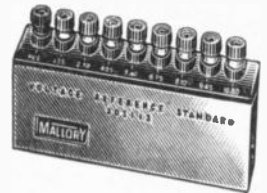
60F1547. NET **21.00**



VOLTAGE REFERENCE STANDARD

Stability is ±½% of rated EMF. Accuracy of the EMF is a function of the high purity that is maintained in the cell chemistry during manufacturing. Capable of withstanding both electrical and physical abuse. Voltages from 1.35v to 10.8 volts in increments of 1.35 volts. Voltages calibrated to .001 of a volt. Applicable in calibration of sensitive scopes. VOM's, VT-VM's, temp. measuring bridges. Has internal resistance of ½ to 1 ohm. Voltage regulation less than ½% for 3 years or more of normal temperature. 6¼x1x2½".

49F531. NET **25.80**



SCHAUER BATTERY CHARGERS

MODEL C-6612

10-amp. charger. Recharges aver. 6 or 12v. battery in 2 to 6 hrs. Has automatic circuit breaker, selector switch, and an accurate, numerical dial ammeter. Case is rugged steel. Gold colored finish and two-tone brushed aluminum and maroon front panel trim. Size: 9¾"x6"x6½". Wt., 11 lbs.



66F280. NET **33.95**

MODEL B-6612

6-amp charger. Charges 6 and 12v batteries at 6 amp rate. Recharges average battery in 3 to 7 hrs. Equipped with an automatic circuit breaker, selector switch, and an accurate, numerical dial ammeter. Case is of rugged, steel with gold colored finish and two-tone brushed aluminum and maroon front panel trim. Size: 9¾"x6"x6½". Wt., 9 lbs.



66F281. NET **25.95**

MODEL H612A

1¼ amp charger. A combination 6 and 12 volt charger. Ideal for car, motorcycle, boat and lawn mower batteries. Quality components include full wave Selenium rectifiers, automatic circuit breaker, 6 or 12 volt selector switch. Housed in rugged steel case with handsome gold finish. Dimensions are 3¾x3¼x5½".



66F159. NET **5.85**

MODEL A-6612

4-amp charger for 6 and 12v batteries. Battery recharges in 5 to 15 hrs. Automatic circuit breaker, selector switch, numerical dial ammeter. Case: steel, gold colored finish. Brushed aluminum and maroon front panel trim. Size: 7¼x4¼x5". Wt., 6¼ lbs.



66F282. NET **18.95**

MODEL K412

An economical charger for 12-volt batteries. A small, efficient, and low-priced unit for charging 12 volt batteries at a three ampere rate.



66F160. NET **6.67**

CHARGER PLUGS

Model A-8410. Charge battery through cigar lighter. For 6 volts. Shpg. wt., 3 oz.

66F164. NET **.98**

Model A-8412. Same as Model A-8410, but for 12-volt batteries.

66F165. NET **.98**

LECTROTECH

METERGARD

• Protects Against Overload

Protects meter movement against accidental overloads. Eliminates bent pointers, damaged pivots, overheated springs, and burned out coils. Protects as much as 10,000% overload.

66F1850. NET **2.95**



LECTROCELL-MINIATURIZED REGULATED POWER SUPPLY

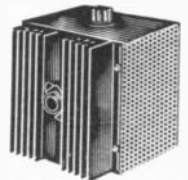
Eliminates the use of battery in VTVM. Unit is actually a miniaturized regulated power supply that furnishes the 1½ volt of DC necessary to measure resistance. Exact size and shape of battery it replaces. Installs in minutes... simply connect 3 wires. Size: 1½x2¾".

60F1651. NET **3.95**



SOLID STATE MODULE TYPE REGULATED DC POWER SUPPLIES

Electro-statically shielded transformers with line and load regulation of .005 volts maximum. Glass epoxy board, hand soldered. Ripple and noise less than 500 mv. Input line voltage: universal 105-125-210-250 volts. Input line freq. 48 to 440 cycles. 100% overload protection against any degree of overload. Output current: 1 amp. Remote programming and load sensing. External heat sink unnecessary. Max. operating ambient: 50°C. Storage temperature range: -20°C to +85°C. 5x5x5¼". Shpg. wt., 4 lbs.



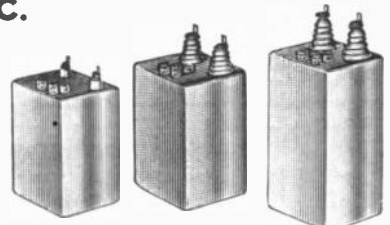
Stk. No.	Type	DC Voltage Range	1-5	6 up
60F1652	1015	10-15 volts	95.00	89.00
60F1653	1520	15-20 volts		
60F1654	2025	20-25 volts		
60F1656	2530	25-30 volts		
60F1655	3035	30-35 volts		

PLASTIC CAPACITORS, INC.

HIGH VOLTAGE D.C. POWER PACKS

Hermetically sealed, oil filled, hot-tinned or lead coated plate steel container with enamel coating. 118 volt, 60 cycle input. Output operation from zero to rated voltage by adjusting input. All units have

positive or negative polarity. Long life selenium rectifiers requiring no warm-up for rectifier filaments. May be mounted in any position. Max. ambient 85°C. Supplied with footed brackets.



HV100

HV200

HV150

Stk. No.	Type	KV	MA	Size	Wt. Lbs.	NET
19F1285	HV 20-502M	0-2	5	3¾x2¼x33½	2½	51.10
19F1286	HV 50-502M	0-5	5	3¾x2¼x33½	3¼	64.50
19F1287	HV100-502M	0-10	5	3¾x4¼x57½	8½	99.00
19F1288	HV150-502M	0-15	5	3¾x4¼x61½	9½	125.50
19F1289	HV200-502M	0-20	5	3¾x4¼x68	12½	144.00

Vibrators, Batteries, and Accessories

GULTON

BATTERY CHARGER MODEL B-100



Recharges Gulton "D" type nickel-cadmium, five year guarantee cells. The recharger brings the batteries back to full power over and over, saving money on the powering of tape-recorders, phonographs, flashlights, and portable radios. A red light shines while the batteries are on charge, and the charger is so constructed that it will not overcharge. Comes with bat-

teries which will recharge to full power over and over. U.L. listed. Operates on 115V. AC house current. **49F920. EACH. 9.95**

SPORTSTER LANTERN

- POWERFUL, 10 MILE BEAM
- COMPLETELY WATERPROOF... IT FLOATS



New Gulton rechargeable Sportster Lantern. You will never have to buy batteries again. The newest thing in lighting... A smartly-styled, rechargeable, hard-working sportsman's lantern. For boating, camping, and skin diving. Has adjustable carrying handle, 7000 candlepower, ten mile beam, and sealed beam light. It floats and is waterproof.

49F921. Model P 19.95

SENCORE BATTERY ELIMINATOR

Type BE124. Regulated power supply replaces batteries during repair of transistor radios. 1 1/2 volt intervals from 0 to 12 VDC are available on front panel. Meter can be used to calibrate voltages or as current drain monitor (0 to 50 ma) for troubleshooting. Output is accurate and well-filtered. Can also be used to charge nickel-cadmium batteries. Shp. wt. 2 lbs.



62F429. NET 24.95

CINCH-JONES



STANDARD BATTERY PLUGS

Standard battery plugs. Designed for "A", "B" and other types of batteries. Shpg. wt., 1 oz.

Stock No.	Type	Cont.	Used for	1-99	100-up
39F830	5A1	2	1 1/2 V "A"	.06	.03
39F833	5A4	2	6 V "A"	.06	.028
39F834	5A5	3	7 1/2 V "A"	.13	.085
39F835	5B1A	3	45 V "B"	.05	.027
39F839	5M	Snap	XX45, 467	.05	.032
39F840	5F	Snap	X30, 455	.05	.032

SNAP TYPE CONTACT

Stock No.	Type	Used for	1-99	100-up
39F841	5MFA	XX45, 467 XX30, 455		
39F842	5D1	Wired for slim 67 1/2 v. 90 v 1 1/2"	.27	.18
39F843	5D2	Spacing Wired for std 90v		
39F829	5D	For min. 45v 1/2" spacing.	.45	.30

Plug Cap. For use with 5A1, 5B1A, 5A2, 5A3 plugs. Steel shell. **29F612. Type 18A-1. 1-99 .02 100-up .012**

MALLORY

REPLACEMENT VIBRATORS



The vibrators listed below will cover almost 100% of your replacement needs. Springs are of high grade clock-spring steel, held in permanent alignment by rugged frame. 105 strand lead wire resists vibration—connections stay intact. Has sponge rubber silencer. Mechanical hum and shake are reduced practically to zero by a unique "floating" design that isolates the vibration of the reed element from the case. Hum is squelched to a level never before possible. **Wt. 8 oz.**

Stk. No.	Type	Volts	Size	NET
48F535	1601	6	1 1/2 x 2 5/8"	2.82
48F537	870	6	1 1/2 x 2 7/8"	2.94
48F564	G1602	12	1 1/2 x 2 5/8"	2.82
48F538	903M	6	1 1/2 x 2 7/8"	2.16
48F559	G1501	12	1 1/2 x 2 7/8"	4.14
48F560	1501	6	1 1/2 x 2 5/8"	3.81
48F575	1610	6	1 1/2 x 2 1 1/2"	3.30
48F576	1751	6	1 1/2 x 2 7/8"	4.35
48F577	G18010S	12	1 1/2 x 2 7/8"	5.97
48F578	1806	6	1 1/2 x 2 7/8"	4.62
48F579	G1807	12	1 1/2 x 2 7/8"	5.13
48F566	1813	6	1 1/2 x 2 7/8"	4.62
48F569	G1801	12	1 1/2 x 3"	4.11
48F571	1513	6/12	1 1/2 x 2 7/8"	4.14
48F572	1514	6	1 1/2 x 2 7/8"	4.14
48F573	G1601	12	1 1/2 x 2 5/8"	2.82
48F574*	1701A	6/12	1 1/2 x 3"	5.76

*In lots of 50 each **3.78**

ECONOMY 6 VOLT MODEL

Type 4-4. Ideally suited for a variety of applications at a low price. Made of high grade clock-spring steel. Designed for use in 6 volt model cars to replace worn out radio vibrators. Size: 1 1/2" dia. x 2 3/8".

48F449. NET 1.60

ECONOMY 12 VOLT, 3-PIN VIBRATOR

Type 12-3. Same as model 12-4 except that it replaces standard 3-pin vibrators. Size: 1 1/2" dia. x 2 3/8". Wt. 8 oz.

48F451. NET 1.65

ECONOMY 12 VOLT, 4-PIN VIBRATOR

Type 12-4. Designed for use in cars with 12 volt ignition systems. Will replace the standard 4-pin vibrators. Size: 1 1/2" dia. x 2 3/8" long. Wt. 8 oz.

48F450. NET 1.65

CARTER

MOTORS — GEARMOTORS — CONVERTERS



FHP Motors. Universal AC/DC type. Precision ball bearings, no lubrication required. Large Line-O-Life brushes. Available from 12V. to 220V, up to 1/2 hp. Gear reductions from 2 to 750 rpm. DC shunt, AC and synchronous models available.

DC to AC Converters. Dependable rotary power for heavy duty industrial service. Ball bearings. 20 to 2000 watt output. For marine, 2-way service.

Ecliptic motors. Line of very small motors. Universal, gear motors, Tachometer-Generators, PM and Governor controlled models.

NEWARK Can Supply Complete Line of Carter Motors, Converters, Frequency Changers and Alternators. Write for Complete Information and Prices.

DEPEND ON NEWARK FOR EVERYTHING IN INDUSTRIAL ELECTRONICS

- OEM Factory Prices
- Same Day Shipment from On-the-Shelf Stocks
- To Serve You Better — Seven Stocking Warehouses Coast-to-Coast

Regulated & Semi-Regulated Power Supplies



ELECTRO POWER SUPPLIES

Electro's power supplies offer DC output up to 1000 watts. Adequate filtering for all requirements whether they be critical transistor circuits or applications permitting up to 5% ripple. Used in design and development, testing and servicing (auto, aircraft, marinecraft, radio, and electronic equipment), production line applications, industrial and lab work. Models GFL, GFLR and GL used for designing and testing DC appliances, telephone circuits, relays and solenoids. Model D-612T, H, and EC-2; ideal for servicing transistor auto and portable radios; Model EC-1 for school labs and industrial research; Model NFB in research and development. The Models PS-30 and PS-50 for thermo-electric cooling power source. Features: attractive enamel finish of steel; adjustable output voltage range; easy to read meters (voltage & current); clearly marked controls. Instructions included. Output terminals isolated from the cabinet. One year warranty. Input—Regulated Models: 105-125 VAC 60 cps Industrial and General Purpose Models: 117 VAC 50/60 cps.



Fig. A



Fig. B

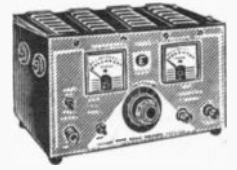


Fig. D



Fig. E



Fig. F



Fig. G



Fig. H



Fig. J

REGULATED

Stock No.	Model	Voltage Output	Amps. Output.	Fig.	Load Reg.* (V/A)†	Max. Ripple %	Meters‡	DC Imped., Ohms.	Size (HxWxD) inches	Weight lbs.	NET
66F149	PS-3A	0-25	0-200MA	A	.02%	.002	0-25V/200MA	.05	6 1/4 x 5 x 6	3 1/2	105.00
66F269	PSR-500-32	2-32	0-15A	B	Less than 1% (line or load)	Less than 1%	0-50V, 0-25A	.02	9 3/4 x 14 1/4 x 14 1/4	76	375.00
66F270	PSR-500-55	2-55	0-10A	B	Less than 1% (line or load)	Less than 1%	0-75, 0-10A	.06	9 3/4 x 14 1/4 x 14 1/4	75	375.00
66F271	PSR-500-125	2-125	0-5A	B	Less than 1% (line or load)	Less than 1%	0-150V 0-5A	.25	9 3/4 x 14 1/4 x 14 1/4	80	395.00

INDUSTRIAL

66F272	EF	0-28 0-14	5-5 5-5	D	0.9(1-5A) 0.6(1-5A)	1 1	0-50V, 0-6A	0.9(1-5A) 0.6(1-5A)	7 x 12 x 8 1/2	21	115.00
66F145	EFB	0-32 0-16	0-4 0-8	D	1.25 1.0	0.1 0.1	0-40/20V, 0-10A	1.25 1.0	7 x 12 x 8 1/2	31	160.00
66F146	EFBR	0-32 0-16	0-4 0-8	G	1.25 1.0	0.1 0.1	0-40/20V, 0-10A	1.25 1.0	8 3/4 x 19 x 8 1/2	34	180.00
66F264	GFL	0-125	0-5	E	1.5	0.5	0-150V, 0-5A	1.5	9 3/4 x 14 1/4 x 14 1/4	75	290.00
66F273	GFLR	0-125	0-5	G	1.5	0.5	0-150V, 0-5A	1.5	10 1/2 x 19 x 14 1/4	79	315.00
66F274	GL	0-125	0-5	E	1.5	0.5	0-150V, 0-5A	1.5	9 3/4 x 14 1/4 x 14 1/4	65	270.00
66F118	NFB	0-32	0-15	E	0.3	0.75	0-50V, 0-25A	0.3	9 3/4 x 14 1/4 x 14 1/4	71	275.00
66F275	NFBR	0-32	0-15	E	0.3	0.75	0-50V, 0-25A	0.3	10 1/2 x 19 x 14 1/4	82	295.00
66F260	PS-5	0-55	0-10	E	0.8	0.5	0-75V, 0-10A	0.8	9 3/4 x 14 1/4 x 14 1/4	60	275.00
66F276	PS-5R	0-55	0-10	E	0.8	0.5	0-75V, 0-10A	0.8	10 1/2 x 19 x 14 1/4	71	295.00
66F277	PS-1000-32	0-32	0-30A	F	0.2	0.75	0-50V, 0-30A	0.2	9 3/4 x 14 1/4 x 14 1/4	90	388.00
66F278	PS-1000-55	0-55	0-20A	F	0.5	0.5	0-75V, 0-25A	0.5	9 3/4 x 14 1/4 x 14 1/4	100	398.00

GENERAL PURPOSE

66F119	D-612T	0-16 0-8	0-10 0-10	D	0.44(3-10A) 0.3(3-10A)	0.5@5A 2@10A	0-20V, 0-10A	0.44(3-10A) 0.3(3-10A)	7 x 12 x 8 1/2	20	72.50
66F120	H	12(adj.) 6(adj.)	0-10 0-20	D	0.23(3-10A) 0.15(3-20A)	5 5	0-20V, 0-30A	0.23(3-10A) 0.15(3-20A)	7 x 12 x 8 1/2 x 6	29	99.50
66F262	EC-1	12(adj.)	0-5	J	1.4	0.5	None	1.4	10 3/4 x 4 3/8 x 6 1/2	10	37.50
66F261	EC-2	0-16	0-5	H	1.8	0.5	0-20V/10A	1.8	10 3/4 x 4 3/8 x 6 1/2	9	49.95
66F147	PS-30	12(adj.)	0-30	E	0.12(6-30A)	1	0-20V, 0-50A	0.27	9 3/4 x 14 1/4 x 14 1/4	56	198.00
66F279	PS-50	12(adj.)	0-50	E	0.17	1	0-20V, 0-50A	0.17	9 3/4 x 14 1/4 x 14 1/4	75	298.00

* no-load to full load
† output volts change for each amp. of output current change

‡ All 2% accuracy, except 5% for GENERAL PURPOSE UNITS

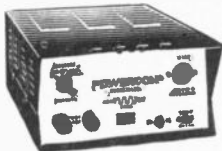
**MAKE NEWARK A ONE POINT SOURCE
FOR ALL YOUR ELECTRONIC NEEDS**

**NEWARK speeds your project by off-the-shelf supply of over
70,000 items in current demand.**

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Inverters & Filters



12ESW25

Provides Power For • Mobile Transceivers • Radio, TV, Phono, HiFi • Camping Lights and Conveniences
• Small Motor-Driven Appliances • Business Machines, Recorders • PA Amplifiers, Emergency Power

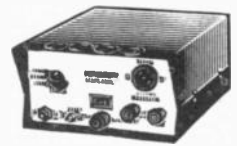
Modern, compact, rugged electro-mechanical inverters change DC to 115 volts AC at 60 cycles. Operate TV, radio, appliances, lights and office machines from vehicles or material handlers. Ideal for emergency power during commercial blackout. Start instantly, no warmup required. Reliable 60 cycle power. Wide power ranges available. Conservatively rated, no load limitations within nameplate rating. Take 20% overload on 1/4-duty cycle. All models have remote control jack, voltage selector, on/off switch and replaceable fuse for overload protection. Two-

CORNELL-DUBILIER

AC Battery Driven Inverter

POWER SUPPLIES

Suited for Use In
• Auto, Trailer, Bus • Truck, Boat, Plane



12TV12

tone gray wrinkle baked enamel finish and integral finger holes provided, except * one color, less finger holes, supplied with cigarette lighter cord. Frequency tolerance of $\pm 1/2$ cps on items rated 100 watts and up, ± 2 cps on lower power units. Accessory kits available (see below) for units rated 80 watts and higher. CAUTION: Avoid applications such as compressors, pumps, refrigerators, air-conditioners, etc., which have heavy starting load characteristics.

POWERCON INVERTERS—SINE WAVE OUTPUT

Same as commercial utility power. For all voltage and/or waveform sensitive loads like TV, radio, phono, hi-fi, recording, counting, testing and warning devices. Features automatic load regulation; 15% input change alters output only 5%. Operates loads with any power factor of 25% or more. Maintains output voltage

of 110-120 VAC. Ideal for small motor-driven appliances (less than 1/10 hp), fluorescent lights; only inverter widely approved by TV set manufacturers for operation of portable sets. Filtered for quiet output. Heavy duty vibrators only. These are superior units; the very best available today.

Stock No.	Mfr's Type	Typical Applications	Input VDC	Watts		Size, inches	Repl. Vibr.	Wt. Lbs.	Net Ea.
				Cont.	Int.				
66F219	12DSW10	Portable TV, small appliances	12	100	125	10 ³ / ₈ x9 ⁷ / ₈ x5 ¹ / ₂	12VB6H	22	73.99
66F222	12ESW25	Any B&W TV, entertainment appl.	12	250	300	12 ¹ / ₄ x9 ⁷ / ₈ x5 ¹ / ₂	12VD6H	26	103.13

POWERCON INVERTERS—SQUARE WAVE OUTPUT

Good solution for economy AC power at nominal ratings. Use with power factor of 70% and up. Linear voltage regulation

(1%:1%). Heavy duty vibrator in units rated at 100 VA and higher.

66F207	12SP2A*	Shaver only, intermittent duty dictation machines, small phonos <th rowspan="2">12 <th rowspan="2">12 <th rowspan="2">20 <th rowspan="2">3⁷/₈x2⁷/₈x2³/₄</th> <th rowspan="2">None</th> <th rowspan="2">2</th> <th rowspan="2">8.79</th> </th></th></th>	12 <th rowspan="2">12 <th rowspan="2">20 <th rowspan="2">3⁷/₈x2⁷/₈x2³/₄</th> <th rowspan="2">None</th> <th rowspan="2">2</th> <th rowspan="2">8.79</th> </th></th>	12 <th rowspan="2">20 <th rowspan="2">3⁷/₈x2⁷/₈x2³/₄</th> <th rowspan="2">None</th> <th rowspan="2">2</th> <th rowspan="2">8.79</th> </th>	20 <th rowspan="2">3⁷/₈x2⁷/₈x2³/₄</th> <th rowspan="2">None</th> <th rowspan="2">2</th> <th rowspan="2">8.79</th>	3 ⁷ / ₈ x2 ⁷ / ₈ x2 ³ / ₄	None	2	8.79	
										66F224	12A4*	40	60	6^{1}/_{4}x4^{1}/_{8}x3^{3}/_{8}	6567	6	18.84
66F209	12B8	radio, port. tape recorders amplifiers, office machines	12	12	80	100	8 ³ / ₄ x7 ⁵ / ₈ x3 ⁷ / ₈	6565	12	33.56
66F208	12B10	spl. design/portable TV	12	12	100	125	8 ³ / ₄ x7 ⁵ / ₈ x3 ⁷ / ₈	12VB6H	14	42.79
66F220	12TV12	tools, business machines	12	12	120	140	8 ³ / ₄ x7 ⁵ / ₈ x3 ⁷ / ₈	12VB6H	16	34.57
66F210	12D15	camping trailer, truck	12	12	150	175	10 ³ / ₈ x9 ⁷ / ₈ x5 ¹ / ₂	12VD6H	26	64.70
66F211	12D22		12	12	220	250	10 ³ / ₈ x9 ⁷ / ₈ x5 ¹ / ₂	12VD6H	31	80.99
66F213	110B15	For small vessels, apartment houses, emergency power	110	110	150	175	8 ³ / ₄ x7 ⁵ / ₈ x3 ⁷ / ₈	110VB6H	13	51.07
66F214	110D25		110	110	250	300	10 ³ / ₈ x9 ⁷ / ₈ x5 ¹ / ₂	110VB6H	26	61.21

REPLACEMENT VIBRATIONS FOR ABOVE

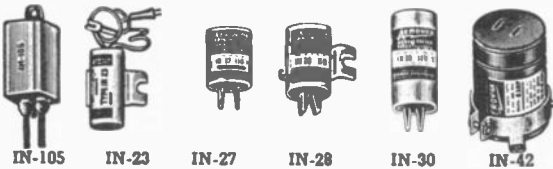
Stk. No.	Mfg. No.	Repl. For	NET	Stk. No.	Mfg. No.	Repl. For	NET
48F077	6665	12B8	16.50	48F089	12VD6H	12P15, 12D22, 12ESW25	7.27
48F087	6567	12A6	9.50	48F084	110VB6H	110B10, 110B15, 110D25	7.27
48F088	12VB6H	12B10, 12DSW10, 12TV12	16.50	48F085	110VC6H	110F40	9.50

ACCESSORY KITS FOR POWERCON INVERTERS

MK Mounting Kits: bolt case to deck, bulkhead or firewall with enamelled steel plate, flanges. Complete with instructions; wt., 2 1/2 lbs.
RK Remote Control Kit: Dashboard or post mount. Switch, dual AC socket, 12' control cord to Powercon, pilot light. Wt., 1 lb.

Stk. No.	Type	For Powercon Types	Net Ea.
66F225	MK3544-4	12B8, 12B10, 12TV12	3.57
66F226	MK3544-5	All other 12-volt	3.86
66F227	RK112	All except 12A4, 12SP2A, 110v	7.07

AEROVOX INTERFERENCE FILTERS



Type IN-105. Low-impedance delta connected capacitor for fluorescent light fixture in bathtub case. Size 1 3/4"x1"x1 3/4".
48F008. NET 1.22

Type IN-106. Best filter for fluorescents. Balanced network. Especially suited for radio and TV salesrooms. One unit per fixture in series where power leads enter. Metal container with 4 stranded wire leads. Rating: 125V AC or DC; 2.6 amps. Size: 1 7/8"x3 1/4".
48F009. NET 3.00

Type IN-27. Inexpensive filter to be placed between set and outlet when interference is slight. Also used on appliances causing low intensity interference. Eliminates noise on house wiring and power lines. Size, 1 3/8"x1 1/2". Shpg. Wt., 5 oz.
48F031. NET 90

Type IN-28. Use where ground is at distance from point of application. Size, 1 3/8"x2". Shpg. wt., 8 oz.
48F032. NET 1.20

Type IN-30. Provides additional filtering action and inductance. Effective in heavier interference. Plug between set and receptacle or preferably between noisy appliance and receptacle. Size, 1 3/8"x3". Shpg. wt., 7 oz.
48F033. NET 1.50

Type IN-42. Overcomes serious causes of interference. Plugs into electric outlet. Interfering device plugs into receptacle of filter. Size, 2 1/2"x3 3/4". Rated at 6 amps for 110-220 volts AC. Shipping wt., 1 lb.
48F034. NET 4.50

SCREEN ROOM FILTERS



All screen room filters have attenuation equal to or exceeding that of the screen room. Easy mounting arrangements. Hermetically sealed and terminals at both ends are shielded using knock-outs for 3/4" and 1" conduit. 1 1/4" diameter mounting hole on all cases is countersunk to permit flush mounting of the filter on the screen room. Comply with rigid specifications set up by the designers of the most advanced type screen rooms.

Stk. No.	Type	Amp.	Cir-cuits	Max. CPS	Start Freq.	Size (Inches)	NET
48F018	S-1076-1	50	1	60	14kc	20x3 3/8x3 3/8	95.00
48F019	S-1076-2	50	2	60	14kc	20x7 3/8x3 3/8	190.00
48F020	S-1076-3	50	3	60	14kc	20 1/2x10 7/8x3 1/16	285.00
48F021	S-1142-1	30	1	400	150kc	10 1/8x2 7/8x2 7/16	36.50
48F022	S-1142-2	30	2	400	150kc	10 1/8x4 3/4x2 7/16	48.50
48F023	S-1303-1	60	1	1000	100kc	20x3 3/8x3 3/8	100.00
48F024	S-1305-1	100	1	1000	100kc	22x4 3/8x4 3/8	120.00

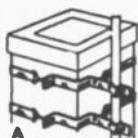


Fig. A—CHIMNEY MOUNTS
Type 8005. A chimney mount that can be installed in a few minutes by a novice. Extra heavy gauge steel. Brackets will support masts up to 1 3/4". With straps and hardware. Wt., 4 lbs.
92F550. NET..... **1.93**

Type 8025. Exactly the same as the 8005 above, but supplied with stainless steel straps.
92F551. NET..... **3.70**

SNAP-IN CHIMNEY MOUNTS
Type 8930. Snap the mast in place and tighten the bolts. No loose pieces. Masts up to 1 3/4". Clearance: 4". With stainless steel straps and mounting hardware. Shpg. wt., 4 lbs.
92F558. NET..... **3.16**

CHIMNEY STRAP REPAIR KIT
A complete set of stainless steel strapping 24 ft. long, and necessary hardware for replacements on chimney mountings. Shpg. wt., 2 lbs.
92F577. Type 8932. NET..... **2.12**

CHIMNEY STRAP
Type 8051. A 12 ft. coil of galvanized strap with 1/4" holes punched in the center of the 3/4" strap. Wt., 1 lb.
92F578. NET..... **.64**

LEAD-IN TUBE
A universal style insulated lead-in for leading all types of lead-in through the wall. Fits 3/4" hole. 14" wall max. Shpg. wt., 5 oz.
92F428. Type 8958-1. Ivory. NET..... **1.62**

2 PIECE MAST COUPLER
Sturdy 2-piece mast coupler for TV masts. Will couple masts from 1" to 1 3/4". With all hardware. 8 oz.
92F582. Type 8371. NET..... **.91**

ION TRAP
Type 8745. Single-magnet ion trap for bent-gun types. Shpg. wt., 3 oz.
92F431. NET..... **.75**

U-BOLTS
To fit masts 3/4" to 1 3/4" dia. Inside Max. Size 1 3/8" wide x 3" long. For mounting and extending antenna poles and masts. Supplied with nuts. Shpg. wt., 2 oz.
92F424. Type 8123. NET..... **.11**

GC SURGISTOR



Model 25-896. Combines the functions of resistor and a relay, and eliminates destructive in-rush currents in Radio and Television sets. It connects directly into the power line circuit of any electronic device. Limits inrush current until tube heaters are warm enough to accept full voltage without damage. Designed for 100 to 300 watts. Shpg. wt., 2 oz.
90F196. NET..... **1.60**

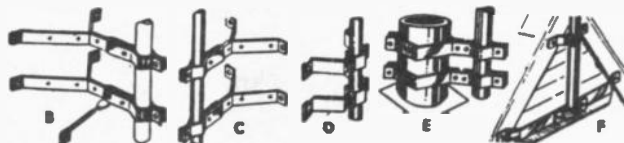


Fig. B—SNAP-IN WALL MOUNTS
DeLux Model. Connect to the wall at 5 points, rather than the standard 4. Eliminates side sway of antenna. Extra heavy gauge steel. For masts up to 1 3/4". 4 lbs.
92F552. Type 8312. 12" clearance. NET..... **2.70**
92F553. Type 8318. 18" clearance. NET..... **3.55**

Fig. C—WALL MOUNTS
Standard Model snap-in wall mounts with 4 point contact. Will hold masts up to 1 3/4". Extra heavy gauge steel. Easy to use. Shpg. wt., 6 lbs.
92F557. Type 8306. 6" clear. NET... **1.57**

Fig. D—CLOSE WALL MOUNTS
Close wall mounting brackets. Ideal where large clearance is not needed. Doubly protected against rust. Will hold masts up to 1 3/4". Complete with all hardware. Shpg. wt., 2 lbs.
92F559. Type 8302. 2 1/4" clearance. NET..... **.97**
92F560. Type 8304. 4" clearance. NET 1.23

Fig. E—VENT MOUNTS
Type 8902. A vent mount that will clamp on any size pipe or vent. Only two pieces to clamp on with bolts. Extra heavy gauge steel. 2"-4", 3 lbs.
92F581. NET..... **1.92**

GROUND ROD
Copper-plated steel rod for direct-to-earth ground. 4-ft. long, 3/8" dia. Shpg. weight, 2 1/2 lbs.
92F599. Type 8929. NET..... **.88**

GROUND PIPE CLAMP
Clamps on pipes from 5/8" to 1 1/8" O.D. Wt., 4 oz.
92F581. EACH..... **.20**
10 for..... **1.40**

GUY WIRE CLAMPS
Fastens to mast to allow the use of guy wires. Has 2 hook eyes for easy fastening of guy wires. For masts from 3/4" to 1 1/2". 6 oz.
92F564. Type 8372. NET..... **.27**

Guy Wire Clamp. Same as above but has screw eyes that will fit masts 3/4" to 1 1/2" in diameter. Shpg. wt., 8 oz.
92F565. Type 8939. NET..... **.30**

MAST CLAMP ASSEMBLY
Complete clamp assembly to fasten a crossbar to mast. Edges serrated so will not turn on mast. Rust-proofed. Shpg. wt., 2 oz.
92F425. Type 8718. NET..... **.32**

Type 8153. Bridle Rings. Handy bridle rings for tying guy wires. Will not rust.
92F426. NET EACH Type 8153..... **.06**

NAIL-IN STANDOFFS
Type 8343. Speed type nail-in insulators save time and labor. Universal for all lead-ins. Shpg. wt., per 10, 8 oz.
92F422. NET Each..... **.06**
Per 100..... **5.08**

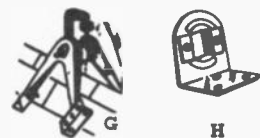


Fig. F—PEAK MOUNTS
Type 8625. Simply fasten brackets to peak and job is done. Extra heavy gauge angle iron. Will hold masts up to 1 3/4". Protected against rust. With all hdwe. Shpg. wt., 4 lbs.
92F566. 30" lower support. NET..... **3.28**

Fig. G—RIDGE MOUNTS
Type 9060. Mounts over the ridge of a roof. No guy wire needed. For masts up to 10 ft. high and 1 1/2" dia. with hardware. Shpg. wt., 5 lbs.
92F568. NET..... **3.85**

Fig. H—ROOF MOUNTS
Type 8800. A mount that will hold a mast up to 1 3/4" securely at any angle. Rust Resistant. Shpg. wt., 1 lb.
92F573. NET..... **.46**



UNIVERSAL STANDOFFS
Standoffs that will hold securely any UHF, VHF, or other transmission line. Sturdily made, they will not rust. *Less mast strap.

Stk.No.	Fig.	Screw	Length	Each	10 for
92F400	I	wood	3 1/2"	.03	.27
92F401		wood	5 1/2"	.06	.50
92F402	J	wood	7 1/2"	.07	.60
92F403		machine*	3 1/2"	.04	.30
92F404	K	machine*	7 1/2"	.07	.60
92F405		wood	7 1/2"	.17	1.53
92F406		machine*	7 1/2"	.17	1.53

Mast Straps only. For fastening standard Telco machine screw standoffs to mast. For masts up to 2 3/4" dia.
92F412. #8251. NET..... **.07**
Per 100..... **6.63**

MAST STANDOFFS
Type 8257. Mast stand-off with extruded threads. Made of heavy steel, galvanized 9" strap. Shpg. wt., 4 oz.

Stk. No.	Length	Each	10 for
92F410	7 1/2"	.15	1.35

SNAP-ON STANDOFF
New, improved snap-on standoff that is easy to put on and really stays on. For UHF and VHF. No tools required. For 1 1/4" masts.
92F412. #8798. NET..... **.08**
Per 100..... **7.50**

"E-Z" STANDOFFS
Universal standoffs with E-Z locking. Merely put the lead-in in place and swing the stand-off shut. Locks surely and easily; with wood screw except *(machine). No tools needed. Shpg. wt./10, 9 oz.

Stk. No.	Type	Lgth.	Ea.	10 for
92F413	EZ-8027	3 1/2"	.09	.80
92F414	EZ-8029	7 1/2"	.11	1.00
92F415	EZ-8031*	3 1/2"	.08	.70

"E-Z" SNAP-ON STAN-OFF 1 1/4" MAST

Stk.No.	Type	Lgth.	Ea.	10 for
92F418	EZ-8798	3 1/2"	.16	1.44

HOT NAIL STANDOFF
Type 8762. Formed and hardened standoff for driving in masonry, hard woods, etc. Wt., per 10, 8 oz.
92F421. NET..... **.10**
Per 100..... **9.66**

TV Accessories

ALLIANCE TENNA-ROTORS

C-225 TRANSISTORIZED AUTOMATIC ROTATOR SYSTEM



- Transistorized
 - Silent Operation
 - Constant Synchronization
- Type C-225. Fully automatic Tenna-Rotor reduces interference, provides instant rotation, brings more stations and brighter, clearer pictures. Automatically positions antenna toward television or FM station. For color and black and white TV sets. Pulls in more signals with clearer picture.

Phase-sensing circuit for fine tuning. Positive 360° rotation. Reversible motor for instant position reversal. Die cast, corrosion proof rotor—stainless steel and zinc plated parts. Less 5-conductor cable. U.L. Approved. For 110-120 V., 60 cycle AC. Shpg. wt., 12 lbs.

92F740. NET **35.97**



U-100 AUTOMATIC SYSTEM

Maintains perfect synchronization. Eliminates drifting and swinging. Reduces interference, gets brighter pictures, brings in more distant stations. Automatically turns antenna toward station of your choice for the best picture. To turn the antenna

simply set the indicator knob at the direction desired; the U-100 does the rest. 115 volts, 60 cycles AC. Clockwise or counterclockwise rotation. Instantly reversible motor. Magnetic brake eliminates over-travel. Rotates through 360° of arc at speed of one r.p.m. Factory lubricants for life. Moisture sealed. Corrosion resistant components throughout. Less 4-conductor cable. Shpg. wt., 12 lbs.

92F741. NET **28.78**

MODEL MG-1 SECRETONE

- Monitor TV Channel Over Any AM Radio
- Tunes From 550 KC to 1600 KC
- Complies With FCC Part 15

Connect to speaker in your TV, CB, or Hi-Fi set. Pick up sound on any regular AM radio. Enables you to take the sound anywhere you want by use of a portable radio. May be plugged directly into earphone jacks connection. Operated on 9V. transistor battery or can be wired permanently to 6V. or 12V. source. Complete with battery, antenna, adapter, jack, plug and cable. 3 1/4" x 4 1/2" x 1 7/8". Wt. 11 oz.

92F793. NET **10.57**

MODEL TBB-2 THRUST BEARING BRACKET

Minimize strain on rotator by use of TBB-2 when installing heavier type antennas. Not necessary for normal installations. Shpg. wt., 3 lbs.

92F743. NET **2.97**

K-22 ALLIANCE TENNA-ROTOR

- Die-Cost Aluminum
- Weather Proof Housing

Provides instant fingertip control of antenna rotation. Reduces interference, helps eliminate "ghosts." Ideal for CB reception and transmission. Use Model TBB-2. Thrust Bearing Bracket for heavier type antennas. U-Bolts supplied. Cadmium hardware.



92F742. NET **19.37**

T-45 HEAVY DUTY ROTOR

"Tenna-Teller" needle pointer on face automatically follows antenna direction. Antenna may be turned through 360° cycle with slight pressure on control bar. Input 115 cy. AC. Clockwise and counterwise revolution. Instantly reversible motor. Corrosion resistant components throughout, cadmium plated parts. Less 5-conductor cable. Shpg. wt., 12 lbs.



92F744. NET **24.03**

CABLES FOR ALLIANCE ROTATORS

Conductor Flat Cable. For use with U-100. Wt., per 100', 3 lbs.	
Belden. Type 8464 Cable. 100 ft. Coil	
92F231A. NET	3.30
Belden. Type 8464 Cable. 75 ft. Coil	
92F231H. NET	2.55
Belden. Type 8464 Cable. 1000 ft. Coil	
92F231. NET	29.00
5-Conductor Cable. For C-225 and T-45. Wt., per 100', 3 lbs.	
Belden Type 8463 Cable. 100 ft. Coil	
92F232A. NET	4.00
Belden. Type 8463 Cable. 50 ft. Coil	
92F232B. NET	2.18
Belden. Type 8463 Cable. 500 ft. Coil	
92F232F. NET	18.60

COLOR OR BLACK & WHITE TV SIGNAL BOOSTER

Model 300. Transistorized signal booster, 10-12 db gain on all VHF channels. All channels have uniformly amplified picture and sound. Set coupler provides equal signal to both TV sets. Linear frequency response (broad band). Built in FM trap. Works on any 72 or 300 ohm antenna. Has universal mount.



Weatherproof case and corrosion resistant hardware. Amplifier is 7 3/4" x 4 1/4" x 2 1/4". Power supply 4 3/8" x 3 1/4" x 1 3/4". Shpg. wt. approx. 2 lbs.

92F794. NET **27.97**

TRI-CRAFT VHF & UHF OUTDOOR TV ANTENNAS

MODELS S-2080A UHF-VHF TV ANTENNA

Gold Anodized-aluminum. Excellent for color and black and white. High gain sharp sensitivity and high front to back ratio. Completely pre-assembled, all elements attached to boom utilizing Hi-Lo's patented "Allanap" method of assembly. Has 35 mile range. All VHF elements are wood doweled. Designed for one lead installation.

92F119. NET **9.95**

FM DOUBLE DIPOLE

Model 114-010. Two folded dipoles provide excellent reception, from any direction, over the entire FM band from 88 to 108 mc. Has impedance of 300 ohms. Sturdy, lightweight aluminum construction withstands wind, icing and snow. With 75 feet of Amphenol twin-lead, stand-off insulators, base mount, hardware and 5 ft. mast. Shipping weight, 7 pounds.

92F101. 1-3 **10.95**
6-11 9.13 12 Up 8.21

COLOR COUPLER

Model 114-097. 2 set coupler.

92F232. 1-8 **1.97**

9 Up **1.59**

92F230. Model 114-098. 3 set. 1-11 **2.37** 12 Up **2.13**

92F231. Model 114-099. 4 set. 1-11 **2.97** 12 Up **2.67**

EAGLE INTERNATIONAL

NEW OUTDOOR TV ANTENNA

- Exclusive Circuit Design for Improved Reception—Color, UHF/VHF, Black and White!
- New Compact Dome Shape! Easy to Install! Eliminates Ghosts, Shadows.

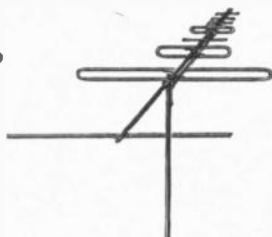
Model 118-3. Improved reception with radar principles in new circuit design. Rich, clear color reception—sharp UHF/VHF all-channel black and white. 360° all-direction reception—no ghosts or shadows. Easy, quick

installation. Precision engineered; all circuits are assembled by hand to assure high quality. Gray plastic dome is 8" high, 18 1/2" diameter. Wt. 6 1/2 lbs.

92F148. NET **29.50**



114-010



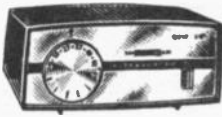
S-2080A



An improved television set coupler designed for color and/or black and white. Resistor networks prevent interference, assure minimum signal loss and have excellent impedance match. Available in gray and brown.



MODEL BTX-99B CONVERTER



UHF converter for channels 14 to 83. Ideal for all prime signal areas. Performs well in strong signal area with indoor antenna. New all-transistor circuit provides maximum signal power and drift-free, distortion-free performance. For operation from 110 to 120 VAC; 50/60 cycle. UL approved. Size: 6 $\frac{3}{8}$ x3x3 $\frac{3}{4}$ ". Shpg. wt. 2 lbs.

94F000. Model BTX-99A. NET..... **19.85**

MODEL BTX-11A CONVERTER AMPLIFIER

Combination for weak signal and fringe areas. Most powerful and stable UHF converter ever engineered for the home. Amplifier triples TV signal. Same size as Model BTX-99B. 110-120 VAC, UL approved. Shpg. wt. 2 lbs.

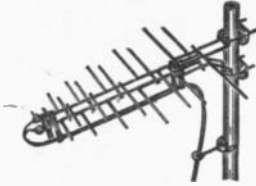
94F001. NET..... **31.20**

VAMP-2 BOOSTER

Same as the ABLE-U2 (see U2 listing), for VHF and FM signals. Remote power supply at set sends 15 VDC to booster. Shpg. wt. 2 lbs.

94F008. NET..... **27.40**

BLONDER TONGUE UHF "GOLDEN-DART" OUTDOOR ANT.



UHF periodic principle, outdoor compact antenna. May be added to existing VHF mast or mounted separately. Excellent for both color and black and white. Completely pre-assembled. Welded for ruggedness. Shpg. wt. 2 lbs.

94F003. NET..... **4.15**

UHF "GOLDEN ARROW" INDOOR ANT.

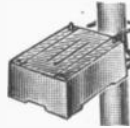
For all channels: 14 to 83. Has 10 working elements. Snaps together easily. Complete with lead-in. Wt., 1 lb.

94F004. NET..... **3.95**

ABLE-U2 MAST MOUNTED AMPLIFIER

UHF amplifier. Two transistor circuit provides dramatic, improved TV signal for both color and black and white. For 110-120 VAC. Shpg. wt., 1 lb.

94F005. NET..... **29.65**



8TD-44 UHF CONVERTER



Cordless, UHF all-channel converter. Battery operated. Uses tunnel diode solid state components. Recommended for prime signal target areas. Operates on ordinary flashlight battery lasting from 6 to 9 months. Stylized case. Size: 6 $\frac{3}{8}$ x3x3 $\frac{3}{4}$ ".

Shpg. wt. 1 $\frac{1}{2}$ lbs.
94F006. NET..... **13.20**

MODEL U/VAMP-2 AMPLIFIER

Mast-mounted, all-weather two-transistor, UHF-VHF amplifier provides power to turn fuzzy pictures into sharp, clear reception. Amplifier will handle strong local TV signals without overloading. Built-in FM signal filter. Shpg. wt. 2 lbs.

94F007. NET..... **35.25**

MODEL V/U ALL-2

Indoor version of Model U/VAMP-2. Handles two sets Shpg. wt. 1 $\frac{1}{4}$ lbs.

94F008. NET..... **29.15**

RCA TV ISOTAP

Model WP-25A. May be used as a high-medium-low isolation transformer for testing TV receivers at various settings of line voltage. Supplies outputs of 130, 115 and 105 volts at full maximum load and is tapped to match line voltages from 105 to 130 volts in six steps. Power rating: "Direct" Pos.: 500 VA, "Isolated" Pos.: 275 VA. Frequency: 50-60 cps. Finished in dark cobalt, grey lacquer. Compact steel case. Size: 5 $\frac{3}{4}$ "H. 5"W. 4 $\frac{3}{8}$ "D. Wt. 14 lbs.

62F047. NET..... **22.00**



STANCOR CR TUBE BOOSTER

The CR Tube Booster by Stancor Electronics Corp. is an economical and extremely reliable picture tube booster that revitalizes dim pictures due to low cathode emission. For TV tubes in the electro-magnetic class with parallel filament connections. Hi-lo switch provides for two levels of tube brightness. Leads are 15" long permitting ease in mounting. AC line connections are not required. Measures only 3 $\frac{1}{2}$ " high, 1 $\frac{1}{2}$ " in diameter. Brackets and screws included. Shpg. wt., 8 oz.

1F544. Type P-8192. NET **4.49**



PERMA-POWER TV TUBE BRIGHTENER

Can be used on any black and white TV set. Designed to give a full 50% heater power boost for all heater voltages and current ratings. Slide switch selects parallel or series wiring. Easy to install. Model C-202. Complete with duodecal 12 pin tube socket.

90F030. NET..... **2.25**

Model C-222. 110° Shell base. Sylvania, Dumont type. Any heater rating.

90F031. NET..... **2.25**

Model C-212. 110° Button base. RCA type. Any heater rating.

90F032. NET..... **2.25**



REGENCY HI-PASS FILTER

Model HP-45. For suppressing interference in TV receivers. Constant 'K' type with cut-off frequency of 45 mc in 300 ohm balanced line. Attenuation of 29 mc; 20 db or better. With complete installation instructions. Shpg. wt., 3 oz.

47F954. NET..... **97c**



PERMA-POWER TV VOLTAGE REGULATOR

Corrects low line voltage to restore full height and weight of TV picture. Rated 300 watts, 90-135 volts. Boosts 10 volts automatically when line is below 110 volts.

Easy plug in installation. Turns on and off with TV set. Shpg. wt., 2 $\frac{1}{2}$ lbs.

90F033. Model D-200. NET..... **5.97**

90F034 Model D-101. Manual version, switchable for high line voltage adjustment. NET..... **4.17**



RPG INTERLOCK CORD

TV power supply line cord, 6 ft. long. Molded-on, all-rubber female connector. U. L. approved. Shpg. wt., 8 oz.

36F880. NET. **29c**

Male Connector, Flush mounting type for use with cord above. Wt., 2 oz.

36F881. NET..... **12c**



TRI-CRAFT TELECOUPLERS



For highly efficient operation of from 2 to 4 separate TV sets using only one antenna. Operates extremely well on either UHF or VHF with no appreciable loss of signal strength. Streamlined dove gray case can be mounted on wall, back of set, etc. With mounting screws.

92F227. Type 114-088. For coupling 2 TV sets off same antenna.

1-11..... **2.25**

12 Up..... **2.02**

92F228. Type 114-090. For coupling 4 TV sets off same antenna.

1-11..... **3.45**

12 Up..... **3.10**

NEWARK INDOOR ANTENNA



Fully adjustable for all channels. Mahogany bakelite sphere-base locking knob holds arms at any angle. With 5 ft. of 300 ohm lead-in. Shpg. wt., 2 lbs.

92F030. NET..... **2.49**

HI-LO INDOOR ANTENNA



A high-gain indoor antenna for all channels, 2 to 83. Factory tuned; requires no adjustment. Anodized in gleaming gold. Has bakelite base, aluminum bars. 10 $\frac{1}{4}$ " high, 32" wide. Shipping weight, 2 pounds.

92F036. NET..... **5.85**

BUSSMANN Fuses and Accessories

TYPE AGX FAST-ACTING FUSES



Provides high speed action necessary to protect sensitive instruments or delicate apparatus. $\frac{1}{16}$ to 2 ampere sizes have straight through element/U.L. approved. Size: $\frac{1}{4} \times 1\frac{1}{2}$ ". Shpg. wt. .76 lbs. per 100.

Stk. No.	Amps.	Volts	1-99 Each	100-499 Per 100	500-999 Per 100
27F973	1/500	250	1.03	86.00	68.80
27F974	1/200	250	.43	36.00	28.00
27F975	1/100	250	.38	32.00	25.60
27F976	1/32	250	.34	28.00	22.40
27F977	1/16	250	.21	17.50	14.00
27F978	1/10	250	.15	12.50	10.00
27F979	1/8	250	.15	12.50	10.00
27F980	3/16	250	.15	12.50	10.00
27F981	1/4	250	.10	8.50	6.80
27F982	2/10	250	.15	12.50	10.00
27F983	3/8	250	.10	8.50	6.80
27F984	4/10	250	.10	8.50	6.80
27F985	1/2	250	.10	8.50	6.80
27F986	3/4	125	.10	8.50	6.80
27F987	1	125	.06	5.00	4.00
27F988	1 1/2	125	.06	5.00	4.00
27F989	2	125	.06	5.00	4.00
28F049	5	125	.04	3.30	2.60

TYPE AGC FUSES



Formerly called 3AG. Test specifications - carry 110% open at 135% within 1 hour. Approved by Underwriter's Laboratories. Size $\frac{1}{4} \times 1\frac{1}{4}$ ". Shpg. wt., .91 lbs. per 100.

Stk. No.	Amps	Volts	1-99 Each	100-499 Per 100	500-999 Per 100
27F880	3	250	.06	4.70	3.80
27F881	4	32	.06	4.70	3.80
27F882	5	32			
27F883	6	32			
27F884	7 1/2	32	.04	3.30	2.60
27F885	10	32			
27F886	15	32			
28F048	20	32	.035	3.00	2.40
27F887	25	32	.045	3.80	3.00
27F888	30	32	.045	3.80	3.00
28F050	1/2	250	.34	28.00	22.40
28F051	3/8	250	.15	12.50	10.00
28F052	1/2	250	.15	12.50	10.00
28F053	3/4	250			
28F054	1	250	.10	8.50	6.80
28F055	1 1/2	250			
28F056	2	250			
28F057	1	250	.06	5.00	4.00
28F058	1 1/2	250			
28F059	2	250			

TYPE MTH FUSES

Formerly called 3AG. Test Specifications carry 110%, open at 135% within 1 hour. Listed as approved by Underwriters Laboratories. Size: $\frac{1}{4} \times 1\frac{1}{4}$ ". Shpg. wt., .91 lbs. per 100.

Stk. No.	Amperes	Volts	Each	100 for
27F877	4	250		
27F878	5	250	.078	6.50
27F879	6	250		

BUSS GLR FUSES



Fuse and knob are in one piece. When fuse opens entire fuse-knob is replaced. Knob is insulated to guard against shock. GLR fuses are quick blowing type - carry 110%, open at 135% within 1 hour.

Stk. No.	Amps	Volts	1-99 Each	100-499 per 100
28F300	1/2	300	.19	16.00
28F301	1	300		
28F302	1 1/2	300		
28F303	1 1/2	300		
28F304	2	300	.10	8.40
28F305	2 1/2	300		
28F306	3	300		
28F307	4	300		
28F308	5	300		

"MDL" FUSETRON DUAL-ELEMENT FUSES



Fuses with a long time lag. Avoid needless blows from starting currents or surges. At 200% load the approximate blowing time is 25 seconds. Size: $\frac{1}{4} \times 1\frac{1}{4}$ ". Wt., 1 lb. per 100.

Stk. No.	Amps.	Volts	1-99 Each	100-499 Per 100	500-999 Per 100
27F822	1/100	250	.29	24.00	19.20
27F823	1/32	250			
27F824	1/16	250			
27F825	1/10	250			
28F045	1/8	250			
27F826	15/100	250			
27F827	2/10	250			
28F046	1/4	250	.21	18.00	14.00
27F828	3/10	250			
27F829	4/10	250			
27F830	1/2	250			
27F831	6/10	250			
27F832	8/10	250			
27F833	1	250			
27F884	1 1/4	125	.20	17.00	13.20
27F835	1-6/10	125			
27F836	2	125			
27F837	2-1/2	125			
27F838	2-8/10	125			
27F839	3-2/10	125			
27F840	4	32			
27F841	5	32			
27F842	6-1/4	32	.15	13.00	10.00
27F843	8	32			
27F844	10	32			
28F047	15	32			
27F845	20	32			
27F846	25	32			
27F847	30	32			

TYPE MDX FUSES

These fuses have the same specifications as Type MDL. The only main difference being that at a load of 200% the fuse blows in approximately 12 sec. .93 lbs./100

Stk. No.	Amps.	Volts	1-99 Each	100-499 Per 100	500-999 Per 100
27F890	1-1/4	250			
27F891	1 1/2	250			
27F892	1-6/10	250	.23	20.00	16.00
27F893	2	250			
27F894	3	125			
27F895	3-2/10	125	.15	13.00	9.40
27F896	4	125			
27F897	5	125			
27F898	6-1/4	125	.18	15.00	12.00
27F899	7	125			

TYPE GLD INDICATING FUSES



Fiber tube; silver plated indicating pin extends from end of fuse when fuse is blown. If desired, indicating pin can be used to activate a signal light by using fuses in an HKA fuseholder. Carry 110% of rated current, open at 135% in 1 hour. Size: $\frac{1}{4} \times 1\frac{1}{4}$ "; shpg. wt., .86 lbs. per 100.

Stk. No.	Amps.	Volts	1-99 Each	100-499 Per 100	500-999 Per 100
27F964	3/4	125	.43	36.00	28.80
27F965	1	125			
27F966	2	125	.34	28.00	22.40
27F967	3	125			
27F968	5	125			

BUSS GBA VISUAL INDICATING FUSES

Physically and electrically identical to type GLD fuses listed above, except indicating pin is red-tipped for direct visual indication of opened element. Use with BUSS HLD fuseholder.

Stk. No.	Voltage	Amp.	1-99 Each	100-499 Per 100	500-999 Per 100
28F309	125	3/4	.46	39.00	31.20
28F310	125	1			
28F311	125	1 1/2			
28F312	125	2	.35	30.00	24.00
28F313	125	3			
28F314	125	5			

BUSS GMT FUSES



Permits multiple mounting of fuses in limited space. Colored indicator spring when released makes contact with alarm terminal which can activate signal circuit. Size: $\frac{1}{4} \times 1\frac{1}{2}$ ".

Stk. No.	Amps	Color of Indicator	1-99 Each	100-499 per 100	500-999 per 100
28F315	18/100	Yellow			
28F316	1/4	Violet			
28F317	1/2	Red			
28F318	65/100	Black			
28F319	3/4	Brown	.40	33.00	26.00
28F320	1	Gray			
28F321	1 1/4	White			
28F322	2	Orange			
28F323	3	Blue			
28F324	5	Green			
28F325	7 1/2	Bk.-White			
28F326	10	Red-White			

"FNM" SLOW-BLOWING FUSES



Dual element, fibre tube, slow blowing fuses avoid needless blows from starting currents or surges. Fuse link operates only on very high overloads, or short circuits. A thermal cutoff functions on low overloads, and cannot operate quickly at any load, hence long time lag is obtained. Yet, complete protection is provided against shorts. $1\frac{1}{32} \times 1\frac{1}{2}$ ". Shpg. w't., 1.5 lbs. per 100.

Stk. No.	Amps.	Volts	Each	100 for
27F863	1/2	250		
27F864	1	250		
27F865	1-6/10	250		
27F866	2	250		
27F867	3-2/10	250		
27F868	4	250		
27F869	5	250	.30	25.00
27F870	10	250		
27F872	2 1/2	250		
27F873	6-1/4	250		
27F874	8	250		
27F875	12	125		
27F876	15	125		

FNA SIGNAL FUSES



DUAL-ELEMENT - SLOW BLOWING. Avoids needless blows from starting currents or surges. Has silver indicating pin which extends from fuse when fuse opens. Can be used in BUSS HPC-C indicating fuseholder or pin can be used to actuate a signal by using fuses in BUSS signal fuse block. Carry 110%, open at 135% in 1 hr.

Stk. No.	Amps.	Volts	1-99	100 for
28F327	1/10	250		
28F328	15/100	250		
28F329	2/10	250		
28F330	3/10	250		
28F331	4/10	250		
28F332	1/2	250		
28F333	6/10	250		
28F334	8/10	250		
28F335	1	125		
28F336	1 1/4	125		
28F337	1 1/4	125		
28F338	1-4/10	125		
28F339	1-6/10	125		
28F340	1-8/10	125		
28F341	2	125		
28F342	2 1/4	125	.55	46.00
28F343	2 1/2	125		
28F344	2-8/10	125		
28F345	3	125		
28F346	3-2/10	125		
28F347	3 1/2	125		
28F348	4	125		
28F349	4 1/2	125		
28F350	5	125		
28F351	5-6/10	125		
28F352	6	125		
28F353	6 1/4	125		
28F354	7	125		
28F355	8	125		
28F356	10	125		

Fuses and Accessories BUSSMANN

HIGH INTERRUPTING CAPACITY FUSES



Type KTK. 1 $\frac{1}{2}$ "x1 $\frac{1}{2}$ ". Glass fibre melamine tube with sand filler surrounding silver fuse element. For use on circuits capable of delivering currents as high as 100,000 amps at voltages of 600 or less. Test spec.—carry 110%, open at 135% in 1 hour or less.

Stk. No.	Amps	Voltage	1-9	10-99	100 for
28F190	1/10	500 or less			
28F191	1/8	500 or less			
28F192	2/10	500 or less			
28F193	1/4	500 or less			
28F194	3/10	500 or less			
28F195	1/2	500 or less			
28F196	3/4	500 or less			
28F197	1	500 or less			
28F198	1 1/2	500 or less			
28F199	2	500 or less	1.42	1.02	85.00
28F200	3	500 or less			
28F201	4	500 or less			
28F202	5	500 or less			
28F203	6	500 or less			
28F204	8	500 or less			
28F205	10	500 or less			
28F206	15	500 or less			
28F207	20	500 or less			
28F208	25	500 or less			
28F209	30	500 or less			

BUSS LIMITRON FUSES



Especially designed for protection of semiconductor rectifiers. They provide extremely fast opening on overload and fault currents, with high degree of restriction of let-thru current. Test specs.—carry 100% rating; open at 1000 seconds on overloads between 120% and 180% rating; open within 1 sec. at 250% rating.

Stock No.	Symbol & Amps	Volts	Net Each
28F210	KAA 1	130	
28F211	KAA 2	130	
28F212	KAA 3	130	
28F213	KAA 4	130	
28F214	KAA 5	130	
28F215	KAA 6	130	
28F216	KAA 7	130	
28F217	KAA 8	130	
28F218	KAA 9	130	.80
28F219	KAA 10	130	
28F220	KAA 12	130	
28F221	KAA 15	130	
28F222	KAA 20	130	
28F223	KAA 25	130	
28F224	KAA 30	130	
28F225	KAB 1	250	
28F226	KAB 2	250	
28F227	KAB 3	250	
28F228	KAB 4	250	
28F229	KAB 5	250	
28F230	KAB 6	250	
28F231	KAB 7	250	
28F232	KAB 8	250	
28F233	KAB 9	250	.90
28F234	KAB 10	250	
28F235	KAB 12	250	
28F236	KAB 15	250	
28F237	KAB 17 1/2	250	
28F238	KAB 20	250	
28F239	KAB 25	250	
28F240	KAB 30	250	

Stock No.	Symbol & Amp	Volts	Net Each	100 for
28F241	KAW 1	130		
28F242	KAW 2	130		
28F243	KAW 3	130		
28F244	KAW 5	130		
28F245	KAW 7	130		
28F246	KAW 10	130	.89	80.00
28F247	KAW 15	130		
28F248	KAW 20	130		
28F249	KAW 30	130		

BUSS FUSE BLOCK

Molded Bakelite. One mounting hole. Countersunk for No. 6 flat head screws.

Stk. No.	Type	Size	Net
28F040	4520	1/4x1"	.16
28F041	4405	1/4x1 1/4"	.16
28F042	4421	1 1/2x2 1/2"	.40
28F043	3520	1 1/2x2"	2.34

FUSETRON DUAL-ELEMENT FUSES



Type FRN. Long time-lag prevents opening on starting currents or other harmless overloads—yet protects against shorts. Will guard motors against burnouts from overloads or single phasing. U/L listed for motor protection up to 250 volts.

Stock No.	Amps.	1-99 Each	100 for
28F250	1		
28F251	1 1/4		
28F252	1-6/10		
28F253	2		
28F254	2 1/2		
28F255	3-2/10		
28F256	4		
28F257	5		
28F258	6 1/4	.36	30.00
28F259	8		
28F260	10		
28F261	12		
28F262	15		
28F263	17 1/2		
28F264	20		
28F265	25		
28F266	30		
28F267	35		
28F268	40		
28F269	45	.69	58.00
28F270	50		
28F271	60		
28F272	70		
28F273	80	1.61	134.00
28F274	90		
28F275	100		

STANDARD FUSE BLOCKS

Available from 1 to 12 poles. Molded black phenolic base. Clips of strong spring bronze, Abaloy plated, highly resistant to corrosion with great gripping strength. Has solder terminals with ample insulation around terminals. For 1/4x1 1/4" Fuses.

Stock No.	Type	No. Poles	Base Dimensions	Net Each
28F276	3823-1	1	1/2x1 1/8"	.16
28F277	3823-2	2	1 1/2x1 1/8"	.32
28F278	3823-3	3	1 3/4x1 1/8"	.48
28F279	3823-4	4	2 1/4x1 1/8"	.64
28F280	3823-5	5	3x1 1/8"	.80
28F281	3823-6	6	3 3/8x1 1/8"	.96
28F282	3823-7	7	4 1/4x1 1/8"	1.12
28F283	3823-8	8	4 7/8x1 1/8"	1.28
28F284	3823-9	9	5 1/2x1 1/8"	1.44
28F285	3823-10	10	6 1/8x1 1/8"	1.60
28F286	3823-11	11	6 3/4x1 1/8"	1.76
28F287	3823-12	12	7 3/8x1 1/8"	1.92

BUSS ADD-ON BLOCKS

Any number of single-pole fuseblocks and separate end-barrier lock together into single unit. Marking strips for circuit identification available.



Stock No.	Type Description	Net Each	100 for
28F288	3742 End-Barrier Only	.11	9.00
28F289	3743 One-Pole Block Only	.75	83.00
28F290	Marking Strip in 50" lgt.	.37	31.00

TYPE ABC CERAMIC BODY FUSES

Can take 25,000 amps. @ 125 v. without exploding. Carry 110%, open at 135% of rating.

Stk. No.	Amps.	Volts	Each	100 for
27F952	2	250		
27F953	2	250	.13	11.00
27F954	5	250		
27F955	6	250	.13	11.00
27F956	8	250		
27F957	10	250		
27F958	12	250		
27F959	15	250	.13	11.00
27F960	20	250		
27F961	25	125	.16	14.00
27F962	30	125		

SPACE SAVER PANEL MOUNTED FUSE HOLDER



1 1/8 inch long, extends 2 3/8" behind front of panel. Takes 1/4x1 1/4" fuses. Easily converts to take 5/8x1 1/4" fuses by changing screw type knob. Flat part of molded phenolic body locks fuse against rotation when used on punched hole. Requires 3/8" mounting hole, except "Requires 1/2" mounting hole.

Stock No.	Type	Fuse Size	Net Ea.	100-499	500-999
28F291	HFL	1/4x1 1/4"	.37	31.00	24.80
28F292	HCL	5/8x1 1/4"	.37	31.00	24.80
27F810	HMB	1/4x1 1/4"	.37	31.00	24.80
27F811	HMM	1/4x1 1/4"	.37	31.00	24.80

PANEL MOUNTED VISUAL INDICATING FUSEHOLDER



Has bayonet type transparent knob to permit indicating pin on open GBA fuse to be easily seen. Gives positive identification of open circuit even if power is off. Use on panels up to 3/16" thick. Vibration cannot cause failure because terminals are held mechanically and by solder. Locking keys obtainable without charge—1/16" long for panels up to 1/8" thick or 1/8" long for thicker panels. Body is molded phenolic.

Stk. No.	Type	1-99 EA.	100-499	500-999
28F293	HLD (takes all GBA fuses)	.41	35.00	27.60

PANEL MOUNTED HOLDER

Type HPC. Screw type knob. For 1 1/2 x 1 1/2" fuse. Strong coil spring insures contact pressure on ends of fuse. Sturdy—withstands severe service. Mounts on panels with flange outside. Rating 15 amps.



Stock No.	1-99 Each	100-499 per 100	500-999 per 100
27F818	.56	47.00	37.60

LAMP INDICATING FUSEHOLDERS

Body of molded phenolic. Strong coil spring for constant pressure. Transparent knob permits indicating light to be seen. For 1/4x1 1/4" fuses. HXL-X and HXL—Clear. HKR—Amber. Shpg. wt. 2 oz.

Stk. No.	Type	Volts	1-99 Each	100-499	500-999
27F813	HKL	90 to 250	1.52	127.00	102.00
27F814	HKL-X	90 to 250	1.52	127.00	102.00
27F812	HKR	22 to 33	2.50	208.00	166.00

PANEL MOUNTED HOLDERS

Removable bayonet type knob. Will not shake loose. Use on panels up to 3/16" thick. Wire hole .115". Carrying cap.: HJM, 15 amps; HCM, 18 amps; HKP, 15 amps; HJM, 5 amps.



Stk. No.	Type	For Fuses	1-99 Each	100-499	500-999
27F819	HJM	1/4x1"	.37	31.00	24.80
27F820	HKP	1/4x1 1/4"	.37	31.00	24.80
27F821	HCM	5/8x1 1/4"	.52	44.00	34.80

Transparent knob available without holder to convert existing installations of HKP holders to visual indicating type. To order, specify: Transparent knob No. 5487.

LITTELFUSE Fuses and Accessories



3AG SLO-BLO FUSES

For circuits with high inductive surge.

Stk. No.	Type	Amps	1-99			100-499			500-999		
			Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.
27F680	313.010	.01	.29	.24	.19						
27F681	313.032	.032									
27F682	313.062	.062									
27F683	313.100	.1									
27F915	313.125	.125	.21	.18	.14						
27F684	313.150	.150									
27F686	313.175	.175									
27F916	313.187	.187									
27F685	313.200	.200									
27F688	313.250	.250									
27F687	313.300	.300									
27F917	313.375	.375	.21	.18	.14						
27F688	313.400	.400									
27F689	313.500	.500									
27F690	313.600	.600									
27F699	313.700	.700									
27F918	313.750	.750									
27F691	313.800	.800	.21	.18	.14						
27F692	313001	1.00									
27F693	3131.25	1.25	.20	.17	.13						
27F705	31301.5	1.50									
27F919	31301.6	1.60	.20	.17	.13						
27F694	313002	2.00									
27F695	31302.5	2.50									
27F820	313003	3.00									
27F706	31303.2	3.20	.15	.13	.10						
27F696	313004	4.00									
27F697	313005	5.00									

3AG 32 VOLT SLO-BLO LITTELFUSES

Withstands 110% rated load indefinitely. 135% up to 1 hour. 200% for 5 to 60 sec.

Stk. No.	Type	Amps	1-99			100-499			500-999		
			Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	
27F700	3136.25	6 1/4	.15	.13	.10						
27F701	313008.	8									
27F702	313010.	10									
27F703	313015.	15									
27F704	313020.	20									

3AG AND 3AB LITTELFUSES

U.L. APPROVED THRU 15 AMPS
Type 3AG. For low time-lag use. Max. volt 250 volt except *125 volt. 1 1/4 x 1/4".

Stk. No.	Type	A	1-99			100-499			500-999		
			Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	
27F651	312.125	1/4	.15	.13	.10						
27F663	312.175	1/4									
27F664	312.187	3/8									
27F652	312.250	1/4	.10	.09	.07						
27F667	312.300	3/8									
27F653	312.375	3/8									
27F654	312.500	1/2									
27F655	312.750	3/4									
27F656	312001.	1	.06	.05	.04						
27F657	31201.5	1 1/2									
27F658	312002.	2									
27F659	312003.	3	.06	.05	.04						
27F660	312004.	4									
27F661	312005.	5	.08	.07	.05						
27F682	312006.	6									
27F665	312008.	8*	.12	.10	.08						

Type 3AB. Medium time lag.

Stk. No.	Type	A	1-99			100-499			500-999		
			Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.		
27F670	314008.	8	.13	.11	.09						
27F671	314010.	10									
27F672	314012.	12									
27F673	314015.	15									
27F674	314020.	20									

SFE 1/4" AUTOMOBILE FUSES

1/4" D. Wt.; pkg. of 100, 14 oz.

Stk. No.	Type	A.	Lgth. inch.	1-99			100-499			500-999		
				Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	
27F710	004	4	5/8	.05	.04	.03						
27F711	006	6	3/4	.05	.04	.03						
27F716	007.5	7.5	7/8	.04	.03	.02						
27F712	009	9	7/8	.04	.03	.02						
27F713	014	14	1 1/8	.04	.03	.02						
27F714	020	20	1 1/4	.04	.03	.02						
27F715	030	30	1 3/8	.05	.04	.03						

3AG LITTELFUSES—32 VOLT OR LESS

Straight type fuse element positioned to center of fuse. Wt., pkg. of 100 14 oz.

Stk. No.	Type	A.	Lgth. inch.	1-99			100-499			500-999		
				Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.		
27F724	311005.	5	1 1/2	.04	.03	.02						
27F725	31107.5	7 1/2										
27F726	311010.	10										
27F728	311015.	15										
27F730	311025.	25	.05	.04	.03							
27F731	311030.	30										

JAG PIGTAIL LITTELFUSES

1/2" pigtails, No. 20 tinned copper wire. 1 1/2" pigtails, No. 20 tinned copper wire.

125 VOLT SLO-BLO

Stk. No.	Type	Amps	1-99			100-499			500-999		
			Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.		
27F928	315.100	.15	.26	.22	.17						
27F734	315.250	.25									
27F735	315.300	.3									
27F737	315.500	.5									
27F930	315.600	.6									
27F932	315001.	1.0									
27F934	31501.5	1.5									
27F935	31501.6	1.6	.25	.21	.16						
27F936	315002.	2.0									
27F937	315003.	3.0									
27F940	315004.	4.0	.21	.18	.14						
27F941	315005.	5.0									

250 VOLTS

Stk. No.	Type	Amps	1-99			100-499			500-999		
			Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.		
27F739	318.125	.125	.20	.17	.14						
27F943	318001	1.0									
27F945	318002	2.0	.12	.10	.08						
27F946	318003	3.0									
27F948	318005	5.0									
27F740	318.250	.25									
27F741	318.375	.375	.15	.13	.10						
27F742	318.500	.500									
27F743	318.750	.750									



4AG SLO-BLO LITTELFUSES

413000 Series. Meet aircraft vibration test requirements. High time-lag. Spring-and-link construction through 5 amps. Rated .10 thru 5 amp. 125V; 6 1/4 amp. thru 30 amp. 32V. Size: 1/4 x 9/16". Wt. 100 pkg. 10 oz.

Stk. No.	Type	Amps	1-99			100-499			500-999		
			Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.		
27F907	413.150	.15	.28	.23	.18						
27F630	413.250	.25									
27F902	413.300	.30									
27F908	413.400	.40									
27F631	413.500	.50									
27F632	413001.	1.00									
27F904	4131.25	1.25	.21	.18	.14						
27F910	41301.6	1.60									
27F633	413002.	2.00									
27F911	41302.5	2.5									
27F634	413003.	3									
27F912	41303.2	3.2									
27F905	413004.	4.									
27F635	413005.	5.									
27F906	4136.25	6.25	.21	.18	.14						
27F913	413008.	8.									
27F636	413010.	10.									
27F637	413015.	15.									
27F638	413020.	20.									
27F639	413025.	25.									
27F640	413030.	30.									

FUSE POSTS AND MOUNTS FOR 3AG, 3AB

(* Screw Slot (†) Lug terminal (**) Covered

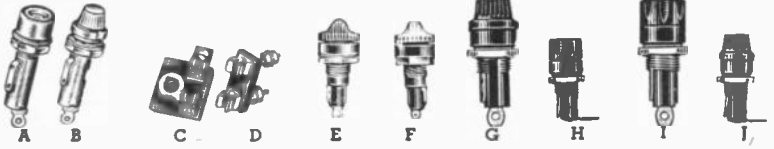
Stk. No.	Type	Fig.	Description	1-99			100-499			500-999		
				Ea.	Ea.	Ea.	Ea.	Ea.	Ea.	Ea.		
27F700	353001	E	Pnl. Mtg.	.48	.40	.32						
27F765	351009	F	Dul.**	1.18	.99	.79						
27F750	341001	...	Pnl. mtg.*	.50	.42	.34						
27F752	342001	A	Finger Knob	.50	.42	.34						
27F754	357001	C	Pnl. mtg.†	.16	.14	.11						
27F756	356001	B	Single fuse*	.34	.29	.24						
27F758	357002	D	Dbl. mtg.	.32	.27	.22						
27F769	356002	...	Fuse Mount	.66	.55	.44						

8AG INSTRUMENT LITTELFUSES



361000 Series. Protects delicate voltmeters, milliammeters, etc. 1 1/4", 100, 10 oz. Max. voltage 250. Except (*) 125V.

Stk. No.	Type	361-	Amps	For O/V VM	1-99			100-499			500-999		
					Ea.	Ea.	Ea.	Ea.	Ea.	Ea.			
27F614	.002	1/500	250	1.03	.86	.69							
27F600	.005	1/200	1000 U _p	.42	.36	.29							
27F601	.010	1/100	1000	.38	.32	.26							
27F602	.031	1/32	500-1000	.34	.28	.23							
27F603	.062	1/16	100-500	.21	.18	.14							
27F604	.125	1/8	20-100	.15	.13	.10							
27F605	.250	1/4	10-20	.10	.09	.07							
27F606	.375	3/8	5-10										
27F607	.500	1/2	3-5	.10	.09	.07							
27F608	.75	3/4	.....									
27F609	1.00	1	.....									
27F610	1.50	1-1/2	.....									
27F611	2.00	2	.....	.07	.06	.04						
27F612	3.00	3	.....									
27F615	4.00	4	.....									
27F613	5.00	5	.....									



8AG FUSE MOUNTINGS

Stk. No.	Type	Fig.	Description	Base Dimensions	1-99			100-499			500-999		
					Ea.	Ea.	Ea.	Ea.	Ea.	Ea.			
27F759	383002	C	Meter-back mtg.	1 1/8" L x 1" W x 1 1/16" T	.32	.27	.22						
27F761	383001	D	Panel mtg.	1 1/8" L x 1 1/2" W x 3/16" T	.48	.40	.32						
27F751	371001	A	Pnl. Mtg.	2 3/32" L x .709"/.722 Max. Dia.	.50	.42	.34						
27F781	3												

Fuses and Accessories **LITTELFUSE**

SUB-SUBMINIATURE PICOFUSES

- Incredibly Small — Less Than 1/4" Long!
- Ceramic Body for High Overload Capacity.

Series 275. A unique concept in fusing for computers, micro-electronic and aero-space circuitry. Designed for circuits of 125 volts or less where short-circuit currents as high as 300 amps occur. High accuracy in blowing time at 300% or higher is ideal for sequential switching, or in circuits requiring redundancy. Blow time 4 hours min. at 100% or rating; 5 sec. max. at 200%. Amperage printed on body. Ceramic body only 1/32" x 9/64" dia.; tin-coated copper leads .025 dia. PicoFuses can be encapsulated, and are available hermetically sealed. 275series has axial leads 1 9/16" long for diode clip or in-circuit mounting.

SUBMINIATURE MICROFUSES

Only .250" dia. x .348" long exclusive of leads. Ideal for printed circuits. Features low resistance and high reliability in ultra-fast blowing characteristics. Series 279000 has 1 inch leads for wiring into circuit. Short circuit interrupting capacity 125 volts, 10,000 amps DC.

Series 273000 has .170 inch leads for plugging into subminiature fuse holder (illustrated below). Blowing specifications: 110% life; 200% 0-10 seconds. Transparent glass cap. Rated at 125 V.



273000		279000		Amps.	1-99 Each	100-499 per 100	500-999 per 100
Plug-in Type	Pigtail Type	Stk. No.	Type				
28F060	273.002	28F083	279.002	1/500	1.03	86.00	68.00
28F061	273.005	28F084	279.005	1/200			
28F062	273.010	28F085	279.010	1/100			
28F063	273.015	28F086	279.015	1/64			
28F064	273.031	28F087	279.031	1/32			
28F065	273.050	28F088	279.050	1/20			
28F066	273.062	28F089	279.062	1/16			
28F067	273.100	28F090	279.100	1/10			
28F068	273.125	28F091	279.125	1/8			
28F069	273.200	28F092	279.200	2/10			
28F070	273.250	28F093	279.250	1/4	.86	72.00	57.00
28F071	273.300	28F094	279.300	3/10			
28F072	273.400	28F095	279.400	4/10			
28F073	273.500	28F096	279.500	1/2			
28F074	273.600	28F097	279.600	6/10			
28F075	273.700	28F098	279.700	7/10			
28F125	273.750	28F126	279.750	3/4			
28F076	273.800	28F099	279.800	8/10			
28F077	273.001	28F100	279.001	1			
28F078	273.015	28F101	279.015	1 1/2			
28F079	273.002	28F102	279.002	2			
28F080	273.003	28F103	279.003	3			
28F081	273.004	28F104	279.004	4			
28F082	273.005	28F105	279.005	5			

MICROFUSE HOLDER
Type 281002. Front panel mount microfuse holder. Molded from high strength, high dielectric material. Knurled cap for easy grip. Rugged "eye" type plated brass terminals separated by molded barrier to provide complete insulation. With positive "O" ring seal.
28F111. NET EA. 1-99—.58 100-499—.49 500-999—.39



INDICATING MICROFUSE HOLDER
Type 284000. Indicator lamp glows when the fuse is blown. Knob molded from transparent material. Positive "O" ring seal. High dielectric material.



Stk. No.	Type	Desc.	1-99 Ea.	100-499 Ea.	500-999 Ea.
28F107	284004	6 volt range	2.21	1.84	1.47
28F108	284005	12 volt range	2.21	1.84	1.47
28F109	284006	24 volt range	2.21	1.84	1.47
28F110	284003	125 volt range	1.55	1.29	1.03

IN-LINE FUSE RETAINER

Type 155000 Series. Bakelite in-line fuse holder furnished with SFE 9, 14, or 20 amp fuse. Also for 3AG or 3AB fuses.

Stk. No.	Type	1-99 Ea.	100-499 per 100	500-999 per 100
27F782	155009A	.37	31.00	25.00
27F793	155014A			
27F788	155020A			

LITTELFUSE CLIPS

Fits SFE, 3AG, 8AG and 3AB fuses. Phosphor bronze except Beryllium copper. Shpg. wt., per 100, 5 lbs. † per 100.



Stk. No.	Type	Fig.	For	1-99 Ea.	100-499†	500-999†
27F772	101001	A	3AG	.02	1.90	1.50
27F773	101002	B	3AG	.02	1.90	1.50
27F774	105002	B	5AG	.05	4.00	3.00
27F775	123002	B	4AG	.08	7.00	6.00

Stk. No.	Type	Amps.	1-99 Ea.	100-499 Per 100	500-999 Per 100
28F128	275.125	1/8	.43	36.00	29.00
28F129	275.250	1/4	.43	36.00	29.00
28F130	275.375	3/8	.43	36.00	29.00
28F131	275.500	1/2	.43	36.00	29.00
28F132	275.750	3/4	.37	31.00	25.00
28F133	275001	1			
28F134	27501.5	1.5			
28F135	275002	2			
28F136	275003	3			
28F137	275004	4			
28F138	275005	5			

334 (000) Series Pin Indicating Fuse

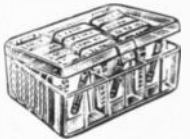
Medium acting fuses with silverplated indicating pin extending from end of fuse when fuse is blown. Fuse can be used as a visual indicator by means of a red tip on pin or can be used to actuate an audible alarm circuit. Rated 3/4 thru 5 amp. 125V, 6 thru 20 amp. 32V. *1 1/4 in length, 1/4 in diameter.



Stk. No.	Type	Amp. Rating	1-99 Ea.	100-499 per 100	500-999 per 100
28F112	.750	3/4	.43	36.00	29.00
28F113	.001	1	.34	28.00	22.00
28F114	01.5	1 1/2			
28F115	.002	2			
28F116	.003	3			
28F117	.004	4			
28F118	.005	5	.47	39.00	31.00
28F119	.006*	6			
28F120	.008	8			
28F121	.010*	10			
28F122	.012*	12			
28F123	.015*	15			
28F124	.020*	20			

INDUSTRIAL FUSE CADDY

Type 094037. This fuse caddy has been specifically designed and stocked for almost universal uses. Has any number of industrial or laboratory applications. Caddy contains a wide assortment of fuses in both the type C—Quick Blow and type N—Slow Blow units. Has 14 boxes of fuses with 5 fuses in each box. Also contains an emergency kit with various types of radio fuses. Case is clear plastic in order to quick and accurate fuse selection. Has three spare compartments. Size: 1 7/8" x 3 x 1 1/4". Shpg. wt., 2 lbs.
27F677. NET



8.28

TYPE FHN HOLDERS TO MIL-F-19207A

Stock No.	Type	Description	1-99	100-499	500-999
27F643	20G	3AG Min.	1.28	1.07	.88
27F644	20G	(R/F Shielded)	4.20	3.50	2.80
27F645	26G	3AG Min.			
27F646	31G	8AG Min.	1.24	1.04	.83
27F647	19W	4AG Waterproof	2.50	2.09	1.67
27F648	26W	3AG Waterproof	4.10	3.42	2.74
			4.10	3.42	2.74

SUBMINIATURE MICROFUSE HOLDER

Type 281001. Subminiature holder ideal for use in printed circuit board mounting. Mounts in .090" hole; solid terminals; 3/8" behind panel. W. Spring nut. Avg. Shpg. wt., 3 oz.
28F106. NET EA. 1-99—.26 100-499—.22 500-999—.17



TV SNAP-ON FUSE HOLDERS

Type 094025. For use in safe replacement of TV pigtail fuses and stay-on blown pigtail. Holder uses regular fuse in other side. Requires no soldering. Less fuses. Holders are available singly or in boxes of ten.

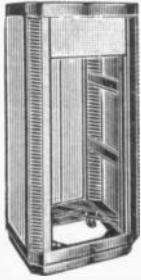


27F748. NET 22
Plastic box of ten. NET 1.90

DEPEND ON NEWARK FOR EVERYTHING IN INDUSTRIAL ELECTRONICS



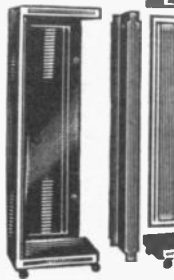
Cabinet Racks



Zephyr 8



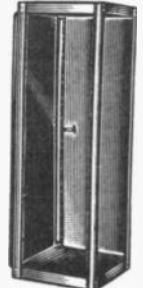
Enclosed Rack Relay



Add-A-Rack



Two Door Rack



Prestige Racks

ZEPHYR 8 RACK

New design combines unusual sturdiness, exceptional strength, and a striking appearance. Octagonal shape provides excep-

tional ventilation, and unit is constructed to conform to universal spacing. Rack consists of 14 & 16 gauge steel in two-tone gray.

ZEPHYR 8 RACK										ACCESSORY DOOR						
Stk. No.	Type	H.	D.	W.	160 lbs.	1-3	4-6	7-9	Stk. No.	Type	Fits	Wt.	1-3	4-6	7-9	
93F650	MD-1990	47 ³ / ₄ "	24"	27 ²³ / ₃₂ "	185.00	168.50	148.00	93F655	MD-1995	MD-1990	19 lbs.	23.40	21.05	18.70		
93F651	MD-1991	58 ¹ / ₄ "	24"	27 ²³ / ₃₂ "	190 lbs.	206.00	185.40	164.80	93F656	MD-1996	MD-1991	25 lbs.	26.00	23.40	20.80	
93F652	MD-1992	67"	24"	27 ²³ / ₃₂ "	215 lbs.	229.00	206.10	183.20	93F657	MD-1997	MD-1992	30 lbs.	28.90	26.00	23.10	
93F653	MD-1993	75 ³ / ₄ "	24"	27 ²³ / ₃₂ "	240 lbs.	255.00	229.50	204.00	93F658	MD-1998	MD-1993	35 lbs.	32.20	29.00	25.75	
93F654	MD-1994	82 ³ / ₄ "	24"	27 ²³ / ₃₂ "	280 lbs.	278.00	250.00	222.00	93F659	MD-1999	MD-1994	39 lbs.	35.10	31.60	28.10	

BUD ENCLOSED RELAY RACKS

Made of 16 gauge steel with ¹/₄" panel mounting supports which are recessed so that panel will be flush with face of rack. All

standard panels fit these racks. Red-lined Chrome trim. Bottom supports use RC 7756 casters. Stk. No. 91F082.

Black	Grey	Ham. Grey	Type	H x W x D	Panel Space	Lbs.	1-9	10-14	15-19
91F050	91F056	91F062	CR-1772	66 ⁹ / ₁₆ "x22"x17 ¹ / ₂ "	61 ¹ / ₄ "x19"	116	77.40	69.65	61.90
91F051	91F057	91F063	CR-1773	82 ¹ / ₁₆ "x22"x17 ¹ / ₂ "	77"x19"	135	92.70	83.45	74.15
91F058	91F061	91F078	CR-1771	47 ⁷ / ₁₆ "x22"x17 ¹ / ₂ "	42"x19"	92	61.80	55.15	49.95
91F059	91F060	91F077	CR-1774	42 ¹ / ₁₆ "x22"x17 ¹ / ₂ "	36 ³ / ₄ "x19"	82	54.65	49.20	43.70
93F134	93F142	93F150	CR-2471	47 ⁷ / ₁₆ "x27"x17 ¹ / ₂ "	42"x24"	108	75.10	67.60	60.10
93F135	93F143	93F151	CR-2472	66 ⁹ / ₁₆ "x27"x17 ¹ / ₂ "	61 ¹ / ₄ "x24"	135	95.15	85.65	76.10
93F136	93F144	93F152	CR-2473	82 ¹ / ₁₆ "x27"x17 ¹ / ₂ "	77"x24"	158	112.70	101.45	90.15
93F137	93F145	93F153	CR-2474	42 ¹ / ₁₆ "x27"x17 ¹ / ₂ "	36 ³ / ₄ "x24"	96	66.55	59.90	53.25
93F138	93F146	93F154	CR-2481	47 ⁷ / ₁₆ "x27"x22 ¹ / ₂ "	42"x24"	119	105.00	94.50	84.00
93F139	93F147	93F155	CR-2482	66 ⁹ / ₁₆ "x27"x22 ¹ / ₂ "	61 ¹ / ₄ "x24"	160	131.70	118.55	105.35
93F140	93F148	93F156	CR-2483	82 ¹ / ₁₆ "x27"x22 ¹ / ₂ "	77"x24"	186	157.10	141.40	125.70
93F141	93F149	93F157	CR-2484	42 ¹ / ₁₆ "x27"x22 ¹ / ₂ "	36 ³ / ₄ "x24"	115	93.55	84.20	74.85

ADD-A-RACK SERIES FOR ENCLOSED RACKS

Add panel space to present rack equipment without buying a new rack cabinet. Requires only four parts: door, top, bottom,

and an Add-a-Rack coupling unit. Remove side of present rack and replace with coupling unit.

Black	Grey	Ham. Grey	Type	Add-A-Rack to Type	W x D x H	Lbs.	1-9	10-14	15-19
93F158	91F467	91F471	AR-1776	CR-1772	22x17 ¹ / ₂ x66 ⁹ / ₁₆ "	100	73.75	66.40	59.00
93F159	91F468	91F472	AR-1777	CR-1773	22x17 ¹ / ₂ x82 ¹ / ₁₆ "	113	90.65	81.60	72.50
93F160	91F466	91F470	AR-1775	CR-1771	22x17 ¹ / ₂ x47 ⁷ / ₁₆ "	74	59.30	53.40	47.45
93F161	91F465	91F469	AR-1778	CR-1774	22x17 ¹ / ₂ x42 ¹ / ₁₆ "	70	53.65	48.30	42.90
93F162	93F170	93F178	AR-4271	CR-2471	27x17 ¹ / ₂ x47 ⁷ / ₁₆ "	87	65.10	58.60	52.10
93F163	93F171	93F179	AR-4272	CR-2472	27x17 ¹ / ₂ x66 ⁹ / ₁₆ "	117	81.65	73.50	65.30
93F164	93F172	93F180	AR-4273	CR-2473	27x17 ¹ / ₂ x82 ¹ / ₁₆ "	132	97.90	88.10	78.30
93F165	93F173	93F181	AR-4274	CR-2474	27x17 ¹ / ₂ x42 ¹ / ₁₆ "	82	57.75	52.00	46.20
93F166	93F174	93F182	AR-3275	CR-2481	27x22 ¹ / ₂ x47 ⁷ / ₁₆ "	119	91.35	82.20	73.10
93F167	93F175	93F183	AR-3276	CR-2482	27x22 ¹ / ₂ x66 ⁹ / ₁₆ "	129	114.45	103.00	91.55
93F168	93F176	93F184	AR-3277	CR-2483	27x22 ¹ / ₂ x82 ¹ / ₁₆ "	152	137.55	123.80	110.05
93F169	93F177	93F185	AR-3278	CR-2484	27x22 ¹ / ₂ x42 ¹ / ₁₆ "	100	81.90	73.70	65.50

ENCLOSED RELAY RACK—GREY HAMMERTONE FINISH

These relay racks are made of 16 gauge steel with ¹/₄" panel mounting supports. Four sturdy supports in bottom for fastening casters for ready mobility.

Stk. No.	Type	Ht.	PS	Dep.	Lbs.	1-9	10-14	15-19
91F095	CR-2071	47 ⁷ / ₁₆ "	42"x19"	22"	102	78.70	70.85	62.95
91F096	CR-2072	66 ⁹ / ₁₆ "	61 ¹ / ₄ "x19"	22"	137	98.50	89.65	78.80
91F097	CR-2073	82 ¹ / ₁₆ "	77"x19"	22"	159	117.00	105.50	93.60
91F098	CR-2074	42 ¹ / ₁₆ "	36 ³ / ₄ "x19"	22"	98	69.55	62.60	55.65

BUD ADD-A-RACK SERIES FOR ENCLOSED RELAY RACKS

For adding panel space to present rack equipment. Made of sturdy steel in a grey hammer-tone finish. Add to CR-2072, CR-2073 and CR-2074.

Stk. No.	Type	Add to	Ht.	PS	Dep.	Lbs.	1-9	10-14	15-19
91F474	AR-2276	CR-2072	66 ⁹ / ₁₆ "	61 ¹ / ₄ " x 19"	22"	110	89.40	80.45	71.50
91F475	AR-2277	CR-2073	82 ¹ / ₁₆ "	77" x 19"	22"	130	108.95	98.05	87.15
91F476	AR-2278	CR-2074	42 ¹ / ₁₆ "	36 ³ / ₄ " x 19"	22"	102	63.15	56.85	50.50

SUPER DELUXE TWO DOOR RACKS

Has panel mounting supports that are adjustable from front and back to enable panels to be used to any degree necessary. Clearance behind panels may be 15" to 9" in increments of 1". A solid front door is provided. The rear door and the sides are louvered to provide ventilation.

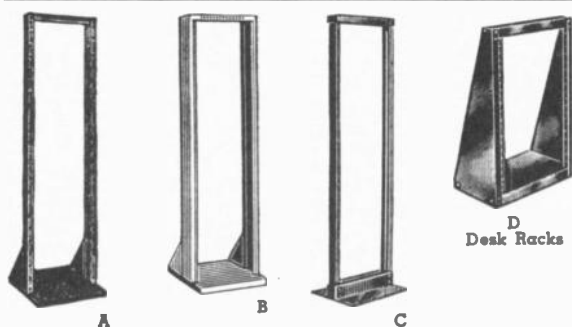
Black	Grey	Ham. Grey	Type	H x W x D	Panel Space	Lbs.	1-9	10-14	15-19
93F110	93F114	93F118	CR-2174	42 ¹ / ₁₆ "x22"x17 ¹ / ₂ "	36 ³ / ₄ "x19"	102	70.70	63.65	56.55
93F111	93F115	93F119	CR-2171	47 ⁷ / ₁₆ "x22"x17 ¹ / ₂ "	42" x 19"	104	80.10	72.10	64.10
93F112	93F116	93F120	CR-2172	66 ⁹ / ₁₆ "x22"x17 ¹ / ₂ "	61 ¹ / ₄ "x19"	138	103.35	93.00	82.70
93F113	93F117	93F121	CR-2173	82 ¹ / ₁₆ "x22"x17 ¹ / ₂ "	77" x 19"	163	124.10	111.70	99.30
93F122	93F126	93F130	CR-2491	47 ⁷ / ₁₆ "x27"x17 ¹ / ₂ "	42" x 24"	122	107.40	96.65	85.90
93F123	93F127	93F131	CR-2492	66 ⁹ / ₁₆ "x27"x17 ¹ / ₂ "	61 ¹ / ₄ "x24"	160	139.75	125.80	111.80
93F124	93F128	93F132	CR-2493	82 ¹ / ₁₆ "x27"x17 ¹ / ₂ "	77" x 24"	190	167.50	150.75	134.00
93F125	93F129	93F133	CR-2494	42 ¹ / ₁₆ "x27"x17 ¹ / ₂ "	36 ³ / ₄ "x24"	119	95.85	86.25	76.70

PRESTIGE RELAY CABINET RACKS

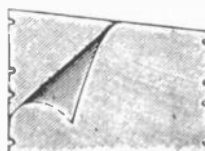
Has drilled, taped panel mounting rails on all four vertical members of the frame. Rails will support 200 lbs. Base is slotted to accept ball cornered side panels on all sides of rack. Finished in Grey Hammetone only.

Stk. No.	Type	Panel	HxWxD	Lbs.	1-9	10-14	15-19
91F087	CR-2280	61 ¹ / ₄ "x19"	66 ⁹ / ₁₆ "x22x22"	179	125.15	112.65	100.10
91F088	CR-2281	66 ¹ / ₂ "x19"	71 ¹ / ₁₆ "x22x22"	186	133.45	120.10	106.75
91F089	CR-2282	77"x19"	82 ¹ / ₁₆ "x22"x22"	213	149.90	134.90	119.90

Racks and Panels



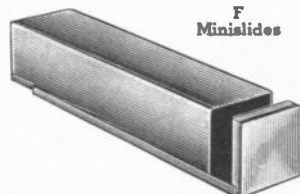
D
Desk Racks



E
Surface Shields
Rack Panels



Pan-L-Lite



F
Minislides

OPEN TYPE RELAY RACKS

For mounting equipment where a complete enclosure is not necessary or advisable. Racks A and C may add casters for

mobility. Fig. C has louvered "U" member which allows for ventilation.

Black	Type	Fig.	H x W x D	Panel Sp.	lbs.	1-9	10-14	15-19
91F052	RR1263B	A	35 1/2 x 20 x 22"	3 1/2 x 19"	38	25.10	22.60	20.10
91F053	RR1264B	A	70 1/2 x 20 x 22"	6 1/2 x 19"	53	28.65	25.80	22.90
91F054	RR1265B	C	72 1/4 x 20 3/8 x 13"	6 1/2 x 19"	68	66.15	59.55	52.90
93F634	RR1363B	A	41 x 20 x 22"	3 3/4 x 19"	37	24.20	21.80	19.35
93F635	RR1364B	A	76 x 20 x 22"	7 1/4 x 19"	48	27.70	24.95	22.15
93F636	RR1366B	A	81 1/8 x 20 x 22"	7 7/8 x 19"	50	33.00	29.70	26.40
93F637	RR1464B	A	70 1/2 x 25 x 22"	6 6 1/2 x 24"	53	35.30	36.75	28.25
93F638	RR1463B	A	39 1/2 x 25 x 22"	3 1/2 x 24"	40	30.85	27.75	24.70
93F639	RR2463B	A	41 x 25 x 22"	3 3/4 x 24"	43	33.50	30.15	26.80
93F640	RR2464B	A	76 x 25 x 22"	7 1/4 x 24"	55	35.30	31.75	28.25
93F641	RR2466B	A	81 1/8 x 25 x 22"	7 7/8 x 24"	58	45.05	40.55	36.05
93F642	RR1367B	B	64 5/8 x 20 7/8 x 26"	6 1 1/4 x 19"	89	42.85	38.55	34.30
93F643	RR1368B	B	73 3/8 x 20 7/8 x 26"	7 0 x 19"	97	43.80	39.40	35.05
93F644	RR1369B	B	80 3/8 x 20 7/8 x 26"	7 7 x 19"	105	51.90	46.70	41.50
93F645	RR2467B	B	64 5/8 x 25 7/8 x 26"	6 1 1/4 x 24"	102	52.00	46.80	41.60
93F646	RR2468B	B	73 3/8 x 25 7/8 x 26"	7 0 x 24"	112	53.15	47.85	42.50
93F647	RR2469B	B	80 3/8 x 25 7/8 x 26"	7 7 x 24"	121	62.95	56.65	50.35

DESK TYPE OPEN RELAY RACKS

Chassis type base for mounting heavy components. Supporting angles assure steady support. Panel mounting rails are recessed

so that any standard 19" panel will fit flush with the front. Available in Black Wrinkle or Light Gray Hammertone.

Black	Type	Hamm. Gray	Type	Fig.	Hgt.	Space	lbs.	1-14	15-24	25-34
91F030	RR-1248B	91F677	RR-1248HG	D	24"	21"	15	11.05	9.95	8.85
91F031	RR-1249B	91F678	RR-1249HG	D	31"	28"	18	13.50	12.15	10.80

Fig. E—"SURFACE SHIELD" RACK PANELS

Each panel is covered on both sides with sturdy pressure sensitive white paper which provides an excellent surface for indicating size and position of drilling or milling while protecting

against any surface damage soiling. Panels have standard notching. Made of aluminum alloy.

1/2" Panels 19" Wide

Stk. No.	Type	Height	Lbs.	1-49	50-99	100-149
91F265	SFA-1831	1 3/4"	1/4	1.15	1.05	.90
91F266	SFA-1832	3 1/2"	3/4	1.65	1.50	1.30
91F267	SFA-1833	5 1/4"	1	2.15	1.95	1.70
91F268	SFA-1834	7"	1 3/4	2.70	2.45	2.15
91F269	SFA-1835	8 3/4"	2	3.20	2.90	2.55
91F270	SFA-1836	10 1/2"	2 1/2	4.05	3.65	3.25
91F271	SFA-1837	12 1/4"	2 3/4	4.60	4.15	3.70
91F272	SFA-1838	14"	3	5.35	4.80	4.30
91F273	SFA-1839	15 3/4"	3 1/2	6.00	5.40	4.80
91F274	SFA-1840	17 1/2"	4	6.60	5.95	5.30
91F275	SFA-1841	19 1/4"	4 1/4	7.25	6.55	5.80
91F276	SFA-1842	21"	5	7.90	7.10	6.30

3/16" Panels 19" Wide

Stk. No.	Type	Height	Lbs.	1-49	50-99	100-149
91F277	SFA-3161	1 3/4"	3/4	2.05	1.85	1.65
91F278	SFA-3162	3 1/2"	1 3/4	2.75	2.50	2.20
91F279	SFA-3163	5 1/4"	1 3/4	3.70	3.35	2.95
91F280	SFA-3164	7"	2 1/2	5.40	4.05	3.60
91F281	SFA-3165	8 3/4"	3	6.50	4.85	4.30
91F282	SFA-3166	10 1/2"	3 3/4	6.85	6.15	5.40
91F283	SFA-3167	12 1/4"	4 1/2	7.90	7.10	6.30
91F284	SFA-3168	14"	5	9.10	8.20	7.30
91F285	SFA-3169	15 3/4"	5 3/4	10.15	9.15	8.10
91F286	SFA-3170	17 1/2"	6 1/4	11.20	10.10	8.95
91F287	SFA-3171	19 1/4"	7	12.25	11.05	9.80
91F288	SFA-3172	21"	7 1/4	13.30	12.00	10.65

Fig. F—MINISLIDES

Used where access to internally mounted parts is necessary. .050 aluminum. Available in grey hammertone only.

Stk. No.	Type	L x W x H	Lbs.	1-49	50-99	100-149
91F862	MS-2150	13 x 3 1/8 x 2 5/8"	1	4.15	3.75	3.30
91F863	MS-2151	13 x 5 1/8 x 2 5/8"	1 1/2	4.75	4.30	3.80
91F864	MS-2152	17 x 3 1/8 x 2 5/8"	1 1/4	4.55	4.10	3.65

1/2" Panels 24" Wide

Stk. No.	Type	Height	Lbs.	1-49	50-99	100-149
93F700	SFA-2451	1 3/4"	1/2	2.00	1.80	1.60
93F701	SFA-2452	3 1/2"	1	2.65	2.40	2.10
93F702	SFA-2453	5 1/4"	1 1/2	3.45	3.10	2.75
93F703	SFA-2454	7"	2 1/4	4.40	3.95	3.50
93F704	SFA-2455	8 3/4"	2 1/2	5.15	4.65	4.10
93F705	SFA-2456	10 1/2"	3	6.50	5.85	5.20
93F706	SFA-2457	12 1/4"	3 1/4	7.35	6.60	5.90
93F707	SFA-2458	14"	3 1/2	8.60	7.75	6.90
93F708	SFA-2459	15 3/4"	4	9.65	8.70	7.70
93F709	SFA-2460	17 1/2"	4 3/4	10.50	9.45	8.40
93F710	SFA-2461	19 1/4"	5 1/4	11.55	10.40	9.25
93F711	SFA-2462	21"	5 1/2	12.66	11.40	10.15

3/16" Aluminum Panels 24" Wide

Stk. No.	Type	Height	Lbs.	1-49	50-99	100-149
93F712	SFA-3401	1 3/4"	1	4.10	3.70	3.30
93F713	SFA-3402	3 1/2"	1 1/2	5.40	4.85	4.30
93F714	SFA-3403	5 1/4"	2	7.30	6.55	5.85
93F715	SFA-3404	7"	2 3/4	9.00	8.10	7.20
93F716	SFA-3405	8 3/4"	3 1/2	10.75	9.70	8.60
93F717	SFA-3406	10 1/2"	4	13.50	12.15	10.80
93F718	SFA-3407	12 1/4"	4 3/4	15.60	14.05	12.50
93F719	SFA-3408	14"	5 1/2	18.00	16.20	14.40
93F720	SFA-3409	15 3/4"	6	20.10	18.10	16.10
93F721	SFA-3410	17 1/2"	6 3/4	22.15	19.95	17.70
93F722	SFA-3411	19 1/4"	7 1/2	24.25	21.85	19.40
93F723	SFA-3412	21"	7 3/4	26.35	23.70	21.10

"PAN-L-LITE" LIGHT

Type PL-5. Bright, glare-free lighting for areas requiring concentrated source of light. Mounted on standard Bud 1 3/4" x 19" steel rack panel with gray hammertone finish. Bronzefone aluminum frame. Translucent plastic light diffuser. Push button starter switch; convenience outlet. 6 ft. cord with plug. Less tube but uses 15 watt fluorescent tube.

Stk. No.	Type	Size	1-9	10-14	15-19
91F746	PL-5	5" x 18" x 1 1/4"	9.30	8.37	7.44

**NEWARK Can Supply All Bud Products at OEM Prices—
Phone - Wire - Write for Items Not Listed in this Catalog.**



Series "60" Cabinet Racks



INCLINED

Basic frame welded in a solid unit composed of 14-gauge cold-rolled steel channels. Sides have "U" braces with perforated channels for fastening vertical mounting rails. Rails also support other types of equipment such as brackets, shelves, slides, etc. Eliminates need of drilling holes in the rack. Sides and rear door made of 16 gauge steel. Vertical Channel, 6" wide, welded to door to prevent vibration or whip. Two pairs of panel mounting rails are supplied; fully adjustable. Panels may be mounted in front and rear at the same time. Front rails drilled and tapped 10-32 W.E. spacing. Rear rails are drilled according to universal spacing.

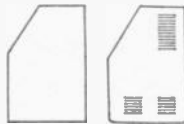
All Series Sixty enclosures may be quickly combined with each other to create units of any width as shown in the Add-A-Rack series. In addition, such accessories as desk tops, turrets, drawers, slides, sloping panel supports and front door are easily installed. Standard finishes are smooth baked enamel over a primer, available in two-toned blue or two-toned grey. Standard Bud relay rack panels are available for the Series Sixty racks in light gray and light blue. Available in Louvered door and Louvered side. Louvered door-plain sides, Louvered sides-plain door on special order.

UPRIGHT CABINET RACKS

Completely assembled with sides, rear door, and top. Standard units have plain sides and door and a solid top. For greater ventilation, order the units with louvered sides and/or rear door. Both have solid tops. Width of all units: 24 1/8". Inside depth: 20 1/4" clear on units with 22" outside depth. 23 3/4" on all others. Top opening: 18 1/2" wide by 17 d. on units with 22" depth. Outside depth on all others: 18 1/2" w x 20 1/2" d.



Plain Louvered
UPRIGHT



Plain Louvered
INCLINED

Stock No. Grey	Stock No. Blue	With Plain Sides & Door—OD 22"—Net Each. Lots of				Ht.	Panel Space	Wt., Lbs.	Stock No. Grey	Stock No. Blue	With Plain Sides & Door—OD 25 1/2"—Net Each. Lots of				Ht.	Panel Space	Wt., Lbs.
		Type	1-3	4-6	7-9						Type	1-3	4-6	7-9			
92F900	92F914	2300	106.30	95.67	85.05	29 5/8"	21"	118	92F907	92F921	2307	125.50	112.95	100.40	29 5/8"	21"	156
92F901	92F915	2301	131.45	118.30	105.15	40 5/8"	31 1/2"	156	92F908	92F922	2308	151.20	136.10	120.95	40 5/8"	31 1/2"	176
92F902	92F916	2302	146.05	131.45	116.85	50 5/8"	42"	173	92F909	92F923	2309	168.00	151.20	134.40	50 5/8"	42"	185
92F903	92F917	2303	166.25	149.60	133.00	61 1/8"	52 1/2"	197	92F910	92F924	2310	186.50	167.85	149.20	61 1/8"	52 1/2"	211
92F904	92F918	2304	180.25	162.20	144.20	69 7/8"	61 1/4"	220	92F911	92F925	2311	207.30	186.55	165.85	69 7/8"	61 1/4"	240
92F905	92F919	2305	200.00	180.00	160.00	78 5/8"	70"	235	92F912	92F926	2312	230.30	207.25	184.25	78 5/8"	70"	256
92F906	92F920	2306	218.65	196.80	174.90	87 3/8"	78 3/4"	265	92F913	92F927	2313	251.35	226.20	201.10	87 3/8"	78 3/4"	267

INCLINED PANEL CABINET RACKS

Completely assembled with sides, rear door and solid top. Available in four combinations of plain or louvered sides and rear door. Size, 50 5/8" h. x 24 1/8" w. x 22" d. outside; 20 1/4" d. clear inside. Weight 165 lbs.

Stock No. Grey	Stock No. Blue	Plain Doors				Wt., Lbs.	
		Type	For Add-on to Rack No. 60-	Net Each. Lots of			
93F077	93F060	2500	2300, 2600	86.10	77.50	68.90	92
93F078	93F061	2501	2301, 2601	104.75	94.30	83.80	113
93F079	93F062	2502	2302, 2602	114.70	103.25	91.75	115
93F080	93F063	2503	2303, 2603	125.30	112.75	100.25	145
93F081	93F064	2504	2304, 2604	140.00	126.00	112.00	148
93F082	93F065	2505	2305, 2605	156.00	140.40	124.80	152
93F083	93F066	2506	2306, 2606	167.35	150.60	133.90	158
93F084	93F067	2507	2307, 2607	100.00	90.00	80.00	120
93F085	93F068	2508	2308, 2608	117.25	105.55	93.80	132

Stk. No. Grey	Stk. No. Blue	With Plain Sides and Door				Incline Panel Hgt.	Vert. Panel Hgt.	Top Opening W. x D.
		Type	1-3	4-6	7-9			
93F023	93F020	2330	165.25	148.70	132.20	10 1/2"	29 3/4"	18 1/2" x 11 3/4"
93F024	93F021	2331	175.15	157.65	140.10	15 3/4"	24 1/2"	18 1/2" x 10"
93F025	93F022	2332	175.15	157.65	140.10	17 1/2"	22 3/4"	18 1/2" x 9 3/8"

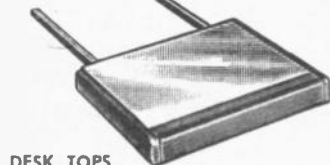
ADD-A-RACK SERIES

Each assembly consists of frame, top, bottom, rear door and cowlings; used as an add-on unit to join any of the Series Sixty enclosures into a bank of two or more. One standard rack plus

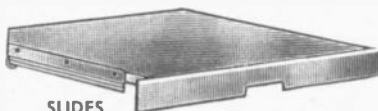
several Add-A-Racks make any desired number of racks combined for optimum width. Colors same as above Racks.

Stock No. Grey	Stock No. Blue	Louvered Doors				Wt., Lbs.	
		Type	For Add-on to Rack No. 60-	Net Each. Lots of			
93F086	93F069	2509	2309, 2609	128.00	115.20	102.40	138
93F087	93F070	2510	2310, 2610	139.60	125.85	111.70	142
93F088	93F071	2511	2311, 2611	159.10	140.50	124.90	164
93F089	93F072	2512	2312, 2612	174.00	156.60	139.20	168
93F090	93F073	2513	2313, 2613	192.50	173.25	154.00	172
93F091	93F074	2530	2330, 2630	132.90	119.60	106.30	119
93F092	93F075	2531	2331, 2631	142.10	127.90	113.70	119
93F093	93F076	2532	2332, 2632	142.10	127.90	113.70	125

RACK ACCESSORIES



DESK TOPS



SLIDES



DRAWERS

Desk tops designed for installation on Series Sixty Cabinet Racks. Writing surface or shelf for service operations on small assemblies. Two pre-drilled full length supporting channels are quick-

ly bolted to panel mounting rails. Surface is light gray, wood-grained Formica. 24 1/8" wide, 19 1/2" deep, 3 1/8" high. Supports 200 lbs. Gray or blue enamel finish.

Stk. No. Blue	Stk. No. Grey	Type	Fits "60" Series	Sup. Channel	Lbs.	1-3	4-6	7-9
93F017	93F016	60-2360	W/22"d.	2 1/8"	22	36.05	32.45	28.85
93F038	93F039	60-2362	W/25 1/2"d.	2 3/4"	23	36.75	33.05	29.40

DRAWERS

Fit cabinet or cabinet rack with 19" panel space. Front panel drawer is 8 3/4" x 19" Slide easily on nylon rollers. D-1721 has slide bracket which is adjustable from 16 5/8" to 22 7/8".

Choice of Black, Grey Wrinkle or Grey Hammertone Finish. 60-2368 has slide bracket same size as drawer. Choice of Smooth Blue or Smooth Grey Finish

Stk. No.	Clr.	Stk. No.	Clr.	Stk. No.	Clr.	Type	Ins. Size	Lbs.	1-3	4-6	7-9
91F921	Bk.	91F922	Gr. WR.	91F923	G.H.	D-1721	16 5/8 x 6 3/4 x 16 1/4"	19 1/2	45.00	40.50	36.00
		93F019	Sm. Bl.	93F018	Sm. Gr.	60-2368	16 5/8 x 6 3/4 x 19 1/4"	28	32.05	28.85	25.65

SERIES SIXTY SLIDING DESK TOP

Surface light gray Formica. Usable area 11" x 16 1/8". Supports 75 lbs. of distributed weight. Occupies 1 3/4" panel space (height). Fits flush with front of unit when not in use. Mounts directly to uprights in Series 60 Cabinet Racks.

Stk. No.	Type	Clr.	WxD	Panel Size	1-3	4-6	7-9
93F048	60-2361	Sm Gr.	16 7/8 x 15 1/8"	19 x 13 1/4"	16.65	15.00	13.35

SERIES 60 DESK TOP DRAWER

Spacious drawer for small tools and components, circuit designs and manuals. Front panel is 3 1/4" x 19". Hinged desk top is Formica bonded to aluminum and has piano-type hinge. Latch on front panel locks and releases drawer as well as releasing top. In smooth blue or smooth grey enamel. Hardwearing.

Stk. No. Blue	Stk. No. Grey	Type	Size Inside	1-3	4-6	7-9
93F049	93F050	60-2363	16 5/8 x 3 1/4 x 15"	55.00	49.50	44.00

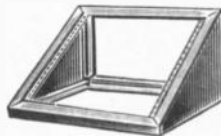
Cabinet Accessories



SERIES SIXTY TURRETS

Made of 16 gauge steel; designed so that any one of three sides may be attached to a Series Sixty upright rack or any horizontal surface. Accommodate standard 19" panels. All mounting rails have universal spacing. Sides easily removed when a series of interconnecting turrets are desired.

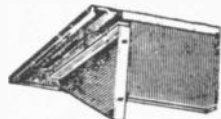
Stk. No.	Blue	Stk. No.	Gray	Type	WxDxH	Sl. Sp.	Bottom Pnl. Sp.	Rear Pnl. Sp.	Lbs.	Net Each. Lots of		
										1-3	4-6	7-9
93F094		93F097		60-2364	22 1/4 x 17 1/2 x 12 3/8"	17 1/2"	14"	8 3/4"	17	39.05	35.15	31.25
93F095		93F098		60-2365	22 1/4 x 14 3/8 x 10 3/8"	12 3/4"	10 1/2"	7"	14	32.55	29.30	26.05
93F096		93F099		60-2366	22 1/4 x 20 1/4 x 14 3/8"	21"	17 1/2"	10 1/2"	20	41.00	36.90	32.80



SHELF ASSEMBLY

Shell assembly does not require a panel for support. 16 gauge steel. Overall height 7 inches. Colors are Black wrinkle, Gray wrinkle and Light Gray Hammertone. Fits any standard relay rack.

Black	Gray	HG	Type	Size	Lbs.	1-14	15-24	25-34
91F878	91F880	91F882	SA-1719	16 x 22"	14	12.00	10.80	9.60
91F879	91F881	91F883	SA-1720	20 x 22"	15	12.15	10.95	9.70



RACK SHELVES

Heavy gauge steel shelves. Slide in from rear of cabinet. Require chassis support angles. Black enamel finish.

Stk. No.	Type	Size	Lbs.	1-24	25-49	50-99
91F082	CB-1976	19x1x15"	6 1/2	3.80	3.40	3.05
91F093	CB-1977	19x1x12"	5 1/2	2.90	2.60	2.30

CHASSIS SUPPORTING ANGLES

Afford ample support for standard 17" width chassis or shelves 1/2" steel. Black. Supplied in pairs.

Stk. No.	Type	Length	Width	Lbs.	1-24	25-49	50-99
91F090	SA-1349	14 1/2"	3"	4	2.45	2.20	1.95
91F091	SA-1350	12"	3"	3	2.40	2.15	1.90

CHASSIS MOUNTING BRACKETS

Insure proper support of chassis in rack. Formed of heavy gauge steel, cut away at bottom to provide clearance for flush mounting of chassis. Black enamel finish. *For chassis height of 4". Supplied in pairs.

Stk. No.	Type	Dimensions	Lbs.	1-49	50-99	100-149
91F070	MB-458	6 1/2 x 8"	1 1/4	1.50	1.35	1.20
91F071	MB-448	6 1/2 x 10"	1 3/4	1.50	1.35	1.20
91F072	MB-459	6 1/2 x 11"	2	1.65	1.50	1.30
91F073	MB-449	6 1/2 x 12"	2	1.95	1.75	1.55
91F074	MB-460	8 1/2 x 13"	2 1/2	1.85	1.65	1.50
91F075	MB-450*	8 1/2 x 10"	2 1/4	2.15	1.95	1.70
91F076	MB-451*	8 1/2 x 13"	3	2.30	2.05	1.85

TRIANGULAR TYPE CHASSIS MOUNTING BRACKETS

These brackets will insure proper support of chassis in rack. Constructed of heavy 16 gauge steel with 3/4" flange. Finished in black enamel. Made in a triangular shape for added convenience. Sold in pairs only.



Stk. No.	Type	Ht.	Dep.	Wt. Lbs.	1-49 Pair	50-99 Pair	100-149 Pair
91F484	MB1266	5"	5"	1	1.15	1.05	.90
91F485	MB1267	7"	7"	1	1.35	1.20	1.10
91F486	MB1268	9"	9"	1 1/2	1.65	1.50	1.30

STEEL CHASSIS

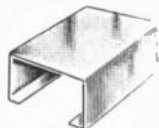
Chassis is made from one piece of metal. Corners are reinforced and spot welded. Four sides are folded in at the bottom for additional strength. Zinc plated.

* 22 gauge † 20 gauge ‡ 18 gauge

Stock No.	Type	Dimen.	Wt. Lbs.	1-24	25-49	50-99
90F780	CB-101	5 1/2 x 5 1/2 x 1"	3/4	1.69	1.45	1.30
90F781	CB-102	4 1/2 x 8 x 1 1/2"	1	1.75	1.60	1.40
90F782	CB-103	5 x 9 x 1 1/2"	1	1.55	1.40	1.25
90F783	CB-104	6 x 8 x 2"	1 1/2	1.75	1.60	1.40
90F784	CB-105	5 x 13 x 3"	1 3/4	2.55	2.30	2.00
90F785	CB-106	12 x 12 x 3"	2	3.65	3.30	2.90
90F785	CB-629	5 x 7 x 2"	1	1.60	1.45	1.30
90F786	CB-645	5 x 9 1/2 x 2 1/2"	1 1/4	2.05	1.85	1.65
90F787	CB-776	5 x 9 1/2 x 1 1/2"	1	2.05	1.85	1.65
90F831	CB-605	5 x 10 x 3"	1 1/4	2.25	2.05	1.80
90F788	CB-756	6 x 14 x 3"	1 3/4	2.50	2.25	2.00
90F832	CB-1191	7 x 7 x 2"	1 1/4	1.80	1.60	1.45
90F833	CB-1192	7 x 9 x 2"	1 1/2	1.95	1.75	1.55
90F834	CB-1193	7 x 11 x 2"	1 1/2	2.05	1.85	1.65
90F789	CB-793	7 x 12 x 3"	1 3/4	2.55	2.30	2.05
90F835	CB-1194	7 x 13 x 2"	2	2.30	2.05	1.85
90F790	CB-1198	5 x 13 1/2 x 2 1/2"	1 3/4	2.65	2.40	2.10
90F791	CB-1189	7 x 15 x 3"	2	2.90	2.60	2.30
90F792	CB-666	18 x 15 x 3"	2 1/2	3.30	2.95	2.65
90F837	CB-1068	4 x 17 x 3"	2 1/4	2.60	2.35	2.10
90F793	CB-1199	7 x 17 x 2 1/2"	2 1/2	2.85	2.55	2.30
90F853	CB-758	7 x 17 x 3"	1 3/4	3.15	2.85	2.50
90F794	CB-702	8 x 10 x 2 1/2"	2	2.40	2.15	1.90
90F795	CB-704	8 x 12 x 2 1/2"	2 1/2	2.70	2.45	2.15
90F854	CB-760	8 x 12 x 3"	1 3/4	2.85	2.55	2.30
90F838	CB-774	8 x 17 x 3"	2 1/2	2.85	2.55	2.30
90F839	CB-775	8 x 17 x 2"	3 1/4	2.90	2.60	2.35
90F840	CB-1195	10 x 12 x 3"	3	2.75	2.50	2.20
90F841	CB-779	10 x 14 x 3"	4	2.95	2.65	2.35
90F842	CB-769	10 x 17 x 2"	3 1/4	2.90	2.60	2.30
90F796	CB-637	10 x 17 x 3"	4	3.45	3.10	2.75
90F843	CB-1196	10 x 17 x 3"	5	3.70	3.35	2.95
90F797	CB-1197	10 x 23 x 3"	5 1/2	4.15	3.75	3.35
90F846	CB-770	11 x 17 x 2"	4 1/2	3.40	3.05	2.70
90F847	CB-771	11 x 17 x 3"	4 1/2	4.25	3.85	3.40
90F848	CB-661	12 x 17 x 2"	4 1/2	3.75	3.40	3.00
90F849	CB-662	12 x 17 x 3"	5 1/4	4.45	4.00	3.55
90F850	CB-772	13 x 17 x 2"	5	4.50	4.05	3.60
90F851	CB-773	13 x 17 x 3"	5 1/2	4.95	4.45	3.95
90F844	CB-641	10 x 17 x 4"	6 1/2	4.30	3.85	3.45
90F852	CB-643	13 x 17 x 4"	7 1/2	5.65	5.10	4.50
90F798	CB-624	10 x 17 x 5"	7 1/2	6.50	5.85	5.20
90F799	CB-626	13 x 17 x 5"	8	7.20	6.50	5.75

OPEN END CHASSIS BASES

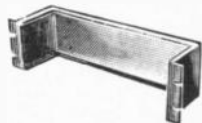
Precision-made of aluminum alloy 5005 H-14 with 1/4" base flanges for attaching bottom plate or fastening down of chassis. Natural aluminum finish. Extremely useful for a wide variety of applications.



Stk. No.	Type	DxWxH	Lbs.	1-24	25-49	50-99
91F727	CB1623	2 1/2 x 2 3/4 x 1 1/4"	1/4	.45	.40	.35
91F728	CB1624	1 3/4 x 3 1/4 x 1"	1/4	.50	.45	.40
91F729	CB1625	3 1/4 x 4 1/2 x 2"	1/4	.60	.55	.50
91F731	CB1627	3 3/4 x 4 1/2 x 1 1/2"	1/4	.55	.50	.45
91F732	CB1628	3 x 6 x 1 1/4"	1/4	.65	.60	.50
91F733	CB1629	5 1/4 x 4 1/2 x 1 1/2"	1/4	.70	.65	.55
91F734	CB1617	4 x 3 x 1 1/2"	1/2	.50	.45	.40
91F735	CB1618	4 x 4 1/2 x 1"	1/2	.60	.55	.50
91F736	CB1619	4 x 5 1/2 x 1"	1/2	.65	.60	.50
91F737	CB1620	4 x 6 1/2 x 1"	1/2	.70	.65	.55
91F696	CB1626	2 3/4 x 4 1/2 x 1"	1/4	.55	.50	.45
91F368	CB30	5 x 7 x 1 1/2"	3/4	1.05	.95	.85
91F369	CB38	7 x 6 x 2"	1	1.10	1.00	.90
91F370	CB39	7 x 8 x 2"	3/4	1.30	1.15	1.05
91F371	CB40	7 x 10 x 2"	1 1/4	1.50	1.35	1.20
91F372	CB996	5 1/2 x 9 x 1 1/2"	1	1.30	1.15	1.05
91F373	CB997	7 x 11 x 1 1/2"	1 1/4	1.60	1.45	1.30
91F374	CB998	7 x 13 x 1 1/2"	1 1/2	1.95	1.75	1.55

VERTICAL PANEL CHASSIS

Panel mounting chassis for vertical installation where depth is limited or front service is desired. Made of .062" aluminum alloy 5005 H-14 in natural finish. Front flange has standard notching. Fits standard 19" panel space.



Stk. No.	Type	Ht.	Wt. Lbs.	1-24	25-49	50-99
91F493	CB1370	1 3/4"	3/4	2.80	2.50	2.25
91F494	CB1371	3 1/2"	1 1/4	3.15	2.85	2.50
91F495	CB1372	5 1/4"	1 1/2	3.40	3.05	2.70
91F496	CB1373	7"	2	3.95	3.55	3.15
91F497	CB1374	8 3/4"	2 1/4	4.55	4.10	3.65
91F498	CB1375	10 1/2"	2 3/4	5.35	4.80	4.30
91F499	CB1376	12 1/4"	3	5.85	5.25	4.70
91F479	CB1377	14"	3 1/4	6.45	5.80	5.15

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Chassis & Panels

ALUMINUM CHASSIS

Heavy-duty construction, spot welded corners and folded over on the bottom for extra strength. Aluminum finish.

Stock No.	Mfg. No.	Dimen.	Wt. Lbs.	1-24	25-49	50-99
91F1319	AC-401	2 1/2" x 4 1/2" x 1"	1/4	1.15	1.05	.90
91F1320	AC-402	3 1/2" x 4 1/2" x 1"	1/4	1.20	1.10	.95
91F1321	AC-403	3 1/2" x 5 1/2" x 1"	1/4	1.20	1.10	.95
91F1322	AC-404	4" x 5" x 2"	1/2	1.40	1.25	1.10
91F1323	AC-405	4" x 6" x 1 1/2"	1/2	1.30	1.20	1.05
90F940	AC-430	4" x 6" x 3"	1/2	1.60	1.45	1.30
90F941	AC-431	4" x 6" x 2"	1/2	1.40	1.25	1.10
91F1324	AC-406	4" x 8" x 2"	3/4	1.70	1.55	1.35
90F942	AC-432	4" x 17" x 3"	1	2.85	2.55	2.30
91F1325	AC-407	4 1/2" x 8" x 1 1/2"	3/4	1.30	1.20	1.05
90F943	AC-402	5" x 7" x 2"	1/2	1.45	1.30	1.15
90F944	AC-429	5" x 7" x 3"	1/2	1.75	1.55	1.40
91F1326	AC-408	5" x 9" x 1 1/2"	1/2	1.40	1.25	1.10
91F1327	AC-409	5" x 9 1/2" x 1 1/2"	1/2	1.40	1.25	1.10
90F945	AC-403	5" x 9 1/2" x 2"	1/2	1.55	1.40	1.25
90F939	AC-401	5" x 9 1/2" x 2 1/2"	3/4	1.80	1.60	1.45
90F946	AC-421	5" x 9 1/2" x 3"	3/4	2.00	1.80	1.60
90F947	AC-404	5" x 10" x 3"	3/4	2.25	2.00	1.75
90F948	AC-422	5" x 13" x 3"	3/4	2.30	2.05	1.85
91F1328	AC-410	5" x 13 1/2" x 2 1/2"	3/4	1.85	1.65	1.50
91F1329	AC-1411	5 1/2" x 5 1/2" x 1"	1/2	1.30	1.20	1.05
91F1330	AC-1412	5 1/2" x 9 1/2" x 1 1/2"	1	1.40	1.25	1.10
91F1331	AC-1413	6" x 8" x 2"	1 1/2	1.70	1.55	1.35
91F1332	AC-1414	6" x 14" x 3"	1 1/4	2.80	2.50	2.25
90F949	AC-433	6" x 17" x 3"	1 1/4	3.30	2.95	2.65
90F950	AC-405	7" x 7" x 2"	1/2	1.65	1.50	1.30
90F951	AC-406	7" x 9" x 2"	1/2	1.75	1.60	1.40
90F952	AC-407	7" x 11" x 2"	1/2	2.00	1.80	1.60
90F953	AC-408	7" x 12" x 3"	1	2.40	2.15	1.90
90F954	AC-409	7" x 13" x 3"	3/4	2.10	1.90	1.70
91F1333	AC-1415	7" x 15" x 2"	1 1/4	2.65	2.40	2.10
90F955	AC-411	7" x 15" x 3"	1 1/2	3.30	2.95	2.60
91F1334	AC-1416	7" x 17" x 2"	1 3/4	2.90	2.60	2.30
91F1335	AC-1417	7" x 17" x 2 1/2"	1 3/4	3.00	2.70	2.40
90F956	AC-423	7" x 17" x 3"	1 3/4	3.35	3.00	2.70
91F1336	AC-1418	8" x 10" x 2 1/2"	2	2.50	2.25	2.00
91F1337	AC-1419	8" x 12" x 2 1/2"	1 1/2	2.80	2.50	2.25
90F957	AC-424	8" x 12" x 3"	1 3/4	2.95	2.65	2.35
90F958	AC-425	8" x 17" x 2"	2 1/4	3.10	2.80	2.50
90F959	AC-412	8" x 17" x 3"	1 3/4	3.45	3.10	2.75
91F1338	AC-1420	8 1/2" x 15" x 3"	1 1/2	2.90	2.60	2.30
91F1339	AC-1421	9" x 15" x 3"	1 3/4	3.50	3.15	2.80
90F960	AC-413	10" x 12" x 3"	1 1/2	3.30	2.95	2.65
90F961	AC-414	10" x 14" x 3"	1 3/4	3.45	3.10	2.75
90F962	AC-415	10" x 17" x 2"	2 1/4	3.30	2.95	2.65
90F963	AC-416	10" x 17" x 3"	2	3.85	3.45	3.10
90F964	AC-427	10" x 17" x 4"	3 1/4	5.50	4.95	4.40
91F1340	AC-1422	10" x 17" x 5"	3 3/4	7.90	7.10	6.30
91F1341	AC-1423	10" x 23" x 3"	4	5.40	4.85	4.30
90F965	AC-426	11" x 17" x 2"	2 1/4	4.20	3.80	3.35
90F965	AC-417	11" x 17" x 3"	2 3/4	4.85	4.35	3.90
91F1342	AC-1424	12" x 12" x 3"	1 3/4	3.30	2.95	2.65
91F1343	AC-1425	12" x 17" x 2"	2 1/4	4.40	3.95	3.50
90F966	AC-418	12" x 17" x 3"	2 3/4	4.95	4.45	3.95
90F967	AC-419	13" x 17" x 2"	2 1/2	4.30	3.85	3.45
90F968	AC-420	13" x 17" x 3"	2 3/4	5.15	4.65	4.10
90F970	AC-428	13" x 17" x 4"	3 3/4	6.40	5.75	5.10
91F1344	AC-1426	13" x 17" x 5"	4	8.75	7.90	7.00
91F1345	AC-1427	14" x 17" x 3"	3 1/4	6.15	5.55	4.90
91F1346	AC-1428	15" x 17" x 4"	4 1/4	8.75	7.90	7.00
91F1347	AC-1429	15" x 17" x 6"	5	11.90	10.70	9.50
91F1348	AC-1430	17" x 17" x 3"	5 1/4	7.05	6.35	5.65
91F1349	AC-1431	17" x 17" x 4"	5 1/2	10.35	9.30	8.30

NEW FLANGED PANELS



Panels made of 16 gauge steel with 1/2" flange all around. Elongated hole is .281" x .500". Spacing of holes conforms to W.E. spacing on panel mtg. rails. Stk. 19" panels. Finishes: gray wrinkle (G), black

B Stk. No.	G Stk. No.	HG Stk. No.	SG Stk. No.	SB Stk. No.	S Stk. No.	CG Stk. No.	Type	Height	Lbs.	1-49	50-99	100-149
91F1480	91F1492	91F1504	91F1516	91F1528	91F1540	91F1552	FPS-1230	1 3/4"	1 1/4"	1.15	1.05	.92
91F1481	91F1493	91F1505	91F1517	91F1529	91F1541	91F1553	FPS-1231	3 1/2"	2 1/4"	1.20	1.10	.96
91F1482	91F1494	91F1506	91F1518	91F1530	91F1542	91F1554	FPS-1232	5 1/4"	3 1/4"	1.40	1.25	1.12
91F1483	91F1495	91F1507	91F1519	91F1531	91F1543	91F1555	FPS-1233	7"	5"	1.60	1.45	1.30
91F1484	91F1496	91F1508	91F1520	91F1532	91F1544	91F1556	FPS-1234	8 3/4"	6"	2.00	1.80	1.60
91F1485	91F1497	91F1509	91F1521	91F1533	91F1545	91F1557	FPS-1235	10 1/2"	7"	2.40	2.15	1.90
91F1486	91F1498	91F1510	91F1522	91F1534	91F1546	91F1558	FPS-1236	12 1/4"	8 1/4"	2.80	2.50	2.25
91F1487	91F1499	91F1511	91F1523	91F1535	91F1547	91F1559	FPS-1237	14"	9 1/2"	3.20	2.90	2.55
91F1488	91F1500	91F1512	91F1524	91F1536	91F1548	91F1560	FPS-1238	15 3/4"	10 3/4"	3.65	3.30	2.90
91F1489	91F1501	91F1513	91F1525	91F1537	91F1549	91F1561	FPS-1239	17 1/2"	11 3/4"	4.10	3.70	3.30
91F1490	91F1502	91F1514	91F1526	91F1538	91F1550	91F1562	FPS-1240	19 1/4"	13"	4.50	4.05	3.60
91F1491	91F1503	91F1515	91F1527	91F1539	91F1551	91F1563	FPS-1241	21"	14 1/4"	4.90	4.40	3.90

wrinkle (B), gray hammertone (HG), smooth light gray (SG), smooth light blue (SB), charcoal gray (CG), and sand (S).

ALUMINUM CHASSIS BOTTOM PLATES

Excellent dust covers and protects wiring and components of chassis. Plates have 4 formed bases which prevent scratching. Aluminum finish.

Stock No.	Mfg. No.	Dimen.	Wt. Lbs.	1-24	25-49	50-99
91F1406	BPA-1501	2 1/2" x 4 1/2"	1/12	.60	.55	.50
91F1407	BPA-1502	3 1/2" x 4 1/2"	1/11	.65	.60	.50
91F1408	BPA-1503	3 1/2" x 5 1/2"	1/10	.70	.65	.55
91F1409	BPA-1504	4" x 5"	1/10	.70	.65	.55
91F1410	BPA-1505	4" x 6"	1/9	.75	.70	.60
91F1411	BPA-1506	4" x 8"	3/16	.90	.80	.70
91F1412	BPA-1507	4" x 17"	1/3	.90	.80	.70
90F860	BPA-1589	4 1/2" x 8"	1/8	1.00	.90	.80
91F1414	BPA-1508	5" x 7"	1/8	.80	.70	.65
90F861	BPA-1590	5" x 9"	1/4	.85	.75	.65
90F862	BPA-1591	5" x 9 1/2"	1/4	.85	.75	.70
91F1415	BPA-1509	5" x 10"	1/3	1.25	1.15	1.00
91F1416	BPA-1510	5" x 13 1/2"	1/3	1.30	1.15	1.05
91F1417	BPA-1511	5 1/2" x 5 1/2"	1/4	.80	.70	.65
91F1418	BPA-1512	5 1/2" x 9 1/2"	1/4	.90	.80	.70
91F1419	BPA-1513	6" x 8"	1/3	1.00	.90	.80
91F1420	BPA-1514	6" x 14"	1/2	1.25	1.15	1.00
91F1421	BPA-1515	6" x 17"	5/8	1.55	1.40	1.25
90F863	BPA-1592	7" x 7"	1/3	.85	.75	.70
90F864	BPA-1593	7" x 9"	1/3	.90	.80	.70
90F865	BPA-1594	7" x 11"	1/3	1.00	.90	.80
90F866	BPA-1595	7" x 12"	1/2	1.05	.95	.85
90F867	BPA-1596	7" x 13"	1/2	1.25	1.15	1.00
91F1422	BPA-1516	7" x 15"	5/8	1.45	1.30	1.15
91F1423	BPA-1517	7" x 17"	5/8	1.45	1.30	1.15
91F1424	BPA-1518	8" x 10"	1/2	1.30	1.15	1.05
91F1425	BPA-1519	8" x 12"	1/2	1.65	1.50	1.30
91F1426	BPA-1520	8" x 17"	5/8	1.70	1.55	1.35
91F1427	BPA-1521	8 1/2" x 15"	5/8	1.95	1.75	1.55
91F1428	BPA-1522	9" x 15"	5/8	2.00	1.80	1.60
91F1429	BPA-1523	10" x 12"	1/2	1.65	1.50	1.30
91F1430	BPA-1524	10" x 14"	5/8	1.65	1.50	1.30
90F868	BPA-1597	10" x 17"	3/4	1.85	1.50	1.30
91F1431	BPA-1525	10" x 23"	1	2.40	2.15	1.90
91F1432	BPA-1526	11" x 17"	3/4	1.85	1.65	1.50
91F1433	BPA-1527	12" x 12"	2/3	1.85	1.65	1.50
91F1434	BPA-1528	12" x 17"	3/4	2.20	2.00	1.75
90F869	BPA-1598	13" x 17"	3/4	2.30	2.05	1.85
91F1435	BPA-1529	14" x 17"	3/4	2.30	2.05	1.85
91F1436	BPA-1530	15" x 17"	1	3.15	2.85	2.50
91F1437	BPA-1531	17" x 17"	1-1/4	3.20	2.90	2.55



NEW CLASSIC CABINETS

.050 patterned aluminum panels (19") on 4 sides. 6063-T5 aluminum extrusions. Steel chassis support. Depth 17". Vinyl texture. Charcoal gray or sand.

Sand Stk. No.	CG Stk. No.	Type	AGC	Height	Panel Space	Lbs. Wt.	1-4	5-9	10-14
91F1376	91F1391	266	AGC	45 3/4"	3 1/2"	17	80.90	72.80	64.70
91F1377	91F1392	267	AGC	64 1/4"	5 1/4"	18 1/2	83.00	74.70	66.40
91F1378	91F1393	268	AGC	82 5/8"	7"	20	87.50	78.75	70.00
91F1379	91F1394	269	AGC	106 1/2"	8 3/4"	21 1/2	89.60	80.65	71.70
91F1380	91F1395	270	AGC	115 3/4"	10 1/2"	23	92.70	83.45	74.15
91F1381	91F1396	271	AGC	134 1/4"	12 1/4"	24 1/2	96.35	86.70	77.10
91F1382	91F1397	272	AGC	152 5/8"	14"	26	99.35	89.40	79.50
91F1383	91F1398	273	AGC	176 1/2"	15 3/4"	27 1/2	103.00	92.70	82.40
91F1384	91F1399	274	AGC	185 3/4"	17 1/2"	29	106.00	95.40	84.80
91F1385	91F1400	275	AGC	204 1/4"	19 1/4"	30 1/2	108.50	97.65	86.80
91F1386	91F1401	276	AGC	222 3/4"	21"	32	112.00	101.00	89.60
91F1387	91F1402	277	AGC	246 1/4"	22 3/4"	33 1/2	115.00	103.50	92.00
91F1388	91F1403	278	AGC	258 3/4"	24 1/2"	35	118.00	106.	

Rack Panels



● NEW CLASSIC DOORS

For use with Classic Cabinets, racks with 19" panel space. 1/8" 5005-H36 aluminum alloy.

Sand Stk. No.	CG Stk. No.	Type	Height	Lbs.	1-4	5-9	10-14	Sand Stk. No.	CG Stk. No.	Type	Height	Lbs.	1-4	5-9	10-14
91F1450	91F1465	AGD-366	3 1/2"	1	6.00	5.40	4.80	91F1458	91F1473	AGD-374	17 1/2"	5	14.00	12.60	11.20
91F1451	91F1466	AGD-367	5 1/4"	2	7.30	6.55	5.85	91F1459	91F1474	AGD-375	19 1/4"	6	14.90	13.40	11.90
91F1452	91F1467	AGD-368	7"	2	8.50	7.65	6.80	91F1460	91F1475	AGD-376	21"	7	15.90	14.30	12.70
91F1453	91F1468	AGD-369	8 3/4"	3	9.50	8.55	7.60	91F1461	91F1476	AGD-377	22 3/4"	8	16.70	15.00	13.35
91F1454	91F1469	AGD-370	10 1/2"	3	10.40	9.35	8.30	91F1462	91F1477	AGD-378	24 1/2"	8	17.50	15.75	14.00
91F1455	91F1470	AGD-371	12 1/4"	4	11.40	10.25	9.10	91F1463	91F1478	AGD-379	26 1/4"	9	18.70	16.85	14.95
91F1456	91F1471	AGD-372	14"	4	12.20	11.00	9.75	91F1464	91F1479	AGD-380	28"	9	19.90	17.90	15.90
91F1457	91F1472	AGD-373	15 3/4"	5	13.00	11.70	10.40								

STEEL RACK PANELS

Heavy duty rack panels made of 1/8" steel. Choice of 19" or 24" widths. All panels having standard notched edges which are able to fit the normal mounting screw spacing of all standard relay

racks and telephone type relay racks. All wrinkle rack panels are available in a choice of five colors: black, grey, wrinkle hammer-tone grey, smooth blue, and smooth grey.

19" PANEL WIDTHS

Stock No. Black	Stock No. Grey	Stock No. Ham. Grey	Stock No. Smooth Blue	Stock No. Smooth Grey	Type	Lbs.	Height	1-49	50-99	100-149
91F300	91F320	91F435	91F400	91F412	PS-1250	1 1/4	13 1/4"	1.00	.90	.80
91F301	91F321	91F436	91F401	91F413	PS-1251	2 1/4	3 1/2"	1.20	1.10	.95
91F302	91F322	91F437	91F402	91F414	PS-1252	3 1/4	5 1/4"	1.55	1.40	1.25
91F303	91F323	91F438	91F403	91F415	PS-1253	4 1/2	7"	1.70	1.50	1.35
91F304	91F324	91F439	91F404	91F416	PS-1254	6	8 3/4"	2.15	1.95	1.70
91F305	91F325	91F440	91F405	91F417	PS-1255	7	10 1/2"	2.30	2.07	1.84
91F306	91F326	91F441	91F406	91F418	PS-1256	8 1/4	12 1/4"	2.65	2.39	2.12
91F307	91F327	91F442	91F407	91F419	PS-1257	9 1/2	14"	3.10	2.79	2.48
91F308	91F328	91F443	91F408	91F420	PS-1258	10 3/4	15 3/4"	3.40	3.06	2.72
91F309	91F329	91F444	91F409	91F421	PS-1259	11 3/4	17 1/2"	3.85	3.47	3.08
91F310	91F330	91F445	91F410	91F422	PS-1260	13	19 1/4"	4.20	3.78	3.36
91F311	91F331	91F446	91F411	91F423	PS-1261	14 1/4	21"	4.70	4.23	3.76

24" PANEL WIDTHS

Stock No. Black	Stock No. Grey	Stock No. Ham. Grey	Stock No. Smooth Blue	Stock No. Smooth Grey	Type	Lbs.	Height	1-49	50-99	100-149
93F300	93F313	93F325	93F337	93F349	PS-3420	1 1/2	13 1/4"	1.40	1.25	1.10
93F301	93F314	93F326	93F338	93F350	PS-3421	2 1/2	3 1/2"	1.60	1.45	1.30
93F302	93F315	93F327	93F339	93F351	PS-3422	3 3/4	5 1/4"	2.00	1.80	1.60
93F303	93F316	93F328	93F340	93F352	PS-3423	5	7"	2.25	2.05	1.80
93F304	93F317	93F329	93F341	93F353	PS-3424	6 3/4	8 3/4"	2.80	2.50	2.25
93F305	93F318	93F330	93F342	93F354	PS-3425	7 3/4	10 1/2"	3.35	3.00	2.70
93F306	93F319	93F331	93F343	93F355	PS-3426	9	12 1/4"	3.95	3.55	3.15
93F307	93F320	93F332	93F344	93F356	PS-3427	10 1/4	14"	4.55	4.10	3.65
93F308	93F321	93F333	93F345	93F357	PS-3428	11 3/4	15 3/4"	5.15	4.65	4.10
93F309	93F322	93F334	93F346	93F358	PS-3429	12 1/2	17 1/2"	5.70	5.15	4.55
93F310	93F323	93F335	93F347	93F359	PS-3430	14	19 1/4"	6.35	5.70	5.10
93F311	93F324	93F336	93F348	93F360	PS-3431	14 3/4	21"	7.00	6.30	5.60

ALUMINUM RACK PANELS

Available in 1/8" or 3/16" aluminum. Choice of standard 19" or 24" widths. Panels have notched edges which are made to fit

the mounting screw spacing of all standard racks. Available in choice of five colors listed below. * Wrinkle finish.

1/8" PANELS 19" WIDTHS

Stock No. Black*	Stock No. Grey*	Stock No. Ham. Grey	Stock No. Smooth Blue	Stock No. Smooth Grey	Type	Lbs.	Height	1-49	50-99	100-149
91F340	91F360	91F388	91F240	91F252	PA-1101	1/4	13 1/4"	1.25	1.15	1.00
91F341	91F361	91F389	91F241	91F253	PA-1102	3/4	3 1/2"	1.65	1.50	1.30
91F342	91F362	91F390	91F242	91F254	PA-1103	1	5 1/4"	2.20	2.00	1.75
91F343	91F363	91F391	91F243	91F255	PA-1104	1 3/4	7"	2.80	2.50	2.25
91F344	91F364	91F392	91F244	91F256	PA-1105	2	8 3/4"	3.25	2.95	2.60
91F345	91F365	91F393	91F245	91F257	PA-1106	2 1/2	10 1/2"	4.15	3.75	3.30
91F346	91F366	91F394	91F246	91F258	PA-1107	2 3/4	12 1/4"	4.75	4.30	3.80
91F347	91F367	91F395	91F247	91F259	PA-1108	3	14"	5.50	4.95	4.40
91F348	91F368	91F396	91F248	91F260	PA-1109	3 1/2	15 3/4"	6.15	5.55	4.90
91F349	91F369	91F397	91F249	91F261	PA-1110	4	17 1/2"	6.75	6.10	5.40
91F350	91F370	91F398	91F250	91F262	PA-1111	4 1/4	19 1/4"	7.35	.65	5.90
91F351	91F371	91F399	91F251	91F263	PA-1112	5	21"	8.10	7.30	6.50

1/8" PANELS 24" WIDTHS

Stock No. Black*	Stock No. Grey*	Stock No. Ham. Grey	Stock No. Smooth Blue	Stock No. Smooth Grey	Type	Lbs.	Height	1-49	50-99	100-149
93F361	93F373	93F385	93F397	93F409	PA-2401	1/2	13 1/4"	1.80	1.60	1.45
93F362	93F374	93F386	93F398	93F410	PA-2402	1	3 1/2"	2.30	2.05	1.85
93F363	93F375	93F387	93F399	93F411	PA-2403	1 1/2	5 1/4"	3.15	2.85	2.50
93F364	93F376	93F388	93F400	93F412	PA-2404	2 1/4	7"	3.95	3.55	3.15
93F365	93F377	93F389	93F401	93F413	PA-2405	2 1/2	8 3/4"	4.60	4.15	3.70
93F366	93F378	93F390	93F402	93F414	PA-2406	3	10 1/2"	5.90	5.30	4.70
93F367	93F379	93F391	93F403	93F415	PA-2407	3 1/4	12 1/4"	6.65	6.00	5.30
93F368	93F380	93F392	93F404	93F416	PA-2408	3 1/2	14"	7.75	7.00	6.20
93F369	93F381	93F393	93F405	93F417	PA-2409	4	15 3/4"	8.70	7.85	6.95
93F370	93F382	93F394	93F406	93F418	PA-2410	4 3/4	17 1/2"	9.55	8.60	7.65
93F371	93F383	93F395	93F407	93F419	PA-2411	5 1/4	19 1/4"	10.50	9.45	8.40
93F372	93F384	93F396	93F408	93F420	PA-2412	5 1/2	21"	11.55	10.40	9.25

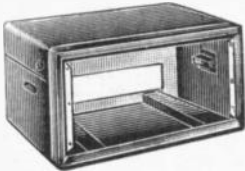
3/16" PANELS 24" WIDTHS

Stock No. Black*	Stock No. Grey*	Stock No. Ham. Grey	Stock No. Smooth Blue	Stock No. Smooth Grey	Type	Lbs.	Height	1-49	50-99	100-149
93F421	93F433	93F445	93F457	93F469	PA-2431	1	13 1/4"	3.25	2.95	2.60
93F422	93F434	93F446	93F458	93F470	PA-2432	1 1/2	3 1/2"	4.20	3.80	3.40
93F423	93F435	93F447	93F459	93F471	PA-2433	2	5 1/4"	5.80	5.20	4.65
93F424	93F436	93F448	93F460	93F472	PA-2434	2 3/4	7"	7.15	6.45	5.70
93F425	93F437	93F449	93F461	93F473	PA-2435	3 1/2	8 3/4"	8.40	7.55	6.70
93F426	93F438	93F450	93F462	93F474	PA-2436	4	10 1/2"	10.65	9.60	8.50
93F427	93F439	93F451	93F463	93F475	PA-2437	4 3/4	12 1/2"	12.10	10.90	9.70
93F428	93F440	93F452	93F464	93F476	PA-2438	5 1/2	14"	14.20	12.80	11.35
93F429	93F441	93F453	93F465	93F477	PA-2439	6	15 3/4"	15.80	14.20	12.65
93F430	93F442	93F454	93F466	93F478	PA-2440	6 3/4	17 1/2"	17.35	15.60	13.90
93F431	93F443	93F455	93F467	93F479	PA-2441	7 1/2	19 1/4"	19.10	17.20	15.30
93F432	93F444	93F456	93F468	93F480	PA-2442	7 3/4	21"	21.00	18.90	16.80



Cabinets and Accessories

"PRESTIGE" CABINETS



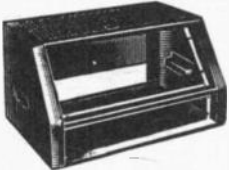
Prestige Cabinets

Stock cabinets of 18 gauge steel for housing quality instruments, etc. Hinged covers . . . solid or perforated. Grommets finger holes for easy cover lifting. Cover closes by pressure fasteners.

Chassis supporting channels and embossed feet. Width 21 $\frac{1}{2}$ ", Depth 14 $\frac{1}{4}$ ". Finished in gray hammetone.

Stock No.	Type No.	Cover	Overall Height	Panel Space	Lbs.	1-14	15-24	25-34
91F064	C-1440	Solid	9 $\frac{1}{2}$ "	7"	26	31.45	28.30	25.15
91F065	C-1441	Solid	11 $\frac{1}{4}$ "	8 $\frac{3}{4}$ "	27	33.15	29.85	26.50
91F066	C-1442	Solid	13"	10 $\frac{1}{2}$ "	29	36.15	32.55	28.90
91F067	C-1550	Perf.	9 $\frac{1}{2}$ "	7"	26	33.70	30.35	26.95
91F068	C-1551	Perf.	11 $\frac{1}{4}$ "	8 $\frac{3}{4}$ "	27	36.05	32.45	28.85
91F069	C-1552	Perf.	13"	10 $\frac{1}{2}$ "	29	39.20	35.30	31.35

PRESTIGE VERSA CABINETS



Sloping Panel Prestige Cabinet

Has sturdy framework with ball cornered sides. Unit also has solid bottom plate and two supporting channels. All of these parts are re-

movable. Unit uses standard 19" panels. Cabinets are made to be stacked, or may be fastened side by side. Grey Hammetone finish.

Stk. No.	Type	Overall Height	Panel Space	Rear Panel	Net Each. Lots of		
					1-14	15-24	25-34
91F906	PC-1700	8 $\frac{3}{4}$ "	5 $\frac{1}{4}$ "	3 $\frac{1}{2}$ "	30.05	27.05	24.05
91F907	PC-1701	10 $\frac{1}{2}$ "	7"	5 $\frac{1}{4}$ "	31.85	28.65	25.50
91F908	PC-1702	12 $\frac{1}{4}$ "	8 $\frac{3}{4}$ "	7"	33.90	30.50	27.10
91F909	PC-1703	14"	10 $\frac{1}{2}$ "	8 $\frac{3}{4}$ "	36.95	33.25	29.55
91F910	PC-1704	15 $\frac{3}{4}$ "	12 $\frac{1}{4}$ "	10 $\frac{1}{2}$ "	38.85	34.95	31.10

SLOPING PANEL PRESTIGE CABINETS

Cabinet has ventilated top, full top opening, recessed handle, shielded handles in sides. Top panel swept back for easy viewing, rear opening for easy cable or control access. Panel trim

bar removable. Provides for installation or removal of panels. Grey hammetone finish. Rear opening is 2 $\frac{1}{2}$ "x18", panel offset: 1 $\frac{1}{4}$ ". overall width: 22", pnl. ht. vert.: 3 $\frac{1}{2}$ ".

Stock No.	Type	Ht. x Depth	Pan. Ht. Slope	Shpg. Wt.	1-14	15-24	25-34
91F743	C-1555	11 $\frac{7}{8}$ x14 $\frac{3}{4}$ "	7"	22 lbs.	39.70	35.75	31.75
91F744	C-1556	13 $\frac{1}{4}$ x15 $\frac{1}{2}$ "	8 $\frac{3}{4}$ "	25 lbs.	42.65	38.40	34.10
91F745	C-1557	14 $\frac{3}{4}$ x16 $\frac{1}{4}$ "	10 $\frac{1}{2}$ "	28 lbs.	45.70	41.15	36.55

TRANSICASE



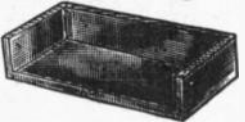
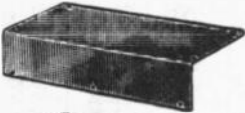
Tronsicase

A handsome new and portable instrument case. This contoured case is made of .040 aluminum and it has a flush fitting panel. Transicase has two slide off bright nickel plated hinges for

easy removal of top and has two bright nickel toggle catches. Also, bright nickel handle. Two types of finishes are available: smooth blue or smooth grey. Rubber feet on base and back.

Stk. No. BLUE	Stk. No. GREY	Type	W x D x H	Panel Size	Clear Int. Space Below Panel	Clear Int. Space Above Panel	Internal Aperture	Lbs.	1-49	50-99	100-149
91F911	91F916	TC-300	10 $\frac{1}{2}$ x7x6"	8 $\frac{1}{2}$ x5 $\frac{1}{8}$ "	4 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	8x5 $\frac{1}{8}$ "	3 $\frac{3}{4}$	26.20	23.60	20.95
91F912	91F917	TC-301	11 $\frac{1}{2}$ x8 $\frac{1}{4}$ x6"	10 $\frac{3}{8}$ x7 $\frac{1}{4}$ "	4 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	9 $\frac{7}{8}$ x7 $\frac{1}{2}$ "	4 $\frac{1}{2}$	26.80	24.10	21.45
91F913	91F918	TC-302	13x9x7 $\frac{1}{2}$ "	11 $\frac{1}{2}$ x7 $\frac{1}{2}$ "	5 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	10 $\frac{1}{2}$ x7 $\frac{1}{2}$ "	6	27.30	24.60	21.85
91F914	91F919	TC-303	16 $\frac{1}{2}$ x9x7 $\frac{1}{2}$ "	15 $\frac{1}{2}$ x7 $\frac{1}{2}$ "	5 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	14 $\frac{1}{2}$ x7 $\frac{1}{2}$ "	8	27.85	25.05	22.30
91F915	91F920	TC-304	20 $\frac{1}{2}$ x8x9"	19x7"	7 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	18 $\frac{1}{2}$ x7 $\frac{1}{2}$ "	10	29.30	26.35	23.45

CONVERTA-BOX



This new box enclosure consisting of a welded base and a two sided cover. Box may be easily mounted to any type of surface. Converta-Box

is made of 20 gauge steel. Hardware furnished: 8 self-tapping screws. The box has a cadmium-plated finish.

Stk. No.	Type	HxWxD	Lbs.	1-24	25-49	50-99
91F554	CU-341	1 $\frac{1}{2}$ x4x3"	$\frac{1}{2}$	2.10	1.90	1.70
91F555	CU-452	2x5x4"	1	2.20	2.00	1.75
91F556	CU-482	2x8x4"	1 $\frac{1}{4}$	2.30	2.05	1.85
91F557	CU-592	2 $\frac{1}{2}$ x9 $\frac{1}{2}$ x5"	1 $\frac{3}{4}$	2.50	2.25	2.00
91F558	CU-622	2 $\frac{1}{2}$ x12x6"	2 $\frac{3}{4}$	2.75	2.50	2.20
91F559	CU-712	2 $\frac{1}{2}$ x15x7"	3 $\frac{1}{2}$	3.65	3.30	2.90

RUBBER FEET

Type F-7264A. 1 $\frac{1}{2}$ x1 $\frac{1}{2}$ " thick black rubber. With hardware. 91F084. NET Each1.08 Per 1005.88

Type F-8038. $\frac{1}{2}$ " thick x $\frac{3}{4}$ " dia. Rubber protection pad. 3 oz. 91F085. NET Each02 Per 1001.58

CARRYING CASES



Portable cases for transceivers, test units and other types of compact equipment. Front and back panels are fastened by self-tapping screws. Have easy grip handle. Black wrinkle finish.

Stk. No.	Type	HxWxD	Lbs.	1-24	25-49	50-99
91F606	CC-1095	9x6x5"	3 $\frac{1}{4}$	3.65	3.30	2.90
91F608	CC-1092	7x12x8"	4	5.05	4.55	4.05
91F610	CC-1100	10x10x8"	5	5.85	5.25	4.70
91F611	CC-1091	6x9x5"	3 $\frac{1}{4}$	3.65	3.30	2.90
91F612	CC-1096	12x7x6"	4	5.05	4.55	4.05
91F613	CC-1097	15x7 $\frac{1}{4}$ x7"	5	5.65	5.10	4.50
91F614	CC-1093	9x15x7"	5	7.10	6.40	5.70

SLOPING PANEL SUPPORT

Designed for oblique view of instrument panel. Engineered so that the entire assembly occupies no more space than the size of the supported panel. Panel support cover can be removed for easy servicing or installation of instruments. Made of heavy gauge steel with attractive contoured edges.



Stk. No. Black	Stk. No. Grey	Stk. No. HG	Supports Panel	Type	Lbs.	1-24	25-49	50-99
91F690	91F691	91F692	7"x19"	1P-1120	3 $\frac{1}{4}$	5.00	4.50	4.00
91F693	91F694	91F695	10 $\frac{1}{2}$ "x19"	1P-1121	6 $\frac{3}{4}$	7.05	6.35	5.65

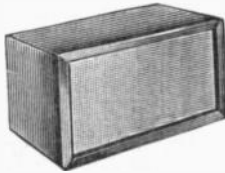
SAVE WORK! Make Newark your Complete 1-Point Stock Source!
SAVE TIME! At Newark—fast, efficient service always!
SAVE MONEY! Quantity Prices Competitive with Manufacturer!

Cabinets & Cases



"FUTURA" CABINETS

Versatile housing for small equipment. Made of 20-gauge steel except for front panel, which is 18-ga. Top and sides are one piece, easily removable to expose interior. Front panel is held by flanges (no screws to mar appearance); is vertical, except it rises vertically 2", then has 15° incline. Chassis may be attached to base, rear, or front panels. Has four rubber feet. Dark blue body with light gray panel, or light gray hammertone body, smooth panel.



Gray Stk.No.	Blue Stk.No.	Type	HxWxD	Fits Chas.	Lbs.	1-24	25-49	50-99
91F1350	91F1356	MD-1960	7x13x8"	CB-40	6¾	8.25	7.45	6.60
91F1351	91F1357	MD-1961	8x14x9"	CF-997	7¾	8.80	7.90	7.05
91F1352	91F1358	MD-1962	8x16x9"	CB-998	8½	9.15	8.25	7.30
91F1353	91F1359	MD-1963	7x13x8"	CB-40	7	9.65	8.70	7.70
91F1354	91F1360	MD-1964	8x14x9"	CB-997	8	10.30	9.25	8.25
91F1355	91F1361	MD-1965	8x16x9"	CB-998	8¾	11.00	9.90	8.80

"GRAND PRIX" CABINETS

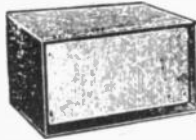
New concept in styling; ideal for audio equipment, medical electronics, or wherever appearance is of importance. Handles are brushed aluminum extrusions that slide over end flanges of the upper and lower body segments and are secured by setscrews; when removed, the upper body segment comes off to permit servicing contents. Made entirely of 20-gauge steel. With four rubber feet to prevent damage to desk tops, etc. Choice of light gray hammertone body with matching panels or smooth dark gray body with smooth light gray panels.



Dk. gray Stk.No.	L. gray Stk.No.	Type	HxWxD	Lbs.	1-24	25-49	50-99
91F1362	91F1365	MD-1	4¾x19¼x10½"	7¼	14.45	13.00	11.55
91F1363	91F1366	MD-2	7¾x19½x10½"	7¾	15.00	13.50	12.00
91F1364	91F1367	MD-3	4¾x12½x8¾"	7	11.55	10.40	9.25

SHADOW CABINET

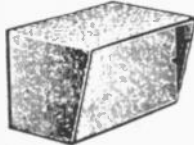
Extremely versatile housing since front rear and bottom may be removed for installation or servicing. One inch recessed front panel prevents accidental movement of controls, knobs, and switches attached to it. Body made of 18 gauge steel and panels of 16 gauge steel. Four rubber feet attached to base eliminates scratching. Finished in light gray hammertone.



Stk. No.	Type	W x H x D	Lbs.	1-24	25-49	50-99
91F892	SB-2140	14½x8x10"	11½	7.55	6.80	6.05
91F893	SB-2141	13½x7½x9"	9¾	5.80	5.20	4.65
91F894	SB-2142	17x9½x11"	15¼	10.25	9.25	8.20
91F895	SB-2143	15½x6x9"	9½	5.60	5.05	4.50

COWL TYPE MINIBOX

Has projecting cover which reduces glare on panel from overhead lighting and provides protection for controls and dials. Cover has two hex braces to which bottom is attached with sheet metal screws. When assembled this type of construction results in a sturdy, rigid housing. Fabricated of .040 aluminum. Overall dimensions and wt.: SC-2130 and SC-3030, 6x10x7", 2 lbs.; SC-2131 and SC-3031, 7x12x8", 2½ lbs.; SC-2132 and SC-3032, 3x8x5", 1 lb.; SC-2133 and SC-3033, 5x5x5", 1 lb.



Stk. No.	G-H	Type	1-49	50-99	100-149	Stk. No.	N'tral	Type	1-49	50-99	100-149
91F884	SC-2130	6.55	5.90	5.25	91F888	SC-3030	4.75	4.30	3.80		
91F885	SC-2131	7.15	6.45	5.70	91F889	SC-3031	5.15	4.65	4.10		
91F886	SC-2132	3.80	3.40	3.05	91F890	SC-3032	2.70	2.45	2.15		
91F887	SC-2133	3.95	3.55	3.15	91F891	SC-3033	2.85	2.55	2.30		

For table mounting of test instruments and receivers. Each cabinet has an evenly recessed hinged cover with convenient finger lift. The panel on front of cabinet is readily attached with self-tapping screws. Louvers provide ample ventilation. Available in black wrinkle finish only. Require open-end chassis bases.



Ideal cabinets for electronic devices not requiring excessive depth. They have recessed hinged cover with convenient finger lift. Grey hammertone finish or black wrinkle. Overall ht. is 8" and overall depth is 8¼". Inside of cabinet easily accessible. Complete with panel.



STREAMLINED CABINETS

Stk.No. Black	Stk.No. Ham. Grey	Type	Wid.	Panel	Top Opening	Lbs.	1-24	25-49	50-99
91F680	91F775	CD-1480	10½"	8x8"	5½x7½"	5¾	6.85	6.15	5.50
91F681	91F776	CD-1481	12½"	8x10"	5½x9½"	6	6.95	6.25	5.55
91F682	91F777	CD-1482	14½"	8x12"	5½x11½"	6½	7.30	6.55	5.85
91F683	91F778	CD-1483	16½"	8x14"	5½x13½"	7	7.80	7.00	6.25
91F684	91F779	CD-1484	18½"	8x16"	5½x15½"	7¾	8.50	7.65	6.80
91F685	91F780	CD-1485	20½"	12x18"	10½x15½"	15	17.25	15.55	13.80

*Has ½" vert. chrome strip fastened to corners. 12" overall depth.

PORTACAB

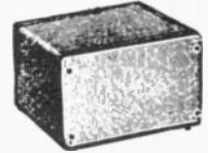
Desirable as housings for instrumentation requiring high stylized appearance. Body is one piece aluminum with contoured corners. Panel is also aluminum. Flexible recessed handle permits easy portability as well as vertical stacking. Louvers point inward permitting side-to-side placement without loss of space. Welded back has opening. Front panel recessed ½". Four detachable rubber feet are provided. Gray hammertone finish.



Stk. No.	Type	Dimensions			1-24	25-49	50-99
		Depth	Width	Height			
91F615	WA-1540	8"	6½"	8"	10.60	9.55	8.50
91F616	WA-1541	12"	8½"	9"	13.85	12.45	11.10
91F617	WA-1542	8"	10½"	8"	12.30	11.05	9.85
91F618	WA-1543	18"	11½"	11"	15.60	14.05	12.50
91F619	WA-1544	18"	14½"	12"	17.95	16.15	14.35

CONTOUR UTILITY CABINETS

Housing and flanged panels have rounded corners. Solid front and louvered rear panels are removable. Four rubber feet attached to base prevent scratching. Smooth dark gray enameled body and light gray enameled panel. All parts are 20 gauge steel.



Stk. No.	Type	Overall Size	Lbs.	1-24	25-49	50-99
91F896	CU-463	4½x2x6½x3¾"	1¾	6.05	5.45	4.85
91F897	CU-465	4½x2x6½x5¾"	2¼	7.00	6.30	5.60
91F898	CU-585	5½x2x8½x5¾"	3	9.20	8.30	7.35
91F899	CU-587	5½x2x8½x7¾"	3¾	10.00	9.00	8.00
91F900	CU-7125	7½x2x12½x5¾"	5	10.20	9.20	8.15
91F901	CU-7127	7½x2x12½x7¾"	6	10.85	9.75	8.70

INSTRUMENT AND RECEIVER CABINETS

Stk. No.	Type	HxWxD	Lbs.	1-24	25-49	50-99
91F630	C-973	7x8x8"	5	5.05	4.55	4.05
91F631	C-993	7x10x8"	5½	5.85	5.25	4.70
91F632	C-994	7x12x8"	5¾	6.05	5.45	4.85
91F633	C-995	7x14x8"	6	6.40	5.75	5.10
91F634	C-1190	8x16x8"	7	9.20	8.30	7.35
91F635	C-975	9x15x11"	8	11.10	10.00	8.90
91F636	C-999	12x18x12"	15	12.00	10.80	9.60

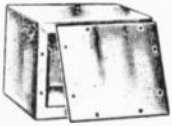
ATTENTION INDUSTRIAL BUYERS

NEWARK carries complete lines of the top quality electronic equipment. Newark can supply all your needs, whether or not they are listed in this catalog.



Cabinets & Miniboxes

STEEL UTILITY CABINETS

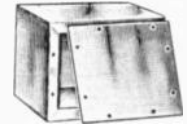


Steel utility cabinets for electronic equipment, monitors, frequency meters, etc. Ideal for the amateur, experimenter.

Accurately formed of sheet steel for rugged use. Have two removable sides. Black wrinkle and light grey hammertone finish.

Stk. No.	Type	Stk. No.	Type	HxWxD	Lbs.	1-49	50-99	100-149
91F620	CU-883	91F640	CU-883HG	4x4x2"	3/4	1.30	1.15	1.05
91F621	CU-728	91F641	CU-728HG	4x5x3"	7/8	1.50	1.35	1.20
91F622	CU-729	91F642	CU-729HG	6x5x4"	1 1/2	1.70	1.55	1.35
91F623	CU-1098	91F643	CU-1098HG	6x6x6"	2 1/2	2.55	2.30	2.05
91F624	CU-1099	91F644	CU-1099HG	9x6x5"	3	2.85	2.55	2.30
91F625	CU-880	91F645	CU-880HG	10x10x8"	5 1/2	4.85	4.35	3.90
91F626	CU-882	91F646	CU-882HG	15x9x7"	7 1/2	5.45	4.90	4.35
91F627	CU-879	91F647	CU-879HG	10x8x7"	5	4.05	3.65	3.25
91F628	CU-881	91F648	CU-881HG	12x11x8"	6	5.30	4.75	4.25
91F629	CU-1124	91F649	CU-1124HG	12x7x6"	4	5.00	4.50	4.00

movable sides. Black wrinkle and light grey hammertone finish.



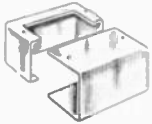
Ideal for mounting amplifiers, meters, test instruments, etc. Removable front and back may be fastened to cabinet with self-tapping screws provided. Available in natural or light grey hammertone finish (HG). Shipped knocked down—ready for immediate assembling. Rugged and attractive. Aluminum alloy 5005 H14.

ALUMINUM UTILITY CABINETS

Stk. No.	Type	HxWxD	Lbs.	1-49	50-99	100-149
91F543	AU-1028	4x5x3"	1/4	1.65	1.50	1.30
91F544	AU-1029	6x5x4"	1/2	1.80	1.60	1.45
91F545	AU-1039	6x6x6"	3/4	2.65	2.40	2.10
91F546	AU-1040	9x6x5"	1	3.05	2.75	2.45
91F547	AU-1083	4x4x2"	1/4	1.55	1.40	1.25
91F716	AU1083HG	4x4x2"	1/4	1.80	1.60	1.45
91F717	AU1028HG	4x5x3"	1/2	2.05	1.85	1.65
91F718	AU1029HG	6x5x4"	1/2	2.20	2.00	1.75
91F719	AU1039HG	6x6x6"	3/4	2.90	2.60	2.30
91F720	AU1040HG	9x6x5"	1	3.40	3.05	2.70

gray hammertone finish (HG). Shipped knocked down—ready for immediate assembling. Rugged and attractive. Aluminum alloy 5005 H14.

MINIBOXES



Two-piece aluminum maximum degree of accessibility, adequate shielding as well as complete protection from mechanical injury and dust particles. Formed of .040 gauge aluminum. Comb snap lock and screw type fastening. Excellent for constructing Amplifiers shielded oscillators etc.

Grey Hammertone					Natural Aluminum						
Stk. No.	Type	1-49	50-99	100-149	WxHxL	Wt. Lbs.	Stk. No.	Type	1-49	50-99	100-149
91F700	CU-2100A	.80	.70	.65	1 1/2x1 1/2x2 3/4"	1/4	91F572	CU-3000A	.70	.65	.55
91F701	CU-2101A	.85	.75	.70	1 5/8x2 1/8x3 1/4"	1/4	91F573	CU-3001A	.70	.65	.55
91F702	CU-2102A	.90	.80	.70	1 5/8x2 1/8x4"	1/4	91F574	CU-3002A	.75	.70	.60
91F703	CU-2103A	1.00	.90	.80	2 1/4x2 1/4x4"	1/4	91F575	CU-3003A	.90	.80	.70
91F704	CU-2104A	1.05	.95	.85	2 1/4x2 1/4x5"	1/4	91F576	CU-3004A	.95	.85	.75
91F705	CU-2105A	1.40	1.25	1.10	3x4x5"	1/2	91F577	CU-3005A	1.15	1.05	.90
91F706	CU-2106A	1.10	1.00	.90	2 1/2x3x5 1/4"	1/4	91F578	CU-3006A	1.00	.90	.80
91F707	CU-2107A	1.75	1.60	1.40	4x5x6"	3/4	91F579	CU-3007A	1.25	1.15	1.00
91F708	CU-2108A	2.00	1.80	1.60	3x5x7"	3/4	91F580	CU-3008A	1.60	1.45	1.30
91F709	CU-2109A	2.55	2.30	2.05	3 1/2x6x8"	1	91F581	CU-3009A	2.05	1.85	1.65
91F697	CU-2110A	2.85	2.55	2.30	3 1/2x6x10"	1 1/4	91F582	CU-3010A	2.25	2.05	1.80
91F698	CU-2111A	3.85	3.45	3.10	4x7x12"	1 3/4	91F583	CU-3011A	3.10	2.80	2.50
91F535	CU-2112A	3.85	3.45	3.10	4x5x17"	2 1/4	91F584	CU-3012A	3.10	2.80	2.50
91F536	CU-2113A	1.45	1.30	1.15	1 5/8x2x10"	1/2	91F585	CU-3013A	1.15	1.05	.90
91F537	CU-2114A	1.85	1.65	1.50	2 1/4x2 1/4x12"	3/4	91F586	CU-3014A	1.50	1.35	1.20
91F538	CU-2115A	1.00	.90	.80	2 3/4x2x4"	1/4	91F587	CU-3015A	.90	.80	.70
91F539	CU-2116A	1.00	.90	.80	1 1/2x2 1/4x4 1/4"	1/4	91F588	CU-3016A	.90	.80	.70
91F540	CU-2117A	.90	.80	.70	1 1/2x2 1/4x3 1/4"	1/4	91F589	CU-3017A	.75	.70	.60

DELUXE METAL CABINET RACKS COMPLETE WITH PANELS

Finished with red lined, chrome strips on top and bottom of front. Will accommodate standard 19" panels. Five larger sizes only have hinged rear door. All sizes have top door for easy servicing or inspection. "No scratch" metal feet are embossed on bottom to minimize marring. Available in black wrinkle (B), gray wrinkle (G), or light grey hammertone (HG) finish. Specify when ordering.



Black	Grey	Type	HG Fin.	Type	DxWxD	Panel	Wt. Lbs	1-14	15-24	25-34
91F687	91F688	CR-1726	91F689	CR-1726HG	14 3/4x22x8 23/32"	7"	24	16.85	15.15	13.50
91F650	91F656	CR-1741	91F671	CR-1741HG	14 3/4x22x10 9/16"	8 3/4"	28	18.45	16.60	14.75
91F662	91F664	CR-1740	91F668	CR-1740HG	14 3/4x22x12 5/16"	10 1/2"	30	21.10	19.00	16.90
91F651	91F657	CR-1742	91F672	CR-1742HG	14 3/4x22x14 1/16"	12 1/4"	32	22.20	20.00	17.75
91F652	91F658	CR-1739	91F673	CR-1739HG	14 3/4x22x15 1/16"	14"	34	29.45	26.50	23.55
91F653	91F659	CR-1743	91F669	CR-1743HG	14 3/4x22x19 5/16"	17 1/2"	38	28.95	26.05	23.15
91F654	91F660	CR-1744	91F670	CR-1744HG	14 3/4x22x23 1/16"	26 1/4"	47 1/2	33.25	29.90	26.60
91F666	91F667	CR-1728	91F674	CR-1728HG	14 3/4x22x33 5/16"	31 1/2"	52	35.30	31.75	28.25
91F655	91F661	CR-1745	91F675	CR-1745HG	14 3/4x22x36 1/16"	35"	60	37.10	33.40	29.70
91F663	91F665	CR-1727	91F676	CR-1727HG	14 3/4x22x22 3/16"	21"	39 1/2	30.90	27.80	24.70

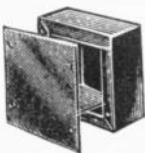
SLOPING PANEL CABINETS



The entire front panel of this cabinet is removable if so desired. This cabinet is also provided with a hinged top for easy accessibility to tubes and other parts that are mounted on the chassis, without necessitating removal of the front panel. These cabinets are finished in black wrinkle or light grey hammertone enamel.

Stk. No.	Type	Stk. No.	Type	HxWxD	Lbs.	1-24	25-49	50-99
91F782	C-1584	91F791	C-1584HG	6 1/2x7 1/4x7 5/16"	2 1/2	3.80	3.40	3.05
91F783	C-1587	91F792	C-1587HG	8x8 1/4x8 1/2"	2 3/4	5.25	4.75	4.20
91F784	C-1585	91F793	C-1585HG	6 1/2x9 1/2x7 5/16"	3	4.35	3.90	3.50
91F785	C-1588	91F794	C-1588HG	8x10 1/2x8 1/2"	3 1/4	5.80	5.20	4.65
91F786	C-1586	91F795	C-1586HG	6 1/2x11 1/4x7 5/16"	3 1/2	5.00	4.50	4.00
91F787	C-1894	91F796	C-1894HG	8x14 1/4x8 1/2"	4	6.15	5.55	4.90
91F788	C-1892	91F797	C-1892HG	8x13 1/4x8 1/2"	5 1/4	6.90	6.20	5.50
91F789	C-1896	91F798	C-1896HG	9x18 1/4x8 1/2"	7	8.85	7.95	7.10
91F790	C-1893	91F799	C-1893HG	10x18 1/4x10 1/2"	8 1/2	9.10	8.20	7.30

BUILT-IN CHASSIS CABINETS



The ideal cabinet for units requiring shielded and enclosed mounting. Perfect for minor radio-television assemblies. Chassis is welded to front panel, making it a time-saving, convenient unit. Front and rear panels are attached by means of self-tapping screws. Made of heavy-duty, long lasting 20 gauge steel. Finished in black wrinkle finish.

Stk. No.	Type	HxWxD	Wt. Lbs.	1-49	50-99	100-149
91F487	C1793	4x4x2"	1	1.60	1.45	1.30
91F488	C1794	4x5x3"	1 1/4	1.80	1.60	1.45
91F489	C1795	5x4x3"	1 1/4	2.00	1.80	1.60
91F490	C1796	6x5x4"	2	2.05	1.85	1.65
91F491	C1797	5x6x4"	2	2.30	2.05	1.85
91F492	C1798	6x6x6"	3	2.65	2.40	2.10

Rack and Cabinet Handles



UTILITY HANDLES

Handles are fabricated from steel, brass or cast aluminum. Durable, attractive finish will provide long wear. The material and finish specifications for each handle is described below.

Type H-9100B. All models of this type have 1" hand clearance. All are made from solid brass and are Chrome plated. H-9100B and H-9101B are 1"x1/4". H-9102B and H-9103B are 3/4"x1/4". Hardware is supplied on all models: two 6-32 by 1/2" screws.



Stk. No.	Type	Mtg. Ctrs.	Net Each		
			1-99	100-199	200-499
90F700	H-9100-B	4x1/2"	2.35	1.85	1.65
90F701	H-9101-B	8x1/2"	3.20	2.90	2.55
90F702	H-9102-B	4"	1.75	1.60	1.40
90F703	H-9103-B	6"	1.75	1.65	1.50

Type UH-70A. Useful for attaching to any small housing or speaker enclosure to achieve portability. Handle is made from aluminum and given an etched finish. Overall length is 5 1/4". Mounting centers are 4 5/8". Aver. Shpg. wt., 3 oz.



Stk. No.	Type	Net Each		
		1-49	50-99	100-149
91F079	UH-70A	.45	.40	.35

Type H-9151B. Made from die cast aluminum. Silver anodized. 1 3/4" hand clearance. Hardware: four 10-32x1/2" screws.
Type H-9152. Similar to H-9151B. Has 1 1/2" hand clearance. Also silver anodized. Hardware: two 10-32x1/2" screws. Aver. Shpg. Wt., 3 oz.



Stk. No.	Type	Mtg. Ctrs.	Net Each		
			1-99	100-199	200-499
90F711	H-9151-B	5 5/8"x3/8"	2.55	2.30	3.05
90F712	H-9152-B	3 7/8"	2.15	1.95	1.70

TYPE H-9150B. Made of die cast aluminum and finished in silver anodize. Has 1 1/4" hand clearance. Hardware: four 10-32x1/2" screws. Aver. shpg. wt. 3 oz.



Stk. No.	Type	Mtg. Ctrs.	Net Each		
			1-99	100-199	200-499
90F710	H-9150-B	4x3/8"	1.55	1.40	1.25

Type H-9131B. Made of die cast aluminum. Finish is silver anodize. Size: 4x2 7/8". Hardware: two 1/4-28x3/4" raised countersunk screws and nuts. Useful as cabinet handle replacement. Average shpg. wt. 3 oz.



Stk. No.	Type	Mtg. Ctrs.	Net Each		
			1-99	100-199	200-499
90F713	H-9131-B	2 1/4"	1.95	1.95	1.55

Type H-9130B. Made of die cast aluminum. This handle is finished in silver anodize. Ideal for use as a cabinet handle. Design permits almost flush fastening to a drawer. Size: 4 1/8"x3". Hardware provided: two 10-32x3/8" screws. Shpg. wt., 4 oz.



Stk. No.	Type	Mtg. Ctrs.	Net Each		
			1-99	100-199	200-499
90F708	H-9130-B	3"	2.75	2.50	2.20

Type H-9140B. This handle is made of die cast aluminum with a silver anodized finish. Has a hand clearance of 3/4". This solid design handle provides a modern look to your cabinets or racks. Hardware provided for this model is two 10-32x1/2" screws. Shpg. wt. 6 oz.



Stk. No.	Type	Mtg. Ctrs.	Net Each		
			1-99	100-199	200-499
90F709	H-9140-B	3 1/2"	1.20	1.10	.95

They have unlimited applications in the electronic, electrical, and many other fields. Necessary Mounting hardware is furnished. Designed for rugged applications.

Type H-9120-B. Handle made of die cast aluminum and finish is silver anodize. Has hand clearance of 1". Hardware: four 6-32x1/2" screws. Shpg. wt., 5 oz.
Type H-9121-B. Similar to H-9120 except made of die cast alloy and is chrome plated.
Type H-9123-B. Similar to H-9120 except hardware: two 10-32x1/2" screws.



Stk. No.	Type	Mtg. Ctrs.		Net Each		
		Ins.	Outs.	1-99	100-199	200-499
90F705	H-9120-B	4 3/8"	5 3/8"	1.75	1.60	1.40
90F706	H-9121-B	4 3/8"	5 3/8"	2.25	2.30	2.05
90F707	H-9123-B	4 1/2"		1.25	1.15	1.00

Type H-912B. Handle made of die cast aluminum with a silver anodized finish. This handle has a hand clearance of 1 1/2" and is hinged on 1/4" diameter pins with two hinge blocks. Hardware provided: four 10-32x3/8" screws. Shpg. wt., 5 oz.



Stk. No.	Type	Mtg. Ctrs.		Net Each		
		Ins.	Outs.	1-99	100-199	200-499
90F704	H-9122-B	6 1/2"	7 1/4"	3.10	2.80	2.50

Types H-9115B and H-9116. These handles made of 3/8" steel rod, chrome plate finish. Have hand clearance of 1 1/2". Ideal for use where a thin, durable handle is necessary or desirable. Hardware provided: two 1/4-28 nuts. Av. shpg. wt. 3 oz.



Stk. No.	Type	Mtg. Ctrs.	Net Each		
			1-99	100-199	200-499
90F746	H-9115-B	4"	1.05	.95	.95
90F732	H-9116-B	6"	1.25	1.15	1.00

Types H-9160B, H-9161B, H-9162B, H-9163B, H-9164B, H-9165B. All have chrome plated finish and are made of 3/8" diameter steel. All have 1 1/4" hand clearance. All are provided with two 1/4-28 hex nuts as hardware. Types differ in mounting centers only which are listed below.



Stk. No.	Type	Mtg. Ctrs.	Net Each		
			1-99	100-199	200-499
90F733	H-9160-B	3 1/4"	1.10	1.00	.90
90F734	H-9161-B	5 1/4"	1.70	1.15	1.05
90F735	H-9162-B	7"	1.35	1.20	1.10
90F736	H-9163-B	8 3/4"	1.45	1.30	1.15
90F737	H-9164-B	10 1/2"	1.50	1.35	1.20
90F738	H-9165-B	12 1/4"	1.65	1.50	1.30

Types H-9166B and H-9168B. Both are made of 1/4" diameter brass and both have a chrome plated finish. These handles each have a 1" hand clearance and are provided with the same hardware: two 6-32x1/2" screws. They differ only in mounting centers which are listed below.



Stk. No.	Type	Mtg. Ctrs.	Net Each		
			1-99	100-199	200-499
90F739	H-9166-B	12 3/32"	.65	.55	.50
90F740	H-9168-B	3"	.65	.60	.50

All are made of 3/8" dia. steel chrome-plated except H-9114 1/2" Dia. All provided with two 10-32x1/2" screws except H-9114 two 1/4-28x1/2" screws. Hand clearance 1" except * 1 1/4" and ** 1 1/2". Shpg. Wt. 3 oz.



Stk. No.	Type	Mtg. Ctrs.	Net Each		
			1-99	100-199	200-499
90F741	H-9110-B*	6"	1.15	1.05	.90
90F742	H-9111-B	4"	.65	.60	.50
90F743	H-9112-B	6"	.80	.70	.65
90F744	H-9113-B	8"	.90	.80	.70
90F745	H-9114-B**	8"	1.45	1.30	1.15

Metal Products

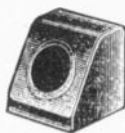
BUD PRODUCTS

MIDGET SPEAKER CASES



All metal cases, 4x4x1/4", that fit 2" and 3" speakers. Black wrinkle finish. 2 lbs. *Type CS-1685. Hole dia. 2 3/16". **Type CS-1686. Hole diameter 2 1/16".

Stk. No.	1-24	25-49	50-99
91F606*	1.95	1.75	1.55
91F607**	1.95	1.75	1.55



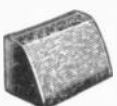
UNIVERSAL METER CASES

Can accommodate either a 2" or 3" meter. Center hole is punched for 2" meter and has an easily removed knock-out ring which increases size of hole to fit 3" meter. One piece, detachable back and sides fastened to the body of case with four self tapping screws. Two 3/8" knock-out holes in top for installation of feed through insulators if required. May also be used for switches, etc. Available in steel or aluminum grey hammertone. 4 1/4" H. x 4" W. x 4" D. *CMA-1930. 4 1/4 x 6 x 4 1/4".

Stk. No.	Type	Wt.	1-49	50-99	100-149
91F598	CM-1935 Steel	1 lb.	1.50	1.35	1.20
91F599	CMA-1936 Alum.	3/4 lb.	1.75	1.60	1.40
91F597	*CMA-1930 Alum.	3/4 lb.	2.90	2.60	2.30

STEEL HANDY BOXES

Two-piece steel cases. Provides the maximum degree of accessibility, adequate shielding as well as complete protection from mechanical injury and dust particles. Formed of 22 gauge steel. Finished in black wrinkle.



Stk. No.	Type	WxHxL	Wt.	1-49	50-99	100-149
91F541	HB-1621	1 1/2 x 2 1/4 x 4 1/4"	1/2	1.40	1.25	1.10
91F542	HB-1622	2 3/4 x 2 x 4"	1/2	1.45	1.30	1.15

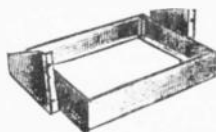
UNIVERSAL SLOPING PANEL CABINETS

Versatile, Streamlined housings with two viewing angles. Available in steel and aluminum. Grey hammertone finish.

Steel	Type	HxWxD	Lbs.	1-24	25-49	50-99
91F830	C-1606	4x4x4 1/4"	3/4	1.75	1.60	1.40
91F831	C-1607	4x5x4 1/4"	3/4	1.85	1.65	1.50
91F832	C-1608	4x6x4 1/4"	1 1/8	2.00	1.80	1.60
91F833	C-1609	4x7x4 1/4"	1 1/8	2.30	2.05	1.85

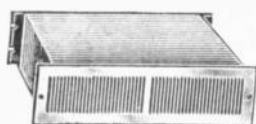
Alum.	Type	HxWxD	Lbs.	1-24	25-49	50-99
91F834	AC-1610	4x4x4 1/4"	1/2	2.05	1.85	1.65
91F835	AC-1611	4x5x4 1/4"	1/2	2.15	1.95	1.70
91F836	AC-1612	4x6x4 1/4"	3/4	2.30	2.05	1.85
91F837	AC-1613	4x7x4 1/4"	3/4	2.55	2.30	2.05

SLIDING DRAWER ASSEMBLY



Used in mounting record players, portable typewriters, instruments, drawer space and many other purposes. Chassis and slide are light gray hammertone. Brackets and channel are etched aluminum. Will support 50 lbs. Fits standard relay rack. Size: 16 3/4 x 14 x 3".

Stk. No.	Type	Description	Lb.	1-14	15-24	25-34
91F826	SD-1717	Assembly	5	13.20	11.20	10.55
91F827	TP-1718	Drawer Plate	1 1/2	2.95	2.65	2.35



Oil impregnated fiberglass filter without removing unit. For 110-120 v., 60 cycle A.C.

TRANS-AIRE BLOWER FOR RACK MTG.

Ideal for use where excessive heat is generated by equipment in an enclosed rack. 2-speed motors have oilite bearings with oil impregnated wicks. Air Displacement: B-23, 100-200 cfm - B-25, 250-500 cfm - B-27, 350-700 cfm at 9 static pressure. (1 included) can be changed



SWIVEL TRUCK CASTERS

Type RC-7756. Heavy-duty casters for use on relay racks. Four casters will carry a load of 400 pounds. Wheels are high grade hard rubber composition. Ball-bearing mounted. With screws. 10 oz.

Stk. No.	Type No.	1-49	50-99	100-149
91F082	RE-7756	1.10	1.00	.90

Type RC-7757. Same as above, but with light duty casters for lighter load. Shpg. wt., 8 oz.

Stk. No.	Type No.	1-49	50-99	100-149
91F083	RE-7757	.50	.45	.40

Type RC-7758. Truck Casters. 91F094. 1-49 2.65 50-99 2.40 100-149 2.10

Stk. No.	Type	Motor	HxWxD	Lbs.	1-9	10-14	15-19
91F902	B-23	1/20 h.p.	3 1/2 x 19 x 12"	17	57.75	52.00	46.20
91F637	B-25	1/6 h.p.	5 1/4 x 19 x 14 1/2"	30	66.00	59.40	52.80
91F903	B-27	1/4 h.p.	7 x 19 x 14 1/2"	37	74.25	66.85	59.40

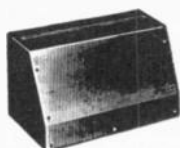
FILTERS

Stk. No.	Type	Description of Filters	1-24	25-49	50-99
91F904	BF-24	Filter for B-23 above	1.50	1.35	1.20
91F638	BF-26	Filter for B-25 above	1.65	1.50	1.30
91F905	BF-28	Filter for B-27 above	1.80	1.65	1.45

PAR METAL PRODUCTS



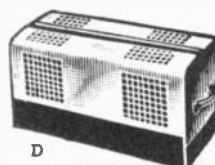
A
SERIES
CA-300



B
SERIES
SF-500



C
SERIES
CA-200



D
SERIES
DF

DELUXE TYPE DESK CABINETS

Fig. A. Attractive steel cabinets for Amateur and commercial equipment. Hinged and formed top; removable front panel and full width opening at rear for and formed leads. Louvered ends for ventilation. Slate gray ripple finish. Chrome trim.

Stk. No.	Type	HxWxD	Panel Size	For Chassis	Lbs.	NET
91F500	CA-300	9x12 1/2 x 8"	8 1/2 x 10"	7x 9x2"	6	7.95
91F501	CA-301	9x16 1/2 x 8"	8 1/2 x 14"	7x 13x2"	7	9.00
91F502	CA-302	10x17 1/2 x 11"	9 1/2 x 15"	10x14x3"	8	12.15
91F503	CA-303	10x20 1/2 x 9"	9 1/2 x 18"	8x17x3"	11	12.15
91F504	CA-304	13x20 1/2 x 12"	12 1/2 x 18"	10x17x3"	15	13.65

SLOPING FRONT CABINETS

Fig. B. Latest-style utility cabinets. Full-sized removable sloping panel makes controls and meters readily accessible. Ventilated sides and rear. Opening at rear for cables. Slate gray ripple finish. Chrome trim.

Stk. No.	Type	HxWxD	For Chassis	Lbs.	NET
91F505	SF-500	8x 8x 8"	7x 7x2"	6	5.70
91F506	SF-501	8x10x 8"	7x 9x2"	7	6.30
91F507	SF-502	8x14x 8"	7x 13x2"	8	6.75
91F508	SF-503	9x18x 8"	7x 17x3"	10	8.40
91F509	SF-504	12x18x12"	10x17x3"	14	10.20

ROUNDED CORNER TYPE CABINETS

Fig. C. Rounded-corners that custom-built look. Top door has full length piano hinge. Removable front panel. Louvres on sides and opening at rear for cables. Slate gray ripple finish

Stock No.	Type No.	HxWxD	Panel Size	For Chassis	Wt. Lbs.	NET
91F510	CA-200	8 1/2 x 10 1/2 x 8"	8 1/2 x 8"	7x 7x2"	6	5.85
91F511	CA-201	8 1/2 x 12 1/2 x 8"	8 1/2 x 10"	7x 9x2"	7	6.30
91F512	CA-202	8 1/2 x 16 1/2 x 8"	8 1/2 x 14"	7x 13x2"	8	7.65
91F513	CA-203	9 1/2 x 17 1/2 x 11"	9 1/2 x 15"	10x14x3"	11	10.05
91F514	CA-204	12 1/2 x 20 1/2 x 12"	12 1/2 x 18"	10x17x3"	15	11.85

AMPLIFIER FOUNDATION CHASSIS

Fig. D. Red-striped chrome finished molding on top. Two chrome side handles. Slate gray ripple removable screen cover is 6" high. Black ripple chassis is drilled for bottom plates

Stk. No.	Type	Chassis Size	Lbs.	NET
91F528	DF-510	5x10x3"	7	5.94
91F529	DF-615	6x14x3"	8	6.60
91F530	DF-717	7x17x3"	9	7.65
91F531	DF-1012	10x12x3"	9	7.65
91F532	DF-1017	10x17x3"	10	8.55
91F533	DF-1317	13x17x3"	12	10.20

Par Metal Relay Racks & Accessories



ENCLOSED AND CHANNEL TYPE RELAY RACKS

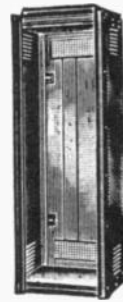
Models ER-223 and ER-227 are Deluxe type same as Figure A, Model ER-215 is standard model with rounded front corners. All racks are tapped for 10-32 screws. Shipped knocked down.

BLUE GREY WRINKLE DELUXE ENCLOSED TYPE RACKS

Stk. No.	Type	Fig.	H x W x D	Pan. Sp.	Lbs.	NET
91F000	ER-223A	A	43 1/4 x 22 x 18"	36 3/4 x 19"	90	52.20
91F002	ER-227A	A	83 1/2 x 22 x 18"	77 x 19"	140	77.70
91F004	ER-215A	A	66 1/2 x 22 x 18"	61 1/4 x 19"	110	54.90

BLACK WRINKLE OPEN TYPE RACKS

Stk. No.	Type	Fig.	H x W x D	Pan. Sp.	Lbs.	NET
90F998	RX-193	B	39 1/4 x 21 x 20 7/8"	36 3/4 x 19"	45	21.00
90F999	RX-195	B	74 1/2 x 21 x 20 7/8"	71 3/4 x 19"	55	25.50



(A)
Type
ER



(B)
Type
RX

All Above Chicago Stock and F.O.B. Chicago

DESK TYPE OPEN RELAY RACKS

For mounting transmitters, PA systems, and other heavy components. Panels set in recess so that no edges are exposed. Black ripple finish. Depth 12". Shipped knocked-down. With hardware.



Stk. No.	Type	Hgt.	Panel Space	Lbs.	NET EACH
91F032	TR-2520	24"	21"hx19"w	17	8.70
91F033	TR-3220	31"	28"hx19"w	20	9.90

19" STEEL RACK PANELS

All are 1/8" thick. Uniformly slotted for racks with 1 1/4-1/2" spacings. Available in black or Blue Gray baked wrinkle finish.



Height	Black	Mfr. No.	Gray	Mfr. No.	Lbs.	NET
1 3/4"	91F100	6600	91F120	G-6600	2	.81
3 1/2"	91F101	6601	91F121	G-6601	3	1.02
5 1/4"	91F102	6602	91F122	G-6602	4	1.29
7 1/4"	91F103	6603	91F123	G-6603	5	1.56
8 3/4"	91F104	6604	91F124	G-6604	7	1.86
10 1/2"	91F105	6605	91F125	G-6605	8	2.10
12 1/4"	91F106	6606	91F126	G-6606	9	2.49
14"	91F107	6607	91F127	G-6607	10	2.89
15 3/4"	91F108	6608	91F128	G-6608	12	3.24
17 1/2"	91F109	6609	91F129	G-6609	13	3.60
19 1/4"	91F110	6610	91F130	G-6610	14	3.98
21"	91F111	6611	91F131	G-6611	15	4.29

19" ALUMINUM RACK PANELS

Lightweight relay rack panels made of 1/8" thick half hard aluminum. Uniformly slotted for racks with 1 1/4-1/2" spacings. Available in black or Blue Gray baked wrinkle finish.



Height	Black	Mfr. No.	Gray	Mfr. No.	Lbs.	NET
1 3/4"	91F140	6675	91F160	G-6675	1	.96
3 1/2"	91F141	6676	91F161	G-6676	1	1.35
5 1/4"	91F142	6677	91F162	G-6677	2	1.86
7 1/4"	91F143	6678	91F163	G-6678	2	2.37
8 3/4"	91F144	6679	91F164	G-6679	3	2.88
10 1/2"	91F145	6680	91F165	G-6680	3	3.42
12 1/4"	91F146	6681	91F166	G-6681	4	3.89
14"	91F147	6682	91F167	G-6682	4	4.56
15 3/4"	91F148	6683	91F168	G-6683	5	5.13
17 1/2"	91F149	6684	91F169	G-6684	5	5.60
19 1/4"	91F150	6685	91F170	G-6685	6	6.27
21"	91F151	6686	91F171	G-6686	7	6.87

STREAMLINED METAL CABINET RACKS

Vertical front corners. rounded. Polished chrome trim. Made of 1/8" steel, all joints welded. Sides and back louvred. Holes tapped for 10-32 screws. For standard 19" panels. Black and Blue Gray ripple finish.



Black	Gray	Type	HxWxD	Panel	Door	Lbs.	NET
91F015	91F021	DL-128	10 1/2 x 21 1/2 x 15"	8 3/4"	top	28	16.20
91F016	91F022	DL-1225	14 x 21 1/2 x 15"	12 1/4"	top	30	19.20
91F017	91F023	DL-1413	15 3/4 x 21 1/2 x 15"	14 1/4"	top	32	21.00
91F018	91F024	DL-1713	19 1/4 x 21 1/2 x 15"	17 1/4"	top/rear	38	22.80
91F019	91F025	DL-2613	28 x 21 1/2 x 15"	26 1/4"	top/rear	48	26.70
91F020	91F026	DL-3513	36 3/4 x 21 1/2 x 15"	35"	top/rear	58	29.55

PAR METAL DELUXE DESK CONSOLES

Newark can supply these standardized units which are adaptable to individual requirements on special order only. The vast flexibility of these units enables you to design the console of your choice without costly, custom-built construction. Can be put together quickly and easily. Write for a complete catalog and price list.

STANDARD TYPE ROLLER TRUCKS

All have rounded corners at front and chrome finished red-stripped trim. Blue Gray ripple finish. 2" wider than racks for better distribution of weight. Ball-bearing swivel-type casters with 2" rubber composition wheels.



91F040. Type RT-410. Inside clearance, 21 3/4" x 15 1/2". Will fit the following racks: Types DL-1713, DL-2613, DL-3513. Wt. 22 lbs. NET.....10.68
91F042. Type RT-412. Inside clearance 23 7/8 x 19 1/2". Will fit types ER-223A and ER-215A, ER227A racks. Wt., 22 lbs. NET.....12.87

CHASSIS BRACKETS

For use with steel chassis. Rack panels should be at least 7" high. Provide excellent chassis support. Made of heavy gauge steel. Supplied in pairs. Black enamel finish. With mounting holes drilled.



Stk. No.	Type	Dimensions	Lbs.	Pair
91F046	SB-78	For 8" base	2	1.05
91F047	SB-710	For 10" base	2	1.23
91F048	SB-711	For 11" base	3	1.32
91F049	SB-713	For 13" base	3	1.50

CABINET SHELVES

Expressly designed to fit into enclosed racks of standard 19" width type. All shelves are 1" high. Shpg. wt., 10 pounds.

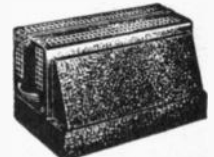


R-2128. For DL-1713, DL-2613, DL-3513 racks or others 15" deep, requiring shelf, 12" dx 21 3/8" w.

91F037. Black ripple. NET.....2.94
ER-2212. For ER 223A and ER227A racks, or others with a depth of 16 3/4", requiring shelf, size 15" dx 21 1/8" w.
91F038. Black ripple. NET.....3.60

SLOPING FRONT AMPLIFIER CHASSIS

This sturdy, use-tested sloping front unit incorporates the most modern up-to-date styling. Its streamlined design utilizes round corners, and red-stripe chrome molding and handy side handles. Separately removable grille cover and front panel. Panel extends 3 inches from face of cover.



Covers are 6 1/2 inches high. Bottom plate included. Blue Gray wrinkle finish.

Stk. No.	Type	Chassis Size	Lbs.	NET
91F521	F-10120	10x12x3"	11	9.15
91F522	F-10170	10x17x3"	13	10.80
91F523	F-13170	13x17x3"	15	11.85

TO SERVE YOU BETTER!

Seven Stocking Warehouses from Coast-to-Coast. Use the Services of the Newark Facility Nearest You.



Enclosures

SLIM LINE 5000 SERIES

COMPLETE ASSEMBLY

Ordering Information. Complete cabinets are shipped in four (4) cartons. When ordering complete assembly specify by stock and type number the four components listed on this page and facing page. All frame parts, and assembly manual in one carton. Side panels, specify PLAIN or LOUVERED and cabinet trim in second carton. Rear panel in third carton. Top panel, specify PLAIN or LOUVERED, in fourth

carton. All cabinets use standard 19" wide rack panels and have an inside depth of 24", 26", 28", or 30". Two color combinations available; dark gray with light gray and charcoal brown with black. NOTE—Types with (*) are standard items and will be shipped immediately from stock. Other types will be drop shipped from factory within two weeks.

FRAME

and bottom frame members—punched on 1" increments for rear mounting channels; holes too are provided for levelers, lifting eyes and castors. Finish is zinc-phosphate and two coats of baked hard dull black enamel. Easily assembled with ordinary hand tools. (5/16" socket wrench, 10-32 and 8-32 spintite.) Types with (*) shipped from stock, others factory drop shipped within two weeks

Frames may be bolted together in any quantity; must have a top (to secure side and rear panels) and rear panel for each frame. Only one pair of side panels are necessary for each bank of cabinets plus coupling kit (see below) for each inside frame joint. Frame parts are heavy duty 12 gauge steel. Vertical members are precision die-punched and 10/32 machine tapped to RETMA/EIA standards. Reinforced by Welded 16 gauge roll formed flat sections. Top



ASSEMBLIES

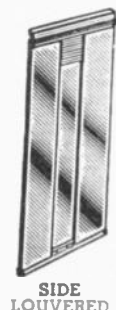
FRAME

COMPLETE ASSEMBLY

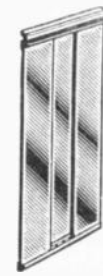
Type	Panel Space		Overall Size			Wt.	Plain	Lou- vered
	Width	Height	Width	Height	Depth			
KA-502426*	19 1/8	26 1/4	21 3/8	31 1/16	25 1/2	116	123.00	124.85
KA-502428	19 1/8	28	21 3/8	33 1/16	25 1/2	120	125.50	127.35
KA-502435	19 1/8	35	21 3/8	40 1/16	25 1/2	136	137.50	139.35
KA-502442	19 1/8	42	21 3/8	47 1/16	25 1/2	150	144.50	146.35
KA-502449	19 1/8	49	21 3/8	54 1/16	25 1/2	166	160.50	162.35
KA-502456	19 1/8	56	21 3/8	61 1/16	25 1/2	181	167.50	168.35
KA-502461*	19 1/8	61 1/4	21 3/8	66 1/16	25 1/2	195	179.50	181.35
KA-502463	19 1/8	63	21 3/8	68 1/16	25 1/2	200	184.50	186.35
KA-502470*	19 1/8	70	21 3/8	75 1/16	25 1/2	212	191.50	193.35
KA-502477	19 1/8	77	21 3/8	82 1/16	25 1/2	227	198.50	200.35
KA-502626	19 1/8	26 1/4	21 3/8	31 1/16	27 1/2	120	125.50	127.35
KA-502628	19 1/8	28	21 3/8	33 1/16	27 1/2	124	128.50	130.35
KA-502635	19 1/8	35	21 3/8	40 1/16	27 1/2	142	140.00	141.85
KA-502642	19 1/8	42	21 3/8	47 1/16	27 1/2	154	147.00	148.85
KA-502649	19 1/8	49	21 3/8	54 1/16	27 1/2	170	163.00	164.85
KA-502656	19 1/8	56	21 3/8	61 1/16	27 1/2	185	170.00	171.85
KA-502661*	19 1/8	61 1/4	21 3/8	66 1/16	27 1/2	199	182.00	183.85
KA-502663	19 1/8	63	21 3/8	68 1/16	27 1/2	204	187.00	188.85
KA-502670*	19 1/8	70	21 3/8	75 1/16	27 1/2	216	194.00	195.85
KA-502677	19 1/8	77	21 3/8	82 1/16	27 1/2	231	201.00	202.85
KA-502826*	19 1/8	26 1/4	21 3/8	31 1/16	29 1/2	126	129.00	130.85
KA-502828	19 1/8	28	21 3/8	33 1/16	29 1/2	130	131.50	133.35
KA-502835	19 1/8	35	21 3/8	40 1/16	29 1/2	148	143.50	145.35
KA-502842	19 1/8	42	21 3/8	47 1/16	29 1/2	160	150.50	152.35
KA-502849	19 1/8	49	21 3/8	54 1/16	29 1/2	176	166.50	168.35
KA-502856	19 1/8	56	21 3/8	61 1/16	29 1/2	191	173.50	175.35
KA-502861*	19 1/8	61 1/4	21 3/8	66 1/16	29 1/2	205	185.50	187.35
KA-502863	19 1/8	63	21 3/8	68 1/16	29 1/2	210	190.50	192.35
KA-502870*	19 1/8	70	21 3/8	75 1/16	29 1/2	222	197.50	199.35
KA-502877	19 1/8	77	21 3/8	82 1/16	29 1/2	237	204.50	206.35
KA-503026	19 1/8	26 1/4	21 3/8	31 1/16	31 1/2	130	131.50	133.35
KA-503028	19 1/8	28	21 3/8	33 1/16	31 1/2	134	134.00	135.85
KA-503035	19 1/8	35	21 3/8	40 1/16	31 1/2	152	146.00	147.85
KA-503042	19 1/8	42	21 3/8	47 1/16	31 1/2	164	153.00	154.85
KA-503049	19 1/8	49	21 3/8	54 1/16	31 1/2	180	169.00	170.85
KA-503063	19 1/8	56	21 3/8	61 1/16	31 1/2	195	176.00	177.85
KA-503075	19 1/8	61 1/4	21 3/8	66 1/16	31 1/2	209	188.00	189.85
KA-503063	19 1/8	63	21 3/8	68 1/16	31 1/2	214	193.00	194.85
KA-503070	19 1/8	70	21 3/8	75 1/16	31 1/2	226	200.00	201.85
KA-503077	19 1/8	77	21 3/8	82 1/16	31 1/2	241	207.00	208.85

FRAMES

Stk. No.	Type	Wt.	Each
90F400	F-502426*	56	30.25
90F401	F-502428	59	31.00
90F402	F-502435	64	33.00
90F403	F-502442	69	35.00
90F404	F-502449	73	37.00
90F405	F-502456	78	39.00
90F406	F-502461*	82	40.00
90F407	F-502463	83	41.00
90F408	F-502470*	88	43.00
90F409	F-502477	93	45.00
90F410	F-502626	59	30.50
90F411	F-502628	60	31.25
90F412	F-502635	65	33.25
90F413	F-502642	70	35.25
90F414	F-502649	74	37.25
90F415	F-502656	79	39.25
90F416	F-502661*	83	40.25
90F417	F-502663	84	41.25
90F418	F-502670*	89	43.25
90F419	F-502677	94	45.25
90F420	F-502826*	60	30.75
90F421	F-502835	66	33.50
90F422	F-502842	71	35.50
90F423	F-502849	75	37.50
90F424	F-502856	80	39.50
90F425	F-502861*	84	40.50
90F426	F-502863	85	41.50
90F427	F-502870*	90	43.50
90F428	F-502877	95	45.50
90F429	F-503026	61	31.00
90F430	F-503028	62	31.75
90F431	F-503035	67	33.75
90F432	F-503042	72	35.75
90F433	F-503049	76	37.75
90F434	F-503063	81	39.75
90F435	F-503061	85	40.75
90F436	F-503063	86	41.75
90F437	F-503070*	91	43.75
90F438	F-503077	96	45.75



SIDE LOUVERED



SIDE PLAIN



REAR



TOP PLAIN



TOP LOUVERED

BOTTOM PANELS

Same material and finish as top panels facing page

Stock No.	Type	Wt. Lbs.	Each
90F599	BP-5024*	9	8.00
90F600	BP-5026	9 1/2	8.25
90F601	BP-5028*	10 1/2	8.50
90F602	BP-5030	11	8.75

SIDE PANELS

Two panels, 20 gauge steel, plain or louvered. Supplied with all cabinet trim. SPECIFY: Two tone gray or brown with

black. Types with asterisk (*) shipped from stock, others factory drop shipped within two weeks.

Brown/Black		Two Tone Gray		Type	Wt.	Each
Plain	Louvered	Plain	Louvered			
90F439	90F440	90F441	90F442	SP-502426*	35	66.00
90F443	90F444	90F445	90F446	SP-502428	37	67.00
90F447	90F448	90F449	90F450	SP-502435	46	75.00
90F451	90F452	90F453	90F454	SP-502442	51	79.00
90F455	90F456	90F457	90F458	SP-502443	60	89.00
90F459	90F460	90F461	90F462	SP-502456	67	93.00
90F463	90F464	90F465	90F466	SP-502461*	74	101.00
90F467	90F468	90F469	90F470	SP-502463	77	104.00
90F471	90F472	90F473	90F474	SP-502470*	82	108.00
90F475	90F476	90F477	90F478	SP-502477	89	112.00
90F479	90F480	90F481	90F482	SP-502626	38	68.00
90F483	90F484	90F485	90F486	SP-502628	40	69.50
90F487	90F488	90F489	90F490	SP-502635	49	77.00
90F491	90F492	90F493	90F494	SP-502642	54	81.00
90F495	90F496	90F497	90F498	SP-502649	63	91.00
90F499	90F500	90F501	90F502	SP-502656	70	95.00
90F503	90F504	90F505	90F506	SP-502661*	77	103.00
90F507	90F508	90F509	90F510	SP-502663	80	106.00
90F511	90F512	90F513	90F514	SP-502670*	85	110.00
90F515	90F516	90F517	90F518	SP-502677	92	114.00

Brown/Black		Two Tone Gray		Type	Wt.	Each
Plain	Louvered	Plain	Louvered			
90F519	90F520	90F521	90F522	SP-502826*	42	71.00
90F523	90F524	90F525	90F526	SP-502828	44	72.50
90F527	90F528	90F529	90F530	SP-502835	53	80.00
90F531	90F532	90F533	90F534	SP-502842	58	84.00
90F535	90F536	90F537	90F538	SP-502849	67	94.00
90F539	90F540	90F541	90F542	SP-502856	74	98.00
90F543	90F544	90F545	90F546	SP-502861*	81	106.00
90F547	90F548	90F549	90F550	SP-502863	84	109.00
90F551	90F552	90F553	90F554	SP-502870*	89	113.00
90F555	90F556	90F557	90F558	SP-502877	96	117.00
90F559	90F560	90F561	90F562	SP-503026	44	73.00
90F563	90F564	90F565	90F566	SP-503028	46	74.50
90F567	90F568	90F569	90F570	SP-503035	55	82.00
90F571	90F572	90F573	90F574	SP-503042	60	86.00
90F575	90F576	90F577	90F578	SP-503049	69	96.00
90F579	90F580	90F581	90F582	SP-503056	76	100.00
90F583	90F584	90F585	90F586	SP-503061	83	108.00
90F587	90F588	90F589	90F590	SP-503063	86	111.00
90F591	90F592	90F593	90F594	SP-503070*	91	115.00
90F595	90F596	90F597	90F598	SP-503077	98	119.00

VENT RAK MAY BE ASSORTED — CALL OR WRITE FOR LOWER PRICES

VENT-RAK



WS-5550-A

WS-5580-22

L-5570-T

RM-50XXC—REAR MOUNTING CHANNELS

Formed of 12 gauge steel. RETMA hole pattern precision die-punched provides 10/32 matching tapped holes on one side and 0.218 clearance holes on opposite. Channels adjustable within frames in 1" increments front to back. Finish: zinc-phosphate and two coats of baked dull black enamel. Channels are packed in pairs together with mounting brackets and fasteners. (*) Shipped from stock; others shipped within 2 weeks.

Stk. No.	Type	Weight	NET
90F603	RM-5026-C*	8	5.20
90F604	RM-5028-C	8½	5.60
90F605	RM-5035-C	10	7.00
90F606	RM-5042-C	11	8.40
90F607	RM-5049-C	12½	9.80
90F608	RM-5056-C	13½	11.20
90F609	RM-5061-C	14½	12.20
90F610	RM-5063-C	15	12.60
90F611	RM-5070-C*	16½	14.00
90F612	RM-5077-C	18	15.40

CK-55204—CASTER KIT

Four dual-wheel ball bearing swivel casters. Rated at 1000 pounds loading at 7 m.p.h. at 1000 pounds loading at 7 m.p.h. 90F613. Pkg. of 4

17.40

L-5570T—LIGHT ASSEMBLY

Illustrated. Furnished with 25T10-I.S. bulbs and equipped with single push switch. Requires no panel space. Mounts in horizontal cabinet trim. Finish: clear lacquer.

90F614. EACH 24.75

WS-5580M—MAGNETIC LATCH

Magnetic latch assembly for use with WS-5580 writing surface. Mounts between fixed section of slides behind WS drawer to provide positive latching. Wt. 1 lb.

90F615. EACH 5.95

TOP PANELS

Formed from 16-gauge steel and finished with two coats of baked flat black enamel. Top panels are necessary in multiple cabinet assembly to secure sides and rear panels. (*) Types shipped from stock, others shipped within two weeks.

Lbs.	Type	Plain	Each	Louvered	Each
9	TP-5024*	90F818	7.25	90F617	9.10
9½	TP-5026	90F818	7.50	90F619	9.35
10½	TP-5028*	90F820	7.75	90F621	9.60
11	TP-5030	90F822	8.00	90F623	9.85

WS-5550-A—WRITING SURFACE

Illustrated. Adjustable in and out from cabinet front. Also vertically as designed to mount in cabinet vertical trim. Angular side brackets of steel may be reversed for 15 deg. slope. Writing area 18¾ x 15¾". Grey formica top. Wt. 25 lbs. 90F624. EACH 23.99

WS-5580-22—RETRACTABLE WRITING SURFACE

Illustrated. Requires only 1.750" panel space. Piano hinged surface provides log storage space covered with pearl gray Formica. Includes a pair of 22" 50 lb. chassis slides and 8" adjustable brackets to fit all cabinet depths to 30". Writing area 17"x17". Wt. 25 lbs. 90F625. EACH 42.50

CHASSIS SLIDES

Solid bearing type rated at 50 pounds fully extended at 3G. Closed length 22", extended in front of cabinet 23". Allows use of full 17" wide chassis. Removable chassis section. Adjustable bracket for up to 30" cabinets. With hardware.

90F648. Type CR5522B Tilting. Net Per Pair 12.93
90F649. Type CR5522-S Non-Tilting. Net Per Pair 12.93

CABLE RETRACTORS

Adjusts automatically from minimum (15¼) to maximum extension 23¼" and provides positive stop on return swing, rides on Delrin rollers. May be mounted left or right. Fits all W.E. and RETMA/EIA mounting hole patterns. Wt. 1 lb.

90F626. CR-5505-F. Front Mount. Each 11.60
90F627. CR-5506-C. Rear Mount. Each 12.50

COUPLING KITS

Required when frames are to be joined to form bays. 1-pc. cabinet horiz. extrusion and 2-pc. special vertical extrusion (1 each for front and rear of joined frames) a 30" length of extruded "T" section gasket to close gap at frame top.

Stk. No.	Type	Wt. Lbs.	Each
90F650	CK-5026	9	9.00
90F651	CK-5028	9½	9.60
90F652	CK-5035	10	12.00
90F653	CK-5042	10½	14.40
90F654	CK-5049	11	16.80
90F655	CK-5056	11½	19.20
90F656	CK-5061	12	21.00
90F657	CK-5063	12½	21.60
90F658	CK-5070	13	24.00
90F659	CK-5077	13½	26.40

20 GAUGE STEEL REAR PANELS

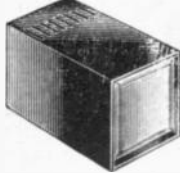
See top panels at left. Specify color. (*) types shipped from stock; others shipped within 2 weeks.

Brown/Blk.	2 tone Gray	Type	Wt. Lbs.	Each
90F628	90F629	RP-5026*	14	18.50
90F630	90F631	RP-5028	15	19.75
90F632	90F633	RP-5035	19	22.25
90F634	90F635	RP-5042	21	23.25
90F636	90F637	RP-5049	24	27.25
90F638	90F639	RP-5056	27	28.25
90F640	90F641	RP-5061*	30	31.25
90F642	90F643	RP-5063	31	32.25
90F644	90F645	RP-5070*	33	33.25
90F646	90F647	RP-5077	36	34.25

LMB CABINETS



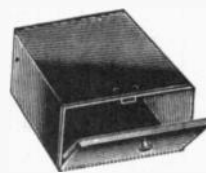
CO-3



SQ-1



CB-1



HA-1



CM-1

LMB cabinets combine strong aesthetic appeal with clean, functional design to make your equipment more attractive than previously possible with stock hardware.

Model C-B-1. Rectangular cabinet with chassis. Recessed front panel; ventilating slots in top. Size 8x10x4½. Aluminum. Shipping weight 3 lbs.

91F1305. Gray. NET 5.35
91F1306. Plain. NET 4.47

Model CO-3. Contoured aluminum cabinet with built-in chassis for smaller equipment. Three perforated sides provide excellent ventilation. Gray body, recessed front panel dark gray. Size, 7½x5½x3¾"; shgp. wgt. 3 lbs.

91F1196. Gray. NET 5.40
91F1197. Plain. NET 4.48

Model SQ-1. Aluminum cabinet with recessed, bevelled front panel. Ventilation slots on bottom and sides; chassis attached to removable back panel. Size 4½x4½x8½", wgt. 2 lbs.

91F1198. Gray. NET 5.35
91F1199. Plain. NET 4.65

In addition to their obvious appeal to electronics equipment manufacturers, these original LMB designs will be of interest to researchers, hobbyists and others who believe good engineering involves more than circuitry.

Model C-B-2. Same as C-B-1, but size is 6x8x4½". Shipping Wt. 2 lbs.

91F1307. Gray. NET 4.97
91F1308. Plain. NET 4.27

Model HA-1. For portable equipment. Front panel is hooded, removable. Hinged door at back for easy access to interior. Chrome carrying handle. Size 11½x10½x5. Aluminum. Shipping weight 3 lbs.

91F1309. Gray. NET 9.75
91F1310. Plain. NET 8.85

Model CM-1. Completely shielded cabinet is actually two cases in one. Two recessed solid front panels. Aluminum. Size, 6x8x3¾"; shipping weight 2 lbs.

91F1313. Gray. NET 5.72
91F1314. Plain. NET 4.50

LMB[®] Cabinets & Chassis



UTILITY ENCLOSURES
Suitable as instrument, amp or transmitter case. Bottom plate of chassis and hood removes with release of 4 screws, allows quick entry to parts without removing front or back panels. Heavy gauge aluminum. Plain or gray hammetone. *Takes 11x17x3" chassis.

Type	Size	Lbs.	Stk. No. Plain	NET	Stk. No. GH	NET
W-1A	7x5x4 1/2"	1 1/2	91F1174	3.97	91F1083	4.84
W-1C	8 1/2 x 6 1/2 x 5"	2	91F1176	4.43	91F1085	5.33
W-1D*	18x9x11"	5	91F1177	9.75	91F1086	13.13



FLANGLOCK BOX CHASSIS
Dust proof in endlock construction. Water and rain proof if properly treated. Sturdy construction and 100% shielded. Aluminum. Unfinished or Gray Hammetone.

Type	Size	Lbs.	Stk. Pl.	NET	Stk. GH	NET
221EL	2 3/4 x 3 1/2 x 1 3/8"	1/4	91F1154	1.13	91F1063	1.13
321EL	3 1/4 x 2 1/2 x 1 3/8"	1/4	91F1155	1.13	91F1064	1.13
421EL	4 x 2 1/2 x 1 3/8"	1/4	91F1156	1.13	91F1065	1.13
422EL	4 x 2 1/4 x 2 1/4"	1/4	91F1157	1.29	91F1066	1.29
424EL	4 x 2 x 4"	3/8	91F1158	1.98	91F1067	1.98
435EL	4 x 3 x 5"	1/2	91F1159	2.19	91F1068	2.19
444EL	4 x 4 x 4"	1/2	91F1160	1.89	91F1069	1.89
531EL	5 1/4 x 3 x 1 1/2"	3/8	91F1161	1.29	91F1070	1.29
532EL	5 1/4 x 3 x 2 1/8"	3/8	91F1162	1.47	91F1071	1.47
534EL	5 3/8 x 3 x 4"	5/8	91F1163	2.06	91F1072	2.06
543EL	5 x 4 x 3"	3/4	91F1164	1.87	91F1073	1.87
546EL	5 x 4 x 6"	3/2	91F1165	2.74	91F1074	2.74
645EL	6 x 4 x 5"	3/4	91F1166	2.60	91F1075	2.60
668EL	6 x 6 x 6"	1 1/8	91F1167	3.39	91F1076	3.39
695EL	6 x 9 x 5"	1 3/16	91F1168	3.84	91F1077	3.84
753EL	7 x 5 x 3"	3/4	91F1169	2.60	91F1078	2.60
754EL	7 x 5 x 4"	7/8	91F1170	2.76	91F1079	2.76
1063EL	10 x 6 x 3 1/2"	1 1/4	91F1171	3.57	91F1080	3.57
1085EL	10 x 8 x 5"	2 1/2	91F1172	4.42	91F1081	4.42
1221EL	12 x 2 x 1 3/4"	1/2	91F1173	1.87	91F1082	1.87



INTERLOCKING CHASSIS
Protects under-chassis wiring and components. Easily fabricated into amp, junction boxes, oscillators. Interlocking type. Simple and speedy to assemble—only 2 set screws to put in place. Gray Hammetone or Plain Aluminum finish.

Type	Size	Lbs.	Stk. No. Plain	NET	Stk. No. GH	NET
M00	2 1/4 x 1 1/2 x 1 3/8"	1/8	91F1105	.57	91F1000	.57
00Z	2 1/8 x 2 1/2 x 1 3/4"	1/4	91F1106	.64	91F1001	.64
000	3 1/4 x 2 1/2 x 1 5/8"	1/4	91F1107	.68	91F1002	.68
00	4 x 2 1/2 x 1 3/8"	1/4	91F1108	.71	91F1003	.71
100	2 3/4 x 2 1/2 x 2 5/8"	1/4	91F1109	.89	91F1003	.89
101	4 1/4 x 2 1/2 x 1 1/4"	1/4	91F1110	.87	91F1004	.87
102	4 x 2 x 2 3/4"	3/8	91F1111	1.02	91F1005	1.02
107	4 x 2 1/2 x 2 1/4"	1/4	91F1112	.96	91F1006	.96
108	5 x 2 1/4 x 2 1/4"	3/8	91F1113	1.03	91F1007	1.03
135	3 3/4 x 3 x 2 1/8"	3/8	91F1114	.97	91F1007	.97
136	5 1/4 x 3 x 2 1/8"	3/8	91F1115	1.08	91F1008	1.08
650	6 1/2 x 2 1/2 x 1 5/8"	1/4	91F1116	1.61	91F1008	1.61
137	8 x 3 x 2 3/4"	5/8	91F1116	1.61	91F1008	1.61
850	8 1/2 x 2 1/2 x 1 5/8"	3/8	91F1117	1.32	91F1009	1.32
138	6 1/4 x 3 1/2 x 2 1/8"	1/2	91F1117	1.32	91F1009	1.32
139	5 1/2 x 3 x 1 1/4"	3/8	91F1118	1.01	91F1010	1.01
140	3 x 4 x 5"	1/2	91F1119	1.29	91F1011	1.29
141	6 x 4 x 3"	1/2	91F1120	1.44	91F1011	1.44
142	6 x 4 x 5"	3/4	91F1121	1.68	91F1012	1.68
143	4 x 4 x 2"	3/8	91F1122	1.33	91F1012	1.33
144	10 x 4 x 2 1/2"	5/8	91F1123	2.19	91F1013	2.19
145	7 x 5 x 3"	3/4	91F1124	2.11	91F1013	2.11
146	8 x 6 x 4 1/2"	1 3/8	91F1125	2.99	91F1014	2.99
15	12 x 2 x 1 3/4"	1/2	91F1125	1.61	91F1017	1.61



MINIATURE BOX CHASSIS
With mounting ears. Cadmium plated, all steel construction. Ideal for subminiature assemblies. May be mounted in any position. With covers. *Not supplied with mtg. ears.

Stk. No.	Type	Size	Lbs.	NET
91F1100	MO-12	2 x 1 1/4 x 1"	3/8	.72
91F1101	MO-17	2 x 1 3/4 x 1"	1/4	.80
91F1102	MO-18	2 x 2 x 1 1/4"	1/4	.80
91F1103	MO-22	3 1/2 x 1 3/4 x 1 1/2"	1/2	.80



SLIDE COVER BOXES
These boxes lend themselves to many uses including communication equipment, terminal block boxes, or custom gauge. Aluminum. Finished in Gray Hammetone.

Stk. No.	Type	Size	Lbs.	NET
91F1191	16	13 x 3 1/2 x 2 5/8"	1 1/8	2.52
91F1018	17	13 x 4 1/2 x 2 5/8"	1 1/8	3.95
91F1019	18	13 x 5 1/2 x 2 5/8"	1 1/4	4.30
91F1020	19	17 x 3 3/8 x 2 5/8"	1 1/4	4.15



"GLAMOR CABINETS"

Suitable for meter, transistor construction, and instrument cases. Outstanding appearance. Made of die folded aluminum. Plain Aluminum or Gray Hammetone.

Type	Size	Lbs.	Stk. No. Plain	NET	Stk. No. GH	NET
W-2AP	3 1/2 x 4 x 3"	1/4	91F1179	1.88	91F1088	2.18
	2 1/4" meter hole					
W-2AP	3 1/2 x 4 x 3"	1/4	91F1180	1.88	91F1089	2.18
	3/4" meter hole					
W-2A	3 1/2 x 4 x 3 1/2"	1/4	91F1178	1.98	91F1087	2.28
W-2B	3 x 7 x 3 1/2"	3/4	.....	.....	91F1090	2.67
	2 1/4" meter hole					
W-2B	3 x 7 x 3 1/2"	3/4	91F1182	2.25	91F1091	2.67
	3/4" meter hole					
W-2C	3 3/4 x 7 x 3 1/2"	3/4	91F1183	2.93	91F1092	3.36

"DELUXE GLAMOR CABINETS"

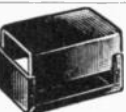
Same as above but with built in chassis.

Type	Size	Lbs.	St. No. Plain	NET	Stk. No. GH	NET
W-2F	7 1/2 x 4 1/2 x 5"	3	91F1187	4.40	91F1096	5.18
W-2G	13 x 10 x 5 3/4"	3	91F1188	9.36	91F1097	11.06
W-2H	7 x 11 x 6 1/4"	2 3/8	91F1189	7.38	91F1098	8.63
W-2J	8 x 11 1/2 x 7 1/2"	3	91F1190	8.10	91F1099	9.35



TITE-FIT BOX CHASSIS
An orthodox construction that is engineered to insure greatest satisfaction for both industry and private users. Aluminum construction. Unfinished or Gray Hammetone.

Type	Size	Lbs.	Stk. Pl.	NET	Stk. GH	NET
T-F770	2 3/4 x 2 1/2 x 1 5/8"	1/4	91F1126	.62	91F1032	.81
T-F771	2 3/4 x 2 1/2 x 2 3/4"	1/4	91F1127	.68	91F1033	.95
T-F772	3 1/2 x 2 1/2 x 1 5/8"	1/4	91F1128	.62	91F1034	.84
T-F773	3 1/2 x 2 1/2 x 1 5/8"	1/4	91F1129	.62	91F1035	.84
T-F774	4 x 2 1/2 x 1 5/8"	1/4	91F1130	.62	91F1036	.95
T-F775	4 x 2 1/2 x 2 1/4"	1/4	91F1131	.75	91F1037	.97
T-F776	4 x 2 x 2 3/4"	1/4	91F1132	.75	91F1038	1.00
T-F777	4 1/4 x 2 1/2 x 1 1/2"	1/4	91F1133	.72	91F1039	1.00
T-F778	5 x 2 1/2 x 2 1/4"	1/4	91F1134	.78	91F1040	1.03
T-F779	5 x 4 x 3"	1/2	91F1135	.94	91F1041	1.32
T-F780	5 1/4 x 3 x 2 1/8"	1/4	91F1136	.82	91F1042	1.12
T-F781	6 x 5 x 4"	3/4	91F1137	1.47	91F1043	1.83
T-F782	7 x 5 x 3"	3/4	91F1138	1.40	91F1044	1.86
T-F783	8 x 6 x 3 1/2"	1	91F1139	1.72	91F1045	2.25



JIFFY BOX CHASSIS
Does not use screws. Closed by snap clamps. Opened by slight finger pressure. Ideal for use where box must be used quickly and often. Aluminum. Unfinished or Gray Hammetone.

Type	Size	Lbs.	Stk. Pl.	NET	Stk. GL	NET
J-870	2 3/4 x 2 1/2 x 1 5/8"	1/4	91F1140	.62	91F1046	.81
J-871	2 3/4 x 2 1/2 x 2 3/4"	1/4	91F1141	.68	91F1047	.95
J-872	3 1/2 x 2 1/2 x 1 5/8"	1/4	91F1142	.62	91F1048	.84
J-873	3 1/2 x 2 1/2 x 1 5/8"	1/4	91F1143	.62	91F1049	.84
J-874	4 x 2 1/2 x 1 5/8"	1/4	91F1144	.62	91F1050	.95
J-875	4 x 2 1/2 x 2 1/4"	1/4	91F1145	.75	91F1051	.97
J-876	4 x 2 x 2 3/4"	1/4	91F1146	.75	91F1052	1.00
J-877	4 1/4 x 2 1/2 x 1 1/2"	1/4	91F1147	.72	91F1053	1.00
J-878	5 x 2 1/2 x 2 1/4"	1/4	91F1148	.78	91F1054	1.03
J-879	5 x 4 x 3"	1/2	91F1149	.94	91F1055	1.32
J-880	5 1/4 x 3 x 2 1/8"	1/4	91F1150	.82	91F1056	1.12
J-881	6 x 5 x 4"	3/4	91F1151	1.47	91F1057	1.83
J-882	7 x 5 x 3"	3/4	91F1152	1.40	91F1058	1.86
J-883	8 x 6 x 3 1/2"	1	91F1153	1.72	91F1059	2.25



UTILITY BOXES
No mounting flanges, affording more space for building. Aluminum construction. Gray Hammetone finish.

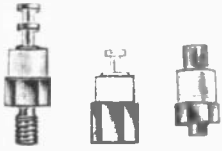
Stock No.	Type	Size	Lbs.	Aluminum Gauge	NET
91F1024	U-C 970	4 x 4 x 2"	1/4	.040	1.82
91F1025	U-C 971	5 x 4 x 3"	1/2	.040	1.98
91F1026	U-C 972	6 x 5 x 4"	5/8	.040	2.52
91F1027	U-C 973	6 x 6 x 6"	1	.040	3.02
91F1028	U-C 974	7 x 5 x 3"	3/4	.040	3.48
91F1029	U-C 975	9 x 6 x 5"	1 1/2	.051	3.89

SHIELDED CHASSIS

For laboratory, industrial production, experimentation and wherever large shielded chassis is required. Aircraft aluminum construction. Plain finish.

Stock No.	Type	Size	Lbs.	NET
91F1021	20	7 1/2 x 7 x 2"	3/4	1.67
91F1022	21	13 x 10 x 3"	2	4.34

CHEMELEC STAND-OFF INSULATORS



CHEMELEC STAND-OFF INSULATORS

Applied as insulated tie-points in circuit wiring, offering low-loss, high-frequency service in radar TV, and other electronic equipment. They are unaffected by humidity, mechanical shock and vibration, and are designed for ambient temp. from -110°F to +500°F; pressure altitudes from 0 to 80,000 feet. Turrets are machined from brass rod, hot tin dipped for easy soldering. Bases are hex brass, cadmium plated per QQP-416 Type 2, Class C and iridite (olive drab) dipped in compliance with military specifications. Formerly Metal Base Style (*) TE400. (†) TE401. (**) TE402. Average shpg. wt. 3 oz.

SINGLE TURRET—HOLE BASE

Stk. No.	Type	Flash-over Pt. V	MMF	Ht.	Mtg. Hole	Thrd.	1-49	50-99	100-249	250-499	500-999	1000-4999
42F591	69002-0001*	7000	.12	3 ¹ / ₆₄	1/8	4-40	.38	.29	.24	.197	.179	.174
42F603	69002-0101†	6300	.24	1 ⁹ / ₃₂	1/8	4-40	.39	.31	.252	.212	.193	.189
42F606	69002-0104†	6300	.24	1 ⁹ / ₃₂	.145	6-32	.39	.30	.250	.212	.193	.179
42F618	69002-0201**	15500	.14	1 ¹¹ / ₆₄	1/8	4-40	.45	.37	.330	.288	.268	.254
42F621	69002-0204**	15500	.14	1 ¹¹ / ₆₄	.145	6-32	.45	.37	.330	.288	.268	.254

DOUBLE TURRET—HOLE BASE

Stk. No.	Type	Flash-over Pt. V	MMF	Ht.	Mtg. Hole	Thrd.	1-49	50-99	100-249	250-499	500-999	1000-4999
42F592	69002-0002*	7000	.12	3 ¹ / ₆₄	1/8	4-40	.38	.30	.24	.20	.181	.177
42F604	69002-0102†	6300	.24	2 ³ / ₃₂	1/8	4-40	.39	.31	.245	.210	.191	.186
42F607	69002-0105†	6300	.24	2 ³ / ₃₂	.145	6-32	.39	.31	.245	.21	.191	.186
42F619	69002-0202**	15500	.14	1 ⁹ / ₆₄	1/8	4-40	.45	.37	.328	.285	.266	.252
42F622	69002-0205**	15500	.14	1 ⁹ / ₆₄	.145	6-32	.45	.37	.328	.285	.266	.252

SLOTTED TURRET—HOLE BASE

Stk. No.	Type	Flash-over Pt. V	MMF	Ht.	Mtg. Hole	Thrd.	1-49	50-99	100-249	250-499	500-999	1000-4999
42F593	69002-0003*	7000	.12	3 ¹ / ₆₄	1/8	4-40	.41	.33	.275	.233	.214	.200
42F605	69002-0103†	6300	.24	1 ⁹ / ₃₂	1/8	4-40	.41	.33	.275	.233	.214	.200
42F608	69002-0106†	6300	.24	1 ⁹ / ₃₂	.145	6-32	.41	.33	.275	.233	.214	.200
42F623	69002-0206**	15500	.14	1 ¹¹ / ₆₄	.145	6-32	.47	.39	.353	.311	.292	.278

SINGLE TURRET—STUD BASE

Stk. No.	Type	Flash-over Pt. V	MMF	Ht.	Mtg. Hole	Thrd.	1-49	50-99	100-249	250-499	500-999	1000-4999
42F594	69002-0007*	7000	.12	4 ³ / ₆₄	1/8	4-40	.39	.31	.252	.212	.193	.189
42F597	69002-0010*	7000	.12	4 ³ / ₆₄	.145	6-32	.39	.30	.252	.212	.193	.179
42F612	69002-0110†	6300	.24	4 ³ / ₆₄	.145	6-32	.39	.31	.256	.217	.197	.184
42F627	69002-0210**	15500	.14	1 ¹¹ / ₃₂	.145	6-32	.46	.38	.334	.292	.273	.259

DOUBLE TURRET—STUD BASE

Stk. No.	Type	Flash-over Pt. V	MMF	Ht.	Mtg. Hole	Thrd.	1-49	50-99	100-249	250-499	500-999	1000-4999
42F595	69002-0008*	7000	.12	3/4	1/8	4-40	.39	.31	.25	.214	.196	.191
42F598	69002-0011*	7000	.12	3/4	.145	6-32	.39	.30	.252	.212	.193	.179
42F610	69002-0108†	6300	.24	5 ⁷ / ₆₄	1/8	4-40	.39	.30	.254	.214	.195	.181
42F613	69002-0111†	6300	.24	5 ⁷ / ₆₄	.145	6-32	.39	.30	.254	.214	.195	.185
42F625	69002-0208**	15500	.14	1 ¹⁵ / ₃₂	1/8	4-40	.49	.42	.372	.33	.311	.297
42F628	69002-0211**	15500	.14	1 ¹⁵ / ₃₂	.145	6-32	.45	.38	.332	.290	.271	.257

SLOTTED TURRET—STUD BASE

Stk. No.	Type	Flash-over Pt. V	MMF	Ht.	Mtg. Hole	Thrd.	1-49	50-99	100-249	250-499	500-999	1000-4999
42F611	69002-0109†	6300	.24	4 ⁹ / ₆₄	1/8	4-40	.43	.35	.304	.284	.242	.228
42F629	69002-0212**	15500	.14	1 ¹¹ / ₃₂	.145	6-32	.47	.40	.355	.313	.294	.280

CHEMELEC FEED-THRU INSULATORS



CHEMELEC FEED-THRU

Has a hollow-threaded metal body which fits through bed plate and is secured by a hex nut. Terminal passing through hollow body is spaced by a force-fitted plug. Body is cadmium plated per QQP-416 Type 2 Class C and iridite (olive drab) dipped in compliance with military spec. Terminal is brass, hot tin dipped. Formerly Metal Body Style CF405. Average wt., 3 oz.

Stk. No.	Type	Flash-over Pt. V	MMF	Ht.	Mtg. Hole	1-49	50-99	100-249	250-499	500-999	1000-4999
42F554	69001-0500‡	3500	2.0	.690	12-28	.53	.45	.420	.378	.360	.355
42F555	69001-0501‡	3500	2.0	.690	12-40	.67	.59	.57	.53	.50	.49
42F556	69001-0600	4500	1.5	.876	1/4-32	1.60	.58	.465	.424	.405	.40
42F557	69001-0700	6300	1.95	1.316	3/8-32	1.16	1.07	.95	.91	.90	.89

‡Terminal has one turret only; part is supplied without washer.

CHEMELEC COMPRESSION INSULATORS

CHEMELEC Stand Off and Feed Thru compression insulators can be compressed into mounting holes and are self fastening, requiring no additional hardware. This reduces assembly time and costs, assures high-speed economical production. The properties of TFE permit press-fit without breakage. Insulators are shock and vibration proof; they can be soldered without damage because of high heat resistance. Excellent electrical characteristics make them easily adaptable to miniaturization and high frequency, high voltage circuits. Insulator body is TFE. Solder terminal is brass except (*) electro tin plated terminal (†) Silver plated terminal. Finish is hot tin dip except where noted. All flashover point readings are short time tested at sea level. Capacitance values are based on a frequency of 1000 KC with units mounted on 1/16" aluminum panel. Average shipping weight, 3 oz.

STAND-OFF INSULATORS, COMPRESSION MOUNTED (FORM. STYLE TE405-TE413)

Stock No.	Type	Flash-over pt. VRMS	Cap. uuf	Fig.	L.	Mtg. Dia.	Outside Dia.	1-49	50-99	100-249	250-499	500-999	1000-4999
42F643	69002-1300	6300	.40	1	1 ³ / ₂	.245	.312	.40	.31	.257	.214	.195	.191
42F642	69002-1235	7000	.25	9	2 ¹ / ₂	.187	.250	.39	.32	.261	.218	.200	.195
42F651	69002-5311	3500	.5	2	3 ⁶⁵ / ₁₆	.148	.172	.14	.13	.12	.11	.108	.105
42F652	69002-5312	4000	.5	2	3 ⁸² / ₁₆	.148	.172	.33	.25	.184	.141	.122	.118
42F655	69002-5340	3500	.5	3	2 ⁴⁵ / ₁₆	.148	.172	.33	.26	.192	.148	.129	.112
42F657	69002-5344	3500	.5	3	2 ⁴⁰ / ₁₆	.148	.172	.32	.24	.172	.129	.110	.0965
42F661	69002-6324	5000	.32	3	3 ⁵⁸ / ₁₆	.165	.196	.36	.28	.221	.179	.160	.146
42F666	69002-6355	5000	.40	3	4 ⁴³ / ₁₆	.171	.196	.40	.32	.261	.218	.199	.185
42F656	69002-5342	3500	.5	1	3 ⁶⁵ / ₁₆	.148	.172	.32	.24	.177	.134	.115	.101
42F634	69002-0600	5000	.32	1	4 ²¹ / ₁₆	.165	.196	.41	.33	.275	.232	.215	.205
42F664	69002-6351*	5000	.40	1	3 ⁹ / ₁₆	.171	.196	.44	.36	.30	.258	.239	.225
42F665	69002-6352†	5000	.40	1	4 ⁸² / ₁₆	.148	.172	.44	.36	.298	.255	.236	.222
42F637	69002-0900	10000	.10	1	6 ⁹⁶ / ₁₆	.165	.196	.32	.25	.187	.168	.147	.147
42F668	69002-8064	7500	.18	1	6 ⁰⁰ / ₁₆	.171	.196	.36	.29	.226	.184	.165	.151
42F633	69002-0500	3500	.5	2	3 ⁶⁵ / ₁₆	.148	.172	.10	.094	.092	.085	.08	.075
42F647	69002-5301	4000	.5	2	3 ⁶⁵ / ₁₆	.148	.172	.30	.22	.151	.108	.089	.08
42F653	69002-5313	3500	.5	2	3 ⁸² / ₁₆	.148	.172	.33	.25	.188	.146	.127	.122
42F658	69002-5351*	3500	.5	2	6 ⁰⁵ / ₁₆	.148	.172	.38	.29	.177	.134	.115	.101
42F667	69002-8050	7500	.20	2	6 ⁰⁰ / ₁₆	.165	.196	.34	.26	.200	.158	.139	.125

CONTINUED ON NEXT PAGE.

GARLOCK Chemelec Components

CHEMELEC COMPRESSION INSULATORS—Continued FEED-THRU INSULATORS—COMPRESSION MOUNTED (FORM. STYLE CF406-CF418)

Stock No.	Type	Flash-over pt. VRMS	Cap. uuf	Fig.	L.	Mtg. Dia.	Out-side Dia.	1-49	50-99	100-249	250-499	500-999	1000-4999
42F565	69001-1800	6000	.75	4	.136	.245	.56	.49	.41	.374	.332	.313	.308
42F563	69002-5341	4000	.65	3	.351	.148(A)	.172	.34	.26	.200	.158	.139	.125
42F583	69001-8357	1500	.70	5	.443	.148	.172	.34	.27	.202	.160	.141	.127
42F558	69001-0800	3500	.72	6	.515	.148	.172	.10	.094	.092	.085	.080	.075
42F568	69001-8010	3900	.50	6	.515	.179	.200	.32	.24	.169	.127	.108	.104
42F569	69001-8020	4000	.45	6	.515	.218	.250	.33	.25	.183	.141	.122	.1175
42F570	69001-8030	3500	.60	6	.443	.148	.172	.30	.22	.148	.1059	.087	.082
42F573	69001-8314	3500	.72	6	.515	.148	.172	.30	.22	.151	.108	.090	.085
42F574	69001-8316	3500	.72	6	.375	.148	.172	.30	.22	.148	.106	.087	.0824
42F575	69001-8317	3500	.72	6	.407	.148	.172	.30	.22	.151	.108	.090	.085
42F579	69001-8339	3500	.65	6	1.000	.148	.172	.31	.27	.207	.165	.146	.141
42F585	69001-8364	3500	.65	6	.535	.148	.172	.16	.15	.14	.11	.105	.093
42F590	69001-9366*	5000	.90	6	.740	.171	.3/16	.50	.43	.36	.324	.305	.301
42F564	69001-1382*	7000	.82	6	.865	.171	.3/16	.42	.34	.290	.247	.228	.221
42F582	69001-8353	3500	.72	8	.325	.148	.172	.33	.25	.188	.146	.127	.122
42F559	69001-0900	5000	.90	8	.740	.171	.3/16	.22	.19	.17	.15	.14	.135
42F588	69001-9325	5000	.90	8	.835	.171	.3/16	.38	.26	.228	.178	.152	.143
42F589	69001-9354	4000	.80	8	.562	.171	.3/16	.41	.34	.284	.242	.223	.218
42F560	69001-1000	7000	.82	8	.865	.171	.3/16	.30	.27	.22	.18	.175	.17
42F563	69001-1300	15500	1.02	8	1.965	.217	1/4	.80	.72	.704	.696	.688	.673
42F576	69001-8320†	3500	.50	7	.421	.148(B)	.172	.30	.25	.19	.15	.142	.12
42F578	69001-8337	3500	.72	7	.500	.148	.172	.16	.15	.14	.135	.130	.125
42F581	69001-8348	5000	.80	7	.828	.171	.3/16	.36	.28	.216	.174	.155	.151
42F567	69001-1805	4750	.60	.....	.468	.364	.416	.46	.38	.339	.314	.278	.273

A. .062D thru hole in terminal. B. Hole .042 in dia. by .109 in. deep in terminal; no middle turret on terminal.

CONNECTORS



Single pin, compression mounted, TFE insulated connectors. Terminals are brass, silver plated and gold flashed.

Flashover (short time, sea level) 3500 VRMS. Cap. (freq. 1000KC) .6 to .9 uuf depending on deck. Plug is .691" long, socket is .510". Their mounting diameter is .100". Shpg. wt. 3 oz.

PLUGS

Stk. No.	Type	Dia.	1-49	50-99	100-249	250-499	500-999	1000-4999
42F746	69003-1240	.040	.40	.33	.29	.26	.24	.23
42F747	69003-1250	.050						
42F748	69003-1264	.064						

SOCKETS

Stk. No.	Type	Dia.	1-49	50-99	100-249	250-499	500-999	1000-4999
42F749	69003-1340	.040	.45	.38	.33	.28	.26	.25
42F750	69003-1350	.050						
42F751	69003-1364	.064						

TEST POINTS

STANDARD TEST POINTS



Insulator Material—TFE. Mounting Hole—.173±.002 dia. Flashover—3000 VRMS. Cap. (Freq. 1000KC)—1.5 MMFD (1/16" deck) 1.55 MMFD (3/16" deck). Torque—7 in. oz. (1/16" deck) 14 in. oz. (3/16" deck). Pull—25 lbs.

MMFD (3/16" deck). Torque—7 in. oz. (1/16" deck) 14 in. oz. (3/16" deck). Pull—25 lbs.

Stk. No.	Type	Contact Material	1-49	50-99	100-249	250-499	500-999	1000-4999
42F680	69003-1194	Brass, silver plated and gold flashed	.45	.37	.322	.28	.261	.247
42F679	69003-1183	Beryllium copper, silver plated & gold flashed							.32	.29	.26	.258	.242	.216

NOTE: Available in various colors. Refer to color chart below.

HIGH VOLTAGE TEST POINTS

Stk. No.	Type	Contact Material	1-49	50-99	100-249	250-499	500-999	1000-4999
42F681	69003-1185	Brass, silver plated and gold flashed	.45	.37	.322	.280	.261	.247
42F683	69003-1190	Beryllium copper, silver plated & gold flashed							.44	.36	.311	.268	.250	.236

NOTE: Available in various colors. Refer to color chart below.

MINIATURE TEST POINTS

Stk. No.	Type	Contact Material	1-49	50-99	100-249	250-499	500-999	1000-4999
42F682	69003-1186	Beryllium copper, electro tin plate	.53	.46	.419	.376	.358	.344

NOTE: Available in various colors. Refer to color chart below.

PRINTED CIRCUIT TEST POINTS

Stk. No.	Type	Length	1-49	50-99	100-249	250-499	500-999	1000-4999
42F684	69003-1191	.400	.73	.62	.506	.465	.446	.432

NOTE: Available in various colors. Refer to color chart below.

COLOR CHART

When ordering specify the color of insulator by adding the color code number after the stock number. The colors and their numbers are:

Add to Stock No.	Color	Mfr. Color Type	Add to Stock No.	Color	Mfr. Color Type
1	White	69003	6	Yellow	69029
2	Red	69026	7	Orange	69025
3	Green	69028	8	Brown	69023
4	Blue	69021	9	Grey	69024
5	Violet	69027	10	Black	69022

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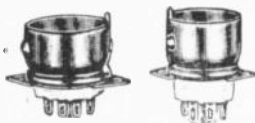
NEWARK speeds your project by off-the-shelf supply of over 70,000 items in current demand. NEWARK saves you time and money by placing your one purchase order at QUANTITY PRICES COMPETITIVE WITH THE MANUFACTURER.

Components and Sockets

CHEMELEC JAN SPEC.

SHIELD BASE MIN. SOCKETS

Contacts are beryllium copper and silver plated. Contacts exceed JAN specifications for tube retention, tab flexing and contact resistance. Plating meets JAN specifications. Brass nickel plated except (*) steel cadmium plated.



7-PIN SOCKETS

Stock No.	Type	1-49	50-99	100-249	250-499	500-999	1000-4999
42F706	69005-7717	.99	.90	.786	.744	.725	.72

9-PIN SOCKETS

Stock No.	Type	1-49	50-99	100-249	250-499	500-999	1000-4999
42F710	69005-7917	1.12	1.03	.916	.874	.855	.85

CHEMLEC JAN-SPEC 9-PIN BOTTOM MTG. MIN. SOCKETS

Series 69005. Cad. plated steel or nickel plated brass base. Contacts are silver plated beryllium copper. Requires 3/4"D. hole. *Has ground lugs. Insulation is FEP. Wt. approx. 3 oz.



Stock No.	Type	Base	1-49	50-99	100-249	250-499	500-999	1000-4999
42F713	*7933	Steel	1.06	.97	.857	.814	.796	.781
42F715	7947	Brass	1.07	.98	.867	.824	.805	.79

CHEMELEC JAN-SPEC 9-PIN SADDLE BASE MIN. SOCKETS

Series 69005. Nickel plated brass base. Contacts are silver plated beryllium copper. Insulation is FEP. Requires 3/4"D. hole. Wt., 3 oz.



Stock No.	Type	Base	1-49	50-99	100-249	250-499	500-999	1000-4999
42F712	7927	Brass	1.08	.97	.879	.835	.816	.812

CHEMELEC JAN-SPEC 7-PIN SADDLE BASE MIN. SOCKETS

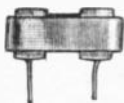
Series 69005. Cad. plated steel or nickel plated brass base. Contacts are silver plated beryllium copper. Insulation is FEP. Requires 3/4"D. hole. Wt., 3 oz.



Stock No.	Type	Base	1-49	50-99	100-249	250-499	500-999	1000-4999
42F707	7723	Steel	.89	.81	.749	.706	.686	.674
42F708	7727	Brass	.95	.86	.749	.706	.688	.684

CHEMELEC TEFLON CRYSTAL SOCKETS

Insulated with DuPont Teflon TFE, this crystal socket is designed for application where low loss, frequency stability, mech. vibration and shock are problems. Mtg. hole is 1/8"D., 1/8" deep. Lug centers spaced .486", ins. thickness is 3/8" max., 1/2" min. Length, 7/8", width, 3/8". For .05" pin dia. Contacts are silver plated beryllium copper. Weight, 2 oz.



Stock No.	Type	1-49	50-99	100-249	250-499	500-999	1000-4999
42F716	69007-4410	.78	.64	.558	.492	.472	.458

CHEMELEC TEFLON SUB-MIN. TUBE LEAD INSULATOR

Molded from Teflon TFE for heat res. up to 500° F., zero moisture absorption and loss factor less than .0005. 8 .024" holes spaced 40° on .234" dia. circle. Total dia., .392", .062" thick. Wt., 1 oz.



Stock No.	Type	1-49	50-99	100-249	250-499	500-999	1000-4999
42F733	69011-1053	.27	.19	.121	.079	.067	.062

CHEMELEC TRANSISTOR LEAD INSULATORS

Series 69011. Made from low-loss, heat-resistant TFE-1055 is circular (.392"D.) with 4 .024" holes spaced 90° on .2" circle, .062" thick. 1058 and 1060 have diameter of .312 and .400 respectively. Others are oblong, 1/2" wide times lengths listed below. Hole dia. .024". Shpg. wt. 1 oz.



Stock No.	Type	Holes	Length (in.)	1-49	50-99	100-249	250-499	500-999	1000-4999
42F734	1055	4	.27	.19	.0958	.0704	.0612	.0584	
42F752	1058		.17	.17	.166	.162	.157	.153	
42F730	0425	5	.325	.37	.28	.187	.125	.106	.092
42F731	0427	7	.422	.39	.30	.188	.146	.127	.113
42F732	0435	5	.375	.31	.24	.166	.123	.105	.0914
42F753	1060		.18	.16	.064	.061	.058	.056	

CHEMELEC TFE GROMMETS

Series 69009. Made from tough TFE; totally non-absorbent, have high dielectric strength and are useful from -110°F. to +500°F. Completely non-inflammable and highly weather-resistant, have a tensile strength of 2500-3500 PSI. All are 3/16" high with 1/16" notch except *1/4" high with 1/8" notch. Nominal weight, 1 oz.

Stock No.	Type	I.D. (in.)	O.D. (in.)	1-49	50-99	100-249	250-499	500-999	1000-4999
42F717	0034	1/4	1/2	1.11	1.02	.816	.685	.543	.482
42F718	0035	5/16	3/4	1.19	1.10	.897	.667	.625	.564
42F719	0036	3/8	5/8	1.19	1.10	.897	.667	.625	.564
42F720	0038	1/2	3/4	1.41	1.31	1.11	.878	.836	.775
42F726	0048	1/2	3/4	1.55	1.46	1.25	1.02	.984	.923
42F727	0410	5/8	3/4	1.58	1.56	1.28	1.05	1.00	.946
42F729	0422	*13/16	13/16	2.51	2.42	2.22	1.99	1.94	1.88

CHEMELEC TFE SUB-MIN. TUBE & INTEGRATED CIRCUIT SOCKETS

Designed to receive .018 D. leads. 69012-0428 has 8 pins on .234 D. -0526 and -0528 have 6 and 8 pins on .2 D. -0009 has 12 pins on square .300 on a side. -0015 has 10 pins on .230 D. -0019 has 12 pins on .270 D. Pin-to-pin cap. .7 mmf., 5 mmf pin to chassis. Wt. 2 oz.



Stock No.	Type	Contacts	1-49	50-99	100-249	250-499	500-999	1000-4999
42F738	69012 0428	8	1.83	1.74	1.63	1.59	1.57	1.55
42F754	69012-0526	6	1.81	1.73	1.66	1.58	1.49	1.27
42F755	69012-0528	8	1.89	1.81	1.73	1.64	1.56	1.32
42F756	69012-0009	12	7.09	6.54	6.05	5.48	5.29	4.99
42F757	69012-0015	10	2.13	2.04	1.96	1.87	1.78	1.53

CHEMELEC SUB-MIN. TUBE AND TRANSISTOR SOCKETS

Series 69013. Mounts in hole .160" wide times lengths listed below. Silver-plated gold-flashed brass contacts. Pin-to-pin cap., 6 mmf, 5 mmf to chassis. Ins. thickness, .268". Shpg. wt. 2 oz.



Stock No.	Type	Contacts	Mtg. Htg L	1-49	50-99	100-249	250-499	500-999	1000-4999
42F739	0423	3	.255"	1.07	.98	.873	.831	.812	.788
42F741	0425	5	.355"	1.74	1.65	1.54	1.50	1.48	1.46
42F742	0426	6	.405"	1.82	1.73	1.62	1.57	1.56	1.50
42F743	0427	7	.457"	1.98	1.90	1.79	1.75	1.73	1.71

CHEMELEC SUB-MIN. TUBE & INTEGRATED CIRCUIT SOCKETS

Series 69012. Molded of Teflon TFE, with nickel-plated gold-flashed brass contacts. Withstands 50 lbs. min. pull in 1/16" panel. Mts. in .36"D. hole, contacts are spaced 90° on .2" circle except *1" circle. Insulator thickness is .268", total length is 1/16". Pin-to-pin cap., .4 mmf except †.8 mmf., .5 mmf pin-to-chassis cap. Shpg. wt. 2 oz.



Stock No.	Type	Pins	1-49	50-99	100-249	250-499	500-999	1000-4999
42F735	0414	†*4	.79	.70	.589	.546	.528	.514
42F736	0423	3	.74	.65	.542	.50	.481	.467
42F737	0424	4	.66	.60	.577	.54	.52	.51

TFE-insulated. Beryllium copper contact, nickel-plated and gold flashed. Types 0533, 0534 have capacitances of .75 MMF from pin to pin. Types 0523, 0524 have capacitances of .4 MMF from pin to pin.

Stock No.	Type	Pins	1-49	50-99	100-249	250-499	500-999	1000-4999
42F758	69012-0533	3	.81	.78	.74	.70	.67	.67
42F759	69012-0534	4	.97	.92	.88	.84	.80	.68
42F760	69012-0523	3	.74	.71	.68	.65	.61	.52
42F761	69012-0524	4	.87	.83	.79	.75	.72	.61
42F762	69012-0623	3	.89	.86	.83	.79	.76	.67

NUVISTOR SOCKET

Type 69012-0021. Designed to receive 5 pin RCA Nuvistor. TFE insulation.

Stk. No.	Type	1-49	50-99	100-249	250-499	500-999	1000-4999
42F763	69012-0021	2.25	2.05	2.00	1.95	1.91	1.86

MINIATURE CRYSTAL SOCKET

Type 69007-4413. Designed to receive 2 pin crystal. .040 dia., .192 center to center distance. TFE insulation.

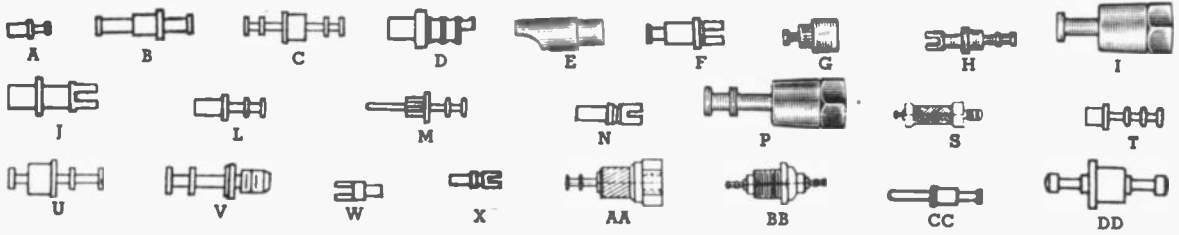
42F764	69007-4413	.40	.38	.37	.362	.353	.345
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TRANSISTOR SOCKET FOR JEDEC MT-31 AND TO-60

Type 69012-0022. TFE insulated for RF amplification in mobile communications equipment requiring low loss material.

42F765	69012-0022	.92	.84	.80	.76	.72	.68
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CAMBION Solder Terminals and Chokes



SOLDER TERMINALS

Stk. No.	Type	Fig.	100-499	500-999	1M-4999	5M-9999	10M-24999	25M-49999
40F1261	1010-3	I	5.61C	5.10C	43.20M	39.60M	36.00M	34.90M
40F1267	1019-2	N	2.22C	2.03C	16.60M	15.20M	13.80M	13.40M
40F1244	1021-3	Q	7.97C	7.25C	62.00M	59.90M	51.30M	49.50M
40F1245	1022-4	G	8.81C	8.02C	68.50M	62.80M	56.70M	54.60M
40F1360	1026-1	L	1.60C	1.46C	11.80M	10.80M	9.80M	9.50M
40F1361	1026-2	L	1.60C	1.46C	11.80M	10.80M	9.80M	9.50M
40F1365	1030-2	C	4.09C	3.73C	30.90M	34.40M	25.60M	24.60M
40F1317	1031-2	C	3.19C	2.91C	24.20M	22.20M	20.20M	19.50M
40F1323	1032-2	C	2.04C	1.86C	15.20M	15.90M	12.60M	12.20M
40F1327	1035-2	C	2.73C	2.48C	20.60M	18.90M	17.20M	16.60M
40F1330	1035-5	B	2.73C	2.48C	20.60M	18.90M	17.20M	16.60M
40F1340	1041-1	C	2.31C	2.11C	17.40M	16.00M	14.50M	14.00M
40F1160	1061-4	C	5.18C	4.72C	40.30M	37.00M	33.20M	32.00M
40F1161	1081-3	C	5.18C	4.72C	40.30M	37.00M	33.20M	32.00M
40F1163	1081-6	C	5.18C	4.72C	40.30M	37.00M	33.20M	32.00M
40F1014	1245-2	A	2.19C	2.00C	10.40M	15.10M	13.70M	13.30M
40F1016	1245-4	A	2.19C	2.00C	6.40M	15.10M	13.70M	13.30M
40F1009	1457-1	A	1.41C	1.29C	10.20M	9.40M	8.50M	8.20M
40F1010	1457-2	A	1.41C	1.29C	10.20M	9.40M	8.50M	8.20M
40F1011	1457-3	A	1.41C	1.29C	10.20M	9.40M	8.50M	8.20M
40F1012	1457-4	A	1.41C	1.29C	10.20M	9.40M	8.50M	8.20M
40F1251	1459-2	K	1.92C	1.75C	14.20M	13.00M	11.80M	11.40M
40F1141	1463-1	DD	1.98C	1.81C	14.60M	13.40M	12.20M	11.80M
40F1142	1463-2	DD	1.98C	1.81C	14.60M	13.40M	12.20M	11.80M
40F1144	1463-4	DD	1.98C	1.81C	14.60M	13.40M	12.20M	11.80M
40F1071	1548-1	L	1.92C	1.75C	14.20M	13.00M	11.80M	11.40M
40F1072	1548-2	L	1.92C	1.75C	14.20M	13.00M	11.80M	11.40M
40F1073	1548-3	L	1.92C	1.75C	14.20M	13.00M	11.80M	11.40M
40F1074	1548-4	L	1.92C	1.75C	14.20M	13.00M	11.80M	11.40M
40F1075	1548-5	L	1.92C	1.75C	14.20M	13.00M	11.80M	11.40M
40F1019	1558-1	L	1.32C	1.21C	9.60M	8.80M	8.00M	7.80M
40F1020	1558-2	L	1.32C	1.21C	9.60M	8.80M	8.00M	7.80M
40F1021	1558-3	L	1.32C	1.21C	9.60M	8.80M	8.00M	7.80M
40F1022	1558-4	L	1.32C	1.21C	9.60M	8.80M	8.00M	7.80M
40F1134	1578-3	N	3.81C	3.47C	29.00M	26.60M	24.20M	23.40M
40F1135	1578-4	N	3.81C	3.47C	29.00M	26.60M	24.20M	23.40M
40F1156	1579-3	U	4.23C	3.85C	32.30M	29.70M	27.00M	26.10M
40F1157	1579-4	U	4.23C	3.85C	32.30M	29.70M	27.00M	26.10M
40F1210	1582-1	V	4.17C	3.80C	31.90M	29.30M	26.60M	25.70M
40F1025	1597-1	L	1.59C	1.45C	11.70M	10.70M	9.70M	9.40M
40F1026	1597-2	L	1.59C	1.45C	11.70M	10.70M	9.70M	9.40M
40F1027	1597-3	L	1.59C	1.45C	11.70M	10.70M	9.70M	9.40M
40F1028	1597-4	L	1.59C	1.45C	11.70M	10.70M	9.70M	9.40M
40F1029	1597-5	L	1.59C	1.45C	11.70M	10.70M	9.70M	9.40M
40F1007	1604-2	A	1.60C	1.46C	11.80M	10.80M	9.80M	9.50M
40F1008	1604-3	A	1.60C	1.46C	11.80M	10.80M	9.80M	9.50M
40F1037	1724-1	L	2.11C	1.93C	15.80M	14.50M	13.20M	12.70M
40F1038	1724-2	L	2.11C	1.93C	15.80M	14.50M	13.20M	12.70M
40F1039	1724-3	L	2.11C	1.93C	15.80M	14.50M	13.20M	12.70M
40F1040	1724-4	L	2.11C	1.93C	15.80M	14.50M	13.20M	12.70M
40F1128	1783-4	N	6.04C	5.50C	46.50M	42.70M	38.80M	37.50M
40F1123	1784-2	N	3.46C	3.15C	26.30M	24.10M	21.90M	21.20M
40F1124	1784-3	N	3.46C	3.15C	26.30M	24.10M	21.90M	21.20M
40F1107	1785-1	W	1.87C	1.71C	13.90M	12.80M	11.40M	11.00M
40F1108	1785-2	W	1.87C	1.71C	13.90M	12.80M	11.40M	11.00M
40F1109	1785-3	W	1.87C	1.71C	13.90M	12.80M	11.40M	11.00M
40F1110	1785-4	W	1.87C	1.71C	13.90M	12.80M	11.40M	11.00M
40F1068	1797-2	A	2.16C	1.97C	16.10M	14.70M	13.40M	13.00M
40F1069	1797-3	A	2.16C	1.97C	16.10M	14.70M	13.40M	13.00M
40F1070	1797-4	A	2.16C	1.97C	16.10M	14.70M	13.40M	13.00M
40F1077	1798-2	L	3.21C	2.93C	24.40M	22.30M	13.40M	13.00M
59F1412	1813-3	E	4.59C	4.16C	34.90M	32.00M	26.70M	.....
59F1413	1814-3	E	4.59C	4.16C	34.90M	32.00M	26.70M
59F1414	1815-3	E	4.59C	4.16C	34.90M	32.00M	26.70M

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Stk. No.	Type	Fig.	100-499	500-999	1M-4999	5M-9999	10M-24999	25M-49999
59F1305	1941-3	N	1.66C	1.51C	13.00M	12.00M	11.00M	10.70M
40F1119	1969-2	W	2.78C	2.54C	21.00M	19.40M	17.50M	17.00M
40F1120	1969-3	W	2.78C	2.54C	21.00M	19.40M	17.50M	17.00M
40F1121	1969-4	W	2.78C	2.54C	21.00M	19.40M	17.50M	17.00M
40F1082	1979-2	D	3.25C	2.96C	24.70M	22.70M	20.60M	19.90M
40F1083	1979-3	D	3.25C	2.96C	24.70M	22.70M	20.60M	19.90M
40F1084	1979-4	D	3.25C	2.96C	24.70M	22.70M	20.60M	19.90M
40F1146	2000-1	U	2.14C	1.95C	16.00M	14.60M	13.30M	12.80M
40F1147	2000-2	U	2.14C	1.95C	16.00M	14.60M	13.30M	12.80M
40F1148	2000-3	U	2.14C	1.95C	16.00M	14.60M	13.30M	12.80M
40F1149	2000-4	U	2.14C	1.95C	16.00M	14.60M	13.30M	12.80M
40F1151	2004-2	C	2.10C	1.92C	15.60M	14.30M	13.10M	12.60M
40F1152	2004-3	C	2.10C	1.92C	15.60M	14.30M	13.10M	12.60M
40F1153	2004-4	C	2.10C	1.92C	15.60M	14.30M	13.10M	12.60M
40F1063	2027-1	A	1.87C	1.71C	13.90M	12.80M	11.40M	11.00M
40F1064	2027-2	A	1.87C	1.71C	13.90M	12.80M	11.40M	11.00M
40F1065	2027-3	A	1.87C	1.71C	13.90M	12.80M	11.40M	11.00M
40F1066	2027-4	A	1.87C	1.71C	13.90M	12.80M	11.40M	11.00M
40F1032	2034-2	L	2.20C	2.01C	16.50M	15.10M	13.60M	13.10M
40F1033	2034-3	L	2.20C	2.01C	16.50M	15.10M	13.60M	13.10M
40F1034	2034-4	L	2.20C	2.01C	16.50M	15.10M	13.60M	13.10M
40F1035	2034-5	L	2.20C	2.01C	16.50M	15.10M	13.60M	13.10M
40F1204	2040-1	L	2.27C	2.07C	16.90M	15.50M	14.00M	13.60M
40F1205	2040-2	L	2.27C	2.07C	16.90M	15.50M	14.00M	13.60M
40F1206	2040-3	C	2.27C	2.07C	16.90M	15.50M	14.00M	13.60M
40F1180	2041-1	A	1.44C	2.32C	10.60M	9.70M	8.70M	8.50M
40F1181	2041-2	A	1.44C	2.32C	10.60M	9.70M	8.70M	8.50M
40F1186	2042-1	B	1.56C	1.43C	11.40M	10.60M	9.60M	9.30M
40F1187	2042-2	B	1.56C	1.43C	11.40M	10.60M	9.60M	9.30M
40F1192	2043-1	L	1.50C	1.38C	11.00M	10.10M	9.20M	8.90M
40F1193	2043-2	L	1.50C	1.38C	11.00M	10.10M	9.20M	8.90M
40F1194	2043-3	L	1.50C	1.38C	11.00M	10.10M	9.20M	8.90M
40F1195	2043-4	L	1.50C	1.38C	11.00M	10.10M	9.20M	8.90M
40F1198	2044-1	U	1.65C	1.51C	12.10M	11.10M	10.00M	9.70M
40F1199	2044-2	U	1.65C	1.51C	12.10M	11.10M	10.00M	9.70M
40F1200	2044-3	U	1.65C	1.51C	12.10M	11.10M	10.00M	9.70M
40F1201	2044-4	U	1.65C	1.51C	12.10M	11.10M	10.00M	9.70M
40F1212	2051-1	V	4.68C	4.56C	35.90M	32.90M	29.90M	28.90M
40F1213	2051-2	V	4.68C	4.56C	35.90M	32.90M	29.90M	28.90M
40F1048	2080-1	T	1.99C	1.82C	14.90M	13.60M	12.30M	12.00M
40F1049	2080-2	T	1.99C	1.82C	14.90M	13.60M	12.30M	12.00M
40F1050	2080-3	T	1.99C	1.82C	14.90M	13.60M	12.30M	12.00M
40F1051	2080-4	T	1.99C	1.82C	14.90M	13.60M	12.30M	12.00M
40F1139	2081-3	M	2.93C	2.67C	22.20M	20.40M	18.50M	17.80M
40F1054	2084-2	T	3.73C	3.40C	28.50M	26.20M	23.50M	22.70M
40F1055	2084-3	T	3.73C	3.40C	28.50M	26.20M	23.50M	22.70M
40F1056	2084-4	T	3.73C	3.40C	28.50M	26.20M	23.50M	22.70M
40F1000	2085-11	A	1.22C	1.12C	8.90M	8.10M	7.30M	7.00M
40F1001	2085-1	A	1.22C	1.12C	8.90M	8.10M	7.30M	7.00M
40F1002	2085-2	A	1.22C	1.12C	8.90M	8.10M	7.30M	7.00M
40F1003	2085-3	A	1.22C	1.12C	8.90M	8.10M	7.30M	7.00M
40F1004	2085-4	A	1.22C	1.12C	8.90M	8.10M	7.30M	7.00M
40F1005	2085-5	A	1.22C	1.12C	8.90M	8.10M	7.30M	7.00M
40F1006	2085-6	A	1.22C	1.12C	8.90M	8.10M	7.30M	7.00M
40F1007	2085-7	A	1.22C	1.12C	8.90M	8.10M	7.30M	7.00M
40F1008	2085-8	A	1.22C	1.12C	8.90M	8.10M	7.30M	7.00M
40F1009	2085-9	A	1.22C	1.12C	8.90M	8.10M	7.30M	7.00M
40F1010	2085-10	A	1.22C	1.12C	8.90M	8.10M	7.30M	7.00M
40F1011	2089-2	N	2.39C	2.18C	17.90M	16.40M	14.80M	14.30M
40F1060	2100-1	A	1					

Solder Terminals and Coils **GAMBION**

INSULATED TERMINALS

Stk. No.	Type	Fig.	1-9	10-49	50-99	100-249	250-499	500-999	1000-2499
59F1308	1502-1	BB	.32	.32	.32	.29	.25	.24	.23
59F1311	1510-1	AA	.19	.19	.19	.18	.17	.15	.14
40F1821	1581-1	G	.19	.19	.19	.18	.17	.15	.14
40F1831	1795-B	BB	.36	.36	.36	.33	.30	.28	.25
40F1773	1942-1	G	.22	.22	.22	.21	.19	.18	.17
40F1774	1942-2	G	.22	.22	.22	.21	.19	.18	.17
40F1834	1945-1	G	.29	.29	.29	.28	.25	.23	.22
40F1835	1945-2	G	.29	.29	.29	.28	.25	.23	.22
40F1841	1947-1	AA	.32	.32	.32	.29	.26	.24	.23
40F1842	1947-2	AA	.32	.32	.32	.29	.26	.24	.23
40F1737	1980-XA156	G	.22	.22	.20	.20	.19	.18	.17
40F1734	1980-XA250	G	.22	.22	.22	.20	.19	.18	.17
40F1732	1980-XB093	AA	.22	.22	.22	.20	.19	.18	.17
40F1805	1990-1	BB	.47	.47	.45	.40	.35	.34	.32
40F1794	1995-C	.....	.22	.22	.22	.20	.19	.18	.17

Stk. No.	Type	Fig.	1-9	10-49	50-99	100-249	250-499	500-999	1000-2499
40F1755	2045-1	.....	.22	.22	.22	.21	.19	.18	.17
40F1700	2255-1	.....	.22	.22	.22	.21	.19	.18	.17
40F1701	2255-2	S	.22	.22	.22	.21	.19	.18	.17
40F1702	2255-3	S	.22	.22	.22	.21	.19	.18	.17
40F1703	2256-1	S	.21	.21	.21	.20	.18	.17	.16
40F1708	2370-1	.....	.28	.28	.28	.25	.23	.21	.20
40F1784	2382-2	.....	.31	.31	.31	.28	.25	.23	.22
40F1764	2430-1	.....	.28	.28	.28	.25	.23	.21	.20
40F1771	2432-1	.....	.30	.30	.30	.26	.25	.23	.21
40F1730	3482-1	S	.22	.22	.22	.21	.19	.18	.17
40F1804	3485-1	.....	.29	.29	.29	.25	.23	.21	.20
40F1781	3648-1	AA	.22	.22	.22	.21	.19	.18	.17
40F1782	3648-2	AA	.22	.22	.22	.21	.19	.18	.17
40F1762	3650-1	AA	.22	.22	.22	.21	.19	.18	.17
40F1763	3650-2	AA	.22	.22	.22	.21	.19	.18	.17



*TEFLON PRESS MOUNT INSULATED TERMINALS

Stock No.	Type	Fig.	1-99	100-249
40F1847	4025-1	G	.11	.10
40F1870	4028-4	G	.12	.11
59F1322	4028-1	F	.10	.09
40F1885	4033-3	K	.12	.11
40F1890	4034-4	K	.12	.11
40F1893	4040-1	.....	.12	.11
40F1904	4090-1	J	.15	.14
40F1912	4098-1	G	.12	.11
40F1927	4103-1	F	.10	.09
40F1932	4108-1	H	.15	.14
40F1933	4109-1	.....	.12	.11
40F1935	4111-1	K	.12	.11
40F1810	4114-1	G	.15	.14
59F1409	4115-1	.....	.15	.14
59F1410	4176-1	.....	.12	.11
59F1411	4176-2	.....	.12	.11
40F1939	4176-3	D	.12	.11
40F1940	4176-4	D	.12	.11
40F1941	4177-1	D	.12	.11
40F1944	4179-1	E	.13	.12

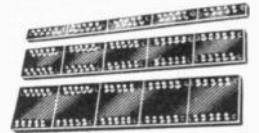
Stock No.	Type	Fig.	1-99	100-249
40F1945	4181-1	A	.12	.11
40F1946	4182-1	A		
40F1947	4182-2	A		
40F1951	4183-3	A		
40F1953	4186-2	A		
40F1954	4186-3	A		
40F1955	4187-1	E	.13	.12
59F1317	4188-1	D	.10	.09
59F1320	4197-1	A	.12	.11
40F1956	4228-1	D	.12	.11
40F1958	4231-1	B	.20	.18
40F1961	4234-1	B	.14	.13
40F1965	4241-1	A	.20	.18
40F1966	4242-1	A	.20	.18
40F1968	4248-1	A	.12	.11
40F1969	4251-1	C	.20	.18
40F1970	4252-1	C	.20	.18
40F1812	4263-D	.....	.20	.18

*Prices are for standard silver finish and white insulator color. Other finishes and colors available upon request.

TERMINAL BOARDS

Standard All-Set terminal boards are scribed into 5 sections. Each section is drilled for 14 terminals, w/10 mounted except 1/2" and 3/16" widths which are drilled for 7, w/5 mounted. Materials used: cotton-fabric phenolic, Mil. Type FBE, Mil. Spec. MIL-P-15035B; epoxy glass-cloth, GEE, MIL-P18177B; nylon-fabric phenolic, NPG, MIL-P-15047B. Ceramic is per MIL-1-10.

Ceramic boards are single section only. 2030-1 has two 4 terminal rows spaced for one watt; and 2036-1 same for two watt resistor mounting size components. 2303-2 has 5 and 2303-3 has 6 terminals in one row. All boards have double turret style terminals. *Indicates feed thru type with double turrets on both sides of board.



Stk. No.	Type	Mat'l.	thck x wd'th	1-9	10-49	50-99	100-249
40F2040	1310-15*	FBE	1/16"x3/16"	2.15	1.99	1.89	1.80
40F2000	1401-15*	FBE	3/32"x1/2"	1.09	1.01	.89	.85
40F2004	1401-35	NPG	3/32"x1/2"	1.29	1.20	1.05	1.00
40F2001	1401-45*	FBE	1/8"x1/2"	1.09	1.01	.89	.85
40F2003	1401-55	GEE	1/8"x1/2"	1.90	1.76	1.55	1.48
40F2006	1402-15	FBE	3/32"x2"	2.40	2.25	1.98	1.91
40F2007	1402-45	FBE	1/8"x2"	2.40	2.25	1.98	1.91
40F2011	1402-65	NPG	1/8"x2"	2.90	2.65	2.35	2.25
40F2012	1403-15	FBE	3/32"x2 1/2"	2.50	2.35	2.05	1.98
40F2016	1403-35	NPG	3/32"x2 1/2"	3.00	2.75	2.45	2.35
40F2017	1403-65	NPG	1/8"x2 1/2"	3.00	2.75	2.45	2.35

Stk. No.	Type	Mat'l.	thck x wd'th	1-9	10-49	50-99	100-249
40F2012	1403-15	FBE	3/32"x2 1/2"	2.50	2.35	2.05	1.98
40F2013	1403-45	FBE	1/8"x2 1/2"	2.50	2.35	2.05	1.98
40F2018	1404-15	FBE	3/32"x3"	2.60	2.40	2.15	2.05
40F2019	1404-45	FBE	1/8"x3"	2.60	2.40	2.15	2.05
40F2024	1405-45	FBE	3/32"x1 1/2"	2.20	2.05	1.83	1.74
40F2028	1406-15	FBE	3/32"x1 1/2"	2.30	2.15	1.89	1.82
40F2029	1406-45	FBE	1/8"x1 1/2"	2.30	2.15	1.89	1.82
40F2039	2303-3	CER	9/64"x3/16"	.73	.63	.54	.50
40F2038	2303-2	CER	9/64"x3/16"	.68	.56	.50	.47

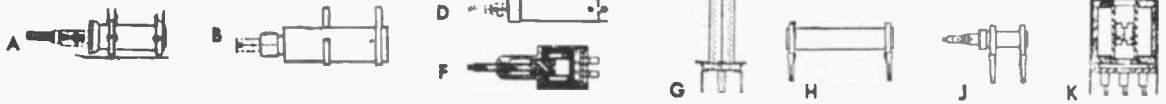
VARIABLE COILS

Stock No.	Type	Ind. Range uH	Fig.	1-9	10-49	50-99	100-249	250-499
40F5043	LSM-1 Mc	725-1250	N	1.29	1.12	1.02	.88	.85
40F5045	LSM-5 Mc	45-75	N	1.21	1.05	.96	.83	.78
40F5046	LSM-10Mc	2-4	N	1.21	1.05	.96	.83	.78
40F5047	LSM-30Mc	.28-.35	N	1.12	.97	.85	.76	.74
40F5052	LS3-10Mc	5-10	M	1.21	1.05	.96	.83	.78
40F5053	LS3-30Mc	.45-.7	M	1.12	.97	.85	.76	.74
40F4979	1505-2	9-1.75	P	2.65	2.30	2.10	1.86	1.78
40F4980	1505-3	1.7-3.5	P	2.65	2.30	2.10	1.86	1.78
40F4981	1505-4	3.2-8.3	P	2.65	2.30	2.10	1.86	1.78
40F4983	1505-6	14.5-33	P	2.90	2.55	2.30	2.00	1.93
40F4984	1505-7	30-73	P	2.55	2.25	2.05	1.78	1.73
40F4986	1505-9	144-430	P	2.55	2.25	2.05	1.78	1.73
40F4987	1505-10	400-1 mH	P	2.55	2.25	2.05	1.78	1.73
40F4988	1506-1	1-2.2 mH	P	3.00	2.65	2.35	2.05	1.98



Stock No.	Type	Ind. Range uH	Fig.	1-9	10-49	50-99	100-249	250-999
40F4989	1506-2	2-4.7 mH	P	3.00	2.65	2.35	2.05	1.98
40F4995	1507-3	.27-.55	P	2.55	2.30	2.05	1.79	1.73
40F4996	1507-4	5-1.1	P	2.55	2.30	2.05	1.79	1.73
40F5055	2060-1	2.0-3.7	L	1.22	1.02	.94	.81	.77
40F5057	2060-3	6.5-10.6	L	1.34	1.14	1.01	.89	.85
40F5058	2060-4	10-18	L	1.34	1.14	1.01	.89	.85
40F5059	2060-5	16-30	L	1.42	1.22	1.09	.94	.90
40F5060	2060-6	28-63	L	1.53	1.32	1.17	1.02	.98
40F5061	2060-7	61-122	L	1.64	1.40	1.25	1.10	1.10
40F5063	2060-9	238-450	L	1.87	1.60	1.42	1.25	1.19
40F5064	2060-10	440-800	L	1.87	1.60	1.42	1.25	1.19

GAMBION Components



COIL FORMS

Stk. No.	Type	Fig.	1-49	50-249	250-499	500-999
40F3512	1150-4-1	F	1.17	1.01	.94	.81
40F3513	1150-2-1	F				
40F3515	1150-3-1	F				
40F3521	1150-2-3	F				
40F3523	1150-3-3	F				
40F3525	1155-2-1	F	1.22	1.06	.98	.85
40F3532	1155-4-3	F				
40F3533	1155-2-3	F				
40F3536	1160-4-1	F	1.05	.90	.84	.73
40F3537	1160-2-1	F				
40F3544	1160-4-3	F				
40F3547	1160-3-3	F				
40F3654	1465-0-1	B				
40F3655	1465-4-1	B	.51	.44	.40	.35
40F3657	1465-1-1	B				
40F3658	1465-3-1	B				
40F3113	1530-4-1	A	.59	.48	.42	.39
40F3249	1530-4-2	A				
40F3101	1532-4-1	A	.59	.48	.42	.39
40F3102	1532-2-1	A				
40F3103	1532-1-1	A				
40F3208	1532-2-3	A	.70	.59	.52	.49
40F3143	1534-4-1	A				
40F3144	1534-2-1	A				
40F3147	1534-5-1	A				
40F3370	1534-2-2	A				
40F3372	1534-3-2	A	.92	.77	.70	.65
40F3352	1535-2-3	A				
40F3345	1535-4-2	A				
40F3125	1536-4-1	A	.65	.51	.44	.41
40F3126	1536-2-1	A				
40F3128	1536-3-1	A				
40F3303	1536-4-3	A	.83	.65	.58	.55
40F3297	1536-4-2	A				
40F3298	1536-2-2	A				
40F3300	1536-3-2	A				
40F3163	1538-1-1	A					.76	.64	.55	.51
40F3441	1538-2-2	A				
40F3643	1605-4-1	A				
40F3370	1534-2-2	A	.92	.77	.70	.65
40F3372	1534-3-2	A				
40F3352	1535-2-3	A				
40F3345	1535-4-2	A	.85	.67	.60	.57
40F3125	1536-4-1	A				
40F3126	1536-2-1	A				
40F3128	1536-3-1	A	.65	.51	.44	.41
40F3303	1536-4-3	A				
40F3297	1536-4-2	A				
40F3298	1536-2-2	A	.83	.65	.58	.55
40F3300	1536-3-2	A				
40F3163	1538-1-1	A				
40F3441	1538-2-2	A	1.00	.84	.75	.71
40F3643	1605-4-1	A				

Stk. No.	Type	Fig.	1-49	50-249	250-499	500-999
40F3644	1605-2-1	A	.51	.44	.40	.35
40F3646	1605-3-1	A				
40F3661	1885-2-1	D	.77	.67	.61	.54
40F3663	1885-1	D	.77	.67	.61	.54
40F3110	2020-3-1	A	.59	.48	.42	.39
40F3130	2022-0-1	A	.60	.46	.39	.36
40F3131	2022-4-1	A	.65	.51	.44	.41
40F3134	2022-3-1	A				
40F3135	2022-5-1	A				
40F3322	2022-2-2	A	.83	.65	.58	.55
40F3324	2022-3-2	A				
40F3327	2022-4-3	A				
40F3149	2024-4-1	A	.70	.59	.52	.47
40F3167	2048-2-1	A				
40F3169	2048-1-1	A				
40F3170	2048-3-1	A	.76	.64	.55	.51
40F3608	2170-2-3	G				
40F3617	2170-4-3	G				
40F3618	2173-2-1	G	.30	.23	.20	.19
40F3619	2173-2-2	G				
40F3620	2173-2-3	G				
40F3623	2173-3-3	G	.36	.28	.25	.24
40F3626	2173-1-3	G				
40F3629	2173-4-3	G				
40F3584	2175-2-3	G	.36	.28	.25	.24
40F3587	2175-3-3	G				
40F3591	2175-4-1	G				
40F3593	2175-4-3	G	.32	.24	.22	.21
40F3558	2191-1-1	K				
40F3559	2191-3-1	K				
40F3565	2191-3-3	K	.91	.79	.74	.64
40F3570	2191-1-5	K				
40F3571	2191-3-5	K				
40F3596	2206-2-3	G	.36	.28	.25	.24
40F3572	2270-1	H				
40F3574	2270-3	H				
40F3575	2270-4	H	.75	.58	.45	.43
40F3578	2271-2	H				
40F3550	2400-3-3	H	2.90	2.45	2.30	2.00



MOUNTING STANDOFFS

Stk. No.	Type	1-99	100-249	250-499	500-999
40F2569	1246-9	.11	.10	.09	.085
40F2570	1246-10				
40F2571	1246-11				
40F2572	1246-12				
40F2573	1246-13				
40F2574	1246-14				
40F2576	1246-16				
40F2579	1246-19				
40F2580	1246-20				
40F2584	1246-24				
40F2588	1246-28				
40F2590	1246-30				
40F2592	1246-32				
40F2484	1300-9				
40F2485	1300-10				
40F2487	1300-12				
40F2491	1300-16				
40F2492	1300-17				
40F2493	1300-18				
40F2494	1300-19				
40F2498	1300-23				
40F2457	3946-3-07	.12	.11	.10	.09
40F2471	1299-1	.10	.09	.08	.07
40F2472	1299-2	.10	.09	.08	.07

FIG. L VARIABLE CAPACITORS

Stk. No.	Type	Cap. Rng. uufd.	1-9	10-49	50-99	100-249
40F5100	CST-6	0.5 - 4.5	1.02	.90	.79	.75
40F5102	CS6-6	1 - 8	1.09	.96	.85	.78

FIG. M SHAFT LOCKS

Stk. No.	Type	1-49	50-99	100-249	250-499
40F2236	1774-1-02	.28	.26	.24	.22
40F2239	2038-1-12	.26	.24	.23	.21

PANEL BUSHINGS

Stk. No.	Type	1-9	10-49	50-99	100-249
40F2242	2117-A	.23	.22	.20	.18
40F2243	2117-B				
40F2244	2117-C				

BATTERY HOLDERS



2880-2

For mercury ("C" size) and zinc nickel plated ("D" size) batteries; snap-in holders with locking strap to hold mercury batteries under extreme vibration and shock. Body material Phosphor Bronze.



2233-2

*For "D" size only with steel body.

Stk. No.	Type	Battery Size	1-9	10-49	50-99	100-249
40F2128	2233-2	Mercury .620 Dx .650 L	.39	.35	.32	.30
40F2129	2234-2	Mercury .655 Dx 1.305 L	.50	.45	.41	.39
40F2130	2324-2	Mercury .655 Dx 3.218 L	1.02	.94	.85	.81
40F2131	2475-2	Mercury .655 Dx 1.960 L	.84	.77	.69	.66
40F2132	2477-2	Mercury .655 Dx 2.605 L	.95	.87	.79	.76
40F2133	2870-2	Mercury 1.190 Dx 2.375 L	1.20	1.08	1.01	.99
40F2134	2880-2	Mercury 1.016 Dx 1.969 L	1.07	.96	.89	.87
40F2136	2895-2*	1.344 Dx 2.406 L	.85	.76	.71	.69

THUMBSCREWS

Stk. No.	Type	1-9	10-49	50-99	100-249	250-499
40F2246	1120-A-BO	.28	.28	.26	.24	.22
40F2247	1120-B					
40F2249	1120-C					
40F2250	1120-C-BO					

Electronic Components & Tools

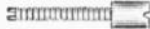
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SPRING LOADED DIODE CLIPS

Stk. No.	Type	1-9	10-49	50-99	100-249	250-499
40F2268	2146-1	.28	.24	.23	.22	.20
40F2270	2247-2					
40F2271	2247-3					
40F2272	2247-4					
40F2274	2329-1	.35	.31	.29	.26	.25
40F2276	2330-1	.35	.31	.29	.26	.25

TUNING TOOLS

Stk. No.	Type	Tip Material	NET
40F3893	1971-1	Brass	.85
40F3894	2033-1	Brass	
40F3895	2230-1	Nylon	1.10
40F3896	2375-1	Brass	.85



TUNING SLUGS AND CORES

Stock No.	Type	1-49	50-249
40F3062	2018-C	.20	.17
		1-49	50-499
40F3047	3226-3	.05	.035
40F3046	3227-2	.06	.05
40F3048	3227-3	.06	.05
40F3053	3226-4	.05	.035
40F3854	3227-4	.06	.05

PRESSURE SWAGER

HAND SWAGER

Designed for quick, uniform swaging of solder terminals on terminal boards. Adjustable to a wide range of terminal board thicknesses. Swaging in place as far as 1/8" from board edge. Less tooling.

40F1500. Type 3802-1. 2 1/2" Throat	
NET	45.00
40F1570. Type 3803-1. 5" Throat.	
NET	78.00



Stk. No.	Type	Stk. No.	Type	NET
40F1575	6401	40F1579	6447	6.00
40F1576	6404	40F1591	6606	
40F1571	6406			
40F1581	6411	40F1585	6601	
40F1577	6412	40F1586	6604	
40F1572	6417	40F1587	6611	
40F1573	6418	40F1593	6613	6.00
40F1574	6419	40F1589	6617	
40F1582	6420	40F1594	6618	
40F1583	6424	40F1595	6632	
40F1578	6430	40F1596	6646	
40F1584	6432	40F1588	6654	

40F1599. 6098-1 Adapter for converting to hand set use. NET 6.00

JACKS

Stk. No.	Type	1-49	50-99	100-249	250-499	500-999
59F1367	3309-3-03	.24	.24	.20	.19	.18
59F1369	3388-1-03	.19	.19	.16	.15	.15
59F1370	3394-2-03	.14	.14	.12	.11	.11

PLUGS

Stk. No.	Type	1-49	50-99	100-249	250-499	500-999
59F1394	3308-1-03	.06	.06	.06	.06	.06
59F1395	3340-1	.04	.04	.04	.04	.04

FERRULES

Stk. No.	Type	1-9	10-49	50-99	100-249	250-499	500-999
40F2224	1988-1	.16	.15	.14	.13	.12	.11
40F2225	1988-2	.16	.15	.14	.13	.12	.11
40F2226	1989-1	.21	.20	.19	.18	.17	.15

Stk. No.	Type	1-49	50-249
40F3065	2250-I	.18	.15
40F3004	20063-E	.15	.13
40F3005	20063-F		
40F3006	20063-G		
40F3007	20063-H		
40F3014	20063-O		
40F3015	20063-P		

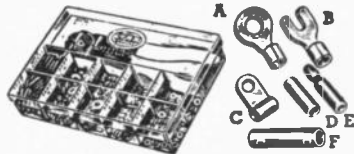
HANDLES



Stk. No.	Type	HANDLES					
		Oval	Round	Folding	10-49	50-99	100-249	250-499
40F2204	1075-1		1.39	1.21	.98	.90	.87
40F2205	1075-2		1.16	1.02	.83	.76	.73
40F2153	1221-2		1.22	1.07	.86	.81	.78
40F2529	1250-1		1.19	1.03	.84	.77	.74
40F2206	1252-1		1.22	1.07	.86	.80	.77
40F2207	1252-2		1.09	.97	.78	.72	.69
40F2181	1282-1		1.45	1.26	1.02	.94	.90
40F2183	1283-1		1.57	1.37	1.10	1.02	.98
40F2185	1290-1		.85	.74	.61	.56	.54
40F2187	1291-1		.92	.79	.64	.60	.58
40F2188	1291-2		.92	.79	.64	.60	.58
40F2201	1270-1		1.43	1.25	1.00	.94	.90
40F2527	1900-1-02		3.40	3.00	2.40	2.20	2.10
40F2202	1965-1		1.43	1.25	1.00	.94	.90
40F2220	2062-1-02		3.20	2.90	2.30	2.10	2.05
40F2221	2062-1-12		3.00	2.65	2.10	1.98	1.90
40F2222	2066-1		3.70	3.20	2.65	2.40	2.30
40F2211	2111-2-02		2.20	1.90	1.55	1.45	1.39
40F2215	2111-3-12		2.30	2.00	1.62	1.52	1.46
40F2217	2111-4-02		2.75	2.40	1.90	1.79	1.72
40F2208	2111-1-02		1.94	1.69	1.35	1.26	1.21
40F2210	2385-1-14		1.48	1.28	1.03	.95	.91
40F2213	2385-2-14		1.57	1.37	1.10	1.05	1.01
40F2216	2385-3-14		1.72	1.50	1.21	1.13	1.09

VACO TERMINAL KIT

EXTRA TERMINALS



Type 2195. With crimping tool & terminals. Tool cuts and strips wire and crimps terminal on stripped portion of wire. One compact unit needed for making clean, fast, trouble-free electrical connections. The kit consists of 11 bin plastic box with crimping tool and over 182 terminals in 10 sizes. Case 8 3/4" x 6 1/4". Wt., 2 lbs.

30F900. NET **8.72**

AMP

Terminal Crimping Tool. Also cuts and strips wire, shears bolts. Has B & S wire gauge. May be used with terminals listed above. Length, 7 3/8"; wt., 1 lb.

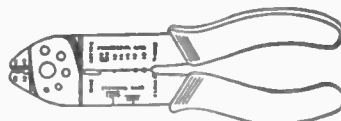
30F999. Type 49835. NET **4.95**

Stock No.	Mfr's. Type	Fig.	Wire Size	Stud Size	Pkg. Quan.
30F901	11205	A	22-18	5-6	36
30F902	11206	A	22-18	5-6	36
30F903	11210	A	22-18	10	36
30F904	11214	A	22-18	12-1/4	28
30F905	11238	A	22-18	3/8	28
30F906	11305	A	16-14	5-6	36
30F907	11306	A	16-14	5-6	36
30F908	11310	A	16-14	10	36
30F910	11314	A	16-14	12-1/4	28
30F911	11338	A	16-14	3/8	28
30F912	11410	A	12-10	10	28
30F913	11414	A	12-10	12-1/4	21
30F914	11438	A	12-10	3/8	21
30F909	14206	B	22-18	4-6	40
30F915	13306	B	16-14	4-6	36

Stock No.	Mfr's. Type	Fig.	Wire Size	Stud Size	Pkg. Quan.
30F916	13310	B	16-14	10	36
30F917	13410	B	12-10	10	28
30F918	16210	C	22-18	8-10	36
30F919	16310	C	16-14	8-10	36
30F920	16410	C	12-10	8-10	28
30F921	17202	D	22-18	.....	36
30F922	17302	D	16-14	.....	36
30F923	17402	D	12-10	.....	28
30F926	19301	E	16-14	Std.	46
30F927	19303	E	16-14	Large	44
30F924	19302	F	-	Std.	18
30F925	19304	F	-	Large	15

NET per Pkg. **.98**

KLEIN



6-in-One Tool. Shears bolts clean, cuts wire, strips wire, measures stud sizes, gauges wire sizes, crimps terminals. Handles insulated with red plastic. Length, 7 1/2"; wt., approx. 1/2 lb.

30F998. Type 1000. NET **3.97**

OEM Prices — Complete Stocks — Same Day Shipment

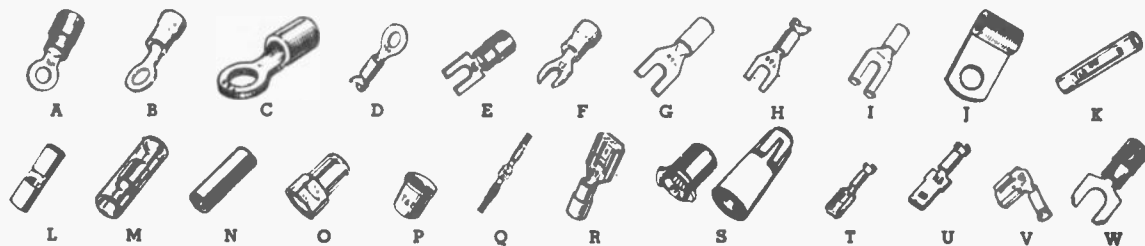


FIG. A—NYLON INSULATED RING TONGUE TERMINALS

Stock No.	Type	Wire Size	Stud Size	Std. Pkg.	Unit Quan.	Net per 100					
						Less Than Unit	Unit Quan.	Std. Pkg.			
31F100	RZ22-2	26-22	2	500	100	8.48	6.63	5.30			
31F101	RZ22-4	26-22	4	500	100						
31F104	RZ22-10	26-22	10	500	100						
31F105	RA18-4	22-16	4	500	100						
31F219	RA18-6	22-16	6	500	100						
31F220	RA18-8	22-16	8	500	100						
31F221	RA18-10	22-16	10	2000	100						
31F222	RA18-14	22-16	1/4	500	100				9.68	7.56	6.05
31F223	RB14-6*	16-14	6	500	100				8.48	6.83	5.30
31F224	RB14-8*	16-14	8	2000	100				8.48	6.83	5.30
31F225	RB14-10*	16-14	10	2000	100	8.48	6.83	5.30			
31F228	RB14-14*	16-14	1/4	500	100	9.68	7.56	6.05			
31F226	RC10-8*	12-10	8	500	50	10.56	8.25	6.60			
31F229	RC10-10*	12-10	10	2000	50	10.56	8.25	6.60			
31F230	RC10-14*	12-10	1/4	500	50	11.60	9.06	7.25			

FIG. B—VINYL INSULATED RING TONGUE TERMINALS

Stock No.	Type	Wire Size	Stud Size	Std. Pkg.	Unit Quan.	Less Than Unit	Unit Quan.	Std. Pkg.
31F107	18RA-4*	22-18	4	500	100	6.16	4.81	3.85
31F108	18RA-6*	22-18	6	500	100	6.16	4.81	3.85
31F109	18RA-8*	22-18	8	500	100	6.16	4.81	3.85
31F113	14RB-6*	16-14	6	500	100	6.16	4.81	3.85
31F114	14RB-8*	16-14	8	500	100	6.16	4.81	3.85
31F115	14RB-10*	16-14	10	1000	100	6.16	4.81	3.85
31F116	14RB-14*	16-14	1/4	500	100	7.20	5.63	4.50
31F117	10RC-6*	12-10	6	500	50	7.76	6.06	4.85
31F119	10RC-10*	12-10	10	1000	50	7.76	6.06	4.85
31F120	10RC-14*	12-10	1/4	500	50	9.44	7.38	5.90

FIG. C—NON-INSULATED RING TONGUE TERMINALS

Stock No.	Type	Wire Size	Stud Size	Std. Pkg.	Unit Quan.	Less Than Unit	Unit Quan.	Std. Pkg.
31F121	A18-4	22-18	4	500	100	3.68	2.88	2.30
31F200	A18-6	22-18	6	1000	100			
31F201	A18-8	22-18	8	1000	100			
31F202	A18-10	22-18	10	5000	100			
31F122	B14-4	20-14	4	500	100			
31F204	B14-6	20-14	6	2000	100			
31F205	B14-8	20-14	8	2000	100	4.96	3.88	3.10
31F206	B14-10	20-14	10	5000	100			
31F207	B14-14	20-14	1/4	500	100	9.68	7.56	6.05
31F208	C10-6	16-10	6	500	50	5.36	4.19	3.35
31F209	C10-8	16-10	8	1000	50			
31F210	C10-10	16-10	10	5000	50			
31F211	C10-14	16-10	1/4	1000	50	5.92	4.63	3.70

FIG. D—NON-INSULATED RING TONGUE TERMINALS

Stock No.	Type	Wire Size	Stud Size	Std. Pkg.	Unit Quan.	Less Than Unit	Unit Quan.	Std. Pkg.
31F212	B14-6G	20-14	6	500	100	4.96	3.88	3.10
31F213	B14-8G	20-14	8	500	100			
31F213	B14-10G	20-14	10	500	100			

FIG. E—NYLON INSULATED FORK TONGUE TERMINALS

Stock No.	Type	Wire Size	Stud Size	Std. Pkg.	Unit Quan.	Less Than Unit	Unit Quan.	Std. Pkg.
31F236	RA18-6F	22-16	6	2000	100	7.68	6.00	4.80
31F237	RA18-8F	22-16	8	500	100			
31F238	RA18-10F	22-16	10	500	100			
31F125	RA18-14F	22-16	1/4	500	100	9.68	7.56	6.05
31F231	RB14-6F	16-14	6	2000	100	7.68	6.00	4.80
31F232	RB14-8F	16-14	8	500	100			
31F233	RB14-10F	16-14	10	2000	100			
31F126	RB14-14F	16-14	1/4	500	100	9.68	7.56	6.05
31F127	RC10-6F	12-10	6	500	50	10.56	8.25	6.60
31F234	RC10-10F	12-10	10	2000	50	10.56	8.25	6.60
31F235	RC10-14F	12-10	1/4	500	50	11.60	9.66	7.25

FIG. F—VINYL INSULATED FORK TONGUE TERMINALS (Cont.)

Stock No.	Type	Wire Size	Stud Size	Std. Pkg.	Unit Quan.	Less Than Unit	Unit Quan.	Std. Pkg.
31F129	18RA-6F*	22-18	6	500	100	6.16	4.81	3.85
31F130	18RA-8F*	22-18	8	500	100	6.16	4.81	3.85
31F131	18RA-10F*	22-18	10	500	100	6.16	4.81	3.85

FIG. F—VINYL INSULATED FORK TONGUE TERMINALS (Cont.)

Stock No.	Type	Wire Size	Stud Size	Std. Pkg.	Unit Quan.	Less Than Unit	Unit Quan.	Std. Pkg.
31F132	14RB-6F*	16-14	6	500	100	6.16	4.81	3.85
31F133	14RB-8F*	16-14	8	500	100	6.16	4.81	3.85
31F134	14RB-10F*	16-14	10	1000	100	6.16	4.81	3.85
31F136	10RC-10F*	12-10	10	1000	50	7.74	6.05	4.84

FIG. G—NON-INSULATED FORK TONGUE TERMINALS

Stock No.	Type	Wire Size	Stud Size	Std. Pkg.	Unit Quan.	Less Than Unit	Unit Quan.	Std. Pkg.
31F214	A18-6F	22-18	6	1000	100	3.68	2.88	2.30
31F138	A18-8F	22-18	8	1000	100			
31F215	A18-10F	22-18	10	1000	100			
31F139	A18-14F	22-18	1/4	500	100	4.96	3.88	3.10
31F216	B14-6F	20-16	6	2000	100	3.68	2.88	2.30
31F140	B14-8F	20-16	8	2000	100			
31F217	B14-10F	20-16	10	5000	100			
31F141	B14-14F	20-16	1/4	500	100	4.96	3.88	3.10
31F142	C10-6F	16-10	6	500	50	5.36	4.19	3.35
31F143	C10-8F	16-10	8	500	50			
31F218	C10-10F	16-10	10	5000	50			
31F144	C10-14F	16-10	1/4	500	50	5.92	4.63	3.70

FIG. H—NON-INSULATED RING TONGUE TERMINALS

Stock No.	Type	Wire Size	Stud Size	Std. Pkg.	Unit Quan.	Less Than Unit	Unit Quan.	Std. Pkg.
31F145	B14-6FG	20-14	6	500	100	4.96	3.88	3.10
31F146	B14-8FG	20-14	8	500	100	4.96	3.88	3.10
31F148	B14-14FG	20-14	1/4	500	100	5.92	4.63	3.70

FIG. W—NYLON INSULATED FLANGED TONGUE TERMINALS

31F150	RA18-8FS	22-16	8	500	100	8.48	6.63	5.30
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FIG. I—NYLON INSULATED FLANGED TONGUE TERMINALS

31F153	RB14-8FS	16-14	8	500	100	8.48	6.63	5.30
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FIG. I—NON-INSULATED FORK TONGUE TERMINALS

31F158	B14-6FS	20-14	6	500	100	4.24	3.31	2.65
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FIG. J—NON-INSULATED FLAG TONGUE TERMINALS

Stock No.	Type	Wire Size	Stud Size	Std. Pkg.	Unit Quan.	Less Than Unit	Unit Quan.	Std. Pkg.
31F241	AB14-6A	20-14	6	500	100	4.96	3.88	3.10
31F243	AB14-10A	20-14	10	500	100	4.96	3.88	3.10
31F245	C10-8A	16-10	8	500	50	6.40	5.00	4.00

(* Self insulated terminals, available with expanded insulation. Write for complete ordering information.)

SPICES

Stock No.	Type	Fig.	Wire Range	Std. Pkg.	Unit Quan.	Net per 100		
						Less Than Unit	Unit Quan.	Std. Pkg.
31F250	2RA18*	K	22-18	500	100	7.36	5.75	4.60
31F251	2RB14*	K	16-14	1000	100	7.36	5.75	4.60
31F252	2RC10*	K	12-10	500	50	10.72	8.38	6.70
31F247	2A18	L	22-18	2000	100	4.56	3.56	2.85
31F248	2B14	L	20-14	2000	100	4.56	3.56	2.85
31F249	2C10	L	16-10	2000	50	6.32	4.94	3.95
31F260	2A20	M	22-20	500	100	6.08	4.75	3.80
31F261	2B16	M	18-16	500	100	6.08	4.75	3.80
31F163	2A22-20	N	22-20	500	100	3.68	2.88	2.30
31F164	2B18-16	N	18-16	500	100	4.00	3.13	2.50
31F165	2C14-12	N	14-12	500	50	5.28	4.13	3.30
31F239	RB44	O	2#20-2#16	2000	100	3.52	2.75	2.20
31F240	RC55	O	3#16-3#14	2000	50	5.76	4.50	3.60
31F171	PT66M	P	3#12	1000	100	4.56	3.56	2.85
31F172	PT70	P	3#12	2000	200	2.00	1.56	1.25
31F173	PT70M	P	4#12	2000	200	2.00	1.56	1.25
31F174	PT80	P	4#10	500	50	4.48	3.50	2.80
31F255	B14-D**	Q	20-14	500	50	7.80	5.50	4.20
31F256	B14-250F	T	20-14	500	100	5.44	4.25	3.40
31F258	B14-250A	V	20-14	500	50	6.00	4.69	3.75
31F257	B14-250T	U	20-15	500	100	5.44	4.25	3.40
31F175	RB14-250F	R	16-14	500	100	9.44	7.38	5.90

(*) Avail. with exp. insul. (**) Flat Tab—1/4". Straight Female.

Thomas & Betts Terminals, Connectors & Tools



TY-RAP CABLE TIES AND STRAP

Ideal for harnessing wire bundles up to 3/4" dia. Prevents concentration of pressures on one point. Does a complete job of tying, clamping and Type TY-542 has identifier. plate built in. Replaces all string and tape harnesses. Temp. Range. -65°F to +350°F Standard color: Natural white nylon. Available on special order: (Minimum order—100) black, brown, red, orange, yellow, green, blue, purple and gray. Av. wt. 4 lb. per 1000. All are tool applied except * Self clinching.

Stock No.	Type	Fig.	Dia. Range	NET PER 100		
				100	500	1000
31F269	TY525M(TY25M)*	A	1/8"x1 3/4"	6.72	5.25	4.20
31F271	TY503(TY3)	B	1/8"x5/8"	3.84	3.00	2.40
31F272	TY505(TY5)	B	1/8"x1 1/8"	5.60	4.40	3.50
31F273	TY507(TY7)	B	3/16"x3 3/4"	19.20	15.00	12.00
31F275	TY535M(TY35M)*	C	1/8"x1 3/4"	7.68	6.00	4.80
31F276	TY513(TY13)	D	1/8"x3/8"	4.80	3.75	3.00
31F277	TY515(TY15)	D	1/8"x1 3/4"	6.40	5.00	4.00
31F2500	TY523M	.....	1/8"x3/8"	4.80	3.75	3.00
31F2501	TY527M	.....	3/16"x3 3/4"	30.40	23.75	19.00
31F2502	TY528M	.....	1/8"x4"	15.20	11.88	9.50
31F2503	TY537M	.....	3/16"x3 3/4"	34.56	27.00	21.60
31F2504	TY546M	E	3/8"x1 3/4"	15.36	12.00	9.60
31F2505	TY546MD	E	3/8"x1 3/4"	33.60	26.23	21.00
31F2506	TY546MX	E	3/8"x1 3/4"	16.96	13.25	10.60

TY-RAP MARKING PEN

Stock No.	Cat. No.	Fig.	Color Ink	Std. Pkg.	Wt. Each	Net Cost Each
31F2507	WT-163-1	G	Black	1	.2	3.50

TY-RAP MOUNTING PLATE—CLAMP MOUNT

Stock No.	Type	Description	NET PER 100		
			100	500	1000
31F280	TC501	Fits all ties except Types TY507 and TY517	4.80	3.75	3.00
31F389	TC503	For TY507 and TY517	19.20	15.00	12.00
31F2508	TC502	Same as TC-501	4.16	3.25	2.60
31F2509	TC504	For TY-503 & TY-523M	3.20	2.50	2.00

TY-RAP INSTALLING TOOLS

Stock No.	Type	Fig.	For Use With TY-RAPS	NET
31F281	WT-183F	H	TY505, 515,	20.00
31F282	WT-185F	H	TY503, 515	
31F283	WT-186F	H	TY507	

STA-KON INSTALLING TOOLS

Stock No.	Type	Fig.	For Use With STA-KON Type	NET
31F177	WT100M	I	A, B, C, AB, RA, AB, RC	5.50
31F265	WT111M	I	A, B, C	4.75
31F179	WT-161	I	A, B, C, RA, RB, RC	7.00

STA-KON KITS

Stock No.	Type	Descriptions	NET
31F264	PK4	Insulated STA-KON Kit: 100EA, A-18-10, B14-10; 50EA	33.50
31F263	#20	C10-10 plus Crimp Tool WT-111M	11.00

NEW VINYL SELF-INSULATED DISCONNECTS

Stock No.	Type	Fig.	Tab Size	Wire Range	Max. Ins.	Unit Quan.	Std. Pkg.	Wgt. Per 100	NET PER 100		
									Less than Unit Quan.	Unit Quan.	Std. Pkg.
31F2510	18RA-250F	K	.250x.032	22-18	.150	100	500	3	8.00	6.25	5.00
31F2511	14RB-250F			16-14	.170	100	500	3	8.00	6.25	5.00
31F2512	10RC-250F			12-10	.....	100	500	4	9.20	7.19	5.75
31F2516	A18-110F	L	.110x.032	22-18	.086	100	500	3	8.00	6.25	5.00
31F2517	B14-110F			16-14	.117	100	500	3	8.00	6.25	5.00

NON-INSULATED DISCONNECTS

Stock No.	Type	Fig.	Tab Size	Wire Range	Max. Ins.	Unit Quan.	Std. Pkg.	Wgt. Per 100	NET PER 100		
									Less than Unit Quan.	Unit Quan.	Std. Pkg.
31F2513	A18-250	L	.250x.032	22-18	.....	100	500	3	5.20	4.06	3.25
31F2514	B14-250			16-14	.....	100	500	3	5.20	4.06	3.25
35F2515	C10-250F			12-10	.....	100	500	4	9.20	7.19	5.75
31F2516	A18-110F	L	.110x.032	22-18	.086	100	500	3	8.00	6.25	5.00
31F2517	B14-110F			16-14	.117	100	500	3	8.00	6.25	5.00

INSULATED COUPLER

Stock No.	Type	Fig.	Tab Size	Unit Quan.	Std. Pkg.	Wgt. Per 1000	Net Per 100		
							Less than Unit Quan.	Unit Quan.	Std. Pkg.
31F2518	RB14-250	.....	.250x.032	50	500	7	6.72	5.25	4.20

DISCONNECT ADAPTER

Stock No.	Type	Fig.	Tab Size	Unit Quan.	Std. Pkg.	Wgt. Per 1000	Net Per 100		
							Less than Unit Quan.	Unit Quan.	Std. Pkg.
31F2519	F250-TA	M	.250x.032	50	500	3	6.72	5.25	4.20

Fig. P — ADAPTER AND OUTERSLEEVE

Adapter for Coaxial Cable WE#724 and Belden 8281. Silver plated brass. Outersleeve is silver plated bronze.

Adapter				Outersleeve							
Stk. No.	Type	ID	100-499	500-999	1000-up	Stk. No.	Type	OD	100-499	500-999	1000-up
31F2520	GSA2590	.263	37.50/c	33.00/c	28.00/c	31F2522	GSC3275	.327	12.00/c	10.60/c	9.00/c

Fig. R — WT-236 HAND TOOL

Stk. No.	Type	Description	Shpg. Wt.	Net Ea.
31F2521	WT-236	Crimping tool for GSA 2590 adapter	1 lb. 13 oz.	50.00



Fig. A



Fig. B



Fig. C



Fig. D



Fig. E



Fig. F



Fig. H



Fig. G



Fig. I



Fig. J



Fig. K



Fig. L



Fig. M

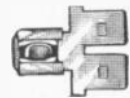


Fig. N



Fig. P



Fig. R

Ungar® Soldering Equipment



TYPE 7800 HOT-VAC PRINTED CIRCUIT DE-SOLDERING AND CLEANING TOOL

Provides fast, safe 3-fingered de-soldering. Utilizes special coating that prevents solder from adhering to tip and from clogging orifice. May also be used on heat-shrinkable tubing.

32F974. NET 9.95
Type 7805. "Solder-off" de-soldering bulb with TFE tip for PC boards. 32F975. NET. 1.10

HOT-VAC REPLACEMENT TIPS

All tips feature the ungarized coating that resists solder sticking and clogging.

Stk. No.	Type	Hole Dia.	1-9	10-49	50-up
33F034	7812	.033"	.65	.54	.49
33F035	7813	.069"			
33F036	7806	.057"			



TYPE 777 CIRCUIT DE-SOLDERING AND CLEANING TOOL HANDLE

Clean Room Grip. Comfortable lightweight, fatigue-free design of popular 776 handle. Heat-resistant plastic handle comes in eye-soothing blue pastel shade. And, the complete line of soldering tips, heating units, thread-in and thread-on soldering tips widely used with UNGAR's 776 red handle, also fit this new blue pastel handle.

33F030. NET. 1.53



776 UNGAR SOLDER PENCIL

The famous "featherlite" soldering pencil for printed circuitry, miniature and subminiature systems, now with added features and versatility. Economy with low wattage—when used with Super Hi-heat Series of interchangeable tips at 47½ watts—it can do everything a 150 w. iron does.

Type 776 Handle. Many advantages! Spring socket holds tip firmly. Thermal and electrical insulation. Stainless steel heat deflector. Octagon guard washer. Larger "soft touch" grip. Thermo-stabilized phenolic. Polyvinyl insulated cord. Can be used with the Thread-on heating units and the inexpensive Elk-alloy tiplets, or with standard tips alone. Length 7". U.L. approved. Shipping weight, 5 ounces.

Stk. No.	Type	1-9	10-49	50-up
33F071	776	1.35	1.12	1.01

TYPE 7625 COIL-A-CORD

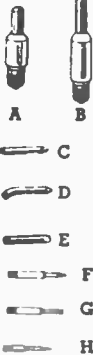


Eliminates tangled and twisted cords . . . keeps cord automatically coiled out of the way of the operator. For either standard or Imperial line of soldering irons. Ideal for appliances or industrial applications. Shpg. wt. 6 oz.

Stock No.	Type	1-9	10-49	50-up
33F074	7625	.99	.83	.78

THREAD-IN AND TIPLETS

Type 535 thread-in is 23½-watt general purpose. Type 1235 is 37½-watt high-speed production unit. All Elk-alloy and "iron-plated" tiplets are interchangeable in these thread-in heating units!



Stk. No.	Fig.	Type	Description	1-9 Each	10-49 Each	50-up Each
33F081	A	535	Thread-in	1.27	1.04	.95
33F085	B	1235	Thread-in	1.53	1.28	1.15
33F082	C	331	Pencil	.19	.16	.14
33F083	D	332	Offset Pencil			
33F084	E	333	Chisel			
33F685	....	PL340	Micro Needle*	.50	.41	.37
33F686	....	PL338	Needle*			
33F689	F	7154	Penal			
33F690	G	7155	Chisel	1.00	.81	.75
33F037	H	7012	Copper Tiptet			
33F038	H	7062	Iron Clad Tiptet			

*Type PL special iron-plated hi-heat tiplets for use with all threaded-in hi-heat elements.

DE-SOLDERING KIT REPAIRS PRINTED CIRCUITS

Type 270. De-Soldering Kit. 3 circular desoldering tiplets of 1", ¾", 5/8" dia. and 9", 7", and 5-pin tube sockets. Slotted 1x3/16" tiptet; Slot opening, 0.040". Super Hi-Heat Unit, 47½ W. delivers 600 to 850 F. Handle has extra-flexible vinyl-insulated cord. Shipping weight, 1 lb.



Stk. No.	Type	1-5	6-11	12-up
33F097	270	6.60	6.10	5.65



DESOLDERING TIPS

Use with 4045 heating unit only. Fast and neat.

Stk. No.	Type	Style	1-9	10-49	50-up
33F632	862	Offset slotted	.68	.57	.51
33F098	857	Slotted			
33F633	863	Cube			
33F634	856	Cup 3/8"			
33F635	855	Cup 3/4"			
33F636	854	Cup 1"			
33F637	861	Triangle			
33F638	858	Bar			



SUPER HI-HEAT TIPS & HEATING UNITS

The tips are of special iron, plated over copper. Exclusive triple-plating. 47½ W. units.

Stk. No.	Type	Heat	Desc.	1-9	10-49	50-up
33F086	4033	900°F	Long chisel	2.65	2.18	2.01
33F087	4036	1000°F	Pyramid			
33F088	4039	1000°F	Chisel			
33F089	4035	800-850°F	Thread-in heating unit for use with 300 Ser. Tiplets 1/2" Tab, 6-32 Thr.			
33F029	4045	800-850 F	Heating Unit			

NEW 4205 HOT KNIFE



Cuts through epoxy and film coatings on P.C. boards; Cuts and seals synthetic fabrics, vinyl films styrofoams, nylon, dacron, and other plastic materials. Also trims flash from rubber and plastic molded products. Heat from the knife seals the fibers to prevent unraveling. Extreme pressure is not needed when using this tool; It is designed to cut with heat, not pressure. Has a replaceable blade. Can be used with X-Acto blade Nos. 10, 11, 12, 14, 16, and 17. Blade temperature is 500° F.

32F881. NET 3.00

EXTRA-LONG PLATED TIPS

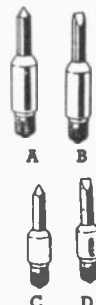


800 Series Thread-in tiplets 3/16" O.D. Iron-clad tiplets last 10 times longer because they resist destructive action of solder, require less maintenance and are easier to tin. All can be used with #4045 heating unit. *Iron clad, silver plated.

Stk. No.	Type	Lght.	Desc.	1-9 Each	10-49 Each	50-up Each
33F099	PL834*	1 3/4"	Tip	.83	.67	.62
33F641	PL833*	1 3/4"	Long Chisel	.83	.67	.62
33F642	PL823*	1"	Pyramid	.55	.44	.42
33F643	823	1"	Pyramid	.19	.16	.14
33F644	PL824*	1"	Long Chisel	.55	.44	.42
33F645	824	1"	Long Chisel	.19	.16	.14

HI-HEAT REPLACEMENT TIPS

Have heavy-duty 37½-watt element for high-speed production soldering. Consists of element and tip as in standard series. For 777 or 776 handles.



Stk. No.	Fig.	Type	Description	1-9 Each	10-49 Each	50-up Each
33F078	A	1236	Pyramid	1.53	1.28	1.15
33F079	B	1239	Chisel			
33F646	....	1233	Long chisel			

REPLACEMENT TIPS

Standard Tips. Get up to full 600 degrees in 90 seconds. Rated at 23½ watts.. Complete heating element and tip for use with 776 handle.

Stk. No.	Fig.	Type	Description	1-9	10-49	50-up
33F072	C	536	Pvramid	1.27	1.04	.95
33F073	D	539	Chisel			
33F647	....	533	Long chisel			

Soldering Equipment *Ungar*

IMPERIAL® LINE

IMPERIAL SOLDERING IRONS



Ungar's revolutionary Imperial soldering iron has been engineered to get jobs done faster, better, more economically. Meets every demand for a cool, light-weight easy-handling iron. Precise tip temperatures, complete versatility and superior handling ease save valuable production time every day. The Imperial provides years of dependable, trouble free operation, built to take years of shop punishment. All components are interchangeable with the Ungar Imperial line, they are NOT interchangeable with the Standard line. 115 volts AC-DC.

IMPERIAL® HANDLES



Slim, functionally-designed PERMA-COOL IMPERIAL handle. Features double cushion of air, combined with five heat transition surfaces, evenly dissipates heat, keeping the handle cool and comfortable. Built to take years of shop punishment. Handles are available in three select pastel colors: beige, ivory and turquoise. Handle high strength polycarbonate resin with die cast aluminum heat sink. Diameter at grip—0.8". Length 4.7" (including heat sink). Weight 1 oz. Rated at 115 volts AC-DC. Less cord set.

Stock No.	Type	Color	1-9	10-99	100-up
32F900	6100-1	Turquoise			
32F901	6100-2	Beige	1.28	1.07	.96
32F902	6100-3	Ivory			

40-WATT ALL-PURPOSE SOLDERING IRON

Model 6010. Features the most popular IMPERIAL components used in production, development and service. Consist of one type 6100 handle, one type 6102 two-wire cord, one type 6200 40-watt heat cartridge. Delivers 750°F to 950°F tip temperature. Comes with three multi-purpose MINI-TIP thread-on soldering tips.



32F971 NET 5.88

IMPERIAL HEAT CARTRIDGES



Imperial heat cartridges are made of a temperature resistant stainless steel body and copper alloy heat collector. Threaded end of the collector is designed and engineered to provide maximum heat transfer. Thread section is ungarized to reduce corrosion and tip seizure. All cartridges fit the IMPERIAL PERMA-COOL handle and can be changed at the bench with easy slip-in, twist-lock action. Use on tight, high-density circuitry requiring precision tip temperatures and extreme care in soldering. Ideal for heavy-duty plant service maintenance but light enough for fatigue-free production line use.

Stock No.	Type	Watt	Heat Range	Dia.	Weight	1-9	10-99	100-up
32F914	6202	25	600-800F	0.363"	1.1 oz.	3.58	3.00	2.70
32F913	6201	30	650-850F	0.363"	1.1 oz.	3.58	3.00	2.70
32F912	6200	40	750-950F	0.363"	1.1 oz.	3.58	3.00	2.70
32F966	6203	60	850-1150F	0.363"	1.1 oz.	4.06	3.46	3.10
32F961	6206	15	614-743F	.312"	.89 oz.	3.58	3.00	2.70
32F968	6207	100	850-1150F	.575"	2 oz.	5.97	4.79	4.49

HEAVY-DUTY SOLDERING TIPS

Type 6500. Iron Clad, Gold Plated; fits only the 100 Watt Heat Cartridge.

Type 6520. A Heavy-Duty thread-on soldering tip in a multi-use chisel. For type 6207 Heavy-Duty Cartridge only. Provides maximum area and heat transfer for large connections.

Stk. No.	Type	1-9	10-99	100-up
33F040	6500	2.15	1.80	1.63
32F963	6520	1.04	.87	.78

IMPERIAL DE-SOLDERING ATTACHMENT WITH TIP

Type 6825. This Attachment fits the 60, 40, 30 and 25-Watt Imperial Heat Cartridges.

Stk. No.	Type	1-5	6-11	12 & up
38F041	6825	7.77	6.40	5.99



6304



6316



6318

TIPS FOR 25, 30, 40, 60 WATT CARTRIDGE

Imperial Mini-Tip thread-on soldering tips. Designed for multi-leads, joints and micro-miniature connections. Material: (*)—Iron Clad, Gold Plated (24 kt.); (**)—Tellurium Copper. Av. shgp. wt., 3 oz.

Stock No.	Type	Shape	Size	1-9	10-99	100-up
32F915	*6304	Mic.-chisel	3/4x 1/2"	.89	.74	.65
32F917	*6305	Micro-spade	3/4x 1/2"	.89	.74	.65
32F916	**6312	Pencil	1/2x 3/4"	.36	.30	.27
32F918	*6313	Pencil	1/2x 3/4"	.89	.74	.65
32F920	*6316	Pencil Offset	1/2x 3/4"	.89	.74	.65
32F921	*6318	Long Taper Chis.	1/2x 3/4"	.36	.30	.27
32F922	*6319	Long Taper Chis.	1/2x 3/4"	.89	.74	.65
32F923	**6324	Long Taper Pyr.	1/2x 3/4"	.36	.30	.27
32F924	*6325	Long Taper Pyr.	1/2x 3/4"	.89	.74	.65
32F926	*6331	Screwdriver	1/2x 3/4"	.89	.74	.65
32F927	*6333	Needle	1/2x 3/4"	.89	.74	.65
32F929	*6336	Spade	1/2x 3/4"	.89	.74	.65
32F931	*6366	Long Taper Chis.	3/4x 3/4"	1.04	.87	.78
32F935	*6372	Screwdriver	3/4x 3/4"	1.04	.87	.78
32F942	*6390	Screwdriver	3/4x 1/2"	1.04	.87	.78
32F948	*6424	Long Taper Chis.	1/2x 3/4"	1.06	.90	.81
32F952	*6474	Long Taper Chis.	3/4x 3/4"	1.25	1.04	.94
32F959	*6481	Tap. Screwdriver	3/4x 3/2"	.89	.74	.65
32F960	*6482	Micro-Spade	1/2x 1 1/4"	.89	.74	.65
33F042	*6368	Long Taper Pyr.	3/4x.187	.44	.37	.33
33F043	*6373	Slotted	3/4x.187	.89	.74	.65
33F044	**6473	Long Taper Chis.	3/4x.375	.45	.38	.33

NEW PRECISION POINT TIPS

Specifically designed for matrix soldering and micromodule assembly, these tips are precision ground and honed to ultra-fine dimensions. Type 6391, Tellurium Copper; Type 6392, Tellurium Copper, Iron Clad, Gold Plated (24 kt.).

Stk. No.	Type	Dimensions	1-9	10-99	100-up
33F045	6391	.770x.125	.64	.53	.49
33F046	6392	.770x.135	1.35	1.09	.95

TIPS FOR 15-WATT CARTRIDGE

Tellurium copper, iron clad, 24 kt. gold plated.

Stk. No.	Type	Shape	Dimensions	1-9	10-99	100-up
32F962	6550	Screwdriver	.040 x .40			
32F963	6551	Spade	.050 x .40	1.04	.87	.78
32F964	6553	Chisel	.050 x .40			
32F965	6554	Pencil	.050 x .40			

THREAD-ON SOLDERING TIPS



For use with 4037 and 1237 heating units. Tests show 750-800 degree and 850-900 degree temperatures are maintained, with 100% increase in recovery rate. Iron clad, silver plated.

Stk. No.	Type	Description	L. x O.D.	1-9	10-49	50-up
33F679	PL11*	Pencil	3/4x1/2"	.63	.52	.48
33F680	111	Pencil	3/4x1/2"	.29	.23	.21
33F681	PL13*	Chisel	3/4x1/2"	.63	.52	.48
33F682	113	Chisel	3/4x1/2"	.29	.23	.21
33F691	116	Pyramid	3/4x1/2"	.29	.23	.21
33F692	PL14*	Micro Spade	3/4x1/2"	.63	.52	.48
33F693	PL116*	Pyramid	3/4x1/2"	.63	.52	.48

MODEL 6601 SOLDER IRON

Complete iron. Consists of 6100-5 black handle; 6102-5 black 2 wire cord; 6207-100 with heat cartridge; 6520 heavy duty soldering tip. Heat cartridge rated 115v. AC-DC. UL approved.

Stk. No.	Type	1-9	10-99	100-up
32F978	6601	9.95	7.95	7.45

IMPERIAL® "SAFETY-GUARD" HOLDER

Type 6800. Specially designed for the IMPERIAL... avoids handle damage while protecting operators against hot tip burns. Attaches quickly to the top or underside of the work bench. Black with special gold cage guard.

32F957, 1-9	1.60	10-99	1.30	100-up	1.20
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HI-SPEED HEATING UNITS

Threaded heating units achieve four times heat transfer efficiency because of greater heat path and better compatibility. Thread-end design prevents solder from running back into threads and reduces thread oxidation. Fast reliable connections are assured. Meets top requirements for faster repeat production line soldering.

Stk. No.	Type	Description	1-9 Each	10-49 Each	50-up Each
33F677	4037	47 1/2"W, Thread-on	2.65	2.18	2.01
33F678	1237	37 1/2"W, Thread-on	1.58	1.30	1.20
32F977	537	23 1/2"W, Thread-on	1.45	1.21	1.09

Soldering Equipment

"UNGAR PRINCESS" SOLDERING EQUIPMENT

HANDLES



Model 6902. Handle with Two-Wire Cord. Cord has polyvinyl chloride insulation and is full 4 1/2" length. Handle with midget thread-in socket 120 volts, AC/DC. Size: 5"L x 1/2"Dia. Ship. wt. 3 oz.

Model 6903. Handle With Three-Wire Cord. Similar to above except cord is 22-gauge flexible stranded with molded NEMA plug. Capsule is grounded. Ship wt. 3 oz.

Stk.No.	Type	Handles	1-9	10-49	50-up
32F899	6902	2-Wire	2.33	2.12	1.89
32F898	6903	3-Wire	3.00	2.69	2.40

HEAT CAPSULES



For 120 Volts AC/DC operation. Heating section threaded to accept new series of 1/8" "Princess" Soldering Nibs. Length: 2 3/4". Ship wt. 2 oz. Will also accept complete line of 1/8" "Standard" Tiptets.

Soldering Nibs. Length: 2 3/4". Ship wt. 2 oz. Will also accept complete line of 1/8" "Standard" Tiptets.

Stk. No.	Type	Watts	Temp.	1-9	10-49	50-up
32F897	6904	15	700- 800°F	2.87	2.57	2.29
32F896	6905	10	550- 650°F			
32F895	6906	6	400- 450°F			
32F894	6918	18	900-1000°F			



Stk. No.	Type	Shape	Size	Plated	1-9	10-49	50-up
32F893	6950	Pencil	.08x1/8"	Copper	.33	.30	.27
32F892	6951	Screw dr.	.68x1/8"	Copper	.33	.30	.27
32F891	6952	Spade	61x1/8"	Copper	.33	.30	.27
32F890	6953	Point	61x1/8"	Copper	.50	.45	.40
32F889	6960	Pencil	62x1/8"	Gold	.59	.52	.47
32F888	6961	Screw dr.	62x1/8"	Gold	.59	.52	.47
32F887	6962	Spade	62x1/8"	Gold	.59	.52	.47
32F886	6963	Point	61x1/8"	Gold	1.00	.89	.79

Ship. wt. 3 oz.

KLEEN-TIP SPONGE, TRAY, AND REFILL

Specially processed Kleen-Tip sponge for removing oxidation and excess solder from tips. Assures proper heat flow and solder wetting may be retarded or prevented. Other materials used for this purpose cause contamination or destroy plating.



Stock No.	Type	Description	1-9, Ea.	10-49, Ea.	50-up, Ea.
33F683	400	Sponge and tray	1.00	.81	.75
33F684	455	Refill sponge	.40	.33	.30

"ANTEX-PRECISION" SOLDERING IRONS

MINIATURE SOLDERING IRON



Model C. A soldering iron sized and shaped like a pen. No visual obstruction of work. Safety handle will not burn or char on contact with other irons. Tips from 3/64" to 3/16" dia. Tip stays hot under production speed operation. Sealed element assures constant temperature. Rapid heat-up time—just 45 seconds. Tip fits over the element—no heat wasted. Cools off in 3 minutes. Ultra-flexible three-wire cord with high temperature plastic insulation allows for grounding the instrument.

33F242. Model C. Iron less tip.
1-5.....4.85 EA. 6 or more.....4.35 EA.
NET EACH

BEAUCHAINE TOOLS

SOLDERING AIDS

Use for probing, scraping, cleaning. Standard and printed circuit sizes. Solder-shedding chrome-plated tips.

Stk. No.	Type	Tip Description	1-199	200-up
34F596	SH20A	Standard straight	.87	.78
34F597	SH20B	Standard angle	.87	.78
34F613	SH20K	Std. brush & scraper	.98	.88
34F598	SH20C	Printed-circuit straight	.80	.72
34F599	SH20D	Printed-circuit angle	.80	.72
34F612	SH20G	P-C brush & scraper	.92	.83

Type SH-120. Kit of all six aids described above, in a handy plastic case.

34F614. NET EACH 4.87

Probing Tweezers. Polystyrene—no shock hazard in tightly wired chassis.

34F549. Type SH2AA. NET. 1-199 .40 200-up .36

ASSEMBLED "PRINCESS" SOLDERING IRON



Type 6950 pencil nib, Type 6951 screwdriver nib, and Type 6952 spade nib. Ship. wt. 14 oz.

Stk. No.	Type	Description	1-9	10-49	50-up
32F885	6975	Assembled "Princess"	5.99	5.25	4.66

"PRINCESS" SOLDERING IRON

Consists of the following: Type 6902 handle; Type 6905, 10 watt heat capsule; Type 6951 screwdriver nib, and Type 6990 "Princess" soldering iron holder equipped with Type 6991 re-fill sponge; Type 6950 pencil nib; Type 6952 spade nib. Ship. wt. 1 lb.

Stk. No.	Type	Description	1-9	10-49	50-up
32F884	6900	"Princess" Station	7.99	7.15	6.39

"PRINCESS" SOLDERING IRON HOLDER

Type 6990. Plastic case with metal cage and equipped with specially processed slit sponge. Ship. wt. 3 oz.

Stk. No.	Type	Description	1-9	10-49	50-up
32F883	6990	"Princess" Holder	2.50	2.25	2.00

"PRINCESS" HOLDER SPONGE

For use with "Princess" holder Type 6990. Ship. wt. 1/4 oz.

Stk. No.	Type	Description	1-9	10-49	50-up
32F882	6991	"Princess" Sponge	.40	.36	.34

IRON HOLDER

Type 8000. Protection against painful "hot tip" burns. The operator no longer need worry about brushing against hot iron. Cradles iron safely and securely in one place. Provides greater protection against iron breakage. Can be attached to wall or bench by the use of mounting holes pre-drilled in holder. Shpg. wt. 1 lb.



33F687. 1-9, Ea. 1.70
10-49, Ea. 1.37 50-up, Ea. 1.27

ANTI-SEIZE LUBRICANT

Type 8001. A special lubricant designed for use on metals operating at high temperatures. Repeated use on tiplet threads helps to reduce seizure and resultant breakage of tips and heating units. Guards against tip freezing and protects against corrosion. Therefore, heat transfer is greatly improved. Wt. 4 oz.

Stk. No.	Type	1-9	10-49	50-up
32F688	8001	.55	.45	.42

INTERCHANGEABLE TIPS FOR C IRON

Stock No.	Sizes	Plated	Shape	1-49	50-up
33F267	3/32"	Nickel	Chisel	.55	.50
33F268	5/32"	Nickel	Chisel	.55	.50
33F269	3/16"	Nickel	Chisel	.55	.50
33F244	3/32"	Nickel	Spade	.55	.50
33F245	5/32"	Nickel	Spade	.55	.50
33F249	3/16"	Nickel	Spade	.55	.50
33F246	3/32"	Iron	Spade	1.20	1.10
33F247	5/32"	Iron	Spade	1.20	1.10
33F248	3/16"	Iron	Spade	1.20	1.10
33F264	3/16"	Iron	Chisel	1.20	1.10
33F265	5/32"	Iron	Chisel	1.20	1.10
33F266	3/16"	Iron	Chisel	1.20	1.10
33F272	3/64"	Nickel	Spade	.55	.50
33F263	3/64"	Iron	Spade	1.20	1.10

TUBE SERVICE ACCESSORIES

Test Adapters. Plug in socket, plug tube in adapter; contacts are available top-of-chassis for in-service measurements.

Stock No.	Type	Description	Ea.
34F567	SH27	For 7 pin min.	1.65
34F568	SH28	For 8 pin oct.	1.82
34F569	SH29	For 9 pin min.	1.90

Tube Puller. Neoprene suction type. Fits 9-pin miniature tubes.

34F584. Type SH23B. NET EACH .84

Tube Lifter. Loosens octal and local types for easy removal.

34F586. Type SH21. NET EACH .70

Soldering Irons and Accessories



HEXACON HORNET IRONS



Furnished in 115 V. Available in 230 V. Equipped with 2-conductor cord and plug. 3-conductor cord, plug available. Smallest industrial soldering irons for micro-electric soldering. Smallest tip $\frac{1}{32}$ " shortest working distance, $1\frac{1}{8}$ " from work. Stainless steel reflector keeps handle cool. Durotherm non-freeze long-life tip. Overall length $5\frac{1}{8}$ ", 115Ac/Dc operation. Kit H10K comes with tips: HT866D ($\frac{1}{32}$ " round) and HT869D ($\frac{1}{16}$ " chisel) for 12 watt operation. Kit H11K, same as above but for 17 watt operation. Kit H14K comes with tips: HT654X ($\frac{1}{8}$ " semi-chisel) and HT655X ($\frac{1}{8}$ " chisel) for 20 watt operation. 3-wire models come equipped with safety 3-wire cord and NEMA plug.

2-WIRE HORNET IRON TIPS

Stk. No.	Model	Wattage	Net
33F942	H10K*	12	7.21
33F955	H11K*	17	7.21
33F956	H14K*	20	7.21

2-WIRE HORNET IRONS (Less Tip)

Stk. No.	Model	Wattage	Net
33F857	H10	12	5.50
33F859	H14	20	5.50

3-WIRE HORNET IRON KITS

Stk. No.	Model	Wattage	Net
33F943	H10K*	12	8.16
33F960	H11K*	17	8.16
33F961	H14K*	20	8.16

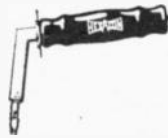
PIN POINT IRONS



For printed circuits, etc. Weighs but 3 oz. Same construction as Super Pencil, except for the handle and longer reach $4\frac{1}{2}$ ". Wt., $\frac{1}{2}$ lb. Less tip.

Stk. No.	Model	Wattage	Uses Tip Size	NET
33F897	P2525	25	$\frac{1}{8}$	4.94
33F845	P2535	35	$\frac{1}{8}$	4.94
33F898	P2630	30	$\frac{3}{16}$	4.97
33F848	P2650	50	$\frac{3}{16}$	4.97
33F849	P2450	50	$\frac{1}{4}$	5.57
33F850	P2460	60	$\frac{1}{4}$	5.57
32F814	P3060	60	$\frac{1}{4}$	5.94
33F852	P3075	75	$\frac{1}{4}$	5.94

BANTAM HATCHET IRONS



For printed circuits, etc. Weighs but 3 oz. Smallest hatchet. Same construction as super pencil, except for handle. Shpg. Wt., $\frac{1}{2}$ lb. Less tip.

Stk. No.	Model	Wattage	Uses Tip Size	NET
33F895	25H25	25	$\frac{1}{8}$	6.01
33F838	25H35	35	$\frac{1}{8}$	6.01
33F839	25H50	50	$\frac{1}{8}$	6.01
33F896	26H30	30	$\frac{3}{16}$	6.09
33F841	26H50	50	$\frac{3}{16}$	6.09
32F812	30H50	50	$\frac{1}{4}$	6.53
33F843	24H60	60	$\frac{1}{4}$	6.23
32F813	30H70	70	$\frac{1}{4}$	6.53

INSTANT SOLDER GUN



Model G14. Weighs only 8 oz. Solders in seconds. Ideal for intermittent soldering. 150 watts. Has $\frac{1}{4}$ " tip. Wt., $1\frac{1}{4}$ lbs. NET \$5.99

Model G148. 150 watts. Has $\frac{1}{8}$ " tip. NET \$5.99

Model G143. Heater tip assembly for G14. NET \$3.26

Model G148. Heater Tip assembly for G148. NET \$3.26

TIP CLEANING SPONGE



Insures reliability of soldered joints and extends tip life. Eliminates contamination and safety hazards caused by wiping rags.

32F821. Model 810. Sponge, tray. NET \$1.12

32F822. Model 8101. Sponge only. NET \$0.42

PRODUCTION LINE IRONS



For fastest soldering on Radio-TV conveyors, etc. Short, well balanced, with cool, comfortable handles. Rugged, high heat alloy elements. Approx. shpg. wt., $1\frac{1}{2}$ lbs. Less tip.

Plug Tip Irons

Stk. No.	Model	Wattage	Uses Tip Size	NET
33F892	P100	100	$\frac{3}{8}$	7.95
33F893	P150	150	$\frac{3}{8}$	8.78
32F815	P153	175	$\frac{3}{8}$	9.11
32F816	P151	175	$\frac{1}{2}$	9.14
33F894	P200	200	$\frac{5}{8}$	9.25
33F891	P250	250	$\frac{5}{8}$	10.79
33F865	P300	300	$\frac{7}{8}$	11.86
33F866	P550	550	$1\frac{1}{8}$	13.90

SUPER PENCIL IRONS



For printed circuits, etc. Weight only 2 oz. Short reach 3". Cool handle. All the advantages of a soldering pencil, but a compact, rugged industrial soldering iron, with precision nickel-chromium, mica wound element. Shpg. wt., 8 oz. Less tips.

Stk. No.	Model	Wattage	Uses Tip Size	NET
33F829	25S25	25	$\frac{1}{8}$	4.94
33F831	25S35	35	$\frac{1}{8}$	4.94
33F832	25S50	50	$\frac{1}{8}$	5.67
33F828	26S30	30	$\frac{3}{16}$	5.21
33F833	26S35	35	$\frac{3}{16}$	5.21
33F835	26S50	50	$\frac{3}{16}$	5.71
33F836	24S40	40	$\frac{1}{4}$	5.92
33F827	24S50	50	$\frac{1}{4}$	5.92
33F837	24S60	60	$\frac{1}{4}$	5.92

DUROTHERM NON-FREEZING TIPS

Iron coated and immunized. Anti-scaling and anti-corrosion design absolutely prevents tips from sticking. Note: also available, XTRADUR Iron-Coated Pre-Tinned Tips: Multi-coating immunizes shank of tip from solder, preventing creeping and spilling of

solder. Use type numbers shown, but substitute X for D. Cost approx. 10% less than DUROTHERM. For HEXACON Iron Coated Pre-Tinned Tips, use DUROTHERM. Cost approx. 30% less than

$\frac{1}{4}$ " Diameter (Fits 25S, P25, and 25H)

Stk. No.	Type	WxT	Lgth.	Style	NET
32F750	HT248D	$\frac{1}{32}x\frac{1}{32}$	$2\frac{1}{4}$	A	1.61
32F751	HT249D	$\frac{1}{16}x\frac{1}{32}$	$2\frac{1}{4}$	B	1.61
32F752	HT376D	$\frac{1}{8}x\frac{1}{32}$	$2\frac{1}{4}$	C	1.61
32F753	HT560D	$\frac{1}{16}x\frac{1}{32}$	$2\frac{1}{4}$	D	1.61
32F754	HT222D	$\frac{1}{16}$	$2\frac{1}{4}$	G	1.61
32F755	HT361D	$\frac{1}{16}x\frac{1}{64}$	$2\frac{1}{8}$	B	2.00
32F756	HT331D	$\frac{1}{32}$	$2\frac{1}{8}$	F	1.61

$\frac{1}{4}$ " Diameter (Fits 24S, P24, and 24H)

Stk. No.	Type	WxT	Lgth.	Style	NET
32F766	HT325D	$\frac{1}{32}x\frac{1}{32}$	$2\frac{1}{4}$	A	1.93
32F767	HT553D	$\frac{1}{4}x\frac{1}{16}$	$2\frac{1}{4}$	B	1.93
32F768	HT417D	$\frac{1}{8}x\frac{1}{32}$	$2\frac{1}{4}$	E	1.93
32F769	HT313D	$\frac{1}{16}x\frac{1}{32}$	$2\frac{1}{4}$	D	1.93
32F772	HT451D	$\frac{1}{16}x\frac{1}{32}$	$2\frac{1}{4}$	C	2.00
32F773	HT513D	$\frac{1}{32}$	$2\frac{1}{4}$	P	2.00
32F774	HT324D	$\frac{1}{16}x\frac{1}{32}$	$2\frac{1}{4}$	B	2.00
32F776	HT691D	$\frac{1}{16}x\frac{1}{64}$	$2\frac{1}{4}$	C	2.00

$\frac{1}{4}$ " Diameter (Fits P30 and 30H)

Stk. No.	Type	WxT	Lgth.	Style	NET
32F777	HT252D	$\frac{1}{32}x\frac{1}{32}$	$2\frac{1}{4}$	A	1.93
32F778	HT253D	$\frac{1}{4}x\frac{1}{16}$	$2\frac{1}{4}$	B	1.93
32F779	HT202D	$\frac{3}{16}x\frac{1}{32}$	$2\frac{1}{4}$	D	1.93
32F780	HT290D	$\frac{1}{16}x\frac{1}{32}$	3	D	1.93
32F781	HT426D	$\frac{1}{16}x\frac{1}{32}$	$2\frac{1}{4}$	E	1.93
32F782	HT328D	$\frac{1}{16}x\frac{1}{32}$	3	E	2.00
32F783	HT131D	$\frac{1}{32}$	$2\frac{1}{4}$	F	1.93
32F785	HT452D	$\frac{1}{32}$	$2\frac{1}{4}$	F	2.00
32F786	HT356D	$\frac{1}{16}x\frac{1}{32}$	$3\frac{1}{8}$	E	2.00
32F788	HT519D	$\frac{1}{8}x\frac{1}{32}$	3	C	2.00

$\frac{3}{16}$ " Diameter (Fits 26S, P26, and 26H)

Stk. No.	Type	Point	Lgth.	Style	NET
32F758	HT251D	$\frac{1}{32}x\frac{1}{32}$	$2\frac{1}{4}$	A	1.68
32F759	HT234D	$\frac{3}{16}x\frac{1}{32}$	$2\frac{1}{4}$	B	1.68
32F760	HT195D	$\frac{3}{16}x\frac{1}{32}$	$2\frac{1}{4}$	C	1.68
32F761	HT207D	$\frac{3}{16}x\frac{1}{32}$	$2\frac{1}{4}$	E	1.68
32F762	HT190D	$\frac{1}{16}x\frac{1}{16}$	$2\frac{1}{4}$	D	1.68
32F764	HT290D	$\frac{1}{16}x\frac{1}{32}$	$2\frac{1}{4}$	C	1.79
32F765	HT281D	$\frac{1}{32}$	$2\frac{1}{4}$	F	1.68

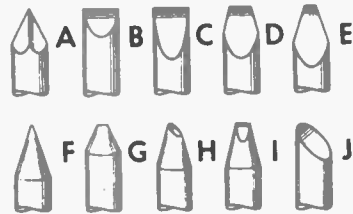
$\frac{3}{4}$ " Dia. (Fits P100, P150, P238, 100H, 150H)

Stk. No.	Type	Point	Lgth.	Style	NET
32F791	HT140D	$\frac{3}{16}x\frac{1}{16}$	4	D	2.07
32F793	HT177D	$\frac{3}{16}x\frac{1}{32}$	$4\frac{1}{8}$	D	2.42
32F794	HT231D	$\frac{3}{16}x\frac{1}{16}$	$4\frac{1}{8}$	D	2.07
32F795	HT255D	$\frac{1}{16}x\frac{1}{16}$	$4\frac{1}{8}$	A	2.07
32F797	HT475D	$\frac{3}{32}x\frac{1}{32}$	$4\frac{1}{8}$	E	2.42
32F798	HT918D	$\frac{3}{32}x\frac{1}{16}$	4	E	2.07

TELLURIUM COPPER TIPS—Style A

Stk. No.	Dia.	Fits Irons	NET
33F944	$\frac{1}{8}$	25S, 25H, P25	.20
33F945	$\frac{3}{16}$	26S, 26H, P26	.25
33F946	$\frac{1}{4}$	24S, 24H, P24, P30, 30H	.33
33F941	$\frac{1}{4}$ " \times $\frac{1}{8}$ "	P100, P150	.92
33F947	$\frac{3}{8}$ "	100H, 150H	.53
33F949	$\frac{3}{16}$ " \times $\frac{1}{4}$ "	P100, P150, P238, 100H, 150H	.92
33F948	$\frac{5}{8}$ "	P200, P250	1.21

*Turned Tips.



MINIATURE TIPS FOR HORNET H10, H11

Stk. No.	Type	WxH	Style	NET
32F799	HT866D	$\frac{1}{32}$	J	.84
32F800	HT867D	$\frac{1}{32}$	ball point	.84
32F801	HT868D	$\frac{1}{16}$	I	.84
32F802	HT869D	$\frac{1}{16}x\frac{1}{64}$	J	.84
32F803	HT870X	$\frac{1}{16}x\frac{1}{32}$	D	.63
32F804	HT864X	$\frac{1}{8}$	J	.63
32F805	HT873X	$\frac{1}{32}$	F	.63

MINIATURE TIPS FOR HORNET H14

Stk. No.	Type	WxH	Style	NET
33F970	HT654X	$\frac{1}{8}x\frac{1}{32}$	E	.84
33F971	HT655X	$\frac{1}{8}x\frac{1}{32}$	C	.84
33F973	HT657X	$\frac{1}{8}x\frac{1}{32}$	C	.63
33F974	HT658X	$\frac{1}{8}$	F	.84
33F975	HT659X	$\frac{1}{64}$	F	.84

Soldering Equipment

ORYX SOLDERING IRONS & ACCESSORIES

LOW VOLTAGE INDUSTRIAL SOLDERING IRONS



Small, lightweight instruments for close-quarter precision soldering of printed circuits, miniature component parts, semiconductors, and fine assemblies. Feather weights of 1/4 to 1 ounce virtually eliminate hand fatigue. All Oryx soldering irons utilize a unique element-in-the-tip design principle. Use of this principle enables these irons to provide high efficiency, quick heat recovery, and cool handles. In addition all irons are polarized, making it possible to directly ground the shaft, tip, and one side of the heating element for maximum safety.

MODEL 5A

Microcircuit model for joints with negligible heat loads. Nominal temp. 600°F. Furnished with 1/16" P tip. Weighs only 8 grams. 6 volts-5 watts. **33F328. NET 5.45**
Lots of 12 4.95

MODEL 5S

Eye-piece model less than 5" long, for precise finger control. Nominal temp. 575°F. Furnished with 1/16" tip "S". 4.5 volts-4.5 watts. **33F329. NET 5.45**
Lots of 12 4.95

MODEL 6

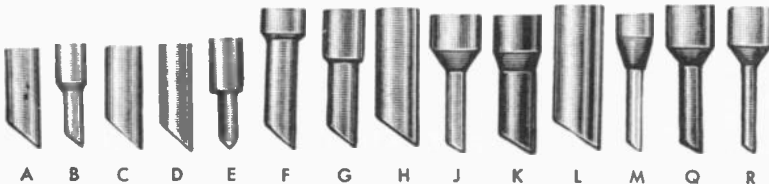
Model 6. Solders hair-spring movements, semiconductors, rf coils, and fine assemblies. Fixed 1/16" solid nickel tip. Nom. temp. 625°F. 6 volts-6 watts. 1/4 oz. **33F275. NET 5.45**
Lots of 12 4.95

Type 54203-6V Transformer. Special transformer for all 6 volt Oryx soldering irons. Output is 6 volts at 3 amps (18 watts). With cord. Wt., 1 1/2 lbs. **33F290. NET 5.50**

TRANSFORMERS

Model 5420-12V. 12 volt transformer. With clip-holder. 25 W., 2 amps. 110V AC. Shpg. wt., 1 1/2 lbs. **33F297. NET 6.45**

REPLACEMENT TIPS



Nickel plated except (*) solid nickel end.

Stock No.	Fig.	Dia.	Use With	Net Ea.
33F285	A	5/32"	9-6	.54
33F286	B	3/32"	9-6, 6A	.54
33F287	C	3/16"	12-6	.54
33F288*	D	5/32"	11-6	1.80
33F289*	E	3/32"	11-6	1.80
33F294	F	3/16"	18-6	1.25
33F295*	G	3/16"	25-12	1.85

Stock No.	Fig.	Dia.	Use With	Net Ea.
33F298	H	1/4"	25-12	2.35
33F414	J	3/32"	115-10	1.55
33F415	K	3/16"	115-10, 115-15	1.70
33F416	L	1/4"	115-15	2.25
33F417*	M	3/32"	18-6	1.85
33F418*	Q	3/32"	115-15	1.85
33F419*	R	3/16"	115-15	1.85

MICROFLAME GAS WELDING TORCH

Flame temperature exceeds 5000°F. Pin point accuracy. Operating time: with large tip, (#20 gauge)-10 minutes, with medium tip (#22 gauge)-20 minutes, with smallest tip (#25 gauge) 1 hour 20 minutes. Cylinders are not refillable, however can be shut off for a long period of time without damage by aging. For welding, brazing or cutting most metals, depending on heat conductivity, size and melting point sticks are a gold/silver alloy enabling soldering of any metal with a melting point of 1100°F. or higher to any similar or different metal. Welding and brazing rod size should be 1/32" dia. or less. 90 day warranty given with each set. Contains the torch, 3 flame tips, torch tube, gaskets, LP gas and oxygen cylinders, instruction. Packaged in a plastic tray-box container, handy for storage. Overall size including controls and clamping screws 5 1/4" long by 2" wide by 1 1/4" thick at swivel joint. Hand size: 3" long x 2" x 5/8" thick. Shpg. wt. 16 oz. for kit.

60F1526. Oxygen Cylinder. NET75
60F1527. Butane Cylinder. NET50

REPLACEMENT ACCESSORIES

60F1528. Set of 3 Flame Tips. NET75
60F1529. Set of 6 Cylinder Gasket. NET50

Model 6A. Designed for printed circuits. Furnished with removable 3/32" type "B" tip. Also takes type "P" tip. Nom. temp. 690°. 6 volts-6 watts. Weighs only 1/4 oz. **33F276. NET 5.45**
Lots of 12 4.95

Model 9-6. Designed for printed circuits. Furnished with removable 5/32" type "A" tip. Also takes "B" tip. Nom. temp. 750°. 6 volts-8.3 watts. Wt. 1/4 oz. **33F277. NET 5.45**
Lots of 12 4.95

Model 9-12. Similar to above but 12 volt model. **33F278. NET 5.45**
Lots of 12 4.95

Model 11-6. Special model designed for high temperatures necessary for soldering alloys. Temperature 835°F. Weighs 1/4 ounce. Furnished with 5/32" solid nickel "D" tip. Also takes new 3/32" "E" tip. Nickel tips provide long life at high temperatures. 6 volts-10 watts. **33F280. NET 6.95**
Lots of 12 6.45

Model 12-6. For soldering radio, TV, radar, telephone and switchboard assemblies. Furnished with 3/16" type "C" tip. Nom. temp. 700°. 6 volts-12 watts. Wt. 1/2 oz. **33F281. NET 5.45**
Lots of 12 4.95

Model 12-12. Similar to above but 12 volts. **33F282. NET 5.45**
Lots of 12 4.95

Model 18-6. Heavy duty production iron. Furnished with 3/16" type "F" tip. Also takes type 3/32" "M" tip. Nom. temp. 800°. 6 volts-18 watts. Wt., 3/4 oz. **33F293. NET 7.50**
Lots of 12 7.05

Model 25-12. Heavy duty, high temperature iron. Furnished with 3/8" type "G" tip with solid nickel end. Also takes type "H" tip. Nom. temp. 1000°F. 12 volts-25 watts. Weighs 1 oz. **33F296. NET 8.00**
Lots of 12 7.55

MINIATURE SOLDER POTS



Used for tinning wires and leads plus heating waxes, shellacs and potting compounds. Operates directly from 115 volts AC or DC. Oper. temp. 550-600°F. reached in 4 mins. Capacity 2 1/2 cc.

Stk. No.	Type	Description	Each
33F302	SP-115-3	3 wire grd.	11.95
33F303	SP-115	2 wire	11.95

115 VAC SOLDERING PENCILS

Designed for continuous production and precision soldering. Immediate plug in. No transformer required. Tips are nickel plated, chrome copper alloy. Complete with tip and 4 1/2' UL approved ultra-flexible cord. Wt., 1 oz.
Model 115-10J. Heats to 672° in 70 seconds. Type J tip supplied also takes type K. **33F412. NET 6.95**
Lots of 12, each 6.45
Model 115-15K. Heats to 717°F in 50 seconds. Type K tip supplied, also takes types L and Q. **33F413. NET 6.95**
Lots of 12, each 6.45

MICROMINIATURE SOLDERING TWEEZERS



Have heating elements in each arm. Speeds soldering time by heating both sides of joint. Low voltage operation assures safety to circuitry. Complete with 4 1/2' cord. 3 oz.
Model TW-6. Precision model for semiconductors, etc. Solid nickel 3/32" tip.
Model TW-12. For heavy duty production line etc. Furnished with 1/8" replacement tip.

Stk. No.	Type	Nom. Temp.	P. Comp.	Each
33F292	TW-6	550°	6v - 18w	14.95
33F300	TW-12	625°	12v - 25w	14.95
33F301 N	Spare tip for TW-12			1.25

MINIATURE THERMAL WIRE STRIPPERS



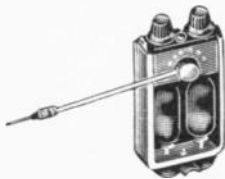
Type ST-6. Usable with wide variety of insulating materials and wire sizes. Separate steel stripping heads have an operating temperature of 400° 6 volts AC or DC, 12 watts. Tweezers allow for variable pressures and control without damage to conductors. **33F299. NET 14.95**

MINIATURE SOLDER CUPS



Copper and heavily nickel plated cups have a 2 1/2 cc. capacity. Temp. of 555°-600° in 5 min. Wt., 2 oz.

Stk. No.	Type	Use with Iron	NET
33F410	SC-18	Model 18-6	2.25
33F411	SC-115	Model 115-15	2.25



Soldering Equipment American Beauty

FOR HOME, SHOP OR INDUSTRIAL APPLICATION

"LITTLE DANDY"



Model 3110. Light weight, easy handling iron for production use. 18 interchangeable plug tips. Tensite finger grip. Lexan handle wipes "white room" clean. 25 watts. Every part is replaceable. $\frac{3}{16}$ " nickel plated screwdriver tip supplied. **32F987. NET 4.12**

Stk. No.	Pt. No.	Tips (Clad)	Price
32F988	602	$\frac{3}{16}$ Chisel	1.26
32F989	603	Trnd. Blunt Chisel	1.40
32F990	604	$\frac{1}{4}$ Trnd. Chisel	1.40
32F991	605	$\frac{1}{8}$ Trnd. Long Chis.	1.40
32F992	607	$\frac{1}{8}$ Trnd. Screwdrv.	1.40
32F993	608	$\frac{1}{8}$ Trnd. Diamond	1.40
32F994	610	$\frac{3}{16}$ Diamond	1.26
32F995	613	$\frac{3}{16}$ Trnd. Screwdrv.	1.40
32F996	615	$\frac{3}{16}$ Trnd. Screwdrv.	1.26
32F997	617	$\frac{3}{16}$ Screwdriver	1.26
32F998	618	Long Screwdrv.	1.26
32F999	619	$\frac{1}{8}$ Shrt. Screwdrv.	1.26



HEAVY DUTY 60-WATT IRON

(Fig. A.) Model 3125. A production type iron. It is light in weight and has perfect balance. Safety-flare on handle protects operator. $\frac{1}{4}$ " tip. $12\frac{1}{2}$ " long. $\frac{9}{16}$ " diam. For 110-120v AC or DC. Wt., 1 lb. **32F980. NET 6.86**
Lots of 6, Each..... 6.70

Model 9271. Replacement element. **32F021. NET 3.29**

"Superior" Type 67D. $\frac{1}{4}$ " iron plated diamond point tip for Model 3125. **32F060. NET 1.05**

Models 3125, 3128, 3138, 3178 and 3198 are available for 220-240 volt service on special order at no additional charge. Available also with 3-conductor cord, one wire grounded, on special order at 65c extra. All types available with chisel type points on special order.



200-WATT IRON

(Fig. B.) Model 3158. For medium-heavy factory and production work. $13\frac{1}{2}$ " long. With cord stand and $\frac{5}{8}$ " tip. 110-120 volts, AC-DC. Shpg. wt., 3 lbs. **32F002. NET 10.98**
In Lots of 6, Each..... 10.72

33F007. $\frac{3}{8}$ " diamond point tip. Wt., 7 oz. NET 1.33

"Superior" Type 44D. $\frac{5}{8}$ " iron plated diamond point tip for Model 3158. **33F062. NET 2.10**

Model 9275. Replacement element. **33F011. NET 5.60**



LIGHT DUTY 60-WATT IRON

(Fig. D.) Model 3128. Compact iron for light work. Uses $\frac{1}{4}$ " tip for working in hard-to-get-at spots. With tip, cord and stand. For 110-120 v., AC-DC. 1 lb. **33F000. NET 6.11**

In Lots of 6, Each..... 6.03

33F005. $\frac{1}{4}$ " diamond point tip. Wt., 2 oz. NET 3.39

Model 9272. Replacement element. **33F009. NET 3.50**

"Superior" Type 67D. $\frac{1}{4}$ " iron plated diamond point tip for Model 3128. **33F060. NET 1.05**

MEDIUM DUTY IRONS

(Fig. E.) Model 3138. For work on radio chassis, switchboards, and other electrical uses. $12\frac{1}{2}$ " long. $\frac{3}{8}$ " diamond point tip. Nickel-plated metal parts. With stand, 8-ft. cord and tip. For 110-120 v., AC-DC. Wt., 2 1/2 lbs.

Stk. No.	Type	Watts	1-5	6-up
33F001	3138	100	8.84	8.71
32F986	3138	150	8.84	8.71
33F189	3138-X	175	9.97	9.72

33F008. $\frac{3}{8}$ " diamond point tip. Wt., 5 oz. NET 3.56

Model 9273. 100 watt Replacement element.

33F010. NET 3.99

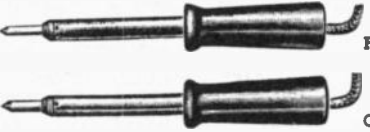
"Superior" Type 43D. $\frac{3}{8}$ " iron plated diamond point tip for Model 3138. **33F061. NET 1.33**

TEMPERATURE REGULATING STANDS

Model 475. Thermally controlled to eliminate overheating. Size $6\frac{1}{2}$ x $5\frac{1}{2}$ x $3\frac{3}{4}$ ". Adjustment on bottom for very low, warm, or full working temperature. Handles any iron from 100-660 watts at any AC voltage to 125. Less iron. Shipping weight, 2 1/2 lbs. **33F014. NET 8.92**

Model 476. Same as above except size $7\frac{3}{4}$ x $5\frac{1}{2}$ x $3\frac{3}{4}$ " and input, 30-85 w. **33F154. NET 8.92**

Model 475-SG. As Model 475, but equipped with safety guard. Size: 9 x $5\frac{1}{2}$ x 5 ". Shpg. wt., 3 lbs. **32F981. NET 10.50**



LIGHTWEIGHT AMERICAN BEAUTY BANTAM SOLDERING IRONS

Small, light, quick heating, with removable tip for TV, radio, etc. Stainless steel case insures against heat loss, keeps handle cool. Compression wound, mica-insulated nickel-chromed heating element. Non-kink, flexible cord. 110v, 30-watt. $9\frac{1}{4}$ " length. With stand. (Fig. F.) **33F022. Type 3118 with $\frac{1}{8}$ " dia. tip. NET 5.49**

In Lots of 6, Each..... 5.36

(Fig. G.) **33F023. Type 3120 with $\frac{3}{16}$ " dia. tip. NET 5.49**

In Lots of 6, Each..... 5.36

33F024. Type 3718. $\frac{1}{8}$ " diamond point replacement tip. NET .22

33F025. Type 3720. $\frac{3}{16}$ " diamond point replacement tip. NET .25

33F059. "Superior" Type 109D $\frac{3}{16}$ " iron plated diamond point tip. NET .98

33F026. Type 9281. Replacement Element for 3118 Iron. NET 3.22

33F027. Type 9280. Replacement Element for 3120 Iron. NET 3.22

33F008. $\frac{7}{8}$ " chisel tip. Wt., 1 lb. NET 2.52

Model 9277. Replacement element. **33F013. NET 7.49**

"Paragon" Type P-45C. $\frac{7}{8}$ " iron plated chisel tip for Model 3178. **33F063. NET 4.55**

EXTRA-HEAVY 550-WATT IRON

(Fig. C.) Model 3178. For use on still heavier work; for light commutators, service and production work. $14\frac{3}{4}$ " long. $\frac{7}{8}$ " tip. 110-120 v., AC-DC. Wt., 4 lbs. **33F004. NET 14.70**

In Lots of 6, Each..... 14.07

Model 9277. Replacement element. **33F013. NET 7.49**

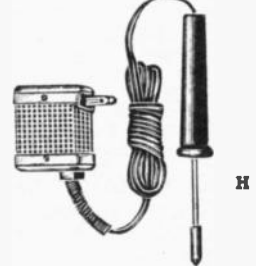
"Paragon" Type P-46C. $1\frac{1}{8}$ " iron plated chisel tip for Model 3198. **33F064. NET 7.00**

In Lots of 6, Each..... 17.42

"Paragon" Type P-48C. $1\frac{1}{8}$ " iron plated chisel tip for Model 3198. **33F064. NET 7.00**

In Lots of 6, Each..... 17.42

"Paragon" Type P-48C. $1\frac{1}{8}$ " iron plated chisel tip for Model 3198. **33F064. NET 7.00**



TRANSFORMER TYPE

With its small diameter tip element and minimum bulk and weight, the T-30 series serves the purpose of larger and more cumbersome soldering equipment. Transformer is 110-120 volt (AC only). 12 volt output. 30 watt maximum capacity. The unit includes a seven foot rubber cord. The handle is made of cool, thick hi-impact thermo-setting plastic. Diamond point tip is standard. Shpg. wt., 2 lbs.

Stk. No.	Mfg. No.	Tip Dia.	Wt.	NET	6 or more
33F150	T-30	$\frac{1}{8}$ "	2 lbs.	15.09	14.74
33F151	T-30	$\frac{1}{4}$ "	2 lbs.	15.09	14.74

TIP ELEMENTS

33F152	T-3018	$\frac{1}{8}$ "	$\frac{3}{4}$ oz.	2.61	2.55
33F153	T-3025	$\frac{1}{4}$ "	$\frac{3}{4}$ oz.	2.61	2.55

(Fig. H.) Type T-12. A transformer type soldering iron for precision soldering. Transformer comes attached to cord ready to plug into wall socket. Seven foot cord. For 110-120 Volt AC operation only. Tip element is pre-tinned ARMCO ingot iron. Handle is of high-impact, thermo-setting material. Has diamond shaped tip. Shipping weight, $1\frac{1}{2}$ lbs.

17-WATT IRONS

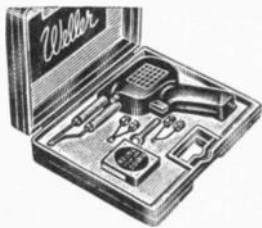
Stock No.	Tip Diam.	Lgth.	NET EACH	6 or more
33F191	$\frac{1}{8}$ "	$7\frac{3}{4}$ "	13.72	13.40

REPLACEMENT TIP ELEMENTS*

*Shpg. wt., $\frac{3}{4}$ oz.

Stock No.	Type	Diam.	Lgth.	NET EACH	12 or more
33F193	T-1216	$\frac{1}{8}$ "	$4\frac{7}{16}$ "	2.26	2.21
33F194	T-1218	$\frac{1}{8}$ "	$4\frac{7}{16}$ "	2.26	2.21
33F195	T-1225	$\frac{1}{4}$ "	$4\frac{7}{16}$ "	2.26	2.21

Weller Shop Tools



A.

HEAVY DUTY SOLDERING KIT

Fig. A. Model D-550PK. Equipped with heavy duty, dual heat 240/325 watt soldering gun. Kit contains: soldering tip, smoothing tip, cutting tip, tip changing wrench. Ample supply of all purpose solder. Complete unit is packed in handy carry-anywhere plastic utility case. Shpg. wt., 5 lbs.

33F132. NET **9.55**
 In lots of three, Each 8.65
 In lots of 12, Each 8.15

MEDIUM DUTY SOLDERING KITS

Model 8200PK. For professional or home crafters. Kit includes 3 Weller long life soldering tips, tip changing wrench, flux brush, soldering aid, and all purpose solder. Contains 100/140 watt soldering gun. Unit is packed in a high impact plastic case. Shpg. wt., 3 lbs.

33F158. NET **6.53**
 In lots of three, Each 5.95
 In lots of 12, Each 5.65

HEAVY DUTY SOLDERING GUNS

Fig. B. Guns give instant heat with no waste. Dual heat. Switch from high to low. Exclusive tip-grip. Eliminates resistance. Dual spotlights on both models. Good for dark or tight places. High-impact housing. Perfect balance. Replaceable tips. Type D-550, Heavy Duty Model. Dual heat. 240/325 watts. 3 1/2 lbs.

33F129. NET **8.08**
 In lots of 3, Each 7.30
 In lots of 12, Each 6.90

Type D-440, Standard Model. Dual heat. 145/210 watts. 3 3/4 lbs.

33F131. NET **7.30**
 In lots of 3, Each 6.65
 In lots of 12, Each 6.25

Fig. C DUAL HEAT SOLDERING GUNS

Model 8200. 2 trigger positions permit instant switching to high 140 watt or low 100 watt heat. High efficiency tip of copper for maximum heat transfer. Pre-focused spotlight. Easy on-off finger control. Shpg. wt., 2 1/2 lbs.

33F148. NET **4.56**
 In lots of three, Each 4.35
 In lots of 12, Each 4.15

WELLER PENCIL IRON



Model W-P. Light weight soldering iron with 1/8" tip and cord set. 3 screwdriver-shape tip sizes with premium plating; plastic handle. 25 watts at 115 V; 7 7/8" long, 7/16" D. Max. temp. 860°F. Wt., 1 3/4 oz.

33F175. Model W-P. NET 1-11 3.82
 12-49 3.45; 50-up 3.15

ACCESSORIES FOR ABOVE

Stock No.	Part No.	Description	1-11	12-49	50-up
33F176	ST-1	1/8" tip only	.56	.50	.45
33F177	ST-2	3/16" tip only	.56	.50	.45
33F178	ST-3	1/4" tip only	.56	.50	.45
33F179	HE-1	Heating element	1.91	1.73	1.56
33F180	CS-2	Cord set (2-wire)	.52	.47	.42
33F181	KN-3	Knurled tip nut	.15	.13	.12

SOLDERING GUNS AND KITS



B.

Fig. E. CONTROLLED HEAT IRONS

Irons have built-in MAGNASTAT temperature controls which automatically maintain the correct soldering temp. Lightweight Stainless steel. Balanced. All irons listed without cords and tips. See listings on this page for 2 or 3 wire cords and tips.

Model TC552, 55 watt iron only. 5 1/2 oz.
 33F380, 1-11, Ea. 5.32
 12-49, Ea. 4.83 50-up, Ea. 4.34
 Model TC602, 75 watt iron only. 6 1/2 oz.
 33F381, 1-11, Ea. 5.52
 12-49, Ea. 5.00 50-up, Ea. 4.50
 Model TC1202, 120 watt iron only. 8 1/2 oz.
 33F382, 1-11, Ea. 6.25
 12-49, Ea. 5.67 50-up, Ea. 5.10

TIPS FOR CONTROLLED HEAT IRONS

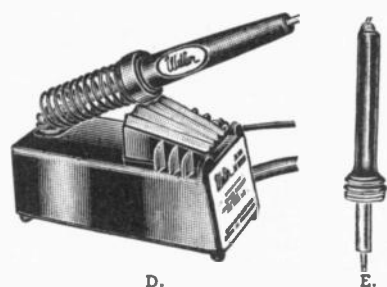
Stock No.	Type	1-11	12-49	50-up
33F368	5-BJN-750° 3/16" screwdriver tip for TC552		.57	.50
33F387	5-CIN-750° 1/8" screwdriver tip for TC552		.56	.50
33F386	5-DIN-750° 3/16" screwdriver tip for TC552		.56	.50
33F388	6-EIN-750° 1/4" screwdriver tip for TC602	1.12	1.00	.90
33F367	6-DIN-750° 3/16" screwdriver tip for TC602	1.14	1.00	.90
33F391	12-G4N-750° 7/16" chisel tip for TC1202	1.49	1.34	1.20

CORDS FOR CONTROLLED HEAT IRONS

CS40. Two wire cord set. For use with TC552, TC602.
 33F383. NET Ea.74
 CS50. Three wire cord set. For use with TC552, TC602.
 33F384. NET ea. 1.47
 CS60. Two-wire cord set for TC1202.
 33F365. NET EACH74
 CS70. Three-wire cord set for TC1202.
 33F366. NET EACH 1.47

GUN REPLACEMENT PARTS

No. 7323, Switch for single-heat models.
 33F162. NET, each69
 No. 7324, Switch for all dual-heat models.
 33F163. NET, each69
 33F392. No. 7409 cord set (all models)69
 No. 725R8100B, Right housing for 8100B.
 33F394. NET, each69
 No. 726L8100B, Left housing for 8100B.69
 33F395. NET, each69
 No. 725R8200, Right housing for 8200.69
 33F396. NET, each69
 No. 726L8200, Left housing for model 8200.69
 33F397. NET, each69
 No. 725R825A, Right housing for 8250A.69
 33F398. NET, each69
 No. 726L825A, Left housing for 8250A.69
 33F399. NET, each69
 No. 725R440, Right housing for D-440.69
 33F166. NET, each69
 No. 726L440, Left housing for model D-440.69
 33F167. NET, each69
 No. 725R550, Right housing for D-550.69
 33F168. NET, each69
 No. 726L550, Left housing for model D-550.69
 33F169. NET, each69
 No. 725R8100, Right housing for 8100.69
 33F172. NET, each69
 No. 726L8100, Left housing for model 8100.69
 33F173. NET, each69



D.

E.

GUN REPLACEMENT TIPS

No. 8125. Plated tip for models 8200, 8100B.
 33F149. NET, per pkg. of 235
 No. 8125N. Contains one No. 8125 tip and two tip nuts. 33F139. NET35
 No. 7135. Copper tip for models D-440, 8100, 8100B, 8200 and older models WS-100, WD-135, S-400.

33F124. NET, per pkg. of 225
 No. 7135N. Contains one No. 7135 tip and two tip nuts.25
 33F140. NET25
 No. 7250. Copper tip for models D-550, 8250A, and older models WS-200, WD-250, S-500.

33F125. NET, per pkg. of 235
 No. 7250N. Contains one No. 7250 tip and two tip nuts.35
 33F141. NET35
 No. 6110. Cutting tip for models D-440, 8100, 8200, 8100B, and older models WS-100, WD-135, S-400.

33F135. NET, each (with tip nuts)35
 No. 6120. Smoothing tip for models D-440, 8100, 8200, 8100B, and older models WS-100, WD-135, S-400.
 33F136. NET, each (with tip nuts)35
 No. 6130. Cutting tip for D-550, 8250A, and older models WS-200, WD-250, S-500.

33F137. NET, each (with tip nuts)35
 No. 6140. Smoothing tip for D-550, 8250A, and older models WS-200, WD-250, S-500.
 33F138. NET, each (with tip nuts)35
 No. 7300. Copper tip for older models S-107, D-207.
 33F127. NET, per pkg. of 225

CONTROLLED HEAT SOLDER PENCIL

Fig. D—Model W-TCP. For production and research lab. Temperature controlled at tip. Cool handle of impact resistant plastic. Low voltage (24 volts) for component protection and operator safety. Soldering stand attached to power unit. 60 watts, 120 volts. 60-50 cycles. Unit is isolated for elimination of leakage current. With 3/16", 700° F tip, and power unit. Length with tip: 7 1/2". 4 lbs.

Stk. No.	Type	1-5	6-23	24-up
33F355	W-TCP	19.11	17.30	15.60

Model TCP1. Soldering Pencil Only. 3/16" 700° F Tip.

Stk. No.	Type	1-5	6-23	24-up
33F356	TCP-1	10.73	9.75	8.75

Model PU-1 Power Unit Only. With stand.

Stk. No.	Type	1-5	6-23	24-up
33F357	PU-1	8.38	7.55	6.85

ADDITIONAL SCREWDRIVER TIPS

Interchangeable tips; fit TC models (above) only. Same shank dia.

Screwdriver Tip—600° F					
Stk. No.	Type	Size	1-5	6-23	24-up
33F358	PT-A6	1/8"	.56	.50	.45
33F359	PT-B6	3/16"	.56	.50	.45
33F360	PT-C6	1/2"	.56	.50	.45
33F353	PT-D6	3/8"	.56	.50	.45
33F351	PT-K6	3/4"	.72	.64	.58

Screwdriver Tip—700° F					
Stk. No.	Type	Size	1-5	6-23	24-up
33F361	PT-A7	1/8"	.56	.50	.45
33F362	PT-B7	3/16"	.56	.50	.45
33F363	PT-C7	1/2"	.56	.50	.45
33F354	PT-D7	3/8"	.56	.50	.45
33F352	PT-K7	3/4"	.72	.64	.58

Soldering Irons & Power Tools

WELLER POWER TOOLS

NEW "MARKSMAN" SOLDERING IRON KIT

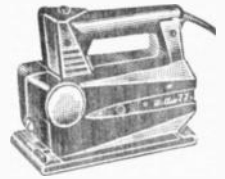
Model SP-23K. Complete kit includes the "MARKSMAN" soldering iron, three different pre-tinned nickel-plated copper tips, soldering-aid tool, 5 ft. 60/40 rosin core solder, and complete instructions for soldering. Ideal pencil-type soldering kit for home craftsmen, Hi-Fi kit builders, industrial use, and servicemen. Rugged heating element. High impact plastic handle remains cool. A complete leather weight soldering iron with removable tip. Long reach stainless steel barrel! Develops up to 750 degrees F. tip temperature. For hobby, kit, radio, and all general purpose soldering.

33F183. NET **3.35**



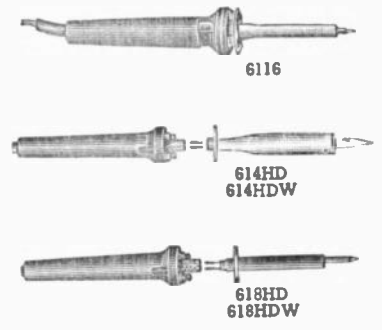
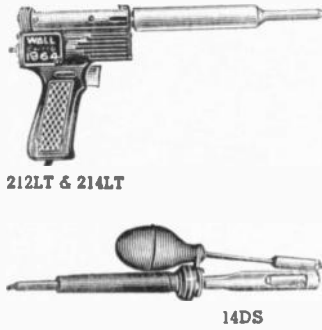
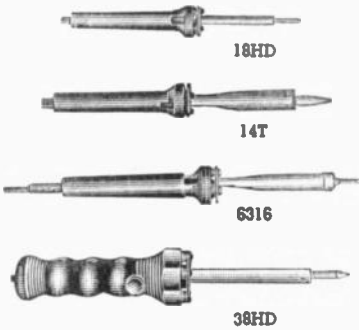
HI-POWERED SANDER

Model 77. Sander has 26 square inches of sanding area. In addition, the housing is recessed for going into all corner surfaces. Features include a 4.8 amp reciprocation motor giving the unit 14,400 strokes per minute three wire cord enabling wet surface sanding, straight line action providing a smooth finish, motor lubrication for life, interchangeable left or right handle for easy operation and a full 3/4 inch stroke. Housed in black plastic case. Shpg. wt., 6 1/2 lbs.



33F159. NET **14.65**
Lots of 3. EA. **13.30**

WALL SOLDERING IRONS



PLUG TYPE SUBMINIATURE SOLDERING PENCIL

Model 6116. Special locking system permits quick and easy changing of tipped heating element. Well balanced. Extremely cool handle. At 11 W, 120V, the tip temp. stabilizes at 650°F with an excellent recovery. Tip may be used with 14 or 18 Wall solder pencil handles. Available in 3 wire cords and upon request in higher wattages. Complete, less cord, weighs only 1 oz. and is a continuous use tool. 1/16" WallBrand commercial tiplet.

33F980. NET **6.36**
33F981. Model 6116W. With WalkKlad Industrial Tiplet. NET. 7.05

NEW WALLBRAND COMBINATION DESOLDERING IRON AND SOLDERING TOOL

Model 14DS. The new Wall Desoldering Tool keeps the solder in a molten state in the reservoir and can be operated with one hand. Fits existing Wall 14HD or 14T Soldering Pencil. For repairing and desoldering boards, pins, components etc. Tip opening is .080" dia.

33F988. NET **3.95**

TRIG-R-HEAT SOLDERING GUNS

No moving parts, no heavy transformers, no thermostats, and no radio interference. Gun wattage is automatically regulated by "Thermostatic Brain" from Maximum to Idle. For AC or DC. Heavy duty Model 212LT is 550W max., 300W idle. Medium duty Model 214LT is 400W-150W. 212LT has 1/2" pyramid tip. Type 214LT has 1/4" pyramid tip.

Stock No.	Type	Tip Size	Wt. W/O Cord	NET
33F250	212LT	1/2"	24 oz.	17.16
33F251	214LT	1/4"	14 oz.	11.97
33F987	21412LT	1/2"	24 oz.	22.35

INDUSTRIAL SOLDERING IRONS

Stk. No.	Type	Tip*	Watt	1-24	25-99	100-249
33F252	18HD	1/8" S	25	6.70	5.78	5.24
33F253	14T	1/4" C	40	6.78	5.84	5.30
33F270	38HD	3/8" C	80	9.19	7.95	7.21
33F271	12HD	1/2" C	125	11.66	10.12	9.18

* Tip suffix letters: C = tapered chisel, S = straight chisel.

REPLACEMENT ELEMENTS

Stk. No.	Type	For Model	1-24	25-99	100-249
33F260	RE18HD	18HD	4.29	3.66	3.33
33F273	RE14T	14T	3.96	3.33	3.00

WALLBRAND REPLACEMENT COPPER TIPS

Stk. No.	Type	Tip	Use With	1-24	25-99	100-249
33F259	C18S	1/8" S	18HD	.24	.22	.20
33F261	C14C	1/4" C	14T	.38	.35	.32
33F262	C38C	3/8" C	38HD	.56	.52	.47

NON-FREEZE REPLACEMENT WALL-KLAD TIPS

Stk. No.	Type	Tip	Use With	1-24	25-99	100-249
33F376	W18S	1/8" S	18HD	1.69	1.50	1.32
33F377	W14C	1/4" C	14T	1.88	1.66	1.46
33F378	W38C	3/8" C	38HD	2.44	2.16	1.91

ECONOMASTER SOLDERING PENCIL

Model 6316. Plug in type. The right pencil to handle many different soldering jobs. Rugged construction, quick recovery extremely cool handle, excellent balance. Uses the newly developed wall plug-type system—tipped heating element can be quickly changed with no special tools; merely loosen 3 screws. Heating element is sheathed in a copper jacket, enabling the Economaster to quickly reach the ideal stabilizing tip temperature of 750°F. 30 watts, 120V. 3/16" screw-in tip is available in a wide variety of tip styles. 2 or 3 wire cord.

33F982. NET **3.95**

REPLACEMENT TIP-ELEMENTS

Stock No.	Type	Tip Size	Wt. W/O Cord	NET
33F257	212TE*	1/2"	16 oz.	10.37
33F258	214TE**	1/4"	6 oz.	5.19

*550W max., 300W min. **400W max., 150W min.

MODEL 618 PLUG TYPE SOLDERING PENCIL

Engineered for continuous precision soldering applications. Features one of the coolest handles available plus feather balance. Interchangeable 1/8" tips have been specially constructed for precision work on micro-circuitry, printed circuits, and high density packaging. Designed with critical temp. ranges of micro-miniature in mind.

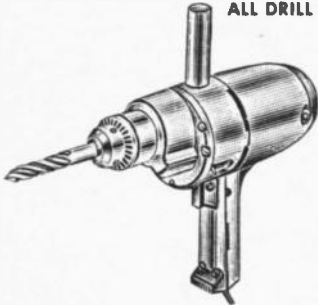
Stock No.	Type	Type of Tip	1-24	25-99	100-249
33F983	618HD	WallBrand Commercial	6.70	5.78	5.24
33F984	618HDW	WallKlad Industrial	8.15	7.06	6.36

MODEL 614 PLUG TYPE SOLDERING PENCIL

Engineered for continuous production line work requiring more heat. With one of the coolest handles available. Feather balance. 40 watts operation. Length w/o tip, 7 1/2". 1/4" tip diam. Thermogram value, 900. Holds its working temperature regardless of duration of work. Well balanced.

Stock No.	Type	Type of Tip	1-24	25-99	100-249
33F985	614HD	WallBrand Commercial	7.25	6.28	5.69
33F988	614HDW	WallKlad Industrial	8.75	7.59	6.83

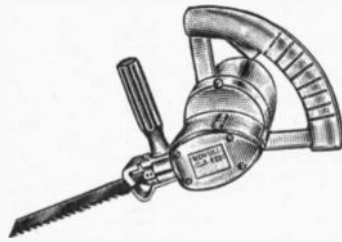
INDUSTRIALLY RATED 4 SPEED 1/2" SUPER ALL DRILL



Model 950. Drill with 4 full speed ranges, for difficult jobs where great power is needed. Drills thru steel, cement, concrete and can be used with auger bits to drill any type of wood. A split-second speed change makes the drill equally efficient for drilling aluminum or similar metals. All speeds are reversible and easily change electronically. Plus two-lever gear

reduction speed changes. A combination of these two controls gives four speeds at the chuck—630, 730, 2200 and 2400 RPM no-load; 340, 540, 1320 and 1980 RPM full load speeds. Motor is geared to yield super torque with ball thrust and needle bearings for heavy duty operation. Special features include: 1/2" key-lock chuck; locking, instant release trigger switch; and extra-safety double-switch motor reverse. 6 amps., 1/2 HP, 120 volts. Size: 8 1/2" x 11" x 3 1/2". Shipping weight, 9 lbs. **33F989. NET 33.72**

PORTABLE ELECTRIC WEN ZIPP SAW



Model 920. An industrially rated tool. Unique base plate permits complete cutting flexibility with no adjustments. Conventional saw grip. Beautifully balanced, lite weight. Smooth operating and cool running. Heavy duty roller, oilite bearings and hardened gears. Will cut flush to

wall or floor. Will cut almost any material with proper blade. 9 in. long, 7 1/4" wide, 7 in. high. 3200 strokes per min., 1 in. stroke. 1/3 HP motor operates on 115 volts, 60 cycle AC only, draws 4 1/4 amps. Complete with 7 blades. 8 ft. 3-wire cord and plug. Shipping weight, 6 3/4 lbs. **33F990. NET 33.72**



Model 450



Model 75



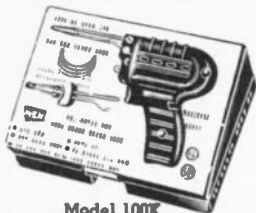
Model 222

Model 450. Wen "All" gun does all kinds of soldering from delicate kit work to work formerly requiring industrial type soldering iron. Can be used with fine, medium, or heavy tips which can be easily changed. Automatic Thermal Regulation gives an efficient range of heat from 25 to 450 watts and automatically delivers the best heat range for each used and each job done. Gun has rigid copper tip, prefocused spotlight trigger, on/off switch, and perfect balance to eliminate operator fatigue and increase precision. 2 amp. surge... 1.2 amp., working current: 120 V., UL and CSA approved. Size: 9 1/4 x 5 1/2 x 2 1/2". Comes with heavy duty tip. Shpg. wt., 3 lbs. **33F920. Model 450. NET 10.46**
33F921. Light duty (25-100) watt. Net... .91
33F922. Med. duty (100-200) watt Net... .91
33F923. Heavy duty (200-450) watt Net... .91

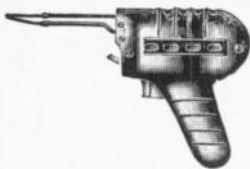
Model 75. First commercial use of space research metal that tolerates extremely high temperatures. Soldering pistol 50 w and a normal draw of 30 w. Draws only enough current to maintain maximum temperature in the tip, no current waste. Surge brings tip to working temperature in seconds, yet tip will not overheat and need retinning. Unit heats instantly, cools quickly. Has on/off trigger switch, long reach, spotlight focus, and single screw set for tip replacement. UL and CSA approved. 45 amp., 120V AC. Shipping wt., 20 oz. **Model 75 with 75A7 tip assembly. 33F925. NET 3.71**
3 or more, EACH 3.30
33F928. 75A7 Standard soldering tip assembly. NET .70
33F929. 75B7 Fine point tip assembly.... .70

ELECTRIC SOLDERING

Type 222. Automatic thermal regulation. Light weight, compact, balanced. Due to new space age materials, this gun delivers the heat found in a regular 200 watt soldering device with a current draw of 110 watts surge and 55 watts working. New tips have been designed for this gun, capable of delivering an efficient range of heat power. Heat power automatically adjusted to the right level for the job. Convenient trigger on-off switch. Built-in light illuminates work. Two screws adjust for fast tip replacement. Heat capacity from 25 to 200 watts, automatically adjusted. Operates at once, .67 amp working current. With regular tip. Shipping weight, 3 lbs. **33F991. Type 222. NET 5.95**



Model 100K



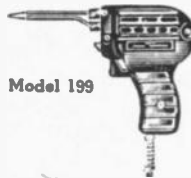
Model 100

Model 100K. Soldering Gun Kit. 100 Watt electronic soldering gun. Gets full working heat in just 2 1/2 sec. Extra long, replaceable long life tip, built-in spotlight Accessories: plastic tile cutting tip also designed for softening hardened putty, 5' of rosin core solder. Shpg. wt., 2 lbs., 3 oz. **33F935. Model 100K. Single Kit. NET 5.95**
3 or more, EACH 5.30
Model 100. Soldering Gun. Gun only with replaceable general purpose long steel nosed tip. Built-in spotlight. High luster black case. Shpg. wt. 1 lb., 3 oz. **33F930. Model 100. Single unit. NET 4.76**
3 or more, EACH 4.46
Model 250. Heavy-Duty 250 Watt Gun. Bigger heat volume enables gun to solder relatively heavy materials. Handles production jobs as well as intermittent soldering. Molded plastic handle and case. Shpg. wt. 3 3/4 lbs. **33F903. Model 250. Single Unit. NET 9.71**
3 or more, EACH 8.64

EXTRA TIPS

Stk. No.	Type	For Model	Description	Each
33F904	19-B-4	100 6-199	Soldering Tip	.35
33F905	19-C-1	100 6-199	Plastic Tile Cutting Tip	.42
33F954	U-4	100 6-199	Desoldering Tip	.49
33F910	25-A-4	250	Soldering Tip	.17
33F911	25-X-20	250	"Feraloy" Long Life Soldering Tip	.35
33F954	U-4	250	Desoldering Tip	.49

ECONOMY SOLDER GUN



Model 199

Model 199. Low priced, general purpose electronic soldering gun. Light, small. Long-nosed tip. Melts solder in 2 1/2 sec. Solders wires, connections, light metals, etc. Built-in automatic spotlight. 120 volts, 60 cycle, AC at 1.1 amp. max. Heat and shock resistant. Wt., 2 1/2 lbs. **33F900. Single Unit. NET 5.95**
NET EACH, 3 or more 5.30

UTILITY SOLDER GUN

Model 199K. Lightweight soldering gun kit for home or professional use. Gun gives 130 watts of heat in just 2 1/2 secs. Has steel nosed tip and built-in spotlight, 6' cord. Kit comes in durable red carrying case and includes a tile-cutting tip, dent removing tip, and rosin core solder. Shpg. wt., 3 3/4 lbs. **33F901. Model 199K. Single Kit. NET 7.48**
3 or more, EACH 6.64

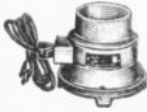
Soldering Equipment — Shop Tools

ESICO SOLDERING POTS

ESICO pots are designed for today's production requirements—crucibles are thin lipped for operators convenience, comfort and speed—whatever the need—tinning—stripping—soldering. An Esico pot can do the work efficiently, rapidly and continuously. Adjustable thermostats for selection of uniform operating temperature.

MODEL 37—600 WATTS

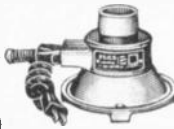
Large capacity pot. Inside dimensions: 3½" diameter, with a depth of 1¾" for greater capacity. Maximum temperature: 800 degrees. Solder capacity 5 lbs. Wt. 7¼ lbs.
33F325. NET 14.90



Model 37T. With thermostat. 650 watts—650 degrees maximum. Shpg. wt., 9¼ lbs.
33F326. NET 26.80

MODEL 12—200 WATTS

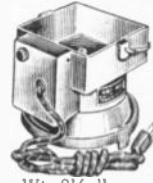
Ideal for dipping small parts. Inside dimensions: 1½" diameter, 1½" depth. Maximum temperature: 750 degrees. Solder capacity ¾ lb. Wt. 4 lbs.



33F321. NET 9.80
Model 12T. With thermostat. 250 watts—650 degrees maximum. Shpg. wt., 6¼ lbs.
33F322. NET 21.80

MODEL 75T—650 WATTS

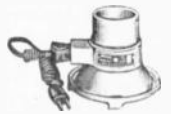
Dipping small panels, etc., which cannot be accommodated in small round pots. Thermostat control. Inside dimensions: 4¾" x 4¾" inches, 1¾" in depth. Maximum temperature: 650 degrees. Solder capacity 1¼ lbs. Wt. 9¼ lbs.



33F320. NET 28.80

MODEL 36—250 WATTS

Dip soldering of bundles of lead wire, etc. Inside dimensions: 2½" diameter, 1¾" depth. Maximum temperature: 750 degrees. Solder capacity 2¼ lbs. Wt. 4 lbs.



33F323. NET 10.90
Model 36T. With thermostat. 650 degrees maximum. Shpg. wt., 6¼ lbs.
33F324. NET 22.80

MODEL 80T—1200 WATTS

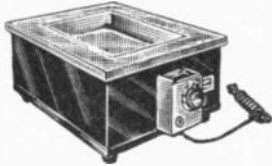
Printed circuit panels, etc. Thermostat controlled. Inside dimensions: 6"x12". 1¾" in depth. Maximum soldering temperature 650 degrees. Solder capacity in pot 45 lbs. Wt. 28 lbs.
33F327. NET 85.00



WAAGE SOLDERING POTS

RECTANGULAR SOLDER MELTING POTS

Specially designed for printed circuit fabrication. Wide open top area with shallow depth offers maximum dipping efficiency of either flat or edge dipped circuit boards. Circuit boards can be dipped manually or the standard Waage Tanks can be easily integrated into a completely automatic assembly system. Wide flat flanges provide easy mounting of assembly jigs for accurate production dipping. Specifications similar to round units.



ROUND SOLDER MELTING POTS

Round solder melting pots for melting solder, tin, lead-type metal and babbitt with temperatures up to 1000 F. Melting crucible of heavy cast iron. Replaceable heating elements are clamped to bottom of crucibles for even heat distribution. Fiber glass and air insulation reduces heat loss to a minimum. Furnished with 6', 115 VAC 3-conductor, grounded cordset.



550 DEGREES FAHRENHEIT

Stock No.	Type	Cap. Lbs.	Watts	Inside		Control	Shpg. Wt.	NET EACH
				Dia.	Depth			
60F1500	MP1	1	150	1½	1½	1 heat	5	14.50
60F1501	MP1A	1	200	1½	1½	Auto.	5	20.00
60F1502	MP4A	4	300	3	1½	Auto.	6	24.00
60F1503	MP10A	10	500	3½	2½	Auto.	11	35.00

1000 DEGREES FAHRENHEIT

60F1504	MP1X	1	400	1½	1½	1 heat	5	24.00
60F1505	MP4X	4	800	3	1½	1 heat	6	28.00
60F1506	MP1AX	1	500	1½	1½	Auto.	8	50.00
60F1507	MP4AX	4	900	3	1½	Auto.	9	55.00

550 DEGREES FAHRENHEIT

Stock No.	Type	Cap. Lbs.	Watts	Inside Dimens.	Control	Shpg. Wt.	NET EACH
60F1508	RSP1	10	600	4x4x2"	Auto.	15	38.50
60F1509	RSP2	20	1200	4x8x2"	Auto.	23	55.00

700 DEGREES FAHRENHEIT

60F1510	RSP3	30	1500	4x12x2"	Auto.	35	75.00
60F1511	RSP7	70	1600	9x12x2"	Auto.	52	120.00

BERNZ-O-MATIC SOLDERING EQUIPMENT

PUSH BUTTON TORCH

Model TX-65. Here's the torch kit with a Push-Button burner. Now, you can push a button and control the size of the flame, from an economical pilot light to a real man-size, extra large flame, big enough to sweat large copper fittings. Lights instantly, requires no pumping or priming. It is hot enough for brazing. Shpg. wt., 4 lbs.

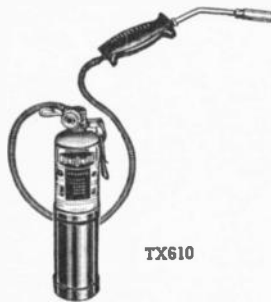
33F823. NET 8.00



HANDI-HAND® TORCH TX610

- Pistol Grip
- Highly maneuverable

Handy lightweight torch with 4 foot hose. Greater freedom of action — allows user to keep both hands free. Cylinder has clip attached, thus allowing user to fasten to belt. Ideal for those hard-to-get places. Used extensively for soldering, sheet metal work, thawing ice-filled gutters, removing paint, laying asphalt tile, automobile use, and the like. Complete with pencil burner head and cylinder. Shipping weight, 4½ lbs.
33F819. NET 9.50



CARRY-ALL TORCH KIT

Model TX-25. The handiest item for the traveling tool shop. Powerful flame can be adjusted to any size by using the included heads. Can be used for sweating copper tubing, paint removing, soldering, tile setting, lighting charcoal fires, etc. Heads are quickly interchanged. Kit includes cylinder, pencil burner unit, utility burner head, soldering tip, flame spreader, flint sparklighter, and a metal carrying case. 5 lbs.
33F824. NET, EACH 7.30
33F821. Replacement cylinder for all standard torches. 2 lbs. NET 1.33



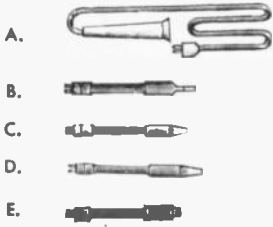
TORCH KIT

Model TX10. All brass pencil flame burner for all-around heavy-duty work. The ideal tool for quick overall heating coverage for consistent torch users. Cylinders are equipped with safety relief valve. Exclusive patented pressure control valve gives constant steady flame while burning in any position. Among its many uses are tinning, melting lead or babbitt, freeing frozen nuts and bolts, and wherever heat is required. Shpg. wt. 3 lbs.
33F825. NET, EACH 5.15

Soldering Irons and Accessories

GENERAL ELECTRIC SOLDERING EQUIPMENT

PENLINE-120 INDUSTRIAL SOLDERING PENCILS



Features Calrod heater in tip for fast heating and tip temp. recovery speed. Heat concentrated at tip to reduce chances of damaging insulation. Colorizing eliminates oxide build-up on tip body and threads and prevents tip freezing on holder. One iron can handle many jobs by changing tip or tip heater assembly.

HANDLE AND CORD SETS

Stk. No.	Type	Fig.	Description	1-5	6-up
32F851	6D400	A	Two Conductor	3.10	2.70
32F852	6D400G2	A	3 Conductor with NEMA standard Plug.	4.15	3.60

INTEGRAL TIP AND HEATER ASSEMBLIES—IRONCLAD

Stk. No.	Type	Fig.	Watts	Description	1-5	6-up
32F853	6D410	B	30	3/16" Chisel Tip	4.90	4.23
32F854	6D411	C	30	5/32" Chisel Tip	5.00	4.32
32F855	6D412	D	45	3/8" Chisel Tip	5.10	4.41

HEATER ASSEMBLY FOR USE WITH SCREW-ON TIPS

Stk. No.	Type	Fig.	Watts	Description	1-5	6-up
32F856	6D413	E	40	Heater Assembly	4.15	3.60

SCREW-ON TIPS—IRONCLAD

Stk. No.	Type	Diam. & Shape	1-5	6-up	Stk. No.	Type	Diam. & Shape	1-5	6-up
32F858	6D4P2	3/32" Spade	1.45	1.26	32F868	6D4P20	3/16" Cone	1.45	1.26
32F860	3D4P6	3/32" Chisel	1.45	1.26	32F870	6D4P10	3/32" Chisel	1.45	1.26
32F862	6D4P4	5/32" Spade	1.45	1.26	32F872	6D4P14	7/32" Long Chis.	1.45	1.35
32F864	6D4P8	5/32" Chisel	1.45	1.26	32F874	6D4P12	7/32" Chisel	1.45	1.26
32F866	6D4P16	3/16" Pyramid	1.45	1.26	32F876	6D4P18	7/8" Pyramid	1.45	1.26

"MIDGET" 6-VOLT SOLDERING IRONS

HANDLE AND CORD ASSEMBLY

Stk. No.	Type	Description	1-5	6-up
6A203	6A203	Handle & Cord	3.80	3.28

TIP AND HEATER ASSEMBLIES

Stk. No.	Type	Description	1-5	6-up
33F404	6A211	1/4" Chisel	4.20	3.65
33F405	6A213	1/8" Cone		
33F406	6A215	3/16" Pyramid		
33F407	6A217	3/16" Chisel		
33F439	6A221	Htr. Ass'y.		

*25 watt heater assembly for use with 6D series screw-on tips listed above.

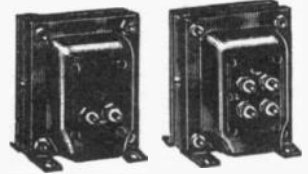
Note: For complete iron, order 6A203 Handle plus Tip and Heater Assembly of your choice.

6D200 SERIES REPLACEMENT TIP AND HEATER ASSEMBLIES

Replacement tip and heater assemblies for use only with Model 6D200 cord and handle, which is no longer available.

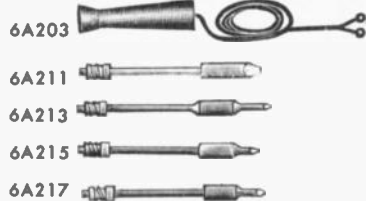
No.	Type	Tip Dia.	1-5	6-up
33F441	6D211	1/4" chisel	4.20	3.65
33F442	6D213	1/8" cone		
33F443	6D215	3/16" pyramid		
33F444	6D217	3/16" chisel		

115-V TRANSFORMERS FOR "MIDGET" SOLDERING IRONS



Specially designed, 115-volt transformers available in two types. Single-tap transformer is for use where only one soldering heat is required. Four-tap transformer gives wide range of heats (from 26 to 35 watts) for close temperature control of tips.

Model 6A362G2. Single tap transformer.	
33F408. 1-5 Net Each.....	7.20
6 or more Net Each.....	6.21
Model 6A364G2. Four tap transformer.	
33F409. 1-5 Net Each.....	9.20
6 or more Net Each.....	9.55



Small, light wt. irons. The heater inserted farther into the tip improves initial heat-up and provides faster recuperation from joint to joint. Iron clad tips provide long life with minimum maintenance costs. Screw-in feature of tip and heater assembly assures positive contact and serves to hold the tip and heater firmly in the handle. Tip and heater replacement takes only a few seconds. Longer life and greater safety due to low voltage supplied by transformers. Transformers available in two types as listed on the right. All irons 6 volt 25 watts. UL approved. Shpg. wt., 3 oz.

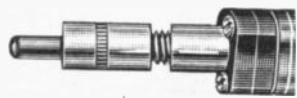
THERMOCO FOR RESISTANCE SOLDERING

• Heats Almost Immediately
Resistance heat principle gets work done fast and safe at a low cost and still attains high quality and strong uniform joints. High amp. low volt. concentrates heat at point of

• No Tinning Necessary

contact. No set-up or pre-heating necessary. Solder adheres instantly all around, making the strongest possible joint. Saves solder, lessens flux fumes and chances of cold joints.

PENCIL HAND UNITS



Model 3003. May be used with either Model 2001 or 2002 power supplies. Uses 3/16" dia. carbon tip and is made for heavier work than units below. Well designed to radiate heat away from

handle. Supplied with 5 ft. extra flexible cable and 5 ft. continuity cable. Shpg. wt. 8 lbs.

34F705. NET..... 8.40

Model 3002. A lighter version of Model 3003 above. Uses 1/8" dia. carbon tip. Used with Model 2001 power supply or Model 2002 power supply using the lower taps for more critical heat adjustment such as P.C. board work.

34F706. NET..... 8.40

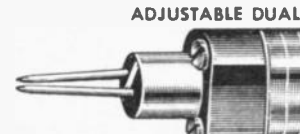
Model 3001. Similar to Model 3002 except 1/16" metal tip.

34F707. NET..... 8.40

REPLACEMENT ELECTRODES

Stk. No.	Type	Used with	Description	Per Pack of 6	
				1-24	25-99
34F708	5001	3004	Metal 1/16"Dx2 1/4"L	.50	.45
34F709	5002	3001	Metal 1/16"Dx3 1/2"L	.50	.45
34F710	5003	3002	Carbon 1/8"Dx3"L	1.50	1.35
34F711	5004	3003	Carbon 3/16"Dx3"L	1.50	1.35

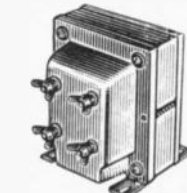
Model 4001. Designed to be used in primary circuit of power supply. Shuts off power while soldering pencil is holding con-



Model 3004. As tips are extended, gap narrows for thinner or lighter work. When tips are recessed, gap is widened for heavier work. Tips 1/16" dia. May be used with Model

2001 or 2002 power supplies. Equipped with 5 ft. extra flexible cord with attached lugs.

34F712. NET..... 10.50



POWER SUPPLIES

Model 2001. 100 watt power supply. Supplies 5 different heats. Operates on 115V 50-60 cycle, but can be supplied for 230V 50-60 cycle operation. Equipped with 4 wing nut binding posts and 4 ft. line cord and plug. Shpg. wt. 5 lbs.

34F713. NET..... 17.50

Model 2002. 250 watt power supply. Same as Model 2001 except it supplies 11 different heats, including one for printed circuit board work. Designed with high temperature insulation to withstand heavy overloads. Equipped with 4 ft. cord. Shpg. wt. 9 lbs.

34F714. NET..... 24.50

FOOT SWITCH WITH SERIES PLUG

section in place until solder sets. Shpg. wt. 1 lb.

34F715. NET..... 6.80

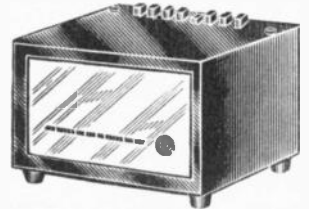
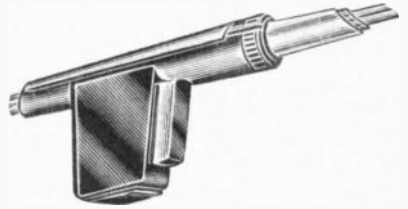
Soldering Tools and Ultrasonic Cleaning Systems

WESTINGHOUSE

POSITERM SOLDERING INSTRUMENT

Applies electrical energy to the piece to be soldered, which changes to heat right on the workpiece surface. This is because the tips remain cool. Consists of a working head designed to be used either as a gun or a pencil. 2 ounce spool of solder provides about two days supply for most production-line work stations. Precise, sensitive adjustable solder-lead mechanism. Simple to use. Has six different heating rates at the push of a button. Designed for safety so that the operator can-

not be exposed to a hazardous electrical potential. Operates from standard 115 to 120 V, 60 cy. or 220 V, 50/60 cy. line, depending on model. Duty Cycle: 1 minute on, 4 minutes off. Solder size: 0.025" to 0.050" dia. Solder type: 60 tin/40 lead \pm 66 rosin core provided with gun. Any alloy can be used. One hand operation. Time saving. Thermal protection is provided by self-resetting, bimetallic disc. No insulation damage. Long lasting and very versatile. Ship. wt. 9 pounds.



Positerm Soldering Instrument

SOLDERING INSTRUMENT AND REPLACEMENT TIPS

Stk. No.	Type No.	Description	1-9	10-24	25-49	50-99
35F1000	250	Soldering instrument with power supply	89.95	86.27	82.60	78.92
35F1001	2251-B15-H01	Standard tips	per pair 5.00			
35F1002	2251-B16-H01	Curved tips				
35F1003	2251-B17-H01	"V"-shaped tips				
35F1004	2251-B18-H01	Blank tips				
35F1005	2251-B15-H04	Bendable standard tips				
35F1006	2251-B16-H04	Bendable curved tips				
35F1007	2251-B17-H04	Bendable "V"-shaped tips				
35F1008	2251-B18-H04	Bendable blank tips				

POWERTRON DIV. OF GIANNINI CONTROLS CORP.

ULTRASONIC CLEANING SYSTEMS

- Self Adjusting, Fail-Safe Generators for Easy, Trouble-Free Operation
- Thorough Cleaning of Objects That Are Impossible to Clean By Conventional Methods

Unique "Autosonic" self-tuning feature automatically handles changes in liquid level, temperature, load size and other variables; a feedback system monitors ultrasonic activity in the tank and makes all necessary adjustments within microseconds. Skilled operators are not needed—the only control is the on-off switch! Tanks are heavy gauge stainless steel; built-in piezoelectric transducers are brazed to the tank surface for trouble

free performance. Fail-safe: malfunction of one component will not cause cascading failure of others. Tanks have outlets to permit installation of drain cocks and circulating systems. Complete cleaning system consists of generator, transducerized tank, and a basket to suspend the object to be cleaned in the tank. All units operate from 120 VAC, 50-60 c., except 1000W unit (220VAC). Output frequency is 28 kc.

200 WATT SYSTEM

A fully solid-state system. For continuous, heavy duty cleaning for most industrial applications. Features long-life generator, automatic tuning, high efficiency field replaceable transducers, and high power cleaning activity. Will drive any Powertron model 2000 series ultrasonic tank or immersible transducers. Cabinet is mild steel, solvent resistant paint. Freq.: 28 khz nominal. Automatic integral feedback tuning. Freq. maintained regardless of liquid level or part load changes. Size: 15"x10x7" high. Ship. wt. approx. 20 lbs.

Stock Number	Type	NET
60F2524	2004	295.00

TANK AND BASKET FOR MODEL 2004

Off-the-shelf ultrasonic tank to be driven by any Powertron PA2004 generator. Helicore welded, double wall, stainless steel. 6 ft. cable with male connectors. Solution Temp. 200°F. max. 1" lip top. Field replaceable transducers. Tank activity uniform throughout tank volume. No "dead" corners due to waves. Tank may be operated dry with no resultant damage to transducer. Size: Overall 6x10x14" high. Internal. 5x10x11" deep. Wt. 15 lbs.

Stk. No.	Type	Description	NET
60F2525	PT-2004	Off-the shelf ultrasonic tank	245.00
60F2526	PB-2004	Stainless steel basket accessory.	34.00

300 WATT SYSTEM—440 CUBIC INCH MAX. LOAD

PA3001 Generator. 300W av., 1200W peak output. Built-in forced air cooling.

60F2507	PA3001	300 watt ultrasonic generator	16 $\frac{3}{4}$ x13 $\frac{1}{4}$ x7 $\frac{1}{4}$ "	520.00
60F2508	PT3002	9x10x10 (3 $\frac{1}{2}$ gal.) Transducerized Tank	9x10x14"	410.00
60F2509	B3001	Basket for above	9x10x10"	52.00
60F2510	PT3003	9x14x10 (5 gallon) Transducerized Tank	9x14x14"	465.00
60F2511	B3002	Basket for above	9x14x10"	61.00

700 WATT SYSTEM—850 CUBIC INCH MAX. LOAD

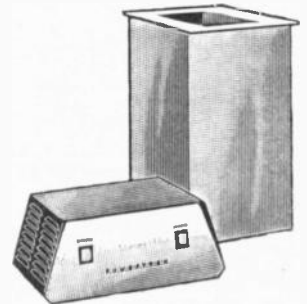
Model PA7001 Generator. Similar to 300W unit, but 700W av., 2800 peak power.

60F2512	PA7001	700 watt ultrasonic generator	18 $\frac{3}{4}$ x14 $\frac{1}{2}$ x8"	920.00
60F2513	PT7001	10x14x10" (6 gal.) Transducerized Tank	10x14x14"	830.00
60F2514	B7001	Basket for above	10x14x10"	98.00
60F2515	PT7002	14x14x10" (8 gal.) Transducerized Tank	14x14x14"	930.00
60F2516	B7002	Basket for above	14x14x10"	115.00

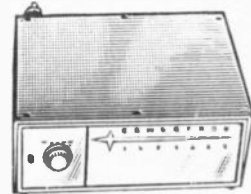
1000 WATT SYSTEM—1730 CUBIC INCH MAX. LOAD

Model PA10001 Generator. Delivers a full kilowatt (4 kw peak) for continuous duty production applications. 8 gallon tank provides concentrated cleaning action for small objects; 32 gallon tank permits normal cleaning action on loads of up to 1730 cu. in. Forced air cooling built in. Supplied less generator-tank connecting cable; requires 3-cond. (18 AWG) shielded cable with AN connectors. (*) Uses B7002 basket.

60F2517	PA10001	1000 watt ultrasonic generator	17x17 $\frac{1}{2}$ x18"	1395.00
60F2518	PT10001*	14x14x10" (8 gal.) Transducerized Tank	14x14x14"	1205.00
60F2519	PT10002	24x18x16" (32 gal.) Transducerized Tank	24x18x20"	1305.00
60F2520	B10002	Basket for above	24x18x16"	150.00



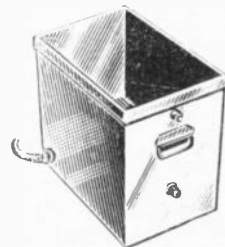
Type 2004



PA3001
PA7001



PA10001



Transducerized Tank

Buy at Factory Competitive Prices at NEWARK



Soldering Equipment & Hardware

THERMO-TIP® RESISTANCE SOLDERING TOOLS



12-124



12-125



12-163

POWER UNITS 125 Watts

12-124. For light production and intermittent work. Selector switch for choice of three heats (3V, 4.5V, or 6.3V). Complete with power cord and clip for holding pencil style attachments. 115V, 60 cyc. Shpg. wt., 4 lbs. **58F573. NET 20.00**

250 Watts

12-123. For heavier production work. Faster. Handles larger components than 12-124 above. Choice of two heats through "high" (6.1V) and "low" (4V) secondary connections. Complete with power cord. 115V, 60 cyc. Shpg. wt., 8 lbs. **58F574. NET 29.50**

500 Watts

12-163. For continuous production work. Widest selection of heats—nine choices (1.7V to 6.4V) through 3 position selection switch plus "high", "medium", and "low" secondary terminals. With cord and pilot light. 115V, 60 cyc. Shpg. wt., 13 lbs. **58F575. NET 48.50**



Fig. A



Fig. B

RESISTANCE SOLDERING ATTACHMENTS

For small parts. No heat damage or cold flow joints. Have pencil grip handles that feature perforated aluminum sleeve which dissipates heat and provides exceptionally cool operation. Versatile and light, gets into tight places. Lighter than soldering iron or gun, can be used all day by women without fatigue. Have feed through type electrodes that can be adjusted for length. Complete with 5 ft. cord with lug terminal.

Fig. A. 12-167. Pencil grip handles with double metal electrode style attachment. Shpg. wt., 4 ozs. **58F576. NET 12.00**

Fig. B. 12-169. Pencil grip handles with single metal electrode style attachment. Collet chuck holds feed through electrode. For smallest work. Complete with ground clamp and lead assembly for jig soldering. Shpg. wt., 9 ozs. **58F577. NET 12.00**

REPLACEMENT ELECTRODES

L5241. For above. 1/8" dia., 3 1/2" long. Shpg. wt., 2 ozs. **58F578. NET. pkg. of 6 .60**

FOOT SWITCH

Model 12-146. Foot Switch. Eliminates arcing at electrodes on contact. Permits using electrodes to hold work in position after turning off heat. 3/8" dia. x 1 1/8" high. Rated 5 amps. 115 v. Wired normally open. Shpg. wt., 12 oz. **58F579. NET 8.80**

WIRE STRIPPERS

DUAL BLADE STRIPMASTER®



Designed for close tolerance stripping to meet rigid military requirements for reliability. Strips consistently, with no nicks, no scrapes, no damage to conductor or insulation. Precision matched stationary blades assure clean, 90° strip—no ragged, uneven ends. Insulation slug slips off conductor by moving gripper w/o scraping or burnishing wire strands. Able to handle MIL-W-5086 Type II fiberglass, MIL-W-16878 Types E and EE Teflon, and wire of comparable diameter. Shpg. wt. 1 lb.

Stk. No.	Type	Description	NET
58F899	45-500	No. 16 to 22 wire	43.50
58F898	45-501	No. 10 to 14 wire	43.50
58F886	45-502	No. 16 to 22 wire	43.50
58F887	45-503	No. 24 to 30 wire	43.50
58F888	45-504	No. 16 to 22 wire	43.50
58F889	45-505	No. 24 to 30 wire	43.50

CUSTOM STRIPMASTER®



A hand stripper for Type E (600V) Teflon®. Unique blade construction and extreme holding power. Strips without nicking or scraping wire. Just insert wire between blades to desired length squeeze handle and release. Includes stop latch and wire-stop. Shpg. wt. 14 ounces.

Stk. No.	Mfg. No.	AWG Gauge	NET
58F550	45-186	Nos. 10 to 14 Wire	20.50
58F551	45-187	Nos. 16 to 26 Wire	20.50
58F552	45-188	Nos. 26 to 30 Wire	20.50

SAFE-T-GRIP® WIRE STRIPPERS



For quick easy, clean stripping of wires used in electronic appliances. Sturdy, compact, constructed of hardened steel for rugged duty and long service. Plastic grips for sure handling and safety. **58F586, 45-120 (for #10-18 wire)**
58F587, 45-121 (for #16-26 wire)
NET EACH 1.95

STRIPMASTER®



Hand stripper with automatic single-squeeze feature. Strips wire up to a full 7/8". Automatically holds jaws open for removing wire without crushing end. Reduces nicking, cutting, or fraying. For stripping lighter gauge wires. No. of holes: 6 except 14 to 22, 4. Wt., 14 ozs.

No.	Mfg. No.	AWG Gauge	NET
58F559	45-093	14 to 22	5.95
58F554	45-097	16 to 26	5.95
58F555	45-098	20 to 30	5.95

E-Z® AUTOMATIC CABLE STRIPPERS



With Adjustable Blade
A hand stripper for solid and stranded wire. Automatic stop locks jaws open after stripping until wire is removed. Eliminates crushed wire ends. Eccentric adjustment on blades limits cutting depth of stripping blades to compensate for variations in insulation or conductor diameter. Shpg. wt., 14 oz.

No.	Mfg. No.	AWG Gauge	NET
58F556	45-220	Nos. 16 to 26 Wire	6.95
58F557	45-222	Nos. 10 to 22 Wire	6.95
58F558	45-224	300 Ohm TV Wire	6.95

SWING-GRIP® THERMAL WIRE STRIPPER



Thermal type wire stripper for stripping applications of the most critical nature, where no damage to conductor or insulation is permissible. Suitable for thermoplastic insulations, including Teflon®. Unique one squeeze operation eliminates "ringing" of insulation. Stripping is accomplished by melting instead of cutting or tearing. Gripper removes slug without disturbing the lay of stranded wire. Designed for smaller gauge wires. Shpg. Wt. 6 1/4 lb

Stk. No.	Type	Description	NET
58F897	45-135	Power Unit, 115V, 60 cyc.	36.75
58F896	45-136	Power Unit, 230V, 50-60 cyc.	45.75
58F895	45-143	Swing-Grip Tool	21.75

THERMO-STRIP® WIRE STRIPPER



A hand model hot wire stripper for thermo plastic insulated wire. Thermo-strip melts insulation instead of cutting or tearing it. There is no chance of nicking or cutting conductor strands. Heavy duty power unit may be operated continuously. No foot switch required—no waiting for elements to warm up. Stepless, infinitely variable heat control permits setting to exactly the right temperature. Unit has pilot light. Automatic thermal overload protection and is case-grounded through three-conductor cord.

Stk. No.	Type	Description	Wt.	NET
58F560	45-130	45-133 Power Unit & 45-140 Pincer Attach.	9 lbs.	70.50
58F561	45-131	45-133 Power Unit & 45-141 Single Loop Attach.	8 3/4 lbs.	58.75
58F562	45-140	Pincer Attach. for 45-133 Power Unit	1 lb.	22.75
58F563	45-141	Single Loop Attach. for 45-133 Power Unit	12 ozs.	11.00
Stk. No.	Type	Description	Wt.	6 Pr./Pkg.
58F566	L-5599	Medium Duty Element 45-141 Single Loop Attach.	2 ozs.	1.20
58F564	L-5589	Medium Duty Element 45-140 Pincer Attach.	2 ozs.	2.40
58F565	L-5597	Heavy Duty Element 45-140 Pincer Attach.	2 ozs.	2.40

Wiring Accessories, Marking & Electroplating Equipment

IDEAL PRODUCTS

WIRE-NUT® WIRE CONNECTORS

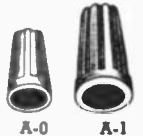
A solderless, tapeless wire connector. 74B and 76B are U.L. and C.S.A. approved as 600v pressure cable connectors for general use in all types of wiring. Has strong phenolic shell. Approved for up to 150°C. Av. Shpg. wt. 9 lbs./1000.



Stk. No.	Type	Mfg. No.	Max. & Min. Wire Combin.	Each per 100	Each per 1M
58F567	71B	30-071	2# 18, 2# 16	.95	8.05
58F568	73B	30-073	3# 16 & 1# 18, 2# 18	1.35	11.85
58F569	74B	30-074	1# 14 & 1# 18, 2# 14 & 3# 16	1.65	14.40
58F570	76B	30-076	1# 12 & 2# 18, 2# 10 & 1# 12	2.80	24.55

ALL-PLASTIC WIRE CONNECTORS

A low cost connector for OEM production. Economical production-line way to make safe, positive connections without abrasive damage to even thinnest wire strands. Long skirt of high dielectric plastic is knurled for easy application by hand or power driver. Designed for appliance and fixture manufacturers. (On connections with wires smaller than No. 18, U.L. and C.S.A. require submission of finished product for approval.) Average Shipping weight 1 1/4 lbs./1000.



Stk. No.	Type	Mfg. No.	For AWG Wire	Each per 1000
58F571	A-0	30-140	2# 24, 2# 18	3.80
58F572	A-1	30-141	2# 18, 1# 16 & 2# 18	3.80

ELECTRIC ETCHERS

Marks iron, steel and their alloys. Depth of mark governed by speed of movement and heat of switch. Four etching heats—120, 240, 420, and 700 watts. Cover forms workplate for small tools and parts. Unit includes 4 oz. etching tool, ground clamp with 4' leads. Size: 8 1/2 x 5 1/2 x 7". Shpg. wt. 19 lbs.



58F580. Model 11-081. 115 V. 50-60 cyc. NET **74.40**
58F581. Model L-4052. Extra point for above. NET **1.95**

LIGHT DUTY ETCHER

Standard model. Specially suited for lighter applications. Three heats—140, 205, and 375 watts. Work plate and etching tool have 5' leads. When etching large objects a ground clamp is substituted for the work plate. Includes four-ounce etching tool with heat resistant handle, and special alloy point; 4x7" work plate; three heat power unit and primary cord with heat changing switch. Size: 4x4x8". Shpg. wt. 13 lbs.

58F582. Model 11-009. 115 v. 50-60 cyc. NET **41.70**

PRECISION ROTARY WIRE STRIPPER

Model 45-150. Compact unit is completely assembled and requires no installation. Unique blade-spring design eliminates pivots and other wear points allowing it to maintain high precision nick-free accuracy. Equipped with transparent safety shields over the stripping head. Insulation slugs are automatically ejected into a slug collecting compartment. 115 Volt, 60 Cycle, AC. .060" diameter Wire Guide, calibrated adjustment tool and 9 1/2 ft. power cord with grounded plug. Wt. 11 lbs. 4 oz. Size: 5" x 5" x 10".



58F894. NET **225.00**

L-6634. Consists of the double edge carbide blade, spring, and blade guide, ready for installation. The long lasting carbide blade is reversible for double-edged economy.

58F893. NET **18.00**

ELECTRIC MARKER

Model 11-100. Carbide-tipped point electric marker permanently marks any material—metal, glass, stone, ceramics, hard rubber, wood, etc. Vibrates at 7200 cutting strokes per min. Stroke and impact easily adjustable. Light weight but built for



industrial use. 115 v., 60 cyc. Marker size: 6x1 1/2 x 1 1/4". Shpg. wt. 10 oz.

58F583. NET **18.15**

Model L-2180. Extra Carbide-tipped Point Marker.

58F584. NET **2.90**

Model L-2647. Extra diamond point.

58F585. NET **8.60**

SAFE-T-GRIP FUSE PULLER

Type 34-002. This rugged, laminated fuse puller features notched handles for a sure grip. Item eliminates the danger of pulling cartridge fuses:

Compact and lightweight . . . only 7 1/2" long. Shpg. wt., 4 oz.

58F559. NET **1.00**



ROTARY TYPE STRIPPER

Features 45° carbide stripping blade & one 1/8" & two 1/16" guide bushings. For production stripping of single conductors, solid or stranded, up to 3/8" dia. Reversible motor (1/4 HP) drive to fit natural twist of wire. Strips, twists, polishes wire. Shpg. wt., 45 lbs.

Stock No.	Type	Description	NET
58F891	45-009	115 V; 50/60 Cy	195.00
58F892	L-2440	*45 high speed steel	5.65
58F890	L-3844	Twisting blades (pair)	6.20

*Extra stripping blade (pair).

WIRE CUTTER

Type 45-123. Handy wire cutter slices through copper or aluminum wire. Handles solid wire up to No. 10 AWG and fine stranded cable up to 1/2" O.D.

Made of hardened steel. Has ground cutting surfaces. 6". Shpg. wt., 12 oz.

58F885. NET **1.95**



NEWARK

- Integral Timer!
- Constant Voltage!
- Operates on Standard Current!

MODEL 6A5 CONSTA-PLATE

A deluxe plater for light to medium work. A large timer control shuts the plating current off automatically after a specified time. The unit has a timed output to 24 hours in 15 minute segments. Controlled output of 0 to 500 ma at 6 VDC with a 0-500 ma range ammeter to accurately show current level. The input is standard 115v. 60 cycle AC and the output is 6 volts DC with a resistive load. Small masses can be plated in 3 to 4 hours with a current of

250 milliamperes. The unit comes with a 90 day warranty. Size: 4 1/2" x 6 1/2" x 3 3/4". Shpg. wt. approx. 4 lbs.

64F068. NET **99.75**

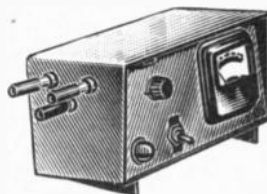


- Low in cost!
- Easy to use!
- Runs on ordinary house current!

MODEL 50 ELECTRO-PLATER

A smaller, less expensive plater than the Model 6A5. An economical plater for occasional light work in the electronics, dental, and jewelry industries. Controlled output up to 300 ma at 5.2 Volts DC. Input is 115 V AC 60 cycles. The plater is covered by a 90 day parts warranty from date of purchase. Size: 3 3/8" x 7" x 3 1/2". Shpg. wt. 3 lbs.

64F069. NET **29.90**



Solder & Epoxy Products

KESTER SOLDERS

KESTER "44" RESIN CORE SOLDER

Noncorrosive and electrically non-conductive. Flux residue is immune to fungus growth, resistant to oxidation or organic decomposition. Core 66 (3.85% flux content). Meets all applicable MIL and Federal specs, latest amendments. 40/60 is 40% tin, 60% lead, 50/50 is half tin, half lead, 60/40 is 60% tin, 40% lead. 1/16" diameter (.062)

Cored with instant-action "44" Resin Flux, Kester "44" has established an unparalleled reputation throughout the solder consuming industry. Meets every requirement for high speed soldering. Features the most active resin flux on the market.

- All types available in diameters from .005 thru .250
- All types available in 1 and 5 lbs.



33F335.	1 lb. spool	40/60.	NET	1.72
33F336.	5 lb. spool	40/60.	NET	8.35
33F337.	1 lb. spool	50/50.	NET	2.07
33F338.	5 lb. spool	50/50.	NET	10.10
33F223.	1 lb. spool	60/40.	NET	2.35
33F224.	5 lb. spool	60/40.	NET	11.50

PLASTIC ROSIN CORE SOLDER

Standard Size, 3/32" diameter. Recommended for all radio and electrical applications. Non-corrosive. Plastic rosin filled. Alloy 40% tin, and 60% lead.

33F201.	1 lb. spool.	NET	1.57
33F202.	5 lb. spool.	NET	7.65

Extra Thin, 1/16" diameter. For delicate work where only small amounts are required. Non-corrosive. Plastic rosin filled. 40% tin, 60% lead.

33F203.	1 lb. spool.	NET	1.62
33F204.	5 lb. spool.	NET	7.85

SOLDERING ACCESSORIES

Soldering Paste. Even distribution of fluxing ingredients. Handy for general repair work. 2 oz. can.

33F211.	NET	13c
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Tinning Block. Cleans and tins soldering iron. Replaces sal ammoniac. 1 lb. unit.

33F212.	NET	65c
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NOTE: Special alloys are available for industrial use.

"RESIN FIVE" CORE SOLDER

3/32" diameter.

33F205.	1 lb. spool	40/60.	NET	1.57
33F219.	5 lb. spool	40/60.	NET	7.65
33F207.	1 lb. spool	50/50.	NET	1.89
33F220.	5 lb. spool	50/50.	NET	9.25
33F221.	1 lb. spool	60/40.	NET	2.16
33F222.	5 lb. spool	60/40.	NET	10.60

1/16" diameter.

33F200.	Handy Coil.	NET	2.20	
33F213.	1 lb. spool	40/60.	NET	1.62
33F214.	5 lb. spool	40/60.	NET	7.85
33F215.	1 lb. spool	50/50.	NET	1.94
33F216.	5 lb. spool	50/50.	NET	9.40
33F217.	1 lb. spool	60/40.	NET	2.21
33F218.	5 lb. spool	60/40.	NET	10.80

Epoxy Products Co., Chemicals & Plastics Div., Allied Products Corporation

SILVER FILLED ELECTRICALLY CONDUCTIVE COATING



E-Kote 40. Silver conductive paint in spray-on aerosol can. Quickly, electrically shields circuit modules and compounds. Will adhere to plastic, glass, ceramic and most other materials. Tack-free in 3-5 minutes, completely dry in 16 hours. Fully conductive within minutes after application. Volume resistivity of dried film is .001 OHM-CM. Cure schedule: 30 min. at 175°C.. 16 hrs. at 25°C.

Stock No.	Type	Description	Size	NET
32F556	E-Kote 40	Aerosol Spray Thermoplastic	8 oz.	10.00

HIGH TEMPERATURE SILICON COATING



- Extra High Bond Strength
- No Flux Contamination

Silicone E-Kote 3027. For electric shielding and soldering applications which require continuous operating temperatures of 600°F. Tensile-shear strength is 600 psi over entire temperature range. Conductivity over entire temperature range: 0.001 OHM-CM. Cure schedule: 232°C—30 min.; 149°C—24 hours.

Stock No.	Type	Description	Size	NET
32F555	E-Kote 3027	Silicone base	3 oz.	10.00

EPOXY SILVER E-SOLDER

Conductive silver epoxy combines the adhesive characteristics of epoxy with the electrical conductivity of silver. Epoxy "solder" can be used at room temperature for components which are heat sensitive; it can be used to bond dissimilar materials and it has no flux or residue to contaminate sensitive electronic components. When used with dissimilar materials, epoxy "solder" provides a strong bond where soldering or brazing is often impossible.

Stk. No.	Type	Description	Ohm-Cm Resist.	Max. Oper. Temp. °C.	Typical Cure Schedules	Jar Size	NET Per Jar
32F550	3021	2 Part Paste Pure Silver	.001	125-150	27C—24 Hours 65C—3 Hours	2 oz.	10.00
32F551	3022	2 Part Paste Pure Silver	.01	125-150	27C—24 Hours 65C—3 Hours	2 oz.	
32F554	3026	2 Part Paste Pure Silver	.01	125-150	27C—24 Hours 60C—4 Hours	2 oz.	
32F557	3028	Silicon Grease	.1	200	.....	2 oz.
32F552	3030	Pure Silver Paint	.001	125-175	Air Dry	3 oz.	

BULK QUANTITIES ARE AVAILABLE; WRITE FOR PRICES

ERSIN MULTICORE SOLDER



Five core solder made with non-corrosive extra-active flux. 5-core design guarantees continuity of flux stream, faster melting, solder economy, and same percentage

of flux-to-solder as with single core types. SWG wire gauge sizes: 16=.064", 18=.048", 20=.036". Shpg. wt., 1 lb. carton, 1 1/4 lbs.; 7-lb. reel, 9 1/4 lbs.

ALLOY 60/40			1/2 LB. CARTONS	
Stk. No.	Gauge	Net	Stk. No.	Net
33F344	24(.022")	2.96	33F339	20(.036") 1.80
33F345	28(.014")	3.90	33F340	24(.022") 3.09
33F346	32(.0108")	5.09	33F341	28(.014") 3.96
33F347	34(.009")	6.18	33F342	32(.0108") 5.14

7 POUND REELS				
Stk. No.	Alloy	Gauge	1-3	4-up
33F227	40/60	16	18.41	15.40
33F233	50/50	16	20.79	17.43
33F234	60/40	16	23.10	19.39
33F235	60/40	18	23.52	19.74

1 POUND CARTONS				
Stk. No.	Alloy	Gauge	1-27	28-up
33F226	40/60	16	2.67	2.24
33F229	50/50	16	3.01	2.53
33F228	60/40	16	3.34	2.81
33F230	60/40	18	3.40	2.86
33F231	60/40	20	3.67	3.09

Savbit copper-loaded Industrial Solder Alloy that lengthens the life of copper tips. Melting pt., tensile and shear strength same as tin-lead alloys. 1 lb. spools. 1 1/4 lbs.

Stk. No.	Gauge	1-27	28-up
33F239	14(.080")	3.20	2.68
33F240	16(.064")	3.22	2.71
33F241	18(.048")	3.34	2.81
33F238	20(.036")	3.63	3.05

EASY DISPENSER PAK

20 ft. of Ersin Multicore Solder in 60/40 alloy, 18 ga., in aluminum dispenser. Ideal for repairing printed circuitry as well as for all general purpose soldering requirements.

33F236.	NET	69
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SOLDER SIPPER

Removes molten solder from electrical connections or any place where the solder is concentrated in a small mass. Small, compact, light weight, manually operated. The Teflon tube possesses long life qualities under normal use. Not recommended for use above 500°F. Shpg. wt., 5 oz.

33F487.	NET	1.29
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Special Alloy Industrial Solders. Low-melting pt. type (L.M.P.) is 62% tin, 36% lead, 2% silver. High melting point (H.M.P.) type is 5% tin, 93.5% lead, 1.5% silver. Eutectic 63/37 alloy, melts at 361°F. Shpg. wt., 1-lb. spool, 1 1/4 lbs.; 28-lb. carton, 32 lbs. SWG size 22=.028".

Stk. No.	Type	Gauge	NET
33F310	L.M.P.	16	5.06
33F311	L.M.P.	18	5.86
33F312	L.M.P.	22	7.25
33F313	H.M.P.	16	4.27
33F314	H.M.P.	18	4.33
33F315	Eutectic	16	3.54
33F316	Eutectic	18	3.80
33F317	Eutectic	20	3.74

Selected Special Purpose Tools

TORQUE CONTROLS INC.

TS-30
TS-100



TORQUE SCREWDRIVERS



TT-1

Model TS-30*. Micrometer adjustable lb/in. torque screwdriver with range of 1-30 lb/in. and lock-in settings of 1 lb/in. increments. Torques in both directions, cannot be influenced by operator and can be recalibrated in the field. Tolerance: $\pm 5\%$ of reading. Drive: $\frac{1}{4}$ " female hex. Length: $6\frac{1}{2}$ ". Wt., 8 oz. **32.81**
64F150. EACH. NET

Model TS-100*. Micrometer adjustable oz/in. torque screwdriver with range of 2-100 oz/in. Lock in settings of 2 oz/in. increments. otherwise same as TS-30 except tolerance $\pm 3\%$ of reading. Drive is $\frac{1}{4}$ " female hex. Length: $6\frac{1}{2}$ ". Wt., 8 oz. **32.81**
64F151. EACH. NET

*Meets and exceeds all requirements of MIL-H-26497.

MODEL TT-1 JEWELER'S TORQUE SCREWDRIVER

Adjustable torque screwdriver; range of 1-20 oz/in. with settings of $\frac{1}{4}$ oz/in. Torques in both directions. Tolerance is $\pm 5\%$ plus

$\frac{1}{4}$ oz/in. of reading. Length: $3\frac{3}{8}$ ". Wt., 1 oz. **41.95**
64F152. EACH. NET

LABORATORY OR RESEARCH KITS

Kit #1. Contains TS-100 Torque Screwdriver with selected Bits: 5 Hex Key Allen, 4 Nut runner sockets, 4 screwdriver blades, 2 Phillips blades and 2 adapters. Black leather carrying case with handle included. $1\frac{7}{8} \times 8\frac{1}{2} \times 3\frac{1}{4}$ ". Weight: 1 lb., 4 oz. **59.10**
64F153. NET

Kit #3. Contains TS-100 and TS-30 Torque Screwdrivers and 12 Hex Key Allen bits, 9 Nut runner sockets, 9 screwdriver blades, 5 Phillips blades, and 4 adapters. Black leather carrying case. $10\frac{1}{4} \times 12 \times 1\frac{3}{4}$ ". Weight: 2 lbs., 14 oz. **107.25**
64F155. NET

Kit #2. Contains TS-30 Torque Screwdriver with selected bits: 7 Hex Key Allen, 5 Nut runner sockets, 5 screwdriver blades, 3 Phillips blades and 2 adapters. Black leather carrying case with handle included. $1\frac{7}{8} \times 8\frac{1}{2} \times 3\frac{1}{4}$ ". Weight: 1 lb., 5 oz. **59.10**
64F154. NET

Kit #4. Contains TT-1 Jeweler's Torque Screwdriver with selected bits: 4 screwdriver blades, 5 Nut runner sockets, 2 Phillips blades, and 4 hex allen key. Black plastic carrying case with handle included. $1\frac{3}{4} \times 3\frac{3}{4} \times 4\frac{1}{8}$ ". Weight, 4 oz. **64.10**
64F156. NET

BITS FOR TS-30 AND TS-100 TORQUE SCREWDRIVERS

**Must be used with HW-18 Adapter.

Stock No.	Type	Style	Size	EA. Net
64F157	HW-1	Hex Key	.050	1.60
64F158	HW-2	Hex Key	$\frac{1}{16}$	1.00
64F159	HW-3	Hex Key	$\frac{3}{64}$	1.00
64F160	HW-4	Hex Key	$\frac{1}{32}$	1.00
64F161	HW-5	Hex Key	$\frac{1}{8}$	1.00
64F162	HW-6	Hex Key	$\frac{5}{32}$	1.00
64F163	W-7**	Socket	$\frac{1}{8}$	1.60
64F164	W-8**	Socket	$\frac{3}{16}$	1.26
64F165	W-9**	Socket	$\frac{1}{4}$	1.26
64F166	W-10**	Socket	$\frac{5}{16}$	1.26
64F167	W-11**	Socket	$\frac{11}{32}$	1.26
64F168	W-12**	Socket	$\frac{3}{8}$	1.26
64F169	W-13**	Socket	$\frac{7}{16}$	1.26
64F170	HW-11	Screwdriver	.125 dia.	.76
64F171	HW-12	Screwdriver	.185 dia.	.58
64F172	HW-13	Screwdriver	.215 dia.	.58
64F173	HW-14	Screwdriver	.250 dia.	.56
64F174	HW-15	Phillips	0	.50
64F175	HW-16	Phillips	1	.40
64F176	HW-17	Phillips	2	.30

BITS FOR TT-1 JEWELERS TORQUE SCREWDRIVER

**May be used with TS-100 but requires HW-19 Adapter.

Stock No.	Type	Style	Size	EA. NET
64F177	TW-1	Screwdriver	.055 dia	.60
64F178	TW-2	Screwdriver	.070 dia	.60
64F179	TW-3*	Screwdriver	.080 dia	.60
64F180	TW-4*	Screwdriver	.100 dia	.60
64F181	TW-5	Socket	$\frac{5}{64}$	1.20
64F182	TW-6*	Socket	$\frac{3}{32}$	1.20
64F183	TW-7*	Socket	$\frac{7}{64}$	1.20
64F184	TW-8	Socket	$\frac{1}{8}$	1.20
64F185	TW-9	Socket	$\frac{9}{32}$	1.20
64F186	TW-10	Phillips	00	1.00
64F187	TW-11	Phillips	0	1.00
64F188	TW-12*	Hex Key	.028	1.50
64F189	TW-13*	Hex Key	.035	1.50
64F190	TW-14	Hex Key	.050	1.00
64F191	TW-15	Hex Key	$\frac{1}{16}$	1.00

ADAPTERS

64F192	HW-18	$\frac{1}{4}$ " hex to $\frac{1}{4}$ " square	1.00
64F193	HW-19	$\frac{1}{4}$ " hex to Universal	1.20

ZEPHYR MICROBRAZERS



Model K-3115
Power Supply



Model K-3112B
Power Supply



Model K-3122B



Model K-3121B



Model K-3132
Tinning
Bridge

Model K-3115. Electric microbrazer allows perfect soldering joints every time. An accurate pre-determined heat pulse is delivered between probe tips each time the foot switch is pressed. Precision soldering, even on miniature plugs and receptacles, can be done even by inexperienced people. Automatic timer with heat pulse is adjustable from $\frac{1}{10}$ to 3 seconds. At high setting, maximum output is 230 watts. Two voltage settings for high and low voltage. Amount of heat delivered is just enough to sweat solder and raise flux to surface. Timer cuts off automatically before insulation burns or base material is damaged. Standard "AN" plugs and receptacles can be soft silver soldered to 750°F . Silver solder brazing on small parts to 1250°F . 115V, 60 cyc. 9 lbs. **125.00**
33F814. NET

Model K-3112B. Like unit at left, this microbrazer delivers an accurate, pre-determined amount of heat between probe tips each time the foot switch is pressed. Has three heat positions—Hi, Med, and Lo. Heat is applied when footswitch is pressed and turns off when released. Both units may be used with either the self-holding probes listed at right or the tweezer probes listed below. 8 lbs. **47.50**
33F806. NET

K-3125. Tweezer probes for above unit or unit at left. **21.00**
33F809. NET

K-3125-B. As above, but 25° rods. **23.50**
33F810. NET

Model K-3121B. Standard soldering probe for units listed at left. 25° angle rods.

33F807. NET **10.75**
Model K-3122B. Heavy-duty soldering probe for unit at left. 25° angle rods.

33F808. NET **18.00**

K-3121-1. Replacement "push-in" tips for standard probes made of special Zephyr alloy. Have long life, resist pitting and oxidation—seldom need cleaning. **.25**

33F812. NET each tip

K-3122-1. As above, but tips for heavy-duty probes. **.35**

33F813. NET each

K-3132. Tinning bridge for use with any microbrazer probe. **10.75**

33F811. NET

**Save Time—Minimize Paperwork. Make NEWARK Your One-Point Source
For Everything in Industrial Electronics**



Black & Decker Quality Power Tools



FIG. A

NEW DELUXE 2-SPEED DRILLS—FIG. A

Power and performance best in its class. 2-Speed Switch. Better bearings for longer life.

Type U-206. 1/4" drill. Capacity: steel 1/4", hardwood 1/2", 1600 and 2250 RPM; 115V AC; 1/4 HP; 3.2 amps.; U-1537 chuck key; shpg. wt., 3 3/8 lbs.

64F203. NET. 16.99

Type U-221. 3/8" drill. Capacity: steel 3/8", hardwood 3/4", 700 and 1000 RPM; 115V AC; 1/4 HP; 3.2 amps.; U-1529 chuck key; shpg. wt., 3 3/8 lbs.

64F205. NET. 21.99

NEW 1/4" DELUXE VARIABLE SPEED DRILL—FIG. B

Type U-207. Squeeze any speed from 0 to 2250 RPM. Double-insulated with DuPont Nylon for proper operator protection at all times. Two-wire cord; plug in any 115V AC socket. Power to spare; heavy-duty built for long life. Capacity: steel 1/4", hardwood 1/2"; 0 to 2250 RPM; 115V AC; 1/4 HP; 3.5 amps.; U-1537 chuck key. Shpg. wt., 3 3/8 lbs.

64F204. NET. 26.99

PROFESSIONAL ROLLER BEARING DRILLS—FIG. C

Meets all professional needs with precision and dependability. Includes double reduction gears plus a lightweight, sure grip handle. Offers 20% more usable power than most drills. Operates on 115 V AC-DC, 21 amps. Mechanical output, 1/4 horsepower. Shpg. wt., 4 lbs.

Type U-300. 1/4" drill. Capacity: 1/4" steel, 1/2" hardwood. Powerful 2.2 amp. high speed motor. Maximum no load speed, 2250 RPM.

64F123. NET. 29.99

Type U-320. 3/8" drill. Capacity: 3/8" holes in steel, 3/4" holes in hardwood. Drill speed, 1000 RPM.

64F124. NET. 34.99

FINISHING SANDER—FIG. D

Type U-140. Designed for general use around the house and in family workshop. Instant release trigger lock, plus compactness and lightness of weight. Capacity: 1/4" steel, 1/2" hardwood; 115V AC; 1.9 amps.; 1/7 HP; 2250 RPM. Shpg. wt., 3 3/4 lbs.

64F147. NET. 19.99

FIG. E—UTILITY DRILL

Type U-100. 1/4" drill. Designed for general use around the house and in family workshop. Instant release trigger lock, plus compactness and lightness of weight. Capacity: 1/4" steel, 1/2" hardwood; 115V AC; 1.9 amps.; 1/7 HP; 2250 RPM. Shpg. wt., 3 3/4 lbs.

64F122. NET. 9.99

Type U-124. 3/8" drill. Drills metal, plastic or wood. Double reduction gear system. Capacity: 3/8" steel, 3/4" hardwood; 115V AC; 2.3 amps.; 1000 RPM. Shpg. wt., 3 3/4 lbs.

64F142. NET. 13.99

NEW 3/8" VARIABLE SPEED DRILL—FIG. F

Type U-222. Squeeze any speed from 0 to 1000 RPM. Operator protected at all times with double-insulated DuPont Nylon. Handles tougher jobs; right gearing and larger chuck. Better bearings and basic construction add up to longer life. Capacity: 3/8" steel, 3/4" hardwood; 115V AC; 1/4 HP; 3.5 amps.; U-1529 chuck key. Shpg. wt., 3 3/8 lbs.

64F206. NET. 31.99



FIG. B



FIG. C



FIG. D



FIG. E



FIG. F

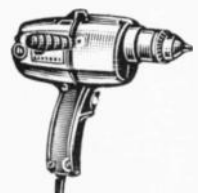
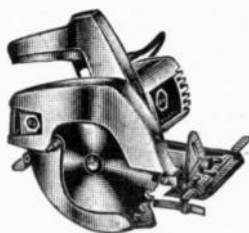


FIG. G

FIG. G—1 1/2" DELUXE DRILL WITH REVERSING SWITCH
Type U-227. Reversible switch allows backing out bit without damaging drill or hole. Features precision needle and roller bearings. Powerful, large output motor delivers 1/2 horsepower. Drilling capacity: 1/2" in steel and 1" in hardwood. Operates at a no-load rate of 500 revolutions per minute. Power source, 115V AC, 4.2 amps. Good overall balance enables easy, effortless operation. Shpg. wt., 9 1/4 lbs.

64F145. NET. 46.99



U-130 7 1/4" UTILITY SAW

Features an Extra - Wide - Non-Binding telescoping guard that can take a 6 1/2" blade safely as well as the 7 1/4" blade. Designed for the man who wants to do more carpentry, home construction or maintenance jobs. Sawdust ejector discharges sawdust away from the operator's vision. Includes a calibrated rip fence, bevel and blade adjustments, 7/4" combination blade, and a blade wrench. Cutting depth: at 90° 2 3/8", 45° 1 7/8". 115 Volts, AC. 9.0 amps; 1 H.P.; 4400 RPM; Net wt. 11 lbs. Shpg. wt 16 lbs.

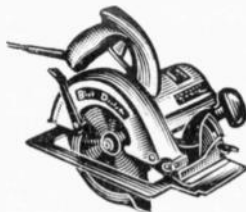
64F127. NET. 29.99

64F130. Type U-1620. Crosscut blade. NET. 2.35

64F131. Type U-1622. Crosscut blade for smoother cuts. NET. 2.35

U-336 6 1/2" PROFESSIONAL HEAVY DUTY SAW

All-purpose saw. Increased overload burnout protection with M-L wire. One hand operation for fast trimming, sizing or 45 degree double cutting of dressed lumber. Instant release trigger switch. Sealed-in lubricant ball bearings. Self-lubricating free-start telescoping blade guard with retracting lever. Includes as standard equipment a 6 1/2" Combination Rip-Crosscut blade, Blade wrench, and 3-conductor cable and plug. 1.4 H.P.; 115 volts AC/DC.



Depth of cut: 90° — 2 3/8"; 45° — 1 7/8". R.P.M.: 5500. 10 amps. Shpg. Wt. 15 lbs.

64F201. NET. 59.99

NEW U-153 JIG SAW

Reliability is assured by Black & Decker's famous No - Time - Limit guarantee. And now this popular model has a new low price. Plenty of versatility for the home craftsman at economical cost. The saw makes straight, curved, and scroll cuts in a variety of materials, plastics, metals, fiberboards, wood, and other modern materials. UL examined. Slide switch. Hex wrench and a wood cutting blade are included. Capacity: 1" hardwood, 1 1/2" softwood. 115 Volts AC, 2.4 Amps. 1/7 Horsepower, 3000 SPM. Handling weight is only 3 3/8 lbs. Shipping weight is 4 lbs.

64F200. NET. 17.99



NEW JIG SAW

Type U-256. Pick the speed to suit the material. High speed cuts wood, composition boards. Medium speed cuts soft sheet metal, pipe. Low speed cuts plastics, tile, hard metals. Quick adjustment for bevel cuts. Shoe insert prevents top splintering. Capacity: 1" hardwood, 2" softwood; 3000 HI, 2500 MED, 2250 LOW SPM; 2.5 amps; 1/4 HP; 115V AC; 5/8" stroke length; includes rip fence and circle cutting attachment; 4 blades, allen wrench, and wrench holder.

Shpg. wt., 5 3/4 lbs.

64F207. NET. 39.99



U-1176 22-PIECE DRILL ACCESSORY ASSORTMENT

22 pieces fit all makes of electric drills and multiplies a drill's functions. Kit includes: 12 sanding discs, 3 twist drills, a grinding wheel, polishing pad, rubber backing pad, wheel arbor, bulging wheel, wire brush, and paint mixer. Accessory kit enables a drill to be used as a sander, mixer, polisher, in addition to making holes. Comes in an attractively packaged homeowner's showcase. UL approved.



64F101. NET. 4.88

THOR POWER TOOLS

1/4" ELECTRIC DRILL

Type E-110. Powerful, compact 1/4" drill for industrial applications. Diminutive size (less than 6 1/2") and light weight (27 oz.) bear no relation to this unit's efficiency or power. Full-wave diode circuit is employed to combine the inherent advantages of DC motors—high efficiency, trouble-free permanent-magnet stators—with the convenience of AC operation: just plug into an ordinary 110/120 VAC outlet! Other features include heat-protected armature with welded commutator leads and high-temperature insulation, shock-proof gearing, and splined armature shaft. Spindle offset is 1 9/32". Shpg wt., 3 lbs.



33F330. NET 34.95

COMPACT ELECTRIC SCREWDRIVER



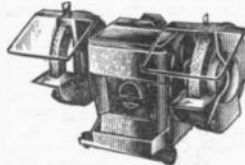
Type E-111. Convenient, lightweight power tool suitable for all industrial screwdriving and nut-setting operations. Capacity to #8 machine screw or nut, #6 self-tapping or #10 wood screw. Adjustable slip clutch is standard equipment; ball bearings insure reliable operation. Motor direction is reversible for screw-extraction applications. Spindle offset: 7/8". Length: 8 7/8". Wt., 2 1/4 lbs. Shpg. wt., 3 1/4 lbs.

33F331. NET 89.95

BENCH GRINDER

Model No. 946. 4 1/2" Wheel Bench Grinder. Two wheels 4 1/2" x 1/2" x 1/2" hole - (one 40-grit, one 70-grit). 3450 rpm (no load). Hi-strength aluminum alloy housing. Trouble-free shaded pole motor. 115 volts, 60 cycles AC. Features cast in parts tray, rubber feet and base drilled for mounting, protected slide switch, removable end guards, adjustable tool rest, electrostatically applied silicone finish, oversize eye shields and flat front design to permit grinding with both wheels on workpiece. Complete grinder is UL industrially rated and CSA approved. Overall length 9 1/4". With 6 ft. 3 wire Cord. For 110-120 v., 60 cycle A.C. Shpg. wt. 8 lbs.

33F343. NET 16.73



ELECTRIC DIE GRINDER



• 33,000 RPM Speed

• Heat-Proofed Armature

Type E-112. Compact die grinder maintains speed under load for faster, safer grinding action. Chuck body is spline-fitted to tool spindle to minimize run-out. 1/4" Rubber-Flex collet is standard; 3/16" and 1/8" collets are available. Four ball bearings for smooth operation. Built-in solid-state rectifier operates DC permanent-magnet type motor from ordinary 110 V AC. Armature has heat-resistant insulation and welded commutator leads to stand up under heavy use. 3/16" spindle offset. Weighs only 30 oz., length 7 3/4". Shpg. wt., 2 3/8 lbs.

33F332. NET 49.95

PISTOL GRIP ELECTRIC SCREWDRIVER



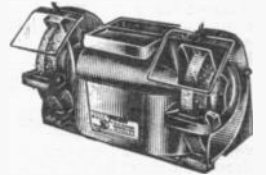
Type E-113. Industrial quality; also suitable for nutsetting applications. Capacity: #8 machine screw or nut; #6 self-tapping or #10 wood screw. Rugged, efficient DC motor operates from standard 110 VAC outlet through built-in full-wave diode rectifier. Heat-proof armature, ball bearings, adjustable slip clutch for close tolerance torquing. Non-reversible; for driving applications only. Spindle offset 7/8". Length, 8 7/8"; weighs only 2 1/4 lbs. Shpg. wt., 3 1/4 lbs.

33F333. NET 79.95

BRONZE BEARING GRINDER

Model No. 928. 1/4 H.P. 6" Wheel Bronze Bearing Grinder. Two wheels 6" x 3/4" x 1/2" hole—(one 46 grit, one 75 grit). 3450 rpm (no load). Hi-strength aluminum alloy housing. Trouble-free shaded pole motor. 110 volts, 60 cycle AC. Features: cast in tools parts tray; eye shields; oilless, self-aligning bearings; removable end guards; base drilled for mounting; heavy duty toggle switch; electrostatically applied silicone finish; and flat front design to permit grinding with both wheels on workpiece. Complete grinder is UL industrially rated and CSA approved. Overall length 16". Shpg. wt., 24 lbs.

33F307. NET 27.93



TAKON — VERSATILE, PRECISION HAND STAMP

Compact hand stamp having continuous rubber band containing characters: A-Z, 1-0, ° % = + (pi) μ γ (phi) Δ Ω - / . () . Ideal for identification, and marking of electronic designations; also for stamping in areas where space is limited. Easy to clean, handle, align. Can be used individually for single character marking, or any number of units may be quickly ganged for multiple character stamping. 5 1/2" high, 1/8" thick, 1" wide, tapering to 3/8" at stamping edge. Intermix alphabet, numerals, and electronic symbols. Metal construction. Use with stamping ink or paste. Shpg. wt., 1 1/2 oz.



60F1675. Model 118. 1/8" Gothic. NET 4.90
60F1676. D-1118 Replacement Band. 1/8" Gothic 1.80
60F1677. Model 332. 3/32" Gothic. NET 4.90
60F1678. D-1332 Replacement Band. 3/32" Gothic 1.80

MORRIS

COIL WINDING MACHINE



- For both practical and experimental work
- Adjustable for Pi spacing.

Hand-operated Coilmaster. Produces self-supporting, universal and honeycomb coils, also solenoid, single-layer. Included with each machine are: three cams, 1/8", 3/16", and 1/4" throw, and four gears. The arm that carries the wire guide is adjustable for pi spacing and different diameter coil forms. Accurate winding—suitable for both experimental and practical work. Capable of producing many types of coils. Shpg. wt., 4 lbs.

34F701. NET 6.67

ULSTER

ELECTRICIAN'S KNIFE

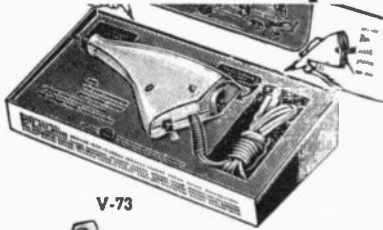
Type E29. Two blades, spear and screwdriver wire scraper. Center safety-lock, brass linings, steel bolsters and shackle. Spear blade full mirror polished. Mahogany colored plastic handle. 3 3/4 inches long. Shpg. wt.: 4 oz.



34F122. NET, 1-11, Each 1.35

Dozen lot. Net each 1.25

Selected Shop Tools



V-73

Electric identification marker that writes on steel, glass, plastics, wood, brass, copper, ceramics. Engraves at a speed of 7200 strokes a minute. Encased in unbreakable polypropylene. Built-in reciprocating-type motor. Hand rest design. Control wheel adjusts for fine, medium or coarse stroke. Complete with hard tantalum

carbide point. 110v, AC, 60 cycles. Size, 6 1/4" x 3 1/4" x 1 1/4". Shpg. weight, 2 lbs **8.46**
33F530. NET

Type 98003. Tantalum Carbide Point. 33F524. NET 1.27

Type 98080. Diamond Tipped Point. 33F529. NET 4.90

BURGESS VIBRO-CRAFTERS

MODEL V-73 VIBRO-GRAVER



VS 850



VS-855

MODEL VS-850 DELUXE TRIPLE NOZZLE TURRET ELECTRIC SPRAYER

Has fog-spray nozzle for insecticides and moth-proofing, fan-spray nozzle for covering large surfaces, and circular spray for general painting. Also for varnish, lacquer, and light oils. Just plug in and pull trigger.

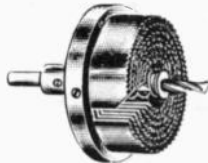
Easy to clean, will not rust or foul. Built-in motor, shockproof head. Has 24 oz. graduated jar, 8 ft. cord. 110-120v., 60 cys. AC. Shpg. wt. 3 1/2 lbs. **13.03**
33F495. NET

MODEL VS-855 STANDARD ELECTRIC SPRAYER

Equipped with two interchangeable precision nozzles. Standard paint spray nozzle, plus accessory nozzle for garden sprays and other water-base materials. Knob on top of unit adjusts for heavy or light

spray. Useful for indoor as well as outdoor work for spraying varnish, enamel, lacquer, shellac or spraying the garden with insecticides. Wt. 3 lbs. **9.11**
33F525. NET

ARCO TOOLS



ARCO HOLE-SAWS

No. 650. Cuts 1", 1 1/4", 1 1/2", 1 3/4", 2", 2 1/4", and 2 1/2" holes through any 3/4" stock. Rugged alloy tool head. 7 finest quality shatterproof blades. Automatic "slug-ejector" and 1/4" drill bit. Shipping weight: 1 1/4 lbs. **5.19**
33F470. NET

Model 600. Heavy duty design for the toughest jobs! Equipped with automatic "slug-ejector" . . . pops out discs immediately to speed up working time 3 fold. Cuts 1", 1 1/2", 2" and 2 1/2" holes cleanly and accurately through any 3/4" stock. Has extra grooves in tool head to accommodate 1 1/4", 1 3/4" and 2 1/4" blades and 1/4" drill bit. Fits any drill, lathe, motor. Shipping weight, 1 1/2 lb. **3.88**
33F460. NET

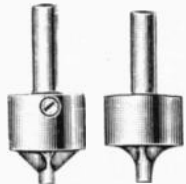
SET OF 4 ADJUSTABLE SCREW DRILLS



Type 1140. Drills, countersinks, all in one easy operation. Prevents the wood from splitting, the threads from stripping. 1/4 inch shank. Adjustable for any screw length. Chrome-vanadium bit. Nickel plated holder. Set of 4, for No. 6, 8, 10, 12 woodscrews. Shpg. wt., 2 ounces. **2.41**
33F459. NET

5500 SHOP KING ROTARY RASP 1/4" shank fit any electric drill. Cuts wood, plastic, plaster, brass, wall-board, rubber, plywood and copper. Ideal for beveling, planing, paint removal. Never clogs or needs sharpening. Constructed of hardened and tempered steel for years of use. Consists of: 3 rotary rasp drums, 3/8, 1 1/4 and 1 7/8" diameters. Length of drum 1 1/2". Shpg. wt., 7 oz. **2.78**
33F483. NET

NO. 15 ARCO 4-PIECE RADIUS & BEVEL CUTTER SET



For corner beveling and rounding with any electric drill. Adjustable bevel cutter, cuts 45° bevels from 1/32" to 5/16" wide and three different size radius-cutters for 1/8", 3/16", 1/4". Dual guides for accurate cutting. on wood, plastic and soft metals. Rugged construction assures long life and durable service. Shpg. wt. 4 oz. **3.88**
33F486. NET



ARCO SCREW AND NUT DRIVER

Type 750. 15-Pc. set of industrial-quality tools. Fits all electric drills. Incl. 2 flat bits with holders for #4-14 slotted screws, Phillips bit, 6 hex sockets (1/4, 5/16, 3/8, 1/2, 5/8, 3/4, 7/8, 1 in.), 2 square sockets (1/4, 5/8 in.) and socket wrench holder with ball lock. Wt. 1 lb. **4.54**
33F449. NET



SCREWDRIVER ATTACHMENT

Model 710. Fits any electric drill or drill press. Has industrial type clutch. Special Bit Holder prevents bit from slipping from screw slot. Bit idles until pressure is applied, clutch disengages when screw is driven home. Includes two 1/4" hex bits for #2 Phillips head & for #6 to #14 slotted screws. Wt., 1 lb. **3.23**
33F458. NET

2-SPEED ANGLE DRIVE



Model 350. Right angle gear drive for half or double drill speed. Fits 1/4" electric drills. Slow speed for buffing. Fast speed for smooth sanding. Swivel angle-drive for hard-to-get-at places. Includes 3 adapters to mount Angle-Drive in chuck or on drill-spindle. With instructions and guarantee. Wt., 1 1/2 lbs. **3.23**
33F471. NET

5700 ROTARY FILE SET



Complete range of 5 shapes for cutting steel, brass, aluminum and other metals, and all non-metal hard surfaces. Ideal for shaping, finishing, pattern making and model making. Milled from solid tool steel, hardened and tempered. Consists of 5 various sizes. Wt., 7 oz. **3.15**
33F484. NET

1270 ARCO PLANE & FILE



Ideal for planing, filing, beveling, removing paint, trimming, rounding corners, sanding. Perfect for model makers and the general household jobs like sticky doors and draws. Never clogs or needs resharpening. Cuts wallboard, plastic, wood, rubber and soft metals without digging or chipping. Shpg. wt. 6 oz. **1.22**
33F485. NET

UNITED SHOE MACHINERY CORPORATION

POP RIVET TOOL KIT

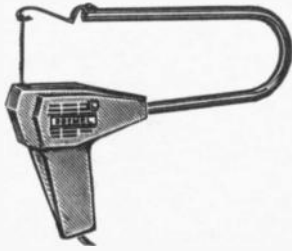


Type K-110. Eliminates the need for sheet metal screws, nuts and bolts, soldering, etc., in many common household projects. Two interchangeable nose pieces are included, one for 1/8" steel or aluminum and one for the 3/16" aluminum Pop rivets. The extra nosepiece screws right into the head of the tool for storage. A sliding button latches the handle when closed. Epoxy finish makes it resistant to chemicals, corrosion, and abrasion. Shipping wt. 1 lb. **4.95**
33F1150. NET

Stk. No.	Rivet Type	Rivet Material	Rivet Lt.	Rivet Dia.	No. Per Box	Net Per Box
33F1151	S-42	Steel	1/8"	1/8"	100	.99
33F1152	A-42	Alum.	1/8"	3/8"	100	.99
33F1153	S-44	Steel	1/4"	1/8"	100	1.32
33F1154	A-44	Alum.	1/4"	1/8"	100	1.32
33F1155	S-48	Steel	1/2"	3/8"	100	1.85
33F1156	A-64	Alum.	1/2"	3/16"	50	.85
33F1157	A-68	Alum.	1/2"	3/16"	50	1.12
33F1158	A-610	Alum.	5/8"	3/16"	50	1.30

Power Tools & Wire Strippers

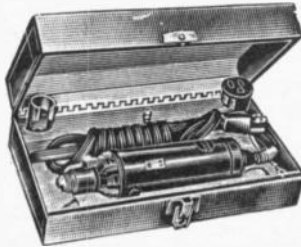
DREMEL POWER TOOLS



ELECTRIC SCROLL SAW

Model 501. Featuring a high speed reciprocating motor producing 7,200 strokes per minute. Has convenient finger control trigger switch. 4-way blade holder permits cutting in any direction. No limit to cutting length. Deep throat $9\frac{1}{2}$ " permits cutting to center of a 19" circle. Has sturdy shatterproof nylon housing and chrome plated tubular saw frame. Ideal for cutting and scroll work on wood and soft metals. Simple operation, even a child can do a professional job. Cutting asphalt, rubber and plastic tile are simplified with the use of this universal power tool. 115V AC operation. $10\frac{3}{4}$ " long, $8\frac{1}{2}$ " high. Shipping weight, 3 lbs. Complete with 6' long 3-wire safety cord, 2-prong adapter, and 7 saw blades.

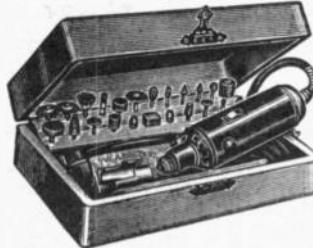
33F673. Type 501. NET. **9.71**
 33F657. Replacement blades for Model 501. 45c dz.



INDUSTRIAL MOTO-TOOL MODEL 3

Model 3. Has 50% increase in power and efficiency over Model No. 2. Designed to cover a wide range of industrial operations including polishing, grinding of dies, molds, pattern making, industrial model building, and production deburring. 27,000 rpm Universal motor, 110-120 VAC or DC. Chuck accommodates $\frac{1}{16}$ ", $\frac{3}{32}$ " and $\frac{1}{8}$ " Collets. $1\frac{1}{16}$ " Dia. x $7\frac{1}{2}$ ". $1\frac{1}{2}$ lb.

33F672. Type 232. NET. **22.46**



DELUXE MOTO-TOOL KIT MODEL 2

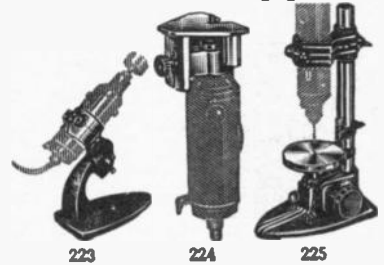
Hand power tool with chuck and $\frac{1}{8}$ " collet for grinding, drilling, polishing, engraving, sanding and other operations. Includes: 2 additional Collets. ($\frac{1}{16}$ ", $\frac{3}{32}$ "); 1 finger grip attachment; 4 emery wheel points; 1 dressing stone; 8 high-speed steel carving cutters; 1 high-speed steel saw; 3 bristle brushes; 1 steel brush; 1 shoulder mandrel (with sanding discs); 1 screw mandrel (with felt wheel); and 1 drum sander— $\frac{1}{2}\frac{1}{2}$ ". Equally useful at home or in industry. Delivers 27,000 RPM for perfect performance of small wheels and cutters. Universal motor which operates on 110-120 Volt, 60 cycle AC or DC current. Steel carrying case. 4 lbs.

33F662. Type 222. NET. **22.46**

34 PC. MOTO-TOOL KIT MODEL 1

Similar to above with lighter capacity Model No. 1 Moto-Tool. Shpg. wt., $3\frac{1}{2}$ lbs.

33F655. NET. **19.13**



UNIVERSAL STAND

Type 223. For No. 2 or No. 3 Moto-Tool. Adjustable ball and socket assembly. Holds Moto-Tool at any angle. Quick action clamp for receiving and releasing.

33F550. NET. **4.55**

SHAPING TABLE

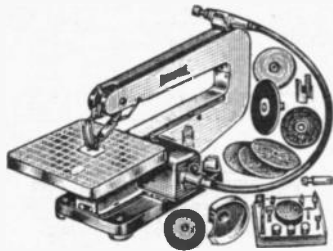
Type 224. Mounted vertically on No. 2 or No. 3 Mototool when used with universal stand. When inverted provides control for routing and depth grinding.

33F551. NET. **1.75**

DRILL PRESS

Type 225. Used with No. 2 or No. 3 Moto-tool. For drilling and routing. 12" high with a $6\frac{3}{4}$ " x 4". Table can be raised or lowered; lock in any position for depth adjustment. Shpg. wt. 4 lbs.

33F552. NET. **9.45**



DELUXE MOTO-SHOP

Model 572. Basic unit is a 15" Jig Saw with built-in ball bearing rotary motor and power take off. Accessories include disc sander attachment, cloth buffing wheel, wire wheel brush, grinding wheel, wheel guard, flexible shaft, polishing compound stick, 12 piece accessory set, 1 adapter, 3 sanding discs and 4 saw blades. Jig Saw has large capacity 15" throat, saw to center of 30" circle. Table raises and lowers, and tilts. 18 lbs. For 110-120 volts AC.

33F663. NET. **37.46**
 33F657. Type 8029. Ext. Blades. NET .45 dz.



ELECTRIC ENGRAVER

Model 290. Heavy duty. Marks all types of materials from hardened steel to glass. Easy as writing with a pencil. Calibrated stroke adjustment regulates depth of engraving. High speed—7200 strokes a min. High impact nylon housing and powerful motor. Complete with solid carbide engraving point and storage case. Shpg. wt., $1\frac{1}{2}$ lbs.

33F674. NET. **9.97**
 Type 9924. Replacement solid carbide pt. 33F648. NET. **2.50**
 Type 9929. Diamond engraving pt. 33F649. NET. **2.50**

G-C SPEEDX WIRE STRIPPERS

SPEED-O-MATIC MODELS



Type 766. Latest Speedex model featuring the "Fully Automatic Delayed Return Action" to prevent crushing fine wires. Combines the features of all Speedex Wire Strippers. Has narrow, easy grip handles and interchangeable blades. Models avail. for various wire sizes.

34F608. Type 766. For 12 to 20 wire. NET EACH **5.93**
 34F609. Type 766A. 14 to 30 wire. NET EACH **5.93**

AUTOMATIC MODELS

Type 744. Especially suited for stripping fine and stranded wires. "Trig-O-Matic" Stay-Open feature keeps wires from being crushed. Can be used either automatic or standard model.

34F600. Type 744H. For 300-ohm twin line.
 34F601. Type 744. For 12 to 20 wire.
 34F602. Type 744A. 14 to 30 wire.

NET EACH **5.93**

STANDARD MODELS

Type 733. Popular inexpensive model will work on 90% of all stripping jobs.

34F603. Type 733H. For 300-ohm line.
 34F604. Type 733. For 12 to 20 wire.
 34F605. Type 733A. For 14 to 30.

NET EACH **4.77**

STRIP-ER-CLIPS

A precision tool with an exclusive safeguard that prevents accidental nicking or cutting while wires are being stripped. Features a seven stop gauge which adjusts instantly to the correct wire size. Setting of gauge to protect against damaging wire conductors or strands is easily done with the thumb. Strips

and clips all wires ranging from 14 to 26 gauge. With heavily insulated grips and streamlined jaws. Shipping weight, 2 lbs.

33F583. No. 760. NET. **1.38**



DELUXE WIRE STRIPPER KIT

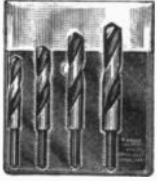


Type 744K. Includes "Trig-O-matic" stay-open wire stripper, plus interchangeable blade sets for any size wire from No. 30 to No. 8. Also handles 300-ohm ribbon lead-in wire. $2\frac{1}{4}$ lbs.

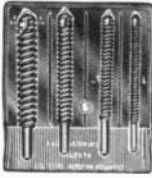
34F606. Type 212. NET. **13.16**

Selected Tool Values

CHAMPION HIGH SPEED DRILL SETS



1/4" Shank Set



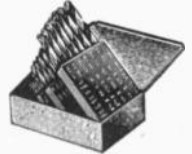
Masonry Set



113C



121C



129C

High quality precision made AMERICAN tools, made to perform speedily and accurately under the most exacting conditions. Champion drills are held to the standards demanded by today's industry and meet all commercial and government specifications.

TYPE 2705-P4 FOUR PIECE DRILL SET WITH 1/4" SHANK

Will drill hole sizes 5/16" to 1/2" without larger chuck. Size, 5/16", 3/8", 7/16", 1/2" with 1/4" diameter shank. Complete with 4 drills and plastic pouch. Shpg. wt., 1 lb.

33F603. NET

6.90

Made in AMERICA by AMERICAN workmen. Ground and heat treated and pointed by the latest and most accurate methods to insure perfect performance.

TYPE CM7-4 MASONRY DRILL SET

4 piece Carbide tipped masonry drill set. Contains 4 sizes, 1/4", 5/16", 3/8" and 1/2". For use with any 1/4" drill. Complete with plastic pouch. Shpg. wt., 1 lb.

33F604. NET

3.59

HIGH SPEED TWIST DRILL SETS

Type 113C. 13 piece high speed drill set in metal Huot case. Has drills from 1/16" to 1/4" in 1/64" steps. Shpg. wt., 1 lb.

33F625. NET

4.94

Type 129C. 29 piece high speed drill set in metal Huot case. Has drills from 1/16" to 1/2" in 1/64" steps. Shpg. wt., 4 lbs.

33F627. NET

28.74

Type 121C. 21 piece high speed drill set in metal Huot case. Has drills from 1/16" to 3/8" in 1/64" steps. Shpg. wt., 3 lbs.

33F626. NET

13.83

Type 160C. 60 piece high speed wire gauge drill set. Drill sizes 1 to 60. Metal Huot case incl. Shpg. wt., 3 lbs.

33F628. NET

20.34

INDIVIDUAL DRILLS

High speed twist drills made to meet high standards of quality, and to provide maximum life with minimum wear.

Featuring 1/4" shank to fit all power or hand drills with 1/4" capacity. State size wanted. Av. Shpg. wt., 4 oz.

STANDARD SHANK

Stock No.	Drill Size	NET EACH
33F611	1/8"	.26
33F612	5/32"	.29
33F613	3/16"	.38
33F614	7/32"	.46
33F615	1/4"	.56

1/4" SHANK

Stock No.	Drill Size	NET EACH
33F617	5/16"	1.02
33F619	3/8"	1.38
33F621	7/16"	1.91
33F623	1/2"	2.43
33F618	1 1/32"	.99



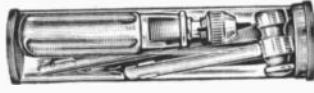
COMPACT TOOL KITS



Type B-1119. Professional quality, useful in both lab, home or shop. Highly versatile through interchangeability of components. Has a plastic bubble carrying case. Set includes: Amber handle with 1/4" chuck; Ball peen hammer; 1/8" x 3 1/8" cabinet blade; 3/16" x 4 1/2" cabinet blade; 3/16" x 4 1/2" recess blade; 1/4" x 4 1/2" recess blade; 1/4" x 5" cabinet blade; 1/4" keystone blade; 1/2" chisel; 3" saw blade; Tack puller; Scratch awl. Shpg. wt. 8 1/2 oz.

34F666. NET

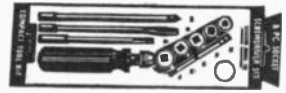
1.15



Type CT-11. Ideal for do-it-yourself operations, and general household repairs. Portable tool case for easy accessibility. A full screwdriver set with hammer included in each kit. Set contains the following: Sure-grip plastic handle with capped chuck; Ball peen hammer; 1/8" x 3 1/8" cabinet blade; 3/16" x 4 1/2" cabinet blade; 1/4" x 5" cabinet blade; 1/4" x 4 1/2" recess blade; 3/16" x 4 1/2" recess blade; and a clear plastic tube carrying case with press on cap. Shpg. wt., 7 oz.

34F685. NET

.83



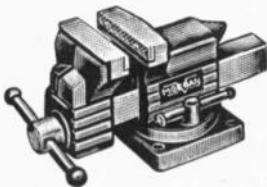
- Hardened Steel.
- Lock Grip Chuck
- Non-breakable Handle

Type S-2. Screwdriver set with sockets in one compact package. Essential for use in mechanical shop, garage, home, etc. Set includes the following: Amber handle with 3/8" chuck; 3/16" cabinet blade; 3/16" recess blade; 1/8" cabinet blade; 5 sockets with following sizes: 5/32", 1/4", 11/32", 3/8", 1/2". Shpg. wt., 6 oz.

34F494. NET

.90

MORGAN VISES



High quality vises for home workshop or service shop. Sturdily made of close grained gray cast iron, with extra large steel sliding bar. Features removable hardened steel jaw faces, and swivel base.

Type 4. Jaws are 4" wide and open to 4". Shpg. wt., 23 lbs.

33F581. NET

16.00

Type 5. Jaws are 5" wide and open to 5". Shpg. wt., 30 lbs.

33F582. NET

19.14

HOME CRAFT VISE

Built to same standards as Utility Line except that it has a 3/4" x 3/4" steel slide bar and built-in pipe jaws.

Type 25. Jaws are 3 1/2" wide and open to 3 1/2". Shpg. wt., 11 lbs.

33F579. NET

7.00

MULTI-TAP-TOOLS



Model HT-24. Does the work of three different size taps. Has a chuck with replaceable tap. Taps for #6-32, #8-32, #10-32. Shpg. wt., 4 oz.

34F659. NET EACH

2.19

Lots of 6 or more, EACH

1.75

Model HT-25. As above but has taps for #6-32, #8-32, #10-24.

34F660. NET EACH

2.19

Lots of 6 or more, Each

1.75

KEDMAN

A quick-wedge screw-holding screwdriver designed to drive many sizes of screws. Hollow ground bit fits any slotted screw. Will not mar screw slot. No spring clip to slip off screw or pressure wedge to wear out.

Stk. No.	Type	Bld. Size	Oz.	Net
33F500	1253	1/2x3"	1	1.25
33F501	1734	5/8x4"	1 1/2	1.25
33F502	1834	3/4x4"	2	1.70
33F503	2354	1/2x4"	4	1.80
33F504	2358	1/2x8"	5	1.90



Type 1253

Type 1834

Selected Quality Tools

CLAUSS TOOLS

SCISSORS AND SNIPS

Scissors have small tough points for fine cutting, serrated blades for positive wire grip. Snips have comfortable handles, high leverage.

Stk. No.	Type	Description	Size	Wt.	Each
34F780	925	Electricians' scissors	5"	3 oz.	2.17
34F781	76½	Filament snip	6½"	5 oz.	2.83
34F782	TC4½	Thread snip for light cutng.	4½"	3 oz.	2.50
34F767	564½	Special jaw for flush cutng.	4½"	2½ oz.	3.67
34F768	565½	Same as above	5½"	1½ oz.	3.83
34F769	57	Curved jeweler's snip	7"	4 oz.	2.17
34F770	67	Straight jeweler's snip	7"	4 oz.	2.00
34F771	384	General cutting tool, slender blades.	4"	¾ oz.	2.43
34F772	564D	For limited clearance wire cutting	4"	¾ oz.	3.50

DOMESTIC TWEEZERS

Non-magnetic Satin-finish stainless steel. Delicate feel and balance. With smooth inside points except (*) serrated.

Stk. No.	Type	Description	Size	Wt.	Each
34F773	7SS	Curved tweezers	4½"	1½ oz.	2.17
34F774	55	Long, V-shaped	4½"	1½ oz.	1.00
34F775	5	Long, slender	4½"	1½ oz.	1.17
34F776	231*	Serrated inside points	4½"	2½ oz.	1.50
34F777	AA	Tapered points	4½"	2½ oz.	1.17

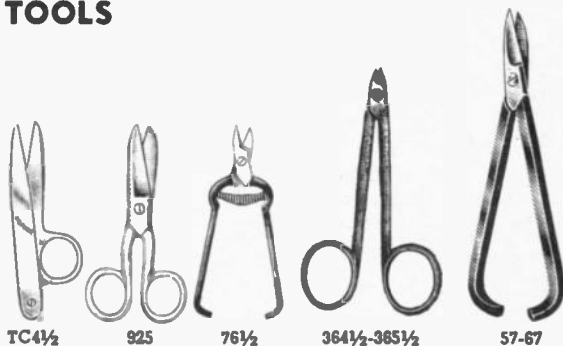
HEAT SINK TOOLS

Copper beryllium alloy provides max. thermal conductivity. Satin chrome finish resists solder. Box joint prevents side-slip. For holding parts during soldering. Wt. 1 oz.

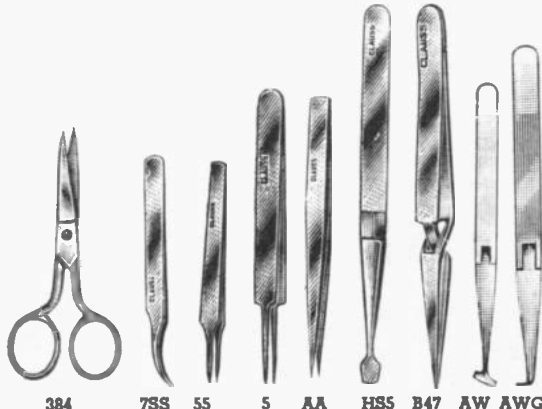
34F778. Type HSS. NET.....2.50
34F779. Type B50. NET.....2.50

ANTI-WICKING TOOLS

Stock No.	Type	Gauge	NET
34F783	AW20	20	5.33
34F796	AW22	22	
34F797	AW23	23	
34F784	AWG20	20	4.83
34F798	AWG22	22	
34F799	AWG24	24	



TC4½ 925 76½ 364½-385½ 57-67

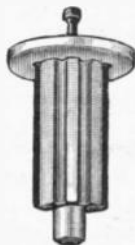


UNITED SHOE MACHINERY

AMMO

NEW AMMO DRIVETOOL

Type DT-450. Drives pins or threaded studs into masonry & concrete without drilling. Drive rod does not bounce back when it is hit with a hammer. Extra large flange gives added protection to your hands. Oval shape fits hand for secure, comfortable holding. Rubber cushions absorb driving shock. A few hammer blows and the pin goes in like a nail, yet it holds as securely as any anchoring device. Carton ship. wt. 1 lb. 11 oz.



DT-450

35F1159. NET.....1.98

NEW DRIVEPINS AND THREADED DRIVESTUDS

Use with DriveTool (above) for fastening objects to masonry, concrete, metal. Available in display cards or in boxes of 100. Average shpg. wt., 1½ lbs. per box. *Drivepins, †Drivestuds.



Drive Pins and Drivestud Selection

DISPLAY CARDS

Stock No.	Type	Size	Fasteners per Card	NET
35F1160	NR-48	*¾"	19	.66
35F1161	NR-410	*1"	14	
35F1162	NR-415	*1½"	10	
35F1163	NR-420	*2"	10	
35F1164	NR-425	*2½"	9	
35F1165	NR-430	*3"	8	
35F1166	TR-451	*¾" x 1½"	10	
35F1167	TR-451L	*1¼" x ½"	9	

BOXES OF 100

Stock No.	Type	Desc.	Shipping Weight	NET
35F1168	NR-48	*¾"	.6	3.20
35F1169	NR-410	*1"	.9	4.20
35F1170	NR-415	*1½"	.14	6.00
35F1171	NR-420	*2"	1.2	6.00
35F1172	NR-425	*2½"	1.6	6.60
35F1173	NR-430	*3"	1.8	7.50
35F1174	TR-451	*¾" x 1½"	.15	6.00
35F1175	TR-451L	*1¼" x ½"	1.4	6.70

*Drive Pin & Drive Stud



Boxes of 100

THERMOGRIP

NEW THERMOGRIP ELECTRIC GLUE GUN

Type 201.
• 60 second bonding
• No clamping
• No cleanup

Easy to use gun which bonds wood, pottery, leather, metal, plastics, fabrics and most materials. Glue bonds in 60 seconds and is waterproof. Phenolic handle etc. Ship. wt. 13 oz.

35F1176.....5.95

NEW THERMOGRIP GLUE STICKS

These sticks are waterproof, flexible and easy to use. Perfect for glueing furniture and other objects where a certain amount of "give" is needed. Sold 7 on a card etc. Shp. wt. 14½ lbs.

35F1177......49
35F*1179 (Box of 60).....1.98

NEW THERMOGRIP SEALER STICKS

Type 211. Thermogrip sealer is a flexible, waterproof, hot-melt caulk for bathtubs and tiles, boats and other applications where a white seam filler is needed. Compatible with the Thermogrip glue. 7 sticks/card. Ship. wt. 12 lbs.

35F1178. NET. Per Card......49
35F1180 (Box of 60).....1.98



You Can Depend on NEWARK for Everything

In Industrial Electronics

• Same Day Shipment from On-the-Shelf Stocks

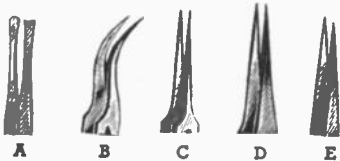
• OEM Factory Prices

• Phone-Write-Wire—for Price Quotations



Special Purpose Tools

SMOOTH JAW WIRING PLIERS



SEMI-CONDUCTOR TWEEZERS
Fig. A. 4 3/4". Smooth large surface for positive grip without danger of breakage.
Fig. B. 4 1/4". Fine thin point.

Stk. No.	Type	Material	NET
34F415	C-35	Carbon Steel	2.75
34F735	CC-13C	Stainless Steel	2.08
34F736	CC-MMM	Carbon Steel	.95

NEW STAINLESS STEEL TWEEZERS

Heat and acid-resistant, non-magnetic.

Stock No.	Type	Points	Fig.	NET
34F416	B-3CS	Fine	E	4.05
34F417	B-2SA	Medium	D	4.50
34F418	B-3SA	Fine	E	4.50
34F419	B-3CSA	Fine	E	4.50
34F420	B-SS	Ex-Fine	C	4.60
34F421	B-7S	Fine	B	5.30
34F422	B-7BS	Serrated	B	5.30

NEW ANTI-WICKING TWEEZERS



Type C-88. Protects plastic insulation on wire while soldering. Holes are drilled to .001 inch. Size: 2 3/8" overall.

Stk. No.	Type	AWG/Hole Dia.	NET
34F423	C-88/AWG16	16 .055-.056	5.05
34F424	C-88/AWG18	18 .046-.047	5.05
34F425	C-88/AWG20	20 .035-.036	5.05
34F426	C-88/AWG22	22 .028-.029	5.05
34F427	C-88/AWG24	24 .022-.023	5.05
34F428	C-88/AWG26	26 .017-.018	5.05
34F429	C-88/AWG28	28 .012-.014	5.05
34F457	C-88/AWG30	30 .010-.011	5.05

SOLDERING AIDS



Stainless steel blades won't hold solder. Length, 7"; except *, 6". Shpg. wt., 10 oz.

Stk. No.	Type	Blades	NET
34F724	5I	Fork & Hook	.75
34F725	5IA	Fork & Brush	.75
34F728	5IB	Knife & Brush	.75
34F727	5IC	Fork & Reamer	.75
34F728	5IC1*	Fork & Hook	.75
34F729	5IC2*	Fork & Reamer	.75

HEX DRIVERS



Screwdriver type wrenches for speedy drive socket screws. Tenite handles.

Stock No.	Type	Size	Overall	NET
34F431	S	.05"	4 9/8"	.58
34F432	SA	1/16"	5 1/8"	.56
34F433	SB	3/64"	6"	.60
34F434	SC	3/32"	6 3/8"	.69
34F733	5C1	7/64"	6 3/4"	.72
34F435	5D	1/8"	6 3/4"	.72
34F734	5D1	9/64"	7"	.72
34F436	5E	5/32"	7 3/8"	.72
34F437	5F	3/16"	8"	.79
34F438	5G	7/32"	8 3/8"	.85
34F439	5H	1/4"	9"	1.08
34F445	5I	5/16"	10"	1.25

SCREW HOLDING SCREWDRIVERS



Holds screws tight when inserting or removing. Shock-proof plastic handle. Chrome-finished blade. Shpg. wt., 3 oz.

Stk. No.	Type	Screw #	Length	NET
34F760	10E-3	00 to 2	2 1/2"	2.00
34F458	10E-4	00 to 2	4"	2.00
45F459	10E-7	00 to 2	7"	2.23
34F761	10M-5	3 to 6	5 1/4"	1.88
34F460	10M-8	3 to 6	8 1/4"	2.13
34F461	10M-12	3 to 6	11 1/4"	2.50
34F430	10C	7 to 10	7 1/2"	2.25



Type A11. Long, narrow chain nose pliers, 4 1/4" long. Radius edges don't mar finest wire. Tips are 1 1/8".
34F754. NET 3.55

Type A14-4 1/2. Extra long needle nose pliers, 4 1/2" long. Radius edges don't mar wire. Tips are 1 9/16". For light work.
34F755. NET 4.37

Type A14-6. As above but 6" long. Tips are 2 1/2".
34F756. NET 4.47

NEW FULL FLUSH CUTTERS



Type A90E. Special full flush cutting instrument that will cut flat, nickel ribbon wire. Fitted with alignment pins. Cuts at tip with perfect angle. Size: 4 3/8".
34F462. NET 10.79

Type A90EL. Same as above, but with leaf spring.
34F463. NET 11.10

NEW EREMADIUM CUTTING EDGES

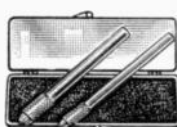
For cutting newer hardened wires containing nickel, iron, etc. Heat treated, hardened, will cut flat nickel wire. High polish heads, vinyl coated grips. Type A86EL. 4 3/4". Cuts at tip. Tapered tip shape. Full flush cut with leaf spring.
34F464. NET 5.75

Type A95EL. 4". Same as above.
34F465. NET 5.63

Type A99EL. 4". Standard diagonal shape. Full flush cut with leaf spring.
45F466. NET 5.31

Type A97EL. 4". Same as above, but semi-flush.
34F467. NET 4.76

KNIFE SET



Type E65B. Two knives and 10 assorted blades for light to heavy work. Comes in plastic box. Shpg. wt., 3 lbs.
34F723. NET 2.32

NICKEL PLATED SCISSORS

For electronic use in cutting very light work. Sharp matched points.



Stk. No.	Type	Length	NET
34F744	F12	3 1/2"	2.63
34F745	F15	5"	2.74

STAINLESS STEEL SCISSOR-CLAMPS

Design for solder clamping. Tempered blades, precision box joint, 5" long. Wt. 2 lbs.



Stk. No.	Type	Blade	NET
34F746	F35	Straight end	4.55
34F747	F36	Curved end	4.55

SELF POWERED CONTINUITY TESTER



Type 54C. For testing continuity on circuits with power off. With penlight batteries. Shpg. wt., 5 lb.
34F721. NET 1.55

CIRCUIT TRACER SET



Model 54. Will visually test dead circuits or circuits with up to 500 volts AC or DC. Shpg. wt., 2 lb.
34F748. NET 4.30

HEAT SINKS



Dissipate heat when soldering small wires. **Heavy Duty Model 51E.** Built for heavy or open work. Has copper jaws and will dissipate a terrific amount of heat. 2" long.
34F491. NET66

Model 51G. For small, delicate work. Extremely small—light weight with tweezer like nose. 1 1/4" long.
34F492. NET58

Model 51F. Has a precision tweezer-like nose that enables it to reach into confined areas. 2" long.
34F493. NET58

WORK POSITIONERS



Type 62A. Pana-Positioner. Pivots 360° on any tangent to a hemisphere. Achieves any compound angle. For use with fixtures below. Shpg. wt., 6 lbs.
34F449. NET 9.30

Type 62P. 4" flat vise jig for use with above. Padded jaws. Shpg. wt., 4 lbs.
34F764. NET 10.05

Type 62U. Rotator jig. U shaped jig for use with Type 62A. 5 to 8" by 10" capacity. Shpg. wt., 4 lbs.
34F765. NET 10.70

Type 62H. Printed circuit holder for use with Type 62A. Turns work 360° in any desired position. Circuit board easily inserted and removed. Shpg. wt., 4 lbs.
34F448. NET 13.50

Type 62. Pana Vise. Bench type vise on Type 62A. 2 1/2" capacity, jaws 2 1/2" wide. Shpg. wt., 12 lbs.
34F766. NET 15.60

POCKET HEX SETS



Easy to use, hard to lose hex sets. Blades cold drawn from 8650 alloy steel. Shpg. wt., 10 oz.

Stk. No.	Type	Hex sizes (in.)	NET
34F541	IP6	.050, 1/16, 5/64, 3/32, 1/8, 5/32	1.22
34F540	IP5	3/32, 1/8, 5/32, 3/16, 1/8	1.22

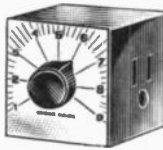
Selected Quality Tools

HUNTER TOOLS



● **NEW NUT DRIVERS WITH HEX HEADS**
Inside-Outside Hex Heads. Tenite II plastic handles-shockproof, non-burning. wt. 48 oz.

Stock No.	Type	Hex. Size	Fits	Net
34F900	19W	5/32"	0 & 1	.91
34F901	20	3/16"	2 & 3	.91
34F902	20A	7/32"	2 & 3	.91
34F903	20B	1/2"	4	.91
34F904	20C	9/32"	4	.91
34F905	20D	5/16"	5 & 6	.91
34F906	20E	11/32"	8	.91
34F907	20F	3/8"	10	.91
34F908	20G	7/16"	12 & 1/4"	1.04
34F909	20H	1/2"	5/16"	1.04
34F910	20HI	9/16"	3/8"	1.18
34F911	20J	1/4"	4	.91
34F912	20I	5/16"	5 & 6	.91
34F913	20K	3/8"	10	.91



4060

● NEW VOLTAGE CONTROL REGULATOR

Type 4060. Controls any soldering iron being used. Most compact unit (1 1/4" cube). Converts standard pencil iron into high soldering unit. Capacity 500 Watts. 34F914. NET 24.51

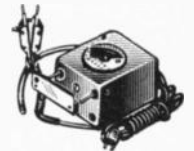
● NEW SOLDERLESS TERMINAL TOOL

Type 55C. Solderless terminal tool that cuts, strips and crimps all standard solderless terminals. Makes firm crimp that holds terminal securely. Wt. 4 oz.

34F916. NET..... 2.01



55C



80G

● NEW THERMAL WIRE STRIPPERS

Type 80G. Silver Electrodes eliminate oxidation. Nichrome wire, silver leads give ideal current connection and conduction. Rheostat wound 80+ for any degree of heat at tips. Alignment is adjustable. Most exposed parts are silver plated or stainless. Plier is 8" long, 1/2" wide at tips, 2 1/2" wide at handle. 7/8" thick with 36" cord. Plier stripper weighs only 8 oz. Total unit only 3 lbs.

34F915. NET..... 78.00

JONARD INDUSTRIES INC.

"DIAMFILE" DIAMOND CLEANER-BURNISHER

For contacts and relays. Strong abrasive power. Non-clogging. Contact face will remain perfectly polished due to uniformity of the diamond particles. Flexible dielectric plastic shaft. Relay can be serviced without power shutoff. 3 grades of spatulas for every application. Single spatulas come packaged in individual plastic box. Set of 3, either assorted or all of one type, in rigid plastic container.



14.85

35F1100. Type K-234. Kit of 3. NET..... 4.95
35F1101. Type D-200. Coarse, Green, 2 diamond faces. NET..... 4.95
35F1102. Type D-300. Medium, Red, 2 diamond faces. NET..... 4.95
35F1103. Type D-400. Fine, Blue, 1 diamond face. NET..... 4.95

ADJUSTMENT OFFSET WRENCHES



For adjusting relay locknut positioned horizontally or vertically. Knurled barrel. One end bent 90° to reach into awkward areas. Tapered.

Stk. No.	Type	Length	Opening	NET
35F1104	DW-16	8"	3/16"	2.95
35F1105	DW-32	8"	7/32"	
35F1106	DW-4	8"	1/4"	

PENFILE POCKET CLEANER-BURNISHER

For all type contacts. Non-residual blades do not leave grit or dust on contact. Hard-tempered steel blade. Adjustment of flexible blade—length and rigidity—is possible by varying depth in chuck. Plastic dielectric cap permits working on "live" and dangerous contacts. 5 1/2" length x 3/8" dia.

35F1107. Type P-4 Penfile. With 12 blades, 1/4W. x 1 1/4L. x .007" thick. NET..... 3.90

35F1108. Type P-6 Penfile. With 12 blades, 3/16W. x 1 3/4L. x .007" thick. NET..... 3.90

35F1109. Type RB-4. Replacement blades for P-4. Pkg. 25 pcs. NET..... 3.75

35F1110. Type RB-6. Replacement blades for P-6. Pkg. of 25 pcs. NET..... 3.75



SPRING TENSION GAUGES



G-50



GP-50

Model G-50. Precision readings of spring tension. Engraved scale, front and back, allows for horizontal and vertical reading. Scale, 0-50 gram, at 5 gram intervals. Nickel-chrome finish. 5" length. 35F1111. NET 6.95

Model GP-50. Preset Spring Tension Gauge. Calibration 0-50 gram on both sides at 5 gram intervals. Gauge is preset in seconds, for instant and accurate readings. Lgt., 5 1/4". 35F1112. NET 8.45

MAGNIFYING INSPECTION MIRROR

Type IM-64. General purpose checking. 3x magnification. Lgt., 7 1/2 Dia". 35F1113. NET 86



PRECISION SPRING ADJUSTERS



For adjusting all domestic and foreign type relays. Of tough carbon steel, nickel chrome plated. Dielectric plastic handle. 35F1114. Type SA-2. Chisel-edged, curved both ends for adj. of horizontal relays. .023" W slots. Lgt., 7". NET..... 2.48
35F1115. Type SA-6A. Cross slot one side, lgt. wide slot opp. side. For vert. and horiz. relays. .029" slots, 5 1/2" L. NET..... 2.45
35F1116. Type SA-7. Straight type, for rotary switches and flat-type relays. .015" slot, 4 1/2" lgt. NET..... .99
35F1117. Type SA-16. Double-ended lengthwise slots. .031" slots, 8" overall length. NET..... 2.40
35F1118. Type SA-17. Offset-flat type, for relay contact springs. Slots .023", overall length 8". NET..... 2.95
35F1119. Type SA-20. For closely-set springs. Upward and downward slots. Slots .024", overall length 7". NET..... 3.50
35F1120. Type SA-8. To adjust rotary interruptors and heavy springs, round head. Slot .058", length 4". NET..... 1.98

ARM BENDER WRENCH



Type AB-21. Oblique slot, 120° W x .045" deep. Carbon steel, nickel chrome plated. Overall length, 4". 35F1121. NET 1.30

STOP BENDER



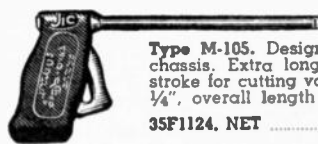
Type SB-22. For adjusting armature back stops. Curved one end. Carbon steel, nickel chrome plated. Slots .033" W., 5" L. 35F1122. NET 1.48

NICKEL SILVER WIRE BRUSH

Type WB-65. For cleaning relays, contacts, and delicate components. Hand-wired. Single row crimped wire filament .005" thick, brush face 3", trim 3/4", lgt. 9" 35F1123. NET 1.75



TRIGGA-SNIP WIRE CUTTER



Type M-105. Designed for easy reach in deep chassis. Extra long nozzle has knob to adjust stroke for cutting various wire sizes. Barrel dia. 1/4", overall length 7". 35F1124. NET 4.75

STRAIGHT THICKNESS GAUGE

Type T-720N. Contains 26 interchangeable blades. High grade steel. 3" L x 1/2" W. 35F1125. NET 3.90



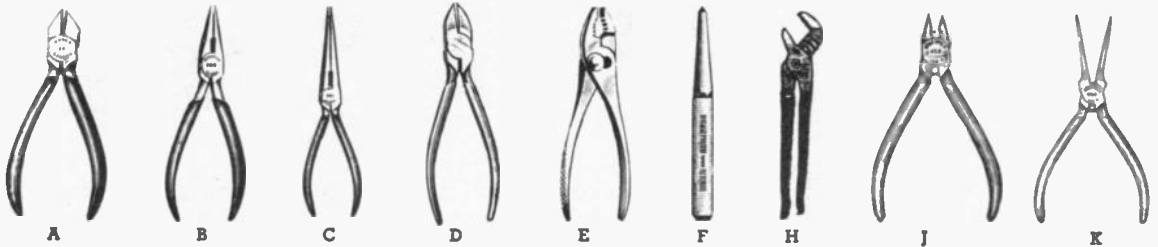
SUPER POCKET MICROSCOPE

Type M-1. Mag., 40, 50, or 60x. W/clip. 35F1126. NET 9.50



Selected Tool Values

KRAEUTER TOOLS FOR INDUSTRY AND ELECTRONICS



Each Krauter tool is heat-treated to exacting specifications. Hammer and drop forged from selected fine grain tool steel. Industrial Pliers rugged serviceable line with full polished heads; individually fitted, tempered and adjusted. Professional Pliers fine needle point pliers for electronic work, jewelers, hobby crafters. Professional Needle Point Pliers: extra fine needle

points for exacting professional and production line use. Vinyl Cushion Grip handles will not crack or peel. Resists water, oil, and chemicals. *Not cushion grip. (†) indicates pliers furnished with cross coil spring and cushion grips. Av. shpg. wt., 1 lb.

Stk. No.	Type	Fig.	Description	1-5	6-up
34F076	37014	A	4½" Needle-pt. diag. cutters	2.94	2.67
34F077	37015	A	5" Needle-pt. diag. cutters	3.17	2.87
34F078	37016	A	6" Needle-pt. diag. cutters	3.67	3.33
34F082	20160†	C	7" Long nose Ndlle-pt. w/o ctr.	3.02	2.73
34F130	27306	E	6" Comb. Plier. Satin Finish	.73	.65
34F166	35014	D	4½" Diag. "Oblique" Cutters	2.43	2.20
34F059	35015	D	5" Diag. "Oblique" Cutters	2.58	2.33
34F060	35016	D	6" Diag. "Oblique" Cutters	2.94	2.67
34F064	36616	B	6" Long Chain Ndlle-nose w/ctr.	2.94	2.67
34F065	36716	B	Same as 36616 but less cutters	2.31	2.07
34F069	26912	F	¾ x 4½" Steel Center Punch*	.67	.60

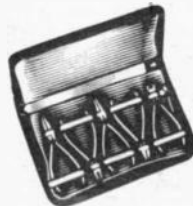
Stk. No.	Type	Fig.	Description	1-5	6-up
34F149	27507	H	6½" Tongue-n-groove Pliers	2.21	2.00
34F118	27510	H	10" Tongue-n-groove Pliers	2.58	2.33
34F145	20121†	K	5" Slim Nose Milled Jaws	3.67	3.33
34F156	20101†	J	4½" Needle pt. Diag. Cutters		
			No Cutter	3.23	2.93
34F146	20140†	K	5" Tapered Long Nose ½½" tip with spring	3.31	3.00
34F167	27206	E	6" Chrome combination Pliers	1.18	1.07
34F168	36415	B	5" Short Chain Nose Cutters	2.65	2.40
34F169	37817	C	7" Long Chain Nose Cutters	3.53	3.20

JEWELERS' PLIERS



These pliers are drop forged from selected fine grain tool steel, accurately machined and heat treated to exacting specifications. Expressly designed for accurate and exacting work in such fields as watchmaking, hobbycrafts, model building, and all phases of electronics. Precision crafted in every detail, with polished heads, Cushion Grip handles. Wt., 5 oz.

No.	Type	Description	1-5	6-up
34F070	20181	4½" Diagonal Cutters	2.65	2.40
34F071	20182	4½" End Cutting Nippers	3.12	2.83
34F072	20183	4½" Chain Nose Pliers	2.50	2.27
34F073	20184	4½" Flat Nose Pliers	2.50	2.27
34F074	20185	4½" Rd. Nose/Jaw Pliers	2.50	2.27



23090

23090 PLIER SET

Five jeweler's pliers in Black Zipper Case. Size 5¼x9¼" when closed. One each Nos. 20181, 20182, 20183, 20184 and 20185. Shpg. wt., 1 lb.
34F132. NET 14.70
6 up. NET 13.33

23089 PLIER SET

Three jeweler's pliers in Black Zipper Case. 5¼x6¼" when closed. One each Nos. 20181, 20183 and 20184. Shpg. wt., 12 oz.

Stk. No.	Type	1-5	6-up
34F131	23089	9.55	8.67

AVIATION SNIPS



Steel drop forged blades for fast, easy cutting of circles, squares and irregular patterns. Color-coded, cushion-grip handles for instant identification.

Stk. No.	Type	Description	1-5	6-up
34F170	27801	Cuts left	3.82	3.47
34F171	27802	Cuts right		
34F172	27803	Cuts Straight		

KLEIN TOOLS

"CUSTOM" CUSHION GRIP SCREWDRIVERS



Made of alloy tool steel, heat treated. Chrome-plated finish prevents rust. Amber plastic shock-proof bolstered handle is nonflammable and secured to steel shaft. *Has heavy duty blade. 50% greater torque.

Stock No.	Type	Description	Blade Size	NET
34F100	600-4	Square Shank*	4x¼"	1.00
34F101	600-6	Square Shank*	6x¼"	1.34
34F102	600-8	Square Shank*	8x¼"	1.60
34F103	602-3	Round Shank*	3x¼"	.90
34F104	602-4	Round Shank*	4x¼"	.90
34F105	602-6	Round Shank*	6x¼"	1.13
34F106	602-8	Round Shank*	8x¼"	1.40
34F107	601-3	Round Shank	3x¼"	.73
34F108	601-6	Round Shank	6x¼"	.77
34F109	601-8	Round Shank	8x¼"	.80
34F110	601-10	Round Shank	10x¼"	.90
34F111	603-3 #1 pt.	Super Hard Phillips	3x¼"	.73
34F112	603-4 #2 pt.	Super Hard Phillips	4x¼"	.93
34F085	604-3	Plastic Handle Screwdriver Without Cushion Grip	3x¼"	.50

TUBULAR STEEL HAMMER



Type 806-18. Long neck, narrow striking face of 1" diameter. Head is straight claw pattern of drop forged steel. Tubular steel handle with cushion grip. Weight of head—18 oz. 14" long. Shpg. wt., 2 lbs.
34F045. NET 4.18



Type 1305-33A

POCKET TOOL ROLL

Type 1305-33A. 1 pr. side cutting pliers, nose and oblique cutting pliers, electrician's tweezers. Also file, screwdriver, electrician's knife. Size rolled: 8x2½". Wt., 2 lbs.
34F047. NET 16.51

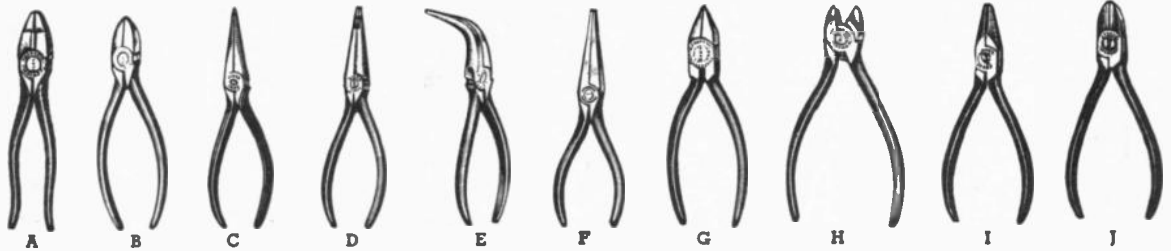
ELECTRICIAN'S KNIFE



Type 1550-2

Type 1550-2. Knife and screwdriver blades of carefully tempered, high-grade cutlery steel. Locking feature on screwdriver. Handle of durable plastic. Shipping wt., 5 oz.
34F022. NET 1.84

Tools & Accessories M. KLEIN

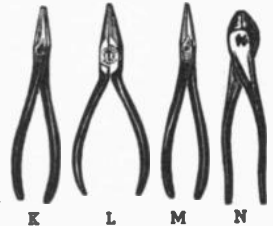


KLEIN PLIERS AND CUTTERS

No.	Type	Fig.	Description	NET
34F000	201-6 NE	A	6" Streamlined Side Cutter	2.84
34F001	201-8 NE	A	8" Streamlined Side Cutter	3.61
34F003	D202-5	B	5" Narrow-Nosed Oblique Cutter	2.64
34F004	D202-6	B	6" Narrow-Nosed Oblique Cutter	2.68
34F005	D202-5 SW	...	5½" Bell System Oblique Cutter	3.11
34F006	D242-6	B	6" Heavy-Duty Oblique Cutter	3.18
34F008	D301-5	C	5" Long Nose Pliers	2.21
34F009	D301-6	C	6" Long Nose Pliers	2.27
34F010	D301-7	C	7" Long Nose Pliers	2.37
34F011	D203-5	...	5" Long Nose Side Cutter	2.51
34F012	D203-6	...	6" Long Nose Side Cutter	2.64
34F013	D203-7	...	7" Long Nose Side Cutter	2.98
34F014	D303-6	...	6" Long Needle Nose Pliers	2.27
34F015	D305-6	F	Flat Nose Inside Knurled	2.47
34F016	D302-6	E	6" Long Curved Nose Pliers	2.84
34F024	D203-5	G	5" Oblique Cutters, Pointed Nose	2.84
34F025	D307-5½	...	5½" Slim Long Nose Pliers	2.27
34F090	D224-4½	...	4½" Midget end cutting plier	2.54
34F092	D257-4	J	4¾" Mid. oblique cut. plier	2.07
34F094	D321-4½	L	4¾" Midget long nose plier	2.01
34F096	D322-4½	L	Same as 321-4½ but without knurl	2.14
34F114	D314-8	M	8" Long nose plier	3.11
34F115	D315-8	K	8" Duck bill plier	3.18
34F117	D228-8	N	8" Hi-Lever. Diag. cutting plier	2.94
34F123	D318-5½	...	5½" Long Needle Nose Plier	2.44

**TOOLS FOR RADIO MEN—
ELECTRICIANS**

All tools have dipped plastic handles except 34F000 and 34F001. All Klein Pliers are hammer forged from high-grade alloy steel. These tools are available in types and sizes to fit all radio and electrical applications. Plier heads are highly polished and handles are tempered blue. 34F024 has a pointed nose and extremely narrow head. Av. shpg. wt., 9 oz.



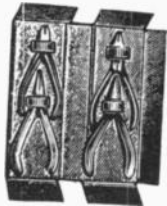
KLEIN PLIERS AVAILABLE WITH COIL SPRING

The pliers listed here come with plated coil spring to hold the jaws in open position. The sturdy spring is guaranteed for the life of the plier. Inside and outside are left free of any obstruction due to the spring. Long nose pliers have ¼" diameter points. 203-6C and 203-6-SCP have side cutting knives. 052-C cuts the wire on printed circuits and crimps the end to keep wire in place, permitting efficient dip soldering.

No.	Type	Fig.	Description	NET
34F032	D301-6P-C	D	6½" Long Nose Plier/Knife Point	3.55
34F033	D317-6P-C	D	6" Long Nose Plier/Knife Point	3.35
34F034	D301-6-SCP-C	...	6½" Needle Nose Plier with side cutting knives	2.88
34F035	D203-6-SCP-C	...	6½" Needle Nose Plier with side cutting knives	3.28
34F020	D203-5-C	...	5½" Long Nose Side Cutting Plier	2.71
34F021	D203-6-C	D	6" Long Nose Side Cutting Plier	2.78
34F028	D209-5C	G	5" Oblique Cutting Plier	3.04
34F018	D202-5-C	B	5½" Oblique Cutting Plier, narrow nose	2.84
34F019	D202-6-C	H	6" Oblique Cutting Plier, narrow nose	2.88
34F027	D052-C	...	5" Printed Circuit Cutting Plier	3.01
34F044	D208-6C	...	6½" Shear Cutting Plier	3.41
34F088	078K	...	Blade & Screw for 208 (6C & 6NC)	.87
34F087	D207-5C	...	Shear Cutting Oblique Cutters	3.48
34F089	077K	...	Blade and Screw for 207-5C	.87
34F113	D322-4½C	L	4¾" Midget long nose plier	2.34
34F091	D224-4½C	L	4½" Midget end cutting plier	2.74
34F093	D257-4C	L	4¾" Mid. oblique cut. plier	2.27
34F095	D321-4½C	L	4¾" Midget long nose plier	2.21
34F126	D229-5C	...	5" Wire Gripping oblique cutter	5.22
34F128	D310-6C	...	6½" Slim Long Nose Plier	2.54

4 PIECE PLIER KIT

Model No. 1305-4. All-purpose kit containing 4 top quality drop forged, high grade alloy tool steel pliers. Each individually fitted, tempered, adjusted and tested for maximum performance. Kit includes: 1 No. D-257-4 Oblique Cutting Pliers, 1 No. D224-4½ End Cutting Pliers, 1 No. D321-4½ Long Nose Pliers, 1 No. D-323-4½ Duck Bill Pliers. Top grade leatherette case. Shpg. wt., ¾ lb. **34F127. NET 10.25**



ALL PURPOSE 6 in 1 ELECTRICIAN'S TOOL

Type 1000. Strips six wire sizes 10-22 gauge; stripping holes provide wire gauge. Has wire cutter and stud gauge #4-¾" stamped on face of tool. Crimps insulated terminals. "Comfort-grip" handles. Lgth. 7½". Shpg. wt., 8 oz. **30F998. NET 3.97**



ELECTRICIANS WAIST BELT

Lightweight. Made of harness leather with tool loops and tape thong. **34F041. Type 5207M. 32-40". NET 4.00**
34F042. Type 5207L. 38-46". NET 4.00



Type 5207M

COMBINATION TOOL POUCH

Type 5127. Has gusseted utility pocket, three plier pockets, two screwdriver pockets and knife snap. May be used with 5207 waist belt. 7" x 10". Wt. 12 oz. **34F086. NET 4.85**



Type 5127

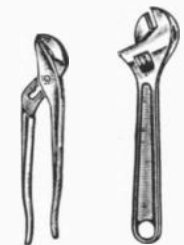
ELECTRICIAN'S SCISSORS

Type 2100-5. 5" scissor. Will stand rugged service. High-grade steel, tempered. Nickel plate finish. Wt. 6 oz. **34F023. NET 2.21**

KLEIN PUMP PLIERS

Jaws are positioned and locked into place for desired size opening by engaging a tongue in proper groove. Furnished with yellow plastic handles. Av. shpg. wt. 2 lbs.

Stk. No.	Type	Length	Max. Cap.	NET
34F097	D502-10	10 in.	1½ in.	2.56
34F098	D502-12	12 in.	2½ in.	3.01
34F099	D502-16	16 in.	4½ in.	4.15



Type 502 Type 500

ADJUSTABLE WRENCHES

Type 500. Adjustable end wrenches for any purpose. Drop forged, chrome plated.
34F129. D500-4. ½" capacity x 4"..... 2.27
34F037. D500-6. ¾" capacity x 6"..... 2.31
34F038. D500-8. 1 ¼" capacity x 8"..... 2.61
34F039. D500-10. 1 ½" capacity x 10"..... 3.21
34F040. D500-12. 1 ¾" capacity x 12"..... 4.69

HIP POCKET TOOL CASE

Type 5111. Safe way for carrying sharp or pointed tools; keeps tools handy. Harness leather. Size: 5x7". Wt., 6 oz. **34F048. NET 2.75**



Type 5111

**NEWARK Saves You Time and Money—
One Purchase Order—To One Source
for All Electronic Components.**

Tools

GENERAL HARDWARE TOOLS



QUALITY CIRCLE CUTTERS

Fig. A. Cut round holes in metal, wood, bakelite, etc. May be used in slow speed drill press, hand drill or brace. Fully adjustable. Drill acts as pilot. Wt., 8 oz.

No.	Type	Shank	Size	NET
34F570	JR-00	Comb. 1/4"	3/8" to 2 1/2"	1.25
34F571	4	Comb. 1/4"	7/8" to 4"	1.82
34F572	5-A	Square	1" to 5 1/2"	2.48
34F573	5-B	Round 5/16"	1" to 5 1/2"	2.48

34F574. Extra blade. Types 4, 5-A or 5-B circle cutters above. 4 oz. NET.....59

Fig. B. Type 55. Cuts holes from 1 3/4" to 8" dia. Made of tool steel with Jessup cutting bits. 1/4-20 hollow set screws give position adjustment. Drill acts as pilot. Has 1/2" shank to fit 1/2" chuck. Set screw wrench included. Shipping wt., 8 oz.

34F575. NET.....4.79

34F576. Extra blade for above. NET.....99

CHASSIS LAYOUT TOOLS

Model 83. Fig. C. Pocket Scribe. Hex head, steel case, locking chuck. 2 1/4" tapered point may be reversed. Size, 4 3/4".

34F560. NET.....66

Model 15. Fig. D. Drill and Wire Gauge. Decimal equivalents for sizes 1 to 60. Lists taps and body drill sizes 1/4-28 to 2-56.

34F561. NET.....1.58

Model 16. Fig. E. Multi-Use Rule & Gauge. A 4" rule in 32nds and 64ths, drill point gauge, square, bevel protractor, center finder, circle divider, tap drill table. In vinyl plastic case. Wt., 4 oz.

34F562. NET.....1.58

Model 310. Fig. F. 6" Steel Rule and Wire Gauge. Gives 32nd and 64th graduations, B and S wire gauge and decimal equiv.

34F563. NET......50

Model 301. Fig. G. 6" Pocket Rule and Depth Gauge. Only 1/4" wide. Gives readings in 64ths. With handy pocket clip.

34F564. NET......14

MACHINISTS HAND VISE

Model 815. Ideal for jobs where portability and flexibility are desired. Hard steel knurled jaw faces grip any object securely and safely. Has spring tension wing nut adjustment. Wt., 1 lb.

34F444. NET.....2.64

AUTOMATIC CENTER PUNCH—TYPE 79

Constructed of shock-resistant alloy steel. Pressure adjustable. Ideal for rapid center on stock. Tips replaceable. 5x1/2" dia. 5 oz.

34F565. NET.....3.30

34F566. Type 79P. Extra point. NET.....42

ADJUSTABLE FILE AND TOOL HOLDER

Fig. H. Model 890. Ideal for factory and home workshop. Holds hacksaw blades, files, knife blades, reamers, scriber points, etc., in a vise-like grip. Knurled knob assures easy and positive locking. Wt., 8 oz.

34F578. NET......80

RATCHET TAP WRENCH

Fig. J. Model 160R. Made of hardened and tempered tool steel. Self-equalizing jaws, positive ratchet, sliding-T-handle. Opening capacity: 1/32 to 1/2". Wt., 8 oz.

34F579. NET.....3.80

HAND DRILL AND PIN VISE

Fig. K. Model 92. A precision tool with two reversible collets for holding drills, taps, wire, etc. from the smallest size .0 to +0 .125. Has large free-wheeling swivel head. Size: 4" long, 5/16" body dia., 3/4" head. Wt., 5 oz.

34F580. NET.....1.32

549-4 ADJUSTABLE INSPECTION MAGNIFIER

Fig. L. 4" powerful ground and polished lens. 12" chrome plated adjustable Gooseneck Arm. Ball joint swivel permits easy adjusting. Sturdy cast-iron base for bench or table use. Wt., 4 lbs.

34F620. NET.....7.43



INSPECTION MIRROR

Type 558. 2"x1" oval inspection mirror. Adjustable 6" knurled brass plated handle.

34F443. NET.....1.32

ALNICO POWER MAGNETS



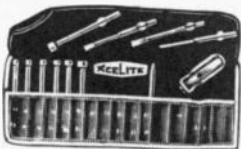
Extremely high magnetic pull for uses in labs, schools, workshops, etc. Lifts, sorts, or retrieves steel, or iron parts. Hole in top permits attaching a bolt, screw or rod. Red lacquer finish, and nickel plated keeper.

34F440. Type 370-2. 2-Oz. NET. 1.08

34F441. Type 370-4. 4-Oz. NET.....1.98

34F442. Type 370-6. 6-Oz. NET.....2.64

NUT & SCREW-DRIVER KIT



Type 99-JR. Seven nut-drivers, plus two slotted and two Phillips screwdrivers. Bright chrome-plated blades interchangeable into sturdy plastic handle.

34F389. NET.....8.28

SCREWDRIVER SET

Type CK-3. Consists of 3 dual-purpose screwdriver blades in plastic roll. Includes RB-1 shaft with 3/16" regular and No. 1 Phillips blades, RB-2 shaft with 1/4" regular and No. 2 blades, RB-3 shaft with 5/16" regular and No. 3 blades, plastic handle. Wt., 1/2 lb

34F394. NET.....3.69

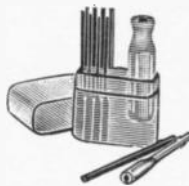


SCREWDRIVER KIT

SK-20 SB1, SB2 blades and No. 26 Handle in snap type case. Wt., 1/4 lb.

34F372. NET.....2.49

ALLEN HEX TYPE SCREWDRIVER SET



Type 99PS-40. Contains 99-20, 21, 22, 23, 764, 24, 964, 25, and 26 Allen Hex Type Screwdriver Blades; 99-X5 Extension Blades; and 99-1 Regular Handle, in see-thru, clear Plastic Case. Hexagonal head sockets are precision-formed, cold-drawn, case hardened steel.

34F339. NET.....6.75

34F339. NET.....6.75

34F339. NET.....6.75

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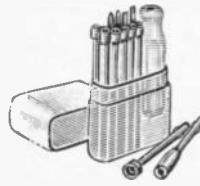
34F339. NET.....6.75

34F339. NET.....6.75

34F339. NET.....6.75

34F339. NET.....6.75

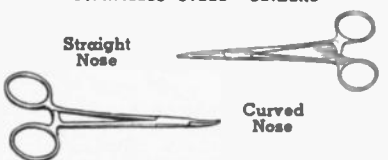
COMPACT SET OF SCREW AND NUT-DRIVERS



Type 99PS-50. Contains 99-6, 7, 8, 9, 10, 11 and 12 Nut-drivers; 99-811 and 812 Slotted Screw-drivers; 99-821 and 822 Phillips Screw-drivers; 99-X5 Extension Blade; and 99-1 Regular Handle, in see-thru Plastic Case.

34F341. NET.....8.55

STAINLESS STEEL "SEIZERS"



5" and 6" straight and curved nose models are a remarkably versatile tool with unusual holding qualities. Clamps tightly. Holds wires for soldering and retrieves small parts from hard to reach places. Smooth jaws won't mar delicate materials. 5" models are glimmer. Shpg. wt., 6 oz.

34F370. 42H 6" Straight Nose. NET.....3.93

34F371. 43H 6" Curved Nose. NET.....4.07

34F373. 42H 5" Straight Nose. NET.....3.93

34F374. 33H 5" Curved Nose. NET.....4.07

JEWELERS' SCREWDRIVER SET



Type S-600. Set of six. Sizes: 0, 1, 2, 3, 4, 5. Swivel head with removable blade. 3" long, 1/4 lb.

34F577. NET.....3.47

Top-Quality Drivers and Tools



SHOCK-PROOF SCREWDRIVERS

Tips ground to rectangle shape. Handles are amber plastic. *Have 1/2" dia. handles. †Have 3/4" dia. handles. ‡Stubby types. 8 oz.

SQUARE BLADES

Stk. No.	Type	Blade Size	NET
34F276	S-141‡	1/4x1 1/4"	.51
34F275	S-3161‡	3/8x1 1/4"	.48
34F203	S-3163	3/8x3"	.66
34F204	S-3164	3/8x4"	.72
34F205	S-3166	3/8x6"	.84
34F206	S-3168	3/8x8"	.96
34F207	S-31610	3/8x10"	1.14
34F208	S-142	1/2x2"	.75
34F209	S-144	1/2x4"	.90
34F210	S-146	1/2x6"	.99
34F211	S-148	1/2x8"	1.11
34F212	S-5162	5/16x2"	.81
34F213	S-5166	5/16x6"	1.14
34F214	S-5168	5/16x8"	1.26
34F217	S-388	3/8x8"	1.50
34F218	S-3812†	3/8x12"	2.40
34F219	S-3818†	3/8x18"	2.70

ROUND BLADES

34F250	R-3322*	3/32x2"	.30
34F251	R-3323*	3/32x3"	.33
34F252	R-3324*	3/32x4"	.33
34F254	R-182†	1/8x2"	.36
34F253	R-183†	1/8x3"	.33
34F255	R-184†	1/8x4"	.42
34F256	R-186†	1/8x6"	.48
34F257	R-188†	1/8x8"	.57
34F258	R-1810†	1/8x10"	.69
34F259	R-5323†	5/32x3"	.45
34F260	R-5324†	5/32x4"	.45
34F261	R-5325†	5/32x5"	.48
34F262	R-5328†	5/32x8"	.63
34F263	R-3163	3/16x3"	.60
34F264	R-3164	3/16x4"	.69
34F265	R-3166	3/16x6"	.75
34F266	R-3168	3/16x8"	.87
34F267	R-31610	3/16x10"	.99
34F269	R-144	1/4x4"	.87
34F270	R-146	1/4x6"	.96
34F271	R-148	1/4x8"	1.02
34F272	R-1410	1/4x10"	1.08
34F273	R-5166	5/16x6"	1.08
34F274	R-5168	5/16x8"	1.17
34F277	R-181	1/8x2"	.30



PHILLIPS SCREWDRIVERS

Screwdrivers for Phillips-head screws. of special alloy steel. Av. wt., 5 oz.

Stk. No.	Type	Size	Blade	NET
34F290	X-101	1	3"	.75
34F291	X-102	2	4"	.93
34F292	X-103	3	6"	1.26
34F293	X-104	4	8"	1.59
34F294	X-108	1	6"	.84
34F295	X-1010	1	10"	1.14
34F296	X-1020	2	10"	1.29
34F287	SX-101	1	1 1/2"	.69
34F288	SX-102	2	1 1/2"	.78
34F289	P-12S	0	2"	.39



DUAL PURPOSE SCREWDRIVERS

Handy screwdrivers with reversible blades. Type CR1 is for 3/16" and No. 1 Phillips screws, type CR2, 1/4" and No. 2 Phillips screws. 7" L. CR3 for 3/16" and No. 3 Phillips screws.

34F298. Type CR1.
34F299. Type CR2. NET
34F297. Type CR3. EACH 1.47

BERYLLIUM-COPPER SCREWDRIVERS

Non-sparking, non-magnetic screwdrivers for TV localizer adjustments, etc.

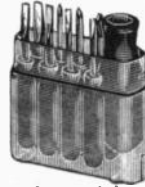
Stk. No.	Type	Blade	Length	NET
34F379	BR-186	1/8x6"	8 3/4"	.84
34F380	BR-1810	1/8x10"	12 3/4"	.96
34F381	BR-3168	3/16x8"	11 3/4"	1.44

SCREWDRIVER KIT

SK-20 SBI, SB2 blades and No. 26 Handle in snap case. Shpg. wt., 1/4 lb. 34F372. NET 2.49

NEW SCREWDRIVER SET

Model PS88. 5 slot tip screwdrivers—3/32", 1/8", 5/32", 3/16", and 1/4"; 3 Phillips—all 3 1/2" pocket size; 1"x3" hollow handle and case. Compact and convertible, does more jobs with fewer tools, saves bench space. "Torque amplifier" handle slips over handles to give better grip. Shpg. wt., 3 lbs. 34F375. Net 6.55



pocket tool handles to give better grip. Shpg. wt., 3 lbs.



NUT-DRIVERS

Most popular sizes. 6" long over all. Made of hardened and polished tool steel. Color-coded plastic handles. 4-oz.

Stk. No.	Type	Nut Size	Handle	NET
34F300	6	3/16"	black	.78
34F301	7	7/32"	brown	
34F302	8	1/4"	red	
34F303	9	9/32"	orange	
34F304	10	5/16"	amber	
34F305	11	11/32"	green	
34F306	12	3/8"	blue	.99
34F307	14	7/16"	brown	
34F308	16	1/2"	red	

POCKET STYLE NUTDRIVERS



All handles are color coded. Pocket Clip.

Stk. No.	Type	Size	Handle	NET
34F330	P4	1/8"	Red	.51
34F331	P5	5/32"	Amber	
34F332	P8	1/4"	Red	
34F333	P10	5/16"	Amber	
34F334	P12	3/8"	Blue	

NEW "TRAY BIEN" NUTDRIVER SETS

Nutdrivers have carbon steel shafts. Case-hardened sockets. Plastic (UL) handles color coded. Features lightweight plastic case. Wall mounting holes. Compact. Easily stacked.

Model 127TB. Solid shaft nutdriver set. Blade length: 3", overall length 6". Handle dimensions: 1x3". Hex openings range from 3/16 to 3/8" in 1/32" steps. Features a wide variety of colors. 34F366. NET 6.60

Model 137TB. Solid and hollow shaft nutdriver set. Features hex openings from 3/16 to 3/8". Similar to 127TB except 2 nutdrivers have overall lengths of 7 1/4", handle dim. of 1 1/2 x 4 1/8", and 3/8" blade lengths. 34F367. Net 7.35

Model 147TB. Hollow shaft nutdriver set. Features hex openings of 1/4 to 1/2". First 5 nutdrivers have 7" lengths, 1" x 3/8" handle dim. 4 3/4" D. of clearance holes. Last 2 have 6" depths, 7/16" lengths, 1 1/2 x 4 1/8" dim. 34F368. NET 8.70



HOLLOW SHAFT NUT-DRIVERS

Ideal for use where nuts must be installed or removed over protruding bolts. Finely-tempered and finished steel. *Volume control wrench. Shpg. wt. 6 oz.

Stk. No.	Type	Nut Size	Lgth.	NET
34F319	HS-8	1/4"	8"	.93
34F320	HS-10	5/16"	6"	
34F321	HS-11	11/32"	6"	
34F322	HS-12	3/8"	6"	
34F323	HS-14	7/16"	7"	1.05
34F324	HS-16	1/2"	7"	1.08
34F325	HS-18*	9/16"	7"	1.14
34F326	HS-20*	5/8"	7"	1.26

NEW 10 PC. NUTDRIVER SET

Model HS6-18. Contains ten hollow shaft sizes: 3/16" to 3/8" in 1/32" steps. Plastic carrying case. Polished and plated blades. Color coded. Plastic handles. Shpg. wt: 3 lbs. 34F376. NET 18.50



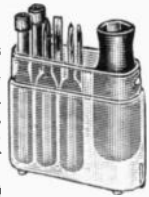
PORTABLE NUTDRIVER SET

Type 77. Handy pebble-grain plastic carrying case contains type 6, 7, 8, 9, 10, 11 and 12 nut-drivers as described at top of this column. Color-coded handles indicate size at a glance—you reach for the right one every time. Shpg. wt., 2 lbs. 34F342. NET 6.75



PS7 SCREWDRIVER AND NUTDRIVER SET

Contains two 3 1/2" long, color coded nutdrivers with hex opening of 1/4" and 3/16" plus four 3 1/2" long, color coded screwdrivers, blade sizes: 3/16, 7/32, #0 and #1 Phillips head. Supplied with amplifier handle. 2 lbs. 34F335. NET 3.60



PS120 NUTDRIVER SET

Contains color coded nutdrivers in 10 graduated sizes: 3/32 - 1/8 - 5/32 - 3/16 - 7/32 - 1/4 - 9/32 - 5/16 - 11/32 - 3/8". Supplied with amplifier handle which increases torque, and clear plastic carrying case. 2 lbs. 34F336. NET 5.55

THE SERVICEMAN'S COMPLETE KIT



Type 99-SM. SET CONTAINS: No. 52CG long nose plier; No. 55CG Diag. plier; No. 46C Adj. wrench; No. 99-5 thru-12, -14 -16 (regular) and No. 99-S8, -S10, -S12 (stubby) Nutdrivers; No. 99-811, -812 (slotted) and 821 (#1 Phillips) Screwdrivers; No. 99-38, -39 Reamers; No. 99X10 Extension; No. 99-1 (regular) and 3 (stubby) Handles. Wt. 2 3/4 lbs. 34F388. NET 24.87

MULTI-PURPOSE KIT

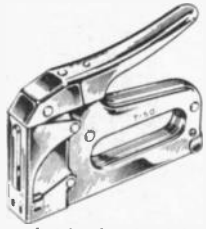
Type 99 PB. Consists of 9-nut-driver shafts, 1-double-ended screwdriver shaft, 1-type 99-82 reversible Phillips screwdriver blade, and 1-combination plastic handle for all units. Nut-driver sizes: 3/16", 7/32", 1/4", 9/32", 5/16", 11/32", 3/8", 7/16", and 1/2". Screwdriver sizes: 3/16" and 9/32"; Phillips Nos. 1 and 2. Wt., 3 lbs. 34F395. NET 9.42



MULTI-PURPOSE ACCESSORIES

34F396. Type 99-82. Reversible Phillips blade for Nos. 1 and 2 screws. 1/2 lb. 34F397. Type 99-83. Reversible Reed and Prince blade for Nos. 1 and 2 screws. NET EACH 1.02
34F398. 99-1 Hndl. only for 99 PR set69

Staplers and Tools

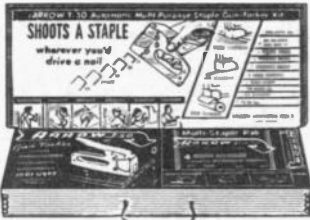


STAPLE GUN TACKER

Type T-50. All-purpose heavy duty staple gun which is also ideal for do-it-yourselfers. Rugged steel const. permits almost any heavy-duty nailing job. High powered spring action. All chrome finish. Loads (8S) T-50 staples. Double leverage permits "squeeze pressure to penetrate hardwood board. Shpg. wt. 3 lbs.

34F633. NET	10.41
1/4" staples. Box of 5000.	
34F627. NET	2.08
3/8" staples. Box of 5000.	
34F628. NET	2.29
1/2" staples. Box of 5000.	
34F629. NET	2.71
9/16" staples. Box of 5000.	
34F634. NET	2.92

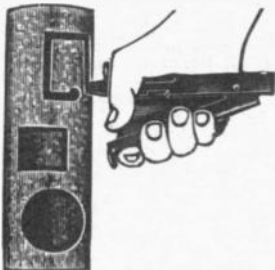
T-50 MP AUTOMATIC MULTI-PURPOSE STAPLE GUN-TACKER SET



• Tool-Chest Carry-Pak
• Handy, Portable Tool-Chest Carry-Pak
Model T-50MP. Speed up hundreds of operations. Permits up to 5 times faster operation than conventional hammer-and-nail production. Use for carpentry, installing insulation, ceiling tile, wire-fence maintenance or installation, upholstering, woodworking, etc. Kit includes one T-50 Automatic Stapling Gun, 2000 1/4" staples, 1000 3/8" staples, 1000 1/2" staples, 1000 9/16" "Cellitile" staples, and SL-50 staple lifter. Features new wire, shade and screen attachments. Shp. wt. 5 lbs.

34F626. List 17.50 NET 14.57

ADEL HAND NIBBLING TOOL



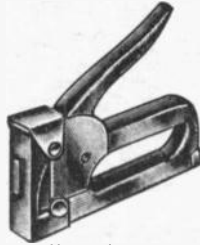
Now you can make any size or shape hole over 1/16" dia. in any type of sheet metal! Bites right through 18-gauge steel or 1/8" aluminum, copper or plastic. Takes sharp angles and tight curves with ease. Metal edges stay flat and smooth after cut. Shipping weight 8 oz.

33F670. Net. 1-11 Each 3.95

12-71 Each 3.80 72 up Each 3.40

Replacement Punch for above
33F671. NET 1.97

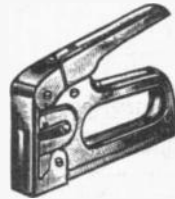
ARROW STAPLE GUNS



JUNIOR TACKER

Type JT-21. Ideal gift item for any home owner or apartment dweller. Takes two staple sizes for numerous household uses like screening, upholstery, shelving, lining, etc. Easy to operate, fits hand comfortably. Tacker locks to fit in pocket, and prevent accidental firing. Built-in staple extractor in rear of base. Attractive colors. Loads 100 JT-1/4" or 3/16" staples. Shpg. wt. 1 1/4 lbs.

34F638. NET	3.97
34F639. 1/4" staples for JT21.	
Box of 5000. NET	2.25
34F640. 3/16" staples for JT21.	
Box of 5000. NET	2.25



Type T-32. Fast, stapling tool for tacking down twine, lead, signs, etc. Hold tacker against surface and squeeze—staple is immediately driven in. Shoots a staple wherever a tack can be driven. Operates at trigger rate

speed. Chrome-plated steel. Pocket size. Shpg. wt. 2 lbs.

34F630. NET	8.74
Staples. For gun tacker described above.	
Easy to insert. Length, 3/16". Contains 5,000 staples. Wt., 1 lb.	
34F631. NET	2.08

INTERMEDIATE TACKER



Type T55. Smart, modern streamlined design with attractive, durable baked enamel finish. Shock-absorber bumper. Removable frame and channel for easy fieldcleaning. Patented jam-proof mechanism. High carbon, hardened steel working parts. Non-pinch, easy-grip handle. All steel construction. This lightweight model serves as a junior substitute for the heavy duty T-50. A capable and economical tool for the "do-it-yourself" homeowner. Uses same staple size as T-50.

34F622. NET 7.45

WIRE STAPLE GUN



Type T-25. Fast-action wire staple gun for low-voltage wiring. Shoots round crown staples in 1/1,000 second... reaches tight places inaccessible to a hammer. Wt.. 3 lbs.

34F635. NET	12.49
7/16" staples. Box of 5000.	
34F636. NET	3.33
3/8" staples. Box of 5000.	
34F623. NET	3.33
9/16" staples. Box of 5000.	
34F624. NET	3.74

HANSON-ACE QUALITY TOOLS



ADJUSTABLE DIES TAP AND DIE SET SCREW EXTRACTOR SET

Type 614V Adjustable Dies. 39 tools, each in its own easy-to-reach compartment. Sturdy, unbreakable plastic case. Contains one each of the following: No. 25 die stock, No. 88 tap and reamer wrench, No. 1E T tap wrench, No. 514 screw pitch gauge, screw driver and one each tap and adjustable die in the following sizes: 4x36, 6x32, 8x32, 10x24, 10x32, 12x24 machine screw standard, 1/4x20, 5/16x18, 3/8x16, 1/2x14, and 1/2x13NC (U.S. Standard), 1/4x28, 5/16x24, 3/8x24, 1/2x20, and 1/2x20NF (SAE Standard) plus 1/8" pipe. Type of die, 1" O.D.

33F651. NET 28.04

Type S20 Screw Extractor Set. Designed to remove broken screws, bolts, studs and pipes that cannot be taken out any other way. Drill hole in broken piece... counterclockwise turning of extractor wedges it in hole. Screw removed on its own threads. No. 2 extractor removes screws 5/32 to 3/32" dia., No. 3 removes 3/32 to 9/32" dia., No. 4 removes 9/32 to 3/8" dia., No. 5 removes 3/8 to 3/8" dia., 1/8 and 1/4" pipe. Scientific heat treatment makes alloy steel extra tough. Wt., 1 lb.

33F652. NET 2.52

TAP AND DIE SETS

Highest quality, precision ground steel makes these sets ideal for mechanics, technicians, or homeowners. Set comes furnished with: 1 each plug tap and die, 6x32, 8x32, 12x24, 10x24, 1/2x20; type of

die, 1" O.D., solid, all steel tap wrench. These compact sets are packed in a sturdy wooden carrying case. Wt., 3 lbs. Type S21

MICROMETER—Type 100RS
Accuracy guaranteed to .0005". Screw type anvil makes zero adjustment easy Spring Friction Stop; thimble and ratchet assures greater accuracy. Frame, thimble and ratchet are fully chromed. Wt., 6 oz.

33F585. NET 4.32

TAPERED REAMER—Type R120
This high quality tapered reamer was primarily designed for enlarging holes in wood, bakelite, or metal up to 1/2" in diam. Shank has 1" handle. Length, 5 3/4". Tapered point has diameter of 1/8". Shipping weight, 3 oz.

34F550. NET 1.44

Selected Top-Quality Tools

MOODY SUBMINIATURE AND PRECISION HAND TOOLS



SC-5 PA-5 SH-2 OE-5 BW-5 TS-5

Type SC-5. Jewelers' Screwdriver 6 Piece Set. Perfect for dismantling small assemblies. Five interchangeable rust-resistant blades fit universal swivel-top handle. Sizes include .055", .070", .080" and .100". Complete withawl with colorful plastic stand and cover. 7 oz.

33F475. NET..... **1.05**
Lots of 12, Each **.95**

Type PA-5. Miniature Phillips and Allen 6 Piece Set. Contains two smallest-size Phillips screwdrivers, plus three tiny Allen-type wrenches... all interchangeable in swivel-top universal handle. You get: Phillips #0 and #1, plus Allen Nos. 4, 6 and 8. Shpg. wt., 7 oz.

33F476. NET..... **1.64**
Lots of 12, Each **1.47**

Type SH-2. Screw-Holding Screwdrivers. Swivel-top handle takes 2 1/2" or 1 3/4" blade, plus screw-holding clip. Holds tiny screws better than fingers. Shipping weight, 8 oz.

33F477. NET..... **1.05**
Lots of 12, Each **.95**

Type OE-5. Offset Open End Wrench Set. 5 tiny offset open end wrenches. Made of tough heat treated steel. Wrenches are completely interchangeable in the chuck-type handle. Ideal for all types of tiny nuts found in electrical and other small devices. Wrench Sizes: 3/64", 7/32", 1/64", 1/8" and 1/4". Shpg. wt. 8 oz.

33F474. NET..... **1.64**
Lots of 12, Each **1.47**

Type TS-5 Utility Tiny Tap Set. The newest addition to the Moody Kit sets. Tough, heat treated steel tap tool set is ideal for cutting tiny inside threads on any number of small items. Tap sizes are 0-80, 1-72, 2-56, 3-48, 4-40. The knurled chuck type handle has a torque hole for steady firm leverage. Shpg. wt., 8 oz.

33F478. NET..... **4.17**
Lots of 12, Each **3.75**

OFFSET SCREWDRIVERS



Double-ended—one bit parallel to shank, other at right angles. Made of chrome vanadium steel. Av. shpg. wt., 4 oz.

PHILLIPS OFFSET SCREWDRIVERS

Stk. No.	Type	Screws	Length	EACH
34F400	P-120	1 & 2	4 3/4"	.58
34F401	P-230	2 & 3	5 1/2"	.96
34F402	P-340	3 & 4	6"	1.12

MILLED BIT OFFSET SCREWDRIVERS

Stk. No.	Type	Screws	Length	EACH
34F403	VO-1	2 to 6	3"	.42
34F404	VO-2	6 to 10	4"	.67
34F405	VO-3	8 to 12	5"	.76



S-PIECE WRENCH SET

5 piece forged steel open end wrench set with opening from 3/16" to 3/4". Hardened and tempered tool steel. Plated for long life operations without dulling. Shpg. wt., 1/2 lbs.

34F551. NET **.68**

AMALITE TOOLS

12-PC. NEEDLE FILE SET

Complete assortment contains 12 sizes and shapes. Heat treated carbon steel blades. Complete with plastic case. Length of single file 5 1/2". Plastic case size: 2 3/4" x 6 1/4" x 1". Shpg. wt., 1/4 lbs.

34F512. NET **1.62**

NO. 70 TINY TAP DRILL SET

Five frequently-used drill sizes are provided. They fit into a compact plastic stand-up holder which protects the cutting surfaces by keeping the drills separated. The handle features a solid-looking chuck-nose and a swivel top. Drill sizes are #43, #47, #50, #53, and 3/64".

33694. NET..... **2.34**

Socket Wrench Set. 5 interchangeable tiny hex socket wrenches. All fit the same handle. Enables inserting or removing tiny nuts from hard-to-get-at places. Wrench sizes: 3/64", 7/32", 1/64", 1/8" and 5/32".

Type BW-5. With Magnetic handle.
33F473. NET..... **2.58**
Lots of 12, Each **2.32**

Type SW-5. Non-Magnetic handle.
33F472. NET..... **2.28**
Lots of 12, Each **2.06**

MOODY MASTER KIT



Model MMK-6. This new compact 8 1/2" x 3 1/2" x 1 1/2" Master Kit contains 1 each of these six Moody Kits: SC-5, PA-5, SW-5, TS-5, OE-5, #70. The tiny tools contained in these sets are ideal for miniature sub-assembly work and all types of industrial operations. They are popular with hobbyists and sportsmen. Shpg. wt. 1 lb.

33F494. NET..... **13.77**

ELECTRICIAN'S INSULATED POCKET SCREWDRIVER NO. 50



Especially made for safe carrying in the pocket; blade is stored in the handle to eliminate danger of stabbing. The hollow nylon tube insulates against electric shock. Solid-locking chuck-nose holds blade securely.

33F695. NET..... **.90**

VACO TOOLS

PHILLIPS SCREW DRIVERS



STANDARD TYPES

Phillips cross slot screws are now in such wide use that you need these precision steel screwdrivers for all Phillips screws. Shpg. Wt., 4 oz.

Stk. No.	Type	Point	Length	Screw	NET
34F355	P01	1	5 1/4"	0-1	.64
34F356	P1	0	6 1/2"	2-4	.86
34F357	P2	2	7 5/8"	5-10	1.08
34F358	P3	3	10"	12-16	1.48
34F359	P4	4	12 1/2"	18 up	1.75

UTILITY SCREWDRIVER SET #52

Six interchangeable blades for precision work. .025", .040", .055", .070", .080", .100". Handle knurled for positive grip. Each blade polished, heat treated steel. Manufactured in accordance with Federal spec. GGG-S-121-D.

33F696. NET..... **1.50**



POCKET MAGNET AND SCRIBER WITH CLIP, NO. 42



On one end, powerful magnet for prodding into this and that for lost bolts, etc. Other end stores a scribing point which fits into a chuck for use. Pocket clip.

33F697. NET..... **.83**

JEWELER'S SCREWDRIVER SET

Model JS-6. meets Mil. Spec. GGG-S-121d. The chuck noses are grooved keying the blade size to the user's touch. The JS-6 may also be obtained holding all of one size blades or a combination of various sizes as the user may require. One set of six complete screwdrivers with properly heat-treated blades. Blade sizes .025", .040", .055", .070", .080" and .100".

33F479. NET..... **2.74**
Lots of 12, Each **2.47**

SWIVELTOP PIN VISES

Designed for ease of handling, these pin vises have nickel plated knurled steel handles and solid locking chucks that insure a firm grip when drilling or holding stock. The PV-1 will take drills, sizes #80 to #68, (.0135" to .031"). The PV-2 will take drill sizes #67 to #52, (.032" to .0635").

33F480. PV-1. NET..... **82c**
33F481. PV-2 **.82**
Lots of 12, Each **.73**



MACHINIST SCRIBER



MS-2, meets MIL-Spec. GGG-S-131. Approximately 8 1/2" overall with a hook point and a straight point, both properly tapered, heat treated and hardened, these are swaged into a knurled steel finger grip handle. Ideal for use with all metal or other hard surfaces.

34F559. NET..... **.45**
Lots of 12, Each **.40**

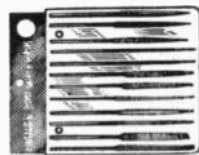
STUBBY TYPE

Stk. No.	Type	Point	Screw	Length	NET
34F361	P6	1	3"	2-4	.86
34F360	P5	2	3 3/4"	5-10	.94

POCKET CLIP TYPE

34F362	P12	0	5"	0-1	.64
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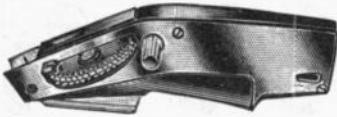
For prompt, Efficient Service, Contact the NEWARK Facility Nearest You — Seven Convenient Locations Across the Country.



Tapewriters and Accessories DYMO

MODEL M-10 TAPEWRITER

Uses 1/4" and 3/8" tapes. Allows for changing of tape tracks internally; has Space Selector for wide & reg. letter-spacing. Characters: A-Z, 0-9, \$ % & - / . Shpg. wt., 13 oz. 58F676. Type 1082. NET



15.97

Series 5201. Vinyl tape 3/8" x 144". In disposable magazine.

Stock No.	Type	Color	Stock No.	Type	Color
58F665	5201-2	Red	58F670	5201-7	Yellow
58F666	5201-9	Black	58F671	5201-4	Orange
58F667	5201-6	Blue	58F672	5201-8	Brown
58F668	5201-5	Green	58F673	5201-13	Gold
58F669	5201-12	Grey	58F674	5201-1	Clear
58F692	5201-60	Wood Grain			

NET PER ROLL 1.25

Series 5206. 144"x1/4" plastic embossing tapes.

Stock No.	Type	Color	Stock No.	Type	Color
58F682	5206-1	Clear	58F687	5206-7	Yellow
58F683	5206-2	Red	58F688	5206-8	Brown
58F684	5206-4	Orange	58F689	5206-9	Black
58F685	5206-5	Green	58F690	5206-12	Grey
58F686	5206-6	Blue	58F691	5206-13	Gold

NET PER ROLL 1.00

MODEL M-4 LABELMAKER

Permanent, self-sticking, raised letter, plastic labels. 44 characters: A-Z, 0-9, plus \$ % & - / . Wt. 6 1/2 lbs. 58F651. Type 1040. NET

5.93

MODEL M-38D TOOL 'N' TAPE KIT

The M-38D is a home identification system packed in a handy carrying case. Kit contains: 1 M-38D Home Labelmaker (described below), 3 magazines of 3/8" and 1/4" tape, 1 carrying case. Shpg. wt., 6 1/4 lbs.

58F693. Type 7469. NET 13.95

MODEL M-38D TAPEWRITER

Uses 3/8" and 1/4" vinyl embossing tapes. Changes from regular to wide spacing instantly by knob. Tape magazines now snap in and lock into tool. Shpg. wt., 6 1/4 oz. 58F694. Type 1095. NET 7.88



Model M-38D
Tool "N" Tape Kit

MODEL M-22

Model M-22. Tool and Tape Kit Type 7576. Kit includes an M-22 Tapewriter, Lower Case, Horizontal and Vertical Embossing Wheels. 10 rolls of Embossing tape (vinyl) with Deluxe Texon carry case. Uses 1/2" tape. Shpg. wt., 8 lbs. 58F646. NET (\$91.10 Value) 40.97

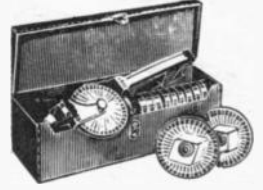
Model M-22. Tapewriter Type 1022 For Vinyl Tapes Only. Precision embossing tool with Delrin plastic wheel for use on vinyl tapes only. Tapewriter is of aluminum alloy and chrome finished. Straight cut-off. 10 3/4" long and 3 1/2" wide. Uses 1/2" tape. Shpg. wt., 3 lbs. 58F647. NET 31.46

You Can Depend on NEWARK
for Everything
In Industrial Electronics

- Same Day Shipment from On-the-Shelf Stocks
- OEM Factory Prices
- Phone-Write-Wire—for Price Quotations

MODEL M-29 TAPE 'N' TOOL KIT

Kit contains: 1 M-29 Tapewriter (described below), 3 rolls of 1/2" tapes, 5 rolls of assorted 3/8" tape (Colors: red, green, blue, wood grain and black), 1 plastic special character wheel, 1 vertical wheel, 1 round cutoff conversion unit and cones in a Texon carrying case. Uses 3/8" + 1/2" tape. Size: 4 1/2"x5x13". Shpg. wt., 4 lbs. 58F664. Type 7610. NET 44.97



MODEL M-29 TAPEWRITER

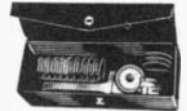
For use with vinyl tapes. Body of tool is aluminum alloy with chrome finish. Comes with handle actuated straight cutoff and round corner conversion unit. Has plastic embossing wheel. Characters: horizontal, A-Z, 0-9, plus \$ % & - / . Letters are approx. 7/32" high, 6 letters to the inch. 12 1/4" L. x 3 1/2" W. overall. Uses 1/2" tape. Shpg. wt., 1 lb. 58F663. Type 1096. NET 34.96

MODEL M-11

Model M-11. Tapewriter. Makes metal labels and tags. For use with DYMO metal and all 1/2" tapes. Cut-off: straight with or without hole. Horizontal characters: A to Z, 0 to 9 3/32" high. 7 letters to the inch. Wt., 3 lbs. 58F642. Type 1011. NET 31.46

MODEL M-55D TOOL 'N' TAPE KIT

Kit contains 1 M-55D Tapewriter (described below), 5 magazines 3/8" tape, 5 magazines 1/4" tape, and horizontal and vertical letter wheels. Comes in a leather-grained Texon, custom-fitted case with metal trim. Uses 3/8" + 1/4" tape. 58F648. Type 7650. NET 34.96



MODEL M-55-D TAPEWRITER

Has a 42 character, 15% larger wheel. Body made of die-cast aluminum alloy with a bright chrome finish. Cut-off: straight with tab. Embossing wheel is made of "see-thru" plastic. Characters: horizontal A to Z, 0 to 9, plus \$ % & - / . Size: 3 3/32" high. 7 1/4 characters to the inch. Uses 3/8" + 1/4" tape. Produces permanent, professional embossed labels. Ideal for any statistical usage. Shpg. wt.: approx. 1 lb. 58F649. Type 1094. NET 26.97

VINYL TAPES

Come in rolls 12' x 1/2", with pressure sensitive adhesive back. Have a high gloss finish which resists dirt, moisture, most acids, oil, and grease. Sticks to almost any surface and withstands temperatures up to 150°F.

EMBOSSED

TYPE 158 12' TAPE

Stk. No.	Type	Color	NET
58F613	158-2	Red	1.65
58F614	158-9	Black	
58F615	158-6	Blue	
58F616	158-5	Green	
58F617	158-12	Grey	
58F695	158-60	Wood Grain	

Stk. No.	Type	Color	NET
58F618	158-7	Yellow	1.65
58F619	158-4	Orange	
58F620	158-8	Brown	
58F621	158-1	Clear	
58F640	158-13	Gold	
58F641	158-15	Purple	

Type 171 12' Striped Tape w/gold border.

Stk. No.	Type	Color	NET/Roll
58F622	171-2	Red	1.95
58F623	171-9	Black	
58F624	171-6	Blue	
58F625	171-5	Green	
58F629	171-8	Brown	

Type 158-18. Assortment of 10 Tape Colors. 1/2" rolls of black, gray, red, gold, blue, brown, green, orange, purple and yellow. Shpg. wt., 10 oz. 58F645. NET 16.50

METAL TAPE

Permanent metal tape. All are without adhesive except (*) which have adhesive. †Black stripe. 1/2" wide.

Stock No.	Model	Type	L.	NET
58F631	310	Aluminum	16'	.65
58F632	313	Copper*	12'	1.75
58F633	325	Stn. Steel	21'	1.25
58F634	348	Copper	21'	1.25
58F635	355	Monel	21'	2.25
58F636	358	Aluminum*	12'	1.65
58F637	361	Zinc	15'	.85
58F638	317-9	Aluminum*†	10'	1.95
58F639	319-9	Aluminum†	16'	1.25



8276
8278A
9087
TELEVISION DUPLEX ALIGNER
Type 8276. An all purpose TV aligner for trimmers and I.F. transformers. Made of plastic material with extra thin spring steel tips, specially made for Television. One end has a projected tip, the other end has a recessed tip. High quality tool that will last a long time. A necessity in adjusting TV sets. 6x $\frac{1}{32}$ ". 3 oz.
35F616. NET..... **.52**

SOLDER AID PROBE
Type 9093. For printed circuits. Handy, fine point probe designed to aid in probing and soldering printed circuits. Size: 8". Wt., 4 oz.
35F653. NET..... **1.00**

BRUSH AND SCRAPER
Type 9094. For printed circuits. Fine stainless steel brush and hardened steel scraper. Size: 8". Shpg. wt., 4 oz.
35F654. NET..... **.98**

TINNERMAN NUT REMOVER
Type 9355. A device which removes tinnerman nuts easily and quickly. Dual purpose tool removes large or small tinnerman nuts. Will positively not break the studs. Small in size, it take up little room on the workbench, but comes in handy often. Wt. 1 oz.
34F544. NET..... **.93**

GC HEX AND SPLINE WRENCH KIT
Type 5028. Complete set of 12 wrenches used in the electrical field. Constructed to fit #2 to #3 screw. In leatherette case.
Shpg. wt. 6 oz.
34F520. NET..... **1.35**



DELUXE TOOL KIT
Type 8283. Now you can make TV repairs easily and quickly. Deluxe tool kit contains 25 tools in a superior leatherette roll type case. Includes such necessary tools as alignment screwdriver, TV alignment tool, K-Tran tool, TV channel tuning tool, FM tuning tool, TV core aligner, long reach aligner, TV Duplex aligner, "Shorty" TV alignment screwdriver, and many other needed TV tools. Saves you time and money! 1 lb.
35F650. NET..... **15.83**



8277
8728
16" EASY REACH ALIGN. TOOL
Type 9294. Has $\frac{1}{8}$ " blade for alignment where magnetic fields are important. Offers protection from high voltage in hard-to-reach places. Fibreglass. 3 oz.
35F817. NET..... **.72**

TV SHORTY ALIGNER
Type 8277. Specially made for trimmer and I.F. transformers where space is limited. Made of plastic. Size: 2 $\frac{3}{8}$ " long x $\frac{1}{2}$ " Shaft Dia. Wt., 3 oz.
35F618. NET..... **.52**

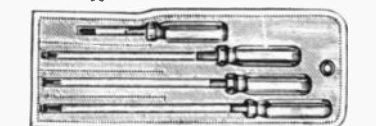
9088 9093 9094 5090-P 8275
SLUG TUNER ADJUSTMENT TOOL
Type 9087. A special slug tuning tool especially made for adjusting standard tuners, etc. as used in TV receivers. Other end has a longer blade for other applications. Completely insulated. 7 $\frac{1}{2}$ " long, $\frac{1}{4}$ " shaft dia. Shaft ends .170 dia. Wt., 3 oz.
35F813. NET..... **.75**

SOLDERING AID TOOL
Type 9088. One end has a stiff wire brush for cleaning wire and terminal strip before soldering, and the other end is machined to hold wire while soldering. Solder will not stick to the soldering probe end of the tool. Made of special stainless steel with hardened probe. 8". Wt., 4 oz.
35F814. NET..... **1.00**

DOUBLE ALIGNMENT TOOL
Type 8728A. Of low loss delrin. Has narrow shaft, 7" long, $\frac{1}{8}$ " diameter. Shipping wt., 4 oz.
35F618. NET..... **.43**

DELRIN HEX WRENCH
Alignment tool for Zenith, Admiral and other sets. One end under cut so it will reach bottom slugs in iron coils.
35F623. Type 8606. 5" NET..... **.48**
35F624. Type 8606L. 11" NET..... **.63**

END IRON CORE TOOL
All Delrin hex tool for cores with .125 hex opening. One end under cut to reach bottom slug in coils w/o turning top slug.
35F625. Type 9091. 5" NET..... **.48**
35F626. Type 9091L. 11" NET..... **.70**



TV ALIGNMENT TOOL KIT
Type 8457. A handy, all-purpose TV kit in a convenient plastic container. Kit contains four basic essential tools that will service majority of TV sets. 10 oz.
35F652. NET..... **1.95**

Type 8607. Alignment tool with replaceable molded nylon tip. 12" long. Shpg. wt., 4 oz.
35F810. NET..... **1.60**



8196
FIBRE TV ALIGNER
Type 8728. Made of durable fibreglass. A 12" double-bodied aligning tool with a $\frac{1}{8}$ " narrow shaft. Size: $\frac{1}{8}$ " dia. x 7" long. Shpg. wt., 3 oz.
35F622. NET..... **.53**

DEEP NIB ALIGNER
Type 8196. For shielded coils and trimmers. Steel nib is insulated. 2 $\frac{1}{2}$ x $\frac{1}{32}$ " diam. Wt., 3 oz.
35F605. NET..... **.42**

9092 9130
TV ZENITH UNIVERSAL ALIGNER
Type 8275. Designed for Zenith and other sets. Made of white delrin and plastic handle, has thin delrin screwdriver and recessed thin spring steel tip. 3 oz.
35F821. NET..... **.52**

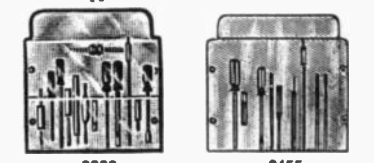
INSPECTION MIRROR
Type 5090-P. Plastic insulated inspection mirror that you can use to inspect coils, resistors, sockets, etc., while the chassis is hot. No danger of shorting. Wt., 5 oz.
35F655. NET..... **.38**

TUBE PIN STRAIGHTENERS
Dual Type 9092. For 7 and 9-pin miniature tubes. Shpg. wt., 6 oz.
35F656. NET..... **1.27**

4-IN-1 TUBE GADGET
Type 9130. It's a 7-pin tube straightener, a 9-pin tube straightener, a tube puller, and a tube tapper. Four tools in one. Pure rubber, will not break. 3 oz.
35F657. NET..... **.92**

G-C SERVICE TWEEZERS
Type 7948. Self-closing, with crossover action. 6 $\frac{1}{2}$ " long, serrated, blunt points. Shpg. wt., 2 oz.
34F521. NET..... **.99**
Type 7947. Heavy-duty, with slide-lock feature. 6 $\frac{1}{2}$ " long, serrated, blunt points.
34F522. NET..... **1.10**
Type 7948. Precision tweezer with narrow, pointed ends. Over-all length, 4 $\frac{1}{2}$ ".
34F523. NET..... **.75**
Tweezer Kit. In leatherette case. One each of above tweezers. 8 oz.
34F524. Type 7950. NET..... **2.84**

7945
7947
7948



8280 8455
TV ALIGNMENT KIT
Type 8455. Popular low-priced alignment kit has latest essential tools specially engineered for TV sets. Includes K-Tran tool, TV channel tool, TV Short tool for RF and IF, oscillator tool, long reach aligner, flexible tuning wand, and others. 9 tools in roll-up case. 6 oz.
35F651. NET..... **6.26**

16 TOOLS IN LEATHERETTE CASE
Type 8280. Contains all tools needed to align most TV sets. Knurled plastic handles. Leatherette case. Wt., 8 oz.
35F801. NET..... **10.30**

INDIVIDUAL ALIGNMENT TOOLS
Type 8282. Molded delrin plastic IF alignment tool. 5 $\frac{1}{16}$ " long. Wt., 2 oz.
35F812. NET..... **.37**

Type 8195. For alignment of TV receivers with "Standard Coil" tuners. Size 7 $\frac{1}{8}$ " long x $\frac{1}{4}$ " dia. Wt., 6 oz.
35F808. NET..... **.72**

Tools and Tube Caddies

MILLERS FALLS TOOLS

RATCHET BRACE

Type 1710. Equipped with Barber chuck and alligator jaws, semi-boxed steel ratchet. Knurled shifter ring controls the ratchet mechanism steel-clad ball bearing head. All exposed parts nickel plated to resist rust. Mahogany lacquered hardwood handles. 10" sweep. Wt., 5¾ lbs.



33F570. NET..... 4.80

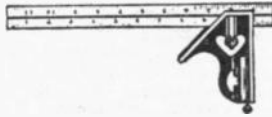
STEEL PIPE REAMER

Model 173. Time saving tool quickly removes burrs from the ends of pipes and conduits, countersinks or enlarges holes in sheet metal. Straight-fluted with bit brace shanks. Made of hardened and tempered steel for long life. Fits ¼-2" pipe. Shpg. wt., 1¾ lbs.



33F578. NET..... 3.32

CARPENTER'S COMBINATION SQUARE

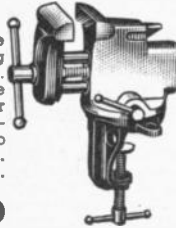


Type 1270. Comes complete with level and scriber. Blade has stamped graduations. One side graded in 8ths and 16ths. Other in 16ths and 32nds. Blade: 12" long, 1" wide. Shpg. wt., ¾ lb.

33F577. NET..... 1.17

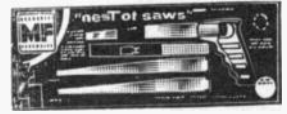
SWIVEL VISE

Model 18. Swivel base allows jaws to swing to any desired angle. 2¼" wide jaws are milled parallel after assembly. Max. opening 2¼"; clamps to bench up to 2" thick. Small anvil on body. Shpg. wt., 5½ lbs.



33F574. NET..... 5.60

"NEST OF SAWS"



Model 725. Saw handle of the Rotatable Keyhole type with one each No. 109, No. 249 and No. 279 interchangeable blades. Pistol grip handle permits locking in any one of 8 positions. Shpg. wt., 1¾ lbs.

33F572. NET..... 2.52

BENCH DRILL VISE



Model 217. Vise for bench, bench drill, or drill press. Removable swivel jaw provided. Capacity with swivel jaw inserted, 2¾"; with swivel jaw removed, 3¾"; width of jaws, 2¾". Wt., 5 lbs.

33F573. NET..... 8.52

K. MILLER TOOLS

INDUSTRIAL TYPE WIRE STRIPPER & CUTTER

Model 102. Has needle nose with eccentric cam. Precise adjustment immovable — even with loosened screw! Precision-fitted jaws. Long, plastic covered handles. Shpg. wt., 3 oz.



34F661. NET..... 1.29
Lots of 12-up. NET..... 1.04
Model 103B. Same as above plus spring action handles.

34F662. NET..... 1.59 12-up. NET..... 1.29

HEAT SINK TOOL—HEAVY DUTY

Model 80. Heat Sink Tool. A necessity for Transistor circuitry and other electronic work. Copper jaws for greatest heat absorption. Soft plastic colored handles. Compact, adheres to the work firmly with no damage to fine wiring. Shpg. wt., 1 oz.



34F664. NET..... .93
Lots of 12, Each..... .78

WIRE STRIPPERS

Model 101-S. Wire stripper and cutter, featuring spring return. 5" long tool has blades hardened and ground to cut with smooth shearing action. Adjusting stop on the grippin handles permits adjustment for size. Shpg. wt., 3 oz.



34F656. NET..... 1.29

Lots of 12-up NET..... 1.04

Model 100. Same, less spring return.

34F655. NET..... .99 12-up NET..... .78

HEAVY DUTY MODEL

Type 601-S. A wire stripper and cutter suitable for use on all commonly used stranded wires. 6" long. Blades are hardened and ground to cut wire cleanly and neatly. Self opening spring for ease of operation. Shpg. wt., 4 oz.



34F657. NET..... 1.89
12-Up..... 1.64

"DIAL A STRIP" CUTTER

Model 106. For speedy, positive adjustment of 8 stop settings, from 22 ga. wire up. Jaws are hand fitted, hand ground. Dials easily. 5" overall. Shpg. wt., 3 oz.

34F663. NET..... 1.09

Lots 12-up. NET..... .84

Model 107S. Same, with spring action handles.

34F667. 1-11 NET..... 1.39 12-up. NET..... 1.13



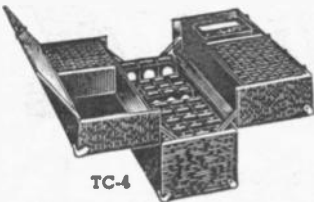
NEW LIGHTWEIGHT LONG NOSE PLIER

Model No. 85. Plier is an adequate household tool. Can be used by mechanics, assemblers, and hobbyists. Easily reaches those hard-to-get-to places. Features spring closing heat sink tips. Also includes soft plastic colored handles. 5¾ inches long. Lightweight: 2½ lbs. per dozen.

34F668. NET..... 1.05
Lots of 12. NET..... .86 ea.



ARGOS TUBE CADDIES



TC-4

MODEL TC-4

Model TC-4 CARRY-ALL Tube Caddy. A must item for all electronic servicemen. A complete tube and tool kit. Brown Vinyl. Holds up to 262 tubes or less with space for tools, meter, etc. Size 21x15x8". 12 lbs.

86F747. NET..... 15.62

MODEL TC-5

Model TC-5. SUPER Tube Caddy. The largest tube caddy ever built. Carries 340 tubes or less with space for test equipment, and spare/replacement part in television servicing tools. Size: 24x16½x8½". Wt., 19 lbs.

86F746. NET..... 21.51



TC-5

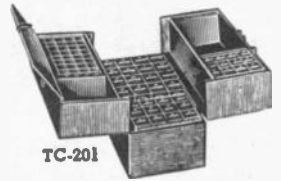
MODEL TC-100 & 201

Model TC-100. Pacemaker Tube Caddy. Holds up to 262 tubes. Popular breakaway design gives quick access to all sections. Convenient storage case for tubes. Holds enough to complete the job on the spot. Durable Brown Vinyl covering. Size: 21" x 15" x 8" D. Wt., 11½ lbs.

86F743. NET..... 13.67

Model TC-201. Pacemaker Jr. Tube Caddy. Holds up to 143 tubes with space for tools, meters, etc. Compact folding design. Durable Brown Vinyl covering. Overall size: 15¾x12½x8". Shipping wt., 9 lbs.

86F774. NET..... 9.75

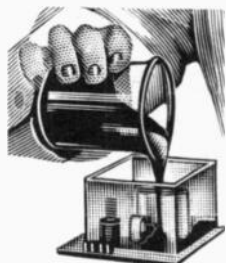


TC-201



Emerson & Cuming Plastics

STYCAST CASTING RESINS



MILITARY GRADE EPOXY RESIN 2651

- High Mechanical Strength
- Meets Mil. Spe. MIL-I-16923 B, C & D

Medium viscosity rigid epoxy. Choice of two catalysts allows cure at room or oven temperatures. Excellent general purpose encapsulant and adhesive. High mechanical strength and thermal shock capability combined with exceptional electrical insulation capacity. Service temperatures: -70°F to $+350^{\circ}\text{F}$. Wt. 2 lbs.

32F372. NET..... **5.98**

LOW VISCOSITY RESIN STYCAST 2651MM

Module encapsulant, free machining rigid opaque epoxy. For easy handling in potting tightly packed components. Choice of two catalysts al-

HIGH THERMAL CONDUCTIVITY RESIN 2850FT

- Cryogenic
- High Thermal Conductivity—Low Shrinkage

Has a coefficient of thermal expansion matched to copper. Low shrinkage makes it possible to encase glass diodes without fear of breakage. High thermal conductivity and excellent electrical insulation make it ideal for transformer potting. Used to as low as 1.2°K . Shows no appreciable out-gassing in high vacuum up to 10-12 mm. Hg service temperature to 390°F . Wt. 2 lbs.

32F455. NET..... **5.98**



CLEAR STYCAST 1266

- Transparent
- Low Viscosity—High Impact

High impact low viscosity epoxy. For electrical encapsulation where component visibility is desired. It can also be used for display embedments or bonding sheets of glass for good visibility. Cures in a few hours at room temperature or minutes at 150°F . Service temperature: -70°F to $+200^{\circ}\text{F}$. Wt. 2 lbs.

32F456. NET..... **5.98**

CLEAR URETHANE RESIN CPC-16

- Flexible Casting Resin
- Transparent and Repairable

Low viscosity, room temperature cured flexible casting resin. Use to pot fragile components without fear of fracturing at cold temperatures. Transparent and repairable; components can be seen, dugout, and resealed with a drop of resin. Flexible temp. -60°F to $+300^{\circ}\text{F}$. Wt. 2 lbs.

32F457. NET..... **7.98**

ECCOBOND EPOXY ADHESIVES

ECCOBOND 45

A two part epoxy adhesive with controlled flexibility. Available in either black or clear. Designed to be used where shock and peel resistance are desired. Has excellent adhesion to metal, glass, ceramics and most hard to bond plastics. Cures in a few hours at room temperature, or in minutes at 150°F . Temperature range for use -70°F to $+300^{\circ}\text{F}$. Weight: 2 lbs.

32F458. Black. NET..... **5.98**

32F459. Clear. NET..... **8.98**

- Available in clear or black.
- Has controllable flexibility.



TWO TUBE EPOXY PATCH KIT

ECCOBOND 26. Handy two tube kit for all adhesive and patch jobs requiring small amounts of material. Half and half mix requires no weighing. Designed to be used where shock and peel resistance are desired. It has excellent adhesion to metal, glass, ceramics, and most hard to bond plastics. Cures in four hours at room temp., in minutes at 150°F . Becomes a permanent part of the repaired item. Wt. 5 oz.

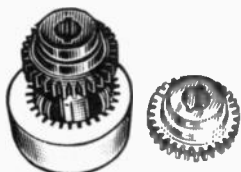
32F371. NET..... **1.98**

NON-FLOWING EPOXY ADHESIVE

ECCOBOND 285. A truly thixotropic two part epoxy adhesive which can be easily applied to vertical or overhead surfaces without flow or sag. Will stand like whipped cream on any surface at any temperature and cures to a hard opaque resin. Two different catalysts are supplied to offer a choice of pot life and temperature. Service temp. range: -70° to $+350^{\circ}\text{F}$. Wt. 2 lbs.

32F460. NET..... **5.98**

RTV SILICONE RUBBER ECCOSIL 4850



- Ideal for Making Flexible Molds
- Used for Potting and Encapsulation

Eccosil 4850 is a portable resin which cures to a 60 durometer flexible silicone rubber. Used for potting and encapsulation, as a caulk and sealer, and widely used in the making of flexible molds. Its flexibility, self releasing property, and good dimensional stability, make it an ideal prototype mold material. It can be subjected to temperatures up to 500°F for prolonged periods. Wt. per can: 2 lbs.

32F461. NET..... **9.98**

ECCOCOAT SURFACE COATINGS

CLEAR URETHANE SURFACE COAT—ECCOCOAT RTU

Has long pot life and cures at room temperature to tough, transparent, flexible coating. Good for use on electrical components and printed circuits. Heat from a soldering iron shrinks coating to expose terminals. A drop of Eccocoat then restores the coating. Use at cryogenic temperatures without cracking or brittleness. Service mg. -45° to $+300^{\circ}\text{F}$. Wt. 2 lbs.

32F462. NET..... **8.98**



CLEAR EPOXY SURFACE COAT ECCOCOAT EC200

A two part brush or spray coating that cures to a transparent, tough, moisture impervious film. Chemical and corrosion resistance and high electrical insulation

make this an ideal circuit board and general purpose protective coating. Service Temp.: -70°F to $+275^{\circ}\text{F}$. 2 lbs.

32F463. NET..... **5.98**

MOLD RELEASE 1225—PASTE OR SPRAY

A silicone type release agent used to prevent adhesion of epoxies to molds. Apply paste with a rag or brush, or use handy aerosol spray can. Wt. $\frac{1}{4}$ lb.

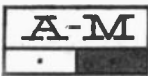
32F395. Paste. NET..... **3.98**

32F464. Spray Can. NET..... **4.48**

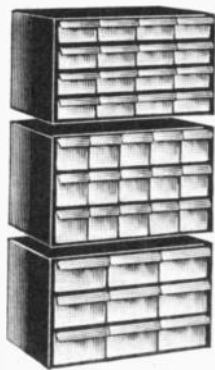
ECCOSTRIP 57—EPOXY SOLVENT

Will dissolve cured epoxy resins. Items must be submerged in solvent for several hours during which the epoxy slowly softens. Excellent for use in clean-up of uncured epoxy. Wt. 1 lb.

32F396. NET..... **1.48**



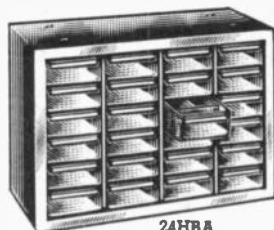
Akro-Mils Drawer Cabinets & Storage Boxes



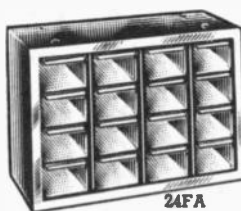
XM-416

XT-315

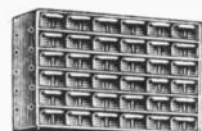
XT-509



24HBA



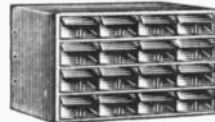
24FA



G-24



J-36



M4B-16



Model 18PA

- EXPAND YOUR STORAGE
- ADD OR STACK IN ANY COMBINATION
- LOCATE ITEMS FAST
- ELIMINATE INVENTORY CONFUSION

NON TRANSPARENT GREY SUPER STRENGTH DRAWERS

HEAVY DUTY MODULAR CABINETS

Model XT-509. Interlocking modular cabinets for expansion or re-arrangement to fit any space. Designed to store heavy-duty parts for industrial or assembly line service. Heavy gauge steel construction permits stacking, without bolting. Cabinet size: 17 $\frac{7}{8}$ " x 11" x 10 $\frac{5}{8}$ " high. With 9 super size molded high impact polystyrene drawers, size: 3- $\frac{1}{32}$ " x 5 $\frac{1}{4}$ " x 11" long. Drawers are non-bend-warped-rust and non-corrosive. Complete with index label and dividers. Permanent granite grey color. Shpg. wt. 4 lbs.

82F130. NET EACH..... 17.98
82F131. D-T5A—Cross Dividers... 25 for 1.50
82F131. D-T5A—Cross Dividers... 25 for 1.50

Type XT-315. Complete with 15 full-width, 1 lengthwise and 6 half width dividers per cabinet. Has 15 (X-T3) drawers. Size: 3 $\frac{3}{8}$ " wide x 11" long x 3 $\frac{1}{2}$ " high. Shpg. wt. 17 lbs.

82F133. NET..... 17.98
82F134. D-T3A—Cross Dividers... 25 for 1.35
82F132. D-TF—Long Dividers.....10 for 1.35

Model XM-416. Cabinet with granite grey non-transparent drawers. 17 $\frac{7}{8}$ " x 11/10 $\frac{1}{4}$ ". Shpg. wt. 16 $\frac{3}{4}$ lbs. Drawer dimensions: 4"W x 2"H x 11"L.

82F136. NET..... 17.98
82F137. D-M04A—Cross Dividers 25 for 1.00
82F138. D-MF—Long Dividers.....10 for 1.00

PORTABLE CABINET

Type 18PA. Hinged door with lock clasp. Safe way to store, protect and transport small articles. Keyhole slots provided for hanging. Locking, hinged door provides protection from dust, moisture and theft. Stands, stacks or hangs on wall. 12 compact drawers 1 $\frac{1}{4}$ " x 2 $\frac{1}{4}$ " x 5 $\frac{3}{4}$ ". 1 Jumbo drawer 2 $\frac{1}{2}$ " x 8 $\frac{3}{4}$ " x 5 $\frac{3}{4}$ ". Shpg. wt., 6 $\frac{1}{2}$ lbs.

82F116. Net..... 5.63



Rugged Hinge-Top storage boxes molded of clear polystyrene. Contains from 1 to 18 compartments suitable for storing hardware, small parts, fuses, capacitors, resistors, and other odds and ends. Boxes are scratch resistant, easy to clean, light, rigid, and durable. Individually wrapped in sealed cellophane bags for added protection. Exclusive cover and hinge design, assures easy movement, snug fit, and long hinge life.

CABINETS WITH "SEE THRU" DRAWERS

ECONOMY 16-DRAWER CABINET

Cabinets with deep compact drawers. Designed for storage of articles up to two inches in height. Drawer dimensions 5 $\frac{3}{4}$ " x 2 $\frac{3}{4}$ " x 2". Compartment sizes are fully adjustable with movable dividers that lock in position. Stand, stack securely in any combination of models. Keyhole slots provided for hanging. Supplied with divider and index per drawer.

Stk. No.	Type	Dwrs.	Size	Wt. Lb.	Net Each
82F117	24FA	16	6x13x9"H	6 $\frac{1}{2}$	5.63
82F122	D-FA	Cross Dividers		25	1.00

ECONOMY 24-DRAWER CABINET

For storing small parts, quickly accessible. Stands, stacks or hangs on wall. Strong welded steel plastic front and dividers. Can be divided into compartments. Complete with index labels and one divider per drawer. Safety tab prevents accidental spilling. Drawer Size: 2 $\frac{3}{4}$ " x 1 $\frac{1}{4}$ " x 5 $\frac{3}{4}$ ". Stacks with 82F117—See above.

Stk. No.	Type	Dwrs.	Size	Wt. Lb.	Net Each
82F115	24HBA	24	6x13x9	6 $\frac{1}{2}$	5.23
82F119	D-PMA	Cross Dividers		25	.65
82F083	D-JF	Long Dividers		10	1.25

6-DRAWER MINIATURE PARTS CABINET

Model 18 EA. Perfect for resistors, capacitors, as well as coins, jewelry, etc. Rigid welded steel frame with chip-proof enamel finish. 6 EG drawers with 2 labels and 9 removable dividers per drawer. Available with full width compartments divisible at approximately $\frac{1}{2}$ " intervals. Size: 6x10x9", Shpg. wt. 5 lbs.

82F127. NET..... 5.06
82F121. DE6F—Long Dividers.....30 for .40

HEAVY DUTY

24-DRAWER PARTS CABINET

Model G-24. All-steel; with 2" high drawers. Drawers divide using 15 dovetailed divider slots that lock divider securely in place. Eliminates drawer bulging and creeping of flat parts under divider slots. Size: 9 $\frac{7}{8}$ " H x 17 $\frac{7}{8}$ " W x 6"D. Drawers: 2 x 2 $\frac{3}{4}$ " x 5 $\frac{3}{4}$ ". Shpg. wt. 11 lbs.

82F140. NET..... 12.48
82F122. D-FA—Cross Dividers. 25 for 1.00

J SERIES CABINETS WITH JD-1 DRAWERS

Welded steel cabinets. Stand, stack, or hang on wall. Can be integrated into standard shelving set-ups. JD-1 crystal clear spillproof drawers, 5 $\frac{7}{8}$ " x 2 $\frac{3}{4}$ " x 1 $\frac{1}{16}$ ". Crosswise and lengthwise dividers provide individual compartments. 1 long and 3 short dividers and index labels are included with every 4 drawers.

Stk. No.	Type	Dwrs.	Size	Wt. Lb.	Net Each
82F139	J-36	36	6x12 $\frac{1}{2}$ x15 $\frac{1}{4}$ "	13	12.48

82F084. D-JDA—Cross Dividers .50 for 1.25
82F083. D-JF—Long Dividers.....24 for 1.25

16-DRAWER STORAGE CABINETS

Type M4B-16. Perfect storage for resistors and small parts. Clear plastic drawers 11 x 4 x 2" with adjustable dividers for lengthwise and crosswise compartments. Divides into equal or odd size sections. Dividers and labels for front of drawers provided. Drawers have "big-size" capacity for longer items. Cabinets stand, stack securely, or can be hung on wall. Size: 17 $\frac{7}{8}$ " W x 11- $\frac{3}{16}$ " D x 1 $\frac{1}{4}$ " H. Shpg. Wt. 25.5 lbs.

82F108. NET..... 17.98
82F137. D-M04A—Cr. Dividers.25 for 1.00
82F138. D-MF—Long Dividers. 10 for 1.00

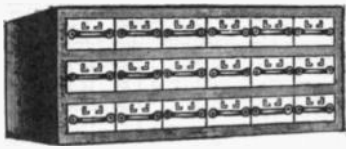
PLASTIC STORAGE BOXES

Stk. No.	Type	Number of Compartments	Compartment Dimensions	Overall Dimensions	Shpg. Wt.	NET
82F141	05-201	1	4 $\frac{3}{4}$ " x 2 $\frac{5}{8}$ " x 1"	4 $\frac{3}{4}$ " x 2 $\frac{5}{8}$ " x 1"	2 oz.	.22
82F142	05-204	4 equal	2 $\frac{3}{4}$ " x 1 $\frac{9}{16}$ " x 1"	4 $\frac{9}{16}$ " x 2 $\frac{3}{8}$ " x 1"	2 oz.	.22
82F143	05-301	1	6 $\frac{7}{8}$ " x 3 $\frac{3}{8}$ " x 1 $\frac{1}{8}$ "	6 $\frac{7}{8}$ " x 3 $\frac{3}{8}$ " x 1 $\frac{1}{8}$ "	4 oz.	.42
82F144	05-306	6 equal	1 $\frac{1}{8}$ " x 3 $\frac{3}{8}$ " x 1 $\frac{1}{8}$ "	6 $\frac{7}{8}$ " x 3 $\frac{3}{8}$ " x 1 $\frac{1}{8}$ "	4 oz.	.42
82F145	05-309	9	1 $\frac{3}{16}$ " x 1 $\frac{3}{8}$ " x 1 $\frac{1}{8}$ " 1 $\frac{1}{16}$ " x 3 $\frac{3}{8}$ " x 1 $\frac{1}{8}$ "	6 $\frac{7}{8}$ " x 3 $\frac{3}{8}$ " x 1 $\frac{1}{8}$ "	4 oz.	.42
82F146	05-401	1	8 $\frac{3}{8}$ " x 4 $\frac{1}{8}$ " x 1 $\frac{1}{4}$ "	8 $\frac{3}{8}$ " x 4 $\frac{1}{8}$ " x 1 $\frac{1}{4}$ "	9 oz.	.49
82F147	05-406	6 equal	1 $\frac{3}{16}$ " x 4 $\frac{1}{8}$ " x 1 $\frac{1}{4}$ "	8 $\frac{3}{8}$ " x 4 $\frac{1}{8}$ " x 1 $\frac{1}{4}$ "	9 oz.	.49
82F148	05-412	12	1 $\frac{9}{16}$ " x 1 $\frac{3}{8}$ " x 1 $\frac{1}{4}$ " 1 $\frac{1}{8}$ " x 4 $\frac{1}{8}$ " x 1 $\frac{1}{4}$ " 1 $\frac{3}{16}$ " x 2" x 1 $\frac{1}{4}$ "	8 $\frac{3}{8}$ " x 4 $\frac{1}{8}$ " x 1 $\frac{1}{4}$ "	9 oz.	.49
82F149	05-418	18 equal	1 $\frac{3}{16}$ " x 1 $\frac{3}{8}$ " x 1 $\frac{1}{4}$ "	8 $\frac{3}{8}$ " x 4 $\frac{1}{8}$ " x 1 $\frac{1}{4}$ "	9 oz.	.49
82F150	05-506	6 equal	1 $\frac{1}{16}$ " x 5 $\frac{1}{16}$ " x 2"	10 $\frac{1}{16}$ " x 5 $\frac{1}{16}$ " x 2"	22 oz.	1.27
82F151	05-512	12	1 $\frac{3}{16}$ " x 1 $\frac{1}{16}$ " x 2" 3 $\frac{1}{16}$ " x 1 $\frac{1}{16}$ " x 2"	10 $\frac{1}{16}$ " x 5 $\frac{1}{16}$ " x 2"	22 oz.	1.27
82F152	05-518	18 equal	1 $\frac{1}{16}$ " x 1 $\frac{1}{16}$ " x 2"	10 $\frac{1}{16}$ " x 5 $\frac{1}{16}$ " x 2"	22 oz.	1.27

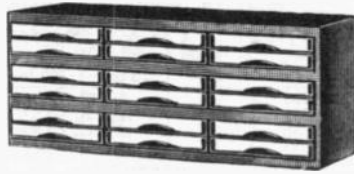
Storage Equipment

EQUIPTO CABINETS

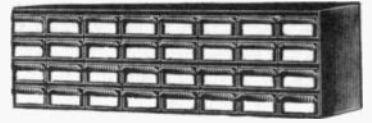
STOCK AND STACK SPACE SAVER CABINET DRAWERS



11



15



32

Items can be placed in individual drawers, best suited for your stock. The units can be placed in any type of arrangement you require. The drawers and dividers are easily identifiable by using the large label holders on the fronts of each drawer and

NEW PARTS CABINETS

Model 11. Designed for storing resistors, condensers, nuts, bolts, screws, electrical supplies and other small parts. Comes with 18 drawers and each drawer is equipped with two adjustable and removable cross dividers making three compartments per drawer. Makes a total of 54 compartments. 13 $\frac{3}{4}$ " high, 12" deep. The 18 drawers are 11" deep x 5 $\frac{5}{8}$ " wide x 3 $\frac{1}{8}$ " high. Comes with two dividers per drawer. Olive green finish. Shipped completely set up. Shpg. wt. 61 lbs.

82F000. NET **29.95**

82F002. Type 8730. Extra straight dividers. Each **15**

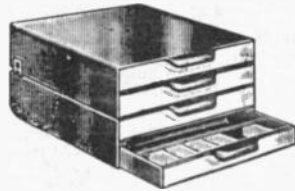
NEW LITTLE GEM MULTI-DRAWER CABINETS

Model 15. 13 $\frac{3}{4}$ " high, 12" deep. Contains 18 type A Little Gem drawers 11" wide x 11" deep x 1 $\frac{1}{4}$ " high. There are 8 dividers per drawer which makes 216 adjustable compartments per unit. Shpg. wt. 90 lbs.

82F209. NET **79.95**

82F007. Type 8730. Extra straight dividers. NET **10**

"LITTLE GEM" TINY PARTS CABINET



1 $\frac{1}{2}$ " deep drawers in a one-piece frame. Each drawer furnished with 8 dividers, providing for 24 adjustable compartments. Extra dividers listed below may be used to increase total to 28 compartments per drawer. Cabinets can be used individually, stacked or as shelving inserts. Drawer stops prevent spilling. Units lock

together when stacked. Compartments have sloping fronts for easy picking of small parts. 1 $\frac{3}{8}$ " label holder on front of drawer; $\frac{3}{8}$ " label on top of each compartment within the drawer. Smooth slides on bottom for easy pull. Finished in olive green baked enamel.

Stk. No.	Type	Drawers	Size	Wt.	Net
82F004	No. 1	Two	3 $\frac{1}{4}$ x11x11"	8 lbs.	6.95
82F005	No. 2	Four	6 $\frac{1}{2}$ x11x11"	15 lbs.	13.90
82F006	No. 3	Six	9 $\frac{3}{4}$ x11x11"	22 lbs.	20.85
82F007	8730	Extra dividers		4 ozs.	.10

divider. All drawers are removable and interchangeable. With each different operation the drawers or the units can be moved. Dividers are adjustable on 1" centers.

NEW CABINETS WITH 2" HIGH DRAWERS

Model 32. Drawers slide in and out smoothly even with maximum load. 10 $\frac{3}{4}$ " high and 12" deep. Consists of welded steel frame complete with 32 drawers each 4 $\frac{1}{2}$ " wide x 2" high x 11" deep. Comes with scoop dividers. 2 dividers making 96 compartments. Shpg. Wt. 58 lbs.

82F200. NET **47.50**

Model 34. Same as model 32 except, 24 drawers, 5 $\frac{5}{8}$ " wide x 2" high x 11" deep. 72 total compartments. Shpg. Wt. 56 lbs.

82F201. NET **35.95**

Stk. No.	Type	Description	Size	Net
82F202	8732	Straight divider	4 $\frac{1}{8}$ "	.10
82F203	8733	Scoop divider	4 $\frac{1}{8}$ "	.10
82F204	8734	Straight divider	5 $\frac{5}{8}$ "	.13
82F205	8735	Scoop divider	5 $\frac{5}{8}$ "	.13
82F206	8736	Scoop front insert	4 $\frac{1}{8}$ "	.10
82F207	8737	Scoop front insert	5 $\frac{5}{8}$ "	.13

BASES FOR DRAWER UNITS

Model 6812. The bases are designed to keep the bottom row at a more convenient height, as well as to keep the drawers clear from brooms and mops. Size: 34" x 4" x 12". Shpg. wt. 1 $\frac{1}{2}$ lbs.

82F208. NET **3.75**

TWO TRAY STOCK CARTS

Sturdy steel construction. Trays are strong with round bedded edges. The carts come with 2 trays, each 4" deep. Top tray may be inverted for flat surface use. 5" tired wheels in front, swivel wheel in rear provide easy portability. Can handle up to 600 lbs. with ample factor of safety. Green baked enamel finish. Designed for use between narrow aisles.

Model 145. 30"x16"x30". Sh. wt. 44 lbs.

82F017. NET **29.90**

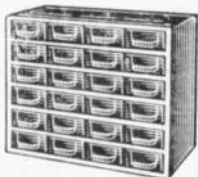
Model 150. 36"x24"x36". Sh. wt. 62 lbs.

82F018. NET **39.90**



UNION STEEL PRODUCTS

UNION STEEL "STACKMASTERS"



Heavy gauge welded steel frame, encloses transparent drawers with built-in index card holder and removable partitions. Lok-Tabs for permanently stacking and locking drawer units. Ideal for storage of small articles. Additional 12 or 24 drawer compartments. Drawer size 5 $\frac{1}{2}$ x2 $\frac{3}{4}$ x1 $\frac{1}{4}$ ". Cabinet sizes: 12-drawer 12 $\frac{1}{2}$ x6x5 $\frac{3}{4}$ "; 24-drawer 21 $\frac{1}{2}$ x6x11".

82F021. Model U-12. 12-drawer. Wt. 5 lbs. NET **3.81**

82F022. Model U-24. 24-drawer. Wt. 9 lbs. NET **6.45**

MODEL 5319

COMPACT TOOL AND UTILITY CHEST

Single cantilever-tray chest. Union spill proof key lock, and sturdy matched bolt catches. Rolled edges insure safety and rigidity. Size: 19x7 $\frac{1}{4}$ x6". Shpg. wt., 8 lbs.

82F010. NET **4.33**

Model 5419. Same as above except double cantilever trays with 9 additional compartments. Enam. fin.

82F026. NET **5.09**



MODEL 410

UNION UTILITY CABINET

Heavy gauge steel chest for storing small parts. Consists of a cabinet with four sliding drawers all 2x9x11 $\frac{1}{2}$ ". Each drawer has removable dividers which make from 2 to 12 compartments. Drawers have label holders for identifying the contents. Safety drawer stop feature prevents contents of drawer from spilling. Handsome durable steel gray Dentone finish. Over all dimensions: 10x10x11 $\frac{1}{2}$ ". Shipping weight, 10 lbs.



82F020. NET **6.71**

MODEL 2313

LIGHTWEIGHT UTILITY CHEST

Single cantilever tray chest. Compact in size, but extremely versatile. Features seamless construction and snap catch with built-in hasp for padlock. Size: 13 $\frac{1}{2}$ x6 $\frac{1}{2}$ x4 $\frac{1}{2}$ ". Shpg. wt. 2 $\frac{1}{2}$ lbs.

82F011. NET **1.91**

Model 5413. Same as above, but with an additional full-length cantilever tray.

82F027 **3.09**



Electronic Hardware



SKRU BOX ASSORTMENT

Complete selection of popular hardware in one always-handly kit Popular Skru Box is a must for every professional and home technician. Each sturdy clear plastic box has a positive clasp and 8 compartments filled with the types of plated screws and nuts most widely used on electronic equipment. All lugs and screws are cadmium plated. Hardware selections available below.

BOX OF HEX WASHER HEADS

SHEET METAL SCREWS

Model HD-4011. Steel, slotted hex head Type A sheet metal screws with washer attached.

Quant.	Description	Quant.	Description
15	#6x1/4"	15	#8x1/4"
15	#6x3/8"	15	#8x3/8"
15	#6x1/2"	15	#8x1/2"
15	#6x3/4"	15	#8x3/8"

32F050. NET.....1.59

BOX OF ROUND HEAD SCREWS & NUTS

Model HD-4013. Contains steel machine screws, hex nuts, and flathead metal screws. Black label for clear identification. Shpg. wt., 9 oz.

Quant.	Description	Quant.	Description
40	4-40x1/2"	25†	#6x1/2"
40	6-32x1/4"	40*	4-40x1/4"
20	6-32x3/4"	40*	6-32x1/4"
20	8-32x1/2"	40*	8-32x1/4"

32F051. NET.....1.59

BOX OF BINDER HEAD SCREWS & NUTS

Model HD-4018. Contains steel machine screws, hex nuts, and flathead metal screws. Orange label. Shpg. wt., 9 oz.

Quant.	Description	Quant.	Description
40	4-40x1/2"	25†	#6x1/2"
40	6-32x1/4"	40*	4-40x1/4"
20	6-32x3/4"	40*	6-32x1/4"
20	8-32x1/2"	40*	8-32x1/4"

32F052. NET.....1.59

BOX OF ASSORTED SHEET METAL SCREWS

Model HD-4014. Steel, slotted hex head sheet metal screws, Type A. Maroon label. Shpg. wt., 7 oz. *Item std. for auto radio.

Quant.	Description	Quant.	Description
25	#4x3/4"	35*	#8x1/4"
25	#6x1/4"	25	#8x3/8"
25	#6x1/2"	10	#8x1/2"
10	#6x3/4"	10	#8x3/8"

32F053. NET.....1.59

BOX OF WOOD SCREWS

Model HD-4019. Contains both round head and flat head steel wood screws. Turquoise label. Shpg. wt., 10 oz.

Quant.	Description	Quant.	Description
40	#4x1/2"	12	#8x1"
25	#6x3/8"	10	#8x1 1/4"
15	#6x1"	10*	#8x1 1/4"
15	#8x3/4"	12*	#8x1 1/4"

32F054. NET.....1.59

ANGLE BRACKETS

Angle brackets made of heavy steel Cad. Plated. Sizes indicate length of each side. All 3/4" wide. Wt. per 12, 3 oz.; per 100, 9 lbs.

Stock No.	Type	Size	Size	100-999 Per 100	1000-4999 Per 1000	5000-9999 Per 1000
31F2152	6261-C	1/4"	3/16"	1.23	9.87	8.88
31F2153	6262-C	3/8"	1/4"	1.54	12.23	11.01
31F2154	6263-C	1/2"	5/16"	1.74	13.95	12.02

WALDOM & GC HARDWARE

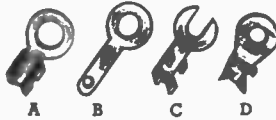
METAL SPACERS



For screws up to number 8. Average weight, per 10, 4 oz.; per 100, 2 lbs. Steel nickel plated.

Stock No.	Ht.	10 for	100 for
31F830	1/4"	.39	2.94
31F831	1/2"	.48	3.57
31F832	3/4"	.53	3.99
31F833	1"	.59	4.41

ASSORTED HARDWARE



Hot-tnp dipped brass, non-locking type lugs. Shpg. wt., 4 oz. 1 gross, 1 lb./1000.

No.	Fig.	Hole	Per 100	Per 1000
31F900	A	No. 6	.68	5.85
31F902	B	No. 8	.60	5.18
31F903	C	No. 10	.69	5.93
31F904	D	No. 8	.68	5.85

TINNED STEEL SOLDERING LUGS

Stock No.	C-Type	Hole Size	Fig.	100-999 per 100	1000-4999 Per 1000	5000-9999 Per 1000
31F2074	5704	8	B	1.85	14.85	13.37
31F2075	5705	10	B	1.85	14.85	13.37
31F2076	5706	4	E	1.85	14.85	13.37
31F2269	7441	6	A	1.30	10.40	9.36
31F2270	7442	8	A	1.24	10.03	9.03
31F2271	7445	8	C	1.32	10.53	9.48
31F2276	7458*	4	D	2.04	16.34	14.71
31F2277	7460*	8	D	2.06	16.37	14.73
31F2278	7461*	10	D	2.06	16.37	14.73
31F2293	8466	6	F	1.74	13.89	12.50
31F2294	8467	6	F	3.10	24.75	22.28
31F2295	8468	8	F	2.92	23.27	20.94
31F2296	8473	10	C	1.29	10.23	9.21

*Locking type.

THREADED BRASS BUSHING

No.	Lgt.	Thd.	O.D.	10 For	100 For
31F871	1/4"	6-32	1/4	.70	5.25
31F872	1/2"	6-32	1/4	.91	6.83
31F873	3/4"	6-32	1/4	1.19	8.93
31F874	1"	6-32	1/4	1.33	9.98
31F878	1"	8-32	5/16	1.33	9.98

STRAIN RELIEFS FOR POSJ CORD

Stock No.	Type	100/999 NET/100	1000-4999 NET/1000	5000-9999 NET/1000
31F2186	6675-C	5.80	46.82	42.14

FELT PADS

31F2005	1071-C	.33	2.62	2.36
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HAIR PIN CUTTERS

Stock No.	Type	Length	100-999 NET/100	1000-4999 NET/1000	5000-9999 NET/1000
31F2263	7378-C	1/8"	.53	4.29	3.86
31F2264	7379-C	21/32"	.55	4.40	3.96

NYLON AND BUTYRATE CABLE CLAMPS

Combine lightweight and chemical resistance with excellent shock resisting properties in a temperature range of from 185°F. to -40°F. in the Butyrate and 275°F. to -60°F. in the Nylon. Butyrate made to MSL-P-349A, Type III—Class MH, Nylon to MIL-P-17091A.



Nylon cable clamps all are 3/8" wide x .040" thick except * 1/2" wide x .060" thick.

Stock No.	Type	Cable Diameter	Length Inches	100-999/C	1000-4999/M	5000-up per M
31F979	CCN-31	.115"	.310	2.85	24.30	19.24
31F980	CCN-32	.172"	.373	3.00	25.72	20.36
31F981	CCN-33	.234"	.407	3.30	28.12	22.26
31F982	CCN-34	.297"	.448	3.66	31.06	24.59
31F983	CCN-35	.359"	.479	4.06	32.65	25.85
31F984	CCN-36	.422"	.510	4.22	34.53	27.34
31F985	CCN-37	.484"	.542	4.46	36.75	29.09
31F986	CCN-38*	.547"	.623	6.80	45.37	35.93
31F987	CCN-39*	.609"	.654	7.20	53.16	42.08
30F768	CCN-40*	.672"	.752	6.78	57.70	45.68
30F769	CCN-41*	.734"	.783	7.41	63.09	49.94
30F770	CCN-42*	.859"	.845	8.02	68.35	54.10
30F771	CCN-43*	.984"	.908	9.04	77.00	60.95

Butyrate Plastic Clamp material thickness .060". All 1/2" wide.

31F951	CCB-1	.115"	.360	1.87	16.03	12.69
31F952	CCB-2	.172"	.423	1.89	16.14	12.78
31F953	CCB-3	.234"	.457	2.08	17.79	14.09
31F954	CCB-4	.297"	.498	2.41	19.63	15.55
31F955	CCB-5	.359"	.529	2.52	21.89	16.35
31F956	CCB-6	.422"	.560	2.72	22.54	17.85
31F957	CCB-7	.484"	.592	3.10	24.00	19.00
31F958	CCB-8	.547"	.623	4.10	28.09	22.24
31F959	CCB-9	.609"	.654	4.68	31.81	25.54
31F960	CCB-10	.672"	.752	5.70	34.59	27.38
31F961	CCB-11	.734"	.783	5.85	36.25	28.70
31F962	CCB-12	.859"	.845	6.20	39.36	31.15
31F963	CCB-13	.984"	.908	7.46	41.79	33.06
31F964	CCB-14	1.102"	.970	7.46	41.91	35.31
31F965	CCB-15	1.227"	1.062	12.70	47.14	37.31

TINNED SOLDER LUGS



No.	Fig.	Hole size	100 for	1000 for
31F910	E	1/4"	.54	4.65
31F911	F	1/4"	.70	6.00
31F914	F	3/32"	.78	6.68
31F913	G	1/8"	1.02	8.70
31F915	G	1/4"	2.28	19.50

WALSCO HARDWARE ASSORTMENT

An exceptionally useful assortment of screws, nuts, washers, springs, clamps, terminals, etc. Up to 1000 pieces of standard hardware, all in popular sizes. Wt., 2 1/2 lbs.



31F970. NET 1.17

Solderless Terminals and Connectors

WALDOM

Terminals are made from the finest materials. Annealed Electrolytic copper and Electro-Tin plated. One-piece design, internally serrated, strength gussets, and chamfered edge.
KRIMPITITE®—Non-insulated terminals make positive connections and save labor—the most uniformly reliable connection.
INSULKRIMP®—Has all the advantages of the KRIMPITITE® terminals, plus rigid vinyl plastic insulating sleeve.



BASIC DIMENSIONS

Wire Range	Stud Size	Width	Stud Clearance	KRIMPITITE						INSULKRIMP					
				Length	Stock No.	Mrs. Type	100-999 Per C	1000-4999 Per M	5000-UP Per M	Length	Stock No.	Mrs. Type	100-999 Per C	1000-4999 Per M	5000-UP Per M
22-18	3-4	1/4	7/32	5/8	31F518	S-1116	1.96	14.12	11.03	1 1/2	31F532	T-2116	4.06	30.05	23.48
22-18	5-6	19/64	7/32	5/8	31F519	S-1014	1.96	14.12	11.03	1 1/2	31F533	T-2014	4.06	30.05	23.48
22-18	8	19/64	7/32	5/8	31F520	S-1030	1.96	14.12	11.03	1 1/2	31F534	T-2030	4.06	30.05	23.48
22-18	10	5/16	7/16	3/4	31F521	S-1032	1.96	14.12	11.03	1 1/2	31F535	T-2032	4.06	30.05	23.48
16-14	5-6	19/64	7/32	5/8	31F522	S-1015*	2.05	14.77	11.54	1 1/2	31F536	T-2015+	4.06	30.05	23.48
16-14	8	19/64	7/32	5/8	31F523	S-1033	2.05	14.77	11.54	1 1/2	31F537	T-2033	4.06	30.05	23.48
16-14	10	2 3/4	9/32	5/8	31F524	S-1016*	2.05	14.77	11.54	1 1/2	31F538	T-2016+	4.06	30.05	23.48
12-10	10	3/8	7/16	2 3/32	31F525	S-1017	2.85	20.52	16.03	1 3/32	31F539	T-2017	5.26	38.93	30.41

HOOK TONGUE TERMINALS—FIG. B

22-18	5-6	5/16	5/16	2 3/32	30F626	S-1018*	1.96	14.12	11.03	2 3/32	30F627	T-2018	4.06	30.05	23.48
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FLANGED SPADE TERMINALS—FIG. C

22-18	5-6	19/64	7/32	5/8	31F526	S-1080*	1.96	14.12	11.03	1 1/2	31F540	T-2080+	4.06	30.05	23.48
22-18	8	19/64	7/32	5/8	31F527	S-1081	1.96	14.12	11.03	1 1/2	31F541	T-2081	4.06	30.05	23.48
22-18	10	5/8	1/4	2 3/32	31F528	S-1582	1.96	14.12	11.03	2 3/32	31F542	T-2582	4.06	30.05	23.48
16-14	5-6	19/64	7/32	5/8	31F529	S-1083	2.05	14.77	11.54	1 1/2	31F543	T-2083	4.06	30.05	23.48
16-14	8	19/64	7/32	5/8	31F530	S-1084	2.05	14.77	11.54	1 1/2	31F544	T-2084	4.06	30.05	23.48
16-14	10	3/8	1/4	2 3/32	31F531	S-1585	2.05	14.77	11.54	2 3/32	31F545	T-2585	4.06	30.05	23.48

RING TONGUE TERMINALS—FIG. D

22-18	1-2	7/32	5/32	3 3/4	31F546	S-1099	1.96	14.12	11.03	4 5/8	31F569	T-2099	4.06	30.05	23.48
22-18	3-4	7/32	5/32	3 3/4	31F547	S-1047	1.96	14.12	11.03	4 5/8	31F570	T-2047	4.06	30.05	23.48
22-18	5-6	9/32	1/4	4 1/4	31F548	S-1022*	1.96	14.12	11.03	5 3/8	31F571	T-2022+	4.06	30.05	23.48
22-18	8	5/16	3/16	3 3/4	31F549	S-1001*	1.96	14.12	11.03	2 3/8	31F572	T-2021	4.06	30.05	23.48
22-18	10	5/16	3/16	2 3/4	31F550	S-1003*	1.96	14.12	11.03	2 3/8	31F573	T-2003+	4.06	30.05	23.48
22-18	1/4	1 1/2	.400	5 1/8	31F551	S-1004	2.69	19.36	15.13	1 3/8	31F574	T-2004	5.26	38.93	30.41
16-14	5-6	1/4	7/32	1 1/2	31F555	S-1006*	2.05	14.77	11.54	2 3/8	31F578	T-2006+	4.06	30.05	23.48
16-14	8	5/16	9/32	4 5/8	31F556	S-1024	2.05	14.77	11.54	5 1/8	31F579	T-2024	4.06	30.05	23.48
16-14	10	5/16	9/32	4 5/8	31F557	S-1008*	2.05	14.77	11.54	5 1/8	31F580	T-2008+	4.06	30.05	23.48
16-14	1/4	1 1/2	.400	5 1/8	31F558	S-1009	2.69	19.36	15.13	1 3/8	31F581	T-2009	5.26	38.93	30.41
12-10	10	3/8	5/16	3 1/4	31F562	S-1011*	2.85	20.52	16.03	1 1/8	31F585	T-2011+	5.26	38.93	30.41
12-10	1/4	1 1/2	1 3/4	5 3/4	31F563	S-1100	3.76	27.08	21.15	1 3/8	31F586	T-2100	5.57	41.22	32.20
12-10	5/16	1 1/2	1 3/4	5 3/4	31F564	S-1101	3.76	27.08	21.15	1 3/8	31F587	T-2101	5.57	41.22	32.20
12-10	3/8	1 1/2	3 1/4	1 1/2	31F565	S-1013	4.14	29.81	23.29	1 1/8	31F588	T-2013	6.19	45.81	35.79

BUTT CONNECTORS—FIG. E

22-18				9/16	31F566	S-1019*	2.16	15.56	12.15	1 1/8	31F589	T-2019+	4.80	35.52	27.75
16-14				9/16	31F567	S-1020	2.16	15.56	12.15	1 1/8	31F590	T-2020	4.80	35.52	27.75
12-10				9/16	31F568	S-1046	3.84	27.65	21.60	1 1/8	31F591	T-2046	6.55	48.48	37.88

QUICK DISCONNECT PUSH-ON TYPE—FIG. F

18-14		1/4 Male	2 1/32	31F592	S-1089*	2.25	16.21	12.66	2 1/2	31F594	T-2089+	4.36	32.28	25.21
18-14		1/4 Female	4 1/64	31F593	SS-1090*	2.25	16.21	12.66	2 1/2	31F595	ST-2090+	4.36	32.28	25.21
18-14		3/8 Female	1 1/2	30F070	SS-1187	2.25	16.21	12.66	4 1/4	30F072	ST-2187	4.36	32.28	25.21
18-14		1/8 Female	2 3/64	30F071	SS-1186	2.25	16.21	12.66	2 1/8	30F073	ST-2186	4.36	32.28	25.21

RING TONGUE TERMINALS PRODUCED TO MIL-T-7928 (ASG)—FIG. D

VERSAKRIMP—(Prefix "B")—Barrel seam brazed with a special silver alloy. Won't split open under any conditions.
VIBRAKRIMP—(Prefix "SD")—Plated brass sleeve is fitted over terminal and extends to grip wire insulation. Resists vibration.
AVIKRIMP—(Prefix "N" or "SN")—In addition to sleeve above, has nylon insulation. Resists heat, vibration.

Wire Range	Stud Size	MS—20659 Dash No.	Stock No.	Mrs. Type No.	100-999 Per C	1000-4999 Per M	5000-UP Per M	MS—25036 Dash No.	Stock No.	Mrs. Type No.	100-999 Per C	1000-4999 Per M	5000-UP Per M
22-18	4	—38	30F757	SD-4047	4.59	36.72	27.54	—48	30F078	N-5047	6.55	53.19	39.91
22-18	6	—1	30F758	SD-4001	4.59	36.72	27.54	—1	30F079	N-5001	6.55	53.19	39.91
22-18	10	—2	30F759	SD-4003	4.59	36.72	27.54	—3	30F080	N-5003	6.55	53.19	39.91
16-14	4	—39	30F760	SD-4048	4.59	36.72	27.54	—52	30F765	SN-5048	6.55	53.19	39.91
16-14	6	—3	30F761	SD-4006	4.59	36.72	27.54	—6	30F617	SN-5006	6.55	53.19	39.91
16-14	10	—4	30F762	SD-4008	4.59	36.72	27.54	—8	30F081	SN-5094	6.55	53.19	39.91
12-10	10	—5	30F604	B-3011	4.43	35.59	26.68	—12	30F620	N-5011	8.20	65.61	49.22
12-10	5/16	—6	30F763	B-3101	5.12	40.94	30.71	—13	30F766	N-5101	8.38	66.99	50.26
12-10	3/8	—28	30F764	B-3013	5.37	42.96	32.22	—14	30F767	N-5013	9.19	72.68	54.51

NYLON INSULATED CLOSED-END CONNECTORS—FIG. G

Wire Range	O.D.	Barrel Length	I.D.	Length	Stk. No.	Mrs. Type	100-999 Per C	1000-4999 Per M	5000-UP Per M	Circular Mil Area
22-14	5/16	1 1/2	1/4	3 3/4	30F610	CE-2214+	3.36	24.20	18.90	600-5,180
16-10	7/16	3/8	3/8	2 3/4	30F611	CE-1610	4.92	35.43	27.68	2,400-13,000

SOLDERLESS TERMINALS & CONNECTOR ASSORTMENTS

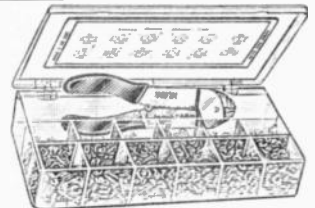
Type K-170. Contains 215 KRIMPITITE® (non-insulated) terminals. Contains types indicated above by (*) and Universal Crimping Tool below.
30F755. NET each 8.95

Type K-180. Contains 138 INSULKRIMP® (insulated) terminals. Contains types indicated above by (+) and Universal Crimping Tool below.
30F756. NET each 10.95

UNIVERSAL CRIMPING TOOL

Type CT-4050—Crimps both insulated and non-insulated types 22 thru 10, strips wire.

Constructed of tool steel. Wt. 1 lb.
30F631. Net Each 3.95



Waldom & G. C. Hardware



ROUND HEAD MACHINE SCREWS Steel-Nickel Plated

Stk. No.	Description	100-999 NET/C	1000-4999 NET/M	5000-up NET/M
31F2188	2-56 x 1/4	.47	3.54	2.70
31F2189	2-56 x 1/2	.50	3.85	2.94
31F2190	2-56 x 3/4	.58	4.47	3.41
31F2187	4-40 x 1/4	.58	4.47	3.41
31F2085	4-36 x 1/2	.50	3.85	2.94
31F2191	4-40 x 3/8	.52	4.03	3.08
31F2089	4-36 x 3/8	.54	4.18	3.19
31F2033	4-36 x 1/2	.57	4.51	3.44
31F2090	4-36 x 3/4	.64	5.00	3.81
31F2086	4-40 x 1/4	.50	3.85	2.94
30F082	4-40 x 3/8	.52	4.03	3.07
31F2087	4-40 x 1/2	.54	4.18	3.19
31F2034	4-40 x 3/8	.57	4.54	3.44
31F2088	4-40 x 1/4	.64	5.00	3.81
31F2091	6-32 x 1/4	.53	4.25	3.24
30F083	6-32 x 3/8	.57	4.50	3.43
31F2092	6-32 x 1/2	.62	4.92	3.75
31F2035	6-32 x 3/4	.68	5.41	4.13
31F2093	6-32 x 1	.72	5.87	4.48
31F2094	6-32 x 1 1/4	.83	6.64	5.07
31F2192	6-32 x 1 1/2	1.00	8.04	6.13
31F2195	6-32 x 2	1.50	12.06	9.20
31F2096	8-32 x 3/8	.78	6.15	4.69
31F2097	8-32 x 1/2	.82	6.56	5.00
31F2098	8-32 x 3/4	.93	7.38	5.63
31F2099	8-32 x 1	1.07	8.50	6.48
31F2193	8-32 x 1 1/4	1.23	9.95	7.59
31F2100	10-32 x 1/2	.95	7.54	5.75
31F2037	10-32 x 3/8	1.03	8.20	6.26
30F084	10-32 x 1/4	1.12	8.98	6.85
31F2101	10-32 x 3/4	1.25	9.92	7.57
31F2194	10-32 x 1 1/2	1.65	13.12	10.01
30F085	1 1/4-20 x 1	2.35	19.27	14.69

Cross-Nickel Plated

31F2038	2-56 x 1/4	.70	5.49	4.19
31F2039	2-56 x 1/2	.80	6.45	4.92
31F2041	2-56 x 3/4	.93	7.63	5.82
31F2042	3-48 x 3/4	1.05	8.61	6.57
31F2043	4-36 x 1/4	.80	6.45	4.92
31F2047	4-40 x 1/4	.80	6.45	4.92
31F2048	4-40 x 1/2	1.02	8.10	6.18
31F2050	4-40 x 3/4	1.27	9.84	7.51
31F2049	6-32 x 1/4	1.08	8.63	6.58
31F2051	6-32 x 3/8	1.15	9.22	7.03
31F2298	6-32 x 1/2	1.30	10.38	7.92
31F2052	6-32 x 3/4	1.51	11.47	8.75
31F2299	6-32 x 1	1.58	12.76	9.67
30F086	6-32 x 1 1/4	1.88	15.00	11.44
31F2053	6-32 x 1 1/2	2.18	17.82	13.18
31F2054	6-32 x 2	3.68	29.40	22.43
30F087	8-32 x 3/8	1.68	13.43	10.25
31F2302	8-32 x 1/2	1.92	15.37	11.73
31F2303	8-32 x 3/4	2.35	18.75	14.30
31F2304	8-32 x 1	2.80	22.35	17.05
31F2057	8-32 x 1 1/4	3.28	26.25	20.03
31F2058	10-32 x 1/2	2.43	19.50	14.88
31F2059	10-32 x 3/8	2.70	21.67	16.53
30F088	10-32 x 3/4	2.95	23.55	17.97
31F2061	10-32 x 1	3.52	28.08	21.42

HEX HEAD SHEET METAL SCREWS



Type A—Slotted Self-Tapping Nickel Plated

30F092	4 x 3/8	.77	6.25	4.77
31F2124	4 x 1/2	.82	6.72	5.13
31F2125	6 x 1/4	.87	7.25	5.53
31F2126	6 x 3/8	.89	7.30	5.57
31F2127	6 x 1/2	.94	7.75	5.91
31F2069	6 x 5/8	.95	7.80	5.95
31F2128	6 x 3/4	1.00	7.95	6.06
31F2291	8 x 1/4	1.00	7.95	6.06
31F2129	8 x 3/8	1.05	8.36	6.38
31F2130	8 x 1/2	1.08	8.61	6.57
31F2070	8 x 3/4	1.10	8.77	6.69
31F2132	10 x 1/2	1.27	10.09	7.70
31F2133	10 x 3/4	1.40	11.15	8.51

PAN HEAD SHEET METAL SCREWS



Type A—Steel-Nickel Plated

30F685	4 x 1/2	.77	6.25	4.77
30F686	6 x 1/4	.82	6.72	5.13
30F687	6 x 3/8	.84	6.89	5.26
30F688	6 x 1/2	.89	7.30	5.57
30F689	6 x 3/4	.97	7.85	5.99
30F690	8 x 1/4	.97	7.85	5.98
30F691	8 x 3/8	1.02	8.25	6.29
30F692	8 x 1/2	1.05	8.36	6.38
30F693	8 x 1	1.34	10.99	8.38



ROUND HEAD WOOD SCREWS Steel-Nickel Plated

Stk. No.	Description	100-999 NET/C	1000-4999 NET/M	5000-up NET/M
31F2134	4 x 1/2	.78	6.26	4.78
31F2136	6 x 1	1.20	9.60	7.32
31F2137	8 x 3/4	1.15	9.18	7.00
31F2287	8 x 1 1/4	1.58	12.72	9.70



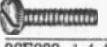
OVAL HEAD RACK AND CABINET SCREWS Steel-Nickel Plated

31F2066	8-32 x 3/8	1.05	8.69	7.82
31F2067	10-32 x 1/2	1.13	9.15	8.24
31F2176	6-32 x 1/2	.82	4.92	3.75
31F2177	6-32 x 3/4	.72	5.87	4.48
31F2178	6-32 x 1	.93	7.38	5.63
31F2313	10-32 x 1/2	.95	7.54	5.75
31F2179	10-32 x 3/4	1.12	8.98	6.85



BINDING HEAD MACHINE SCREWS Steel-Nickel Plated

30F694	2-56 x 1/8	.64	4.70	3.59
30F695	2-56 x 1/4	.47	3.54	2.70
30F696	2-56 x 1/2	.50	3.85	2.94
30F698	4-40 x 1/4	.50	3.85	2.94
30F699	4-40 x 1/2	.54	4.18	3.19
30F700	4-40 x 3/4	.64	5.00	3.81
31F2196	6-32 x 3/8	.55	4.26	3.25
31F2197	6-32 x 1/2	.53	4.25	3.24
31F2198	6-32 x 3/4	.57	4.50	3.43
30F701	6-32 x 1	.62	4.92	3.75
30F702	6-32 x 1 1/4	.68	5.41	4.13
30F703	6-32 x 1 1/2	.72	5.87	4.48
30F704	8-32 x 3/4	.70	5.55	4.23
31F2201	8-32 x 1	.78	6.15	4.69
30F705	8-32 x 3/8	.78	6.15	4.69
30F706	8-32 x 1/2	.82	6.56	5.00
30F707	8-32 x 3/4	.93	7.38	5.63
30F708	10-32 x 1/2	.95	7.54	5.75
30F709	10-32 x 3/4	1.12	8.98	6.85



Brass-Nickel Plated

30F089	4-40 x 1/4	.80	6.45	4.92
30F090	4-40 x 1/2	1.02	8.10	6.18
30F091	4-40 x 3/4	1.27	9.84	7.51
30F0710	6-32 x 1/4	1.08	8.63	6.58
30F711	6-32 x 1/2	1.15	9.22	7.03
30F712	6-32 x 3/4	1.30	10.38	7.92
30F713	6-32 x 1	1.58	12.67	9.67
30F715	8-32 x 3/4	1.68	13.43	10.25
30F716	8-32 x 1	1.92	15.37	11.73
30F717	8-32 x 3/2	2.35	18.75	14.30



FLAT BRASS WASHERS Nickel Plated

Stk. No.	For Screw Size	100-999 Net/C	1000-4999 Net/M	5000-up NET/M
30F350	#2	.45	3.70	2.82
30F351	#4	.47	3.85	2.94
30F352	#6	.62	4.92	3.75
30F353	#8	.62	4.92	3.75
30F354	#10	.67	5.33	4.07



SPLIT TYPE LOCK WASHERS Zinc Plated

31F2160	#4	.57	4.51	3.44
31F2161	#6	.47	3.85	2.94
31F2162	#8	.46	3.77	2.88
31F2163	#10	.53	4.25	3.24



FLAT FIBRE WASHERS

30F355	#4	.44	3.60	2.75
31F2165	#6	.44	3.60	2.75
31F2166	#8	.47	3.85	2.94
31F2167	#10	.47	3.85	2.94
30F356	1/4	.52	4.03	3.07
31F2169	3/8	.77	6.15	4.69



EXTRUDED FIBRE WASHERS

30F357	#4	.87	6.89	5.26
31F2171	#6	.87	6.89	5.26
31F2172	#8	.87	6.89	5.26
31F2173	#10	.95	7.54	5.75
31F2174	1/4	.95	7.54	5.75
31F2175	3/8	.98	7.79	5.94



CUP FINISHING WASHERS Nickel Plated

Stk. No.	For Screw Size	100-999 Net/C	1000-4999 Net/M	5000-up NET/M
31F2142	#6	.46	3.78	2.88
31F2143	#8	.49	4.05	3.09
31F2144	#10	.55	4.35	3.32



FLAT STEEL WASHERS Nickel Plated

30F093	#2	.43	3.55	2.71
31F2138	#4	.33	2.75	2.10
31F2139	#6	.33	2.75	2.10
31F2140	#8	.33	2.75	2.10
31F2241	#10	.37	3.12	2.38
30F094	1/4	.67	5.33	4.07



SHAKE-PROOF PRODUCTS INTERNAL LOCK WASHERS

Stk. No.	Type	For Screw Size	100-999 Net/C	1000-4999 Net/M	5000-up NET/M
30F632	1202	#2	.73	4.51	3.13
30F634	1204	#4	.44	2.88	2.00
30F636	1206	#6	.44	2.88	2.00
30F637	1208	#8	.48	2.98	2.07
30F638	1210	#10	.48	2.98	2.07
30F640	1214	1/4	.63	4.04	2.80
30F642	1220	3/8	.94	7.10	4.93



SHAKERPROOF® EXTERNAL LOCK WASHERS

30F644	1104	#4	.44	2.88	2.00
30F646	1106	#6	.44	2.88	2.00
30F647	1108	#8	.48	2.98	2.07
30F648	1110	#10	.48	2.98	2.07
30F650	1114	1/4	.63	4.04	2.80
30F652	1120	3/8	.94	7.10	4.93



SHAKE-PROOF EXT. LOCKWASHER KEYS® Steel-Cadmium Plated

Stk. No.	Size	100-999 Net/C	1000-4999 Net/M	5000-up NET/M
30F680	4-40x1/4x3/2	2.48	18.30	14.86
30F681	6-32x1/2x1/4	1.96	14.48	11.73
30F682	8-32x1/2x1/4	2.02	14.85	12.13
30F683	10-32x3/8x1/8	2.12	15.60	12.73
30F684	1/4-20x1/2x3/16	2.67	19.85	16.00

VINYL GROMMETS Exceptional Aging Qualities

Stk. No.	I.D.	Chassis Hole	100-999 Net/100	1000-4999 Net/1000	5000-up Net/1000
30F743	1/8"	1/4"	.90	7.48	5.85
30F744	3/16"	5/16"	.99	8.25	6.29
30F745	1/4"	3/8"	1.32	9.51	7.26
30F746	5/16"	7/8"	1.44	10.17	7.76
30F747	3/8"	1/2"	1.44	10.17	7.76
30F748	1/2"	5/8"	2.32	17.71	13.51
30F749	5/8"	7/8"	4.68	30.42	23.51

RUBBER GROMMETS

Stock No.	Mtg. Hole D.	I.D.	100-999 NET/100	1000-4999 NET/1000	5000/9999 NET/1000
31F2000	1/4"	1/8"	1.23	9.82	8.84
31F2001	5/16"	3/16"	1.40	11.09	9.98
31F2002	3/8"	1/4"	1.84	14.85	13.37
31F2003	5/8"	1/2"	3.17	29.04	26.14
31F2004	3/4"	3/8"	2.08	16.66	14.99
31F2080	3/4"	9/16"	3.88	35.00	31.50
31F2081	1"	5/8"	5.67	45.34	40.81
31F2082	1 1/8"	3/4"	7.48	59.80	53.82
31F2083	1 1/4"	7/8"	6.30	50.49	45.44
31F2084	1 1/2"	1 1/16"	12.70	108.31	97.48
31F2282	3/8"	1/4"	2.70	21.48	19.33
31F2283	7/8"	3/8"	6.33	50.32	45.29

RUBBER BUTTON BUMPERS

Stk. No.	O.D.	Hole Size	100-999 Net/100	1000-4999 Net/1000	5000-up Net/1000
31F2284	3/8"	3/16"	1.43	11.50	8.77
31F2285	1/2"	1/4"	2.10	16.85	12.85
31F2286	5/8"	3/8"	3.38	27.10	20.67

METAL CABLE HOLDER CLAMPS

Cadmium Plated

Stk. No.	To Fit Cable	Mtg. Hole	100-999 Net/100	1000-4999 Net/1000	5000-up Net/1000
30F358	1/8"-3/8"	.144"	1.02	8.35	6.37
30F359	3/16"-1/4"	.144"	1.17	9.60	7.32
30F360	1/4"-5/16"	.144"	1.30	10.65	8.12

SPRING CLIPS—BRASS, NICKEL PLATED

Stk. No.	Ht.	Width	Mtg. Hole	100-999 Net/100	1000-4999 Net/1000	5000-up Net/1000
30F361	45/64	2/16	.130	1.37	10.85	8.28
30F362	27/64	5/16	.144	1.82	14.35	10.85
30F363	1	3/8	.144	2.67	22.23	16.96

STEEL SPADE BOLTS

Nickel Plated

Stk. No.	Screw Length	Thread	100-999 NET/100	1000-4999 NET/1000	5000-up Net/1000
31F2122	7/8"	6-32x1/4 (1/16 Hole)	1.12	9.15	6.98
31F2121	3/4"	6-32x1/16	1.12	9.15	8.23
31F2123	5/8"	6-32x1/8	2.93	23.40	21.06

HEXAGON NUTS—Brass-Nickel Plated

Stk. No.	Size	100-999 Net/100	1000-4999 Net/1000	5000-up Net/1000
31F2214	2-58x3/16x1/16	.98	7.86	6.00
31F2215	3-48x3/16x1/16	.89	7.18	5.48
31F2216	4-36x1/4x3/32	1.18	9.45	7.21
31F2217	4-40x1/4x3/32	1.17	9.36	7.14
31F2218	6-32x1/4x3/32	1.16	9.33	7.12
31F2071	6-32x1/4x3/4	1.40	11.26	8.59
31F2072	8-32x1/4x3/8	1.16	9.33	7.12
31F2219	8-32x1/4x1/4	1.40	11.26	8.59
31F2220	10-32x3/8x1/4	1.53	12.32	9.40

HEXAGON NUTS—Steel-Nickel Plated

Stk. No.	Size	100-999 Net/100	1000-4999 Net/1000	5000-up Net/1000
31F2207	2-56x3/16x1/16	.68	5.41	4.13
31F2208	3-48x3/16x1/16	.68	5.41	4.13
31F2105	4-36x1/4x3/32	.67	5.33	4.07
31F2106	4-40x1/4x3/32	.67	5.33	4.07
31F2107	6-32x1/4x3/32	.67	5.33	4.07
31F2209	6-32x3/8x1/4	.73	5.82	4.44
31F2108	8-32x1/4x3/8	.67	5.83	4.07
31F2210	8-32x3/8x1/4	.73	5.82	4.44
31F2111	10-32x3/8x1/2	.85	6.80	5.19

CONTROL AND SWITCH MTG NUTS

Stk. No.	Size	100-999 Net/100	1000-4999 Net/1000	5000-up Net/1000
31F2112	3/8-32x1/2x3/32	1.47	12.05	9.19
31F2113	15-32x3/8x3/4	1.80	14.76	11.26
31F2114	*.475x1/8x1/16	3.40	27.34	20.78
31F2211	1/4-20x1/8x3/16	1.22	9.76	7.44

*Knurled Ring Nut.

WING NUTS—Nickel Plated

Stk. No.	Size	100-999 Net/100	1000-4999 Net/1000	5000-up Net/1000
31F2183	6-32	2.63	21.88	16.69
31F2184	8-32	2.63	21.88	16.69
31F2185	10-32	2.63	21.88	16.69

INTERNAL LOCK WASHERS—CADMIUM PLATED

Stock No.	For Screw Size	O.D.	100-999 Net/100	1000-4999 Net/1000	5000-9999 Net/1000
31F2243	No. 2	.....	.79	6.36	5.72
31F2244	No. 3	.....	.69	5.53	4.98
31F2245	No. 4	.....	.50	3.99	3.59
31F2246	No. 6	9/32"	.50	3.99	3.59
31F2247	No. 8	21/64"	.55	4.38	3.94
31F2248	No. 10	3/8"	.55	4.38	3.94
31F2249	No. 1/4"	13/32"	.72	5.78	5.20
31F2250	No. 3/16"	19/32"	.90	7.18	6.46
31F2251	No. 3/8"	11/16"	1.21	9.66	8.69
31F2252	No. 3/8"	9/16"	1.38	10.98	9.88
31F2253	No. 15/32"	19/32"	1.74	13.89	12.50

BRASS EYELETS

Stock No.	Shank Diam.	Length	100-999 Net/100	1000-4999 Net/1000	5000-9999 Net/1000
31F2221	.087"	1/8"	.32	2.62	2.36
31F2222	.087"	5/32"	.41	3.30	2.97
31F2223	.087"	7/32"	.54	3.70	3.33
31F2224	.087"	11/32"	1.24	10.04	9.04
31F2225	.123"	5/16"	.58	4.60	4.14
31F2226	.123"	7/16"	.49	3.70	3.33
31F2227	.123"	9/16"	.61	4.83	4.35
31F2228	.123"	5/8"	.62	4.91	4.42
31F2231	.182"	.145"	.37	2.93	2.64

RUBBER FEET

Stock No.	O.D.	High	100-999 Net/100	1000-4999 Net/1000	5000-9999 Net/1000
31F2006	3/8"	3/16"	1.45	11.88	10.69
31F2007	1/4"	1/4"	1.91	15.84	14.26
31F2008	5/8"	3/16"	2.71	21.89	19.70

RUBBER TACK BUMPERS

31F2009	3/8"	2.04	16.26	14.63
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SNAP BUTTON HOLE PLUGS

Nickel Plated

Stock No.	O.D.	100-999 Net/100	1000-4999 Net/1000	5000-9999 Net/1000
31F2015	3/8"	3.39	27.06	24.35
31F2016	1/4"	3.39	27.06	24.35
31F2017	5/8"	3.63	29.04	26.14
31F2018	3/4"	3.96	31.68	28.51

TINNERMAN SPEED NUTS

Stock No.	No.	100-999 Net/100	1000-4999 Net/1000	5000-9999 Net/1000
31F2116	No. 6	.86	6.85	6.17

BRASS ACORN NUTS—NICKEL PLATED

Stock No.	Thread	100-999 Net/100	1000-4999 Net/1000	5000-9999 Net/1000
31F2102	6-32	3.10	24.75	22.28
31F2103	8-32	3.30	26.40	23.76

SOLDER LUGS

Hot Tin Dipped

Stk. No.	Material	Fig.	Hole Size	Length	100-999 Net/100	1000-4999 Net/1000	5000-up Net/1000
30F368	Brass	A	#6	2 1/2	.88	7.22	5.51
30F369	Brass	A	#8	2 1/2	.88	7.22	5.51
30F370	Brass	A	#10	4 1/4	1.13	9.12	6.95
30F371	Copper	B	#4	9/16	.94	7.71	5.88
30F372	Copper	B	#6	1/2	.94	7.71	5.88
30F373	Brass	B	#8	2 1/2	.94	7.71	5.88
30F374	Brass	B	#10	2 1/2	.94	7.71	5.88

C-WASHERS AND RETAINING RINGS

Stock No.	Description	100-999 Net/100	1000-4999 Net/1000	5000-9999 Net/1000
31F2145	For shaft dia. 3/16"	1.05	9.32	8.39

KNURLED THUMB NUTS

Brass Nickel Plated

31F2180	6-32	2.50	19.97	17.97
31F2181	8-32	2.50	19.97	17.97



Tools - Chemicals

CLEAN, BRUSHLESS
SPRA-KOAT PRODUCTS



K-27 PRINT-KOTE

TV silicone resin used by many manufacturers on all printed circuit sets. A wonder-performing chemical that insulates, protects and prevents shorts... insures a truly satisfactory job. Air-dries... requires no baking. 6 oz. can.
32F357. 14-6. NET. **2.42**

RUF KOTE SPRA-KOAT

The only finish that will air dry and give a professional wrinkle job without baking. Employed by many manufacturers on PA equipment, chassis, panels, and racks. Easy, simple to use. 16 oz. can.
32F325. 60-12. Black. NET. **2.25**
32F326. 60-13. Gray. NET. **2.25**

HAMMER-KOAT

Achieves a professional air-drying hammer finish that's perfectly adapted for use on panels, racks, instruments, chassis, etc. Extremely easy to use... dries in a matter of minutes. 16 oz. can.
32F327. 63-12. Brown. NET. **2.30**
32F328. 64-12. Blue. NET. **2.30**
32F329. 65-12. Silver. NET. **2.30**

TELEPHONE SPRA-KOAT

A high grade satin finish lacquer that covers evenly, dries quickly. Available in a rich ebony black for telephone devices panels, or gray that is excellent for panel work, instrument finishes, etc. Easy to use... just spray on. 16 oz. can.
32F330. 62-12. Black. NET. **2.30**
32F331. 62-13. Gray. NET. **2.30**



13-2 12-2 9131

PRINT-KOTE SOLVENT

No. 13-2. Solvent for No. 14-2. Print-Kote Silicone Resin. Dissolves and removes silicone resin from printed circuit. Shipping wt. 2 oz.
32F360. NET. **.42**

PRINT-KOTE SOLDERING FLUX

No. 12-2. Especially made for printed circuits. Non-corrosive liquid flux for easy soldering and repair jobs. Paves the way for quality work in less time. 2 oz.
32F362. NET. **.60**

PRINT-KOTE SOLDER

No. 9131. For printed circuits. Special Non-corrosive flux and low-melting solder combined with pure silver. Weight, 2 oz. 11 ft. coil.
32F361. NET. **52c**

LIQUID TAPE

Excellent for high voltage insulation. Applies as a paste but dries as a hard strong chip and crack proof insulation. Prevents corona and electrolysis leaks and prevents moisture, dirt or grime from erosion on contacts.
32F380. 176-2 oz. bottle. **1.05**
32F345. 176-16 oz. bottle. **6.40**

COPPER PRINT

For repairing printed circuit. High conductive, fast drying compound. Complete with brush-top cap.
32F346 #20-2 2 oz. bottle. **1.95**

RELAY CLEAN



Type 8682. Dry contact cleaner. Excellent for cleaning relays and contacts in switchboards, automatic pinball or bowling games, rocket and satellite circuitry. Cleans without leaving any oily residual deposit. Also an excellent degreaser and general solvent for gummy deposits. Non-flammable. Shpg. Wt. 6 oz.

32F349. NET. **1.89**

ZERO-MIST SPRA-KOAT



Revolutionary idea from GC! Now, locate intermittents without frustrating hours of checking! Zero-Mist spots instantly any component defective due to temperature change. Just spray on the questionable condenser, resistor, transistor, etc. Zero-Mist cools it immediately, isolating the trouble. 16 oz.
34F610. 8667. NET. **2.42**

SPRA-KLEEN

Type 8666. Electrical cleaner and lubricant. Eliminates noise due to dust, dirt and corrosion on electrical contacts. Lubricates in 1 operation.
32F343. 6 oz. can. 8666. NET. **.99**

INSPECTION MIRROR



Type 5090. Indispensable for inspecting coils, resistors, connections, etc., in tightly wired radio chassis. Length 7 7/8". Shpg. wt., 5 oz.
34F557. NET. **42c**

G-C MINIATURE TUBE PULLER

"Amo" tube puller for miniature tubes. Easy to use. Tube is released by pressing button. 4 oz.
34F558. 7-pin. 5093. NET. **1.30**
34F556. 9-pin. 8106. EACH **1.30**

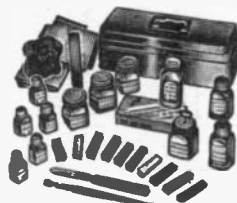
G-C MINIATURE PIN STRAIGHTENER

Steel die for straightening pins on miniature tubes. Carry in tool box or fasten to bench. 6 oz.
34F554. 9-pin. 8105. EACH **75c**

G-C TUBE EXTRACTOR

Type 5082. Zinc plated iridized spring steel. Molded neoprene cushion over claws. Removes all makes and sizes of tubes and will not damage tube socket or shield. Permits quick manipulation from any angle. 6 oz.
34F752. NET. **98c**

MASTER DELUXE CABINET REPAIR KIT



Type 900. All essentials to fix wood and plastic cabinets, knobs, refrigerators, appliances, etc.: Spirit stains, varnishes, enamels. Make quick repair without spoiling adjoining finish.
Shpg. wt., 5 lbs.
32F353. NET. **9.65**

PRINTED CIRCUIT AIDS



PRINTED CIRCUIT KIT

Type 680. All the materials you need for repairing any printed circuit in radio or TV sets. Contains: Print-Kote, Silicone Resin, Print-Kote Solvent, 1/2 oz. Pure Silver Print, Scraper, Special Print-Kote Solder, Solder Probe Tool, Stainless Brush and Printed Circuit Manual. Shipping weight, 2 lbs.
32F358. NET. **6.35**

SILVER PRINT

No. 21-1. "Pure silver" compound used by manufacturers in printed circuit design. Tops for repair work or touching up a circuit. Wt., 1/2 Troy ounce.
32F355. NET. **3.30**

PRINT-KOTE SILICONE RESIN

No. 14-2. Silicone resin used by manufacturers to protect their printed circuits. Fast drying. With brush. 2 oz.
32F359. NET. **1.40**

DIAL CORD

Dial cord in popular sizes. The following service spools cover 90% of all replacement needs. Nylon cord with a fiberglass core. Treated to prevent stretching and slipping. Wt. 4 oz.
Type 75-A. Extra thin cord. 0.025" dia., 30 lbs. brk. stgh.

25F800. 10-ft. hank. NET. **.36**
25F801. 25-ft. spool. NET. **.75**
25F802. 100-ft. spool. NET. **2.37**

Type 75. Standard cord, .028" diameter. 30 lbs. breaking strength.
25F803. 10-ft. hank. NET. **.36**
25F804. 25-ft. spool. NET. **.75**
25F805. 100-ft. spool. NET. **2.37**

Type 74. Medium cord, .040" diameter. 35 lbs. breaking strength.
25F806. 10-ft. hank. NET. **.36**
25F807. 25-ft. spool. NET. **.75**
25F808. 100-ft. spool. NET. **2.37**

GENERAL CEMENT "NE-O-LITE"

Designed for easy use. Neon glow-type tester for voltages ranging from 60 volts AC-DC to 550 volts AC/DC. Neon bulb in insulated holder. 5" insulated leads with phone tips. Wt. 3 oz.
34F680. Type 5100. NET. **45c**

ELECTRONIC OIL ASSORTMENT KIT

Type 9400. Oil Assortment Kit contains all oils commonly used in electronic work. Included is recorder, penetrating, phono, radio-TV, and dripless oil. The other tube is liquid graphite. Shpg. wt., 1 lb.
32F364. NET. **2.10**

SPRAY ADHESIVE

Type 8687. Spray is clear and odorless. Offers immediate tack. Useful in bonding nearly all types of materials. 16 oz. can.
32F375. NET. **1.95**



POPULAR SELECTION OF CHEMICALS SOLVENTS—CEMENTS—CLEANERS



SOLVENTS

Radio Service Cement Solvent. For loosening cement on speaker cones, frames, etc. Will cut most speaker cements.
32F231. 2-oz. bottle. 31-2. NET.....**.52**
32F232. 4-oz. bottle. 31-4. NET.....**.82**
32F233. 8-oz. bottle. 31-8. NET.....**.95**

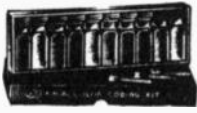
Cement Thinner. Will thin radio and plastic cement without changing characteristics.
32F336. 2-oz. bottle. 28-2. NET.....**.52**

Q-Dope Thinner. Solvent for polystyrene Q-Dope and other polystyrene coil dopes, cements, rods, sheets, etc.
32F240. 2-oz. bottle. 41-2. NET.....**.52**
32F241. 4-oz. bottle. 41-4. NET.....**.82**

"Strip-Ex". Strips enamel from magnet wire, enabling it to be soldered immediately.
32F255. 2-oz. bottle. 26-2. NET.....**.78**

COLORING KITS

Color-Code Kit. E.I.A. colors: Black, brown, red, orange, yellow, green, blue, purple, gray and white. Includes brushes and E.I.A. coloring chart. Shpg. wt., 1 lb.
32F350. 677. NET.....**1.47**



Dial Lite Color Kit. Instant drying lacquer for 5 colors and solvent, multi-colored dials, signals, lighting. Shpg. wt., 1 lb.
32F351. 66-6. NET.....**1.43**

DOPE AND VARNISHES

High Voltage and Corona Dope. Prevents corona shorts on high voltage circuits in TV sets. High insulating qualities.
32F206. 2-oz. bottle. 47-2. NET.....**.78**
32F207. 8-oz. bottle. 47-8. NET.....**2.15**

Q-Dope. Pure polystyrene dissolved in Q-Dope Thinner. Will not change RF circuit values. Fully moisture-repellent. 2-oz. bottle.
32F208. 37-2. NET.....**.55**
32F209. 4-oz. bottle. 37-4. NET.....**.83**

Insulating and Dipping Varnish. Produces a smooth, tough insulating film that is non-corrosive. Recommended for field coils, noisy transformers, etc. 2-oz. bottle.
32F211. 56-2. NET.....**.60**
32F213. 8-oz. bottle. 56-8. NET.....**1.35**

RED INSULATING VARNISH

Most common of all protective insulating coatings, used on all solder connections, high voltage points, etc. 2-oz. bottle.
32F332 Type 90-2. NET.....**.63**

LUBRICANTS

Red Electronic Contact Cleaner. For switch or relay contacts, volume controls, etc. with brush.
32F250. 2-oz. bottle. 210-2. NET.....**.60**
32F251. 4-oz. bottle. 210-4. NET.....**.90**
32F252. 8-oz. bottle. 210-8. NET.....**1.65**

Phone-Motor and Gear Lubricant. Specially made lubricant that clings to the surface of the parts. Insures long life. 2-oz. tube. 1223S.
32F244. NET.....**.55**



CEMENT

NE-O-Prene Cement. Fast drying cement that sticks neoprene rubber to neoprene and to other materials (metals, paper, wood, etc.). Complete with attached brush applicator.
32F376. 2 oz. bottle. 52-2. NET.....**.87**

Type 345. Cement Sampler Lab Kit. 14 bottles contain cement and adhesive for every application. Cements of all types are included with instructions. Tops for lab's and engineer's use and handy for the shop or factory. 2-oz. bottles.
32F257. NET.....**5.97**

Pliobond Cement. Cold setting thermoplastic liquid. Dries quickly, waterproof. For steel, glass, iron.
32F256. 2-oz. bottle. 43-2. NET.....**.60**

Radio Service Cement. Mends speaker cones, tube bases, grid caps, etc. Can also be used for bakelite cement. Vibration-proof, water-proof and fast drying.

32F214. 2-oz. bottle. 30-2. NET.....**.55**
32F216. 8-oz. bottle. 30-8. NET.....**1.45**

Radio and TV Cement. For television work: seals nuts, bolts, etc., on antennas, rotators, etc. Also used for repair of parts and cabinets. Waterproof.
32F215. 2-oz. tube. 34-2. NET.....**.55**

Plastic Cement. Excellent for cementing broken plastic cabinets, dial and glass crystal assemblies, knots in dial cord, etc. Very fast drying, water-proof.
32F217. 2-oz. bottle. 32-2A. NET.....**.55**

Bakelite Cement. Made for cementing bakelite to bakelite, and bakelite to other materials. Also for repairing broken molded pieces, knobs, panels, etc.
32F220. 2-oz. bottle. 32-2. NET.....**.87**

Vinylite Cement. For metals, plastics, paper, leather, etc. Can also be used as a thermoplastic cement for non-porous materials.
32F221. 2-oz. bottle. 58-2. NET.....**.55**

Household and Model Cement. Fast-drying cement, suitable for many uses. Will cement wood, paper, plastics, metal, ceramics, etc. Fast-drying, water-proof.
32F222. 2-oz. bottle. 45-2. NET.....**.55**

Wood and Cabinet Glue. Used in repair of furniture, chairs, radio cabinets, etc. Can also be used for gluing on radio grille cloth, labels, to wood, etc.
32F224. 2-oz. bottle. 39-2. NET.....**.55**

Rubber to Metal Cement. For cementing rubber dial drives to metal shafts, rubber mounting to chassis, or for any rubber material to metal, wood, etc. Water-proof.
32F225. 2-oz. bottle. 35-2. NET.....**.60**

Fabric Cement. For use in cementing grille cloth, leatherette, and fabric covering to metal, wood, etc. Has minimum penetration and good adhesion.
32F226. 2-oz. bottle. 22-2. NET.....**.60**

Acrylic Cement. Specially prepared for cementing Lucite, plexiglass and other acrylic materials. Fast-drying; welds the materials together.
32F228. 2-oz. bottle. 40-2. NET.....**.60**

LIQUID NON-SLIP

Penetrating dressing. Shrinks fibres; prolongs life, prevents slipping of dial cord, etc.
32F229. 1/2-oz. bottle. 1211. NET.....**.38**
32F230. 2-oz. bottle. 1215. NET.....**.55**



CLEANERS

Carbon-tetrachloride. For mechanical and electrical parts. Removes oils, grease, etc. Will not burn.

32F342. 2 oz. bottle. 211-2. NET.....**.52**
32F260. 8 oz. bottle. 211-8. NET.....**.95**
32F261. 16-oz. bottle. 211-16. NET.....**1.55**

G-C Klear Lens. Specially prepared for cleaning TV lens and tubes. Eliminates finger marks and spots, etc. 6 oz. "Spray Squeeze" bottle.
32F381. 9081. NET.....**.75**

"G-C 60". Glass Treatment Compound. Makes all glass and plastics cleaner and brighter, degreases, removes static, water-proofs, and keeps surfaces cleaner longer. Easy to use, just spray on and wipe off. Comes with handy spray applicator for easier application.
32F201. 6 oz. bottle. 175-6. NET.....**1.15**

Injector Needle. Made on the hypodermic principle to inject cleaners and oils into shafts, controls and tight places. Applicator supplied. 2-oz. bottle.
32F202. 8383. NET.....**.48**

Carbon-X Cleaner. Touches up noisy spots on carbon controls. Electrical conductor.
32F203. 2-oz. bottle. 1205. NET.....**.80**

Chloro-Kleen Cleaner. A solvent for all purpose cleaning of any electronic component, switch, chassis, etc. Dissolves grease, dirt, oils, tar and waxes. Safe indoors... no sickening fumes. Completely non toxic. Similar to carbon tetrachloride.
32F377. 4-oz. bottle. 213-4. NET.....**.65**
32F378. 16-oz. bottle. 213-16. NET.....**1.55**

TRANSISTOR Z5 SILICONE COMPOUND

Type 8101-S maintains efficient transfer of heat from transistor to chassis.
32F365. 1 oz. tube. NET.....**2.17**



MAG-NETIK RECORDING HEAD CLEANER

Cleans gently, thoroughly... dissolves oxide scum accumulation on tape and wire recorders. Easy and safe to use. Does the job fully in minutes.
32F258. 53-1. 1-oz. bottle. NET.....**.67**
32F259. 53-2. 2-oz. bottle. NET.....**1.03**



JIF CONTROL AND CONTACT CLEANER

Type 8670. Excellent cleaner and lubricant while not containing any harsh solvents. Because of this, cleaner will in no way harm any plastic material on which it will be used. Used for electronic/electrical contacts, switches, and controls. Cleaner is siliconized in order to give the greatest possible protection for the longest period of time.
32F367. 8670-3. 3-oz. Spray can. NET.....**.99**
32F368. 8670-6. 6-oz. spray can. NET.....**1.79**

LIQUID TAPE

A brush-on high voltage insulation for the hard to get at places where this type of insulation is needed. Just brush on and let dry. Also used as anti-rust coating, tool insulation, weatherproofing, etc. Brush applicator attached. 2 oz. bottle.
32F380. No. 176-2. NET.....**1.05**

Spray Paints & Chemicals

KRYLON SPRAY PRODUCTS



- Reaches Hard-to-reach Areas—Quick, easy to use, does the job in minutes,
- Time and Labor Savers
- Excellent Adhesion . . . Uniform Coverage
- Professional finishes at low cost!

For coating all metal, wood, etc. Sprays will seal any surface against oil, grease, moisture and chemicals. Colors meet Fed. Spec. TT-L-0048 (GSA-FSS). Many colors carry individual numbers to Fed. Std. No. 595. 1 pt. dispenser. Shpg. wt. 1½ lbs.

KRYLON SPRAY PAINT

Stock No.	Mfg. No.	Color	Fed. Std. No. 595	NET EACH
32F290	1401	Bright Silver	17178	1.19
32F513	1403	Dull Aluminum	.....	1.19
32F292	1501	Gloss White	.....	1.19
32F150	1502	Flat White	37875	1.19
32F151	1503	Antique Ivory	17778	1.19
32F500	1504	Oyster White	17875	1.19
32F293	1601	Glossy Black	17038	1.19
32F282	1602	Flat Black	37038	1.19
32F283	1603	Machine Grey	.....	1.19
32F284	1604	Light Grey	16099	1.19
32F276	1605	Dove Grey	.....	1.19
32F501	1607	Puritan Grey	16307	1.19
32F285	1701	Bright Gold	.....	1.19
32F286	1801	Chrome Yellow	.....	1.19
32F152	1802	Pastel Yellow	.....	1.19
32F502	1805	Sunflower Yel.	13538	1.19
32F503	1806	Jonquil Yel.	13618	1.19

Carton of 12.....12.89

KRYLON METAL PRIMER

The quick, easy to prepare surfaces for painting. The green and yellow are rust inhibitive zinc chromate primers specially for metal and are manufactured in accordance with Spec. MIL-P-8585-A Type 1. Grey is an all purpose primer for wood, metal, plastic, etc. In 1 pt. spray cans. Shpg. wt. 1½ lbs.

32F297. No. 1320 Green. NET.....1.30
 32F161. No. 1319 Yellow. NET.....1.30
 Carton of 12 cans. NET.....14.04
 32F160. No. 1318 Grey. NET.....1.19
 Carton of 12 cans. NET.....12.89

KRYLON RUST MAGIC

Type 1317. A quick drying anti-rust metal primer. Space age Phenolic Resin G1-358 gives Krylon Rust Magic Metal Primer piercing power through heavy rust. Seals out moisture, air, and neutralizes porous rust. Dry to the touch in 20 minutes, apply finish coat in 2 hours. Compatible with Krylon Spray Paints. 1 pt. spray can. Shpg. wt. 1½ lbs.

32F172. NET.....1.19
 Carton of 12 cans. NET.....12.89

ANTI-RUST WAX SPRAY

Type 1321. Leaves a dry, waxy film coating that protects any stored metal parts, bearings, gauges, tools, etc. Shpg. wt. 1½ lbs.

32F511. 1 pt. can. NET.....1.30
 Carton of 12 cans.....14.04

SILICONE MOLD RELEASE

Type 1328. Spray releases parts faster, cuts rejects in blow and injection molding of plastic, rubber, ceramic, and glass. Contents: 20 oz. by weight.

32F512. 1 pt. can. NET.....1.30
 Carton of 12 cans.....14.04

CHEM-CHROME FINISHER SET



No. 10104. Chem-Chrome Kit. Refinishes rusted, peeled, worn-off or pitted chrome. High-luster, heat-proof, weather-proof finish has same reflective qualities as chrome electroplating. Can be applied to metal, wood, glass, or plastic. Adheres perfectly. will not peel. Do-it-yourself quickly and easily—kit contains all necessary materials to do a complete chrome plating job. Replace ugly rust spots with bright chrome. One kit contains enough to cover approximately 2300 square inches. Shpg. wt. 1½ lbs.

32F149. NET.....3.39

GLOWING FLUORESCENT SPRAY PAINT



For sure, quick attention and dazzling color effects. Attracts attention at great distances. Makes any surface with white base up to 4 times brighter. Colors stand out sharply from their surroundings. For use in daylight or artificial light. Gives neon effect in black light. For maximum brightness, white base is necessary. For use in industry, aviation, military, business, and the home where strong visual impact is necessary. For outdoor use, spray Krylon Crystal-Clear protective coating on dry glowing fluorescent film. *Made to meet MIL-P-21600. 1 pt. cans. Shpg. wt. 1½ lbs.

No.	Type	Description	NET
32F165	3101	Red Orange-633*	1.86
32F166	3102	Yellow	.....
		Orange-634*	1.86
32F167	3103	Sunset-Gold	1.86
32F168	3104	Lemon-Yellow	1.86
32F169	3105	Cerise	1.86
32F170	3106	Green	1.86
32F171	3107	Blue	1.86

Carton of 12 cans.....20.09

RED INSULATING VARNISH

Type 7004. Will penetrate through multiple layers of taped coils, increasing dielectric strength, leaving a tough flexible oil-proof film with high adhesion characteristics, exceptional arc-resistance, and non-tracking properties. Maximum oil-proofness and chemical resistance. Excellent sealer on pitted windings. Shpg. wt. 1½ lbs.

32F510. 1 pt. can. NET.....1.30
 Carton of 12 cans.....14.04

CRYSTAL-CLEAR ACRYLIC SPRAY COATING



Type 1302. Protects and preserves metal, wood, paper, and leather surfaces. Dries in minutes, goes on clear, and stays clear. Prevents tarnish, rust corrosion. Resists fungus, chemicals, dilute acids, dirt, and grease. Gives lasting protection against electrical failures, less down time. Acrylic film with its high dielectric strength is made for electronics specialty applications. Will not affect resistance values or conduct current. Prevents moisture breakdown. Also, electrolysis from various metals. Meets TT-L-0048 (GSA-FSS). 1 pt. can. Shpg. wt. 1½ lbs.

32F291. NET.....1.30
 Carton of 12 cans.....14.04

KRYLON CONTACT CLEANER

Type 1333. 1 lb. Non-flammable, grease-less contact cleaner in spray can. Does not attack plastic. Cleans volume controls, switches, and tuners. Removes dirt and gummy deposits from electrical contacts and provides a non-drying film which lubricates the contact surfaces. Long lasting protection from corrosion and oxidation. Comes with 5" plastic hose.

32F154. Each....1.99 Carton of 12...21.46
 Type 1333A. 6 oz.
 32F155. Each....1.32 Carton of 12...14.26

HIGH HEAT ALUMINIUM SPRAY

Type 1402. Special formula Krylon aluminum spray for high heat problems. Withstands 500°F for long periods and 1000°F intermittently. Fast drying.

Shpg. wt. 1½ lbs.
 32F180. 1 pt. can. EACH.....1.66
 Carton of 12 cans.....17.93

HEAT RESISTANT SPRAY PAINT

Special formulation Krylon spray paint for high heat conditions on pipes, radiators, boilers, motors, engines. 1 pin can. Shipping weight, 1½ lbs.

Stk. No.	Type	Color	NET
32F515	1611	Gray	1.19
32F516	1612	Black	1.19
32F517	1909	Blue	1.18
32F518	2007	Green	1.19
32F519	2106	Red	1.19
32F520	2405	Orange	1.19

Carton of 12 cans.....12.89

HEAVY DUTY SILICONE SPRAY

Type 1329. Silicon spray for electrical and mechanical uses. Dielectric strength 350V. mil. Excellent lubricant for many electronic devices. Shpg. wt. 1½ lbs.

32F181. 1 pt. can. EACH.....1.30
 Carton of 12 cans.....14.04

KRYLON DULLING SPRAY

Type 1310. Eliminates glare from reflecting surfaces. Spray dries in seconds. It is harmless to high polish—removes easily.

32F273. 1 pt. can. EACH.....1.30
 Carton of 12 cans. EACH.....14.04

KRYLON LET-GO PENETRATING OIL SPRAY

Type 1332. Super penetrant lubricates as it penetrates into rusty threads, etc. Spray reaches all areas. Shpg. wt. 1½ lbs.

32F509. 1 pt. can. EACH.....1.13
 Carton of 12 cans.....12.17

ELECTRIC MOTOR CLEANER

Type 1327. Cleans grease, oil, and tar from inside electric motors without harming insulation, paint, or lacquer. Evaporates completely. Contains no carbon tet. Shpg. wt. 1½ lbs.

32F508. 1 pt. can. EACH.....1.13
 Carton of 12 cans.....12.17

Spray Paints & Chemicals

PLASTI-KOTE SPRAY PRODUCTS

NEWARK EXCLUSIVE! MOISTURE-FUNGUS RESISTANT VARNISH

MEETS MIL SPEC.

MIL-V-173-A
No. 277. Distributed only by Newark in U.S. Conforms to MIL-V-173-A. Always ready for instant use, simply press the trigger and get professional finishes at low cost. Does the job in minutes. It is inherently fluorescent and a treated chassis may be checked with an ultra-violet light keyed for 3500 A. U. s Viscosity 0.85 poises. 16 oz. cans.



Stk. No.	Type	1-11	12-23	24-47	48-96
32F427	277	1.30	1.20	1.10	1.00

AEROSOL FIRE EXTINGUISHER

No. 275. Plasti-Kote Fire Extinguisher. This Aerosol can provides low-cost fire protection! Stops electrical, grease, oil, wood, fabric and paper fires before they have a chance to get out of hand. Throws quick-acting non-toxic chemical spray from 10 to 12 ft. Also eliminates moisture. Wt. 1 1/2 lbs.
32F425. NET..... 1.26
Lots of 12, Ea.....1.10



EASY WAY HOT PAINT

VERY HIGH TEMPERATURE
For auto engine heads and blocks, manifolds and exhaust systems. On barbecue broilers, grates and grills. Use it safely on boilers, heaters, furnaces for protection. When applied properly will air-dry in minutes. Sustains temperatures up to 1000°F. Comes in four colors. Has a color-coded cap to identify contents, a plastic inner seal to resist tampering.



Stock No.	Type	Color	1-5	6-11	12 up
32F451	HP-1	Black	2.98	2.85	2.39
32F452	HP-2	White	2.98	2.65	2.39
32F453	HP-3	Red	2.98	2.65	2.39
32F454	HP-4	Aluminum	2.98	2.65	2.39

HOOKER

PORCELAINIZED SPRAY PAINT



Hooker's new spray paint forms an entire new surface. Resists abrasion, alkalis, salt, mild acids, caustics, moisture, and temperature changes. This paint is tops for porcelain, metal, stone, aluminum, china, ceramic tile... and no primer is needed at all. All of the high gloss color is solidly locked into the entire paint coating to maintain a strong durability and to resist fading.

Stock No.	Color	1-5	6-11	12 up
60F970	Baby Blue	1.58	1.48	1.38
60F971	Black	1.58	1.48	1.38
60F972	White	1.58	1.48	1.38
60F973	Capri Blue	1.58	1.48	1.38
60F974	Pink Ice	1.58	1.48	1.38

PAINT, ENAMELS, LACQUERS

The easy way to paint... no guns... no mixing... no mess or bother. Just press the trigger and you're spraying enamels and lacquers that dry in 3 or 4 hours. Paint does not run or sag. Protective caps match color of contents for instant identification. For all surfaces. 1 lb.



SPRAY HAMMER FINISHES

Stk. No.	Type	Description	NET
32F431	212	Silver Hammer	1.17
32F432	213	Gray Hammer	
32F433	214	Green Hammer	
32F434	215	Blue Hammer	
32F435	216	Copper Hammer	

SELF SPRAY LACQUER

Stk. No.	Type	Description	NET
32F439	270	Clear	1.17
32F430	247	Flat Black	
32F440	271	Black	
32F441	272	White	

PAINTS AND ENAMELS

No.	Type	Color	NET
32F442	249	Green Zinc Chromate	1.17
32F443	244	Flat White	
32F444	248	Yellow Zinc Chromate	
32F401	250	Black Enamel	
32F402	251	White Enamel	
32F403	252	Ivory Enamel	
32F404	253	Glade Green Enamel	
32F405	254	Chevron Blue Enamel	
32F406	255	Royal Blue Enamel	
32F407	256	Swift Red Enamel	
32F408	257	Yellow Enamel	
32F409	258	Shamrock Enamel	
32F410	259	Chrome Aluminum	
32F423	260	Bright Gold Enamel	
32F411	261	May Gray Enamel	
32F412	262	Charreuse Enamel	
32F413	263	Rose Pink Enamel	
32F424	264	Clear Varnish	
32F414	265	Baby Blue Enamel	
32F415	266	Machinery Gray Enamel	
32F416	267	Copper Enamel	
32F417	268	Gray Metal Primer	
32F418	269	Antique Flat Black	

HEAT RESISTANT SPRAY PAINT FOR MOTORS AND MACHINERY

Stk. No.	Type	Description	NET	Stk. No.	Type	Description	NET
32F445	202	Universal Gray	1.17	32F447	206	Red	1.17
32F446	203	Universal Black	1.17	32F448	207	Aluminum	1.17

ANY ABOVE COLORS, ASSORTED, LOTS OF 12 AND UP. — EACH..... 1.05

PLASTIC SPRAY

No. 274. Plasti-Kote Clear Acrylic Plastic Spray. Durable, flexible coat against dirt, water, weather. High dielectric strength. Seals connections, protects aerials. Shpg. wt. 1 1/2 lb.
32F400. NET..... 1.20

RUST SOLVENT

No. 276. Quick-drying non-inflammable, non-oily, non-conductive spray rust-solvent and penetrant. Loosens "rust-frozen" parts easily. Shpg. wt. 1 1/2 lb.
32F428. NET..... 1.27

ILLINOIS BRONZE PRODUCTS

WRINKLE FINISH

A permanent metallic texture you can feel as well as see. Durable and long-lasting—gives any surface a factory quality finish previously unobtainable without expensive equipment or processing. Imparts a rich, distinctive, textured metallic finish—with easy spray on convenience—in just a few minutes. Ideal for both indoor and outdoor use. Useful for office and industrial equip., household appliances, sporting goods, electronic and scientific equipment.



Stk. No.	Type	Color	NET
60F980	331	Smoke Silver	1.29
60F981	336	French Grey	1.29
60F982	337	Jet Black	1.29

GLASS FROSTING SPRAY

Type 810. New ground-glass spray finish creates frosted "sand-blasted" effect on glass or plastic. Convert ordinary sheet glass or plastic to plain or fancy frosted effects with a quick spray. Obscures vision, insures privacy, filters sun or bulb glare, admitting soft, even light. Creates unique, custom-frosted motifs. Use with stencil, for unusual light fixtures, dividers, crafts, and home accessories. Durable, permanent, unaffected by water or mild detergents. Quick and economical. 16 oz. can.
60F983. NET..... 1.29



CHALK BOARD

Type 806. Virtually any smooth surface can be a convenient, useful chalk board. Scrape lumber, glass, wallboard—even smooth masonry walls can be sprayed to dry to a ready-to-use chalkboard. Ideal for

use in factories, offices, stores, homes. Also refinishes factory-made boards that have become unusable from use. Enough for 4 boards.
60F984. NET..... 1.29

NO NOISE

VOLUME CONTROL AND CONTACT RESTORER

Cleans, lubricates, restores all tuners including water type. Non-toxic, non-inflammable. Ideal for volume control and Contact restorer. Complete with a 5" plastic extender for getting into close areas in both Television and radio sets. Prevents quacking and eliminates binding in automatic turn tables. May also be used for noisy tube sockets and other components and will not change capacity.
32F269. 6 oz. spray can NET..... 2.25



HYSOLV

AEROSOL DEGREASER

A new pressure packed Safe Solvent Degreaser. Non-toxic, non-flammable; contains no alkali, acid, water, carbon tetrachloride, benzene or any other harmful ingredients. Cleans quickly, easily, and corrosion free. May be used on any metal surface, be it painted, varnished, or lacquered. Dries quickly without a residue. MAC rating 500 ppm. Doesn't give off any unpleasant vapor or fumes. Gets into the most troublesome and inaccessible places. 24 oz. industrial size cans.
60F979. NET..... 1.65



Special Purpose Lamps

LUXO ADJUSTABLE LAMPS

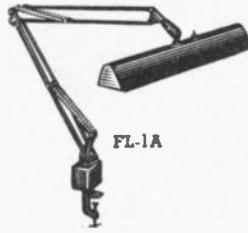
Complete With Bulbs and Tubes



LVT-1A



LC-1A



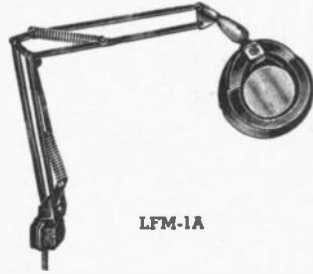
FL-1A



LS-1A



L-1A



LFM-1A



HFM-ST

LFM ILLUMINATED MAGNIFIERS

LFM-1. Large magnification, cool fluorescent light and maneuverable. Can be raised and lowered, tilted or turned to any angle. Sweep and movement same as L-1A listed below. 3 Diopter 5" ground glass lens. Complete with "C" clamp and fluorescent tube. Gray finish. Shpg. wt., 12 lbs.

Stk. No.	Type	Description	Each	Lots of 3
65F012	LFM-1A	Illuminated Magnifier	36.71	33.37
65F005	LFM-9A	As above but one 18" ext. arm	34.09	31.02

ACCESSORIES FOR LFM MAGNIFIERS

Stk. No.	Description	Each	Lots of 3
65F006	Lens attach. #1 increase to 7 diopters	6.56	5.90
65F007	Lens attach. #2 increase to 11 diopters	7.46	6.71

FC 8T 9CW. Circline tube for above
25F169. EACH 3.34 Carton of 24 42.07

HMF-ST HAND MAGNIFIER WITH AUXILIARY STAND

General specifications for shade and lenses identical to LFM-1A model listed below. Adjustable height. With tube.
65F014. EACH 28.39 Lots of 3, EACH 25.88

LUXO LOW VOLTAGE LAMP

Type LVT-1A-12V. Has "LV" inner reflector. Single contact bayonet socket. For use on voltages up to 30v. Colors: Oyster wt., dove gray. Shpg. wt., 6 lbs.

65F004. Each 30.07 Lots of 3, EACH 27.33
25F164. 1383 Bulb Each 2.70 Cartons of 10 16.50

LC-1A "COMBO" LAMP

Combines 60 W incandescent with 22 W fluorescent for balance of light, close to daylight quality. 500 foot candles at 12 in.; 2 arms. 45" extension. Famous Luxo spring balance. Includes tube and bulb. With clamps for desk or table allow speedy installation. Styled in dove gray. Shpg. wt., 9 lbs.

65F013. EACH 28.70 Lots of 3, EACH 26.19

FL-1A FLUORESCENT LAMP

Featuring: all angle/all purpose lamp, "feather touch" positioning. Unique, spring loaded extension arm and 360° sweep make the lamp ideal for any application. Shade is 19"x4 1/4" for reflection control. Clamp mounting to surface. Dove gray finish. Shpg. wt., 9 lbs. UL approved. With 2-T8 fluorescent tubes.

65F011. EACH 26.28 Lots of 3, EACH 23.86
F15T8/W FLUORESCENT BULB for above.
25F168. EACH 1.05 Carton of 24 20.16

LS-1A FLAIR STYLED LAMP

Featuring a 60 watt incandescent lamp to provide up to 200 foot candles of light on work area and "feather touch" control. Adjustable through the use of two 18" extension arms and a 360° sweep. Porcelainized shade has large vents for heat dissipation. Supplied with easy installation clamps and bulb. Dove gray finish. On/off switch located at top of shade.

65F009. EACH 19.17 Lots of 3, EACH 17.28

ALL ANGLE LAMP

L-1A. Tubular steel fixture raises, lowers, tilts, traverses and turns in 45" radius, 360° sweep. Scientifically designed shade for greater light output and cool operation. 60W incandescent (approved to 100 watts). With bracket clamps, bulb. 5 lbs. Gray finish.

Stk. No.	Type	Description	Each	Lots of 3
65F010	L-1A	All Angle Lamp	18.42	16.60
65F008	L-9A	As above but one 18" arm	14.67	13.23

EDNALITE LAMPS

Type MFL-PL-1. "Microflood." High intensity, low voltage flood light with step down transformer provides even illumination. Head tilts at any angle. Adjustable to various work heights. Locks securely into any position. Base: 2 3/4"x4 1/4"x2 3/4" high. Arm and lamp house: 10 1/2" over base. 115 volts, AC.
65F030. NET 36.80



"Microflood"

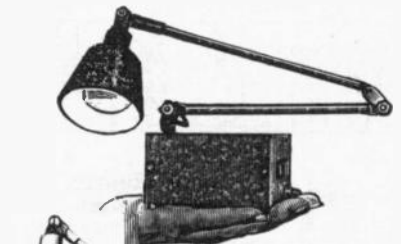
TENSOR LAMPS

Model 5975. Fold-A-Way Utility Lamp. Reflector swivels 160°. O.D. 2 1/2". Cork insulated. Intensity is 150 foot candles at a distance of 12". Base has Teflon plastic feet to prevent scratching of table or desk tops. Base contains an electrical outlet (115 volts at 1 amp) from which other electrical apparatus may be operated. Uses standard G.E. 1133 bayonet type bulb. With bulbs. Beige wrinkle finish. In folded position: 10" long, 2 1/2" wide, 4" high.

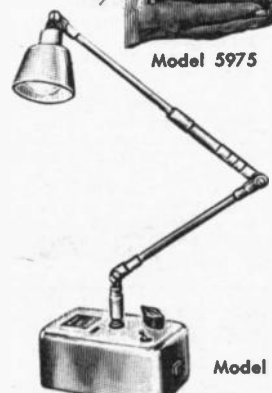
Stk. No.	Description	1-11	12-2324-up
65F036	Fold-A-Way Lamp	17.50	15.75 14.67

Model 5900. Precision Work Lamp. Reflector swivels 360°, O.D. 2 1/2" control. Arms are 3/16" brass tubing with three friction joints. Base has four Teflon plastic feet to prevent scratching of table or desk tops. Base is weighted to prevent tipping. Electrical outlet is located on the base (115 volts at 1 amp) for other electrical apparatus. A five position switch provides intensities from 12.2 to 202 foot candles. Uses standard G.E. 1133 bayonet bulbs. With three bulbs and 7 1/2" extension cord. Available in Medium Beige. 5 lbs.

Stock No.	Description	1-11	12-23	24-up
65F035	Work Lamp	46.50	41.85	39.58



Model 5975



Model 5900

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For Everything in

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Fig. A

Fig. B



Fig. C

Fig. D

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Fig. E

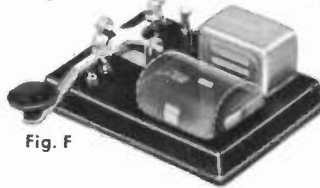


Fig. F

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Fig. G



Fig. H

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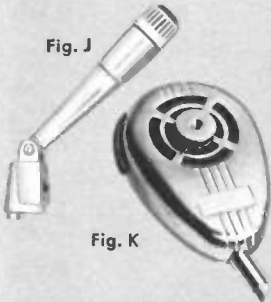


Fig. J



Fig. K

Fig. L



Fig. M

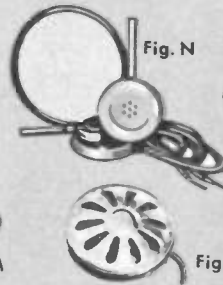


Fig. N

Fig. O

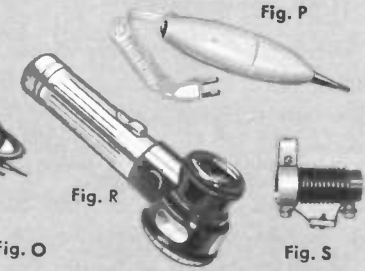


Fig. P

Fig. R

Fig. S

DYNAMIC MIKE

Fig. J. Type TM-18. An excellent general purpose mike. Fine for voice or music. High impedance, 50,000 ohms. Low impedance, 600 ohms. Response from 40 to 15,000 cps. Has its own on-off switch. Highly directional, minimizes the pick-up of unwanted sound from the side or rear, due to the fine pear-shaped pickup pattern. 20' cable. 46F089. NET.....11.95

Fig. K. Type MCIX. For CB owners and ham operators. Output is: -54 db. Designed for voice transmission. A push-to-talk switch in convenient position. Heavy die cast to withstand heavy usage with portable units. Brushed chrome metal to resist corrosion. Supplied with mounting bracket and curly cord. High impedance ceramic mike. 46F085. NET.....5.53

PRECISION VERNIER DIALS

Fig. L. 8:1 ratio vernier dials with bakelite base and nickel-silver dial plates with etched scales. Molded knob calibrated 0 to 100 in 180° rotation. For panel mtg. 46F070. 1 1/2" Dia.88
46F071. 2" Dia. NET.....1.13
46F081. 4" Dia. NET.....2.93

IMPORTED EARSETS, HEADPHONES

Fig. M. Magnetic type, plastic covered earhook. Long cord, standard RCA-type min. plug. 8 ohm impedance, ear hook type. 2 oz. 46F007. NET.....60
15 ohm impedance, ear hook type. 2 oz. 46F008. NET.....60
Crystal pillow receiver. Large xtal element for high input. Case 2 1/4 x 1 1/2". 46F005. NET.....1.33

Magnetic Pillow Speaker with cord, plug, and jack. Flat plastic with contact plate to conduct sound to inner ear by by-passing ear channel. Only user hears. 46F037. NET.....2.24

2000 OHM HEADSET

Fig. N. A lightweight headset, perfect for code practice sets, short wave listening, etc. Black plastic with white earcups on spring band. Complete with long cord with standard phone tips. Shpg. wt., 10 oz. 46F004. NET.....1.60

SUNBURST CRYSTAL LAPEL MIKE

Fig. O. Complete with spring lapel clip on back and plastic covered coaxial cord. Gold and black case. Shpg. wt., 1 lb. 46F080. NET.....67

GENERATOR NOISE FILTER

Fig. S. Model GNF-1. Reduces generator noise for better S/N ratio. Increases range of receiver. Frequency range: 3-30 mc. High "Q" parallel circuit. Must be shunted for 5-7 mc or 3-5 mc. Moisture sealed. Mounts on generator. Max. gen. current: 25 amp. Made in Japan. Shpg. wt., 12 oz. 46F082. NET.....1.87

DEMAGNETIZER

Fig. P. Remove accumulated tape head magnetization quickly and easily. For true hi-fidelity, tape heads must be demagnetized often. Will decrease second harmonic distortion and reduce noise level several db after each use. May be used on all tape heads, monoaural, stereo or four track. Cord, plug, included. 1 1/2" x 4 1/2" x 1 1/2". Wt., 1 lb. 46F001. NET.....2.60

7X ILLUMINATED MAGNIFIER

Fig. R. Ideal for the technician, serviceman, student, engineer and hobbyist. Fitted with two magnifying lens which look down into a calibrated measuring field. Heavy black plastic head with plated body which holds two standard "C" flashlight batteries. Supplied less batteries. Shpg. wt., 2 lb. 46F084. NET.....1.29



FS1-2 **FS1-3**



TC-33AX **TC-109**

FIELD-STRENGTH METER

- No Antenna Connection Necessary
- Compact . . . Easy to Use

Model FS1-2. For measuring signal strength of transmitter in the vicinity of antenna. Needs no antenna connection. Broad tuning covers 1.6 to 150 mc in four bands. Accuracy: 10% Size 2 3/4x3 1/2x1 1/8". Complete with instructions. **46F072. NET 7.67**

MONACOR

TC-109 TRANSCIEVER SET

Nine transistor CB transceivers, requiring no license for operation. Radiate at full 99 milliwatts for range of 1/2 to 2 miles on land, up to 7 miles over water. Superhet receiver with built-in squelch. Uses standard 9 volt transistor batteries. 59" telescoping antenna, wrist strap, push to talk switch, volume control. With batteries. 1 lb. **97F543. NET (Set of 2) 42.67**

MONACOR WALKIE-TALKIE

Model TC-33AX. Powerful little pair of walkie-talkies with amazing range, clarity and price. Brushed aluminum grille, wrist strap, telescoping antenna, on-off switch, press-to-talk button. Complete with batteries. Wt. 1 lb. **97F544. NET (Set of 2) 15.95**


MONACOR MICRO TRANSCIEVER SET

Model TC-66. Six transistor transceivers designed for short distance communication in 27 Mc. band. Has: Telescopic rod antenna, on-off switch & volume control, push-to-talk switch, speaker-microphone. Size: 6"Hx2 3/4"Wx1 1/4"D. Wt. 1.4 lbs. **97F542. NET (Set of 2) 26.95**

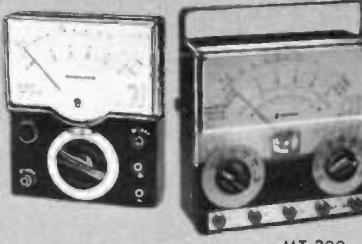
S.W.R. BRIDGE AND FIELD STRENGTH METER

- Ideal for Fixed Station or Mobile Use

Model FS1-3. An excellent combination unit for either home station or mobile use. 52 ohm impedance. Will take a full kilowatt. Remains in line. Grey metal case, 5 1/4"Hx1 1/4"Wx2 1/4"D with standard fittings, 1 3/8" Bright-Vue meter. Complete with instructions and schematic. **46F088. NET 9.95**



BT-1



MT-700

MT-300

MODEL MT-500 MULTITESTER

Contains a sensing device to prevent overloading! Ranges: 20,000 ohm/v DC, 10,000 ohm/v AC. DCV: 0-2.5-10-50-250-500-5000. ACV: 0-10-50-250-500-1000. DC current: 0-0.05-5-50-500 mA. Resistance: 0-12K-120K-1.2 Meg-12 Meg. 5"x6 1/4"x1". With battery leads. **46F091. NET 18.53**

MODEL MT-700 MULTITESTER

7 1/2" dial, portable, accurate. 20,000 ohms/volt DC, 10,000 ohm/v. AC. Ranges: DCV, 0-2.5-10-50-250-500-5000. ACV, 0-10-50-250-500-1000. DC current: 0-0.05-5-50-500 mA. Resist.: 0-12K-120K-1.2 Meg-12 Meg. Dec.: -20 to +62 db. 7 1/2"x7 3/4"x3 3/8". **46F092. NET 36.93**

MODEL MT-300 MULTITESTER

Compact, rugged. 30,000 ohm/v DC, 15,000 ohm/v AC. Ranges: DCV, 0-0.6-3-15-60-300-600-1200-3000. ACV, 0-6-30-120-600-1200. DC current: 0-0.03-6-60-600 mA. Resist.: 0-10K-1M-120K-100M. Decibels: -20 to +46 db. Size: 5 7/8"x3 7/8"x1 3/4". **46F093. NET 15.53**

POCKET BATTERY TESTER

Model BT-1. Tests these voltages: 1.5, 3, 4.5, 6, 7.5, 9, 15, 22.5, 45, 67.5, 90, 240. Int. loaded. 3 3/8"x5 1/4"x1 1/8". **46F094. NET 7.93**

COMPACT PRECISION VOM'S

20,000 ohms DC, 10,000 ohms AC. 1% prec. resistors Dec.: -20 to +62 db.

Type MT-200. Ranges DC Volts: 0-5-25-50-250-500-2500 volts at 20K ohms/volt. AC Volts: 0-50-100-500-1000 volts at 10K ohms/volt. DC: 0-50 ua 0-2.5 ma. 0-250 ma. 3 1/4"x4 1/2"x1 1/4". **46F066. NET 8.95**

46F067. Case for MT-200 above. **1.47**

Type MT-220. Single range selector dial. Ranges: DC Volts: 0-2.5-10-50-250-500-2500 volts at 20K ohms/volt. AC Volts: 0-10-50-250-500-1000 volts at 10K ohms/volt. DC: 0-0.05-5-50-500 mc. Resist.: RX1, 10, 100, 1K. 5 1/2"x3 3/4"x1 1/4". **46F086. NET 12.33**

46F087. Case of MT-220 above. **1.47**

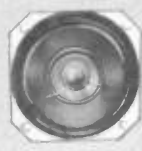


Fig. A




Fig. D




Fig. E




Fig. C




Fig. F

8" SPEAKER IN WOOD BAFFLE

Fig. D. Sturdy, powerful, wide range speaker in attractive walnut baffle. Ideal for all extension uses. 8" speaker has heavy magnet structure and will deliver smooth sound from 75 to 9000 cps. 8 ohms. Wt., 6 lbs. **46F043. NET 5.27**

Fig. A. 1 3/4" square sub-miniature speaker. Fits all types of transistor radios, phonographs, etc. 8-ohm imped. Shpg. wt., 6 oz. **46F062. NET .88**

4 INCH REPLACEMENT SPEAKER

Wide range circular speaker for replacement or extension applications. Flat response from 200-8,000 cycles. Voice coil impedance: 4 ohms. 1.35 oz. magnet. **46F095. Type SP-4. NET .87**

4" PM SPEAKER IN CABINET WITH VOLUME CONTROL

Fig. E. Type SP-106. 4" speaker in cabinet measuring 7 3/4"x5 1/2"x3 1/2". Finished in rich dark walnut shades with beveled front covered with gold threaded grille cloth. Volume control. Wt., 3 lbs. **46F041. NET 4.69**

POWERFUL 4" SPEAKER IN ATTRACTIVE 2-TONE WOOD BAFFLE

- Perfect for Intercom Installation
- Versatile
- Moderately Priced

Fig. C. Ideal for intercom use. 2-tone wood cabinet with enclosed back, sloping front and flat base makes it practical for wall or desk mounting. The baffle contains a fine 4" speaker with a heavy ticonal magnet. Voice coil imp. 8 ohms. Wt., 3 lbs. **46F036. NET 2.92**

4x6" PM SPEAKER IN FINISHED CABINET

- Volume Control
- Extension Speaker Convenience
- Deluxe Walnut Finish

Fig. F. Imported remote speaker unit consisting of a quality 4"x6" PM speaker in a piano finished cabinet; in rich walnut with an attractive contrasting grille cloth covering. Volume control. Size: 9 1/2"x6 1/2"x3 1/2". Shpg. wt., 3 lbs. **46F038. NET 6.20**

NEWARK—Your One Dependable Source for Everything in Industrial Electronics

NEWARK 621



HIGH FIDELITY KITS



ST-97



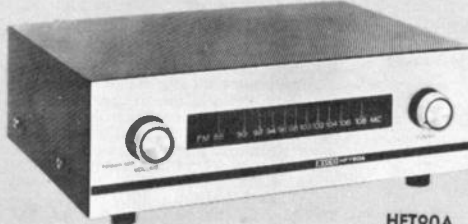
3566



MX-99



ST40



HFT90A



HF12A

FM-MULTIPLEX STEREO TUNER KIT

Model ST-97K. High quality FM tuner with built-in multiplex adaptor. Pre-wired and pre-aligned front-end and IF strip including 4-IF stage plus 1 mc p-p ratio detector includes AFC with defeat. Slide rule tuning with "eyetronic" traveling tuning indicator. Stereo indicating pilot lamp automatically lit by stereo pilot carrier. Cathode follower driven 15kc low-pass filter in each audio output channel. Controls: tuning separation AFC on-defeat; stereo-mono; and power 3uV IHFM sensitivity: 1.5 uv for 20 db quieting; multiplex locking sensitivity: 2.5 uv. IHFM signal-to-noise ratio:—55db. Frequency response: 20 to 5,000 cps. IHFM harmonic distortion 0.6%, IHFM IM distortion 0.1%. Channel separation 30 db. IHFM capture ratio: 3db. Size: 5½H x 15¾W x 1¾D. Shpg. wt. 23 lbs.

96F628. Kit. NET.....**89.95**
 96F629. Model ST-97. As above but factory wired. NET.....**139.95**

SOLID STATE FM-MPX TUNER-AMPLIFIER

Model 3566. All transistor, FM Multiplex Stereo Tuner/Amplifier with heavy-gauge aluminum chassis. Transistor sockets eliminate risk of transistor heat damage; greatly eases maintenance and check-out procedures. Superbly finished aluminum panel and machined aluminum control knobs. Permits console mounting, if desired. Only 5" high, 16½" wide, and 13¼" deep. 2.0uV FM Sensitivity (IHF Standard), 2.3uV limiting sensitivity, 2.7uV for 40 db quieting. IHM distortion 0.5%. Frequency Response ±1 db 20-15,000 cps. IHM signal-to-noise ratio-60 db. 75 watts total IHF music power: 8 ohms 80 watts rms power output each channel at 2% IM distortion. Fully protected against shorting or accidental opening of speaker leads. Shpg. wt., 35 lbs.

96F677. Model 3566K Kit.....**219.95**
 96F678. Model 3566. Factory wired & tested.....**325.00**

50-WATT* INTEGRATED STEREO AMPLIFIER KIT

Model ST40K. Fully-equipped control panel allows normal or reverse stereo using both of the identical 20-watt amplifiers, or mono listening using either amplifier alone. Has separate pairs of inputs for preamplified tape, tape head, magnetic changer and magnetic turntable cartridge, FM-AM, and FM-Multiplex; "auxiliary" inputs accept crystal or ceramic cartridge. Output Power—40 watts continuous; 80 watts peak. IM Distortion: 1% at 40 watts. Harmonic Distortion—less than 1% at 40-20,000 cps within 1 db of 40 watts. Frequency Response at ±1 db 12-25,000 at 2 watts. Speaker Connections—4, 8, and 16 ohms. Special connection for third channel speaker. Shpg. wt., 35 lbs. Includes cover.

*IHF music power.
 96F636. Kit with illustrated instructions.....**79.95**
 96F637. Model ST40. Factory wired and tested.....**129.95**

80-WATT* INTEGRATED STEREO AMPLIFIER KIT

Model ST70K. A complete stereophonic high-fidelity control center plus two separate, 35 watt amplifiers. Mode switch on front panel enables: playing either amplifier alone; use of both amplifiers together for enhanced mono listening through two speaker systems. The ST70 will accept, control, and amplify signals from any stereo source. 4-, 8-, and 16-ohm-speaker connections, plus third channel speaker connection direct to third speaker. Each audio power amplifier employs the cathode-coupled, phase inverted circuitry, preceded by a direct-coupled voltage amplifier. Output Power—70 watts continuous, 140 watts peak. IM Distortion—1% at 70 watts. Harmonic Distortion—less than 1% from 25 to 20,000 cps within 1 db of 70 watts. Frequency Response—½ db 10-50,000 cps. Power consumption—150 watts. 5½x15¾x15". Shpg. wt., 44 lbs. Includes cover.

*IHF music power.
 96F638. Model ST70K. Kit.....**99.95**
 96F639. Model ST70. Factory wired and tested.....**149.95**

FM TUNER KIT

Model HFT90AK. Includes entirely completed and aligned "front end" (housed and completely shielded in a solid aluminum-zinc casting) that not only provides fabulous sensitivity and low noise, but is also entirely stable and drift-free. Sensitivity: 1.5 uv for 20 db quieting, 2.5 uv for 30 db quieting, full limiting from 25 uv. Frequency Response: uniform from 20 to 20,000 cps ±1 db. IF Band width: 260 kc at 6 db. Stability: Maximum drift of 20 kc from cold start. Stable after approx. one minute. Size: 3½x12x8¼". Shipping wt., 10 lbs. Less case.

96F682. NET.....**39.95**

Model HFT90A. Factory wired and tested FM Tuner.

96F686. NET.....**64.95**

96F683. Model E-3A enclosure for above models. NET.....**3.95**

FM/AM TUNER KIT

Model HFT92AK. Combines on one chassis the renowned HFT90 FM Tuner with excellent AM tuning facilities. Fabulous sensitivity, low noise, complete stability, and drift-free performance are a result of advanced circuitry. Traveling eye indicator contracts when at exact center of broadcast channel. All IF's supplied pre-aligned. Sensitivity FM: 1.5 uv for 20 db quieting. AM: 20 uv for 8V out with 15 db S/N. Stability FM: Maximum drift 20 kc for cold start. Frequency Resp. FM: 20-20,000 cps ±1 db. AM: 20-5,000 cps ±3 db. IF bandwidth FM: 260 Kc at 6 db. AM: 8 Kc at 6 db. Size 3½x12x8¼ with enclosure. Shipping wt., 12 lbs.

96F665. NET.....**59.95**

96F662. Model HFT 92A. Factory wired and tested. NET.....**92.95**

FM MULTIPLEX ADAPTER KIT

Model MX-99K. Enables all Eico FM equipment (HFT-90, HFT-92 and ST-96) and any other FM tuner with a multiplex output to receive Multiplex-FM-Stereo broadcasts. It incorporates the best features of both the matrixing and sampling techniques. Contains no phase distorting filters and suppresses all spurious signals. It is self-powered and provides entirely automatic stereo/mono operation and includes low impedance cathode follower outputs. Indicator light turns on when station is broadcasting in multiplex stereo. Separation of 30 db between channels. Size: 9½x6½x3¾". Shpg. wt., 7 lbs. Less cover.

96F640. Kit. NET.....**36.95**

96F641. Model MX-99. As above but factory wired. NET.....**59.95**

96F642. E-9 enclosure for above models. NET.....**2.95**

12-WATT INTEGRATED AMPLIFIER KIT

Model HF12AK. Direct tape head and magnetic phono inputs with NARTB (tape) & RIAA (phono) feedback equalizations. 6-tube circuit, dual triode for variable turnover base & treble feedback type tone controls. Output Power: 12 w cont., 25 w pk. IM Dist., 1.5% @ 12 w. Freq. Resp.: 12 w: ±0.5 db 25 cps —20 kc. Harmonic Dist.: 1% @ 12 w. Damping Factor: above 8, 20 cps —15 kc. Speaker Connections: 4, 8, 16 ohms. Tubes: 2-ECC83/12AX7; 1-ECC827/12AU7; 2-EL84; 1-EX81. 3½"Hx12"Wx8¼"D. Includes cover. Shpg. wt., 14½ lbs.

96F681. NET.....**39.95**

Model HF12A. As above but factory wired.

96F684. NET.....**59.95**

All Transistorized Home Intercom-Radio Systems **TALK-A-PHONE**

This compact home intercom-radio system brings to the home owner the safety and convenience of complete intercommunication in all rooms, as well as the enjoyment of built-in radio (optional) all through your house. Master stations, staff stations, and outdoor substations can be combined in any desired arrangement, up to a total of 8 stations. Both masters and staffs can "call" and "converse" with any other station or stations

in the system. Outdoor "subs" can be called by, and answer any master or staff station. Outdoor "subs" are non-private. All master and staffs have their own volume control. Optional built-in radio incorporates the most advanced superheterodyne circuit. Has a tuned RF stage and two IF stages for sensitivity and selectivity, full A.V.C., three audio stages with push-pull output. Any 9-volt dry battery will operate this system.

CHART "A"—Rooms Originating Calls								CHART "B"—Rooms Receiving Calls							Then Use
Location	To Kitchen	To Bedroom	To Den	To Baby	To Laundry	To F. Door	To R. Door	From Kitchen	From Bedroom	From Den	From Baby	From Laundry	From F. Door	From R. Door	
Kitchen		X	X	X	X	X	X	X	X	X		X			
Bedroom	X			X	X	X	X	X		X		X			
Den	X			X		X	X	X	X			X			
Baby								X	X	X		X			
Laundry	X			X		X							X		
F. Door								X	X	X		X			
R. Door								X	X	X		X			

CENTRAL MASTER STATION AND POWER SUPPLY UNIT

Only one Central Master Station (with or without radio) is used per system. Can call and talk to any other station. Listens to any sub-station or staff without adding noise to latter even during other calls. Has all transistor amplifier and operates from any 9-volt dry battery or HI-PS Power Supply Unit. Front panel: 15 1/4" x 5 1/4". Plaster Ring Approx.: 14 1/8" W x 4 3/4" H x 3 1/2" D.

8 STATION MASTER

No. HI-9R. 8 Station Master With Built-in Radio. All transistor (7 triodes and two diodes). Has optional built-in radio which incorporates the most advanced Super Heterodyne circuit. Has a tuned RF stage and two IF stages for sensitivity and selectivity, full A.V.C., three audio stages with push pull output. Master station has 8 station capacity. Does not plug into electrical outlet. With plaster ring and full instructions. Less battery. Shpg. wt., 6 1/2 lbs. For flush wall mtg. **89.50**

No. HI-9. 8 Station Master. All-transistor (3 audio stages with push-pull output). For flush wall mounting, 8-station capacity. Does not plug into electrical outlet. With plaster ring and complete instructions. Less battery. Without built in radio. For flush wall mounting. **58.00**

SUB-STATION

No. HI-1. Outdoor Sub-Station. For front and rear doors. Complete with pushbutton bell to connect to regular house chime or buzzer, and illuminated nameplate. When caller rings, you may answer from any Master or Staff Station. For flush wall mounting; needs 2-inch square opening, 2 inches deep. With weather-resistant speaker, mounting gasket, and full instructions. Front panel: 3 3/4" W x 5 3/8" H. Shipping weight: 1 lb. **15.95**

T-LR-2R. Alternate Outdoor Sub-station without push button or name plate. **12.95**

T-SM. Surface mounting accessory for T-LR-2R. **4.00**

STAFF STATION

No. HI-8. Staff Station. Any staff can call and converse with any other station, or stations in the system. Can be mounted on wall, cabinets, etc., or can stand on tables, shelves, etc. Does not plug into electrical outlet. Has private or non-private position as desired. For flush wall mounting. With plaster ring and full instructions. Front panel: 15 1/4" x 5 1/4". Plaster ring approx.: 14 1/8" W x 3 3/8" H x 3 1/2" D. Shpg. wt., 5 lbs. **31.50**

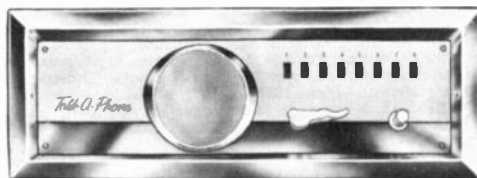
No. HI-4. Four Station Staff Station. Same as above except can call only 3 stations. Front panel: 4 1/8" x 7 3/8". With plaster ring. Plaster ring approx.: 4 1/8" x 6 1/2" x 2". Shipping Weight, 3 3/4 pounds. For flush wall mounting. **17.50**

T-SM-L. Surface mounting assembly for HI-4 staff station. Gray finish. With instructions, knobs, brackets. Shpg. Wt., 2 lbs. **4.65**

No. HI-PS. Power Supply Unit. Only one necessary per system. Plugs into ordinary home electrical outlet of 110-120 volts, A.C., and can be placed out-of-the-way in basement, attic, closet, etc. When power supply unit is used, entire system actually consumes less electricity than even one electric clock. (Optional—not required when battery is used). Shipping weight: 2 lbs. **15.95**



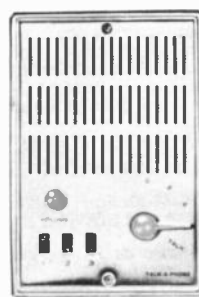
Model HI-8 and HI-9



Model HI-9R



Model HI-1



Model HI-4

ACCESSORIES

No. HI-SM. Housing Assembly. Encloses any 8-station master or staff station to enable mounting on wall cabinets, etc. Has adjustable brackets. Gray finish. Chrome mounting knobs and brackets. With instructions. Shpg. wt.: 2 1/2 lbs. **11.00**

No. HI-JB8. Optional Junction Box for connecting Masters and Staffs, up to a total of 8 stations. **4.30**

Type 4F6H. Burgess 9 volt battery. To be used when HI-PS Power supply is not employed. **5.53**

No. 6226. Cable (13-pair) for connecting all Master and 8-station Staff. **.37**

No. 6202 Cable (1-pair) for connecting outdoor Sub-Stations, Battery or Power Supply Unit. **.04**

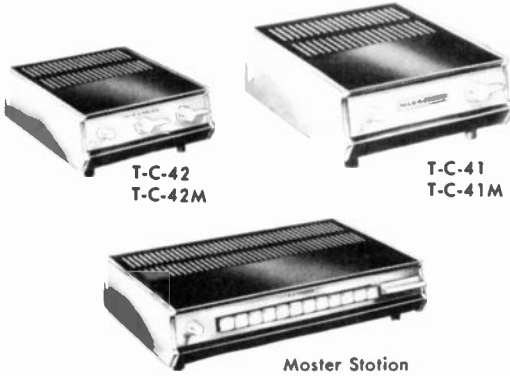
No. 6214. Cable (7 pair) for connecting HI-4 to master station or nearest 8-station Staff. **.20**

No. 6214. Cable (7 pair) for connecting HI-4 to master station or nearest 8-station Staff. **.20**

TALK-A-PHONE Intercommunications Systems

ALL TRANSISTOR INTERCOMS

"CHIEF" MASTER STATIONS



T-C-42
T-C-42M

T-C-41
T-C-41M

Master Station

"CHIEF" REDI-POWER MASTER STATIONS

"Chief" Redi-Power Master Stations have built-in extra power. This added power (up to 20 watts), gives you the additional volume required when calling a number of stations at one time or calling noisy locations. Satisfies need for power boost without eliminating return speech. Volume is self-compensating whether 2, 6 or 12 stations are called simultaneously. Each station receives its pre-determined volume with no division of output when more stations are called at one time. One or more Redi-Power Masters can be combined with regular Chief Masters and staff stations in same system. Other features include: (1) Incoming call chime. (2) Monitoring signal. (3) Dynasonic selector that permits intermixing of Master and Staff Stations and variation of performance. (4) Volume Control. (5) Noise-free voice range power. (6) Multi-magic station selector which enables selection of up to 30 stations with only 12 push buttons. (7) Uni-trans dictation control. (8) Operation on 110-120V. (9) External relay control for use in extremely high noise level areas. (10) In modern, custom-designed cabinets. Charcoal gray and brushed chrome. Size: 13x8³/₈x3¹/₈".

Model T-CRP-5912. Master for 12 stations. Wt., 18 lbs. **145.00**
95F432. NET PER STATION

CHIEF STAFF STATIONS ACCESSORIES

For use with any "Chief" Master, Staff Stations may be connected "privately" or "non-privately". Connected "non-privately", Master can be answered at a distance from the Staff without operation of any controls. "Non-private" Staff may reply to all Masters in the system (whether connected directly to them or not) and can originate calls to one or two, depending upon its capacity. Connected "privately" no one can "listen-in", but any Master can call. Private Staff can originate calls and reply to 1 or 2 Masters depending on its capacity. Staff Stations do not need electrical outlets.

Model T-C-41. Staff Originates calls to 1 Master. Gray leatherette and brushed chrome. Size: 7¹/₂x8³/₈x3¹/₈". 8 lbs. **22.50**
95F428. NET PER STATION

Model T-C-41-M. Same as T-C-41 but with painted finish. 8 lbs. **18.40**
95F429. NET PER STATION

T-C-41R. Same as T-C-41, but for flush wall mounting. Stainless steel front panel. 4 lbs. **18.40**
95F433. NET PER STATION

CABLE FOR CHIEF SERIES

36F447. Type 6206. 3-pair cable for connecting T-C-20, T-C-41, T-C-42, and T-HP-3. NET per foot. **.095**
36F437. Type 6214. 7-pair cable for interconnecting T-C-4906 Masters. NET per foot. **.20**
36F439. Type 6226. 13-pair cable for interconnecting T-C-4912, T-C-4920, and T-C-RP5912 Masters. NET per foot. **.37**
36F446. Type 6902. Cable 2 cond. for connecting T-C-20, and T-HP-3 without origination of call. NET per foot. **.025**

HOW TO DETERMINE CABLE REQUIREMENTS

To inter-connect Master Stations, measure from first Master to second Master only, from 2nd to 3rd Master only, etc., until last unit in system is reached and total. For T-C-4920 use two lengths of 6226 Cable. To connect T-C-41, T-C-20, or T-HP-3 Staff Stations, measure from Staff Station to one Master to which Staff Station originates calls. To connect T-C-42 Staff Stations measure separate length of cable from Staff Station to each Master Station to which staff originates calls.



T-S-111

Can be used in any combination—with all Masters—one Master and Staff Stations—or a number of Masters combined with Staff Stations. 6, 12, and 20 Station Masters, together with Staff Stations can be intermixed in same system. Masters can talk with any other Master, as well as with Staffs. Staff Stations can answer all Masters and can originate calls to one or two Masters, depending upon Staff's capacity. Staff Stations are not connected to electrical outlet.

Exclusive Features: (1) Dynasonic Design enables stations to perform "privately" (so no one can listen in) or "non privately" (for reply without use of controls). The same station can be "private" to one or more Masters and "non private" to others, and retain full communication facilities. (2) Monitoring signal visually indicates to a "non private" station that it is being monitored. (3) Busy signal visibly indicates when station you call is "busy". All units have facility to override "busy signal" for important calls. Incoming call chime. (4) Multi-magic station selector enables selection of up to 30 stations with only 12 push buttons. (5) Uni-trans dictation control. (6) External relay control enables Master to activate external relays for operating siren, gong, light, etc. (7) Reciprocal Power supply—Each Master operates on 110-120 volts AC only and should be plugged in. Where no electrical outlet is available up to 30% of the Masters in the system can operate without being plugged in. (8) Noise free voice range power. The exclusive patented circuit enables performance without noise, hum or distortion, when used with talk-a-phone cable. (9) Hi power staff stations and horns. T-HP-3 provides more than twice the volume of universal Staff. T-C-20 provides about 4 times greater volume . . . more with Redi Power Master. (10) Wall switch combines with Talk-a-phone Horn or Hi Power staff to add origination of call feature. All "Chief" and "Chief Redi-Power" Master Stations come complete with junction box and built in power supply attached by 6' flexible cable. Master size: 14" width, 3¹/₈" height, 8³/₈" depth. For 110-120 volts AC only, U.L. approved.

Model T-C-4906. Master for 6 Stations. Shpg. wt., 13 lbs. **85.50**
95F425. NET PER STATION
Model T-C-4912. Master for 12 Stations. Shpg. wt., 14 lbs. **95.80**
95F426. NET PER STATION
Model T-C-4920. Master for 20 Stations. Shpg. wt., 17 lbs. **113.40**
95F427. NET PER STATION

Model T-C-42. Staff originates calls to 2 Masters. Gray leatherette and brushed chrome. 7¹/₂x8³/₈x3¹/₈". 8 lbs. **28.00**
95F430. NET PER STATION

Model T-C-42-M. Same as T-C-42 but with painted finish. 8 lbs. **24.00**
95F431. NET PER STATION

Model T-C-42R. Same as T-C-42 but for flush wall mtg. **24.00**
95F445. NET PER STATION

Model T-HP-3. Hi-Power Staff Station for wall mounting. Charcoal gray metal case. Size: 12x8x12". 5 watt capacity. Shpg. wt., 8 lbs. **17.50**
95F415. NET PER STATION

Model T-HP-3V. As above, but with built-in volume control, adjustable to full output. **22.50**
95F444. NET PER STATION

Model T-C-20. Nine-inch Weatherproof Re-Entrant Horn. 15 watt capacity. With mounting bracket. Charcoal gray. Size: 12x8x12". Shpg. wt., 5 lbs. **27.00**
95F416. NET PER STATION

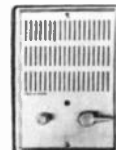
Model T-C-20V. As above, but with built-in weather resistant volume control, adjustable to full output. **36.00**
95F446. NET PER STATION

Model T-S-101. Wall Switch for originating calls to one Master through T-C-20, or T-HP-3 in Chief Systems. Gray. Wt., 1 lb. **7.50**
95F434. NET

T-S-102. Same as T-S-101, but for call origination to 2 Masters. **12.35**
95F435. NET

T-S-111. Wall Mounted Cradle Phone. **44.00**
95F447. NET

Model T-W-1. Wall mounting brackets for T-C-41, T-C-41M, T-C-42, and T-C-42M. **.60**
95F436. NET per pair



T-C-41R



T-C-42R

Deluxe Intercom Systems

SUPER-SELECTIVE ALL MASTER SYSTEMS

Versatile intercom system consisting entirely of Masters. Permits several separate conversations to be carried on without interfering with each other. Provides absolute privacy. Stations may be located even 1000 feet apart. Operates on 110-120 volts, AC-DC. Complete with tubes and instructions. Charcoal gray and brushed chrome. Cabinet size, 10 1/2" x 8 3/4" x 3 1/8". Shpg. wt. 8 lbs.

- 95F406. Model T-LS-5. For 5 stations. NET **37.50**
- 95F407. Model T-LS-10. For 10 stations. NET **46.25**

HI-VOLUME MASTERS

Operate the same as the above masters with the added feature of 10 times volume output. For 110-120 volts, AC only. Masters T-AC-510 and T-AC-505 may not be intermixed with any other Master.

- 95F437. Model T-AC-505. Hi-Volume, 5 station. NET **46.25**
- 95F438. Model T-AC-510. Hi-Volume, 10 stations. NET **55.50**
- 36F441. 5506 (6-conductor) cable. For interconnecting T-LS-5 or T-AC-505 NET per foot **.095**
- 36F442. 9911 (11-conductor) cable. For interconnecting T-LS-10 or T-AC-510. NET per foot **.17**

COMBINATION SYSTEMS

For the more flexible type of system requiring the operation of more than one Master, along with Sub-Stations which need not originate calls. Masters may talk to each other and to each Sub in the system selectively; or, one or more Subs can be exclusive to only one Master. Masters can switch themselves "private"; so that other Masters cannot listen in to them, or "non-private" at will. Model T-CL-5 has 5 station cap. Model T-CL-10 has 10 station cap. Masters in charcoal gray and brushed chrome cabinets. 10 1/2" x 8 3/4" x 3 1/8", Sub-Stations; 7 1/2" x 8 3/4" x 2 7/8". With tubes and instructions. Masters operate on 110-120 volts AC-DC. Electric curr. not needed for Sub-Stations. Shpg. Wt. 8 lbs.

- 95F408. T-CL-5. Master for 5 stations. NET **44.95**
- 95F409. T-CL-10. Master for 10 stations. NET **54.00**
- 95F410. T-LR-2. Sub-Station (in same deluxe finish as Masters) for use with either of above Masters. Shpg. wt., 6 lbs. NET **16.95**
- 95F411. T-LR-2M. Sub-Station (as above, but in grained, baked enamel finish) for use with either Master. Wt., 6 lbs. NET **12.95**
- 95F442. T-LR-2R. Sub-station for flush wall mounting. **12.95**
- 95F443. T-SM. Surface mtg. accessory for T-LR-2R. **4.00**

HI-VOLUME MASTERS

Operate the same as the above masters with the added feature of 10 times volume output. For 110-120 volts, AC only. Masters T-AC-610 and T-AC-605 may not be intermixed with any other Master.

- 95F439. Model T-AC-605. Hi-Volume, 5 stations. NET **54.00**
- 95F440. Model T-AC-610. Hi-Volume, 10 stations. NET **62.50**
- 36F438. 6210. 5 pair cable for interconnecting T-CL-5 or T-AC-605. NET per foot **.16**
- 36F439. 6226. 13 pair cable for interconnecting T-CL-10 or T-AC-610. NET per foot **.37**
- 36F446. 6902. 2 conductor cable for connecting Sub-Station to nearest master. NET per foot **.025**

WIRESLESS 6 AND 12-STATION SELECTIVE SYSTEM

Incorporates the exclusive "Sonic Gate" together with the "Squelch" circuit to effectively suppress line noises and hum. Simple to install. Requires no wiring, no cable. Use where any 110V AC or DC electrical outlets are available. Each Master Station equipped with a Six or 12-channel Selector. Any Master can transmit on any of its channels, and receive calls on the channel it elects to use. Each Master with tubes and instructions. Size 14x8 3/4 x 3 1/8". Wt. 12 1/2 lbs.

- 95F418. T-LCM-8906. 6 Channel Master. **85.50**
 - 95F441. T-LCM-8912. 12 Channel Master. **95.80**
- Where some Wireless locations need not originate calls, but must reply when called. Staff Stations are available. Size: 10 1/2 x 8 3/4 x 3 1/8". Shipping weight, 6 lbs.
- 95F419. T-LCS-901. For Channel 1 only. NET **49.00**
- Note: Staff stations for channels 2 to 6 available on special order.

2-STATION WIRELESS SYSTEM

A quality intercom system for Office, Factory, and Farm. No installation. Plug into 110V AC or DC electrical outlet. Uni-Trans gives you dictation and supervisory control. Provides continuous transmission when set for Uni-Trans. Cabinets are charcoal gray and brushed chrome. 10 1/2 x 8 3/4 x 3 1/8". Two Master stations. With tubes and instructions. 16 lbs.

- 95F413. Model T-LC-33. Two station system. NET **85.50**
- 95F414. Model T-LC-17. Additional single station. 8 lbs. NET **42.75**

TALK-A-PHONE



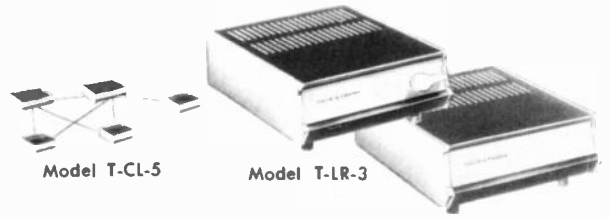
Model T-LS-5

Model T-LS-5



T-LM-5

Model T-LC-2



Model T-CL-5

Model T-LR-3

Model T-LR-2

MASTER SELECTIVE INTERCOMMUNICATION SYSTEMS

A system consisting of one Master Station and one to ten Sub-Stations. Only the Master Station plugs into an electrical outlet. System has optional feature whereby Sub-Stations can be connected "privately," or "non-privately," and still originate calls to the Master under either application. Cabinets are charcoal gray and brushed chrome, 10 1/2" x 8 3/4" x 3 1/8". Subs measure 7 1/2" x 8 3/4" x 2 7/8". With tubes and instructions. For 110-120 volts, AC-DC. UL approved. HIGH VOLUME OUTPUT MASTERS T-AC-5406 and T-AC-5411 operate as above with the added feature of 10 times volume output, for large areas or noisy locations. Operate on 110-120 volts, AC only. Note: Only one master station can be used in each Master Selective System. Weight: Masters—8 lbs., Sub-Stations—5 lbs.

- 95F400. T-LM-5 Master. For up to 5 Subs. NET **37.50**
- 95F401. T-LM-10 Master. For up to 10 Subs. NET **46.25**
- 95F404. T-AC-5406. High Vol. Master. 5 Sub. capacity. NET **46.25**
- 95F405. T-AC-5411. High Vol. Master. 10 Sub. capacity. NET **55.50**

95F402. T-LR-3 Sub-Station (in same deluxe finish as Masters) for use with any of above Masters. NET **16.95**

95F403. T-LR-3M Sub-Station (as above, but in grained, baked enamel finish) for use with any of above Masters. NET **12.95**

36F440. 5303. Three-conductor indoor cable for connecting Sub-stations to Master. NET per ft. **.035**

36F449. 6303. Three conductor shielded cable for connecting Sub-Stations to Master. NET (per Ft.) **.048**

2-STATION INTERCOMMUNICATION SYSTEM

Provides voice communication between any two points. "Elsie" is a packaged item, complete with a Master Station, a Sub-Station and 50 ft. cable. For 110-120 volts, AC-DC. U.L. approved. Master size: 10 1/2 x 8 3/4 x 3 1/8". Sub size: 7 1/2 x 8 3/4 x 2 7/8". Shpg. wt. 13 lbs.

- Model T-LC-2. 2-Station system complete with tubes. **39.00**
- 95F412. NET **.035**
- 36F440. Type 5303. Extra 3-cond. cable. NET per ft. **.035**
- 36F449. 6303. 3-cond. shielded cable. Net per ft. **.048**

ADDITIONAL ACCESSORIES

- 95F415. T-HP-3. Hi-Power Staff Station for wall mounting. Charcoal gray metal case. Wt., 8 lbs. NET **17.50**
- 95F444. T-HP-3V. Same as above, but with built-in volume control, adjustable to full output. Wt., 9 lbs. NET **22.50**
- 95F416. T-C-20. Nine inch weatherboard Re-entrant Horn. Charcoal gray color. Wt., 5 lbs. NET **27.00**
- 95F446. T-C-20V. Same as above, but with built-in weather resistant volume control, adjustable to full output. Wt., 5 lbs. NET **36.00**
- 95F417. T-S-100. Wall switch for origination of call through T-C-20 or T-HP-3 with Master Selective Systems. NET **3.75**



TC-20V

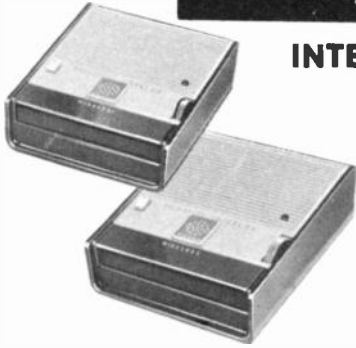


T-HP-3V

Whatever Your Electronic Needs — NEWARK Will Fill Your Order

FANON

INTERCOMS



● **NEW WIRELESS INTERCOM**

Model 1640. Two-station wireless intercom uses 117VAC line as hookup; only a standard household power socket is required to operate. Built-in power supply; no batteries. Each master has pilot light, on-off/volume control, talk/listen switch (may be locked in "talk" position). Smartly finished in beige with chrome trim. 4 3/8"x5 1/8"x1 1/2". Wt., 3 1/2 lbs.

95F615. NET 29.95

Model 1641. Single remote station for above.

95F616. NET 15.95



Type 1600. Two station ultra-sensitive intercom system. Three transistor circuit and push-pull amplifier for quality sound. Comes in high impact styrene cabinets. Pilot light on master shows system is on. Built-in 117 VAC power supply. Talk-Listen switch with talk-lock position for hands-free operation. Beeperone signalling circuit works even if the system is off. Color: Beige. Size: 4 3/8"x5 1/8"x1 1/2". With 50 ft. of cable. Wt., 2 1/2 lbs.

95F617. NET 15.95



Type 1605. Single five-station master of same design and circuitry as type 1600 above. Use with up to four type 161 and 162 remote units. Each remote may be spoken to individually. Uses 2-cond. cable.

95F618. NET 14.95

Type 161. Outdoor remote for above.

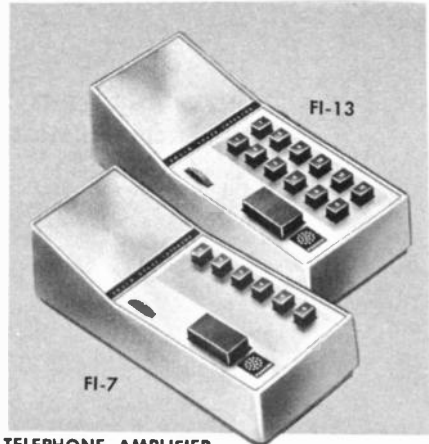
95F619. NET 5.25

Type 162. Indoor remote for above.

95F620. NET 4.50



FTA-4



FI-13

FI-7

● **NEW TRANSISTORIZED TELEPHONE AMPLIFIER**

Model FTA-4. Permits use of telephone with hands free to type, check orders, take notes, etc. Ideal for home, office, shop, or any place where it is often necessary to walk away from phone. Powerful four-transistor amplifier operates from standard 9V battery for 500 hours or

more. Easy to use: when phone rings, place its handset in cradle of FTA-4; unit switches on automatically. No installation or hookup necessary. 2" speaker in 3 1/2"x3 3/4"x2" battle; main unit is 10 1/2"x4 1/2"x3 1/4". Shpg. wt., 4 lbs.

95F621. NET 14.95

● **SEVEN- AND THIRTEEN-STATION TRANSISTORIZED INTERCOMS**

Model FI-7. Seven-station intercom master for use in 7-unit all-master system (each station can call any other station) or master-to-6-remotes system. One of the six positions may be used to page a noisy area using PR-15 paging relay (below) and a paging amplifier. For quiet areas, intercom power output will be sufficient and an ordinary remote unit (see Model FIR below) may be used. All-master systems can carry three simultaneous conversations. All-master system requires one conductor plus one additional conductor per unit; master-to-remotes system requires 3-cond. cable to each remote; units supplied less cable. Controls: on-off/volume, talk/listen switch

with talk-lock position, station selector buttons. 9 1/2"x4x2 1/2". Wt., 4 lbs.

95F624. Single Master Unit. NET 30.95

Model FI-13. Master unit identical to FI-7 above, except for use in system of 13 masters or master-to-12-remotes (using FIR remotes, below). Up to six simultaneous conversations on an all-master system. Operates from 115 VAC.

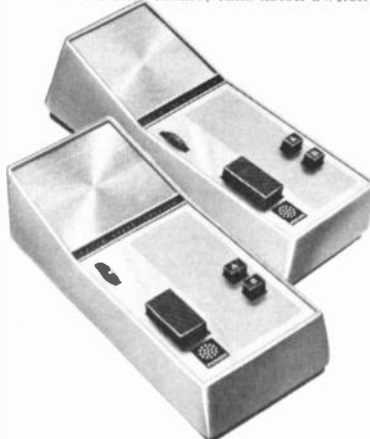
95F625. Single Master Unit. NET 43.50

Type FIR. Remote unit for use with FI-7, FI-13 above. Same styling. Has privacy switch to cut out other stations, talk/listen switch. Wt., 3 lbs.

95F626. Remote Unit. NET 9.95

Type PR-15. Paging relay. Wt., 4 lbs.

95F627. NET 21.50



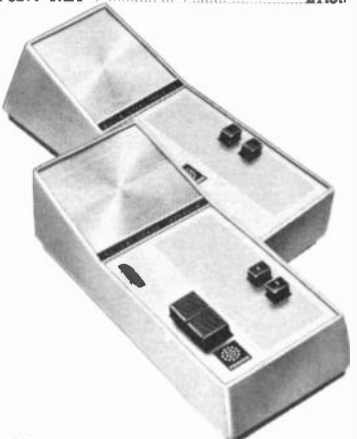
● **NEW TWO-CHANNEL WIRELESS TWO-STATION INTERCOM**

Model FIW-2. Wireless intercom system may be expanded with up to two additional single-station units (Model FIW-1, below). Two communication channels are provided so system can carry two simultaneous conversations. No installation or hookup is required; simply plug stations into 115 VAC outlets on the same power line. Channel A is on 225 kc and channel B is on 160 kc (will not interfere with AM radio reception); exclusive lock-out filters prevent inter-channel crosstalk. Each unit has on-off/volume control, talk/listen switch (may be locked in "talk" position), and channel selector buttons. Handsome long-line styling for desk or wall use mounting; two-tone beige finish. 9 1/2"x4x2 1/2". Wt., 7 lbs.

95F622. NET 59.95

Model FIW-1. Additional single station to add to above system. Wt., 4 lbs.

95F623. NET 31.50



● **NEW TWO-STATION DELUXE INTERCOM SYSTEM**

Model FIC-3. Two-station system consists of one master and one indoor remote. One additional remote can be used if desired (Model FIC-below). Master has on-off/volume control, standby and talk/listen switches, and station selector buttons. Remote has privacy switch (cuts out other stations) and call button. Operates from 117VAC. UL approved. Durable plastic construction, gray with charcoal buttons and base. Requires 3-cond. cable. Employs 13-ohm, 3 1/2" speaker. Size 9 1/2"x4x2 1/2". Wt., 6 lbs.

95F628. NET 33.50

Model FIC. Additional remote unit for above system. Wt., 3 lbs.

95F629. NET 8.95

NOTE: Unless Otherwise Indicated, All Intercoms Supplied Less Connecting Cable

Perma-Power

- Radio Control Is Certified for Operation Without License
- Door Automatically Locks Securely When Closed

• Portable Transmitter Only
2 3/4 x 3 3/4 x 1"



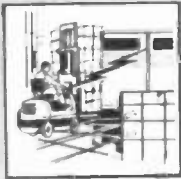
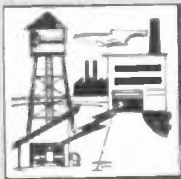
Garage Door Opener



Radio Remote Control System



Model IG370
Type S Portable Transmitter



GARAGE DOOR OPENER

All transistor garage door opener with solid state electronic and electrical circuitry for extreme reliability and 1/4 hp. 117V capacitor-start type motor. Radio signal opens door, turns on light then closes and locks door and turns off light. Easily handles any track guided, single or double door up to 20x8 feet weighing up to 200 lbs. with only 2 inches of headroom space needed. New pulse tone modulation coding system gives complete signal privacy and freedom from any interference. Special safety features include automatic door stop if any obstacle is encountered and a sensitive safety clutch which permits just enough force to make travel gentle and door easy to stop—permanently lubricated. Works from any standard electrical outlet. Small, portable all transistor car transmitter opens door from 100 feet. Requires no installation, can be carried in pocket, purse or glove compartment or clipped to sun-viser. Attractive 2 3/4"x3 3/4"x1" plastic case. Complete with 9 volt transistor battery. Wall mounted push button operates door from inside garage or any convenient place. Key operated switch is also available for outside locations.

Model G670. Complete transistorized door opening system, with Portable Transistor transmitter. Shpg. wt., 65 lbs.

92F085. NET 149.50

Model G370. Additional portable transistorized transmitter for second car. wt. 1 lb.

92F086. NET 19.50

Model G511. Key switch. Operates system manually. Shpg. wt., 1/4 lb.

92F087. NET 4.20

Model G675. Complete system with installed transistorized transmitter. 12 v. car battery operation only. Operates from 200 feet. Shpg. wt., 70 lbs.

92F088. NET 149.50

Model G375. Extra installed transistorized transmitter for second car G675. 7 lbs.

92F089. NET 19.50

Model G680. Complete system, 1/2 h.p. Similar to G670, but designed for lightweight doors up to 10' wide. Requires 3" headroom.

92F070. NET 119.95

Model G470. Remote radio control system for use with existing electrically opened garage doors which are not radio controlled, and other radio control applications. Consists of G270 receiver and G370 transmitter (listed on opposite page). 7 lbs.

92F091. NET 56.00

RADIO REMOTE CONTROL SYSTEM

Model RT400. Designed for maximum flexibility for short range remote control applications. Consists of portable pocket sized transmitter with self-contained battery and antenna and receiver with load switching relays. Operates over distances of up to 500 feet outdoors in unobstructed areas. Indoors operating distance is 50 to several hundred feet depending upon presence of metal in building structure. Receiver has range adjustment control to limit range when desirable. Receiver designed to operate from 115 VAC, either permanently connected or plugged in. It is mounted in a metal enclosure with flanges for wall mounting. Shpg. wt., 10 lbs.

92F092. NET 99.50

FULLY TRANSISTORIZED

RADIO CONTROLLED SWITCH SYSTEMS

Designed to fulfill the requirements of a highly reliable, low cost radio remote control. Eliminates the use of wires, phone lines or cables. A complete system includes transmitter, receiver, antenna and mtg. hdw. It may be used to control entrance gates, lighting, signalling, warnings, burglar alarms, machinery, signs, etc.

STANDARD SERIES

Lowest cost, highly reliable control systems for non-commercial and residential door control, gate operators, lighting controls, etc. Up to 200 ft. operation.

Type S Receivers

Single conversion, superheterodyne circuit. Crystal controlled. Complete with 8 ft. wire antenna and leads for input and output connections. Metal dust cover case. Sensitivity: 50 uv. Selectivity: 17 kc at 3 db; 50 kc at 60 db. Image 10 transistors + 1 diode. Relay Contacts: Rated at 6 amp., 24 VAC, normally open. Size: 1 1/2 x 8 x 3 1/2". For 117 VAC (3.5 watts). Shpg. wt., 3 lbs.

92F683. Model G270. NET 36.50

Type S Portable Transmitter

Model G370. Completely self-contained in attractive plastic case. Crystal controlled RF; pulse tone modulation. Built in ferrite rod antenna. Up to 200 ft. operation distance with type S receiver. Complete with 9-volt battery. Output 45 mw. Uses four transistors. Size: 2 3/4 x 3 3/4 x 1". Wt., 10 oz.

92F086. NET 19.50

Type S Mobile Transmitter

Model G375. For permanent, wired-in installation, requiring security against loss or damage. Gives up to 300 ft. operation. For use only in vehicles with 12-volt. negative ground battery. Draws power only when button is pushed. Crystal controlled RF; pulse tone modulation. For use with car radio antenna, snap on mounting plate and metal dust cover case. Output 45 mw. 4 transistors. Size 4 1/2 x 3 1/2 x 2 1/2". Wt., 1 1/2 lbs.

92F089. NET 19.50



BT 20-A



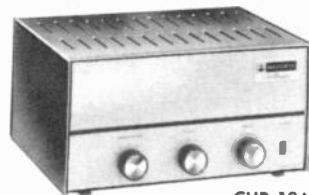
MX6A



CHB-20A



CHB 14A



CHB 10A



CHB 35A-50-100



BT 35A

BOGEN

MODEL BT20A

Fully transistorized amplifier for 12 v. mobile operation. 25 watts at a frequency response of 250-12,000 cps ± 3 db. Microphone gain of 110db and Aux gain of 90db Hum/noise 90db. Sensitivity 1Mv and 0.4V. Output impedance 4, 8 and 16 ohms. Controls microphone and aux/power. 2-2N2926, 1-40234, 2DTG-110 transistors. 4 1/2" W x 4" D x 6 1/2" H. 5 lbs.

96F560. NET **59.95**

MODEL BT35A

40-watt transistorized amplifier with less than 10% distortion. Ideal for mobile use on 12 volts direct current. Frequency response 150-15,000 cps at ± 3 db. Hum/noise -90db. Gain: mike, 110db, Aux 90db. Sensitivity: Mike 1Mv, Aux 0.4V, Output 4, 8, 16 ohms. Input for siren-toghorn. Controls: Mike, aux volume, 4-position selector Transistors: 2-2N2431, 2-2N1557, 2N555 and silicon diode. 8" W x 6" D x 3" H. Shpg. wt., 8 lbs.

96F561. NET **79.45**

MIKE CONNECTORS

Broadcast Type. (Cannon XL Series.) For the Bogen M, MX, MU Amplifiers. 39F480. NET **1.29**

Screw Type Connector. For Challenger Line Amplifiers. 39F000. NET **.64**

BOGEN AMPLIFIERS

MODEL CHB10A—10 WATT

Economy 10-watt amplifier that provides rugged dependability in all low-power applications . . . ideal for wired background music. Frequency response 40-12,000 cps ± 2 db. Sensitivity: mike: 6mv.; phonograph: 0.2 volts. Tubes: 1-12AX7/ECC83, 1-7868, and silicon rectifier. Power consumption: 50 watts, 105-125 VAC, 50-60 cycles. Gain: mike: 110 db; phonograph: 90 db. Tube control action: treble: (10kc) -24 db. Output impedance: 4, 8 and 16 ohms. 25 volt line (62 ohm) 70v (500 Ω) 1 speaker socket and screw terminals. Controls: mike vol., phono vol., treble, power switch. Size: 5 3/4" H x 11 1/4" W x 8 1/4" L. Complete with enclosure. Shpg. wt. 12 lbs.

96F550. NET **38.85**

MODEL CHB35A—35 WATT

Dependable 35-watt power output @ 5% distortion amplifier. Freq. Resp.: 20-20,000 ± 2 db. Inputs: 2 microphones (high impedance), 1 magnetic phono cartridge, 2 auxiliary (high impedance, high level). Sensitivity: mike—4mv.; aux.—0.2 volts; mag. phono cartridge—12mv. Power consumption: 125 watts, 105-125 VAC. 50-60 cycles. Tubes: (s) 1-6EU7, 2-7868, 1-12AX7, plus 3 silicon rectifier; 1-6C4. Controls: mike #1 vol., mike #2 vol., fader for 2 aux. units, master volume, bass, treble, power switch, magnetic phono switch, provisions for remote control of 2 microphones or magnetic phono. Size: 6 3/4" H x 15 3/4" W x 10" D. Complete with enclosure. Shipping wt. 21 lbs.

96F554. NET **74.90**

MODEL CHB100—100 WATT

Heavy duty 100 watt amplifier. Power @ 5% distortion. Frequency response: 20-20,000 cps ± 2 db. Inputs: 2 microphones (high impedance), 1 magnetic phono cartridge, 2 auxiliary (high impedance). Power consumption 300 watts, 105-125VAC. 50-60 cycles. Tubes: (7) tubes and selenium rectifier—1-6EV7, 1-12AX7, 4-7867, 1-6C4. Sensitivity: mike: 5mv.; aux.: .3 volts; mag. phono cartridge: 15mv. Gain: mike: 125 db; aux.: 100 db; magnetic phono cartridge: 115 db. Tone control action: treble: (10kc) +12db to -15db; bass: (50 cps) +14db to -9db. Size: 6 3/4" H x 15 3/4" W x 10" D. Shipping weight 26 lbs.

96F556. NET **119.90**

CHB 14A

Power output of 14 watts at 5% high imped. Frequency response 20-20,000cps ± 2 db. 1 mike input and 2 aux. inputs. Mike gain 120db aux. 95db. Sensitivity 4Mv Hum/noise 55 db. below rated output. Controls: Mic. vol., Aux. fader Bass,

treble and power. Tubes: 6AU6, 2-ECL86. 2-silicon rectifiers. Output 4, 8, 16 ohms with 25 and 70 volt lines. Power consumption 70 watts at 115 VAC, 50-60 cycles. Size 6 3/4" x 15 3/4" x 10". Shpg. wt., 15 lbs.

96F551. Net **47.90**

MX6A MIXER AMPLIFIER

Low cost. Greatly increases the versatility and usefulness of your present sound system. Mixes any 4 of its six inputs. Can mix radio and/or phono signals with mi-

crophone signals. Power Consumption: 10 w. at 117 v., 60 cps. Total of 3 tubes. 8" x 5 3/4" x 4 3/4". Wt. 6 lbs. 96F700. NET **42.00**

MODEL CHB20A

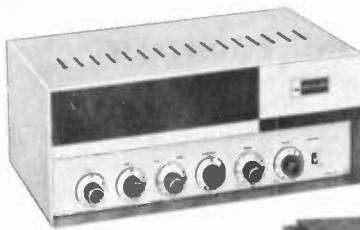
20-watt power amplifier with less than 5% distortion. Frequency response 20 to 20,000 cycles per second ± 2 db. Featuring high impedance microphone input and 2 aux. inputs. Hum/noise level -80db Gain: Mike. 125Db, Aux. 100Db Sensitivity Mike. 3 Mv, Aux. .5 v. Output 4, 8, 16 ohms and 25 & 70 volt line. Tone control: treble +10 Db-16Db; Bass +14Db-10Db. Controls: Mike, aux., Master volume bass, treble, power on. Tubes: 6EU7, 2-6GW8, three silicon diode. 105-125V AC, 50-60 cycles. Power consumption 90 watts. 15 3/4" wide, 10" deep. 6 3/4" high. 6 3/4 lbs. Wt. 17 lbs.

96F557. NET **61.40**

MODEL CHB50—50 WATT

Powerful 50-watt power output @ 5% distortion amplifier. Frequency response of 20-20,000 cps ± 2 db. Inuts: 2 mikes (high impedance), 1 magnetic phono cartridge, 2 auxiliary (high impedance). Sensitivity: mike—5 mv.; aux.—0.3 volts; mag. phono cartridge—15 mv. Gain—mike: 120 db; auxiliary: 95 db; magnetic phono cartridge: 110 db. Power consumption: 150 watts, 105-125VAC, 50-60 cycles. Tubes: (5) tubes and silicon rectifiers 1-6EU7, 1-12AX7, 2-6L6GC, 1-6C4. Tone control action: treble: (10kc) +10db to -15db; bass: (50 cps) +11db to -10db. Size: 6 3/4" H x 15 3/4" W x 10" D. Complete with enclosure. Shipping weight 21 lbs.

96F555. NET **88.40**



M60A



M330A



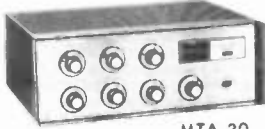
M120



MT100



M0100A



MTA-30
MTA-60



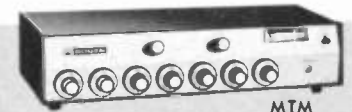
MX30A



MXM-A



RTP-1



MTM

BOGEN AMPLIFIERS

ALL-SILICON TRANSISTOR BOOSTER

Model MT100. 100w. at only 1% distortion. Can be connected in series or parallel with other boosters to achieve any reasonable voltage or power. Sensitivity: Hi-Z 75v, Lo-Z 2v with TL600 transformer. Hum: 80 db. Max. ambient temp. for cont. op.: 50°C (122°F), 12-16v. D.C. or 117v. A.C. 8" x 13" x 6". Shpg. wt. 30 lbs.

96F824. NET **209.95**

BOOSTER AMPLIFIERS

Ideal for sound systems in industrial plants, airports, stadia, etc.; wherever undistorted power is needed. Any number may be paralleled to multiply power output. All have exceptionally wide frequency response and less than 2% distortion. Hum: 80 db. Inputs: Hi-Z, 0.5 megohms. Sensitivity: Hi-Z better than 2v. 8" x 13" x 6 3/4".

Model M0100A. 100 watt amplifier outputs are balanced 160, and balanced 25v, 70v, and 115v. Freq. Resp.: 8-50,000 cps ± 1 db. Power consumption: 250 watts. Shpg. wt. 29 lbs.

96F823. NET **142.40**

Model M030A. 30 watt amplifier. Power Consumption: 105 watts. Shpg. wt. 23 lbs.

96F821. NET **89.95**

DE LUXE 30 & 60 WATT AMPLIFIERS

Feature master gain control, built-in remote gain-control circuit, five microphone channels (one converts to Mag Phono/Tape), plus auxiliary, exclusive variable level markers. Black and grey styling with leather carrying handle. Controls: Gain, Mike-Phono Switch, Speech Filters, On-Off/Treble, Bass Master gain. Response: 10-38,000 cps. $\pm 1\frac{1}{2}$ db. Distortion less than 2%. Hum: -70db.

MX60A. 60 watt amplifier. Output Impedance: 4, 8, 16, and 83 ohms, balanced 25V line, 70V line, 8 tubes plus 5 silicon rectifiers. 16 1/2" x 12" x 4 3/4". 40 lbs.

96F595. NET **194.65**

MX30A. Same as MX60A above except 30 watt amplifier. 34 lbs.

96F570. NET **157.45**

PLUG-IN TRANSFORMERS

Microphone and line transformers designed for plug-in use with Bogen amplifiers.

96F544* Model T50 50 ohms (mic.) 12.00

96F545* Model T200 200 ohms (mic.) 12.00

96F546* Model T500 500 ohms (mic.) 13.50

Model TL600 500/600 ohm (line)

96F543† 12.00

*Use with M60A, M330A, M120, MX30A, MX60A, MXM-A, RTP-1.

†Use with MXM-A, MT100, M0100A.

Model T525U. Use with the MTA30, the MTA60, and the MTM if a balanced, low-impedance mike line is required.

96F828. NET **12.75**

MODEL M60A AMPLIFIER

60 watt amplifier at less than 3% distortion. Ideal for PA systems. Peak power: 100 watts. Response: 20-20,000 cycles; ± 2 db. 7 inputs: 3 microphone, 2 auxiliary, 2 magnetic phone. Gain: mike, 122 db.; auxiliary, 96 db.; magnetic, 115 db. Output Impedance: 4, 8, 16 ohms. 25-70 volts. Controls: Bass, Treble, Power, Master gain, Auxiliary (fader control), Input controls. 5 tubes, 2 silicon diodes and one bias silicon diode. Power consumption: 160 watts- 117 volts. 5 3/4" x 9 7/8" x 14 7/8". Wt. 28 lbs.

96F805. NET **138.75**

M330A PA AMPLIFIER

30 watts at 2% distortion. 3 microphone channels (2 convert to magnetic cartridge); 2 auxiliary inputs; separate master gain, bass, treble controls; built-in remote gain control circuit; sockets for low impedance transformers; 70 v. and 25 v. output taps. Peak power: 50 watts. Power consumption: 120 watts (105-125 VAC, 50-60 cps.). Response: 20-20,000 cps. ± 2 db. Output Imp.: 4, 8, 16 ohms; 25 v. balanced (16 ohms), 70 v. (163 ohms). 14 7/8" x 9 7/8" x 5 3/4". Wt. 20 lbs.

96F806. NET **113.25**

NEW TRANSISTORIZED P.A. AMPLIFIER

Model MTA-30. Power out: 30 watts. Frequency Response: 30-20,000 cps ± 1 db. Delivers full power: 40-12,000 cps ± 2 db. Impedance output: 4, 8, 16, Ω , 25V, 70V, and 163 ohms (70 V) Inputs: 3 (unbalanced 200 ohms) and 200 ohms balanced with T 525U transformer.

96F825. NET **119.90**

Model MTA-60. Same as MTA-30 except: Full power: 40-10,000 cps. Frequency response: 7-20,000 cps ± 1 db. Output Imped: 2.6, 8, 16, 10.4 (25 volt center tapped), and 82 ohms (to volt balanced) Gain (same as MTA-30): Mic-125 db, & auxiliary-110 db.

96F826. NET **149.95**

NEW MBT-60 BOOSTER AMPLIFIER

MBT-60. Features a power output of 60 W RMS less than 3% with full power of 40-10,000 cps ± 2 db at less than 5% distortion. Peak power: 110 Watts. Frequency response: 12-20,000 ± 1 db. Output Imped: 2.6, 8, 16 ohms (balanced); 25 V CT. (10.4 ohms) and 70 V balanced. Gain 110 db.

96F822. NET **112.40**

M120 AMPLIFIER

General purpose PA amp provides 120 watts at 3% distortion, 200 watt peak. Has 7 inputs; 3 for microphones, 2 for phono or tape, and 2 auxiliary inputs for ceramic phono or other high level sources. Freq. Resp.; 20-20,000 cps ± 1 db. Gain: mike, 125 db.; aux. 99 db.; magnetic, 118 db. Controls: Power, Master gain, Aux., Bass, Treble, Input controls. 16 1/2" x 12" x 4 3/4". 42 lbs.

96F800. NET **194.90**

NEW TRANSISTORIZED PREAMP

Model MTM. Power output 7 V into 500 ohms. Freq. Response: 40-15,000 $\pm 1\frac{1}{2}$ db. Power requirements: AC -105 to 125 VAC (50-60 cps); DC -Ext. Bat. 12-15 VDC. Mic. input imp.: 4 unbal 200 ohms and 200 ohm Bal. with T 525U transformer. Output Imp: (Split Output) 125/150 ohms & 125/150 ohms or 500/600 ohms balanced. Gain: Mic-75 db & Auxiliary; 60 db. Hum and Noise: Mic -65 db and Aux. -70 db. Shpg. wt. 9 lbs.

96F827. NET **134.95**

MXM-A MIXER-PREAMPLIFIER

Model MXM-A. A broadcast quality, self-powered mixer-preamp. for theatres, radio stations, and PA applications. Each unit accepts 7 signals simultaneously; 5 of which may be from high or low impedance mikes. However three MXM-A units may be paralleled to provide 21 inputs. Output level may be monitored in two ways: visually with the built-in VU meter or aurally by use of a plug-in headphone. Controls include separate speech filters, bass and treble controls to adjust freq. resp. of the mixer from 18 to 38,000 cps ± 1 db. 16 1/2" x 12" x 4 3/4". Shpg. wt. 20 lbs.

96F820. NET **164.95**

TRANSISTOR PREAMPLIFIER

RTP-1. All silicon transistor preamp for applications requiring a remote or local unit of true broadcast quality. Will drive any number of booster amplifiers over a 500/600 ohm line which may be several miles in length. Transistor design guarantees minimum maintenance. Inputs: 2 Mic. (high or low impedance), 2 Aux. on fader control, 1 bridging. Operates on 117 VAC, or 12 VDC with internal batteries (8 Eveready size AA) or external DC supply. Freq. Resp. 20-20,000 cps ± 1 db. Power: 5w at 117 VAC; 0.3 amps at 12VDC. 9" x 9 1/4" x 3 1/2". Shpg. wt. 6 1/2 lbs.

96F801. NET **114.95**

BOGEN SOUND EQUIPMENT

VP25 TRANSCRIPTION PLAYER

Portable transistorized transcription player and PA system. Lighter and more powerful than conventional tube models. Ideal for school and professional use. Record player is a model B51 precision-built transcription player with speed variable 29-86 rpm. Instant speed selection of 16, 33 $\frac{1}{3}$, 45, 78 rpm. Amplifier provides 30 watts peak power with high fidelity performance. Speaker, record player, and amplifier are housed in a single, attractive portable case. 25 ft. intcon. cable provided. 34 lbs. **73F624. NET 177.25**



VP25

VP18 TRANSCRIPTION PLAYER

New light weight solid state transcription player. Its high reliability, low heat, minimum weight make this unit ideal for schoolroom, discotheque, square dances, and many other applications. Turntable is the superb Bogen B51 with variable speed control from 29 to 86 RPM. It also has preset click-stops at 16, 33 $\frac{1}{3}$, 45, and 78 RPM. The amplifier is a fully transistorized 10 watt unit. Has 15 watt peak. 12" speaker is housed in the removable cover of the VP18. Has a 10 oz. ceramic magnet and comes with 25 ft. of cable capped with an input jack. Controls: Mic. Vol., Phono Vol., Bass, Treble, Music-Speech Switch, Power Switch, plus B51 controls. Phono cartridge is wide-range ceramic. Freq. Resp.: 45-18,000 cps $\pm 1\frac{1}{2}$ db. 15 $\frac{3}{4}$ "x16 $\frac{1}{2}$ "x10 $\frac{3}{4}$ ". Wt. 30 lbs. **73F622. NET 140.90**



VP18

BOGEN TURNTABLE WITH TONE ARM

Model B62. Turntable with continuously variable speed—29 to 86 rpm. and "click-in" positions for 16, 33 $\frac{1}{3}$, 45, and 78 rpm. Heavy duty 4 pole motor. Lever lowers tone arm to record. Tone arm has lateral and vertical suspensions independently ball-bearing mounted for maximum compliance in both planes. Provision for adjusting stylus pressure. Lock-type 4 pin stereo/mono plug-in head for interchanging cartridges. Wow and Flutter less than 0.2% at 33 rpm; rumble 51 db below average recording level. 12", 7 $\frac{3}{4}$ lb. machined, zinc alloy cast, turntable with heavy rubber mat. Tone arm: modified Bogen-Presto PA1 (aluminum). 15 $\frac{1}{2}$ "x13 $\frac{1}{4}$ ", 2 $\frac{1}{2}$ " above deck, 2 $\frac{1}{4}$ " below. 115 VAC, 60 cps, 15 watts. Shpg. wt., 28 lbs. **73F632. NET 67.95**

73F630 PB7 base 5.90
73F631 H4 head 4.00

TQ PHONES

Simple, push-button inter-communication—ideal for office, plant, store or home. To make a call, simply lift receiver and press the button(s) of the station(s) you wish to reach. A buzzer sounds at the station called. When the receiver is lifted you are in communication—by-passing the switchboard. Feature selective ringing with a common talk line. The total number of unshielded conductors common to all TQ Phones is 3 more than the total number of phones in the system. Phones may be operated as much as 500 ft. from the power supply. Handsomely styled in grey plastic, and may be used on desk, counter, or wall-mounted. Handset with base is 9 $\frac{1}{2}$ "x3 $\frac{1}{4}$ "x3 $\frac{1}{4}$ ".

TQ6-A. Phones for up to 7 sta. 25.15

96F775. NET Each 28.30

TQ12-A. Phones for up to 13 sta. 28.30

96F776. NET Each 31.65

Type TRA. Phone Page Adapter. Allows paging from series TQ phones. Simply add the TRA Adapter (see diagram) between any phone and your PA system. It is then wired to the system as if it were another TQ phone. Does not need a separate power supply. 4"x4"x2". Shpg. wt., 2 lbs. 31.65

96F787. NET 31.65

Type PRS-1A. Power supply for TQ phones. One required for each system. Use 3 conductor cable—6"x2"x3 $\frac{1}{2}$ " / For operation from 110-120 v. 50-60 cycles A.C. Shpg. wt. 4 lbs. 23.65

96F777. NET 23.65

SERIES TSL PHONES

An extremely flexible system for inter-office or intra-plant service. Provides multiple, simultaneous conversations without a central exchange. 100% trunkage allows all phones to be simultaneously in use in either separate or conference calls; single calls do not tie up system. Designed for wall or desk mounting and each supplied with a junction box. Use wire with at least 3 more conductors than the total number of phones in system.

Type TSL-16. 16 station system. Has 1 ring button and 15 station selector buttons. 9 $\frac{1}{2}$ "x3 $\frac{1}{4}$ "x3 $\frac{1}{2}$ ". Shpg. wt., 4 lbs. 40.85

96F779. NET 40.85

Type TSL-8. Same as above except 8 phone system. One ring button and 7 station buttons. 34.25

96F780. NET 34.25

Type PRS-16. One required for each telephone system. Plug into any standard electrical outlet. Uses 3 conductor cable to connect into any convenient junction box. 6"x2"x3 $\frac{1}{2}$ ". Shpg. wt., 5 lbs. 38.25

96F781. NET 38.25

Type TRC. Phone page adapter allows paging for Series TSL phones. 4"x4"x2". Shpg. wt., 2 lbs. 31.65

96F782. NET 31.65

CABLES FOR TSL AND TQ SYSTEMS

No. of Cond.	100' Spool		500' Spool	
	Stk. No.	Each	Stk. No.	Each
3	36F040A	2.70	36F040F	10.15
6	36F043A	5.85	36F043F	25.15
10	36F200A	7.65	36F200F	38.25
15	36F198A	14.65	36F198F	64.50
25	36F199A	22.50	36F199F	101.25



8-62



TQ Phone



TSL Phone

DYNAKITS

PAM-1 PREAMPLIFIER KIT

Low noise, high gain preamplifier kit with full control facilities. Pre-assembled printed circuit board reduces wiring time to under 6 hrs. Patent-pending feedback circuitry for low distortion and consistent performance. 4 AC convenience outlets. 6 inputs for high and low level magnetic phono, radio, TV, tape, plus option for tape head or extra phono position. Equalization for RIAA, LP, and 78 rpm records. Low impedance (1000Ω) output. Bass and treble controls with true flat setting—up to ±15 db of boost and/or cut at 30 cps and 15 kc. Midband unaffected. Takes power from other amplifiers with power socket. Gain at 1000 cps—500 through RIAA input, 10 through radio, tape, or TV inputs. Under 0.05% IM distortion at 1.5 v out. Under 3-microvolt equivalent input noise on RIAA position. Freq. resp. flat ±1 db to 100 kc. Tubes: 2 12AX7 (or HECC83). 1 selenium rect. 12x6x2 3/4". Shpg. wt. 7 lbs. 96F420. NET **34.95**

PAS-3X STEREO PREAMPLIFIER KIT

Two independent high gain, low noise pre-amplifier control channels. complete stereo facilities, including unique Dyna-Blend Control. Inputs: RIAA phono, NAB tape head, "Special" (optional second phono, tape head or microphone), FM multiplex, FM-AM, Tape, Spare. Controls: Selector, Volume, Balance, Blend, Separate base and treble controls for each channel. Tape monitor, loudness, Scratch filter. power switches. Uses 4-12AX7, 1-12X4, selenium rectifier. 4 AC outlets. 13 1/2 x 4 1/4 x 8". Shpg. wt. 11 lbs. 96F425. NET **69.95**

FM-1 MONO FM TUNER KIT

True hi-fi reception including all these important performance characteristics: high sensitivity for fringe area use; low noise; imperceptible distortion; and non-critical, drift-free tuning. Printed-circuit design and accessible, functional layout permit construction in 6 hours. No test equipment required—all coils are pre-aligned. Sensitivity: 4 μv (1HF). Switched AC outlet. 55 watts. Components include: 6AQ8, 6AT8A, 6BA6 (2), 6AU6 (2), 12AX7 (2), 6BL8, 1N542 diodes (2), 1N541 diodes (4), EMM801, 6V4. Tuning and volume controls, on-off switch. Panel 13" x 4 1/4" x 8" deep. Shpg. wt. 12 lbs. 96F434. NET **79.95**

FM-3 STEREOMATIC FM TUNER KIT

As above Model FM-1 but for stereo reception. Components include: 6AQ8, 6AT8A, 6BA6 (2), 6AU6 (2), 12AX7 (2), 6BL8, 1N542 diodes (2), 1N541 diodes (4), EMM801, 6V4. Tuning control, volume control with stereomatic-mono push-pull switch, on-off switch. Panel 13 1/2" x 4 1/4" x 8" deep. Wt. 13 lbs. 96F435. NET **99.95**

SCA-35 35 WATT STEREO CONTROL AMPLIFIER KIT

Combines a deluxe stereo preamp. having full control flexibility, with a unique 35-watt stereo power amplifier. Low noise and distortion levels. Heavy-duty etched circuit construction and accessible, straight forward design make assembly a pleasure even for the novice. Controls include: input selector switch, volume, balance, ganged bass and treble, stereo-mono switch, loudness compensation switch, filter switch and on-off power switch. 7 pairs of inputs accommodate every program source. Rear panel has dual hum-balance controls; two AC convenience outlets; headphone output; derived center-channel output and tape output. Power output: 17 1/2 watts continuous, per channel. Response: ±5 db, 20-20,000 cps. IM distortion: less than 1% at full power. Hum and noise: 80 db down. Impedances: 8 and 16 ohms. For 110-120 volt, 50-60 cycle AC. Charcoal brown vinyl-coated case. 23 lbs. 96F436. NET **99.95**

STEREO 70 AMPLIFIER KIT

Moderate-power, high performance amp. Power Output: 70 watts continuous; 80 watts peak each channel. Freq. response: ±0.5 db from 10 cps to 40 KC. Power response: 20 cps to 20 KC without exceeding 1% distortion within 1 db of 35 watts. IM distortion: less than 1% at 35 watts. Sensitivity: 1.3 volts rms input for 35 watts output. Power consumption: 175 watts. Bright nickel chassis vinyl coated charcoal brown cover. Size: 13x9 1/2 x 6 1/2". Shpg. wt., 32 lbs. 96F430. NET **99.95**

MARK III AMPLIFIER

Mark III. 60 watt amplifier kit. Dynaco circuitry. 60 W. at under 1% IM distortion; less than 0.5% below 50 W; about 0.04% at avg. listening levels. Under 1% harmonic distortion within 1 db of 60 watts at freq. between 20 cps & 20 kc. Freq. resp. better than ±0.5 db between 6 cps & 60 kc. Resp. at any level up to 60 W., ±0.1 db at 20 cps to 20 kc. Excel. transient resp. on pulses, square waves, etc. Noise better than 90 db below max. 4-, 8-, & 16-ohm outputs. Tubes 1 6AN8, 2 KT-88 GZ-34, selen. rect. Extra premium KT-88 tubes supplied in matched pairs. Size: 9" x 9" x 6 3/4". Wt. 28 lbs. 96F419. NET. Including cover **79.95**

MARK IV AMPLIFIER

Mark IV. 40 watt amplifier kit. Dynaco circuitry. 40 watt continuous 90 watt peak. Freq. resp.: ±5 db from 10 cps to 40 Kc. Sensitivity: 1.3 volts RMS input for 40 watts out. Output imp.: 4, 8, & 16 ohms. Tube comp: EL-34, (2) 7199 & GZ-34. Power 115 watts. Size 5" x 14" x 6 1/2". Wt. 20 lbs. 96F429. NET. Including cover **59.95**

HOLMIN

MODEL A-12 TRANSISTORIZED VOICE GUN

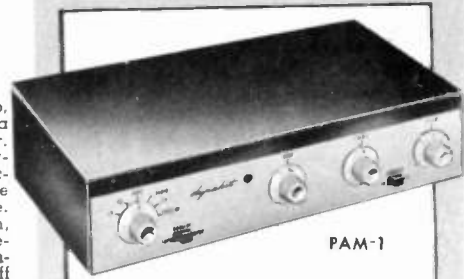
A self-contained public address system consisting of microphone, transistor amplifier, speaker and power supply in one unit. Its sharp, clear voice cuts through din and confusion without wait for "warm-up" acting the moment you push the button in the pistol grip. The Voice Gun uses transistors for longer life and efficiency. It has a water-protected magnetic microphone and thermistor for temperature compensation. Amplifier circuit is printed on miniature chassis. Uses ordinary pen-light batteries. Dimensions:

Diameter of bell—7 1/4"; length—9 1/2"; overall height—10 1/2". 2 stage push-pull class B printed circuit amplifier. 3 transistors, 1 driver. 2 output. Industrial "paging type" speaker with an 8 ohm impedance. Molded Cylcolac battery clip with silver plated contacts. Dual spring, "push-to-talk" type switch for ease of use and positive action. Complete with batteries and carrying strap. Net wt. 3 1/4 lbs; Shpg. wt. 5 1/4 lbs. 88F205. NET **89.96**

TRANSISTORIZED PORTABLE PUBLIC ADDRESS SYSTEM

Model 120. New microphone design cancels out noise and allows full 20-watt peak power without feedback. Two high efficiency trumpet-type speakers for wide angle coverage of large groups and crowds. Completely self-contained—consists of microphone, transistor amplifier, speaker, and battery power supply, all in one unit. Only controls are push-to-talk button and volume control on microphone housing. Specifications:

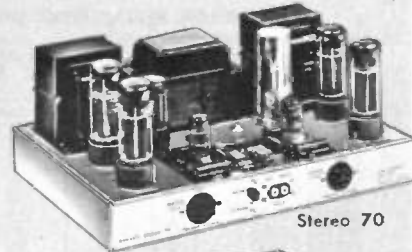
Power Output—20 watts peak, 10 watts R.M.S.; Amplifier—4 stage class B output; Transistors—5 (3 power types, 2 medium power); Batteries—2 standard E volt, flashlight lantern type; Microphone—magnetic anti-feedback, noise-cancelling type; Case—molded of U.S. Royalite; Dimensions—8" high, 11" deep, 1 7/8" wide; Wt. 11 lbs.; Shpg. wt. 16 lbs. 88F216. NET **177.35**



PAM-1



PAS-3X



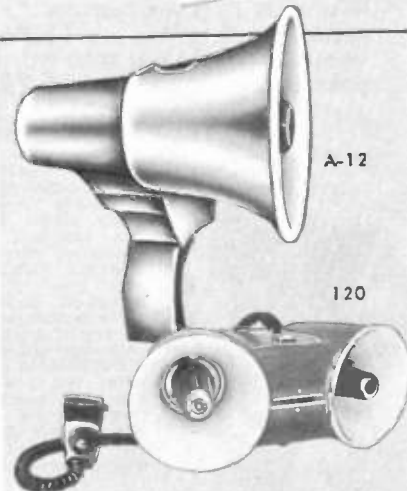
Stereo 70



FM-1

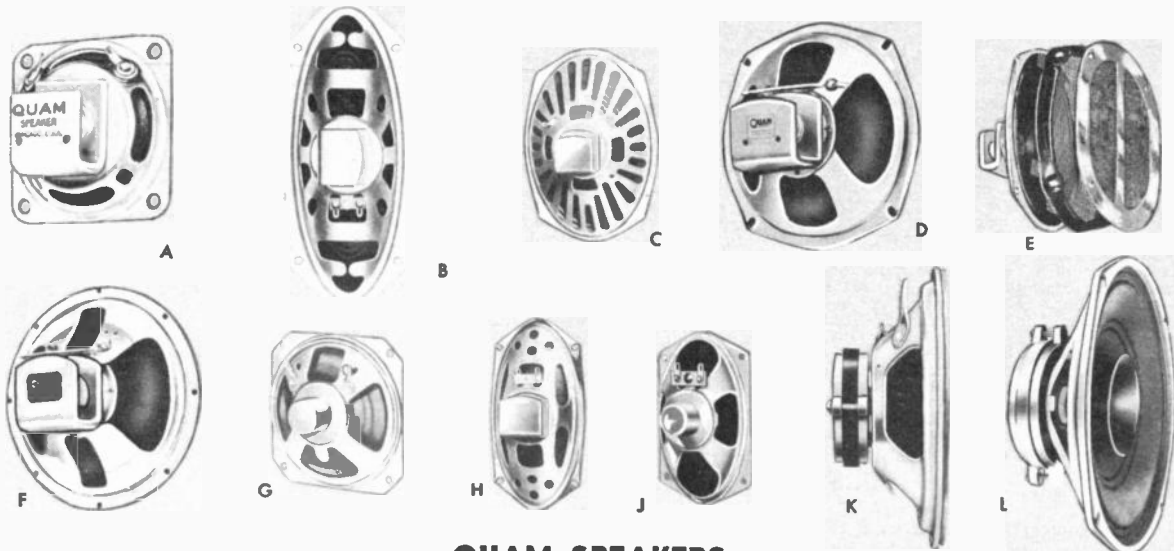


Mark III



A-12

120



QUAM SPEAKERS

QUAM REPLACEMENT SPEAKERS

Ideal replacements for speakers in radios, phonos, TV, etc. All have Alnico V magnets, with weight specified in oz. All voice coils below are 3.2 ohms. Std. EIA mtgs. *Multi-ohm 10-20 & 40.

Stk. No.	Type	Fig.	Size	Magnet	Watts	Wt.	Net
56F136	25A07	A	2 1/2"	.65	1.5	1/4	2.14
56F171	26A07	J	2x6"	.65	2.0	1/2	2.30
56F169	30A05	G	3"	.55	2.0	1/3	1.69
56F144	3A05	G	3 1/2"	.55	2.0	1/2	1.69
56F115	3A07	A	3 1/2"	.65	2.5	1/2	2.14
56F167	35A05	J	3x5"	.55	2.0	1/4	2.24
56F145	4A05	J	4"	.55	2.5	1/4	1.58
56F117	4A07	A	4"	.65	3.0	1/2	2.30
56F119	4A15	A	4"	1.47	3.0	3/4	2.69
56F142	46A07	.....	4x6"	.65	3.5	1/2	2.54
56F146	48A2	H	4x8"	1.4	4.5	1	4.25
56F112	410A2	B	4x10"	1.4	6.0	1 1/4	4.78
56F172	410A2MT*	B	4x10"	1.4	6.0	1 1/4	5.85
56F137	5A1	D	5"	1.00	3.5	1	2.59
56F123	5A15	D	5"	1.47	3.5	1	2.80
56F125	52A1	D	5 1/2"	1.00	4.0	1	2.65
56F138	57A1	C	5x7"	1.00	5.0	1	2.94
56F173	57A2MT*	C	5x7"	1.4	5.0	1	3.82
56F126	6A1	D	6 1/2"	1.00	5.0	1	2.93
56F128	6A31	D	6 1/2"	3.16	6.0	1 3/4	4.06
56F129	69A2	C	6x9"	1.4	8.0	1 1/2	4.01
56F174	69A22MT*	C	6x9"	1.4	8.0	1 1/4	4.94
56F131	69A3	C	6x9"	3.2	10.0	2	4.92
56F143	8A21	D	8"	2.15	7.0	1 1/2	4.15
56F130	8A31	D	8"	3.16	9.0	2	4.81

QUAM EXTENDED RANGE SPEAKERS

Quam speakers meet the requirements of the most critical listener. Quam speakers produce rich, distortion-free lows and clean, sharp highs. Freq. response: flat to 12,000 cps. All 12 oz., Ceramic magnets... Voice coil impedance, 8 ohms. V.C. dia. 1 1/4", 4 lbs.



Model 8C12X. 8". 15 watt. Depth 3 1/2".
 84F200. Net..... **11.76**
 Model 12C12X. 12". 18 watt. Depth 4 1/2".
 84F201. Net..... **15.29**

QUAM INTERCOM SPEAKERS

Stk. No.	Type	Fig.	Size	Magnet	Watts	Wt.	NET
56F116	3A07Z45	A	3 1/2"	.65	2.5	1/2	2.50
56F140	4A1Z45	A	4 1/2"	1.00	3.0	3/4	2.85
56F141	5A1Z45	D	5"	1.00	3.5	1	3.00

MINIATURE PM SPEAKERS

Designed for replacement use in transistor radios and other equipment where there is limited space. Magnet wt. .45 oz.

Stk. No.	Model No.	Fig.	Size	Power Hndlg. Watts	Shpp. Wt. Lbs.	NET
56F164	22A06Z8	....	2 1/4"	.25	1/4	2.79
56F165	22A06Z100	....	2 1/4"	.25	1/4	3.09
56F166	27A06Z12	....	2 3/4"	.25	1/4	2.76

Impedance of speakers, in ohms, indicated by digits following "Z" in model number.

QUAM REAR SEAT AUTO SPEAKERS

Includes speaker, flocked screen, grey metal grille, cable, leader control, and plate for under-dash mounting.

Fig. E. Deluxe Model AS-2. Full-toned 6x9" speaker with 2.15 oz. magnet and sponge rubber baffle plate gasket. 3 1/2 lbs.
 84F208. NET..... **7.46**
 84F207. Model AS-1. Has 6 1/2" speaker. 2 lbs. NET..... **5.32**
 84F209. Chrome Grille. For 6x9" speaker. 8 oz. NET..... **1.26**

QUAM PUBLIC ADDRESS SPEAKERS

Fig. F. Sturdy PM units for voice reinforcement and music. Built to take plenty of abuse! Will handle rated power continuously. All have 8 ohm voice coils. *Has ceramic magnet. Fig. K. **Has ceramic magnet. Extended Range, 50-20,000 cps. Fig. L.

Stk. No.	Type	Size	Magnet	Watts	Wt.	NET
56F175	8A31PA	8"	3.16	10	2 1/4	5.59
56F176	8A4PA	8"	4.64	12	2 3/4	6.47
56F181	8A6PA	8"	6.8	12	3 1/4	7.64
56F114	8C10PA*	8"	10.	12	3	7.03
56F170	8C10PAX**	8"	10.	15	3	7.61
56F180	12A4PA	12"	4.64	15	4	8.38

NEWARK PM REPLACEMENT SPEAKERS

Excellent quality permanent magnet speakers at low prices. Ideal for auto, radio, phono, TV or PA use. Standard mounting dimension allow quick, effortless installation in your new or existing equipment. Engineered to achieve clean, sharp, tonal reproduction. All 3.2 ohm voice coil except (*) 8 ohm. Built to EIA standards. (†) 12 ohm voice coil for transistor radios. Rugged construction, trouble-free operation, and excellent frequency response.

Stock No.	Size In.	Shape	Magnet Oz.	Rating Watts	Shpp. Wt.	NET EACH	
						1-5	6-up
56F250†	2 3/4	Round	.68	.25	1/2	1.85	1.66
56F251	3	Square	.68	2.0	1/2	1.38	1.24
56F252	4	Square	.68	3.0	1/2	1.39	1.25
56F254..	4x6	Oval	1.47	4.0	3/4	1.94	1.75
56F255	5	Round	.68	3.0	3/4	1.50	1.35
56F257	5x7	Oval	1.47	5.0	1	1.99	1.79
56F258	6	Pin Cushion	.68	5.0	1	1.85	1.66
56F259	6	Pin Cushion	3.16	5.0	1	2.77	2.49
56F260	6x9	Oval	1.47	5.0	1 1/2	2.58	2.32
56F261	6x9	Oval	2.15	6.0	1 1/2	2.86	2.57
56F262	8	Round	1.47	5.0	1 1/2	2.48	2.23
56F263	8	Round	2.15	6.0	1 1/2	3.18	2.86
56F264*	8	Round	6.8	9.0	2.0	4.44	4.00
56F266	10	Round	2.15	6.0	2 1/2	3.83	3.45
56F267*	10	Round	6.8	10.0	2 1/2	5.47	4.92
56F269*	12	Round	4.64	10.0	3	5.36	4.82
56F270*	12	Round	6.8	12.0	3	5.85	5.26



632 NEWARK

Newark Industrial Electronics Corp., 2114 S. Division Ave., Grand Rapids, Mich. 49507

PERMA-POWER P.A. EQUIPMENT

ROVING ROSTRUM PORTABLE PUBLIC ADDRESS SYSTEM

Model S120. Self-contained portable transistorized public address system which operates from flashlight batteries. Weighs only 22 lbs., yet provides 25 watts of power, ample for audiences of up to 1000. Part of unit becomes rostrum with built in amplifier and speaker. Other part becomes remote speaker which may or may not be used. Inputs for phonograph, radio and microphone; output for tape recorder. Comes with cardioid dynamic microphone with 10 foot cable, lavalier cord, gooseneck mike stand, 40 foot cable for remote speaker. Each speaker is 6" x 9" with a 10 oz. ceramic magnet. Luggage style case of scuff-proof Royallite. Size: 8 $\frac{7}{8}$ " H x 16 $\frac{3}{4}$ " W x 17 $\frac{1}{4}$ " D. Wt. 26 lbs.

92F083. NET **189.95**
 Model S110. As S110, but with omnidirectional mike. 92F095. **149.95**
 Eveready type E95. Alkaline "D" cells for use with above, 10 required. Shpg. wt., 5 oz. 49F378. NET .49

DIPLOMAT PORTABLE PUBLIC ADDRESS SYSTEM

Model S200. Transistorized 25 watt public address unit completely contained in attache case. Easily carried from place to place, weighs only 16 $\frac{1}{2}$ lbs. No need to plug in, operates from self-contained flashlight batteries. Supplied with low impedance omnidirectional dynamic microphone, 10 foot microphone cable and lavalier cord. Microphone may be used with several hundred feet of cable if desired. Speaker is a 6" x 9" unit with 40 feet of cable for operation away from amplifier if desired. Anti-feedback housing permits microphone to be used near speaker. Inputs for phonograph, radio and microphone; outputs for auxiliary speaker and tape recorder. Size: 12" H x 19" W x 4 $\frac{1}{4}$ " D. Shpg. wt., 25 lbs. 92F093. NET **119.95**

Model S1030. Microphone kit for audience participation. Use two mikes simultaneously. Kit includes: additional omnidirectional microphone with 10 foot cord, mixer and 25 foot extension cord. 92F094. NET **39.95**
 Eveready type E95. Alkaline "D" cells for use with above, 10 required. Shpg. wt., 5 oz. 49F378. NET EACH .49

NEWARK SPECIALS

Fig. A—COAXIAL SPEAKERS

Blue cone woofers and tweeters with Alnico V magnets. Cross-over networks housed in dust covers of speakers. 6-8 ohm Z. 8". Response 50-15,000 cps. 8" woofer and 3" tweeter. (.53 oz.) Shpg. wt., 3 $\frac{1}{2}$ lbs. 83F950. NET **6.65**
 12". Response 40-15,000 cps. 12" woofer and 3" tweeter (1 oz.) 83F951. NET **9.95**
 15". Response as low as 35 cps. 15 watts. 15" woofer and 5" tweeter (1 oz.) Shpg. wt., 11 lbs. 83F952. NET **13.95**

Fig. B—COAXIAL COMBINATIONS (Order as Shown)

8" coax speaker listed above with walnut Argos baffle, WB8D. Wt., 6 lbs. 83F950. } **10.95**
 86F750. NET }
 8" coax speaker as above with blonde baffle. Wt. 6 lbs. 83F950. } **10.95**
 86F761. NET }
 12" coax speaker listed above with walnut Argos baffle, WB12D. 83F951. } **15.95**
 86F752. NET }
 12" coax speaker as above with blonde baffle. 83F951. } **15.95**
 86F763. NET }

SOUNDOLIER Baffles AND ENCLOSURES

RECESSED TRIM RING Baffles

Type 51-8. Steel with a hard baked white finish. For 8" speakers. Mtg. hdw. supplied. Size: 12 $\frac{3}{4}$ " Dia. Wt. 5 lbs./pkg. 86F628. Sold in pkgs. of 5 only. NET per pkg. **8.95**
 Type 61-8. Similar to above except brushed steel finish. 86F629. 1-4 **2.95 ea.** 5-19 **2.59 ea.**
 60 Series. Aluminum trim ring with a satin brushed finish. Simple lines blend well with the modern architecture.
 Type 60-8. For 8" speaker. 12 $\frac{3}{4}$ " dia. 86F620. 1-4 **3.16 ea.** 5-19 **2.78 ea.**
 Type 60-12. For 12" speaker. 17" dia. 86F621. 1-4 **4.33 ea.** 5-19 **3.80 ea.**

PROTECTIVE ENCLOSURES

95 Series. Cylindrical protective enclosures designed for new or existing construction installations. Heavy gauge steel, undercoated with packed jute lining to eliminate resonance.
 Type 95-8. Used with 8" baffles. 9 $\frac{7}{8}$ " dia., 4 $\frac{1}{4}$ " high. Wt. 2 lbs. 86F622. 1-4 **4.86 ea.** 5-19 **4.27 ea.**
 Type 95-12. Used with 12" baffles. 14 $\frac{5}{8}$ " dia., 7" high. Wt. 2 lbs. 86F623. 1-4 **7.01 ea.** 5-19 **6.15 ea.**

WIDE ANGLE SURFACE CEILING Baffles

210 Series. Includes acoustical horn to radiate sound energy from the rear of loudspeaker. Horn throat provides phase inverter for extended bass resp. Outer enclosure is finished in flat polar white; inner in brushed satin aluminum. Size: 210-8; 14 $\frac{1}{8}$ " dia. x 4 $\frac{1}{4}$ " H. 210-12; 18 $\frac{1}{4}$ " dia. x 6 $\frac{1}{2}$ " H. Can be mtd. to std. 4" junction box or directly to ceiling. 2 lbs.

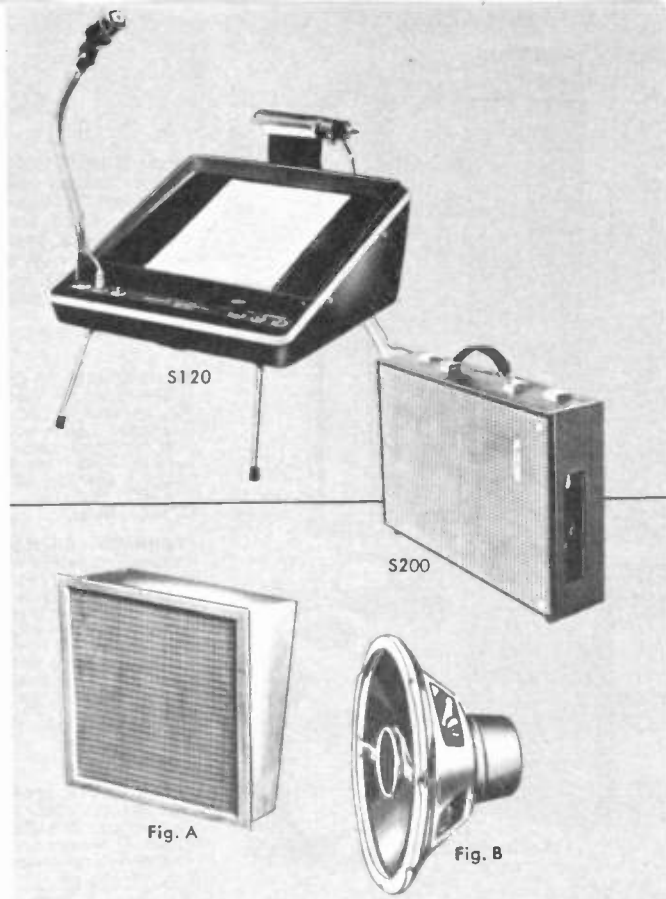
86F525. Type 210-8. For 8" speakers. 1-4, 12.54 ea. 5-19, 11.00 ea.
 86F526. Type 210-12. For 12" speakers. 1-4, 15.39 ea. 5-19, 13.50 ea.

LOUVERED RECESSED CEILING Baffles

Type 67-8. Similar in style to air diffuser. Designed from heavy gauge steel and completely welded. Aluminum painted finish. Accommodates an 8" speaker. 12" dia. Wt. 1 lb. 86F627. 1-4 **4.53 ea.** 5-19 **3.98 ea.**

LOW CEILING RECESSED Baffles

Type 68-8. For use with 8" speakers. Satin brushed aluminum finish. Diffractor eliminates beaming when used in low ceiling applications. 12 $\frac{3}{4}$ " dia. x 1 $\frac{5}{16}$ " Less speaker. Shpg. wt., 1 lb. 86F624. 1-4 **6.92 ea.** 5-10 **6.08 ea.**



ARGOS PRODUCTS COMPANY

"SOUND DIRECTOR" SOUND COLUMNS

Model SD-1060. Highly directional speaker system. Vertical angle of dispersion approximately 30°, horizontal projection angle in excess of 120°. Six speakers, handles 30 watts of audio. Plastic cane grille cloth, walnut grain vinyl baffle covering. Freq. resp.: 200-10,000 cps; impeded: 16 ohms. Size: 30 1/4"Hx7"Wx3 1/8"D. Shpg. wt., 10 lbs.

86F593. NET **41.65**

Model SD-2100. Similar to model at left SD-1100 but larger. Built in vertical focusing control, concealed wire mesh protects speakers. Size: 50 1/2"H x 10 3/4"W x 8 1/4"D. Shpg. wt., 43 lbs.

86F595. NET **80.36**

Model SD2101. Same as SD-2100 except with oiled hand rubbed walnut veneer. Shpg. wt., 50 lbs.

86F596. NET **97.02**

Model SD-1100. 10 speakers, for rooms up to 200' in length. Vertical dispersion angle, 15°; horizontal, 120°. Easily converted to 8 speaker system with 22° vertical dispersion for short rooms with highly sloping seating. Power capability: 10 speaker 50 watts; 8 speaker, 40 watts. Size: 49 1/2"Hx 7"Wx6"D. Shpg. wt., 26 1/2 lbs.

86F594. NET **65.66**

"THINLINE" BAFFLES WITH HEAVY DUTY PA SPEAKERS WITH VINYL COVERING
Thinner and wider with the new modern look. 1/2" thinner with no sacrifice in quality! All have heavy-duty ceramic magnet speaker and are hvy. duty P.A. types except WB-108CS which has Alnico V magnet speaker and is ideal for background music. *Have built-in L pad. All are 8 ohm types. Sizes: 8"; 12x9 1/2x4 3/8". Wt. 5 3/4 lbs. 12"; 16 1/4x14x6 1/4". Wt. 9 3/4 lbs.

Stk. No.	Type	Spk. Sz.	Watts	Finish	Each
86F600	WB-108CS	8"	6	Walnut	7.59
86F601	WB-108CS	8"	6	Blonde	7.59
86F723	WB-408CS	8"	10	Walnut	9.31
86F724	WB-408CS	8"	10	Blonde	9.31
86F725	WB-408CSL*	8"	10	Walnut	11.42
86F726	WB-408CSL*	8"	10	Blonde	11.42
86F606	WB-212CS	12"	18	Walnut	15.09
86F607	WB-212CS	12"	18	Blonde	15.09
86F608	WB-212CSL*	12"	18	Walnut	17.25
86F609	WB-212CSL*	12"	18	Blonde	17.25

WEATHERPROOF ARGONAUT OUTDOOR SOUND COLUMN

"Boat-hull" construction makes this unit completely climateproof — ideal for outdoor PA work anywhere in the world! Sound dispersion characteristics similar to model SD1100. 40 W. power capacity. Size: 49 1/2x9 1/2x4 1/2"; shpg. wt. 37 lbs.

86F579. Model SD1082. NET **166.11**

SPACE SAVER SPEAKERS AND BAFFLE

Type HFB-8SV. Only 3/4" thin. Hi-Fi sounding response. Superior to regular PA wall baffles. 8" woofer and 3 1/2" tweeter speakers with volume control. Size: 18"x12"x3 3/4". Shp. wt. 6 1/2 lbs

Stk. No.	Type	Finish	Each
86F778	HFB-8SV	Walnut	17.59
86F779	HFB-8SV	Blonde	17.59

SOUND CADDY

Type SC-2D. Simple function design using Argos Vinyl covering. Highly portable. Has room for two 12" PA 18 watt speakers. Space below for most amplifiers. Heavy plywood construction, steel corner angles. SC-2D less speakers. Shpg. wt. 20 lbs.

86F599. NET **24.45**

WALL OR CEILING BAFFLES

DMBX-8. Series. Features a furniture finish in birch (antique) or dusk walnut.

4.8 oz. magnet. 10 watts. 8 ohms. Dual cone 10 3/4x10 3/4x3 1/2".

WALNUT

Stk. No.	Type	Weight	Each
86F717	DMBX-8	3	5.73
86F719	DMBX-8S	4 3/4	10.53
86F721	DMBX-8SV	4 3/4	12.45

BIRCH

Stk. No.	Type	Weight	Each
86F718	DMBX-8	3	5.73
86F720	DMBX-8S	4 3/4	10.53
86F722	DMBX-8SV	4 3/4	12.45

S = Speaker V = Volume control

CB SERIES CORNER BAFFLES

Bass reflex design with effective air mass increased by a corner location. Terminals are located on top of the baffle; no mounting hardware visible to mar appearance. Textured vinyl surface closely resembles wood and is less prone to scratching and easier to clean.

Model CB-8D. For 8" speakers (max. speaker depth—4 1/2"). 12 1/4x14x6 1/2". Shipping wt: 4 1/2 lbs.

Model CB-12D. For 12" speakers (max. speaker depth 6 1/4"). 17x20x9". Shipping wt: 8 1/2 lbs.

Stk. No.	Type	Finish	Each
86F712	CB-8D	Walnut	7.06
86F715	CB-8D	Blonde	7.06

Stk. No.	Type	Finish	Each
86F713	CB-12D	Walnut	11.07
86F716	CB-12D	Blonde	11.07

TILTED BAFFLES

Avoids off-angle distortion. 22% more air volume. Bass reflex. Type SCB-8D. For 8" speakers (max. D.

5 1/2") 17 3/4"x15"x9". Shpg. wt: 6 lbs. Type SCB-12D. For 12" speakers (max. D. 6"). 20 3/4"x20"x10 1/2". Wt: 8 lbs.

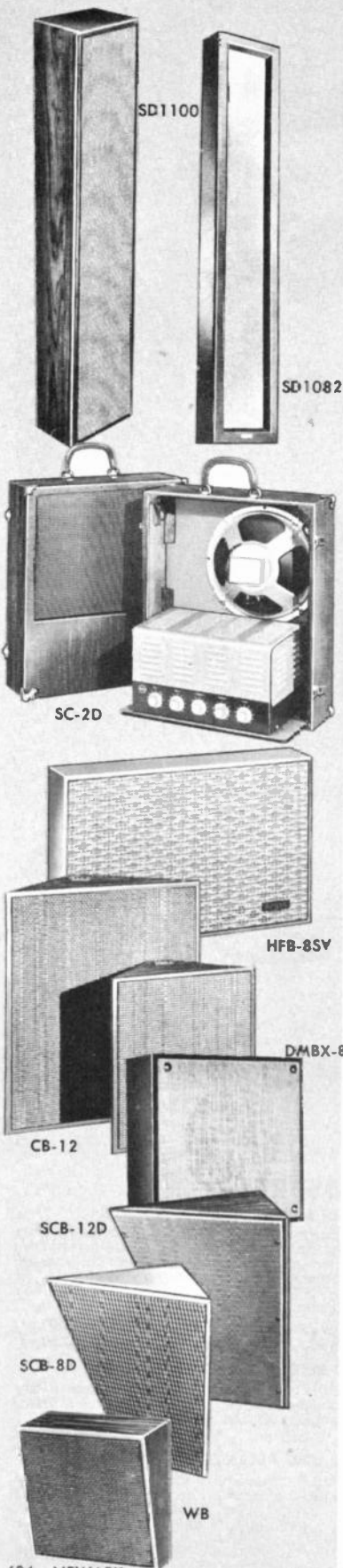
Stk. No.	Type	Finish	Each
86F731	SCB-8D	Walnut	8.57
86F732	SCB-8D	Blonde	8.57

Stk. No.	Type	Finish	Each
86F733	SCB-12D	Walnut	12.05
86F734	SCB-12D	Blonde	12.05

WALL SPEAKER BAFFLES

Sturdily constructed of plywood. Handsome contrasting cane grille cloth. Specially designed vinyl fabric in walnut or blonde finish. 8", 10", and 12" models have knock out plug under covering for volume control.

Stk. No.	Type	Dia.	Finish	W x H x D	NET
86F754	WB-4/5D	4.5"	Walnut	6 1/2x6 3/8x4"	3.04
86F759	WB-4/5D	4.5"	Blonde	6 1/2x6 3/8x4"	3.04
86F753	WB-6D	6"	Walnut	8 1/8x8 3/4x5"	3.67
86F760	WB-6D	6"	Blonde	8 1/8x8 3/4x5"	3.67
86F750	WB-8D	8"	Walnut	10x10 3/4x6 1/2"	4.36
86F761	WB-8D	8"	Blonde	10x10 3/4x6 1/2"	4.36
86F751	WB-10D	10"	Walnut	12 1/8x12 9/8x7 7/8"	5.23
86F762	WB-10D	10"	Blonde	12 1/8x12 9/8x7 7/8"	5.23
86F752	WB-12D	12"	Walnut	13 7/8x14 1/4x9 1/8"	6.03
86F763	WB-12D	12"	Blonde	13 7/8x14 1/4x9 1/8"	6.03



ARGOS SPEAKER BAFFLES

DWB SERIES BAFFLES

Model DWB. Complete speaker mounting hardware is included. Also "speed" clip for easy mounting and removal from walls. Heavy, select white birch hand rubbed and waxed to a furniture finish—either walnut or blonde. DWB-8A—Internal capacity 400 cu. in. 2¾ lbs. DWB-12A—Internal capacity 1180 cu. in. 4½ lbs.

Stk. No.	Model	Finish	Dia.	Size	NET
86F735	DWB-8A	Walnut	8"	9¾x10½x6½"	5.88
86F736	DWB-8A	Blonde	8"	9¾x10½x6½"	5.88
86F737	DWB-12A	Walnut	12"	13½x14x9½"	8.23
86F738	DWB-12A	Blonde	12"	13½x14x9½"	8.23

PROFESSIONAL CUSTOM INSTALLATION BAFFLES

Model PWB-8C. For those installations where a large baffle is desired for an 8" speaker. Similar to Model WB-8D described above, but with 2½ times the air volume to give greatly improved tone quality at nominal additional cost. Durable, handsome wood-grain vinyl surface; virtually non-resonant rigid construction. Max. speaker depth, 4½". Size, 16¼x14x6¼. Shipping wt., 6 lbs.

86F739. Walnut finish. NET. **6.08**
 86F740. Blonde finish. NET. **6.08**

PATIO OUTDOOR SPEAKER

Type PAT-10. Redwood and cane, moisture-resistant, durable speaker for the outdoors. Sealant applied to ¾" redwood provides all sorts of decorative options. Let it weather, stain it, or paint it. Speaker is full range 8" size with 10watt power capacity. Input: 8 ohms. Marine grade plywood is used for the baffleboard. Handy volume control is located at the bottom of the enclosure and saves running indoors for audio level adjustments. Tucked under eaves or sheltered, this speaker will provide years of enjoyment. Size: 14x10½x3½". Shpg. wt. 5½ lbs.

86F588. PAT-10. NET. **14.65**

"THE TROUBADOR" TSW-8S SPEAKER SYSTEM

Strikingly different "art frame" design compliments any interior decor. Remarkable big-system sound made possible by new Argos heavy-duty, dual-cone, full-range 8-in. speaker, 15 Watts. Exquisite Dusk Walnut or Antique Birch finish, decorator-type Belgian linen grill cloth. May be mounted horizontally or in "diamond" position. Perfect as a pair for stereo reproduction. Size: 13¼"x13¼"x4". Shipping Wt.: 5¼ lbs.

86F727. Walnut finish. NET. **12.69**
 86F728. Birch finish. NET. **12.69**

"THE HALLMARK" TCB-8S CORRIDOR SPEAKER SYSTEM

Versatile and economical new PA speaker and enclosure that mounts on ceiling or wall and speaks in both directions simultaneously. High-quality, 8-in. dual-cone speaker with 4.8 oz. magnet, 10 watts for effortless sound reproduction. Choice of finishes—Dusk Walnut or Antique Birch. Simplified installation without removal of heavy-duty mounting bracket. Size: 10¾"x10¾"x3½". Shipping Wt.: 6 lbs.

86F729. Walnut finish. NET. **13.67**
 86F730. Birch finish. NET. **13.67**

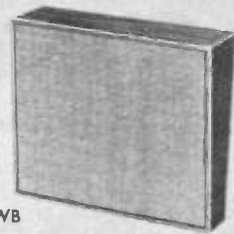
SPEECH DIRECTOR

Model LSD-6040. New portable, self-powered lectern P.A. system. Compact single-case system provides perfect sound coverage for small groups or audiences of 500 or more. Includes: Argos Sound Column speaker system, 20 watt transistor amplifier, unidirectional cardioid microphone with built-in volume control. Amplifier operates from two 12 v. dry cells or regular household current. Battery operating life is in excess of "0" hours. Size: 21" x 16" x 7½".

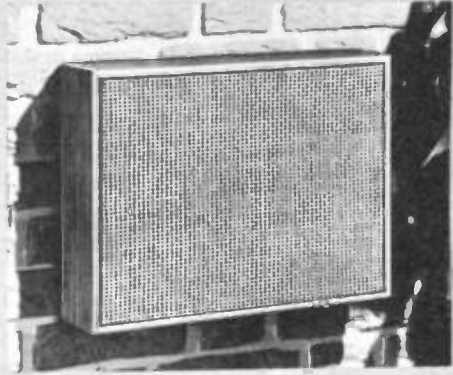
86F578. NET. **225.35**



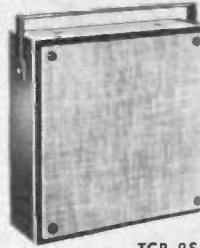
DWB



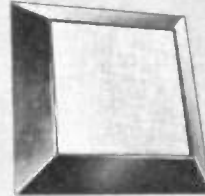
PWB



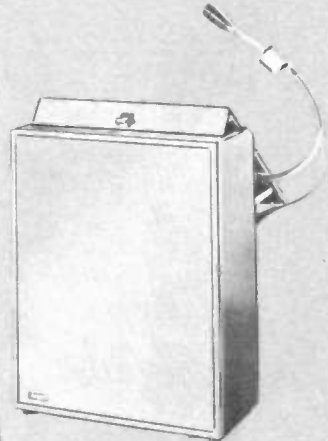
PAT-10



TCB-8S



TSW-8S



SPEECH DIRECTOR
 Model LSB-6040

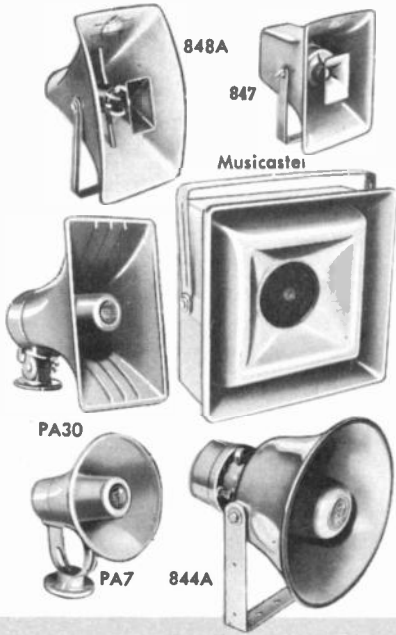
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PUBLIC ADDRESS SPEAKERS



Model 848A. Combines FC100 compound diffraction horn plus 1828C compound driver for fine wide angle sound, low distortion, and highest quality of any projector. Freq. response 150-10,000 Hz.; Imp., 8 ohms; Dispersion, 90°x120°; Power Cap. 30 watts. Size, 10½"x20½"x20". Shpg. Wt. 14¼ lbs.
88F152. NET..... 49.98

Model 847. Wide Angle Speaker. Provides higher articulation without annoying "peaked" response over a uniform 120° x 90° area. Low distortion results from the use of two diffraction horns. 25-watt power handling capacity. Frequency response, 250-10,000 Hz. Sound pressure level, 114 db. Impedance, 16 ohms. 11¾"x7¾"x10½". Shpg. wt. 10 lbs.
88F150. NET..... 32.34

Model PA30. 30 Watt Paging Projector. Rectangular horn design for maximum versatility, wide dispersion. Accepts Model TR3 line matching transformers for installation in large systems. Frequency response: 250-14000 Hz. Wt. 7½ lbs.
88F173. NET..... 21.46

Model PA30T. Same as above except has built-in 70.7V line matching transformer.
88F190. NET..... 28.50

Model TR3-2. 30-Watt 25-Volt Line Transformer. For use with Model PA30. Shpg. wt. 2 lbs.
88F174. NET..... 8.82

Model TR3-7. 70.7 Volt Transformer. For use with Model PA30. Shpg. wt. 2 lbs.
88F175. NET..... 8.82

Model PA7 Reentrant Projector. Handles 7½ watts over a range of 400 to 13000 Hz. Wide 120° dispersion angle provides excellent coverage. Mounting bracket allows non-resonant horn to be positioned at any angle. 6¾" diameter by 6" deep. Shpg. wt. 4 lbs.
88F176. NET..... 17.49

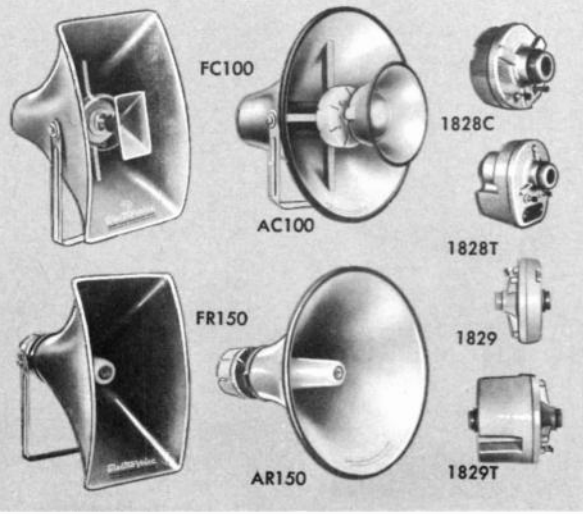
Model TR7-2. 7½-Watt 25-Volt Line Transformer. For use with Model PA7. 2 lbs.
88F177. NET..... 6.47

Model TR7-7. 70.7 Volt Transformer. Same as Model TR7-2.
88F178. NET..... 6.47

Musicaster. Outdoor High Fidelity Speaker System. One-piece aluminum die casting protects weatherproofed 8" Radax speaker and provides dual horn loading. Can be mounted anywhere or used as portable speaker. Response, 60-13000 Hz. Impedance, 8 ohms. Power handling capacity 30 watts. Dispersion, 120°. Size: 21½"x21½"x8½". Shpg. wt. 34 lbs.
88F153. NET..... 72.00

Model MB-1. Bracket, Surface mounting bracket allows mounting of any Musicaster flat against wall for unobtrusive installation. Shpg. wt. 1 lb.
88F171. NET..... 3.53

Model 844A. 30 Watt paging system. Rugged die-cast horn. Frequency response: 250-13,000 Hz. Impedance, 8 ohms. Dispersion, 90°. Sound pressure level, 123 db. Dimensions 9¾" x 7¾". Shpg. wt. 8½ lbs.
88F156. NET..... 22.93



PROJECTORS, HORNS AND DRIVERS

Model FC100. Projector Horn. Provides two diffraction horns for uniform wide-angle coverage. Uses any E-V convertible driver. Mouth size 10½" x 20½", depth 20". Shpg. wt. 13 lbs.
88F180. NET..... 29.40

Model FR150. Reentrant Horn. Ideal wherever low silhouette is needed, and where bass response cannot be sacrificed. Accepts drivers with 1¾"-18 thread. Shpg. wt. 12 lbs.
88F181. NET..... 26.17

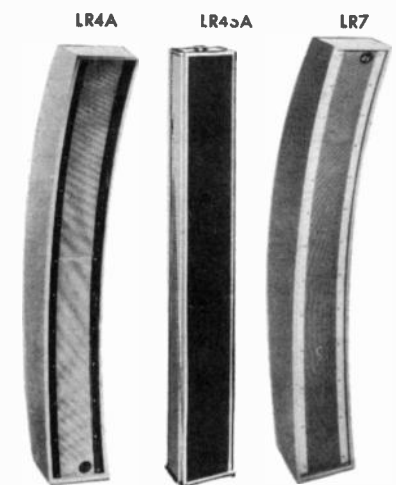
Model AC100. Projector Horn. Utilizes round horns for concentrated coverage. Uses any E-V convertible driver. Diameter, 21"; depth (less driver) 21". Shpg. wt. 14 lbs.
88F182. NET..... 49.98

Model AR150. Reentrant Horn. Round concentrating horn. E-V ring reflector. Accepts E-V convertible drivers or any standard driver with 1¾"-18 thread. Shpg. wt. 8 lbs.
88F183. NET..... 28.81

CONVERTIBLE DRIVERS

Models 1828C, 1828T, 1829, 1829T. Peak free response with max. efficiency. Easily adapted for use with all Re-entrant-type horns.

Stk. No.	Type	Dim.	Imp ohms	Freq. resp. Hz.	Net
88F184	1828C	4"x3½"	8	150-10,000	19.40
88F185	1828T	5"x4"x5½"	8	150-10,000	26.46
88F191	1829	5½"x4½"	16	140-11,000	32.05
88F192	1829T	5½"x6¾"	16	140-11,000	38.51



LINE RADIATOR COLUMNAR SPEAKERS

Line radiator columnar speakers feature wide angle speaker design which permits wide horizontal dispersion while virtually eliminating sound output both above and below the speaker. Especially well-suited for voice reinforcement systems. Unusually wide frequency range coverage.

Model LR4A. Line Radiator Columnar Speaker. Curved design overcomes unwanted high-frequency dispersion at ends, eliminating echo and feedback. Performs extremely well in controlling feedback in difficult installations. Excellent in stacked multiple speaker applications. Contains nine 3"x5" and three 3½" cone speakers. 160° horizontal dispersion and 60° vertical dispersion. Frequency response: 200-15000 Hz. Power handling capacity: 25 watts program, 50 watts peak. Nominal impedance: 8 ohms. Size: 49" high; 7" wide; and 13" diameter. Universal mounting brackets. Mesa tan wooden finished enclosure. Shipping weight 30 lbs.
86F330. NET..... 117.60

Model LR4SA. Line Radiator Columnar Speaker. Electrical filter removes end speakers from circuit as frequencies increase, eliminating high-frequency lobes at ends. Dispersion: 160° horizontal; 30° vertical. Frequency response: 200-15000 Hz. Power handling capacity: 25 watts program, 50 watts peak. Nominal impedance: 8 ohms. Weatherproof extruded aluminum enclosure with faun metallic finish. Size: 52" high; 7½" wide; 4½" dia. Wt., 32 lbs.
86F329. NET..... 88.20

Model LR7. Line Radiator Columnar Speaker. Extended low and high frequency response. Utilizes nine 5"x7" loudspeakers and two T35 vhf drivers for frequency range of 100 to 20000 Hz. Full half-section crossover at 3500 cps. Horizontal coverage 160°, vertical coverage 60°. Power handling capacity 50 watts, impedance 8 ohms. Non-resonant, curved wood enclosure finished in Mesa Tan. Universal mounting brackets supplied. Size: 60"hx11"wx14"d. Shpg. wt. 63 lbs.
86F328. NET..... 176.40

ElectroVoice HIGH FIDELITY SPEAKERS

WOLVERINE SERIES

Model LT8. 8-Inch 3-Way Loudspeaker. Features three separate radiating elements: 8-inch woofer cone, 4-inch midrange cone and new VHF driver. Response: 45-18,000 cps. Shpg. wt. 7 lbs.
86F337. NET 33.00

Model LS8. 8-Inch Loudspeaker. Response, 45-14000 cps. Nom. resonance, 75 cps. Crossover, 4500 cps. Shpg. wt. 4 lbs.
86F333. NET 20.00

Model LT12. 12-Inch 3-Way Loudspeaker. Features "deep-dish" cone and HF1 tweeter. Response: 40-18,000 cps. Shpg. wt. 9 lbs.
86F331. NET 39.00

Model LS12A. Radax coaxial design. 12" speaker. Rigid die-cast frame. Response: 40-14,000 cps. Nom. res: 65 cps. Shallow design permits wall mounting. Shpg. wt., 8 lbs.
86F334. NET 22.00

Model LS15. 15-Inch Loudspeaker. Response, 35-14000 cps. Nom. resonance, 50 cps. Crossover, 4500 cps. Shpg. wt. 10 lbs.
86F332. NET 29.50

Model HF1. High-Frequency Step-Up Kit. Consists of TW35 VHF driver, CR35 crossover-level control, wiring, mounting hardware and instructions for 5-minute installation. Shpg. wt. 3 lbs.
86F335. NET 28.00

Model MF1. Mid-Range Step-Up Kit. Consists of MR10 treble driver, CR10 crossover-level control, wiring, mounting hardware and instructions for 5-minute installation. Shpg. wt. 5 lbs.
86F336. NET 29.50

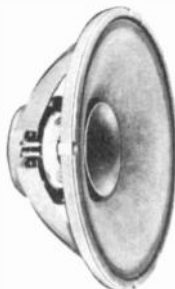


LT8

LS8

LS12A

LT12



LS15



HF1



MF1

STANDARD E-V RADAX DESIGN SPEAKERS

Model SP8B. Radax Super-Eight. 8" speaker. Response, 35-15000 cps. Nom. resonance, 60 cps. Crossover, 4500 cps. 40 watts peak. 16 ohms impedance. EIA sens. rtg., 47 db. 8 3/8" diam., 7 1/8" baffle opening. 4 3/4" depth behind panel. Shpg. wt. 8 lbs.
86F025. NET 32.50

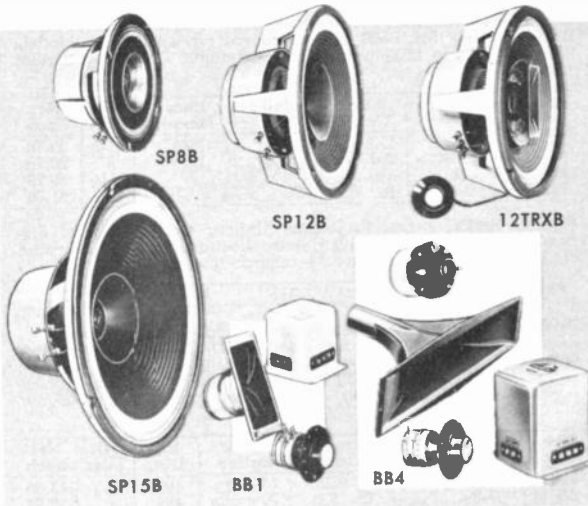
Model SP12B. Radax Twelve. 12" speaker. Response, 35-15000 cps. Nom. resonance, 50 cps. Crossover, 4500 cps. 60 watts peak. 16 ohms impedance. EIA sens. rtg., 49 db. Shpg. wt. 12 lbs.
86F024. NET 39.00

Model 12TRXB. Integrated 3-Way Speaker. Combines an SP12B, T35-type VHF driver, and integral 6 db/octave high-pass filter with level control. Response, 35-20000 cps. Nom. resonance, 50 cps. 60 watts peak. 16 ohms impedance. Shpg. wt. 15 lbs.
86F027. NET 69.00

Model SP15B. Radax Fifteen. 15" speaker. Response, 30-15000 cps. Nom. resonance, 30 cps. Crossover, 3500 cps. 60 watts peak. 16 ohms impedance. EIA sens. rtg., 51 db. 15 1/8" diam., 13 1/2" baffle opening. 9" depth behind panel. Shpg. wt. 13 lbs.
86F071. NET 49.00

Model BB1. Tweeter Building Block Kit. Includes T35, X36, AT37, wiring harness, instruction sheets. Shpg. wt. 6 lbs.
86F139. NET 47.00

Model BB4. Mid-Range Building Block Kit. Includes T25A, 8HD, X3, AT37 wiring harness, instructions. Shpg. wt. 14 lbs.
86F164. NET 108.00



SP8B

SP12B

12TRXB

SP15B

BB1

BB4

E-V PREFINISHED ENCLOSURE KITS

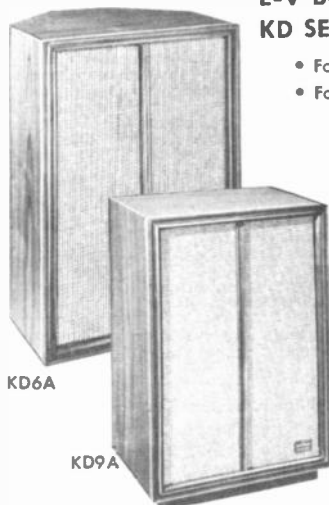
Completely engineered kits, ready to assemble. All lumber parts are precut with exterior surfaces prefinished in oiled walnut; glue and hardware are included. Easy, step-by-step instructions show you how to "do-it-yourself".

Model KD6A. Aristocrat. Space-saving, folded-horn corner enclosure. Extends bass range one full octave and increases power-handling capacity of loudspeakers in the lower range up to 50%. For use with all 12-inch drivers, SP12 or SP12B coaxial speakers, 12TRX or 12TRXB three way reproducers, BB1 or BB4 Kits. Shpg. wt. 36 lbs.
86F165. NET 63.00

Model KD9A. Marquis. Kit version of the Marquis along-the-wall enclosure. Performance and appearance similar to KD6 Aristocrat. Ideal for stereo pairs or with KD6 when converting to stereo. Accepts all 12" loudspeakers. Shpg. wt. 38 lbs.
86F166. NET 63.00

OUTDOOR HIGH FIDELITY SPEAKER SYSTEM

Sonocaster I. New auxiliary high fidelity loudspeaker system. For extension or portable use anywhere. Wide range response. Ideal for use as extension to existing stereo system. May be used to improve performance of any portable radio, record player or tape recorder. Steel-gray molded housing cannot chip, fade, or peel. Includes convenient carrying handle molded in and accessory hang-up bracket for permanent mounting indoors or outdoors. Frequency response: 70-13000 cps. Impedance: 8 ohms. Power handling capacity: 30 watts peak. Shpg. wt. 8 lbs.
86F170. NET 25.00



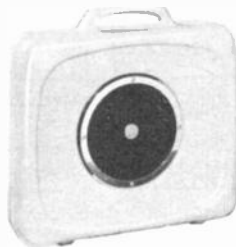
KD6A

KD9A

E-V BUILD-IT-YOURSELF KD SERIES ENCLOSURES

- For Full-Range Speakers
- For Separate 2 and 3-Way Speaker Systems

Sonocaster I



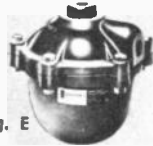
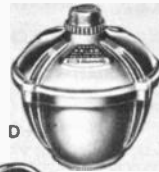
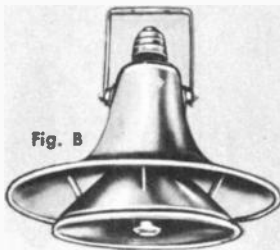
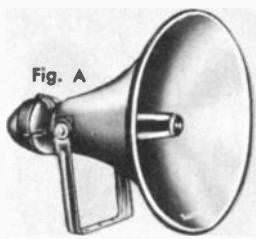


Fig. F

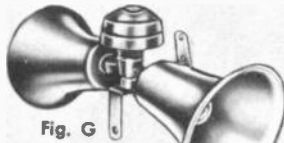


Fig. G

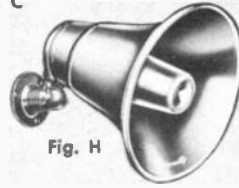


Fig. H



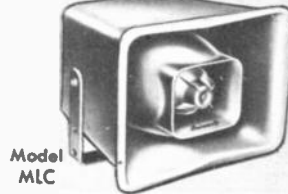
Fig. J



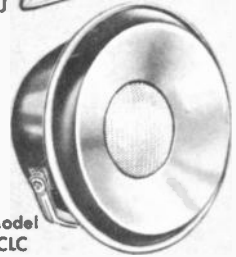
Fig. K



Fig. L



Model MLC



Model CLC

UNIVERSITY TRUMPETS, DRIVERS, ACCESSORIES

Fig. A. Reflex Trumpets. Weatherproof. Use with driver units below. Models PH, SMH are directional types (Fig. A). Models SH and DH are high power, compact units. DH is rectangular dual horn.

Stk. No.	Type	Low Cutoff	Bell Dia.	Horn Length	Wt. Lbs.	Net Each
88F102	PH	150 cps	20 3/4"	15 3/4"	11 3/4	23.70
88F103	SMH	200 cps	16 1/4"	12"	8	20.70
88F075	SH	350 cps	8 3/4"	7"	3 1/4	20.70
88F076	DH	180 cps	20 3/8" x 9 3/8" x 13 3/8"		10	51.00

Fig. B. Radial Reflex Projectors. Uniform 360° horizontal dispersion. Excellent for industrial applications and reproduction of chime and liturgical music in church towers.

88F112	RLH	120 cps	28 1/2"	18 1/2"	25	38.40
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Driver Units. For reflex trumpets and radial reflex projectors. All units have 16 ohm imp. except ID-60T & ID-40T which have multi-impedance line matching transformers built-in. ID-40T matches 45/122/250/500/1000/2000 ohms. ID-60T with 16/80/165/250/500/1000/2000 ohms. Each with 70 V power taps: ID-40T: 40/20/10/5/2.5 watts. ID-60T: 50/30/20/10/5/2.5 watts.

Stock No.	Type	Fig.	Range Cps.	Power Rating	In. Dia.	Wt. Lbs.	Net Each
88F141	ID-20	C	120-6500	20 watts	3 1/2	2 1/2	15.60
88F142	ID-30	.....	85-7500	30 watts	4 1/8	3	18.90
88F143	ID-40	.....	80-12000	40 watts	4 1/2	4 1/4	23.70
88F144	ID-40T	.....	80-12000	40 watts	5	5 1/4	32.40
88F145	ID-60	.....	70-12000	60 watts	4 1/2	5 1/4	32.70
88F146	ID-60T	D	70-12000	60 watts	6 3/4	6 1/2	40.20
88F138	ID-75	D	80-7000	75 watts	4 1/4	5 1/4	44.70

Fig. E. Explosion-Proof Drivers. Designed to be used with a variety of horn configurations and where flammable materials are stored or natural gas is present. Suited for Aerospace applications of launch sites and missile sites as Hydrogen and other gases will not harm driver. Sealed housing protects from implosion and explosion, insuring weather-proofing. All rated at 65 watts. Can be used with any horn listed in Fig. A. above.

Stk. No.	Type	U.L. Approved Class	Net
84F100	7101X	Class I, Groups C, D	63.90
84F101	7102X	Class I, Groups C, D;	75.90
		Class II, Groups E, F, G.	
84F102	7105X	Class I, Groups B, C, D;	129.90
		Class II, Groups E, F, G.	
84F103	5436B	Transformer and bracket assembly for any above	14.40

Model 5433 Transformer. 30 watt line matching transformer. Wide selection of impedances and constant voltage power taps.

88F128. NET..... 5.10

Model 5434 Transformer. 15 watt line matching. 3/4 lb.

88F129. NET..... 4.05

Model 2YC Connector. Permits use of 2 drivers on a single trumpet or radial projector for double power output.

88F107. NET..... 8.55

Model MLC Outdoor Speaker. Dual range, 2000 cps with electrical crossover. 15w without distortion, 150-15,000 cycles, 8 ohms VC, 120° dispersion. 12 3/4 x 9 1/2 x 10 5/8". Wt., 10 lbs.

88F135. NET..... 37.50

Fig. F. Cobreflex. For fixed or mobile applications requiring coverage of areas having greater width than height. "Dual Exponential Flare" design. Sound distribution—120° horizontal and 60° vertical. Air column length—2 1/2'. Bell mouth size—18 1/2 x 3 1/4". Depth (less driver)—10 1/4". Takes any University driver unit. Shipping wt., 10 1/4 lbs. Complete with "U" mtg. bracket.

84F112. NET..... 26.70

Fig. G. Model ZWP. Bi-Directional Paging Projector. Low-cost coverage of two opposite areas with one driver, e.g., ID-20 ID-30, ID-40, ID-40T, ID-50. Adjustable mtg. bracket. Each horn: 8 1/2" diam., 20 1/2" long, 120° dispersion. 350-cps cut-off. 4 lbs.

88F139. NET..... 20.70

Fig. K. Model ZWP-20. Same as projector above except with a 20 watt driver. Shpg. wt.: 4 lbs.

84F104. NET..... 35.85

INDUSTRIAL PAGING SPEAKERS

Fig. H. Model IB-A8. 90° dispersion angle with adjustable wall bracket. Wt., 4 lbs.

Fig. H. Model ML-A8. Reflex type for low-power use. High efficiency at speech frequencies. Dispersion angle, 120°. 3 1/4 lb.

Fig. J. Model CIB-A8. Wide angle mid-range unit for 3-way systems, paging, & intercom use. Dispersion 120° horiz., 60° vert.

Stk. No.	Type	Range/c.	Ohms	Power	Size	Net
88F110	IB-A8	250-13,000	8	25W.	10 1/2 x 9"	21.90
88F079	IB-T	250-13,000	8	25W.	10 1/2 x 13"	27.90
88F111	MIL-A8	250-13,000	8	7.5W.	7 1/4 x 6 7/8"	17.85
88F080	MIL-T	250-13,000	8	7.5W.	7 1/4 x 9 3/8"	23.85
84F135	CIB-A8	250-13,000	8	25W.	7 3/8 x 14 x 12"	27.60
84F136	CIB-T	250-13,000	8	26W.	7 3/8 x 14 x 16"	33.60

Fig. K. Model PP-IT. Transistorized, self powered 25 W speaker-amp system with low distortion & high stability. 400-500 cps. 20,000 ohm input. ± 3 db freq. resp. Talk/listen switch for directional listening. Uses lantern batteries. 12 1/4 lbs.

88F147. (less batteries) NET..... 179.70

Fig. L. Model PP-2T. 3 transistor, temperature stabilized circuit with acoustic feed-back suppression system for indoor use. 6 penlight cells or 10 RM601R mercury cells. 400-500 cps; 30 db minimum acoustic gain. Length: 12 1/2". Wt., 5 lbs.

88F148. (less batteries) NET..... 107.70

PB-1. Transformer Housing. Weatherproof. For MIL-A, CMIL-A, IB-A, and CIB-A paging speakers. Takes any transformers with up to 2" mtg. ctrs. Shpg. wt. 1/2 lb.

88F127. NET..... 2.70

MODEL CLC SPEAKER

Weatherproof, full range 55 to 14,000 cps. Power rated at 30 watts at 8 ohms of impedance. Dispersion area of 120° with a db. level of 108.3 DB. Ideal for natural music reproduction in outdoor areas where weather is a factor. Diameter of bell 22 3/4", depth 12 1/8". Featuring, 14 oz. Anico magnet. 180° variation—adjustable, serrated "U" bracket. Shp. wt., 19 1/2 lbs.

88F149. NET..... 59.70



SPEAKERS AND MICROPHONES



UNIVERSITY SPECIAL PURPOSE SPEAKERS

Model CSO-6 Sound Column. For indoor, outdoor commercial installations. Full Range for music and speech. Frequency range 65-14,000 cps. The 6 extended range 8" speakers will handle up to 120 watts; Dispersion 16° in vertical plane, 120° in horizontal angle. 60 1/4" high, 1 1/8" wide. 7 3/4" deep. 16 ohm impedance. Shpg. wt., 75 lbs.
88F116. Type CSO-6. NET 195.00

Model CSO-4 Sound Column. Full range, for music and speech. For indoor or outdoor installations. Has 4 extended range 8" speakers. Frequency response 70-17,000 cps. Will handle up to 75 watts of amplified sound. Dispersion 18° vertical angle, 120° in horizontal angle. 8 ohm impedance. 41 3/8" height x 1 1/8" width x 7 3/4" D. Shpg. wt. 50 lbs.
88F117. Type CSO-4. NET 147.90

Model 6201. Series "200". 12" Coaxial. True coaxial construction. With separate drivers for heavy woofer and superb compression type tweeter. Built-in 2500 cps electrical crossover network complete with adjustable "brilliance" control on 3 ft. cable. Frequency response 28-18,500 cps. 35 watts rating. 13" dia., 6 5/8" deep. Shpg. wt., 9 lbs. 8 oz.
84F105. NET 61.80

Model 308. Series "200". 3-way 8" Diffusional. Features true-axial construction with "reciprocating-flare" compression tweeter projected through center of woofer. Exceptionally rigid woofer cone has 2 high-compliance cloth suspensions — inner and outer. Crosses over electrically at 5000 cps. Mid-range is reproduced by deluxe multi-element Diffusicone sections with 1000 cps. crossover. Woofer has extra large voice coil for enhanced bass. Heavy all-Alnico 5 Gold Dot magnet. Response 30 to 17,000 cps. 35 watts power capacity. 8-16 ohms. 5 1/2" deep. 5 lbs.
84F123. NET 44.00

Diffusicone-12 2-way 12" Speaker. Dual horn-loading at apex of cone extends mid-range and high frequency response. Mechanical crossover at 1000 cps offers smooth, wide-angle dispersion. Frequency response 25-15,000 cps. 35 watts rating. 13" dia., 6 5/8" deep. Shpg. wt. 9 lbs.
84F106. NET 42.20

MULTI DUTY SPEAKER

Model ES-50. Waterproof reflex horn loudspeaker with high power handling capacity. Rugged: For applications demanding immunity to salt spray, gases, live steam, dust, and fungus. Will drain automatically. For docks, bridges, boiler rooms, laundries, dye houses, mines, railroads, fire and police department vehicles, and in severe climatic conditions. Freq. Response: 25-10,000 cps. Power Rating: 50 W. Impedance 16 ohms. Dispersion: 120°. Sound Pressure Level: 123 db. Size: 6 1/4" dia. x 6 7/8" d. Ship. wt. 6 1/4 lbs.
88F122. NET 47.85

Model MM-2F. Flush mounting version of MM-2. 7 1/4" o.d., 3 3/4" deep.
88F131. NET 34.50

Model MM-2PPS. All-plastic underwater speaker for all pool installations, using new plastic materials impervious to chemicals ordinarily used in purifying systems. 5 1/4" dia., 1/2" flange.
88F137. Model MM-2PPS. Shpg. wt. 4 lbs. NET 44.55

Model MM-2. Supremely rugged speaker for commercial, industrial, military applications requiring a virtually indestructible unit. Immune to salt spray, gases, live steam, fungus and harmful dusts. 350-10,000 cps., 25 watts, 16 ohm impedance, 150° dispersion. 6" o.d., 5" deep. Shpg. wt., 5 1/4 lbs.
88F130. Model MM-2. NET 33.90

UNIVERSITY MICROPHONES

Model 6000. A new miniaturized highly directional cardioid dynamic microphone. Rejects background sounds. Resistant to feedback—enables you to talk closely without boom. Low impedance—ideal for use with long lengths of cable and for modern solid state equipment. May be worn around neck, pinned to lapel, hidden in hand or pocket. Can also be mounted on a stand, boom, or gooseneck. Complete with 15 ft. indestructible cord and carrying case. Supplied with "around the neck" adjustable cord. Shpg. wt. 1 lb.
61F205. NET 38.95

Model 8000. High-performance dynamic Cardioid. Response: 70-13,000 cps. Sensitivity: 148 db (EIA). Output level: 55db/1 MW/10 dynes/CM-250 to 20,000 ohms. Complete with 18 ft. cable, Cannon plug, and receptacle and desk stand adaptor. Shock mounted—Guaranteed for 5 yrs. Shpg. wt. 4 lbs.
61F200. Type 8000. NET 34.25
61F201. Type 8100. Same as above with switch. NET 37.19

Model 61-V. Dynamic communications microphone. Immune to mechanical shock, moisture, weather, and temperature extremes. Ideal for mobile and P.A. systems. Response 95-9,500 cps., imp. 25,000 ohms. 4" H, 2 1/4" W, 1 3/4" D. High impact case. Push-to-talk switch normally open. 14' coiled cord. Includes Mtg. bracket. Color, light gray. Actual wt. 10 oz.
61F202. NET 24.25

Model 1000. Cardioid dynamic microphone. 30-16,000 cps. freq. resp. Shock mounted, and highly directional. Variable impedance 50, 200, or 20,000 ohms.; Sensitivity: 147 db (EIA). Corrosion-proof diaphragm. 8 1/4" long, 1 3/4" max. dia. Acrylic silver-gray, and non-reflecting black. Shpg. wt. 3 3/4 lbs.
61F203. Type 1000. NET 73.21

Model 2040. Omnidirectional, dynamic microphone. Variable impedance 50 or 20,000 ohms. Freq. resp. 50-14,000 cps. 143 db sensitivity rating (EIA). A general purpose, low cost mike for use in churches, schools, and all other P.A. installations. Complete with 18 ft. cable and slide switch. 1 5/8" max. dia., 8 5/8" long. Silver gray and non-reflecting black. Shpg. wt., 2 3/4 lbs.
61F204. Type 2040. NET 29.99

Model 5000. New variable impedance cardioid dynamic microphone. Spherical design wide angle cardioid pattern with precise taper characteristic rejects unwanted sound at rear. Freq. resp. 25-20,000 cps. 150 ohms imp. — 147 db. Output level: —54 db. 2 3/4" x 7 1/8" long. Satin chrome and black. Wired-in cable and SA-10 stand adaptor. Wt. 4 lbs.
61F207. NET 50.57

DS-1 DESK STAND

Made of extruded aluminum, designed to be "non-tippable," cannot be knocked over. Has standard 5/8"-27 thread on 5" upright. Base measures 4 1/2" x 6". Shpg. wt. 1 lb.
61F206. NET 2.79

TELEX HEADSETS

SERIES 600 MAGNETIC HEADSETS

Fig. A. With removable ear cushions. Rugged magnetic elements—high impact plastic construction with standard 1/4" molded phone plugs.
Type 60S-2. Single muff 2000 ohm phone with high impedance ceramic mike.

27F425. NET. 16.50

Type 610-2. Dual phones, 2,000 ohm. no mike.

27F426. NET. 6.95

Type 610-2. Dual phones, 200 ohm, no mike.

27F427. NET. 6.95

MONOSET HEADSETS

Type HMV-2. Monoset 125 ohms.

27F373. NET. 7.95

Type HMY-2. Monoset 2,000 ohms.

27F374. NET. 7.95

FAA APPROVED TWINSET

Fig. E. FAA approved for light planes and airlines. Either ear tip may be removed for monitoring. Tough grey tenite with nickel plated metal parts. Cord supplied with standard phone plug. FAA-T50-C57 approved. Shpg. wt., 12 oz.

Type HTW-2. 500 ohms.

27F404. NET. 14.50

Type HTX-2. 1000 ohms.

27F406. NET. 14.50

TELEX TELE-FI

Fig. G. Unique 3-D design to give 30% better understanding. Replaceable foam plastic ear tips. Freq. response 60-6000 cps. Listening level, 1 mw; max level, 25 mw. With 5 foot cord and phone plug. Shpg. wt., 5 oz.

Stk. No.	Type	Ohms	NET
27F390	HFR-91	15	5.95
27F437	HFV-91	125	
27F375	HFV-91	500	
27F376	HFV-91	1000	
27F391	HFV-91	2000	

EARSETS

Complete with metal earloop, 5 ft. cord and std. phone plug.

Stk. No.	Type	Ohms	NET
27F379	EMR-2	15	4.55
27F380	EMV-2	125	
27F381	EMW-2	500	
27F382	EMX-2	1000	
27F383	EMY-2	2000	

CUSHIONS AND CORDS

Type ACV-1. Cushions for MRB series.

27F384. NET, per pair. 1.50

Type ACT-2. Cushions for HM series.

27F385. NET, per pair. 1.00

Type CCT-2. Coiled cord for HM, HF, EM series.

27F386. NET. 3.15

Type CCM-2. Coiled cord for series HT, SM.

27F387. NET. 3.25

Type CMT-2. Standard cord for HM, HF, EM series.

27F400. NET. 2.30

Type CMM-2. Standard cord for series HT, SM.

27F410. NET. 2.30

TELESET

Fig. K. General purpose headset, tailored to the needs of radio operators, language labs, & hobbyists. High effective sensitivity due to close ear coupling. Response extends from 50-10,000 cy with 115 db SPL for 1 mw input. 180° cup rotation. Stainless steel and high impact plastic. Headset and cord only 8 oz.

Type HM-100. 2,000 ohm impedance.

27F402. NET. 13.50

Type HM-500. 500 ohm impd.

27F403. NET. 13.50

TELEX "TV LISTENER"

Fig. C. Type LCP-90. Light, comfortable individual listening of radio or TV. Earset plugs into jacks on control. Separate volume control. With 15 ft. of cord.

27F424. NET. 9.95

Extra Earset. Exactly like the one supplied with "TV Listener" above. 6 oz.

27F435. Type ELV-98. Net. 2.95

NEW TELEX STEREO HEADSET

THE ADJUSTSTONE

Fig. B. Big 3 1/2" speakers. 7 sq. in. of cone area. "Forward Sound" acoustic effect. Foam cushions. Freq. Res: 10-15,000cps. Sensitivity: 100db/mw. 4-16 ohms. 8 ft. cord. Charcoal gray. 16 oz.

27F428. NET. 15.95

STEREO TWIN HEADSET

Fig. D. Stereo-twin with sensitivity better than 95db SPL at 1 mw. Frequency response 16 to 15,000 cps. Dynamic element with 3 to 16 ohms impedance. Deep cavity ear piece with tamper-proof construction. Tan color complete with 8' cord and plug. Shpg. wt. 12 oz.

27F372. Type ST-10. NET. 24.95

Type ST-20. As above, with individual controls on each ear-muff.

27F407. NET. 34.95

Type STC-1. Stereo Control Kit.

27F408. NET. 10.50

MUFF STYLE MAGNA-TWIN

MARK III

Fig. F. Rugged construction for use in electronic teaching and general communications. Adjustable plastic covered stainless steel headbands. Washable plastic earmuffs. 5 foot cord with standard phone plugs. Freq. range 50-9000 cps. Specially designed magnetic drivers. Shpg. wt., 3 lbs.

Type MR-6. 500/600 ohm receivers. No Mike.

27F396. NET. 18.95

Type MR-4. 10,000 ohm receivers. No Mike.

27F368. NET. 18.95

Type MRB-46. With 100 ohm noise-cancelling carbon mike and 500/600 ohm receivers. 2 plugs.

27F418. NET. 30.95

Type MRB-62. With 250 ohm dynamic mike and 10,000 ohm receivers. 2 plugs.

27F419. NET. 31.50

Type MRB-75. With 50 ohm carbon mike and single 500/600 ohm receiver. 2 plugs.

27F371. NET. 24.95

Type MRB-61. With 250 ohm noise canceling dynamic mike and 500/600 ohm receivers. 2 plugs.

27F409. NET. 31.50

Type MRB-30. With high 2 ceramic mike and 10,000 ohm receivers. 2 plugs.

27F417. NET. 32.95

DYNAMIC PILLOW SPEAKERS

Fig. H. Flat construction makes these speakers less bulky under a pillow. With cord and standard 1/4" plug.

Stk. No.	Type	Ohms	Each
27F420	SDN-2A	3.2	6.95
27F421	SDM-2A	10,000	9.95
27F411	SDM-7A	10,000	11.95

LANGUAGE LAB HEADSETS

Fig. J. Dynamic microphone cancels noise. Boom rotates 310°. Response: 20-20,000cps. Sens: 107db SPL. 14 oz.

Type 1210-02. No mike, 600 ohm headset.

27F412. NET. 24.95

Type 1200-22. 250 ohm mike, 600 ohm headset.

27F413. NET. 32.95

REPLACEMENT CORDS AND CUSHIONS
Type DSC-1B. Cord with 1 plug for 1210-02.

27F414. NET. 3.00

Type DSC-2B. Cord with 2 plugs for 1200-22.

27F415. NET. 4.25

Type ACV-4. Cushions for 1200 series.

27F416. NET per pair. 1.50

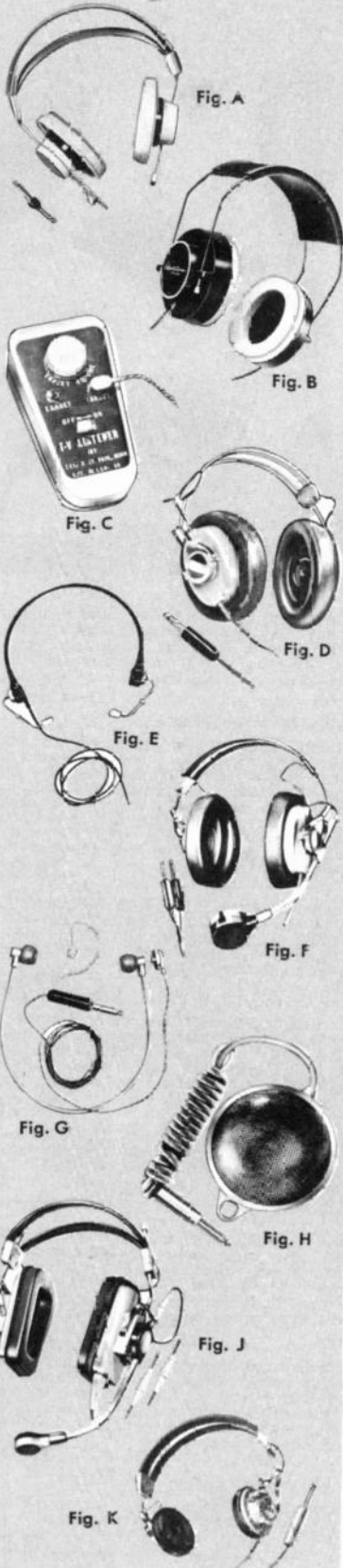




FIG. A



FIG. B



FIG. C



FIG. D



FIG. E



FIG. F



FIG. G

TYPE "L" HEADSETS

Fig. A. Lightweight high quality headsets. Particularly suited for systems requiring extended frequency range such as broadcast station, Hi-Fi, Stereo and military communication application. Employs new floating diaphragm which provides response unaffected after prolonged exposure to elevated temperature and humidity. FREQUENCY RESPONSE up to 9000 cps. Extremely ruggedized construction with capsuled sound generating unit within an outer shell. More durable than crystal type phones. Nylon braided 6' cord.

27F351. Type 50-08. 8 ohm. NET **13.80**

27F352. Type 50-2M. 2K ohm. NET **13.80**

27F353. Type 50-12M. 12K ohm. NET **14.40**

STANDARD MONAURAL HEADSETS

Fig. B—Series 56. Monaural headsets with vinyl covered adjustable headband and new yoke adjustment device. Electro-magnetic design with "floating" diaphragm. Frequency range to 9,000 cps. Neoprene 5 foot single cord for "over-the-head" use, cord is integral part of headband Shpg. wt., 1 lb.

Type 56-2M. 2000 ohm impedance. NET **16.59**

Type 56-5M. 5000 ohm impedance. NET **16.59**

Type 56-12M. 12,000 ohm impedance. NET **17.19**

CLEVITE-BRUSH

COMBINATION HEADPHONE-MICROPHONE

Model ED-400. High performance microphone with the ED-300 headphone listed below. Designed for maximum flexibility in language lab. or other similar functions. Convenient locking swivel adjustment places microphone at correct recording position for any user; 180° boom allows full audio and visual response. Roller pin earphone adjustment with a stainless steel headband with washable polyvinyl chloride cover. Supplied with new Custom Ear cushions. Microphone completely new, lightweight, with high sensitivity and a frequency response that meets all educational standards. Headphones are suntan color. Microphone is white.

27F364. NET **44.50**

EDUCATIONAL HEADPHONES

ED-300. Frequency response 50-10,000 CPS ± 3 db from 80-8,000 CPS. Impedance 50K ohms at 1Kc. Constructed of rugged telephone material with attractive design. The headband is stainless steel covered with washable polyvinylchloride. New Custom Ear Cushions (260649) supplied. Phones can be easily removed by pressing out roll pin. The acoustic bronze filter facilities perfect dependability. Built to stand rigorous long lab. usage. In attractive suntan color and weighing only 9 oz. 8"x8 1/2"x3 1/4".

27F358. NET **28.00**

Type 260649. New Custom Ear Cushions supplied as standard equipment with ED-300 and ED-400.

27F367. NET, per pair **1.50**

Type 260332. Blanket Ear Cushions, formerly supplied as standard equipment.

27F360. NET, per pair **1.00**

ACME HEADSETS

Fig. C. Model 24-2K. Double headset. Ideal for Crystal sets, code training classes, centralized radio systems and scores of applications requiring a low cost set. Res. 2000 Ω . Bakelite molded shell and cap, shell ribbed to increase strength. 4 1/2 ft. braided tinsel cord. Phone tip terminals.

27F584. NET **2.43**

27F586. Type 24-03. 3.2 ohm. NET **2.34**

Fig. D. Model 27-1K. Single Headset. Lightweight single headphone with headband, Imped. 1000 ohms. 4 1/2' long flexible vinyl cord. Shpg. Wt. 4 oz.

27F585. NET **1.32**

TRIMM TV HEADSET KIT

Fig. E. Type 632. TV accessory for private hearing of TV sound. Consists of outlet box with 15 feet of three-conductor cable, one low impedance headset with 4 1/2-foot cord and plug. Outlet box contains two phone jacks, permitting multiple headset installation, remote on-off switch, and volume control. 3 3/4"x2 1/2"x1 1/4". 2 lbs.

27F579. NET **7.14**

"FEATHERWEIGHT"

Fig. F. Type 106. Compact headphones weighing only 4 oz. Have forged bakelite shells and caps, and adjustable headband. 24,000 ohms for picking up weak signals. 6 ft. moistureproof cord. Wt. 9 oz.

27F580. 24000 ohms. NET **6.60**

27F560. Type 104-2K. 2000 ohms. NET **6.60**

"EAR CUSHIONS"

For comfort and elimination of disturbing outside noises. No. 654 fits Acme, Featherweight and "L" Type phones. No. 660 fits Dependable and Brush phones; Molded soft sponge rubber. No. 655 fits "L", Mil ANB-H-1 and Permollux units; Molded of solid rubber. No. 656 fits the same types as No. 655 but recommended as better choice; Sponge rubber face, rubber back.

27F557. No. 654. NET per pair **.96**

27F355. No. 655. NET per pair **1.80**

27F356. No. 656. NET per pair **2.52**

27F357. No. 660. NET per pair **1.50**

"DEPENDABLE"

Fig. G. Type 70-2K. Bakelite shells and caps, plastic covered headband. 5' braided cord. Wt. 1 lb.

27F581. 2000 ohms. NET **3.24**

27F582. Type 70-3K. 3000 ohms. NET **3.42**

27F583. Type 70-4K. 4000 ohms. NET **3.60**

27F587. Type 70-03. 3.2 ohm. NET **3.06**

STEREO HEADSET

Type 56-14-08. 8 ohm stereo headset designed for broadcast and Hi-Fi use. Frequency response to 9000 cps. Vinyl covered double headband with new yoke adjustment device. Unaffected by heat and humidity. Conductor cord with three-circuit plug. Shpg. wt., 1 lb.

27F349. NET **18.99**

BINAURAL MODELS

With binaural cords. The impedance of the binaural model is double that of regular model. Double headphones.

27F362. BA-206B **41.50**

27F363. BA-200B **24.40**

MODEL BA-206-1

Ideal for both stereophonic or monophonic phonograph records, tape recordings or FM broadcasts. The BA-206 headphones have an exceptionally flat response out to 10,000 CPS and create outstanding fidelity of reception. High impedance and negligible power requirements allow monitoring without any effect on associated equipment. Metallized crystal elements provide protection against excessive humidity. Wt. 8 oz. With attached plug.

27F366. NET **39.00**

27F361. Type BA-206-2. As above, but with eyelet terminals. NET **39.00**

CRYSTAL HEADPHONES

Model BA-200-1. High impedance crystal headphones. Extremely lightweight (6 oz.) and very sensitive. For schools, laboratories, etc. Response: 100-5,000 cps. Cone-type diaphragm. Molded plastic case. Require small DC blocking condenser for DC circuits. With 5-ft. cord and headband. 2 lbs. With attached plug.

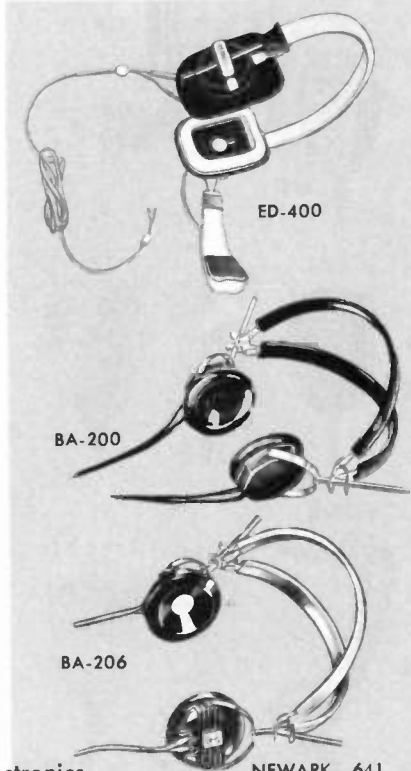
27F365. NET **22.00**

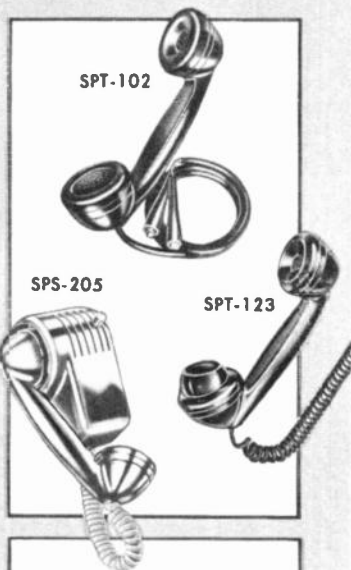
27F570. Type BA-200-2. As above, but with eyelet terminals. NET **22.00**

SINGLE PHONE SET

Model BA-201. As above, but consists of a single phone complete with 5-ft. cord and spring steel headband with end-cushion. Shpg. wt., 1 lb.

27F571. NET **18.70**





SPT-102

SPS-205

SPT-123



AM15-2

WHEELER SOUND POWERED HANDSETS

Model SPT-123. Self contained, self powered high level handset only. Requires no batteries—voice supplies needed power. As many as 12 units may be connected in parallel. Sensitive enough to use where background noise is high. With 2 conductor Koiled Kord retractile-type from 8" to 48", less insulated clips. Wt., 1½ lbs. **95F553. NET 14.41**

SPT-150. As above, high level handset only. For use in high noise level areas. Two conductors. Koiled Kord retractile-type from 8" to 48". With insulated clips. Shpg. wt., 2 lbs. **95F554. NET 14.96**

Model SPT-102 Handset. Self-powered telephone handset for use in setting up communications systems where quick, inexpensive, 2-way talking is required. Requires no batteries or power supply. Will operate up to 20 miles under favorable conditions. Designed to meet the growing demand for a safe, dependable means of communication. Handset cable is 4', 2 conductor cable with rubber insulated test clips. As many as 12 units may be connected in parallel. Made of black phenolic. With 3½ ft. cable and clips, less wire. Wt., 1½ lbs. **95F551. NET EACH 12.88**

MODEL SPS-205 PAIR PHONE INTERCOM SYSTEM

Low cost, self-powered intercom system for industrial plants, offices, etc. Consists of 2 sound powered handsets, with a ringing signal. Operates up to 20 miles. Made of plastic and corrosion-proof metal parts. Completely self-powered—no batteries re-

quired. Less cable. Wt., 7 lbs. **95F550. NET PER PAIR 68.40**
95F552. SPS-205-3. Three Phone System. As above but with three handsets. Shpg. wt., 11 lbs. **NET 102.64**

C. F. CANNON ALNICO MAGNETIC HEADSETS

Powerful Alnico permanent magnets assure high fidelity response and excellent volume over wide frequency range. Bakelite case and caps with 4½ ft. flexible tinsel

cord with phone tips. Adjustable headband. Shpg. Wt., 14 oz. **27F448. Type AM15-2. 2000 ohms. 2.43**
27F449. Type AM15-3. 3000 ohms. 2.58

Copper tinsel conductor.
Single Cords. 4½ ft. Shpg. wt., 2 oz.
27F552. Tips 1 end, ring term. on other.
27F553. Tips on both ends.
NET EACH 38c

CORDS
Double Cords. 4½ ft. Shpg. wt., 2 oz.
27F554. Spade-lugs 1 end; tips on other.
27F555. Tips on both ends.
27F556. Ring terminals on one end; tips on other.
NET EACH 53c

ELECTRO-VOICE MICROPHONES

Model 602F. Noise Cancelling Dynamic Mobile Mike. Close-talking mike with two balanced rear port openings; output, -55 db. Response 200-5,000 cps. High impact, rugged Cyclac case, communications gray. Press-to-talk switch shorts microphone in "off" position and closes relay contacts in "on". Shielded coiled cord extends to 5'. Hi-Z or balanced Lo-Z, must be specified. Size: 2¼"x4"x1¾". Wt. 10 oz.

Model 625TRSCK. As Model 625SKK with two-stage transistor amplifier with gain of 35 db. FAA type certificate: 3R42-2.

61F537. Hi-Z. NET 33.81
61F538. Lo-Z. NET 33.81

61F528. NET 72.03

Model 619. "Press to Talk" Dynamic. Press-to-talk switch at base may be moved to upper part of stand for grip-to-talk operation. Switch shorts microphone in "off" position for relay operation. Response; 70-10,000 cps. Output -57 db Hi-Z or balanced Lo-Z must be specified. 16' cable. Sz: 4¾"x9"x4¾". Wt. 2 lb. 2 oz.

Model 719. "Press to talk" Ceramic. Versatile low cost base-station microphone for any communications or paging work. Die-cast stand and head. Switch may be used in base or moved to upper part of stand. Hi-Z. Output: -56 db. Response: 70-7,000 cps. 16' cable. 4¾"x9"h. Net weight: 2 lbs. 2 oz.
61F514. NET 16.17

61F512. Hi-Z. NET 27.93
61F513. Lo-Z. NET 27.93

Model 600E. Dynamic Mobile Mike. For portable use. High output level -55 db. Handy press to talk switch. 2½"x1½"x4". Shielded coiled cord, 1' retracted, 6' extended. Res. 100-7000 cps. Hi-Z. 1 lb.

61F562. NET 22.93

Model 606. Differential Dynamic Mike. Close talking, noise cancelling. Accepts sounds of close origin (¼") and rejects sounds of distant origin. Output at ¼" -55db. Built-in connector. Response: 100-5000 cps. 16' cable, 5/8"-27 thread. Satin Chrome finish. Size: 3¼" high, including stud, 2" diameter. Shpg. wt. 1 lb. Hi-Z or Lo-Z.

Model 210E. Carbon. Single button carbon mike. Substantially flat response. Matches 150 ohm input. Output -50 db. Press-to-talk switch. Res. 100-7000 cps. 6' coiled cord. Wt., 1 lb.
61F527. NET 20.58

61F523. Hi-Z. NET 30.87
61F524. Lo-Z. NET 30.87

Model 714. High Output, Communications Microphone. High impedance output -55 db over range of 100-7000 cps. DPDT switch shorts microphone in "off" position and closes relay circuit "on" pos. 3 conductor coiled cord 10' retracted. 10 oz.

61F572. NET 9.70

Model 205 STCKK. Noise Cancelling Carbon. For aircraft and emergency uses. FAA approved. Blastproof, waterproof and shock resistant. Output at ¼": -50 db. Black phenolic case. Press-to-talk switch closes microphone and relay circuit. Lo-Z. Coiled cord extends to 5'.

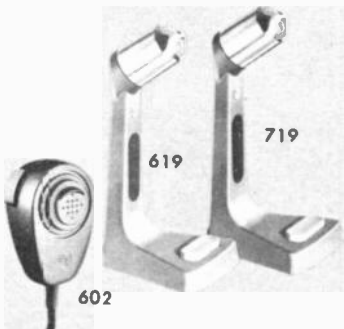
Model 717. Similar to Model 714 except close talking cardioid pickup pattern. Shpg. wt., 10 oz.
61F573. NET 11.47

61F529. NET 29.40

Model 625SKK. Dynamic Noise Cancelling Handset. 250 ohm mike and 150 ohm magnetic receiver. Output level -55 db.

Model 805. Contact Mike. For playing guitars etc. Employs Hi-Z sealed crystal element. 15' cable. Shpg. wt., 8 oz.
61F521. NET 11.76

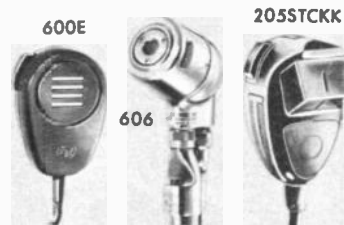
61F526. NET 49.98



619

719

602



600E

606

205STCKK



625SKK

805

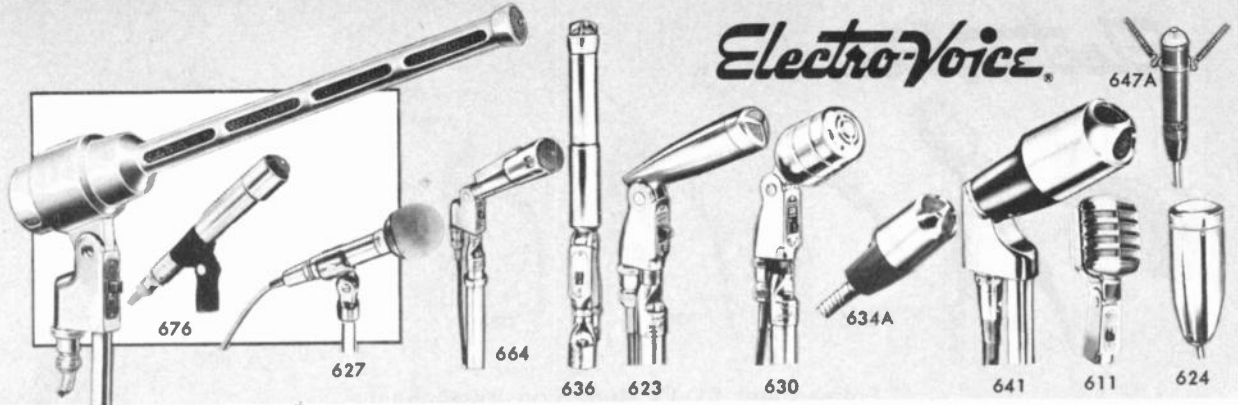
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To Serve You Better and Faster—
Seven Stocking Warehouses from Coast-to-Coast

Electro-Voice.



Top Quality Dynamic Microphones

UNIDIRECTIONAL LINE MICROPHONE

Model 644. Sound Spot. A combination of cardioid and distributed front opening extends the frontal pick-up on the microphone axis. Above 700 cps cancellation of sound at rear and sides exceeds 20db providing rejection of random noise, reverberation, and feedback. Front acceptance angle at high freq. is 45° each side of axis. This allows isolation of individual performers. Response: 60-10,000 cps. Output level: High impeded; -53 db. EIA sensitivity rating—149 db. 150 ohm imped.—53db; EIA rating—147db. Employs Alnico V and Armo magnetic iron in a non-welded circuit. Has pressure cast zinc and brass case with satin chrome finish. Has on-off switch and Amphenol MC4M connector. 3/8" stand coupler. Size 18" long, max. dia. 2 3/16". With 18' of cable. 4 lbs.

61F567. NET 24.68

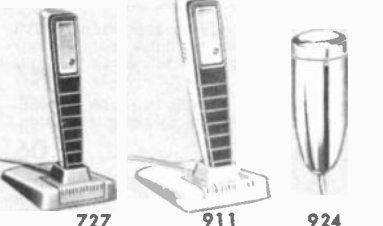
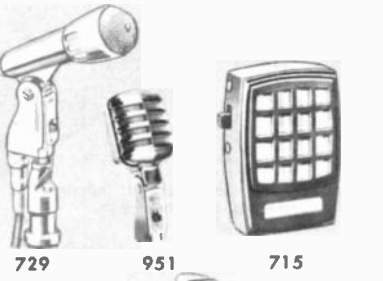
CARDIOID MICROPHONES

Model 676. Frequency response 40-15,000 cps. Exclusive three position switch offers controlled low-frequency attenuation to overcome rumble and feedback when microphone is used at a distance. Slim design permits full view of person speaking. May be held in hand or mounted with clamp supplied. 150 ohms or high-Z; impedance changed by moving one wire in cable connector. Output level—58 db. Satin chrome finish; 16' cable. Size: 7 3/8" by 1 1/4" dia. Shpg. wt., 12 oz.

61F582. NET 58.80

Model 664 Cardioid Dynamic. Designed for PA cardioid pattern at all frequencies. Response: 40-15,000 cps. High Z or Low Z available by moving one wire at cable connector. Output—58db. On-Off switch. 16' cable. 7 3/8" L x 1 7/8" D.

61F546. NET 49.98



Model 627. The all-new Electro-Voice "Single D" cardioid is ideally suited for hand-held, floor stand or podium applications. Its directional pick-up characteristic and unique modern styling sounds and looks good anywhere. Exclusive acoustalloy diaphragm provides smooth response — is virtually indestructible. Output —58db. Response: 60-12,000 cps. On-off switch. Includes stand adapter, 16 ft. 2-conductor shielded cable. Size: 5 3/4" length, 3/4" dia. barrel.

61F516. High Z. NET 39.20

61F517. Low Z. NET 39.20

Model 328. Wind Screen to be used with Model 627 "Single D" Cardioid Microphone.

83F018. NET 4.90

OMNIDIRECTIONAL DYNAMICS

Model 636 Slimair. "Slim-Trim" dynamic microphone for PA. Acoustically-treated grille head. Frequency response. 60-13,000 cps. High and low impedance outputs, changed internally at cord plug. Output level, -58 db. 90° vertical-tilt swivel head. Built-in MC-4 connector. 3/8" —27 standard thread. Satin chrome finish. Size, 10 1/4 x 1 1/8". With 16-ft. cable. Shpg. wt., 2 lbs.

61F501. NET 42.63

Model 623 Slim Dynamic. A dynamic mike in the medium price field ideal for PA, recording and general purpose use. Omni-directional. Response. 80-12,000 cps. Output, -56 db, Hi or Low Z selected by changing one wire in the cable connector. Tilttable head. On-Off switch. Acoustalloy diaphragm. Built-in MC-4 connector. Satin chrome case, 7 1/2 x 1 3/8". 16' cable. Wt. 1 1/2 lb.

61F544. NET 33.52

Model 630. General purpose mike. Response, 60-11,000 cps. Output level —55 db. High Z. Built-in cable connector. On-off slide switch. 16' cable. Satin chrome finish. Shpg. Wt., 3 lbs.

61F507. NET 30.87

Model 630. As above—but with Low Z.

61F583. NET 30.87

LOW COST CARDIoids

Model 951 Cardioid Crystal. Wide-range, all purpose P.A. microphone for use where background noise and reverberation are a problem. Response: 50-11,000 cps. Hi-Z Output; -60 db. 1 3/4 lbs.

61F551. NET 32.05

Model 729 Hi-Z. Ceramic Cardioid. Random noise and feedback are reduced by 67%; Front pickup double that of pressure mikes. Tailored for single sideband. Output; -60 db. Response: 60 to 8,000 cps. With 8 1/2 ft. cable. 9 oz.

61F565 14.41

Model 729SR. As above, but with Relay Control switch.

61F566. 15.58

Model 611. "MERCURY DYNAMIC". Response 50-9,000 cps. Output level —55 db. Acoustalloy diaphragm. Tilttable head. On-Off Switch. Satin chrome finish. Built-in MC-3 connector. 1 1/4 lbs. 16' cable.

61F510. HI-Z NET 26.46

61F511. LO-Z NET 26.46

Model 641. Modern two-tone design dynamic microphone. High output level, response: 70-10,000 cps. For PA, recording, communications, electronic teaching aids. Output —57 db. 16' cable. Case is chrome plated die-cast zinc and gray high impact plastic. Hi-Z. Wt. 1 lb.

61F584. NET 23.23

Model 641. As above with LO-Z.

61F585. NET 23.23

Model 634A. Similar to Model 641 except without on-off switch. For gooseneck mounting.

61F586. HI-Z NET 17.64

61F587. LO-Z. NET 17.64

DYNAMIC LAVALIERS

Model 647A. Smallest high quality mike in PA field. Rugged construction assures long life. Frequency response: 60-12,000 cps. Acoustalloy diaphragm. Output level —60 db. Satin chrome finish. Tilttable head. 18' cable. Wt., 1 lb.

61F535. HI-Z. NET 48.51

61F536. LO-Z. 150 ohms. NET 48.51

Model 624. Dynamic Lavalier. Economical lavalier for chest or hand use. Neck cord, support clip and 18' cable. Non-reflecting gray finish. Output —56 db., response 100-7,000 cps. Acoustalloy diaphragm. Wt. 14 oz.

61F590. HI-Z NET 26.46

61F591. LO-Z NET 26.46

CERAMIC/CRYSTAL MICROPHONES

Model 911. Crystal. Output, —50 db.; response: 50-9,000 cps. Metal Seal Crystal. MC-1 connector. Hi-Z.

61F508. NET 22.05

Model 727. Hi-Z. Slim Ceramic. General purpose mike with desk & floor stand adapter. Response: 60-8000 cps. Output: —55 db., 9 oz.

61F555. NET 11.76

Model 727SR. With Relay Control switch.

61F564. NET 13.82

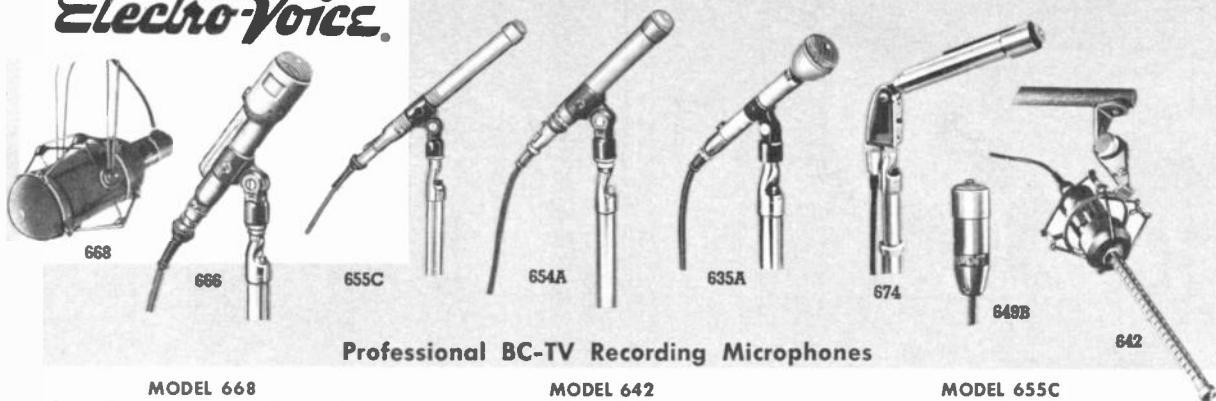
Type 715. Use in any position. Ceramic element. Response: 60-7000 cps. Output: —55 db. Hi-Z. Omnidirectional.

61F530. NET 8.67

Model 924. Lavalier Crystal. Supplied with neck cord, support clip and 18' cable. Output: —60 db. Response: 60-8000 cps. Hi-Z.

61F542. NET 13.82

Electro-Voice.



Professional BC-TV Recording Microphones

MODEL 668

Cardioid designed specifically for boom use. Extremely smooth cardioid pattern for maximum reduction of ambient noise and reverberation. Integral wind screen eliminates noise caused by motion of boom-mounted microphone through the air. Built-in equalizer provides choice of four response curves in both high and low frequency ranges. Response 40-10,000 cps. Output: -51 db. Internal impedance selector permits 50, 150, or 250 ohm connection. Non-reflecting gray finished aluminum case. Two foot mechanical isolation cable and 20 ft., 3-cond. shielded broadcast type cable included. Unidirectional microphone comes supplied with shock insulating boom mount. Has Acoustalloy diaphragm. Length: 9 5/8", dia. 3 1/4". Shpg. wt., 2 lbs.

61F575. Model 668. NET..... **291.06**

Model 667A. Same as above, but has selection of 3 low frequency and 2 hi-freq. response curves.

61F592. Model 667A. NET..... **202.86**

MODEL 666

Super Cardioid with Variable-D principle for high discrimination against sounds from the back. Permits close talking while eliminating bass accentuation. Working distance increased by 1.7:1 over pressure type microphones. Single moving element is exclusive Acoustalloy diaphragm. Unidirectional microphone has response of 40 to 15,000 cps. Output: -58 db. Internal connector pin impedance change. Wired for 150 ohms. Taps at 50 and 250 ohms. Non-reflecting gray finished aluminum case. Has built-in Cannon UA-3 connector. Comes with clamp-on stand mount which has 5/8"-27 thread. With 20' cable. Length, 7 3/4". Dia., 1 3/4". 1 lb.

61F540. Model 666. NET..... **149.94**

MODEL 642

Unidirectional microphone combining the characteristics of cardioid and distributed front-opening designs. Unidirectional up to 500 cps.; highly directional over balance of range. Working distance 2 to 3 times that of conventional types. Excellent for boom use. Minimum mechanical shock transfer and wind noise interference. Response: Flat from 40-10,000 cps. or choice of 5 or 10 db. low frequency reduction steps by screwdriver adjustment. Acoustalloy diaphragm. Impedance: 50, 150, and 250 ohms externally adjustable. Output level: -48 db. Has aluminum gray finished case. Length: 17 7/8", max. dia., 3 3/8". Shpg. wt. approx. 3 1/2 lbs.

61F568. Model 642. NET..... **229.32**

Model 324. Shock and suspension mount for Model 642. Will accept 326 windscreens.

61F576. Model 324. NET..... **38.22**

MODEL 649B

Miniature lavalier microphone which weighs only 31 grams without cable. Ideal for programming where concealed placement is desirable. Response: 70-8,000 cps. Output: -61 db. 2 1/4" long, 3/4" dia. Complete with neck cord, belt clip and stand mounting clamp. Matches all low impedance inputs. Shpg. wt. 1 lb.

61F553. Model 649B. NET..... **61.74**

MODEL 635A

Omnidirectional broadcast dynamic mike. Satin chrome finish, provides magnetic shielding. With Acoustalloy diaphragm, four-stage pop filter that eliminates need for wind screen. 100-13,000 cps. response, lo-z output at -55 db level. Supplied with 3-cond., 18' cable, Cannon XL-3 plug, and Model 310 clamp. Size: 6"L x 1 1/8" D. Mike wt., 6 oz.

61F504. NET..... **48.22**

MODEL 655C

Slim-Trim Dynamic. Can be used on stand, in hand, or as lavalier. Easily concealed in studio props. Acoustalloy diaphragm. Pop-proof grille. Frequency response: 40 to 20,000 cps. Output level: -58 db. Excellent level provides high signal-to-thermal noise ratio. Impedance: 50, 150, and 250 ohms. Impedance easily changed. Non-reflecting gray finish. Has Cannon UA-3 connector. Clamp-on stand mount included with 5/8"-27 thread. 10 1/2"x1" Dia. with 20' cable. Wt. 9 oz.

61F500. Model 655C. NET..... **117.60**

MODEL 654A

Versatile Dynamic. Slim, versatile broadcast microphone can be used on stand, in hand or as lavalier. Provides maximum usefulness with high quality. Omnidirectional. Frequency response, 50-15,000 cps., substantially flat. Acoustalloy diaphragm. Output -57 db. Matches all low impedances. Supplied with accessory neck cord and stand mount clamp, 18' cable and Cannon XLR-3 connector. Aluminum case finished in TV gray. Size: 7"x1 1/8" dia. Shpg. wt., 1 1/2 lbs.

61F522. NET..... **58.80**

MODEL 674

Continuously Variable-D permits wide response cardioid pattern at all frequencies. Bass-tilt switch offers three degrees of control over low-frequency feedback and reverberation. On-off switch. Has standard 3/8"-27 thread. Response: 60-15,000 cps. Output: -57 db. Impedance, Hi-Z and 150 ohms. Size: 7 7/8"x1 1/4" dia.

61F515. NET..... **58.80**

E-V Microphone Stands and Accessories



MODEL 428. Touch-to-talk switch has DPDT switch with locking latch and fast-operating release. Takes 5/8"-27 thread. 7" high with base. Shpg. wt. 2 lbs.

83F004. NET..... **17.64**

MODEL 418. Desk Stand. For use with Models 611, 623, 630, 641, 636, 674, 911 and 951. Gray finish. Shpg. wt., 3 lbs.

83F016. NET..... **7.64**

MODEL 419. Desk Stand. Similar to Model 418, but for models 644, 664 and 665. Shpg. wt., 3 lbs.

83F014. NET..... **7.64**

MODEL 420. Cast iron desk stand in TV gray For 1" dia. microphones Models 666, 655C, 654A, 652, 652A and 676.

83F010. NET..... **11.76**

MODEL 423A. Desk Stand. Satin chrome stand on 5/8" dia. base. With rubber base buttons and 5" matching stem riser. Wt. 1 lb.

83F003. NET..... **3.53**

MODEL 300. Detachable microphone clamp. Fits 1" microphone stand providing positive mounting to 5/8"-27 stand. 1/2 lb.

83F012. NET..... **4.41**

MODEL 335A. Windscreens. Acoustifoam windscreens for Models 630, 634, 641. Net wt. 1/2 oz.

83F009. NET..... **7.35**

MODEL 355. Windscreens. Also protects against mechanical shock damage and pickup of dust and magnetic particles. For use with models 655C, 654A, 636, 623, 926. Gray. Net wt. 1/2 oz.

83F008. NET..... **6.47**

MODEL 524A. Windscreens. Designed for use with Model 666. Made of Acoustifoam, minimizes wind effect on boom operation.

Net wt. 1/2 oz.

83F017. NET..... **7.06**

MODEL 326. Acoustifoam wind screen kit. Shpg. wt., 2 lbs.

61F580. NET..... **26.46**

RCA MICROPHONES



SUBMINIATURE DYNAMIC

Model BK-12A. Neutral color makes it inconspicuous when worn around neck or attached to clothing. The BK-12A weighs just 20 grams and has a wide-range frequency response of 60 to 18,000 cycles, with proper speech balance. Impedance voice coil permits use with 30 to 250 ohm unloaded inputs without changing the microphone's impedance. Pick-up characteristics are non-directional. Elimination of output transformer makes magnetic hum sensitivity lower than comparable microphones. Micron-mesh acoustical filter provides dirt and moisture protection. Careful design, improved materials and manufacturing techniques. Repairs can be made in the field by the replacement of the cartridge and/or cable if necessary. Accessories include: Lavalier holder, tie clip holder, and cable clip. All accessories are gold plated to give pleasing jewelry-like appearance. $\frac{3}{4}$ " dia. x $1\frac{1}{2}$ " L.

61F318. NET. 95.00

Type 77-DX. Polydirectional mike available in two models; one with low-gloss finish for TV, the other satin chrome and gray enamel finish for AM & FM. Offers a choice of unidirectional, bidirectional, or non-directional pickup pattern controlled by a selector switch. Three frequency response variations on basic pickup patterns giving a total of nine directional characteristics. A 50-15000 cycle frequency response. Three position Voice-Music switch to select best operating characteristics, exceptionally well-shielded against hum, three position shutter switch to select best directional pattern, shock mounted, high quality reproduction over entire audio range, very insensitive to vibration. $\frac{1}{2}$ " pipe thread mounting. Output impedance 250 ohms. Effective output levels are —50 dbm in bidirectional pattern; —53 & —56 dbm in the uni- and non-directional patterns. $1\frac{1}{2}$ x $3\frac{3}{4}$ x $2\frac{1}{2}$ ". 4 $\frac{1}{2}$ lbs.

61F300. Satin Chrome Finish. 206.00

61F301. Gray Enamel Finish. NET. 197.00

Type BK-1A. Commentator, Microphone. The pressure actuated microphone provides uniform response from 60 to 10000 cycles. The swivel mounting can be used to control directional characteristics. Used for AM, FM, TV broadcast studios, remote pickup. Outdoor and indoor use. Stand or hand held P. A. work and audience participation. Vertical position is nondirectional; horizontal position is semidirectional. Output impedance 250 ohms (30 & 150 ohm connectors included). Output level —56 dbm. EIA ratings 144 db. Hum pickup is below —102 dbm. Shipping weight, 18 oz.

61F302. NET. 86.00

Type SK-39A. Utility mike. Relatively insensitive to mechanical shock and wind. Plastic diaphragm makes it resistant to moisture and rain. Close-talking announce remote pickup and mobile use, P. A. work, etc. Output level —55 dbm. EIA rating —150 db. May be used with amplifiers having a 150 to 250 ohm input. Mount on any $\frac{3}{8}$ inch —27 fixture thread. Supplied with 25 ft. of two conductor cable less connector. Shpg. wt., 15 oz.

61F306. NET. 23.40

Type SK-30. Low impedance microphone designed for use with 30 to 250 ohm unloaded inputs. Frequency response is 50 to 14,000 cycles. Output level is 1000 cycles at —55 dbm (EIA rating, —149 db). Mount by removing end-cap. Complete with 20 feet of two conductor shielded cable, less connector. $1\frac{1}{2}$ " diameter, $4\frac{1}{2}$ " long. Wt. 8 oz.

61F319. NET. 30.00

Type SK-31. Same as above except, high impedance, 30,000 ohms. Output —57 db below 1v. 20 ft single conductor shield.

61F320. NET. 31.00

Type BK-11A. Velocity Microphone with bidirectional characteristics and frequency response of 50 to 15000 cycles. Three position Voice-Music switch to select best operating characteristics, high quality reproduction over entire audio range, operates well in high hum fields. Stainless steel screens, swivel mounted for 45 degree tilt. $\frac{1}{2}$ " pipe thread mounting. Used in High Fidelity-AM, FM, TV broadcast and recording studios. Especially suited for high fidelity music pick-up. Output level of —56 dbm @ 1000 cycles. EIA rating, —147 db. Output can be connected for 30, 150, and 250 ohms. Size: $8x2\frac{7}{8}$ x $2\frac{3}{8}$ ". Shpg. wt., 2 lbs.

61F305. NET. 131.25

61F314. MA-06 Desk Stand. NET. 7.75

Type SK-45B. —56 db output level when connected for a 150 to 200 ohm balanced output and —58 db when connected for a 15000 ohm output. EIA rating, —147 db. Response from 70 to 12000 cycles. Used for paging, PA indoors or outdoors, voice or music. Mounting with any $\frac{3}{8}$ inch —27 fixture thread permits the use of low cost stands. Finish is low gloss gray. Supplied with 25 ft. of cable less connector. Size: $5\frac{1}{2}$ "x $1\frac{1}{8}$ "x $2\frac{1}{8}$ ". 1 lb.

61F307. NET. 45.00

Type BK-6B. Miniature Dynamic Microphone. Lightweight microphone with excellent speech balance. General FM, AM and TV broadcast use or high quality P. A. use when a lightweight or concealed mike is useful, for interviews, etc. Output level is —67 dbm. EIA ratings —158 db. Frequency response of 80-12000 cps. 250 ohm output impedance may be changed to 30 or 150 ohms by changing cable connections. Size: $2\frac{9}{16}$ x $1\frac{1}{8}$ ". Supplied with 30 ft. of three conductor cable. Shpg. wt., 2.3 oz.

61F304. NET. 86.00

Type SK-46. Economy Velocity mike. Used in AM, FM, and TV studio and control room announcing or any indoor application requiring excellent response and small size. Reduces feedback. Insensitive to vibration. Has bidirectional pickup characteristics. Output impedance 200 ohms, but may be reconnected for 15000 ohm output. Output level is —58 dbm at 250 ohms or —60 dbm at 15000 ohms. EIA rating —150 db. Supplied with a $\frac{3}{8}$ inch —27 mounting thread and 25 ft. of two conductor cable, less connector. Size: $5\frac{1}{8}$ "x $1\frac{1}{8}$ "x $1\frac{1}{8}$ ". Shipping weight, 13 oz.

61F308. NET. 54.95



Type BK-5B. Uniaxial mike. A ribbon instrument with an unidirectional characteristic. Incorporated in the unit is a blast filter which reduces damage to the microphone from violent noises. Three position Voice-Music switch to select best operating characteristics, operates in high hum fields, shock mounted, wide frequency range and smooth response, very insensitive to vibration. Used in AM, FM, TV broadcast and recording studios. Frequency response 50 to 15000 cps. Output impedance 250 ohms, may be changed to 30 or 150 ohms. Output level at 1000 cps. —56 dbm. EIA rating —150 dbm. Mounted $\frac{1}{2}$ " thread female. Size: 7 x $2\frac{3}{4}$ x $2\frac{3}{8}$ ". Shpg. wt., 2 lbs.

61F303. NET. 158.00

STANDS AND ADAPTERS

Type MA-01. Desk Stand 7-11" high. $\frac{5}{8}$ " —27 thread. 3 lbs.

61F309. NET. 5.20

Type MA-02. Banquet Stand 13-25" high $\frac{5}{8}$ " —27 thread. 5 lbs.

61F310. NET. 5.85

Type MA-03. Floor Stand 35-65" High. $\frac{5}{8}$ " —27 thread. 10 lbs.

61F311. NET. 9.00

Type MA-04. Floor Stand 37-66" High. $\frac{5}{8}$ " —27 thread. 22 lbs.

61F312. NET. 16.50

Type MA-05. Desk Stand for use with SK-39A, SK-45B, SK-46 microphones. $\frac{5}{8}$ " —27 thread. 2 lbs.

61F313. NET. 16.75

Type MA-07. Holder for MA2315. $\frac{5}{8}$ " —27 thread. 6 oz.

61F315. NET. 3.35

Type MA-08. Adaptor $\frac{5}{8}$ " —27 female; $\frac{1}{2}$ " male. 6/box. 3 oz.

61F316. NET. 60

Type MA-09. Adaptor $\frac{1}{2}$ " female; $\frac{5}{8}$ " —27 male. 6/box. 3 oz.

61F317. NET. 90

Type MA-06. Desk stand. For use with BK-1A and BK-11A microphone. 6 oz.

61F321. NET. 7.75

Type MA-24. Boom mount. Special shock mounting isolates BK-5B from vibration.

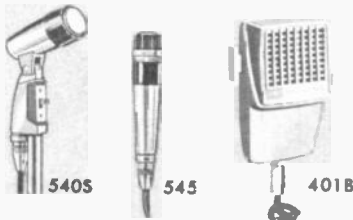
61F322. NET. 36.50

Type MA-25. Windscreen. For BK-5B.

61F323. NET. 16.50

Type MA-32. Swivel adapter. $\frac{5}{8}$ " —27 female thread used with SK-30, SK-31.

61F324. NET. 3.40



540S

545

401B

Model 540S. "Sondyne". Response: 60-13,000 cps. Dual impedance. Choice of 50-250 ohms or high. 15 foot cable, 2 conductor shielded. Stand thread: $5/8"$ -27 thread. Complete with resonator plate and set-screw for changing response. Polar pattern: omni-directional. Swivel permits 150° tilt to head. Size $1\frac{1}{2}"$ diameter, $3\frac{3}{4}"$ long. Shpg. wt. $3\frac{1}{8}$ lbs.
61F124. NET. 29.37

Model 545 "Unidyne III". Unidirectional. Moving coil dynamic type, with resp. of 50-15,000 cps. Output level low imp., -57 db; hi-imp., -55db. Choice of 50 ohms, 250 ohms, or hi-imp. Swivel has $3/8"$ x27 thread. With 18' 3-cond. shielded cable. $5\frac{1}{16}"$ L x $1\frac{1}{4}"$ D. Case is diecast zinc in satin chrome, black. 27 $\frac{1}{2}$ lbs.
61F139. NET. 49.98

Model 55S "Unidyne". Unidirectional. 50-15,000 cps resp. Output: 35-50 ohms, -54 db; 150-250 ohms, -55db; hi-imp., -57db. 18' of 2-cond. shielded cable. Thread: $5/8"$ x27. Case is chrome-finished diecast zinc. HWD $7\frac{3}{8}"$ x $2\frac{1}{8}"$ x $3\frac{1}{16}"$. 4 $\frac{1}{4}$ lbs.
61F141. NET. 48.80

Model 444. Ham Microphone. Controlled magnetic. 300 to 3,000 cps. Output: -52.5 db (0 db=1 volt per microbar); 2.38 millivolts. Impedance: High. Adjustable height. Shpg. wt., 2.8 lbs.
61F145. NET. 24.99

Model 275S. "Versaplex". Ceramic model. Response: 40-12,000 cps. Impedance: High (1-5 meg.). Output Level: -59.5 db (0 db=1 v./microbar). Complete with switch, stand adapter, lavalier assembly. Shpg. Wt., 5 oz.
61F147. NET. 8.82

Model 575S. For PA amplifiers. 40-15,000 cps. Impedance: High (100,000 ohms recommended). Output Level: Down 59 db from 1 v./microbar. Shpg. wt., 5 oz.
61F148. NET. 14.11

Model 575SB. For use with long cable. 40-15,000 cps transistor amplifiers requiring medium or low impedance mike. Impedance: 150-250 ohms. Output Level: -62 db (0 db=1 mw per 10 microbar). Shpg. wt., 5 oz.
61F149. NET. 12.35

Model 420. "Commando." Impedance changed by pinjacks—no switch; dual impedance of 150 to 250 ohms, or high impedance. Frequency response is 60 to 10,000 cps. Controlled magnetic type. Omni-directional polar pattern. Output level -52 db, 1 mv per 10 microbars. Case is high impact polystyrene. With 20 ft. non-detachable shielded cable. Lavalier cord and clip assembly. $3\frac{11}{16}"$ long. Wt. $\frac{1}{2}$ lb.
61F128. NET. 17.64

Model 533B. Deluxe broadcast stand for Shure 300, 333, 525 and 556. Black finish. Shpg. wt., 21 lbs.
83F065. NET. 8.82

Type A84B. Switch. Momentary press to talk on-off.
39F952. NET. 6.47

Type S36A Stand. Fits Shure connector-type mikes. Adapts to others. Removable button for switch. $2\frac{1}{2}"$ x $5\frac{1}{2}"$. 1 $\frac{1}{2}$ lbs.
83F060. NET. 4.70

Type A95A Transformer. Matches 35-50 and 150-250 ohm mike to hi-Z input. 2-cond. cable to low-Z mike. 1 $\frac{1}{8}$ lbs.
39F950. NET. 10.29

Model S38B Stand. Heavy die-cast base. Includes metal screw machine stud for connecting microphone adapter to stand base. Use with 777. Black finish. Shpg. wt. 2 lbs.
83F066. NET. 2.65

Model 533SA. New Spher-O Dyne. Spherical front, built-in wind and pop filter for "pop proof" performance. 40 to 11,000 cps with a chrome case. High impedance. -54.5 db. Swivel adapter. 15 ft. single conductor cable. $6\frac{1}{8}"$ x $2\frac{1}{16}"$ diameter. Wt., 1 lb., 11 oz.
61F160. NET. 24.90

Model 533SB. Spher-O Dyne. Same as above except low impedance. -55.4 db, 15 ft. two conductor cable.
61F161. NET. 27.93

Model 401B. Controlled magnetic type. Impedance: Low (recommended load impedance 150-250 ohms). Output Level: -48 db below 1 mw per 10 microbars. Four-conductor (two shielded) cable. Shpg. Wt., 12 oz.
61F153. NET. 12.94

Model 777. Slim-x. Response 60-10,000 cps. Special-sealed crystal element. High impedance. Amphenol plug. 7 foot cable. Length, $4\frac{3}{8}"$; diameter, 1" (mike only). With cradle and cord. Wt. 1 lb.
61F125. NET. 14.70

Model 777S. As above but with switch.
61F126. NET. 15.88

Tiny Controlled Magnetic Mikes. For small electronic devices—wherever size and weight are important. Metal cased. Width 1", wt. 1 oz. Shp. wt., $2\frac{1}{2}$ oz.

No.	Type	Shape	Imp.	NET
61F132	MC11-J	Circular	1000	7.35
61F133	MC20A-J	Rectangular	2000	8.23
61F134	MC30-J	Square	1850	11.76

Model 404C Hand Microphone. Freq. response: 200-8000 cps. Open circuit voltage: -50.5 db. (Odb=1 volt per microbar). RTMA Microphone rating Gm (sensitivity): -142.5 db. Recommended load impedance: 100,000 ohms or more. Push to talk DPST switch. High impact "armor" case. Wt., $1\frac{3}{8}$ lbs.
61F104. NET. 19.40

Model 578. Satin chrome steel case provides magnetic shielding. Has exceptional "feel" and "balance" making it ideal for hand-held use. Dual impedance. Complete with "On-Off" switch and special slip-in swivel stand adapter. Frequency Response: 50-17,000 cps. Output: High impedance -59 db (0 db=1 milliwatt per 10 microbars); .100 millivolt/microbar. Imp.: 200 ohms. Shpg. wt., $10\frac{1}{2}$ oz.
61F159. NET. 48.51

Model 430. "Commando." Frequency response from 60-10,000 cps. Output level is -52 db. Choice of two impedances, 200 and high, by just changing furnished pin jacks. With swivel adapter, 15 ft. of cable and press-to-talk switch.
61F129. NET. 22.64

SHURE MICROPHONE ACCESSORIES

Replacement Microphone Cartridges. Not shown. For general replacement in Shure and other make mikes. All are supplied with rubber mounting ring. Overall depth approximately $7/8"$. Wt., 4 oz.

Type R5 Controlled Magnetic Replacement Cartridge. High impedance, high output. Unaffected by heat, hum. Shipping weight, 4 oz.
61F118. NET. 6.47

Model R5B. Same as above but low impedance.
83F067. NET. 6.47

Type R7 Crystal. High output, with smooth frequency response. Replacement for 707A, 708A series. Wt., 4 oz.
61F117. NET. 4.85

Type R10 Carbon. Replacement for CB, 100, and 120 mikes. Output: 5 db below 1 v. per 100 microbar speech signal. Recom. for voice only. Wt., 6 oz.
61F118. NET. 5.00



777

444

555



MC 11

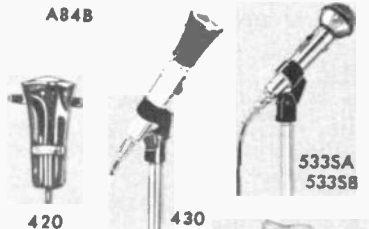
MC 30

275S

575S

575SB

A84B

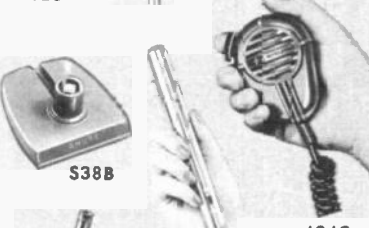


420

430

533SA

533SB



S38B

578

404C



S36A

A95A

S33B



TURNER MICROPHONES & ACCESSORIES

BROADCAST & PROFESSIONAL

Model S-500. New cardioid dynamic microphone with newly designed Dynaflex diaphragm. Designed for use in broadcast and Public address systems or other applications where unwanted background noise could create a problem. Response, 40-15,000 cps; hi or 150 ohm impedance selected at cable connector; output level, -55 db. Comes with 20' cable, on-off switch. Shpg. wt., 3 lbs.
61F745. NET 52.43

500-06. Matched pair of TURNER 500's with switches. Shpg. wt., 3 lbs.
61F748. NET 102.90

Stand Model C-7. Attractive modern tear-drop design, shock mounted. Heavy die cast alloy finished in satin chrome. Matches Microphone model 500. 5 1/2" Lx 4" max. width. Shpg. wt. 2 lbs.
83F097. NET 5.59

510 Broadcast Cardioid Microphone. Dynamic, Impedance 50 ohms matches 35 to 80 ohms and 200 ohm matches 150/250 ohm inputs. Output level -55db below 1Mv/10 dynes/cm². Frequency response 40-15,000 with 25db over range. Using Cannon plug XLR-4-11C (4-pin) with 20' detachable cable, shielded 3 conductor. Die cast zinc alloy case 3/8"-27 threads mounting. Finished in Neutral blue-gray, non-reflecting. 1 1/2" diameter, 6 1/16" long. Shpg. wt. 12 oz.
61F766. NET 88.20

Model 600. Directional cardioid dynamic microphone which rejects background noise. No feedback "howl." Wide range of response: 50-15,000 CPS output level is -55db. Comes complete with on-off switch and stand adaptor. 12' cable, hi impedance. Shpg. wt., 2 lbs.
61F700. NET 34.99
61F701. Model 602. Low Z. NET 34.99

PUBLIC ADDRESS & GENERAL PURPOSE

Turner 44D Dynamic Microphone. Compact modern design coupled with variable low end bass response. Excellent microphone for paging and communications systems. Omni-directional pick-up pattern. Very sturdy. Combination cyclac and diecast zinc alloy case. Use indoors or outside. Response is 85-15,000 C.P.S. adjustable to 60-15,000 C.P.S. output level is -56.5 db. Complete with removable 12' cable and on-off switch. Specify high or low Z when ordering. Shpg. wt. 2 lbs.
61F761. High Z. NET 26.46
61F762. Low Z (50/250). NET 26.46

Model 250. Dynamic mike with exclusive three way switching action. Touch bar on front of mike for touch-to-talk; Hidden switch in base that is on automatically whenever the mike is picked up; on-off-lock-clip type switch on the base can be used to lock all switches on "on" position. One piece die cast construction. Satin chrome finish. Wired to operate both mike and relay circuits at a touch—no gripping necessary. Complete with 20' three conductor, one shielded cable. Output level -51 db., response 60-10,000 cps. Hi-impedance. Shpg. wt., 3 lbs.
61F752. NET 32.34

Model 251. The same as Model 250 except 150 ohms impedance.
61F750. NET 32.34

Model 304X. Crystal Microphone. High-output, high impedance crystal element; response 60-8,500 cps—perfect for public address systems, paging, ham radio, etc. Use as a lavalier mike with cord and plastic clip supplied, base-mount it on the matching black base, or use the floor-stand adapter supplied. Output level: -50 db. Shpg. wt., 1 1/4 lbs.
61F757. NET 9.70

Model 304C. Identical to model 304X, but with rugged ceramic element; output level -60 db, response 60-10,000 cps. Wt. 3 lbs.
61F756. NET 9.70

HAM & CB MIKES

Model 350C. Hand-held ceramic microphone ideal for citizen's band, amateur use, mobile rigs and paging. Plastic case with momentary on-off switch. Frequency Response: 80-7,000 cps. Output Level -54 db. Complete with standard dash bracket and hanger button. With 5' plastic jacketed coiled cord. Shpg. wt., 1 lb.
61F760. NET 7.35

Model 254C. Desk microphone specifically designed for citizens' band usage. Ceramic microphone has on-off push-to-talk and lock switch. Gray hammertone finish. Response: 80 to 7,000 cps. Output level: -54 db. Cable is 7 foot, three conductor (one shielded) wired for relay operation. Shpg. wt., 2 lbs.
61F751. NET 13.82

Model 254X. As above, but crystal mike.
61F763. NET 13.82

454 Microphones. Ideal for single side band. 300 to 3000 CPS. With either VOX or PTT operation. Output level -48db on crystal, -52db on ceramic. Complete with 5 foot cord and base with Press-to-talk bar. Shpg. wt. 1 lb. 8 oz.
61F764. 454X. Crystal. NET 15.58
61F765. 454C. Ceramic. NET 15.58

Model 505. Uses the superior cardioid features of the model 500 and the acoustical advantages of an adjustable bass response dynamic microphone to create excellent performance. Designed specifically for auditorium work, rostrums, announcing, and recording work of all types. Adjustable bass response is achieved by use of rotary switch which is marked "normal," and "less bass." Freq. response; 40-15,000 cps when switch is in normal position. Switching positions modifies response to 100-15,000 c.p.s. -55 db. Shpg. wt., 3 lbs.
61F702. NET 64.68

Model MM/VC. Magnetic contact pickup for musical instruments. Standard Turner pickup. Alnico V circuit provides uniform response over entire musical range. High impedance output. Installed in a few seconds. Finished in grey gunmetal. Complete with 20 ft. single conductor cable and mounting device. With volume control. Shipping weight, 3 lbs.
61F731. NET 18.00

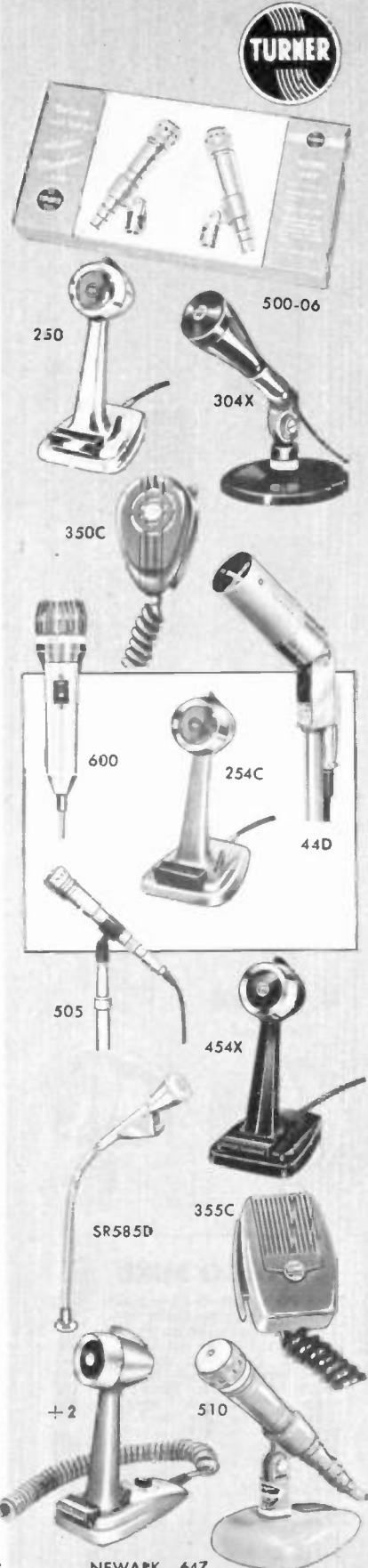
Model +2. Transistorized microphone with variable output level that will increase the signal strength and range of your transceiver. Comes with a two transistor preamp with volume control to give you up to 50 times the output level you now have. Freq. response; 300 to 3500 c.p.s. 27db. Finished in light blue hammertone baked enamel with touch bar and bright chrome front.
61F703. NET 29.11

Model 355C. Money saving mobile microphone with grip-to-talk switch. Comfortable to hold and use. -50db. response; 80 to 7000 c.p.s. Shpg. wt., 1 lb.
61F704. NET 7.35

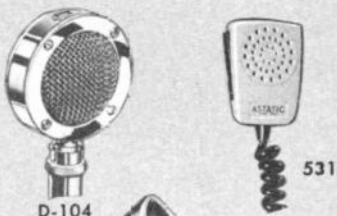
Model SR585D. New dynamic microphone fixed mounted on 16" goose neck with mounting plate. DPDT switch is line shorting, designed to actuate a relay. Die cast satin chrome housing. Response: 70-12,000 cps; output, -58 db; impedance, 150 ohms. Shpg. wt. 3 lbs.
61F743. NET 25.58

Model DB-1. Magnetic dash bracket. 6 oz. Lets you hang mike anywhere.
61F705. NET 8.88

Model 35668. Coiled cord. Three conductor (one shielded) 5' extended, 11" retracted.
61F706. NET 2.17



ASTATIC MICROPHONES & ACCESSORIES



D-104



531



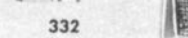
331



788



150



151



10C



77



UG8 Stand



JT-30



200



T-3

MODEL D-104

High output crystal. Balanced performance for maximum intelligibility within the voice range. Response 30-7,500 cps has a rising characteristic for crisp articulate speech. High output of -46 decibels (1 volt/dyne/cm²). Metal seal element defies humidity. Machine brass parts, bright chrome finish, and 5 ft. of single conductor cable. Size: 3 1/2" x 1 1/4". Shpg. wt. 1 3/4 lbs.
61F005. NET. 18.23
61F042. Model D-104C. Ceramic. 18.23

MODEL 331

High impedance ceramic microphone. Voice range unit specifically designed for communication applications, paging and 27 megacycle citizen band use. Small, compact, modern styling design. Frequency range: 300-7000 cps. Output level: -58 db. (1 volt/dyne/cm²). Has built-in momentary on spring-return switch. Cable provides for audio and relay connections. Complete with hang up bracket. Die-cast black housing and grill with chrome cap. Size: 4 1/2" x 1 1/4" sq. Wt., 1 lb.
61F034. NET. 10.53

MODEL 332

Slim crystal mike. It features a slide switch with a "lock-on" position. Uniform frequency response from 30 to 15,000 cps. High (1-5 megohm) input impedance. Omni-directional. Output: -54 db (0-1 volt microbar). 4 1/2" overall height, 1 1/2" diameter. Die cast housing. With eight feet of extra-flexible single conductor shielded cable, lavaliere cord assembly and stand adapter for 3/8" -27 mtg. 1 lb.
61F033. NET. 10.53

MODELS 10C AND 10D

Tailored response and higher talk power makes these microphones ideal for SSB and AM transmitter use. Output: -54 db. freq. range: 300-3000 cps. High impedance. Model 10C contains ceramic element immune to temperature and humidity. Plug-in 3/8"-27 thread mounting with 5' single conductor shielded cable. Size: 2 3/4" D x 6" L. Wt. 1 lb.
61F026. NET. 17.46
 Model 10D contains dynamic unit. High impedance. Output -52db. 1 lb.
61F027. NET. 23.34

TYPE G STAND

Grip to talk . . . For D-104, 10C, 10D, DN-HZ, T-3 mikes. Chrome and gray, 8 1/4" high. S.P.D.T. Switch. With 6 ft. 2-cond. cable 2 1/4 lbs.
61F016. NET. 14.66

MODEL UG8 STAND

Same as above except for DPDT switch and terminal strip in stand base. For T-3, D-104, 10C, 10D, DN-HZ DN-50 mikes. 4-cond. cable.
61F038. NET. 17.61

MODEL MC-151

REPLACEMENT CARTRIDGE

For models 200, T-3, JT-30. Wt. 8 oz.
61F017. Crystal cart. NET. 4.12

MODEL JT-30

Specially designed for PA recording and communications. Semi-directional unit. Wide-range response 30-10,000 cps. High impedance. High output level of -49 decibels. Suitable for modest gain requirements. Handsome opalescent gray finish.

SONOTONE CERAMIC FLEX-MIKE

Model CM-17A. Omnidirectional high-impedance microphone with rugged ceramic element and flexible gooseneck stand for permanent installation. Ideal for podium mounting. Frequency response of 50 to over 11,000 cps and high (-56 db) output are more than ample for speech needs. Ceramic transducer and metal damping grid are immune to extreme variations in temperature and humidity. Transducer is encased in neoprene and cushion-mounted for protection from physical shocks and drops. Supplied with 6' of shielded cable. One-piece microphone is diecast metal with brush-chrome finish; 17" long. Shpg. wt. 2 lbs.
61F035. NET. 15.44

MODEL 531 MOBILE MICROPHONE

"Super talk power" for Amateur or Citizens Band . . . mobile or stationary communication applications. Response carefully calculated to give maximum clarity and intelligibility. Rugged light gray plastic case . . . DPDT spring return switch . . . vinyl jacketed coil cord. Response: 150-3500 cps. Output: -50 db below 1 volt/dyne/cm². High impedance ceramic element. Mounting bracket supplied. Shp. wt. 8 oz.
61F039. NET. 7.50

MODEL 788

Omidirectional microphone for commercial sound installations, recording, FM and T.V. Hand use in addition to normal application as nested in its floor or desk stand holder. 150/250 ohms, or high impedance output. Freq. Resp.-Smooth from 60 to 13,000 cps. with 18 ft. of two-conductor shielded cable. Alloy die castings finished in non-reflecting baked synthetic enamel. Wt. 17 oz.
61F043. NET. 46.75

MODEL 150 AND 151

High output, low cost "stand up" microphones, are designed for use with tape recorders. Model 150 - Crystal; Model 151 - Ceramic. Output: -44 db re 1 volt/dyne/cm² for 150; -48 db re 1 volt/dyne/cm² for 151. Response: 30-10,000 cps for both. 5' flexible cable . . . 2 3/16" square by 1 1/4" deep. Wt. 4 oz.
61F031 (Model 150) NET. 3.82
61F032 (Model 151) NET. 3.82

MODEL 77

Positive Anti-Feedback Cardioid Microphone. Uniform from 30 to 15,000 cps. 18db. F. to B. -48db output. Multi-switch selection "L" 30 to 50 ohms. "M" 150 to 250 ohms, and "H" high imped. 40,000 ohms. Complete with 90° swivel built-in On-Off switch. 20 foot cable. Size: 8 x 2 1/4" x 2 3/4" deep. Wt., 3 lbs.
61F029. NET. 48.51

MODEL 200 VELVET-VOICE

High impedance, semi-directional crystal microphone that features wide-range, high output, and dependability. Response 30-10,000 cps. with output level of -50 db. Built-in handle has separate "quick-lock" detachable base. Comes with stand and 8 ft. cable. Case and handle are finished in gold, with chrome grille. 8" high.
61F001. NET. 11.47

MODEL 200-S

Exactly like Model 200 microphone above. Exactly has built-in on-off switch. Complete with stand. Shpg. wt., 2 lbs.
61F002. NET. 12.64

MODEL T-3

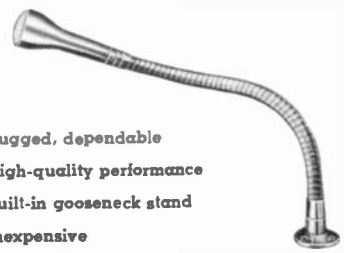
Tilting head mike with self-locking hinge. Response 30-10,000 cps. Output -54 db. High impedance. With 10 ft. cable. Type G stand recomd. Size: 2 5/8" Dia. x 6" long. Wt., 2 lbs.
61F008. NET. 17.23

MODEL JT-30

with bright chrome grille. Unit comes complete with an 8 ft. cable and a desk stand. The base of the stand detaches quickly for hand-held use. 8" high. 2 lbs.
61F000. NET. 10.81

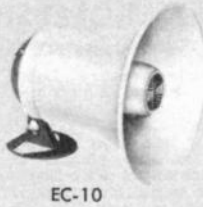
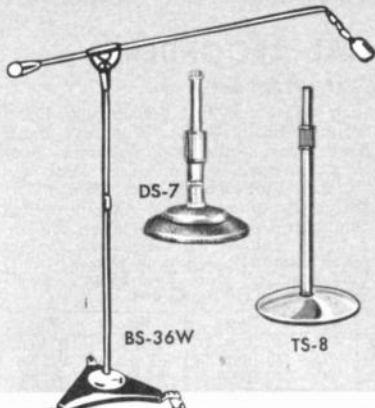
DYNACO MIKE

Model B & O 53. Bi-directional mike, primarily for studio use. The amazing definition of this mike is due to the use of anisotropic permanent magnets in a special circuit having negligible leakage. Ribbon is only .0001" thick, and weighs only 1.3 mg. 3 switched impedances: 50/250/hi-z. 20-13,000 cps, ±2 db. With 20' cable. Size: 1 3/8" x 7 1/2" long. Wt. 2 lbs.
61F608. NET. 69.95



- Rugged, dependable
- High-quality performance
- Built-in gooseneck stand
- Inexpensive

ATLAS SOUND EQUIPMENT



MICROPHONE BOOM STANDS

Model BS-36W. Professional Boom Stand. Features Safety Air-Lock Cushion, built into vertical section to prevent sudden slippage of upright section. Has gyromatic swivel joint to hold mike in proper position. Has adjustable counterweight, removable boom and ball bearing casters. Boom extension 62"—upright is adjustable from 48" to 72". Base diameter, 17". In chrome and gun metal. Snap-on hangers hold cable to boom. Shpg. wt., 38 lbs.

83F043. NET. 47.04

DESK AND BANQUET STANDS

Model DS-5. Employs same fine finish and workmanship as embodied in all ATLAS products. The DS-5 is a 4 inch tall non-adjustable microphone stand. Base diameter is 6". Chrome tube, and gray base. Wt. 3 lbs.

83F039. NET. 2.06

Model DS-7. As above but adjustable from 8" to 13".

83F040. NET. 3.53

Model TS-8. Adjustable banquet stand using full grip control. Adjustable from 14½ to 26 inches. All chrome.

83F051. NET. 6.32

MODEL EC-10 PAGING SPEAKER

Equipped with a ceramic type magnet and handling capabilities of 6 watts. The horn and throat sections are molded of high impact acrylic plastic in light beige color. Impedance of voice coil 8 ohms with a frequency response of 400 to 10,000 cycles per second. Sound level 111.3Db. Featuring an adjustable bracket to provide swivel mounting and adjustment for correct sound pattern under specific conditions. Through the use of acrylic

"VELVET ACTION" STANDS

"Velvet Action" stands featuring "Ful-Grip" clutch which offers an extended length tube, permitting a secure, full-hand grip. The attractive bases are functionally designed for stability with maximum base mass located where the concentrated weight is most useful. They include self-leveling, shock-absorbing base pads, plus three additional "anti-tip" points located between the base pads.

Model MS-11C. Adjustable from 34" to 62". Base dia., 10".

Base and tube assembly chrome finished. Wt., 13 lbs.

83F032. NET. 8.53

Model MS-20. Height adjustable from 37" to 66". Base dia., 12". Gray base. Chrome finished tube. Wt., 15 lbs.

83F033. NET. 10.58

Model MS-10C. Height adjustable from 35" to 63". Base dia., 10". Gray base. Chrome finished tube. Wt., 10 lbs.

83F030. NET. 6.32

Deluxe Model MS-25. "Safety Air Lock Cushion" permits smooth and quiet collapse of stand without sudden slippage. Base dia., 17". Adjustable ht., 38-67". Chrome finish. Sh. wt., 22 lbs.

83F034. NET. 17.35

MICROPHONE ATTACHMENTS & ACCESSORIES



Model BB-1. "Baby Boom" Attachment. Can be easily and quickly attached to any microphone floor stand. Boom arm is equipped with universal swivel that can be adjusted and locked in any position. Sliding counterweight. Has ½"—27 thread. 32-inch tube section is chrome plated. Gray castings. Shipping weight, 3½ lbs.

83F036. NET. 5.00

Model GN-13 Flexible Goose Neck. Attaches to mike stand, providing convenient adjustment for individual use. Bright chrome finish. 13" long, ¾"—27 thread. Wt., 1 lb.

83F037. NET. 1.62

Atlas Model GN-19 Goose Neck. Can be attached to any microphone stand or fixture. 19" long. With male and female threads ¾"—27. Shpg wt., 1 lb.

83F048. NET. 2.35

Model BC-1 Bracket Clamp. For attaching mike boom arm, or goose neck to desk or other solid object. Can be clamped or permanently screwed or bolted in position. 6" chrome stem, gray finish clamp. ¾"—27 thread. Shpg. wt., 1 lb.

83F042. NET. 2.35

SW-1 Gyromatic Swivel. Adjusts to any angle. Locks in any position. Fits any floor or desk stand. Chrome finish. 4½" long, ¾"—27 male, female threads.

39F912. NET. 3.09

CH-1. Cable Hanger. Fits tubes from ¾" to 1¼" dia. Mike can be quickly coiled, looped over it when moving. Easy 1-screw attachment. Chrome finish.

39F913. NET. 1.62

Atlas Model FS-1 Footswitch. For use with any mike having single ended inputs. Completely shielded and noise free. Can be hand operated on table top. Uses long life micro switch. Cork base prevents skidding. 2½x3".

83F046. NET. 8.23

Model AD-1. Handy adapter for fitting RCA mike to std. mike stand. Has ½" male pipe thread and std. ¾"—female thread.

39F900. NET. .62

Model AD-2. ½" pipe female to ¾"—27 male.

39F901. NET. .44

Model AD-3. ½" pipe female to ¾"—27 female.

39F902. NET. .47

Model AD-4. ¾" long ¾"—27 male running thread.

39F903. NET. .29

Model AD-5. ¾"—27 female to ¾"—27 female.

39F904. NET. .47

Model AD-6. 7/8"—27 female to 7/8" female coupling.

39F905. NET. .79

Model AD-7. 3" long tube ¾"—27 male each end.

39F906. NET. .53

Model AD-8. 6" long tube ¾"—27 male each end.

39F907. NET. .59

Model AD-9. 7/8"—27 female to ¾"—27 female.

39F908. NET. .59

Model AD-10. ¾"—24 female to ¾"—27 female.

39F909. NET. .88

Model AD-11. Flange, 5/8" ¾"—27 female. Base dia., 1¼".

39F910. NET. .59

Model AD-12. Flange, 5/8"—27 male. 7/8" mtg. ctrs.

39F911. NET. .59

Atlas Model SB-1 Switchboard Microphone Support. Designed for use in supporting a microphone over conventional types of telephone switchboards. 12" flexible, chrome plated goose neck arm mounted on spring loaded swivel. Wt. 13 lbs.

83F047. NET. 10.58

MODEL SO-1 MIKE ATTACHMENT

Provides a fast, safe means of attaching any microphone to any floor stand. Eliminates the need of threading the microphone on and off stand. Consists of a two-section "Snap-On" ball bearing spring sleeve. Shipping weight, 2 lbs.

39F920. NET. 1.62

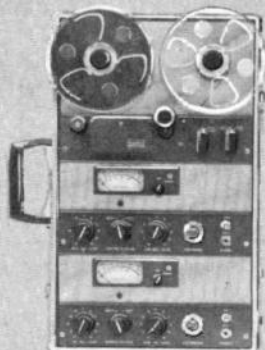
AMPEX

AMPEX PROFESSIONAL RECORDERS

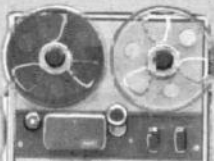
602 SERIES PORTABLE TAPE RECORDERS

Can be rack mounted (with adaptor panels) for studio use. Ind. mixing controls for mike and line inputs. Meters read directly all operating levels on each channel. Built-in low imp. mike xformer Record/safe switch on each channel of 602.2. Hysteresis synchronous drive motor. DC filament for low noise. 622 speaker/amplifier designed for use with any 602 recorder—monophonic or stereo. Has jack for external speaker.
Freq. Resp.: 40-15,000 cps, down no more

than 4 db at 15,000; ± 2 db from 40-10,000
Signal-to-Noise Ratio: With full track head, over 57 db; with half-track, over 55 db; 2-track model, over 55 db (at 7 1/2 ips). **Flutter/Wow:** Less than 0.17%.
Timing Accuracy: $\pm 0.2\%$. **Inputs** (each channel): Low imp. mike input; line input. For Cannon XL connectors. **Output** (each channel): +4 dbm into 600 ohm, bal. or unbal. load. **Reel Size:** 7" & 5".
Power Req.: 117 v., 60 cps.



Model 602-2



Model 602-1



Model 622



Model PR-10



AG-350-1

650 NEWARK

Stk. No.	Model	Heads	(ips)	Type	Wt.	NET
99F610	602-1 (1 Channel Mono)	Full-track	7 1/2	40-16021-02	28 lbs.	625.00
99F609	602-1 (1 Channel Mono)	Half-track	7 1/2	40-16021-04	28 lbs.	625.00
99F611	602-2 (2 Channel Stereo)	Two-track	7 1/2	40-16023-02	42 lbs.	875.00
99F612	622 (Speaker/Amplifier)			01-0622	25 lbs.	189.50

PR10 SERIES RECORDERS AND REPRODUCERS

Features electro-dynamic clutch system providing fast, gentle starts and stops. Hysteresis synchronous motor for timing accuracy. Compact electronics include record/safe, A-B monitor switches; all frequently used electronic alignment controls are accessible through front panel door. PR-10-1 is equipped with separate erase, record, playback heads; plus an extra position for optional 4-track stereo playback or special needs. PR-10-4 has four heads; 4-track erase, 4-track record, 4-track play, and 2-track play. Selector on PR-10-4 permits mono, stereo, parallel track and sound-on-sound recording. If microphones are to be used with PR-10-4, plug-in microphone preamps or MX-10 mixer should be used.
Frequency Response: 30-15,000 cps ± 2 db

at 15 ips; 40-12,000 cps ± 2 db at 7 1/2 ips; 40-8000 cps ± 2 db at 3 3/4 ips. **Signal-to-Noise Ratio:** 55 db at 15 and 7 1/2 ips; 50 db at 3 3/4 ips. PR-10-4 better than 55 db at 3 3/4 and 7 1/2 ips. **Flutter/Wow** (By ASA Standards): Less than .15% rms at 15 ips; .18% rms at 7 1/2 ips; .25% rms at 3 3/4 ips. **Timing Accuracy:** Within 0.25% at 15 and 7 1/2 ips; within 0.40% at 3 3/4 ips. **Reel Size:** Up to 7". **Outputs:** ± 4 dbm into 600 ohm balanced or unbal. load. Cannon XL connectors. Single and 2-channel headphone jacks provided. **Input:** PR-10-1: low imp. mike and unbal. bridging (use plug-in mike preamps or line xformers). **Power Req.:** 117 v-60 cps., 215 w. **Rack Space:** Trans. 3 3/4"; Elect. 5 1/4". **Weight:** Unmid: 44 lbs. Port: 53 lbs.

Stk. No.	Model	Heads	(ips)	Type	Mounting	NET
99F700	PR-10-1 (1 Channel)	Full-track	7 1/2 & 15	NAB 96001-09	Unmounted	1045.00
99F733	PR-10-1 (1 Channel)	Two-track	7 1/2 & 15	NAB 96001-01	Unmounted	1045.00
99F731	PR-10-1 (1 Channel)	Full-track	3 3/4 & 7 1/2	NAB 96001-11	Unmounted	1045.00
99F732	PR-10-1 (1 Channel)	Two-track	3 3/4 & 7 1/2	NAB 96001-03	Unmounted	1045.00
99F734	PR-10-4 (2 Channel)	Four-track	3 3/4 & 7 1/2	NAB 4018004-01	Unmounted	1295.00
99F735	PR-10-4 (2 Channel)	Four-track	3 3/4 & 7 1/2	NAB 4018004-03	Portable	1375.00

SERIES AG-350 RECORDERS/REPRODUCERS

Fully solid state electronics. Plug-in transistors. 2 torque motors plus one heavy-duty hysteresis synchronous direct drive motor. Push-button relay-solenoid permits full remote control. Electronics panel for each channel. VU meter has selector; reads input tape level, bias and erase current. Separate record and play electronics permit monitoring while recording. **Freq. Resp.:** 15 ips: ± 2 db 30-18,000; 7 1/2 ips: ± 2 db 40-10,000. **Signal-to-Noise Ratio:** 15 and 7 1/2 ips: Full track

60 db; 1/2 track & 2 track, 55 db. **Flutter/wow:** 15 ips: below 0.11%; 7 1/2 ips: below 0.14%. **Timing Accuracy:** 0.2% (± 3.6 sec. in 30 min.). **Inputs:** Unbal. bridge; low impedance mike, or bal. by accessory plug-in mike pre-amp or transformer. **Output:** ± 8 dbm into 600 ohm, bal. or unbal. **Rack Size:** Transport: 1 5/8" rack space, 50 lbs. Electronics: AG-350, 5 1/4" rack space, 19 lbs. ea. **Power Req.:** 1 channel 2 amps; 2 channel 2.5 amps. 117 V, 60 cps.

99F741	AG-350-1 (Mono)	Full	7 1/2-15	4010035-01	Unmt.	1750.00
99F742	AG-350-1 (Mono)	Full	7 1/2-15	4010035-05	Port.	1870.00
99F743	AG-350-1 (Mono)	Full	7 1/2-15	4010035-03	Cons.	2075.00
99F744	AG-350-2 (Stereo)	Two	7 1/2-15	4010036-01	Unmt.	2345.00
99F745	AG-350-2 (Stereo)	Two	7 1/2-15	4010036-05	Port.	2475.00
99F746	AG-350-2 (Stereo)	Two	7 1/2-15	4010036-05	Cons.	2670.00

ACCESSORIES FOR ALL SERIES

Stk. No.	Type	Description	NET
99F708	96900-01	MX-10 Mixer, 4 pos., 2 chan. Gray knobs for PR-10	395.00
99F738	96900-03	MX-10 Mixer. Same as above. Blk. knobs for 350/300	395.00
99F044	087-007	Head Cleaner—4 oz. can	1.45
99F045	087-013	Lubricating Oil—1 1/2 oz. plastic oiler.	.95
76F060	4040575-01	Head Demagnetizer	9.95
99F658	1-31311-01	Standard & Alignment Tape for NAB equalization, 15 ips	21.95
99F619	1-31321-01	Same as above for 7 1/2 ips	21.95
99F659	1-31331-01	Same for 120 μ sec equalization, 3 3/4 ips	21.95
99F613	4010864-01	Rack mount adapter panel, 19" wide, for 602-1	17.50
99F614	4010865-01	Same as above for 602-2	33.00
99F729	40122201-01	Position indicator, 4 digit, resettable for PR-10	35.00
99F685	2-96121-01	Equalizers for PR-10. Record 7 1/2 and 15 ips NAB	9.90
99F686	2-96120-01	Same as above. Record. 3 3/4 (specify 120 or 200 μ sec)	9.90
99F690	2-96111-05	Same. Reproduce. 7 1/2 & 15 ips NAB-Full Track	9.90
99F680	2-96111-03	Same. Reproduce. 7 1/2 & 15 ips NAB-Two Track	9.90
99F673	1-96440-01	Mike preamp. PR-10, 602. 1/chan. 40 db	45.00
99F674	1-96440-04	Same as above. 60 db	60.00
99F677	4010040-01	Same as above. 40/60 db switchable gain for AG-350	75.00
99F692	4580116-10	Line input trans. MX-10, AG-350, PR-10, 602. 1 per channel req'd. Balanced bridging	14.50
99F693	4580116-20	Same as above. Matching 600 ohm	14.50
99F709	4150200-01	Port. case for PR-10, PR-10-2, PR-10-4	90.00
99F710	1-96940-01	Same as above but with MX-10 Mixer	125.00
99F090	4030154-01	Same for AG-350 transport	90.00
99F747	4150296-01	Same for AG-350 electronics or MX-10 (5 1/4")	50.00
99F748	4150297-01	Same for two AG-350 elec. or AG-350 plus MX-10 (10 1/2")	65.00

Newark Electronics Corp., 500 N. Pulaski Rd., Chicago, Ill. 60624

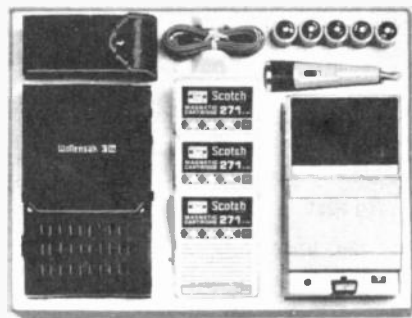
Revere-Wollensak Division

TAPE RECORDERS

● NEW MODEL 4100 CORDLESS RECORDER

Battery operated cartridge tape recorder offers complete portability. Easy to use—one 4-position function switch controls all operating modes. Constant speed capstan drive provides a full continuous hour of operation. Solid state operation permits instant warmup and reliability. VU meter for correct recording level and battery condition along with separate record level and volume controls are outstanding features of the "Cordless." Frequency response: 120-6000 cps ± 3 db. Wow and flutter rms: 0.35%. Power output: 250 mW. Tape speed: $1\frac{7}{8}$ ips. Signal to noise ratio: better than -45 db. Patch cord, dynamic microphone, carrying case, 3 SCOTCH Brand Magnetic Tape Cartridges, and standard "C" batteries are included in the outfit. Size: $4\frac{1}{2} \times 7\frac{3}{4} \times 2\frac{1}{4}$ ". Shipping wt., 3 lbs.

96F975. NET	99.95
Type A-0469. 110 V., 60 cycle AC adapter. Ship. wt., 8 oz.	
96F950. NET	17.93
Type A-0471. Foot control. Ship. wt., 12 oz.	
96F951. NET	15.98
Type A-0470. Earphone. Ship. wt., 4 oz.	
96F952. NET	11.48
Type A-0473. Patch cord.	
96F953. NET	3.68
Type A-0472. Replacement microphone.	
96F954. NET	13.47
Type 271. Tape cartridge for Model 4100.	
76F649. 1-11, Ea.	2.63
	12-up, Ea. 2.37

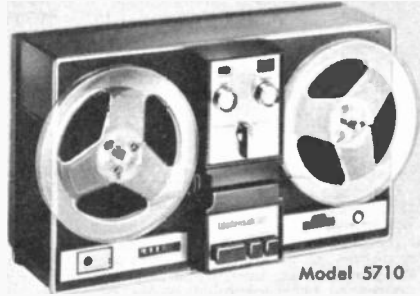


Model 4100

● NEW MODEL 5710 PORTABLE MONO RECORDER

Solid-state circuitry for instant warmup. $7\frac{1}{2}$, $3\frac{3}{4}$, $1\frac{7}{8}$ ips recorder. 2-track monophonic operation. Features include power activated push buttons, and separate tone and volume controls. Also has: self-contained reel locks. VU meter, external circuit breaker, instant pause control and automatic shut-off. Frequency response: 40-17,000 cps ± 3 db @ $7\frac{1}{2}$ ips. Wow and flutter: less than 0.25% at $7\frac{1}{2}$ ips. Power output: 3 watts EIA, 5 watts peak. Inputs: mike and phono-radio. Outputs: speaker and pre-amp. Complete with protective cover lid, mike, 7" reel of tape and take-up reel. Size: $16 \times 10 \times 7$ ". Shipping wt., 20 pounds.

96F955. NET	159.95
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Model 5710

● NEW MODEL 1500 SS MONO RECORDER

The 1500 SS is a compact, top-quality 2-track monophonic recorder. Powerful, solid-state amplifier, and high efficiency speaker provide big, rich tone. Lightweight, and with push button operational ease, the 1500 SS is built for a wide range of uses. The 1500 SS features a solid-state push-pull output amplifier, simple keyboard operation, dual speed, provision for monitoring and P.A. use, and all-metal construction. All inputs and outputs for recording or playing back through any source are conveniently grouped on one rear panel. Complete with dynamic microphone, patch cord, 7" reel of tape and self-threading take-up reel. Frequency response: 40-15000 cps ± 3 db @ $7\frac{1}{2}$ ips, 40-8000 cps ± 3 db @ $3\frac{3}{4}$ ips. Size: $6\frac{1}{2} \times 10\frac{1}{4} \times 11\frac{3}{4}$ ". Ship. wt., $18\frac{1}{2}$ lbs.

96F976. NET	184.95
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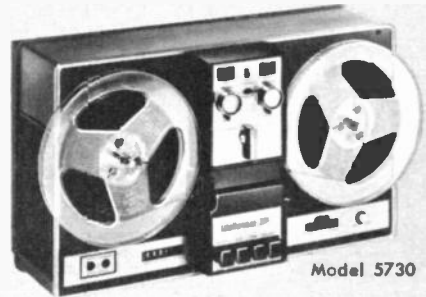


Model 1500 SS

● NEW MODEL 5730 STEREO RECORDER

Four track stereo and monaural solid state recorder. The 5730 features power activated push button control central; automatic shut-off; separate tone and volume controls; external circuit breaker; instant pause control; two VU meters; and automatic head demagnetization. Frequency response: 40-17000 cps ± 3 db @ $7\frac{1}{2}$ ips, and 40-10000 cps ± 3 db @ $3\frac{3}{4}$ ips. Also operates at $1\frac{7}{8}$ ips. Complete with cover lid, dynamic microphone, 7" tape reel, and self-threading take-up reel. Size: $16 \times 10 \times 7$ ". Ship. wt., 22 lbs.

96F956. NET	199.95
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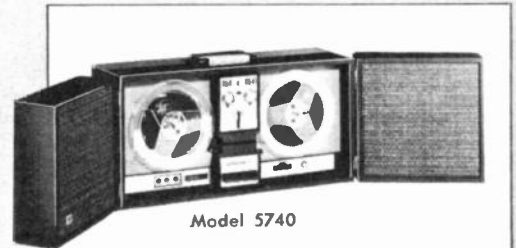


Model 5730

● NEW MODEL 5740 STEREO RECORDER

Three speed stereo and monaural solid state recorder. The 5740 has detachable wing speakers, and a vinyl covered case. Features include power activated push buttons, two VU meters, external circuit breaker, FM multiplex ready FM multiplex four digit tape counter and separate tone and volume controls. Frequency response: 40-17,000 cps ± 3 db @ $7\frac{1}{2}$ ips, 40-10,000 cps ± 3 db @ $3\frac{3}{4}$ ips. Wow and flutter: less than 0.25% @ $7\frac{1}{2}$ ips, less than 0.3% @ $3\frac{3}{4}$ ips. Signal to noise ratio: greater than 48 db @ $7\frac{1}{2}$ ips, greater than 45 db @ $3\frac{3}{4}$ ips. Also operates at $1\frac{7}{8}$ ips. Wings contain 2-6" round speakers. Complete with dynamic microphone, 2 speaker cables, 7" reel of tape and one self-threading take-up reel. Size: $21\frac{1}{8} \times 10\frac{3}{4} \times 2\frac{1}{2}$ ". Ship. wt., 28 lbs.

96F957. NET	229.95
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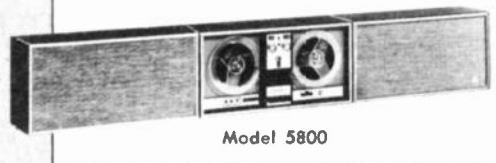


Model 5740

● NEW MODEL 5800 STEREO RECORDER

Four track stereo and monaural solid-state recorder. The 5800 comes in a walnut cabinet with matching speakers. Features include: Self-contained reel locks, individual tone and volume controls, power activated push buttons, automatic shut-off, self-adjusting braking system, monitor facility, stereo headphone jack, AM-FM multiplex ready 100 k.c. bias. Accepts tuner for recording or playing. Frequency response: 40-17,000 cps ± 3 db @ $7\frac{1}{2}$ ips, 40-10,000 cps ± 3 db @ $3\frac{3}{4}$ ips. Signal to noise ratio: greater than 45 db @ $7\frac{1}{2}$ and $3\frac{3}{4}$ ips. Also operates at $1\frac{7}{8}$ ips. Inputs: 2 mikes and 2 phono-radio. Outputs: 2 speakers and 2 pre-amps. Size: (recorder) $21 \times 10\frac{1}{4} \times 8\frac{3}{16}$ ". Size: (speakers) $20 \times 10\frac{1}{4} \times 7\frac{7}{8}$ ". Shipping weight, 45 pounds.

96F958. NET	299.95
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Model 5800

3M COMPANY SCOTCH® BRAND VIDEO TAPE



351-1/2-1250 PR5T



351B-1-1880 VDRB



351-B1-1500 R73

Type 351. Designed for helical scan video tape recorders, longitudinally oriented tape. Offers an improved signal-to-noise ratio over previous longitudinally oriented tapes. Considerably improved in wear characteristics. "A" wind (oxide surface in), "B" wind (oxide surface out). 1/2 inch tapes are for Sony, Panasonic, Concord, Shibaden. 351-1880 is for Dage. 351B-1500 and 3000 are for Norelco. *VB-1-10 1/2 box is to be used when purchasing boxes (empty) for 1"x9" reel. **Dage recorder utilizes a conductive sensing device for programmed tape stops. Metallic tape cannot be used for splicing. No. 620 Scotch brand splicing tape is recommended.

Stock No.	Type	Type Wind	Reel Size	Reel Type	Reels Per Ctn.	Ctn. Wt.	1-9	10-24	25-49	50-up
76F300	351-1/2-1250-PRST	A		Plastic Self threading		5	21.95	20.85	20.19	19.76
76F301	351-1/2-2400-PRST	A	1/2"x7"		5		39.95	37.95	36.75	35.96
76F302	351B-1-1500-R73	B		Phenolic hub with flanges	2	9	44.95	42.70	41.35	40.46
76F303	351B-1-3000-R73	B	1"x9"		2	10	59.95	56.95	55.15	53.96
76F304	351-1-1880-VDRB	A	1"x7"	1/2		6	49.50	47.03	45.54	44.55

VIDEO TAPE ACCESSORIES

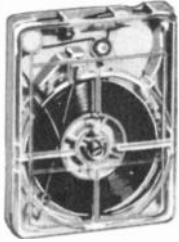
Stock No.	Type	Description	Size	Per Carton	1-5	6-up	1-9	10-up
76F320	PRST-1/2-7	Empty Video Reels	1/2"x7"	5				
76F321	VDRB-1-7	In Boxes	1"x7"	2	16.50	15.20	3.00	2.75
76F322	R73-1-9		1"x9"	2	6.03	5.53		
76F323	VB-1/2-7	Empty Video Boxes	1/2"x7"	5			1.65	1.50
76F324	VDB-1-7		1"x7"	2	1.53	1.38		
76F325	*VB-1-10 1/2		1"x10 1/2"	2	1.53	1.38		
76F326	VIC-1-10 1/2	Empty Plastic Case	1"x10 1/2"	5			4.73	4.50

Stock No.	Type	Description	Size	Per Carton	1-11	12-up
76F330	390-1/4-66	Aluminized Splicing Tape—5 Mil	1/4"x66"	12		3.25 2.93
76F331	390-1/2-66		1/2"x66"	12		4.87 4.38
76F332	391-1/4-66	Aluminized Splicing Tape—.25 Mil	1/4"x66"	12		3.25 2.93
76F333	391-1/2-66		1/2"x66"	12		4.87 4.38
76F334	620-1/2-66	**Splicing Tape	1/2"x66"	12		3.25 2.93
76F335	620-1/2-66		1/2"x66"	12		4.87 4.38

*Empty box for use with 1"x9" reels.

**Recommended for use with Dage recorder.

FIDELIPAC NAB TAPE CARTRIDGES BY CONLEY



Professional type cartridges manufactured for broadcast use. Made to NAB Specifications: Continuous self-contained single-reel tape magazine which operates on an endless loop principle. The tape is pulled from the center and after passing the playing or recording head is automatically rewound on the outside of the reel contained in the tape magazine. Extremely versatile; variable speeds. Lightweight styrene case. Transparent clear top. 3 tape head openings in models 1200 and 600, and two in model 300. Shpg. wt., 1.5 lbs.

Stk. No.	Type	Time @ 7 1/2 IPS	Length	1-95	96-499	500-999
76F200	3A25	40 sec.	25'	2.45	2.18	2.07
76F201	3A44	70 sec.	44'	2.57	2.28	2.15
76F202	3A63	100 sec.	63'	2.72	2.36	2.23
76F203	3A132	3 1/2 min.	132'	3.12	2.67	2.53
76F204	3A207	5 1/2 min.	207'	3.57	3.10	2.95
76F205	3A394	10 1/2 min.	394'	4.85	4.15	3.87
76F206	6B600	16 min.	600'	8.00	6.85	6.39
76F207	12CX1163	31 min.	1163'	13.20	11.35	10.60
76F208	3AA	empty		2.06	1.82	1.73
76F209	6BB	empty		3.43	3.00	2.84
76F210	12CCX	empty		4.85	4.25	4.02

AMERLINE TAPE CARTRIDGES



Professional type cartridges manufactured for broadcast use by tape reel specialist. Made to NAB specifications. Designed for continual operation. Amerline tape cartridges utilize the endless loop principle—the tape is pulled from the center and after passing the playing or recording head, is automatically rewound on the outside of the reel contained in the tape magazine. Clear plastic ribbed case for non-slip grip and convenience in handling. Snug tape lock and quality construction assures no loose turns and no warping. Rigid Delrin base.

Stk. No.	Type	Time @ 7 1/2 IPS	1-11	12-23	24-47	48-up
76F225	7257	Empty	1.89	1.70	1.64	1.59
76F226	8540	20 sec.	2.06	1.96	1.96	1.91
76F227	8726	30 sec.	2.11	2.01	2.01	1.96
76F228	8541	40 sec.	2.11	2.01	2.01	1.96
76F229	8542	60 sec.	2.17	2.07	2.01	1.96
76F230	8543	70 sec.	2.17	2.07	2.01	1.96
76F231	8544	90 sec.	2.22	2.12	2.07	2.01
76F232	8545	100 sec.	2.22	2.12	2.07	2.01
76F233	8546	2 1/2 min.	2.38	2.28	2.23	2.17
76F234	8547	3 min.	2.43	2.33	2.28	2.23
76F235	8548	3 1/2 min.	2.51	2.41	2.35	2.30
76F236	8549	5 min.	2.80	2.70	2.65	2.60
76F237	8550	5 1/2 min.	2.86	2.76	2.70	2.65

AMERLINE PLASTIC REELS

Stk. No.	Description	10 tor	100 for
76F215	3" Reel	.64	5.57
76F216	3 1/4" Reel	.90	7.89
76F217	4" Reel	1.28	11.13
76F218	5" Reel	1.70	14.84
76F219	7" Reel	2.02	17.62
76F220	7" Reel		
76F221	4" plastic hub.	2.96	25.97
76F222	5" Reel		
	3" plastic hub.	2.54	22.26
	10 1/2" Reel		
	NAB hub		
	fibreglass	15.48	135.45



Tape is splice-free. One continuous reel. 1/4" wide and thickness of .5 Mil., 1.0 Mil., 1.5 Mil. With Acetate or Mylar base for uniform output and lower noise level. 1.0 Mil. thick tape offers 50% more recording time. .5 Mil. offers 100% more, than 1.5 Mil. types.

NEWARK TAPE

Stk. No.	Mil.	Size	Reel	1-9	10-24	25-up
76F751	1.5 Mil†	1200'	7"	1.22	1.14	1.06
76F753	1.0 Mil†	1800'	7"	1.68	1.58	1.47
76F755	1.0*	1800'	7"	1.92	1.80	1.68
76F759	0.5*	2400'	7"	2.40	2.25	2.10
76F750	1.5 Mil†	600'	5"	.88	.83	.77
76F752	1.0 Mil†	900'	5"	1.15	1.08	1.01
76F754	1.0*	900'	5"	1.44	1.35	1.26
76F756	1.0*	225'	3"	.66	.62	.57
76F757	.5*	300'	3"	.82	.77	.72
76F758	.5*	600'	3 1/4"	1.44	1.35	1.20

JIFFY RECORDING ACCESSORIES

Type P-30 "Jiffy-Raze" Tape Eraser. Easily erases magnetic tape without rewinding noise. Place the Jiffy-Raze over the reel of tape, to be demagnetized and move it around while pressing the on-off switch. Also demagnetizes screwdrivers, pliers, etc. For 100-130 VAC 60 cycle. 4 1/4"D x 4 1/2"H. Shpg. wt., 4 1/2 lbs.

76F101. NET **21.17**
Jiffy Tape Splicer.
 76F100. NET **1.50**



ROBINS INDUSTRIES

GIBSON GIRL® TAPE SPLICERS

Tape guide and arms secure tape. Operating lever has control knob for precise "Cut" and "Trim" positions. Produces "Gibson Girl" waists at sides of splices during trim—prevents adhesive from splicing tape from contacting critical parts of recorder. Blades and cutter pad are replaceable. Precision blade centering adjustment is provided for lifetime accuracy.

- TS-500. 1/2" Splicer for SONY, CONCORD, etc. systems. **51.00**
- 76F090. NET
- TS-1000. 1" Splicer for AMPEX systems. **51.00**
- 76F091. NET
- RB-1. Replacement blades for splicers—Package of 12 blades. 2.00
- 76F092. NET
- TZ-500. Cutter pad for TS-500 splicer. 1.20
- 76F093. NET
- TZ-1000. Cutter pad for TS-1000 splicer. 1.20
- 76F094. NET

MAGNETIC BULK VIDEO AND AUDIO TAPE ERASERS

Reduces noise levels of tape 50-90 db below saturation minimum. Operation: 115 volt 50-60 cycles A.C. Safety features: Overheat indicator, individually fused circuits, heavy duty switches and power cord.

- Model TM-120. Has blower system for reels of tape up to 17" dia. Duty cycle: 10 min. On/10 min. Off. Size: 3 3/4" x 12" x 14". **99.00**
- 76F095. NET
- Model TM-100. (Not illust.) For reels up to 10 1/2" diam. Duty cycle 5 min. On/15 min. Off. Size: 3 3/4" x 6" x 8". **51.00**
- 76F096. NET

ROBINS M/M TAPE RECORDER HEADS

Replaces heads in 90% of tape recorders made in U.S. Shpg. wt. 6 oz.

R=Record P=Playback E=Eraser

Stock No.	Type	Description	Imped. (1 KC)	Audio Current (MA)	Bias Current (MA)	Bias Freq. (KC)	Fig. No.	Each	
76F005	3F20-301	2-tr. stereo R/P	2000	.043	1.0	62	11	19.20	
76F006	3FM20-304	2-tr. mono R/P	2000	.043	1.0	62	12	8.70	
76F007	3FM20-308	2-tr. mono R/P	2000	.043	1.0	62	12	8.70	
76F008	3L20-301	2-tr. mono R/P	2460	.03	1.25	50	6	6.60	
76F009	5QT17	4-tr. stereo R/P	3340	.020	.3	80	1	10.50	
76F010	5QT17-305	4-tr. stereo R/P	Same as 5QT17 except mtg. on opp. side					14	14.40
76F011	7B17	2-tr. stereo R/P	5150	.032	.7	80	5	9.90	
76F012	7L17	2-tr. mono R/P	5150	.023	1.0	80	6	6.60	
76F013	7L17-308	2-tr. mono R/P	Same as 7L17 except mtg. on opp. side					6	6.60
76F014	HRE-1	2-tr. mono R/P/E	1450	.05	1.5	50	14	13.20	

ERASE HEADS

Stock No.	Type	Description	Tape Speed (ips)	Imped. @ Erase Freq.	Erase Current (MA)	Induct. (Nom.) (MH)	Fig. No.	Each
76F015	SS1	2-tr. mono, erase	7.5	1750	17	5.0	2	4.80
76F016	SSS1	2-tr. mono, erase	7.5	1750	17	5.0	3	8.70
76F017	7EM12A	2-tr. mono, erase	7.5	2200	30	5.4	4	5.40
76F018	9QTE3	4-tr. stereo erase	7.5	2500	12.5	9.0	10	6.60

76F025. Robins Tape Head Replacement Guide **FREE**

REEVES SOUNDRAFT

MAGNA-SEE MAGNETIC TAPE VISUALIZER KIT

Lets you see the magnetic track recorded on your tape. Making the tape affords a fast, simple and accurate way to check for head alignment, track uniformity, balance and head wear. Kit contains: 1/2 pint Magna-See solution—Plastic Bath-Eye piece magnifier—roll of pressure sensitive tape—5 glass slides.

- 76F131. SFK. Magna-See kit for sound recordings. NET **7.20**
- 76F132. SRR. 1/2 pint replacement can of Magna-See. NET **2.25**
- 76F133. PRK. Magna-See kit for instrumentation and video recording. NET **7.20**
- 76F134. PRR. 1/2 pt. replacement can of Magna-See for above. NET **2.25**

EDITALL TAPE EDITING BLOCKS

Type S-3. Block only for splicing 1/4" tape. Has two mounting holes for operation on tape recorder "deck" or top panel as instant use aid. Has two deep-cut slits, one for straight splices and one for diagonal cuts. Made of machine duraluminum. Size: 5 3/4"x1 3/8". Shpg. wt., 3 oz.

76F103. NET **8.00**

Type S-2. For compact machines. Adhesive back. Without mtg. holes. Size: 4" x 3/4" x 1/4". Shpg. wt., 6 oz.

76F104. NET **6.50**

PLASTIC BLOCK-EDITING KIT

Type KP-2. Editing kit for 1/4" tape. A comprehensive instruction booklet comes with each kit to guide you in this simple operation of splicing tape for editing. Editabs join spliced tape easily, quickly. No splice overlap. Never pulls apart. No overflow gunk. The EDITab block is simply mounted by means of its adhesive backing or screws on or near your tape recorder. Kit includes the patented EDITall block, 30 EDITab splicing tapes, a demagnetized razor blade, instruction booklet, tape guide and grease pencil. 6 oz.

76F106. NET **3.50**

76F107. Package of 50 EDITabs. 5 oz. 1.50

TAPE ACCESSORIES

WALSCO KLEEN-TAPE HEAD CLEANER

Type 335. No need to remove head cover. New formula cleaner, impregnated in long-wearing, multiple cleaning tape does a thorough job. Use just like standard recording tapes. Cleans head quickly. Fits all tape recorders. Shipping weight, 4 oz.

76F185. NET **2.10**

COMPCO 7" TAPE STORAGE CAN

Model 1330. Cans are ribbed for stacking. 7/8" thick. Shpg. wt., 1 lb.

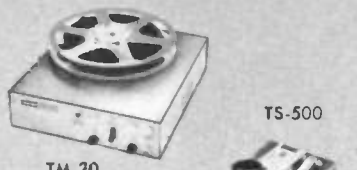
76F125. 1-5 Each **.45**

6-11 Each **.39** 12-up Each **.35**

TELEPHONE PICKUP COIL

High-impedance coil plugs into amplifier or tape recorder. With 6' cord and 1/4" phone plug. 5/2x9/4x3/4". Shpg. wt. 1 3/4 lb.

76F105. NET **5.88**



TS-500

TM-20



1



2



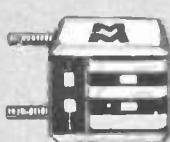
3



4



5



6



10



11



12



14



SFK



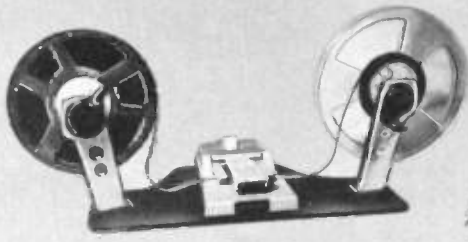
Storage Can

EDITING BLOCK



Telephone Pick-Up





TK-9



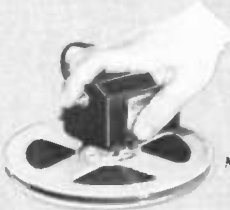
ME-99



E-15



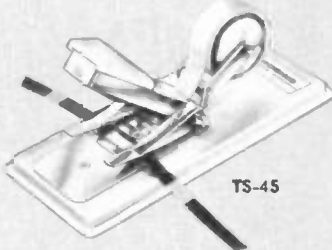
ME-77



ME-66



TS-8D



TS-4S



TK-8DLX



TK-6



NB-1

TAPE AND PHONO ACCESSORIES

BULK TAPE ERASER ME-99

Reduces background noise from 3 to 6 db below normal erase head level. For reels up to 10 1/2" D. x 1/2" W. Size: 5 1/4" x 3 3/4" x 6 3/4". Operation: 110-120V; 6 amps; 50-60 cy. A.C. U.L. listed. Wt. 8 1/2 lbs. **27.60**
76F075. NET

BULK TAPE ERASER ME-77

Lower priced version of the ME-99. Reduces background noise levels of tape from 2 to 4 db. below normal erase head level. Easy to use; tapes are demagnetized by rotation of reel on spindle. For 1/4" tape. Takes reels up to 7". Size: 2 3/8" x 3 3/4" x 8 1/4". 110-120V. AC. **15.90**
76F076. NET

HAND-HELD ERASER ME-66

Erases tapes by moving unit over each side of reel. Momentary contact switch located in the handle. For 1/4" tape, any dia. reel. Size: 4" x 2 1/2" x 4 1/4". Operation: 4 amps @ 110-120V. 50-60 cy. A.C. Wt. 2 lbs. 4 oz. **12.00**
76F077. NET

GIBSON GIRL "STEREO 4" DELUXE TAPE SPLICERS

TS-8D. "See-thru" windows indicate "Cut" and "Trim" positions. Tape guide and fingers secure tape. Easy threading integral tape dispenser has roll of 1/2x100" splicing tape. Made of super-strong "Implex". Trims "Gibson Girl" waists at edges of splices to prevent adhesive from contacting critical parts of recorder. With instructions. 1 lb. **7.65**
76F113. NET

Type RK-8. Replacement cutter cartridge and 2 cutter pads for TS-8D. **.90**
76F079. NET

TS-4S. Has most features of the TS-8D except no "See-thru" windows. Made of plated steel and plastic. Easy threading tape dispenser with roll of 3/8x100" splicing tape. Wt. 12 oz. **5.70**
76F112. NET

76F121. Type TK-4-STD. Accessory Kit. Has TS-4S splicer, labels, head cleaner, threader, cleaning cloth, clips. NET..... **8.10**

76F120. Type SP-4. Hand Splicer with alignment guide. **1.50**
50F129. Type TT-1. Tape Threader..... **.60**

TS-4J "STEREO 4" JUNIOR SPICER

Same as TS-4S, less tape dispenser and splicing tape. Uses 3/8" splicing tape. **4.35**
76F078. NET

Type RK-3. Replacement cutter cartridge and 2 cutter pads for TS-4S and TS-4J. **.90**
76F080. NET

SPLICING TAPE

Special formula Mylar. Tackiness, thickness, strength and cold flow carefully controlled.

Stk. No.	Type	Width	Length	NET
76F081	TST-235	1/4"	300"	.59
76F082	TST-376	3/8"	275"	
76F083	TST-501	1/2"	250"	
76F122	ST500	1/2"	100"	.30

"TAPE CLEAN" CLOTH TAPE

Type HC-5. S" reel of chemically treated cloth tape. Threaded like recording tape; cleans and lubricates tape heads and guides while being "played". **1.49**
76F084. NET

TAPE HEAD CLEANER AND LUBE KIT

Type TK-6. Includes: 2 oz. bottle of head cleaner and 2 oz. bottle of tape head and guide lubricant with applicator caps. Tape moves freely across heads and guides. **1.14**
76F123. NET

HEAD DEMAGNETIZER

Type HD-6. Maintains the high performance of a tape-recorder by removing the residual magnetism that accumulates on tape heads. Magnetized heads raise the recorder's noise level; demagnetizes heads for optimum signal to noise ratio. Size: 4 5/8 x 1 1/2 D. 110 V. 60 cy. A.C., U.L. approved. Wt. 1 lb. **6.00**
76F085 NET

TAPE EDITING WORKSHOP

Type TK-9. For easy editing, splicing, repairing, and combining of recording tapes on reels. Consists of two Tape Winders and "Stereo 4" Deluxe Tape Splicer which attaches to a sturdy warp-proof base. Handles all reels up to 7". Splicer has integral easy threading tape dispenser complete with roll of 1/2"x100" splicing tape. Size: 7"x14"x5 1/2"H. Wt., 2 lb. **14.40**
76F086. NET

PROFESSIONAL TAPE ACCESSORY KIT

Type AVK-1. Complete tape accessory kit for everyday maintenance and operating needs. Contains: TS-8D "Stereo 4" Deluxe Tape Splicer; 6 rolls of 1/2" Splicing Tape; ME-99 U.L. listed Magnetic Bulk Tape Eraser; HD-6 U.L. listed Head Demagnetizer; Tape Threader; Tape Jockey Cloth; 24 Tape Clips; 150 Title Labels; Tape Strobe and Light kit to check recorder speed; Tape Head Cleaner and Lubricant. **46.80**
76F087. NET

DELUXE TAPE ACCESSORY KIT

Type TK-8DLX. Complete tape accessory kit containing: TS-8D Tape Splicer; 1/2" Splicing Tape; Tape Threader; Head Cleaner; Head and Guide Lubricant; Tape Jockey Cloth; Tape Clips; Reel Title Labels; Reel Holders; and Tape Editing and Splicing Guide Book. Wt. 1 1/2 lbs. **10.05**
76F088. NET

ROBINS PHONO AIDS

Phono Turntable Pads. Thick foam turntable mat cushions records, helps prevent static electricity charge. Wt., 8 oz.

76F115. PC-10. 10". NET..... **.59**

76F116. PC-12. 12". NET..... **.59**

Phono Changer Covers. Transparent.

76F117. CC-1. 13"x13 1/2"x8". **1.17**

76F118. CC-2. 13 1/2"x15"x8". **1.17**

76F119. CC-3. Turntable cover, Size: 22x16 1/2x9". **1.50**

"KLEENEEDLE" BRUSH

Type NB-1. Automatically removes dust and lint from the phonograph stylus as it passes over it during the cycle. Mounts on changer deck; has an adhesive pad for easy mounting. **.59**
76F114. NET

PROTECTIVE DIS-CLOSURES

Type E-15. Round bottom polyethylene plastic protective sleeves for 12" records. Prevents scratching, seals out dust and moisture. Pkg. of 15. **.59**
76F089. NET

TYPE 175 HEAVY DUTY TENZAR—1.5 MIL

For applications requiring frequent repeat, fast starts and stop. New heavy duty coating. Lasts 15 times longer than ordinary tapes. Improved conductivity drains off static. Non-drying. On clear plastic reels.

Stk. No.	Type	Len.	Reel	1-11	12-up
76F708	175-6	600'	5" Plastic	1.57	1.41
76F709	175-12	1,200'	7" Plastic	2.45	2.20
76F741	175-25RPS	2,500'	10½" Plastic—EIA	7.33	6.60

SUPER RUGGED TYPE 282 "SANDWICH"—1.5 MIL

Ideal for use in the language labs and audio-visual centers. Features protective, micro-thin plastic shield over oxide coating which eliminates rub-off, wears up to 30 times longer. Polyester backing insures strength and resistance to temperature and humidity changes. On clear plastic reels.

76F-11	282-6	600'	5" Plastic	2.03	1.82
76F712	282-12	1,200'	7" Plastic	3.23	2.91

TYPE 111 1.5 MIL PLASTIC

The acknowledged standard in the recording field. Famous for flawless sound reproduction at lowest possible cost.

Stock No.	Type No.	Size	Reel	1-11 Ea.	12-up Ea.
76F628	111-1.5	150 ft.	3" Plastic	.46	.41
76F625	111-3	300 ft.	4" Plastic	.90	.81
76F627	111-6	600 ft.	5" Plastic	1.47	1.32
76F626	111-12	1200 ft.	7" Plastic	2.29	2.06

Stock No.	Type	Size	Reel	1-11 Ea.	12-up Ea.
76F629	111-25H	2500'	NAB Hub	5.13	4.62
76F633	111-25RO	2500'	10½" Alum.-NAB	7.06	6.35
76F639	111-25RPS	2500'	10½" Plastic-EIA	7.06	6.35

TYPE 153-16 1 MIL POLYESTER TAPE

Single coated, with external lubrication on backing side only. High potency oxide coating on 1 mil polyester backing. Available in size ¼" x 1600' on 7" plastic reels. Designed for continuous loop cartridges. Shpg. wt. 1½ lbs.

76F728, 1-11	3.79	12-up	3.45
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TYPE 190 EXTRA LENGTH 1 MIL PLASTIC TAPE

Tape that gives you 50% more recording time from a conventional size reel with complete purity of sound, thanks to super-sensitive high potency oxide. Acetate base for economy.

Stk. No.	Type	Len.	Reel	1-11	12-up
76F682	190-9	900'	5" Plastic	2.29	2.06
76F683	190-18	1800'	7" Plastic	3.59	3.23
76F684	190-36H	3600'	NAB Hub	6.44	5.79
76F685	190-36RO	3600'	10½" Alum.-NAB	8.36	7.53

TYPE 150 EXTRA LENGTH 1 MIL POLYESTER TAPE

Made with tough durable polyester backing, this tape is "weather balanced." It offers 50% more recording time.

76F686	150-9	900'	5" Plastic	2.35	2.12
76F687	150-18	1800'	7" Plastic	4.05	3.65
76F688	150-36H	3600'	NAB Hub	7.45	6.70
76F689	150-36RO	3600'	10½" Alum.-NAB	9.38	8.44

TYPE 200 DOUBLE LENGTH .5 MIL TENSILIZED POLYESTER

Plays twice as long as standard tape . . . Don't pamper it! Invisible polyester "muscles," conditioned by exclusive tensilized process, make it extra tough.

Stock No.	Type	Size	Reel	1-11 Ea.	12-up Ea.
76F707	200-12	1200'	5"	3.56	3.20
76F701	200-24	2400'	7"	6.20	5.59

TYPE 120 HIGH OUTPUT 1.5 MIL PLASTIC

Magnetic tape with .65 mil coating of high output oxide on 1.5 cellulose acetate backing. Capable of recording a lower than normal input with equal volume and no distortion.

76F640	120-6	600'	5" Plastic	1.47	1.32
76F641	120-12	1200'	7" Plastic	2.29	2.06

TYPE 131 LOW PRINT 1.5 MIL PLASTIC

First tape to reduce print-through to a point below noise level on even the most critical professional machines.

76F703	120-6	1200'	10½" Alum.-NAB	2.87	2.59
76F705	120-12	2400'	7" Plastic	7.98	7.17

NEW DYNARANGE SERIES TAPES

These tapes offer wider frequency response and improved signal.

Type 201—1½ mil plastic base.

Type 202—Extra strength 1½ Mil polyester base.

Type 203—Extra length, extra strength 1 Mil polyester base.

Stock No.	Type	Size	Reel	1-11	12-up
76F674	201-¼-600	¼" x 600'	5"	1.83	1.65
76F735	201-¼-1200	¼" x 1200'	7"	2.87	2.59
76F736	201-¼-2500RO	¼" x 2500'	10½"	7.98	7.17
76F678	202-¼-600	¼" x 600'	5"	1.86	1.68
76F679	202-¼-1200	¼" x 1200'	7"	3.33	3.00
76F680	202-¼-2500RO	¼" x 2500'	10½"	9.08	8.17
76F675	203-¼-900	¼" x 900'	5"	2.77	2.50
76F737	203-¼-1800	¼" x 1800'	7"	4.80	4.32
76F738	203-¼-3600RO	¼" x 3600'	10½"	11.20	10.08



RECORDING TAPE, ACCESSORIES

Exclusive! All tapes feature built-in lifetime Silicone lubrication to protect recorder heads against wear and extend tape life. Free in each box: "End-of-reel" TAPE CLIP to prevent spilling.

TYPE 290 TRIPLE LENGTH—5 MIL TENSILIZED POLYESTER TAPE
For maximum recording time on given size reel. Ideal for use with portable transistorized recorders and for recording meetings, conventions, etc.

Stk. No.	Type	Len.	Reel	1-11	12-up
76F731	290-18	1800'	5" Plastic	4.54	4.09
76F729	290-36	3600'	7" Plastic	7.81	7.03

LIVING LETTERS IN PLASTIC MAILING BOXES

Just write in address, apply postage and mail.

Stock No.	Type	Description	Size	1-11	12-up
76F732	111-¼-150LL	1.5 Mil Plastic	¼" x 150'	.59	.59
76F733	200-¼-300LL	.5 Mil Polyester	¼" x 300'	1.21	1.09
76F734	290-¼-600LL	.5 Mil Polyester	¼" x 600'	1.93	1.73

ADDRESS LABELS FOR "LIVING LETTERS"

Extra address labels for use with above mailing—boxed tape, 10 per package.
76F742, Per pkg. of 1032
Lots of 12 pkgs. (per pkg.)28

QUICK LOAD CARTRIDGE

No. 8000. For cartridge tape recorders. Contains 500 ft. of tape.
76F706, NET EACH (Lots of 1-11)294
Lots of 12 or more EACH285
No. 271. Tape cartridge for Wollensak model 4100 and similar recorders.
76F649, 1-11263 Ea. 12-Up237 Ea.

TYPE 24 LEADER AND TIMING TAPE

¼" wide by 100 feet long in dispenser package.

Stk. No.	Type	Color	1-11	12-up
76F713	24-1W	White	.59	.53
76F717	24-1Y	Yellow		

TYPE 41 SPLICING TAPE

Coated one side with non-run pressure sensitive adhesive. ¼x 150" in metal dispenser.

Stk. No.	Type	Size	1-11	12-up
76F650	41-½S*	½x50"	.38	.34
76F652	41-½L	½x66"	.74	.67
76F653	41-¾L	¾x66"	.99	.89
76F656	41-¾L	¾x66"	.56	.50

TYPE 51 ALUMINIZED SENSING TAPE

For recorders with automatic "stop" and "reverse" controls. Has pressure sensitive, non-run adhesive on one side—foil on other.

76F718	51-¾S	¾"x150"	1.85	1.67
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EMPTY SELF-THREADING REEL WITH COLLAR AND LABELS

Permits instant threading. Holds tape firmly. Threads all tape thicknesses. Snap-tight plastic collar. Solid slides.
76F730, Type PRST-7, Net. 1-1198 Ea. 12-up88 Ea.

EMPTY REELS IN BOXES

Supplied with index box. *In plastic mailing box.

Stock No.	Type	Reel Dia.	Reel	1-11 Ea.	12-up
76F700	RB-14M	14"	Aluminum-NAB	5.68	5.12
76F667	RB-10½M	10½"	Aluminum-NAB	2.94	2.65
76F669	RB-10½RPS	10½"	Plastic-opaque	2.94	2.65
76F660	RB-7	7"	Plastic	.49	.44
76F661	RB-5	5"	Plastic	.43	.38
76F663	RB-4	4"	Plastic	.36	.33
76F739	RL-¼-3"	3"	Plastic	.39	.35
76F662	RB-3	3"	Plastic	.17	.15

EMPTY BOXES FOR TAPE REELS

Stock No.	Type	Description	1-11 Ea.	12-up
76F740	LL-¼-3	3" Plastic Mailing Box	29c	26c
76F695	B-5	5" Hinged Box	13c	12c
76F696	B-7	7" Hinged Box	13c	12c
76F698	B-10½	10½" Hinged Box	49c	44c

END-OF-REEL TAPE CLIPS FOR ¼" WIDE TAPE

Clip securely to tape, prevents spilling or tangling in handling, storage and mailing.
76F710, Per pkg. of 1023 Lots of 12 pkgs. (per pkg.)21



AUDIOTAPE SOUND RECORDING TAPE

Finest professional-quality recording tape obtainable — with maximum fidelity, uniform frequency response and freedom from noise and distortion.

MASTER AUDIOTAPE 1.5 MIL ACETATE

Stk. No.	Type	Length	Reel	1-9. Ea.	10 up. Ea.
76F552	1915-6	600'	5" Plastic	1.79	1.62
76F553	1915-12	1200'	7" Plastic	2.60	2.53

Stk. No.	Type	Length	Reel	1-4. Ea.	5 up. Ea.
76F555	1915-25R	2500'	10½" Aluminum	7.98	7.17

MASTER AUDIOTAPE 1.5 MIL MYLAR**

Stk. No.	Type	Length	Reel	1-9. Ea.	10 up. Ea.
76F557	1935-6	600'	5" Plastic	2.09	1.88
76F558	1935-12	1200'	7" Plastic	3.33	3.00

Stk. No.	Type	Length	Reel	1-4. Ea.	5 up. Ea.
76F560	1935-25R	2500'	10½" Aluminum	8.82	7.94

SUPER THIN AUDIOTAPE—TEMPERED .5 MIL MYLAR**

Stk. No.	Type	Length	Reel	1-9	10-up
76F538	1042-3	300'	3" Plastic	1.05	.94
76F539	1042-12	1200'	5" Plastic	3.56	3.20
76F540	1042-24	2400'	7" Plastic	6.20	5.59
76F541	1042-48R	4800'	10½" Aluminum	14.38	12.94
76F542	1042-48FS	4800'	10½" Fiberglass*	14.38	12.94

*Fiberglass reel with solid hub and ⅝" center hole.

SUPER THIN AUDIOTAPE—.5 MIL MYLAR**

Stk. No.	Type	Length	Reel	1-9. Ea.	10 up. Ea.
76F569	1032-12	1200'	5" Plastic	2.29	2.06
76F570	1032-24	2400'	7" Plastic	4.24	3.82

Triple Recording Tape—Tempered .5 Mylar**

Stk. No.	Type	Length	Reel	1-9	10-up
76F545	1142-6	600'	3¼" Plastic	1.93	1.73
76F546	1142-18	1800'	5" Plastic	4.55	4.09
76F547	1142-36	3600'	7" Plastic	7.81	7.03

AUDIO RECORDING HEAD CLEANER

Type 2HC. For cleaning recording heads on tape recorders to insure perfect contact. Two ounce bottle with applicator brush. 76F534. 1-9. Ea. .66c 10 and up. Ea. .59c

EMPTY AUDIOTAPE BOXES

Stk. No.	Type	Size	1-9. Ea.	10 up. Ea.
76F571	5B	For 5" Reel	.13	.12
76F572	7B	For 7" Reel	.13	.12

LR (Longer Recording) 1. Mil Mylar**

For professional quality recording. "A" tape on 1 mil "Mylar" polyester film base. Immune to temperature (-50 to +150° C.), impervious to moisture, unbreakable. Tensile strength, 25,000 psi. 50% more recording time.

Stock No.	Type	Length	Reel	1-9. Ea.	10 up. Ea.
76F537	1034-2.25	225 ft.	3" Plastic	.66	.59
76F573	1034-9	900 ft.	5" Plastic	2.35	2.12
76F574	1034-18	1800 ft.	7" Plastic	4.05	3.65

Stock No.	Type	Length	Reel	1-4. Ea.	5 up. Ea.
76F576	1034-36R	3600 ft.	10½" Aluminum	9.38	8.44

**DuPont Polyester film

AUDIODISC BLANKS

The smooth surface of Audiocdiscs and the uniformity of the easy-cutting surface make these the finest blanks available.

Red Label Discs. For professional recording everywhere. Aluminum base, double sided. 1½" ctr. hole. Av. wt., 16 oz.

No.	Size	Thick	Each	Pkg. 25
77F048*	7"	.050"	1.61	36.50
77F001	10"	.040"	1.53	34.75
77F002	12"	.050"	3.27	74.25

Blue Label Discs. Fine performance, to please the professional or amateur. Aluminum base, double sided. Av. wt., 16 oz.

No.	Size	Thick	Each	Pkg. 50
77F031	6½"	.030"	.56	25.50

Yellow Label Discs. For commercial recording studios. Aluminum base, double sided. Av. wt., 16 oz. *Indicates 1½" center hole.

No.	Size	Thick	Each	Pkg. 25
77F009*	7"	.050"	1.46	33.25
77F010	8"	.040"	1.10	25.00
77F011	10"	.040"	1.32	30.00
77F012	12"	.050"	2.78	63.25

Depend on Newark for

Everything in Industrial Electronics

- OEM Prices
- Complete Stock
- Best Services

AUDIOTAPE RECORDING TAPE

FORMULA 15 AUDIOTAPE

- Extremely Low Noise
- Matchless Performance
- On 1½ Mil Plastic Base

Excellent low noise tape which provides a high signal to noise ratio and drastically lowers the hiss level without sacrificing other properties which are needed for critical professional recording. Gives matchless performance and consistent uniform quality with maximum fidelity and uniformity as well as freedom from distortion. On 1½ mil Plastic Base.

Stk. No.	Type	Lgth.	Reel	1-9	10 up
76F531	1515-12	1200'	7" Plastic	2.80	2.53
76F532	1515-25H	2500'	NARTB Hub	6.05	5.44
76F533	1515-25R	2500'	10½" Aluminum	7.98	7.17

Red Oxide Coating—Professional—1.5 Mil Acetate

Stock No.	Type	Length	Reel	1-9. Ea.	10 up. Ea.
76F615	1015-1.5	150 ft.	3" Plastic	.46	.41
76F613	1015-3	300 ft.	4" Plastic	.88	.78
76F606	1015-6	600 ft.	5" Plastic	1.47	1.32
76F597	1015-12	1200 ft.	7" Plastic	2.29	2.08

Stock No.	Type	Length	Reel	1-4. Ea.	5 up. Ea.
76F619	1015-25H	2500 ft.	NARTB Hub	5.13	4.62
76F604	1015-25R	2500 ft.	10½" Alum.	7.06	6.35

LR (Longer Recording) 1.0 Mil Acetate

Stock No.	Type	Length	Reel	1-9. Ea.	10 up. Ea.
76F544	1014-18	1800 ft.	7" Plastic	3.60	3.23

MAILING BOXES

Stk. No.	Type	Size	1-9. Ea.	10 up. Ea.
76F595	5M	5"	.10	.09
76F596	7M	7"	.13	.12

Model 400 Tape Head Demagnetizer. Electro magnet assembly with extended pole pieces for removing magnetism. 76F592. NET. 5.88

Type 200 Head Aligning Tape. Recorded at 2000, 10,000 and 15,000 cps. at 15" per second. 300' length on 4" reel. 8 oz. 76F591. NET. 5.88

Self-Timing Leader Tape. Made of white Mylar. Box of 100 ft

Stock No.	Type	1-9 Each	10-up Each
76F593	3L	.36	.32

Self-Adhesive Labels. For reel identification. 2"x½". 30 per pkg.

Stock No.	Type	1-9 Each	10-up Each
76F594	30AL	.13	.12

EMPTY 7" REELS IN BOXES—2¼" HUB—COLORED

Stk. No.	Type	Color	1-9. Ea.	10 up. Ea.
76F577	7PB	Clear	.49	.44
76F586	7PBR	Red	.49	.44
76F587	7PBB	Blue	.49	.44
76F588	7PBG	Green	.49	.44
76F589	7PBY	Yellow	.49	.44

Empty 3¼" Reel. In box

Stock No.	Type	1-4 Each	5-up Each
86F590	10FS	2.62	2.35

Empty 10½" Fiberglass Reel. In box

Stock No.	Type	1-9 Each	10-up Each
76F536	3.25PB	.26	.24

AUDIOPPOINTS

Type 14. Dural shank needle with 87° angle. Polished sapphire tip. Designed for standard recording. Wt., 1 oz. SIF450. Short shank. SIF464. Long shank. 4.85

NET EACH

Type 20. Dural shank 87° angle needle. Sapphire tip. For professional recorders. Microgroove only. Wt., 1 oz. SIF463. Short shank. SIF462. Long shank. 4.85

NET EACH

Type 202. Short brass shank with polished sapphire tip. For professional or home recorders. Standard only. 1 oz. SIF452. NET EACH 3.88

Type 34. Short brass shank with stellite cutting point. Cuts accurate groove. 1 oz. For professional or home recorders. SIF454. NET EACH 1.47

Garrard



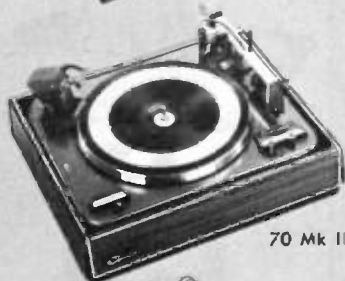
40 Mk II



50 Mk II



60 Mk II



70 Mk II



LAB 80 Mk II



SP20

● NEW 40 Mk II AUTOMATIC TURNTABLE

Features oversized turntable & counterweighted tone arm (with safety catch & finger lift). Automatic intermix operation. Dupont Delrin "frictionless" trip mechanism. Garrard 4-pole shaded "Induction Surge" motor. Handsomely styled unitized control panel with separate positions for manual and automatic play. Portable and lightweight. Less cartridge. Shpg. wt: 11 lbs.

73F725. NET **44.50**

● NEW 50 Mk II AUTOMATIC TURNTABLE

Excitingly new and different, this unit features a lightweight tubular arm with resiliently mounted non-adjustable counterweight. Unlike other models, the stylus pressure of the 50 Mk II is easily set by moving a pointer on the side of the arm. Once pressure is set with use of stylus pressure gauge, marking (1 gram intervals) on arm are used as guide. Longer markings indicate increased pressure. Most dramatic feature is the manual cueing and pause device which permits the placing of tone arm on a record in any position by use of cueing lever. Device also acts as a pause mechanism. Lift cueing lever and arm stays above record as long as desired. When lowered, playing cycle continues right where it left off. Tone arm safety catch, automatic intermix operation, sensitive trip with Dupont Delrin, and motor are similar to the features of the 40 Mk II. 4-speed. With line cord, 2 audio cables, plug-in shell (less cartridge). Shpg. wt: 11 lbs.

73F726. NET **54.50**

● NEW 60 Mk II AUTOMATIC TURNTABLE

With turntable mat and large trim ring, the 60 Mk II features new resiliently mounted counterweight for minimal rumble and resonance. New stylus pressure adjustment incorporates knurled camera type dial for easy, accurate setting of tracking force. Includes new manual cueing and pause device. Also features tubular and dynamically-balanced counterweight-adjusted tone arm. Tubular overarm. Needle pivots for arm bearings. Tone arm safety catch. Special double shielded 4-pole shaded motor. Automatic intermix operation. Supersensitive trip. DuPont Delrin offsets friction. Less cartridge. Shpg. wt: 14 lbs.

73F727. NET **74.50**

● NEW 70 Mk II AUTOMATIC TURNTABLE

4-speed automatic turntable features dynamically balanced counterweighted tone arm and full sized weighted turntable. Flat silhouette and low center of gravity (tone arm). Audible/visible 1/4 gram click settings on stylus pressure gauge built into tone arm. Adjustable anti-skating control. Needle pivots for tone arm bearings. Double shielded 4-pole shaded motor. Ultra-sensitive trip. Exclusive pusher platform for automatic play when desired. With line cord, 2 audio cables, plug-in shell (less cartridge), std. and manual spindles, and manual 45 rpm adaptor. Shpg. wt: 19 lbs.

73F728. NET **84.50**

● NEW LAB 80 Mk II AUTOMATIC TURNTABLE

Incorporates all latest engineering & production advances. Has newly styled, raised easy-to-read control center with fluted tab operating levers. New turntable mat features deep rings at 12", 10", and 7" positions for stylus safety. Also includes an integrated cueing device, which, unlike other models, is hydraulically controlled. Activation of device is integrated with manual start lever. New anti-skating compensator has accurate half-gram increment markings. A special adaptor placed over the automatic spindle makes it possible to repeat records as often as desired. Further features include the dynamically balanced, counterweight adjusted tone arm of Afrormosia wood. Calibrated stylus pressure scale with click settings. Automatic play, when desired, with revolutionary pusher spindle DuPont Delrin trip mechanism with magnetic repulsion. 12" balanced anti-mag. turntable with anti-static turntable mat. 4-pole motor. With line cord, 2 audio cables, plug-in shell (less cartridge), std. and manual spindles, manual 45 rpm adaptor. Shpg. wt: 20 lbs.

73F729. NET **99.50**

● NEW SP20 MANUAL TURNTABLE

4-speed manual turntable for single record. Semi-counterbalanced arm with adjustable stylus pressure. Full size weighted turntable. Trip of Dupont Delrin. Track as light as 2 grams. Automatic return of arm to rest, and shutoff after play. Interchangeable plug-in head, for any cartridge. With line cord, 2 audio cables, plug-in shell (less cartridge). Shpg. wt: 11 lbs.

73F730. NET **37.50**

ACCESSORIES

Stk. No.	Type	Description	Net
73F731	CB8	Base for 70 series and Type A (Also 88 series)	5.50
73F732	CB9	Base for Lab 80 series.	5.50
73F733	CB10	Base for 60, 50, 40, 20 series. (Also AT6, Autoslim)	4.50
73F734	DC89	Dust cover for Lab 80, 70, Type A. (also 88 series)	5.50
73F735	DC10	Dust cover for 60, 50, 40, 20. (Also AT6, Autoslim)	4.50
73F722	M88	Mounting board for 70 and Type A. Also 88 series)	2.25
73F785	M89	Mounting board for Lab 80 series.	2.25
73F768	MB10	Mounting board for 60, 50, 40, 20. (Also AT6, Autoslim)	2.25
73F713	LRS3	45 RPM spindle for 70 and Type A. (Also 88 series)	5.95
73F780	LRS9	45 RPM spindle for Lab 80 series	5.95
73F736	LRS20	45 RPM spindle for 60, 50, 40. (Also AT6, Autoslim)	3.80
73F737	M8	Extra plug-in shell for Lab 80 and 70 series.	2.50
73F738	M7	Extra plug-in shell for 60, 50, 40, 20 series.	1.75
73F771	SPG3	Pressure gauge for all models.	2.95

* SPECIAL OFFER — GET A CARTRIDGE FOR A PENNY!

For models 40 and 50: choose between a Shure M7/N21D (50F524), Electrovoice 149DF(50F724) or G.E. VR-1000-7(50F200). For models 60, 70, and Lab80; choose any of above or Shure M44E elliptical (50F539) and pay only one cent more than the price of the Garrard unit selected. How to order show stock numbers of the Garrard unit and cartridge selected on separate lines, bracket the two items and show a combined price of one cent more than the price of the Garrard unit selected. *Model SP20 not included in this offer.

EXAMPLE: 1-73F727 Garrard 60 MkII turntable } 74.51
1-50F539 Shure M44E cartridge.

See SHURE Cartridge page in index for GARD-A-MATIC® cartridge assemblies designed for Garrard Turntables.

G.E. CARTRIDGES AND REPLACEMENT STYLI

VR11 VARIABLE RELUCTANCE CARTRIDGE WITH CLIP-IN-TIP STYLI

Features: 4 gram pressure. "Slim" look. Independently replaceable Clip-in-Tip stylus. Famous G.E. precision ground diamonds and sapphires. Reduced record wear. Improved tracking ability. Electrostatic Shielding. Plug-in terminals. Unaffected by temperature or moisture. Mu metal shielding and special anti-hum coils. No unwanted signals generated by vertical motion. Available in single and triple play models. SPECIFICATIONS: Frequency Response: 20 to 20,000 cps. Tracking Pressure: Professional type tone arm 4 grams. Record Changers—6-8 grams. Equalization: 6.2K for RIAA. Output: 22 MV Nominal at 10 cm/sec. Compliance: 1.7x10.6 CM/dyne. Mounting: Either 1/2" standard or 7/16". Terminals: Plug-in design.

VR11 CARTRIDGES Triple Play Cartridges

Stk. No.	Model	Styli	NET
50F208	4G-050	1 1/2 Mil Sapp.	6.99
50F227	4G-052	1 Mil Dia-3 Mil Sapp.	9.15
50F230	4G-053	1 1/2 Mil Dia.	10.77

Single Play Cartridges

50F212	4G-040	3 Mil Sapp.	5.37
50F211	4G-041	1 Mil Sapp.	5.37
50F232	4G-063	3 Mil Dia.	7.53
50F231	4G-061	1 Mil Dia.	7.53

NEW VR11 CLIP-IN-TIP STYLI

50F397	4G-01S	1 Mil	1.44
50F399	4G-03S	3 Mil Sapphire	1.44
50F3401	4G-01D	1 Mil Diamond	3.75

LOW IMPEDANCE CARTRIDGES

Designed for use with broadcast and studio equipment with low impedance inputs. Styli can be easily replaced. *Dual stylus low impedance cartridges.

Stk. No.	Type	Stylus	NET
50F178	4GS-02D	.0025 Diamond	7.53
50F179	4GS-01D	.001 Diamond	7.53
50F186*	4GD-01D-02D	.001 Diamond .0025 Diamond	10.77
50F192*	4GD-01S-02S	.001 Sapphire .0025 Sapphire	6.99

PHONO ACCESSORIES

G.E. DUAL-FUNCTION PREAMPLIFIER

Model UPX-003C. Use with phonograph or microphone. Completely self-contained, has two position Phono-Microphone switch. Uses two stages of triode amplification with a double triode special low noise/low microphonics 7025 tube. Provides RIAA compensation on "Phono", completely flat response 30-15,000 cps on "Mike". Also serves as a flat voltage preamplifier in "Mike" position for PA or tape recording applications. Power Rating: 105-125 volts AC, 50-60 cycles, 4 watts at 115 volts. Gain: 33 decibels at 1000 cycles. Output Impedance: at 30 cycles—120,000 ohms, at 15,000 cycles—1,700 ohms. Dimensions: 3 3/8" wide x 3 3/8" long x 3 3/8" high. Shpg. wt. 1/2 lb.

50F206. NET **10.77**

MISCELLANEOUS PHONO ACCESSORIES

ASTATIC PHONOGRAPH PICKUPS

Model KR-314T. Pickup. High output turn-over cartridge. For self-replacement and direct replacement where ruggedness at low cost is required. Usable on phono with low clearance in lid. Includes mtg hardware and arm rest. Wt., 8 oz.

50F314. NET **4.09**

Model 8-D. Easy, all-speed replacement for Webcor changers 246, 255, 256, 262, 264, 3A6, 355, 357, 363, 364. Turnover cartridge 40-TB. Shpg. wt. 8 oz.

50F302. NET **8.63**

G. E. REPLACEMENT STYLI

For any type "A" cartridge or stylus assembly.

Stk. No.	Type	Stylus	NET
50F180	RPJ01D	.001 Diamond	3.75
50F181	RPJ02D	.0025 Diamond	3.75
50F182	RPJ03D	.003 Diamond	3.75
50F183	RPJ01S	.001 Sapphire	1.44
50F184	RPJ02S	.0025 Sapphire	1.44
50F185	RPJ03S	.003 Sapphire	1.44

50F193. ST-7D. .0007 Diamond stylus for GC-7, GL-7. NET **4.38**

50F194. ST-7S. .0007 Sapphire stylus for GC-7, CL-7. NET **1.88**

Single stylus and assembly for former RPX-040, 041, 061, 063, and 046.

Stk. No.	Type	Stylus	NET
50F220	RPJ001	.003 Sapphire	1.44
50F222	RPJ002	.0025 Diamond	3.75
50F221	RPJ004	.001 Diamond	3.75
50F218	RPJ005	.001 Sapphire	1.44

For Dual stylus. Incorporates individual replaceable stylus elements. Fits both former and RPX type, but not VR11.

Stk. No.	Type	Stylus	NET
50F215	RPJ010A	.001 Sapphire .003 Sapphire	3.12
50F217	RPJ012A	.001 Diamond .003 Diamond	7.53
50F224	RPJ013A	.001 Diamond .003 Sapphire	4.38

VR-1000 STEREO CARTRIDGES

VR-1000-7. .7 Mil diamond stereo cartridge. Recommended tracking force: 3-7 grams. Frequency response—20-20,000 cycles. Load resistance—47 K ohms. Output: 1 millivolt per cm/sec. Resistance: 1100 ohms. 1/2" mounting ctrs.

50F200 **10.49**

VR-1000-5. Same as 1000-7, except .5 Mil Recommended tracking force is 1-3 grams. 50F201. NET **12.59**

NEW VR1000-3 ELLIPTICAL CARTRIDGE

50F202. DR-7D. .7 mil. diamond. NET **6.27**

50F203. DR-5D. .5 mil. diamond. NET **6.53**

NEW VR1000-3 ELLIPTICAL CARTRIDGE

Stereo cartridge prevents loss of higher harmonics. Features revolutionary suspension and damping systems. 15° tracking angle eliminates distortion. Tracking force: 3-7 grams. Frequency response: 20-20,000+cycles per sec. ±2 db. 1100 ohms per channel resistance. Output: 1 millivolt per cm/sec. minimum. 1/2" mtz. centers. Used DR-3D stylus.

50F343. NET **18.75**

NEW DR-3D STYLUS

Bi-radial and elliptical, combined with VR1000-3 cartridge, provides purest reproduction. Eliminates "bottoming."

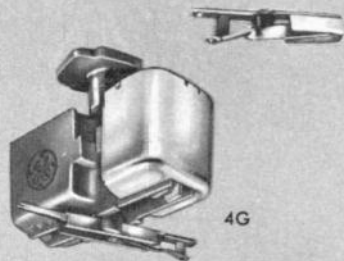
50F344. NET **12.00**

VR-22 REPLACEMENT STYLI

Replacement styli for former G.E. models VR-225 and VR-227. VR-221 for VR-225 cartridge and VR-222 for VR-227 cartridge. Minimizes tracking distortion and improves frequency response and channel separation.

50F335. VR-221. .0005 diamond. NET **5.01**

50F336. VR-222. .0007 diamond. NET **4.38**



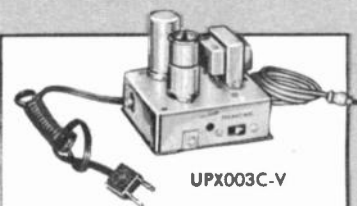
RPJ Dual stylus.



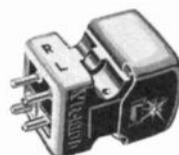
RPJ Single stylus



VR1000



UPX003C-V



VR1000-3-W



Phono Drawer Slides



Stoti-Clean

- Stops dust attraction
- Longer record life

WALCO STATI-CLEAN

All-around protection and assurance of longer record life. Stops dust attraction cuts needle noise. Spray on. 1 lb.

51F588. NET **8.88**

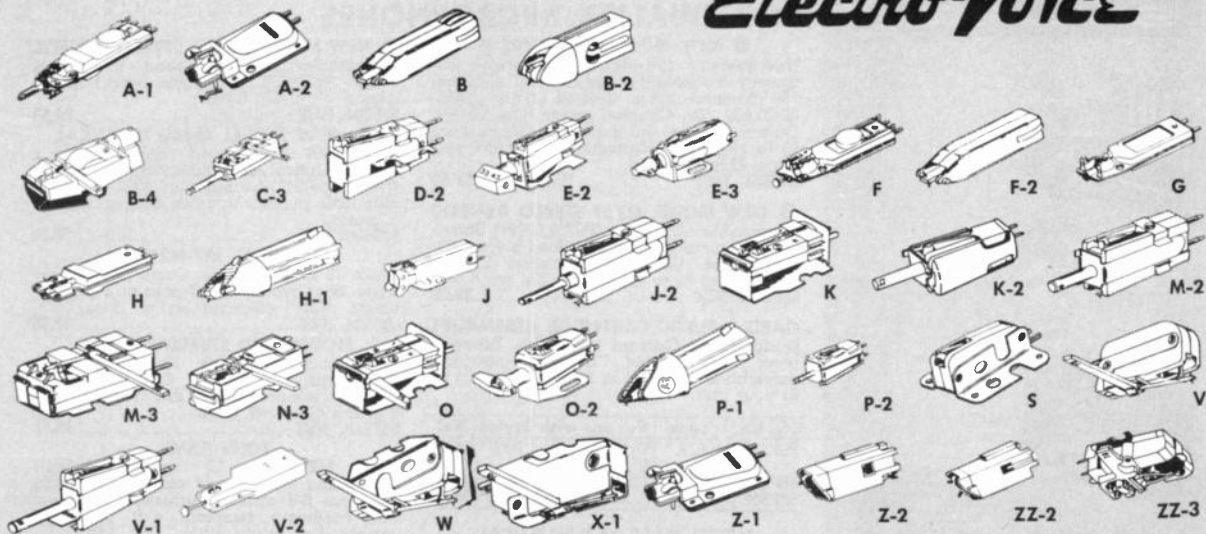
GRANT PHONO DRAWER SLIDES

Type 328. Side-mounted, three-section, thin, full-extension slides offer smooth and safe operation with a 50 lb. load capacity. Minimum side space required. Positive stop halts slide at full extension. Model 328-12. Extends 12". Shpg. wt. 2 lbs.

76F617. NET per pair **2.36**

Model 328-18. Extends 18". Shpg. wt. 3 lbs.

76F618. NET per pair **2.94**



ELECTRO-VOICE "PRECISIONEERED" CARTRIDGES

Guaranteed for ninety days after purchase. Most popular replacement cartridges made. To choose replacement, determine appropriate heading, i.e., single or dual needle, monophonic or stereo. If not certain of model no., choose most similar

illustration. Number in "Needles Used" column indicates tip diam.: 3 mil tips are for 78; 2 mil for 33, 45, 78; 1 mil for 33, 45, and .7 for stereo 16, 33, and 45 rpm. "D"—natural diamond; "S"—synthetic diamond.

SINGLE NEEDLE MONOPHONIC CARTRIDGES

Stock No.	E-V No.	Replacement for Original Mfr. No.	Fig.	Needle Used	Element Type	NET
50F692	23	Admiral 409A13	J	2S	Ceramic	3.82
50F691	105	Amer. Micro. CR1	V-2	2S	Crystal	2.32
50F698	74	Astatic 40-1	Z-1	1S	Crystal	2.62
50F692	23	Amer. Micro. CR-5	J	2S	Ceramic	3.82
50F693	16	Astatic 40-2	F	2S	Crystal	2.91
50F694	30	Astatic 12U	S	1S	Ceramic	2.85
50F695	35	Astatic 51-1	S	2S	Ceramic	2.85
50F696	20	Astatic 51-2	J	1S	Ceramic	3.82
50F698	74	RCA 75575	Z-1	1S	Crystal	2.62
50F699	41	RCA 103238, 103238A	Z-1	2S	Crystal	2.91
50F700	78	Ronette MT-67-T	D-2	2S	Crystal	2.62
50F701	77	Ronette RA-395-S	D-2	1S	Crystal	2.62
50F703	18	Webster Electric F17P	H	2S	Crystal	1.91
50F704	17	Webster Electric F30	G	2S	Crystal	2.32

DOUBLE NEEDLE STEREO CARTRIDGES (Con't)

Stock No.	E-V No.	Replacement for Original Mfr. No.	Fig.	Needle Used	Element Type	NET
50F658	131	Motorola 59P60024A24	M-3	.7S-3S	Crystal	4.67
50F650	132	Motorola 59C61496A01	N-3	.7S-3S	Ceramic	4.12
50F651	132D	Motorola 59C61496A02	N-3	.7D-3S	Ceramic	6.76
50F651	132D	Philco 325-8068	N-3	.7D-3S	Ceramic	6.76
50F654	96	Ronette 208, 208-2*	O-3	.7S-3S	Crystal	4.67
50F652	98	Ronette 106-1*	P-2	.7S-3S	Crystal	4.26
50F655	97	Ronette 105-1*	P-2	.7S-3S	Crystal	4.41
50F656	95	Ronette 105*	O-2	.7S-3S	Crystal	5.00
50F650	132	Sonotone 8TA4-S	N-3	.7S-3S	Ceramic	4.12
50F651	132D	Sonotone 8TA4-SD	N-3	.7D-3S	Ceramic	6.76
50F670	169D	Sonotone 916TA-SD	A-4	.7D-3S	Ceramic	6.76
50F655	97	Vaco ST2, ST-20*	P-2	.7S-3S	Crystal	4.41
50F652	98	Vaco ST-4, ST-40*	P-2	.7S-3S	Crystal	4.26
50F654	96	Vaco S-45*	O-2	.7S-3S	Crystal	4.67

DOUBLE NEEDLE MONOPHONIC CARTRIDGES

Stock No.	E-V No.	Replacement for Original Mfr. No.	Fig.	Needle Used	Element Type	NET
50F707	91	Astatic 118*	M-2	1S & 3S	Crystal	3.79
50F710	120	BSR TC8H**	E-3	1S & 3S	Crystal	2.82
50F711	119	BSR TC8M**	E-3	1S & 3S	Crystal	2.82
50F714	87	Ronette DC-500, TO-222*	J-2	1S & 3S	Crystal	3.79
50F715	80	Ronette TO-284	E-2	1S & 3S	Crystal	3.20
50F719	72	Sonotone 3T-S	X-1	1S & 3S	Ceramic	4.54
50F720	72D	Sonotone 3T-SD	X-1	1D & 3S	Ceramic	7.29
50F721	38	Sonotone 2T-S, 2TA-S	W	1S & 3S	Ceramic	3.32
50F722	38D	Sonotone 2T-SD, 2TA-SD	W	1D & 3S	Ceramic	5.70
50F790	37	Sonotone 2T-LB-S	V	1S & 3S	Crystal	3.32
50F792	88	Vaco TO-45*	K-2	1S & 3S	Crystal	3.79
50F797	68	VM 18444	V-1	1S & 3S	Crystal	3.20
50F793	43	Webster Elec. F-15, F-16	A-1	1S & 3S	Crystal	4.67

SINGLE NEEDLE STEREO CARTRIDGES

50F723	21D	E-V 21D	K	.7D	Ceramic	8.62
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DOUBLE NEEDLE STEREO CARTRIDGES

Stock No.	E-V No.	Replacement for Original Mfr. No.	Fig.	Needle Used	Element Type	NET
50F650	132	Astatic 17	N-3	.7S-3S	Ceramic	4.12
50F651	132D	Astatic 17D	N-3	.7D-3S	Ceramic	6.76
50F652	98	Astatic 70TS*	P-2	.7S-3S	Crystal	4.26
50F653	117	Astatic 74TS	C-3	.7S-3S	Crystal	4.26
50F654	96	Astatic 76TSB*	O-2	.7S-3S	Crystal	4.67
50F655	97	Astatic 80TS*	P-2	.7S-3S	Crystal	4.41
50F656	95	Astatic 86TSB*	O-2	.7S-3S	Crystal	5.00
50F657	121	BSR TCBS**	E-3	.7S-3S	Crystal	4.59
50F751	26	E-V 26, 26ST	O	.7S-3S	Ceramic	6.17
50F752	26D	E-V 26D, 26DST	O	.7D-3S	Ceramic	9.70
50F658	131	E-V 131	M-3	.7S-3S	Crystal	4.67
50F650	132	E-V 132	N-3	.7S-3S	Ceramic	4.12
50F651	132D	E-V 132D	N-3	.7D-3S	Ceramic	6.76
50F727	221	Euphonics E-1, U-1	ZZ-3	.7S-3S	Ceramic	5.85
50F728	221D	Euphonics E-2, U-2	ZZ-3	.7D-3S	Ceramic	8.79

PLUG-IN CARTRIDGES—STEREO TYPES

Stock No.	E-V No.	Replacement for Original Mfr. No.	Fig.	Needle Used	NET
50F778	13	Astatic 13T	B	.7S-3S	4.09
50F779	13D	Astatic 13TX	B	.7D-3S	6.44
50F765	66	E-V 66	P-1	.7S-3S	3.50
50F766	66D	E-V 66D, 66DS	P-1	.7S-3S	7.61

PLUG-IN CARTRIDGES—MONOPHONIC TYPES

Stock No.	E-V No.	Replacement for Original Mfr. No.	Fig.	Needle Used	NET
50F677	89	Astatic 89T	F-2	1S-3S	2.91
50F731	51	E-V 51, 51-1	H-1	1S-3S	2.32
50F734	56	E-V 56	H-1	1S-3S	2.32
50F735	56D	E-V 56D, 56DS	H-1	1D-3S	5.85
50F673	81	RCA 105836	F-2	1S-3S	2.32
50F674	81D	RCA 106045	F-2	1D-3S	4.67
50F677	89	RCA 108555	F-2	1S-3S	2.91
50F741	76	Webcor A1919	B-2	1S-3S	2.32
50F740	76D	Webcor A1920	B-2	1D-3S	5.85
50F681	110	Zenith 142-72, 142-73	Z-2	2S	2.94
50F683	111D	Zenith 142-76	ZZ-2	1D-3S	9.70
50F682	111	Zenith 152-77	ZZ-2	1S-3S	4.41

MOUNTS

Stk. No.	Type	Application	NET
50F736	PFT1	For models 51, 52, 53	.59
50F738	PT2	For models 56, 56D	.59
50F758	PT3	For models 66, 66D	.59
50F760	PT8	For models 76, 76D	.59
50F761	PT9	For models 13, 13D, 81, 81D, 89, 89D	.59

FEATHERIDE STEREO CERAMIC CARTRIDGES

Floating-action spring-suspension type cartridges. .7 mil. diamond and .3 mil. synthetic sapphire styli. Std. mtg. ctrs.

50F724. Model 149DF. 2-4 Gram Tracking Force	10.29
50F725. Model 150DF. 46 Gram Tracking Force	10.29

*Imported from Holland. **Imported from England.

OEM Prices — Complete Stocks — Same Day Shipment

NEWARK 659

SHURE

TOP QUALITY MICROPHONES

● NEW MODEL V-15 TYPE II

New premier cartridge featuring high frequency trackability. Retractable elliptical 15° diamond stylus. Built-in stylus guard. 20-20,000 cps. Channel separation, 25 db. Output voltage: 3.5 millivolts. Tracks from 3/4 to 1 1/2 grams. Compliance: 25x10-6 cm/dyne. Ship wt. b ozs. **50F533. NET 67.50**

● NEW MODEL M75E STEREO DYNETIC

Retractable elliptical (.0007"x.0002") Stereo Dynetic cartridge. 15° diamond stylus. 20-20,000 cps. Channel separation 25 db. Tracks from 3/4 to 1 1/2 grams. Sh. wt. 6 ozs. **50F534. NET 39.00**

GARRD-A-MATIC CARTRIDGE ASSEMBLIES

Designed for Garrard turntables. Scratch-proof, bounce-proof, "floating" cartridge assemblies mounted in tone arm heads to fit your unit.

Stk. No.	Type	For use with	Stylus	Net
50F516	M98/A	Type A	.0007"	24.75
		40,50,60		
50F517	M99/AT6	A50,AT6,AT60	.0007"	24.75
50F532	M80E	70,Lab 80,A70	Ellip.	38.00

MODEL M55E 15° ELLIPTICAL

Moderate cost cartridge. Specs similar to V-15 above, but made under normal production tolerances. Shipping weight, 6 oz. **50F521. NET 35.50**

● NEW MODEL M75-6 STEREO DYNETIC

Retractable .0006" diamond 15° stylus angle. 20-20,000 cps. Tracks from 1 to 2 1/2 grams. Ship. wt. 6 ozs. **50F535. NET 24.50**

● NEW MODEL M44E ELLIPTICAL

The M44E is equipped with a .0004" x .0007" elliptical diamond stylus. The larger radius (.0004") versus the .0002" of other ellipticals permits tracking forces of up to 4 grams. **50F539. NET 34.50**

MODEL M7-N21D

Resp: 20 to 20,000 cps. Comp: 9x10-6 cm/dyne. Sep: over 20 db. Tracks at 2 gm. optimum .0007" diamond stylus. 3 oz. **50F524. NET 17.95**

MODEL M3D STEREO DYNETIC

.0007" diamond stylus. Response: 20 to 15,000 cps. Compliance: 4x10-6 cm/dyne. Separation more than 20 db. Tracks at 3 to 6 grams. Ship. wt. 3 ozs. **50F510. NET 15.75**

● TONE ARMS

Model M232. For 12" records. Accepts Stereo and Monophonic cartridges. Tracking force 0-8 grams. Furnished with arm rest, hardware, template, 4 ft. cable assembly. Arm length, 12 1/16". Wt. 1 lb. **50F514. NET 29.35**

Model M236. As above, for 16" records. Arm length 14 1/2". Wt., 1 1/8 lbs. **50F515. NET 31.91**

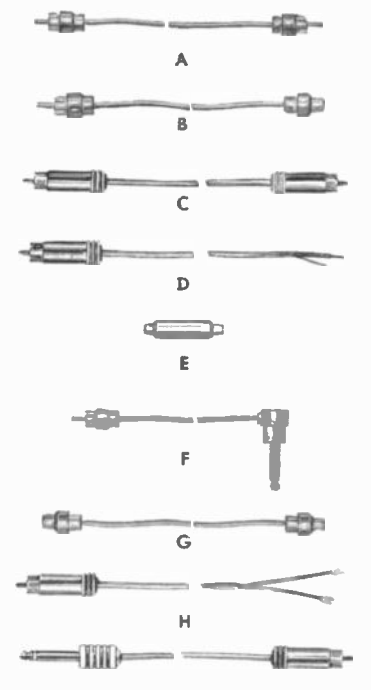
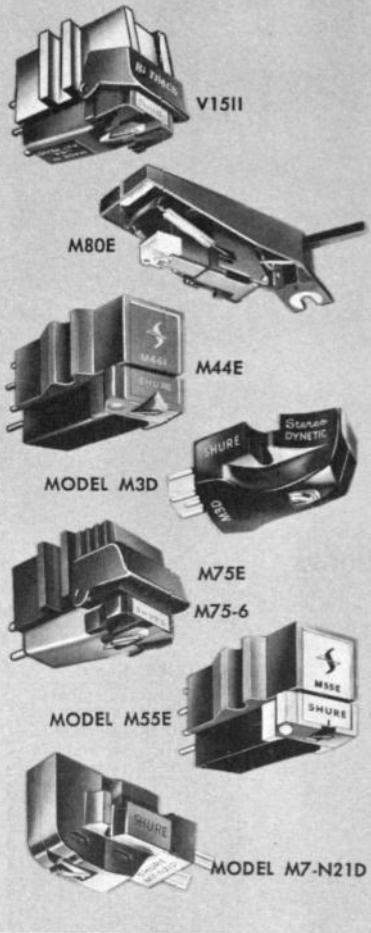
SHURE REPLACEMENT STYLII

Stock No.	Stylus No.	For Dynetic Cartridge No.	Tracking Force (grams)	Diamond Tip Size	Net Price
61F148	N3D	M3D; upgrades M7D, M8D	3-6	.0007	7.95
50F525	N21D	M21; M7-N21D; M3-N21D; upgrades M3D,M7D	2 1/2 max.	.0007	12.50
50F526	N44-1	M44 Series (Mono LP)	1 1/2-3	.001	9.75
50F527	N44-3	M44,M55,M80,V-15 Series 78 rpm	1 1/2-3	.0025	9.00
50F528	N44-5	M44-5	3/4-1 1/2	.0005	11.35
50F529	N44-7	M44-7,M98/A	1 1/2-3	.0007	9.75
50F540	N44E	M44 Series Elliptical	1 1/4-4	Elliptical	18.00
50F530	N55E	M44,M55,M80 Series	3/4-1 1/2	Elliptical	20.00
50F531	VN2E	V-15	3/4-1 1/2	Elliptical	25.00
50F536	VN15E	V15 II	3/4-1 1/2	Elliptical	27.00
50F537	N75-6	M75-6	1-2 1/2	.0006	11.35
50F538	N75-E	M75-E	3/4-1 1/2	Elliptical	20.00
50F518	N99	M99 Series	1 1/2-3	.0007	12.95

CONNECTING CABLES

Trouble-free installation for Hi-Fi and Stereo. All are flexible shielded except * unshielded. 2-cond. cable. Av. Shpg. wt., 5 oz.

Stk. No.	Fig.	Length	One End	Other End	NET
39F800	A	18"	Phono pin plug	Phono pin plug	.53
39F801	A	36"	Phono pin plug	Phono pin plug	.62
39F802	A	72"	Phono pin plug	Phono pin plug	.79
39F1752	A	10'	Phono pin plug	Phono pin plug	.90
39F1750	A	20'	Phono pin plug	Phono pin plug	1.71
39F1751	A	30'	Phono pin plug	Phono pin plug	2.34
39F803	B	18"	Phono pin plug	Phono jack	.62
39F804	B	36"	Phono pin plug	Phono jack	.70
39F805	B	72"	Phono pin plug	Phono jack	.88
39F1753	B	10'	Phono pin plug	Phono jack	1.02
39F1754	B	20'	Phono pin plug	Phono jack	1.89
39F1755	B	30'	Phono pin plug	Phono jack	2.52
39F807	G	18"	Phono jack	Phono jack	.82
39F808	G	36"	Phono jack	Phono jack	.91
39F809	G	72"	Phono jack	Phono jack	1.09
39F810	F	72"	Phono pin plug	Rt. ang. phone plug	1.18
39F811*	.....	10'	Rt. ang. phono pin plug	Alligator clips	1.32
39F812*	.....	10'	Rt. ang. phone plug	Alligator clips	1.41
39F1600	C	10'	Long Phono pin plug	Long Phono pin plug	1.15
39F1601	C	15'	Long Phono pin plug	Long Phono pin plug	1.44
39F1756	.....	6'	Phono pin plug	Stripped, tinned	.65
39F1602	D	10'	Long Phono pin plug	Stripped, tinned	.97
39F1603	D	15'	Long Phono pin plug	Stripped, tinned	1.26
39F1757	D	20'	Phono pin plug	Stripped, tinned	1.77
39F1758	D	30'	Phono pin plug	Stripped, tinned	2.40
39F1604	.....	6'	Long Phono pin plug	Phone plug	1.21
39F1605	.....	10'	Long Phono pin plug	Phone plug	1.50
39F1606	.....	15'	Long Phono pin plug	Phone plug	1.79
39F1607	.....	20'	Long Phono pin plug	Phone plug	2.08
39F1759	.....	30'	Phono pin plug	Phone plug	2.49
39F1606	H	10'	Long Phono pin plug	Lugs	1.03
39F1609	H	15'	Long Phono pin plug	Lugs	1.32
39F806	E	.....	Double phono pin jack thru conn.; pin plugs (Adapter)	Pin plugs (Adapter)	.59
39F825	.....	.....	Phono pin jack to phone plug (Adapter)	.....	.73



E. F. JOHNSON AMATEUR EQUIPMENT

VIKING "MATCHBOX" ANTENNA MATCHING UNITS

Bandswitching antenna matching units match a wide range of impedances and tune out large amounts of reactance on all amateur bands 80 thru 10 meters. Also provide separate matching of receiver. Heavy-duty relay switches antenna and grounds receiver antenna terminals during trans-

mitting. Directional coupler for SWR measurements may be used separately. Tuning is broad enough to cover large portion of band with one setting. 20 db harmonic suppression. Maroon and grey finish. Approved for FCDA matching funds.

KILOWATT MATCHBOX

Model 250-30-3. Kilowatt Matchbox designed to handle unbalanced line impedances from 50 to 2000 ohms, balanced line impedances from 50 to 1500 ohms. The antenna change-over system includes a time delay circuit for the relay, providing "fast make—slow break" action to prevent arcing or sticking of relay contacts. The feature also protects the transmitter and the receiver components from possible damage by high voltage transients during antenna change-over switching. Feed-through insulators are provided for connecting balanced or unbalanced lines. A standard SO-239 connector is provided for 52 ohm coaxial lines. Unit is also capable of tuning out large amounts of capacitive or inductive reactance. Revolutionary design of circuit does away with the annoying use of "plug-in" coils and completely eliminates "load-tapping" necessary in other couplers. In SSB mode, the unit is rated up to 3 kilowatts P.E.P. input. (With directional coupler). Dimensions: 17 1/4 x 12 1/8 x 10 7/8". Shipping weight, 27 lbs.

97F464. NET **154.50**

NOISE SUPPRESSOR KIT

Model 250-801. Designed to eliminate automobile ignition and electrical interference. Ideal for mobile radio operation. Includes: 4 coax. capacitors, 8 sparkplug suppres-

Model 60. "Elimnoise" Ignition Shielding kit for 6 cylinders. Suppresses the noise the ignition puts in two-way radio communications. Easy to install.
No. 250-821-1.
97F523. NET **29.95**

VIKING PHONE PATCH

Model 250-46. Fully automatic Hybrid transformer type unit provides for P.T.T., VOX, or manual operation on SSB or AM. Line null control offers excellent isolation. Separate gain controls for transmitter and receiver inputs. RF filtering and by-

sors, 1 V-regulator suppressor, shielded cable and braid, all necessary hdw. and instructions. Shpg. wt., 2 lbs.
97F519. NET **15.50**

Model 80. "Elimnoise" Kit. For 8 cylinders. Other characteristics similar to those for Model 60. "Elimnoise" suppresses both conducted and radiated interference.
No. 250-821-2.
97F524. NET **38.50**

SWR BRIDGE

Model 250-37. Coupler. 7-150 mc to 1 kw on 52 ohm line. 2 1/4 x 6 1/4". Shpg. wt., 2 lbs.
97F477. NET **11.75**

Model 250-38. Indicator. 0-100 scale. 4x4 1/4". Shpg. wt., 4 lbs.
97F476. NET **25.00**

LOW PASS FILTERS

Model 250-20. Handles more than 1000 watts RF. Provides 75 db drop in harmonics above 54 mc. Not for use on 6 meters. 52 ohms impedance. Shpg. wt., 3 lbs.
47F920. NET **14.95**

KEYS AND PRACTICE SETS

Fig. A. Practice Set. Provides high frequency tone which simulates code signal. Two can be connected to provide a two-way signal system. Uses two dry cells or "C" battery (Not Supplied).
27F517. Type 114-450. NET EACH **5.25**

Fig. B. Constant Frequency Buzzer only, as used on practice set.
27F530. Type 114-400. NET **1.85**

Fig. C. Heavy Duty Keys. Heavy die cast base, chrome plated key arm. Well insulated for heavy duty service. Large 1/4" coin silver contacts. Navy type knob. Adjustable steel bearings and spring designed to give a light keying touch. Type 114-320. Black wrinkle enamel base.
27F531. NET **4.95**

Type 114-321 Same heavy duty key type assembly as type 114-320 above. Polished chrome-plated base.
27F532. NET **5.85**

Standard Keys. Heavy die cast base. Smooth adjustable bearings. Provision for plugging in semi-automatic keys. Silver contacts. With switch. Choice of:

Type 114-310-3. Black wrinkle.
27F528. NET **4.25**

Type 114-311-3. Chrome plated.
27F529. NET **6.50**

Fig. D. High Speed Standard Key. Fully adjustable spring tension, contact spacing and bearings. .072" platinum contacts. Includes shorting switch. Satin brass. Shpg. wt., 2 lbs.
27F526. Type 114-100-3. NET **7.95**

Type No. 114-301. Phenolic Base Keys. High quality key with adjustable bearings. Improved spring-pigtail connection. Nickel plated parts. 1/8" coin silver contacts. Molded phenolic base.
27F518. NET **2.50**



250-30-3



250-23-3



250-46



250-20



B



A



C



D

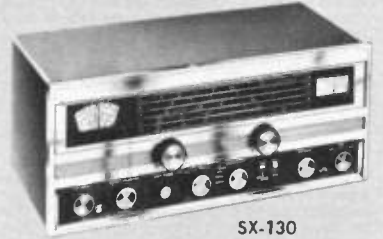
hallicrafters AMATEUR EQUIPMENT



S-210



SX-122



SX-130

NEW S-210 COMMUNICATIONS RECEIVER

FM and AM broadcast bands, plus 4 foreign broadcast short wave bands bring a wide range of programs to the radio listener. The following wave bands allow the listener to tune in on overseas programs as easily as local stations: 5.9-6.25 mc (49 Meters), 9.45-9.8 mc (31 Meters), 11.65-12.05 mc (25 Meters), 15.05-15.55 mc (19 Meters). Controls include Band Selector/AFC with easy-view dial main tuning, on/off volume, tone control. Tuning assembly and dial drive mechanism; ganged, 4-section tuning capacitor assembly. 3 antennas: Ferrite loop for standard broadcast, wire antenna for short wave, line cord for FM. Provisions for external antennas supplied. Audio output impedance: 8 ohms for low impedance headset or external speaker. Power supply: 105/125V 50/60 cycle AC/DC. 3 dual purpose type tubes & 3 single purpose tubes. Speaker uses 1.47 oz. magnet. Walnut colored vinyl covered metal cabinet. 13 $\frac{1}{2}$ x 6 x 8 $\frac{1}{4}$ ". Wt. 11.25 lbs.

98F106. NET **89.95**

SR-42A & SR-46A TRANSCEIVER

Full two meter coverage with the SR-42 or full six meter coverage with the SR-46. Power input 12 watts AM. Receiver double conversion super heterodyne with quartz crystal controlled second oscillator. Nuvistor RF amplifier; Zener diode voltage regulation. Adjustable to MARS frequencies. Provision for four transmitter crystals, plus input for external VFO, switch selected from front panel. Built in two-way power supply 117/VAC and 12 VDC. Lowest internal and external spurious responses. Exclusive HLC tip up, tip down cabinet for convenient fixed and mobile chassis access. S meter and RFO automatically switched. Full time noise eliminator. Frequency spotting switch. Perfect for fixed, portable or mobile communications. Unit permits instantaneous selection of desired voltage, by merely changing line cords. Size: 5x 12x8". Shpg. wt. 13 lbs.

98F025. Model SR-42A. **199.95**
98F026. Model SR-46A **199.95**

MODEL SX-122 RECEIVER

The SX-122 incorporates major improvements in stability by additional temperature compensation of the high frequency oscillator circuits and the employment of crystal control second conversion oscillators. 50 kc. highly selective i.f. system is used. Upper or lower side band is selectable. Dual conversion on all bands. Antenna trimmer. Amplified AVC. Product detector for SSB/CW. Envelope detector for AM. Series noise limiter. Second conversion oscillator crystal controlled. Audio power output: 1.0 watts with 10% or less distortion. Power supply: 105/125 volts. 50/60 cycle AC. 100 kc. crystal calibrator available (HA-7). External Connections: 3.2 ohm speaker and standby terminals, terminals for single wire or double antenna (external antenna provided), AC power cord, audio output terminals, "S" meter electrical adjustment and mounting hole for co-axial cable connector. Phones jack on front panel. Shpg. wt., 43 lbs.

98F011. NET **289.95**

MODEL SX-130 RECEIVER

All precision-built receiver features crystal filter, "S" meter, and antenna trimmer. Slide rule bandspread dial. Coverage, broadcast band 533-1600 kc plus 3 short wave bands covers 1700 kc to 34 mc. Features: Product detector for CW & SSB; Covers the 10, 15, 20, 40, and 80 meter amateur bands, also 11 meter citizens band. Separate bandspread tuning condenser, crystal filter, one rf, two i.f. stages and new styling. Improved image rejection. Controls: Antenna tuning, sensitivity, band selector, main tuning, bandspread tuning, volume, tone, standby, selectivity, crystal phasing, noise limiter. Intermediate freq. 1650 kc. Antenna input impedance, 52-600 ohm. Audio output, 3.2 ohms, low impedance headset output. Tube complement, 7 tubes plus 1 rectifier. Audio power output, 2 watts. Ganged, 3 section tuning capacitor with electrical bandspread. Power Supply, 105/125V, 50/60 cycle AC, 56 watts. Gray steel cabinet with silver trim. 18 $\frac{1}{2}$ x 8 x 9 $\frac{3}{4}$ ". UL approved. Shipping wt., approximately 25 lbs.

98F040. NET **169.95**

HA-26 VARIABLE FREQUENCY OSCILLATOR

This stable VFO is a companion for either the SR-42 or the SR-46 and obtains its power from the transceiver. Front panel, frequency control, band switch 2M-6M; Dial calibration, 50-54 mc and 144-148 mc; Rear chassis, cable and plug to transceiver; Slide switch, 117 AC, 12VDC; Tube, 6U8A, oscillator-isolator. Size 4x5x 4". Shpg. wt. 3 $\frac{1}{2}$ lbs.

98F027. NET **49.95**

R-50 LOUDSPEAKER

Oval 4x6" speaker matching in styling both the S-129 and SX-130. 3.2 ohm, 5 W voice coil.

98F042. NET **19.95**

Model R-51. Same as R-50, with built-in clock.

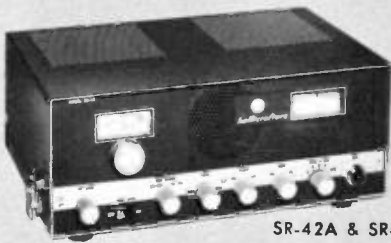
98F042. NET **34.95**

NEW WR-600 RECEIVER

With new compact styling, this WR-600 Receiver literally provides the radio buff with a world of listening enjoyment. The receiver features an electrical bandspread with slide rule bandspread dial, separate bandspread tuning, includes complete broadcast coverage plus three short-wave band to 30 Mc. Headphone jack conveniently set into front panel. May also be used with an 8 ohm remote speaker. Has 2 powerful antennas for excellent reception. Controls: Band Selector, main tuning, bandspread tuning, standby-recvie. BFO/Selectivity, AC on/off volume. Power supply: 105/125V. 50/60 cycles AC/DC — 30 watts. IF: 455 kc. Brown wood-grain steel cabinet. Size: 13 $\frac{1}{2}$ " wide x 5 $\frac{1}{2}$ " high x 7 $\frac{3}{4}$ " deep. Shipping wt.: 11 $\frac{3}{4}$ lbs.

98F105. NET **69.95**

You Can Depend on NEWARK for your Complete Ham Gear Needs



SR-42A & SR-46A



HA-26



R-50



WR600W

HALLICRAFTERS RECEIVERS

● NEW MODEL WR-3100 RECEIVER

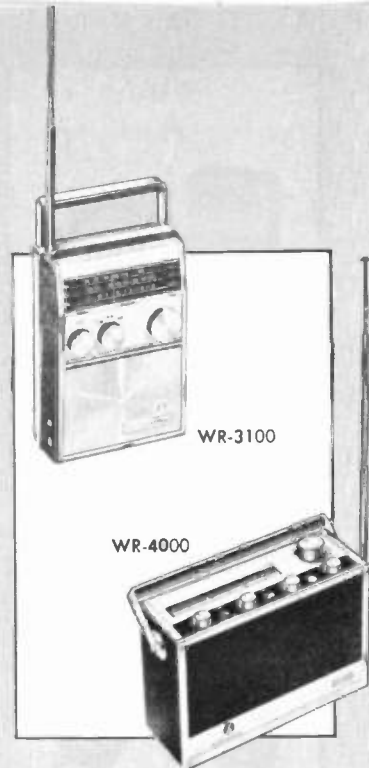
Receiver features frequency coverage in: FM—86 MC to 110 MC; AM—535 KC to 1650 KC; and SW—3.8 MC to 12.5 MC. Includes 10 transistors plus 4 diodes, 3" PM, 8 ohm voice coil. Antenna: BC—self-con-

tained bar; SW and FM—collapsible telescopic whip. 6 VDC power supply (four 1½ V AA cells). Output: 210 MW. 2½x4½x6½". 2½ lbs.
98F101. NET..... **49.95**

● NEW MODEL WR-4000 TRANSISTORIZED RECEIVER

This completely transistorized superheterodyne receiver operates on 6 separate bands: LW, BC, SW1, SW2, SW3, and FM in the 180 KC to 18.2 MC and 86.5 to 108 MC frequency. BFO provided for reception of CW and SSB signals. 14 transistors, 6 diodes, 12 zener diode regulators. Power supply: 12 VDC (8 "D" size cells, separate

"D" cell for dial lamp). Antennas: Provisions for single wire or 50 to 600 ohm line. For LW and BC, a self contained ferrite rod. For SW and FM, the telescoping rod antenna. Headphone impedance: 3 to 3000 ohms. Output: 500 MW undistorted. 10½x10½x10½". 13 lbs.
98F100. NET..... **139.95**



DRAKE AMATEUR EQUIPMENT

MODEL TR-4 SIDEBAND TRANSCEIVER

Features: Full frequency coverage—all amateur bands 10 through 80 meters, additional crystals not required; Upper and Lower Sideband on all bands; VOX or PTT on AM and SSB; Automatic transmit receives switching on CW; CW Sidetone Oscillator built in; Diode detector for AM reception; Solid state VFO with linear permeability tuning for max. stability; Output impedance adjustable with Pi-network; 300 watts PEP input SSB; Controlled carrier screen modulator for AM built-in; Shifted carrier CW, 260 watts input; 2 special 9 mc crystal filters for sideband selection. Separate RF and AF gain controls Full AGC with Drake dual time constant system; 2.1 kc passband; 100 kc crystal calibrator built-in; Separate receiver S-meter and transmitter plate ammeter; 20 tubes, including VR, 2 transistors, 8 diodes; Receiver IF selectivity, 2.1 kc at 6 kb, 7.5 kc at 60 db; Receiver sensitivity, less than ½ uV for 10 db S/N. Power Supply, Model AC-3 or Model DC-3 listed below may be used. Size, 5½x10¼x14⅞". Weight, approximately 16 lbs.

97F050. NET..... **599.95**

Model AC-3. Power Supply for TR-4 above or the T-4X below. 120VAC 50/60 cycle. 5' interconnecting cable with 12 prong connector and speaker connector. 5x5x10¼". 14 lbs. 97F051. NET..... **99.95**

Model DC-3. DC Power Supply. Transistorized. Operates from 12 VDC. 5' interconnecting cable and speaker connector. 3⅞x4⅞x8". Weight, 7½ lbs. 97F031. NET..... **149.95**

MODEL T-4X TRANSMITTER

T-4X features: Solid state linear permeability tuned VFO with 1 Kc divisions. Gear driven circular dial. High mechanical, electrical, and temperature stability; Covers ham bands 80, 40, 20, and 15 meters completely and 28.5-29 Mc of 10 meters with crystals furnished; 160 meters covered with accessory crystal. Also certain other 500 Kc ranges between 1.8 and 30 Mc are available. Could include Mars, other 10 meter ranges, or VHF with transmitting converters; will transceive with R-4 Receiver—switch on T-4X determines frequency control by R-4 or T-4X VFO, or provides independent freq. control; Upper or lower sideband on all bands; VOX or PTT; adjustable pi-network output; Built-in GS Sidetone; Two special crystal lattice filters for side band selection; Transmitting AGC prevents flat topping, Meter reads relative output and plate current selectable with front panel meter switch; Easily adaptable to RTTU; Compact size and rugged construction; Spotting function provided for easy zero-beating; Controlled carrier modulation for AM is completely compatible with SSB liner amplifiers; Automatic transmit receive switching on CW; High impedance input; Power requirements—Model AC-3 Power Supply listed above. Dimensions, 5½x10¼x11⅞". Weight, 14 lbs.

97F046. NET. Less supply. **399.95**

MODEL R-4A RECEIVER

R-4 features: Linear permeability tuned VFO with 1 Kc dial divisions; Covers ham bands 80, 40, 20, 15 meters completely and 28.5 to 29.0 of 10 meters with crystals furnished; Also covers 160 meters, Mars, Citizens Band, WWV, Marine, and short wave broadcasts. (With accessory crystals.); Tuned any ten 500 Kc ranges betw. 1.5 Mc and 30 Mc with accessory crystals, 5.0 to 6.0 Mc not recommended; Four bandwidths of selectivity (equivalent to 4 filters) are furnished, .4, 1.2, 2.4 and 4.8 Kc; Passband tuning; Noise blanker that works on CW, SSB, and AM; Notch filter and 100 Kc crystal calibrator are built in; Crystal lattice filter first IF prevents crossmodulation due to strong adjacent channel signals; Receives SSB, AM, CW, and RTTY with full RF gain, complete AVC action and accurate S-meter indication; Transceive capability—may be used to transceive with the T-4 "Reciter" or T-4X Transmitter; Premixed injection-crystal oscillator and low freq. VFO outputs premixed; Product detector for SSB/CW—diode detector for AM; Excellent overload and cross modulation characteristics—insensitive to operation of nearby transmitters. Power: consumption, 60 watts, 120/240 VAC, 50/60 cycles. Size, 5½x10¼x11⅞". Weight, 16 lbs.

97F045. NET..... **399.95**

Model T-4 Reciter. New. Receiver-controlled Exciter for use with R-4 Receiver listed above. Identical to the T-4X except that the VFO, HF oscillator and their associated control circuitry have been omitted. Operates with R-4 to provide transceive operation, or will transmit crystal-controlled for DX, net, or novice use. 97F048. NET..... **299.95**

Model MS-4. Matching Speaker for use with R-4 Receiver (has space to house AC-3 Power Supply), or with TR-4 Transceiver. 5⅞x10¼x11⅞". 6 lbs. 97F047. NET..... **19.95**

Crystals. For T-4X xmtr or R-4 rcvr. SPECIAL ORDER ONLY. EACH..... **5.00**



TR-4



T-4X



R-4A

**Make NEWARK Your Headquarters For All
Amateur and CB Antennas. Complete Stocks —
Lowest Prices — Fastest Service .**

CRYSTALS



Z-1
2XP



Z-9R



Z-6A



KV3



MC9

ANTENNA
BRIDGE



46672

TIMERS



124



2324



191

HAM GEAR



710



706

AMATEUR ACCESSORIES

PETERSEN PR CRYSTALS

Less than 2 cycles per MC per degree Centigrade. High activity, stability and output. .486" pin spacing. Sealed against contamination and moisture.

TYPE Z-1 MARS & CAP CRYSTALS. Official assigned transmitter frequencies in the Frequency range 1600 to 10000 Kc., Tolerance .005%. Shpg. wt., 4 oz.

27F474. NET 3.45

TYPE Z-1. TV Marker Crystal.

27F324. 10.7 Mc. FM, IF, .01% 2.95

TYPE 2XP. Special crystals outside Amateur bands. Suitable for converters, experimental, etc.

Stk. No. Frequency Range Tolerance Net

27F478 1600 to 12000 Kc. (Fund.) ± 5 Kc. **3.45**

27F479 12001 to 25000 Kc. (3d Mode) ± 10 Kc. **4.45**

TYPE Z-9R VHF AIRCRAFT. For aircraft equipment operating in the 121 Mc region, requiring crystals in the 30 Mc. range. Specify manufacturer and model number of equipment. Shpg. wt., 4 oz.

27F477. NET 4.95

TYPE Z-6A. 100 Kc. Frequency Standard.

Shpg. wt., 4 oz. 27F491. NET 6.95

BLILEY COMMERCIAL CRYSTALS

Provide high temperature stability for close frequency tolerances in transmitters, receivers, etc. In compact holders.

TYPE KV3. Precision 100 kc crystal. Tolerance ±.005%. Includes recommended oscillator circuit. Mounts in octal socket. Wt., 3 oz.

27F458. NET 8.50

TYPE MC9. Code E-22. Available at all exact frequencies from 3-12 mc, ±.03%. Specify frequency desired. 3 oz.

27F460. NET 6.50

MILLEN CRYSTAL SOCKETS

Low loss sapphire with silver-plated phosphor-bronze contacts, and tinned solder lugs. For chassis mtg. 2 ozs.

Stock No.	Type	Pin Space	Pin Dia	Xtal Type	NET
38F656	33102	.487"	.095	FT243	.36
38F658	33302	.487"	.050	HC6U	.24

MILLEN ANTENNA BRIDGE BALUNS

Auto-transformers for adapting from balanced to unbalanced lines and vice-versa. Convenient for connecting balanced impedance to antenna bridge above, or for feeding balanced line from unbalanced transmitter output. Stops losses from mismatch. Handle 500v peak, except 46672-80 that takes 300v. Wt., 1 lb.

Stock No.	Mir's. Type	Meter Band	Frequency Range (mc)	NET EACH
97F212	46672-10	10-11	26.96-29.7	7.50
97F213	46672-15	15	21.0-21.45	
97F214	46672-20	20	14.0-14.35	
97F215	46672-40	40	7.0-7.3	
97F216	46672-80	75-80	3.5-4.0	

TYMETER

Model 124. 24 hour, direct reading clock with 10 minute repeating timer. Timer can be turned on when beginning QSO. Clock operates continuously. Dome shaped full vision window. 1/4" high numerals. 110V, 60 cps. 4x7 3/4x4" plastic walnut case. Shpg. wt., 4 lbs.

97F909. NET 22.50

Model 100-24H-1/4. As above less timer.

97F908. NET 14.85

EICO HAM GEAR

CODE PRACTICE OSCILLATOR

Model 706. Battery operated transistor audio oscillator. Headset will be plugged in which automatically cuts out loudspeaker. External key terminals are provided on front panel. Tone freq. range: approx. 500 to 2000 cps continuously variable Bakelite, satin finish, deep etched aluminum. Size: 6 1/2x3 3/4x2 3/4". Shpg. wt., 2 lbs.

62F862. 706K Kit. NET 8.95

62F863. 706. Factory wired. NET 12.95

Battery for above. Requires 2. **49F261. .14**

AMATEUR BAND CRYSTALS

All are fundamental type Z-9C. Including * for novice use. Except: † 3rd overtone. ‡ 5th overtone. All Z-9C crystals correlated in oscillator having load capacity of 32 mmhd. Many of xtals in ranges listed are carried in stock. Fits standard crystal socket. .486" pin spacing. .093" pin diameter. Specify exact frequency desired within the ranges listed.

Stock No.	XTAL Freq. kc	Operating Freq.	NET
27F462	1750-2000	1750-2000 kc	2.95
27F463	3500-4000	3500-4000 kc	2.95
27F325	3700-3750*	3700-3750 kc	2.95
27F326	7000-7300	7000-7300 kc	2.95
27F327	7150-7200*	7150-7200 kc	2.95
27F328	7000-7175	14000-14350 kc	2.95
27F329	7000-7150	21,000-21,450 kc	2.95
27F330	7034-7083*	21,100-21,250 kc	2.95
27F467	7000-7425	28000-29,700kc	2.95
27F469	8334-9000	50.00-54.00 mc	2.95
27F472	25000-27000†	50.00-54.00 mc	3.95
27F473	50000-54000‡	50.00-54.00 mc	4.95
27F468	8000-8222	144.0-148.0 mc	2.95
27F331	8060-8160*	145.0-147.0 mc	2.95
27F471	24000-24666†	144.0-148.0 mc	3.95

RADIO CONTROL CRYSTALS

Special crystals used in remote control applications such as model planes, boats, for garage door openers, etc. Calibrated to .005% tolerance.

Stk. No.	Type	Frequency	NET
27F332	Z-9R	26.995	2.95
27F333		27.045	
27F334		27.095	
27F335		27.145	
27F336		27.195	
27F337		27.255	

CTS KNIGHTS, INC.

(Formerly James Knights)

CITIZENS BAND CRYSTALS

Crystals are available for channels 1-23 at ±.003%. These crystals are standard replacements for most C.B. equipment. Some crystals are carried in stock. 2-3 weeks required for delivery on others. Shipping weight, 4 oz.

How to order: Specify manufacturer's name and model number of equipment, channel number desired and whether for transmit or receive. This information must accompany all orders.

27F300. NET 2.50

MASTERCRAFTERS

8" 24-HOUR CLOCK

Model 191. 8" dia. 24 hour chrome plated metal wall clock. Inner dial has south polar projection map of the world indicating world time zones. Dial can be adjusted for various time zones. Self starting. UL approved. 110 VAC, 60 cycles. Shpg. wt.: 1 1/2 lbs.

97F911. NET 8.47

12" 24-HOUR CLOCK

Model 2324. Efficient, accurate 24 hour wall clock in attractive, modern trim design. 12" white dial with black hands and numerals for eye-catching contrast and red sweep second hand. 13 1/2" chrome case. Self-starting. UL approved. Shpg. wt. 5 lbs.

97F906. NET 11.97

GRID DIP METERS

Model 710-K. Covers 400 kc to 250 mc in 7 overlapping ranges. Uses a 500 ua meter. Determine operating freq., neutralize, etc. Easy to build with complete instructions. Other outstanding features include a reliable sensitivity control, a phone jack, plug-in coils, an illuminated scale. Dimensions: 2 1/4"x2 3/8"x6 7/8". Less solder. With power supply. For 117 volts 50/60 cycle AC. Shpg. wt., 3 lbs.

97F575. NET Kit Form. 29.95

Model 710. Factory wired and tested. **97F576. NET 49.95**

BARKER & WILLIAMSON

LOW PASS FILTERS

Model 423. For 6 meter low power amateur transmitting equipment. For use with operating frequencies up to 54 MC. Designed to reduce TVI. Radiated spurious and harmonics higher than 62 MC are attenuated by at least 50 DB. Frequency range: 30-45 MC. Power rating: 100 watts max. 30-52 MC—Reduced power above 52 MC. Attenuation more than 50 DB from 62 MC throughout the TV and FM channels. Impedance: 52 ohms (reversible). Connectors: two UHF type SO .239. 5" Lx2" Wx1 1/4" H. Shpg. wt., 1 1/2 lbs.
40F900. NET 16.50

Model 424. For citizen's band and low power amateur transmitting equipment. For use with transmitted frequencies up to 30 MC. Undesirable signals higher than 53 MC and related harmonics appearing in the TV and FM bands are attenuated by at least 50 DB. Power rating: 100 watts max. Freq. range, 1.5 to 30 MC. Imp. 52/75 ohms (reversible). 5" Lx2" Wx1 1/2" H. Shpg. wt., 1 1/2 lbs.
40F901. NET 14.50

Model 425. Passes 160-10 meter bands. Use with transmitters operating at 1 kw input when SWR is not excessive. Reduces radiation. Imped. 52 ohms. Shpg. wt., 1 1/2 lbs.
47F903. NET 22.75

GROUNDING GRID FILAMENT CHOKES

Model FC-30A. Twin dual winding filament choke with 30 amp current carrying capacity. Four winding permits separate filament transformer and cathode circuit metering for each of two tubes.
40F994. NET 23.95

Model FC-15A. Dual winding choke with current carrying capacity of 15 amps. Shpg. wt. 8 oz.
40F993. NET 16.50

CENTER INSULATOR

Type CC-50. Serves as a center insulator for doublet antenna systems. Aluminum.

Shpg. wt., 1 lb.
40F928. NET 9.85

E-Z WAY TOWERS

A versatile Ham tower. Cranks up, down and tilts over. Withstands 60 MPH winds cranked up and 125 MPH cranked down. No Guys. Ideal for beam and rotor adjustment at ground level. Rugged construction. 55,000 PSI steel, electric arc welded, diagonal bracing two sides, ladder one side. Completely hot dipped galvanized after fabrication. Most models accept rotors inside structure. Shipped freight prepaid.

Model RBS-40G. Two sections, max. hgt. 41 feet, min. 25 feet.
92F661. Complete with ground post mounting kit GPK-S40. NET 320.00

Model RBS-50G. Two sections, max. hgt. 51 feet min. 35 feet.
92F662. Complete with ground post mounting kit GPK-S50. NET 438.00

Model RBX-60-3G. Three sections, max. hgt. 58 feet, min. 25 feet.
92F663. Complete with ground post mounting kit CPPKX60-3. NET 596.50

All E-Z WAY towers are shipped freight prepaid. No C.O.D. orders accepted—please send full remittance with your order. Be sure to include your full shipping address, no post office box number.

CDR ANTENNA ROTORS

Model AR-22R. Fully automatic control system. Knob is turned to desired direction and unit takes over, rotates antenna and stops at desired point. No delicate electronic circuits that can be damaged by voltage surges. Color is finished in black vinyl over steel, with brushed aluminum sides. Dial is softly edge-lighted when in operation. Uses four wire cable. Shpg. wt. 15 lbs.
92F732. NET 33.50

Model TR-44. Designed for intermediate amateur requirements. Surpasses TV rotors in wind resistance, torque and dead weight capability. Calibrated to provide rotation and indication through a complete 360 range. 110 VAC is standard; 220VAC models also available on special order. Uses seven wire cable. Shpg. wt. 19 lbs.
92F736. NET 64.95

Model Ham-M. Heavy duty. Rotates 360 degrees. Input voltage: 115 VAC 60 cycles. Motor; 24 V., 2 1/4 amp., split phase 10% duty 360 inch-pounds torque. Control box size: 5 1/4" x 6" deep x 5 1/4" high. Rotator size: 8" max. dia. x 20" high. Uses eight wire cable #18. Shpg. wt., 26 lbs.
92F734. NET 119.50

COAX SWITCHES

Model 550A-2. Single pole, two position switch for use by Radio Amateurs, Citizen's banders, and Commercial users. Switches transmitter from one antenna to the other. Designed for panel mounting through a 3/8" hole. Common terminal identified by a large letter "C" stamped on the case of the switch. Equipped with three standard type UHF fittings SO-239. Freq. Range: Audio to 100 MC. Cross Talk: minus 60 db. between terminals at 30 MC. Dimensions: 4" overall dia., 2 1/4" depth behind panel, shaft 1" long, 1/4" dia. with flat. Shpg. wt., 1 1/2 lbs.
40F995. NET 7.90

Model 550A. Permits easy selection of antennas, transmitters, exciters, receivers and other RF devices using 52 or 75 ohm coax. Housed in 2 3/4" dia. aluminum case, equipped with six SO239 type connectors for selecting any one of five lines. Single hole mounting. Will handle 1 kw of modulated power with maximum crosstalk of -45 db at 30 mc. Wt., 4 lbs.
40F996. NET 10.35

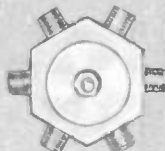
Model 551A. Multi-position coaxial switch. DPDT unit for switching various devices using 52 or 75 ohm coaxial lines in or out of series connection. It may also be utilized to switch low impedance coupled power amplifiers in or out of the circuit at will, permitting the driver stage to be connected to a low impedance antenna circuit or similar load as desired. Shipping weight, 5 lbs.
40F998. NET 9.85

AUDIO PHASE SHIFT NETWORK

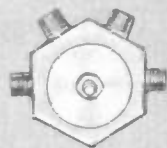
Model 350-2Q4. Highly compact, shielded, octal based audio phase shift network for SSB rcvg. and xmtg. Unit splits any audio signal within the range of 300-3000 cycles into two equal-amplitude components 90° (±1.5°) out of phase with respect to one another. Shpg. wt., 1 lb.
40F997. NET 6.60



550A-2



550A



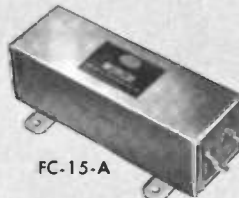
551A



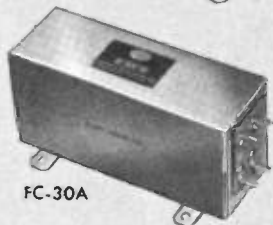
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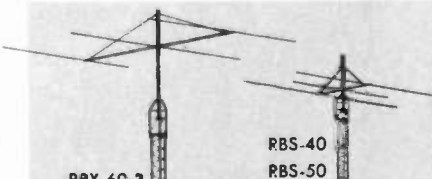
350-2Q4



FC-15-A



FC-30A



RBX-60-3

RBS-40

RBS-50



AR-22-R

Ham-M



To Serve You Better and Faster —
 Seven Stocking Warehouses from Coast-to-Coast

Whatever Your Electronic Needs — NEWARK Will Fill Your Order

AMECO HAM GEAR AND ACCESSORIES

MODEL TX-62 642 METER TRANSMITTER

Complete 6 and 2 meter, 75 watt phone and CW transmitter. Features: Frequency coverage, 50-54 mc and 144-148 mc; Power input to final, 75 watts. CW, 75 watts peak on phone; 6 Tube lineup; Controls—power switch, phone-CW switch, meter, selector switch, crystal or VFO switch, audio gain control, drive control, bandswitch, final plate tuning, loading; TVI suppressed; Crystal-controlled or can take VFO—crystals used are inexpensive 8 mc type; Meter reads final cathode current, final grid current and RF output; Mike/key jack and crystal socket on front panel. Push-to-talk mike jack; Potentiometer type drive control; Audio gain control; Additional connections in rear for key and relay. Solid state power supply included, built-in. Gray cabinet—perforated for proper ventilation. 11½x9x6". Shp. wt., 22 lbs.

97F771. NET 149.95

MODEL BIU BRIDGE INDICATOR UNIT

Will accurately read SWR, percentage power and percentage voltage (3 scales), when used with the Ameco SWB or other make of bridge. Switching circuit provides for reading either one of 2 bridges. Contains 100 µA D'Arsonval meter. Wired and tested. 2¾x5x3". Shpg. wt., 3 lbs.

97F773. NET 15.95

AMECO ALL BAND NUVISTOR PREAMPLIFIER

- 6 thru 160 meters
- Wired and tested

Model PCL-P. Two Nuvistor in cascade give noise figures of 1.5 to 3.4 db. depending upon the band. The weak signal performance of all receivers as well as image and spurious rejection are greatly improved. The PCL-P's overall gain is in excess of 20 db. Panel contains bandswitch, tuning capacitor and a three position switch which puts the unit into "OFF"

NUVISTOR CONVERTERS

These 6, 2, and 1¼ meter (220 mc) converters use three Nuvistors for low noise figure and high gain. Average gain 50 db. Noise figure: 50 mc-2.5 db; 144 mc-3.0 db; 220 mc-4.0 db. Image and spurious response more than 70 db down; IF rejection more than 100 db. RF gain control. IF output frequency 14-18 mc, easily changed when a new receiver is bought. Other IF's on special order. Tubes: 6CW4 RF amp.; 6CW4 RF amp.; 6CW4 mixer; 6J6 crystal osc. Requires 100 to 150 VDC. 30 ma; 6.3 V. 1 A. Size: 2½"W x 2"H x 6¾"D. Satin finished copper. Wired and tested. Shipping weight, 2 pounds.

97F755. CN50W, 6 meters. NET 49.95
97F756. CN144W, 2 meters. NET 49.95
97F757. CN220W, 1¼ meters. NET 49.95

AS ABOVE, BUT IN KIT FORM

Complete with instructions.
97F758. CN50K, 6 meters. NET 34.95
97F759. CN144K, 2 meters. NET 34.95
97F760. CN220K, 1¼ meters. NET 34.95

POWER SUPPLY FOR AMECO EQUIPMENT

Model PS-1W. For use with all Ameco equipment listed on this page. Delivers: 125 VDC, 50 ma; 6.3 VAC. 2 amps. Size:

LOW PASS FILTERS

BUD

Type LF-601. Input and output imped. adjustable from 52 to 72 ohms. Min attenuation of 85 db above 54 mc. and a min. of 93 db above 70 mc. Shpg. wt., 2 lbs.
47F950. NET 17.25

AMECO

Model TV-100-LP. With up to 100 watts max. input, 20 watts max. on 6 meters.
47F915. NET 5.95
Model TV-1000-LP. With up to 1000 watts max. input, 200 watts max. on 6 meters.
47F916. NET 16.95

MODEL VFO-621

Designed to operate with 2, 6, and 1¼ meter transmitters. Can be used with the AMECO TX-62 or with any other transmitter or transceiver. Uses the superior heterodyne principle, which permits operation of the oscillator with 1/3 of the usual multiplication. The lower multiplication frequency combined with the lower oscillator frequency permit stability and keying quality almost non-existent on 2 and 6 meters. No chirp with keying. Warmup time is very short, as both oscillators use transistors. Dial scale is calibrated for 144 to 148 mc and 50 to 52 mc over the full range. Controls: Power switch, Band switch, Tuning. Terminal strip is wired to work with either cathode or bias keyed transmitters. Connections: Output cable with dummy crystal—cable plugs directly into the TX-62 or any other crystal socket. Internal AC power supply is Zener diode regulated. 6x5x7½". Shp. wt., 9 lb.

97F772. NET 59.95

MODEL SWB STANDING WAVE BRIDGE

High quality bridge that will accurately read SWR's from 1.8 mc to 225 mc. (including Ham, CB and Commercial bands). Contains 2 SO-239 VHF connectors and is packaged in a satin copper case. Handles up to 1000 watts. Uses superior type of inductive coupling. Wired and tested. 1½x2¼x4½". Shpg. wt., 1 lb.

97F774. NET 9.95

- Built-in power supply
- Overall gain more than 20 db.

"Standby", or "ON", and transfers the antenna directly to the receiver or through the Preamp. Model PCL-P contains its own built-in power supply. An all-band Nuvistor preamplifier covering 1.8Mc. to 54 Mc. Size 5½x3¾x3". Completely wired and tested. With complete instructions. Shpg. wt. 2¼ lbs.
97F770. NET 32.95

NUVISTOR VHF PREAMPLIFIER

Nuvistor preamplifiers for use ahead of 6, 2, or 1¼ meter (220 mc) converters. Uses two tuned circuits and neutralized 6CW4 Nuvistor. Over 20 db gain. Noise figure: 50 mc-2.5 db; 144 mc-3.0 db; 220 mc-4.0 db. Size: 2½x3½x2". For 100 to 150 VDC, 8 ma; 6.3 volts, .13 amp. Wired and tested. Shipping weight, 10 ounces.

97F764. PV-50, 6 meters. NET 13.95
97F765. PV-144, 2 meters. NET 13.95
97F766. PV-220, 1¼ meters. NET 13.95

TELEX AMECO

ANTENNA RELAY

Type 51-487. Antenna changeover relay. For high RF switching in transmitters popular with Hams. Handles up to 1KW DPDT action. Has ¼" silver contacts spaced 2" apart. Steatite insulation. 115 volts AC coil. Complete with installation instructions. Size: 3½x2¾x1½". Shipping weight, 2 lbs.
24F950. NET 11.50

2½x4¼x4¼". Satin finished copper chassis. Wired and tested. Wt. 2½ lbs.
97F754. NET 12.50

E. F. JOHNSON

Model 250-20. Handles more than 1000 watts RF. Provides 75 db drop in harmonics above 54 mc. Not for use on 6 meters. 52 ohms imped. Shpg. wt., 3 lbs.
47F920. NET 14.95

Model TV-300HP. HI-PASS FILTER. Eliminates IF interference from ham bands 6-100 meters. Over 40 db attenuation. 52 Mc and lower. Imped. 300 ohms. Shpg. wt., 2 oz.
47F913. NET 4.50



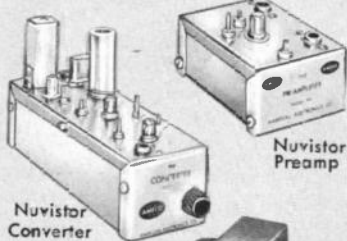
TX-62

VFO-621

BIU



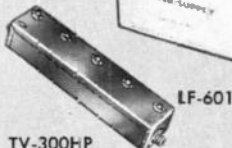
PCL-P



Nuvistor Converter

Nuvistor Preamp

PS-1W



LF-601

TV-300HP



250-20

100-LP

1000-LP



ANTENNA SPECIALISTS ANTENNAS

CITIZENS BAND ANTENNAS

All antennas are for mobile use except *, for base station.

Stk. No.	Type	Lgth.	Description	Wt.	NET
92F629	M-1D	102"	Complete body mtg. antenna assembly includes chromed swivel base, spring and whip.	5 lbs.	12.85
92F630	MB-24	102"	Complete antenna assembly. Includes double chain bumper mount, cad. plated spring, stainless steel whip, 20' RG58/U cable with PL-259 conn. and whip hold down clip.	6 lbs.	20.60
92F525	M-74	39"	Auto cowl fender or deck mounting. 12' RG-58/U cable with PL-259's both ends. 3/4" hole.	2 lbs.	13.60
92F524	M-73	39"	Trunk groove mount 12' RG-58/U cable with PL-259 included. 1/2" holes.	1 1/2 lbs.	13.60
92F618	M-117	18"	Super Magnum 1/2 wave length, end feed 27 Mc. freq. range.	12 lbs.	29.95
92F466	M-3B	102"	Stainless steel whip with plated brass adaptor. Can be cut if necessary.	2 lbs.	4.75
92F640	M-81*	18" 4"	Magnum 27 antenna, provides 6db gain. Mounts on pipe mast.	12 lbs.	23.25
92F500	M-124	36"	Similar to M-67 whip but with stainless steel spring. 3/4" mtg. hole. With 20' RG-58/U cable. Whip adaptor or fine tuning.	1 1/2 lbs.	15.30
92F501	M-130	18"	"Mighty Mite", 27 mc. High performance roof-mount. Stainless shock spring, adjustable tuning, more effective loading coil. Snap-in 3/8" mount, no soldering.	1 1/2 lbs.	11.05
92F502	M-131	18"	"Maggie Mite". Same size and high performance of the M-130, but for gutter clip mounting.	2 1/2 lbs.	15.15

AMATEUR COMMUNICATIONS

Stk. No.	Type	Description	Wt.	NET
92F457	ASP-157	130-470Mc. Gutter clamp 18x3/4" long. For temp. mt. on rain gutter. With 12' RG-58 & PL-259.	2 1/2 lbs.	8.75
92F470	M-3D	Amateur swivel base, chrome.	1 1/8 lbs.	5.25
92F469	M-7A	Light weight to be cut to desired frequency.	3 lbs.	6.35

AMATEUR BAND MOBILE WHIP ANTENNAS

Stk. No.	Type	Description	Wt.	NET
92F468	ASP-201	144mc. Roof top 18x3/4" long; mts. in 3/8" hole.	2 lbs.	3.10
92F599	ASP-242	Two meter coaxial double chain bumper mount.	3 1/2 lbs.	22.45

WHIP ACCESSORIES

Stk. No.	Type	Description	Wt.	NET
92F459	M4	Whip Clip. Fastens to car rain gutter w/o holes.	1/2 lb.	.80
92F529	M-54	Kwick Kupler. Allows whips to be removed from base with one quick twist. Chromed brass.	1/2 lb.	3.20
92F527	MA54	Top piece of M-54 use for interchanging several whips.	1 lb.	2.50

BODY MOUNTS

Stk. No.	Type	Description	Wt.	NET
92F450	M-3	Amateur Swivel base, alum. ball. Solder lug cable conn.	1 1/2 lbs.	3.25
92F451	M-13	Deluxe amateur swivel base, chrome ball. Coax conn.	2 lbs.	6.50

BUMPER MOUNTS

Stk. No.	Type	Description	Wt.	NET
92F458	ASP-143	Double chain mount, reduces sway. Cad. plated steel.	2 lbs.	8.60

SPRINGS

Stk. No.	Type	Description	Wt.	NET
92F461	M-3A	Standard amateur cad. plated steel.	1 lb.	2.25
92F462	M-3A	For extra heavy and center loaded amateur antennas	1 1/2 lbs.	5.15
92F460	ASP-122	Stainless steel spring. Cad. plated end bells.	1 1/2 lbs.	9.10

MICROWAVE DEVICES INC. (FORMERLY M. C. JONES)

CITIZENS BAND & SWR METER

Model 290. Micro Match Citizens Band Power & SWR Meter. Measures actual RF power output in watts on an accurately calibrated 0 to 4 watt scale. Indicates when transmitter and antenna are tuned

for maximum output. No external power required. Compact size (4 1/2" x 2" x 2 1/4") makes this unit ideal for dashboard mounting. Continuous reading. 97F298. NET..... 26.50

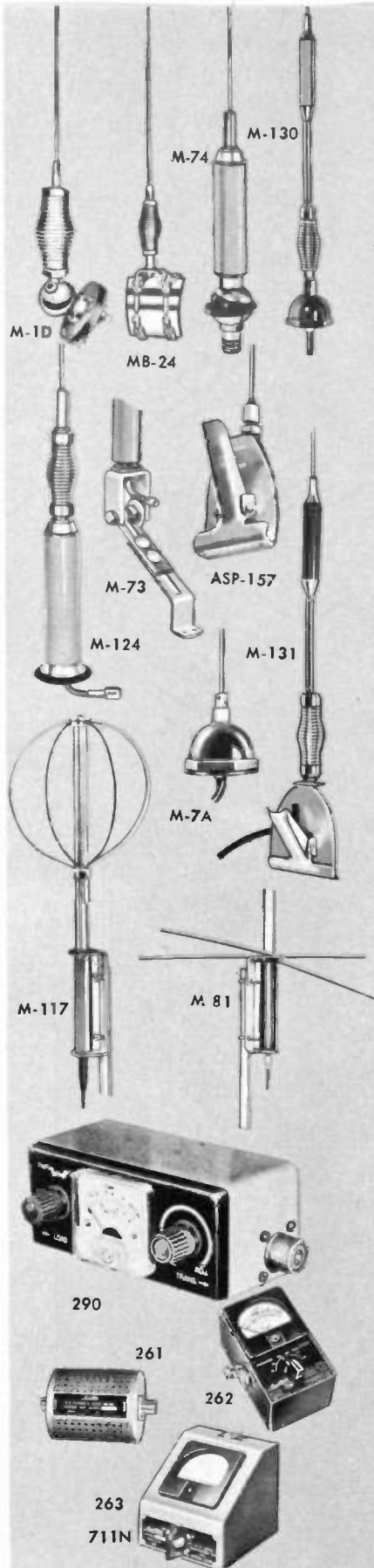
SWR BRIDGES & INDICATORS

Model 261. Coupler. Operating range: 500 kc—225mc. For 52 ohm coax line. May be left in transmission line as a monitor at up to 1 KW RF power. Complete instructions included. Used with 262 Indicator below or a home made type. UHF type connectors. Size 3x4 3/4". Shpg. wt., 1 lb. 97F295. NET.....22.50

Model 263.2. Both coupler and indicator similar to 261 and 262 except calibrated to read RF power in actual watts on 10, 100, and 1000 scales. UHF type connectors. 97F297. NET..... 85.00

Model 263.3. As above with "N" connectors. 97F292. NET..... 85.00
Model 711N. Single unit with both coupler and indicator. 25-1000 mc on 50 ohm coax line. Ranges: 0-30, 30-75, 75-300 watts. Type N connectors, includes UHF adapters. Size: 3 1/8 x 5 3/8 x 3". Shpg. wt., 3 lbs. 97F293. NET..... 135.00

Model 262. Indicator. Used with 261 coupler above. 4 1/4 x 4 1/4". Shpg. wt., 2 lbs. 97F296. NET.....14.50



HY-GAIN AMATEUR ANTENNAS

MULTI-BAND TRAP DOUBLET

Features new Hy-Q Slim Line Traps encased in a solid aluminum housing. New higher Q, lower absorption loss trap design provides maximum frequency stability. Heavy duty end and center insulators, aluminum clad solid steel wire elements. SWR less than 2:1 at resonance on every band. Install horizontally or as a inverted V. Take maximum legal power.

Stk. No.	Type	Frequency	Length	Shpg. Wt.	NET
92F546	2BDQ	40, 80 Meters	110.5'	2 lbs.	29.50
92F549	5BDQ	10, 15, 20, 40 80 Meters	111.5'	5 lbs.	44.50

FIXED STATION VERTICAL

Model 14AVQ. Improved version of the popular Model 14AVS self-supporting vertical for 10 thru 40 meters. New Hy-Q frequency-stabilized traps. Double-grip mast bracket. Taper swaged seamless aluminum radiator. Shpg. wt. 10 lbs.

92F485. Model 14AVQ. NET 32.50

Model 1C-80Q. Leading coil for 14AVQ. Adds 80 meter operation. Shpg. wt. 1/2 lb.
92F539. NET 9.95

Model 14RMQ. Roof Mounting kit and radial system for 14AVQ. Shpg. wt. 5 lbs.
92F486. Model 14RMQ. NET 14.95

VHF MONOBAND AMATEUR BEAMS

Performance equals Maximum Theoretical Gain. Beta Match permits maximum gain and F/B ratio with nominal 50 ohm feedback impedance. F/B ratio, 20-30 db. Coaxial Balun. VSWR 1.5:1 at resonance. Aluminum booms. 1/4" aluminum rod elements. Styron insulators. Machine formed heavy gauge mast bracket. All steel hardware iridite treated to MIL specs. 100 mph maximum wind survival.

2 METERS

Stock No.	Type	Gain	No. of Elements	Boom Length	Longest Element	Shipping Weight	NET EACH
92F897	23	9 db	3	3 ft.	3.5 ft.	5 lbs.	8.95
92F898	28	14.5 db	8	14 ft.	3.5 ft.	9 lbs.	18.95
92F479	215B	17.8 db	15	28 ft.	3.5 ft.	20 lbs.	39.50

DUO BAND BEAM FOR 6 AND 2 METERS

Model DB62. Delivers 8db gain on 6 meters; 15db gain on 2 meters. Uses four elements on 6 meters; 18 elements on 2 meters. F/B ratio, 15-20db. SWR below 1.5:1 both bands. Automatic band switching. Feeds with 52 ohm coax. Longest element, 10'. Boom length, 10'. Turning radius, 7'. Survives winds of 100 MPH. Shpg. wt., 8 lbs.

92F478. Model DB62. NET 34.95

FIXED STATION VERTICALS

Stock No.	Type	Freq. Range	Mts. On	Description	Sh. Wt. lbs.	NET
92F880	DS-1-A	50-500MC	3/4" Pipe	Discone—extremely Broadband antenna	9	39.95

CENTER MOUNT 2-METER MOBILE HALO

Model HH2BA. Delivers perfect omni-directional pattern with maximum impedance control. Center mount design eliminates pattern distortion. Unique Beta Match insures optimum transfer of energy. Hard drawn seamless aluminum construction. Heavy gauge machine formed mounting hardware. Shpg. wt., 2 lbs.

92F488. Model HH2BA. NET 6.95

MODEL GP-150 HY-GAIN 1/4 WAVELENGTH UNITY GROUND PLANE

Unity gain ground plane antenna. Employs drooping radials to implement impedance matching and provide low-angle radiation. Radiator and radials constructed of 3/16" solid aluminum rod. Comes with a heavy gauge steel mast bracket designed for mounting on masts of 1" to 1 1/2" OD. Mast bracket and all hardware are iridite treated to mil specifications for max. weatherability. Max. Power Input: 500 watts. VSWR is 1.1:1. Band width ±5%. Frequency Range: 108-500 mc. Nominal impedance 50 ohms. Wind load at 100 MPH is 1.66 lbs. Wind Surface Area is 0.52 sq. ft. Overall Height (Max.) 20 in. Net Weight 1 lb.

92F533 NET 5.40

MODEL GP-50 HY-GAIN 1/4 WAVELENGTH UNITY GAIN GROUND PLANE

Omni-directional antenna. Performs on 27 thru 50 mc. For medium range transmit/receive applications or monitor antenna requirements. Radiator is at DC ground preventing static build-up and protection against lightning. Radiator and radials are constructed of heavy wall 5/8" and 1/2" OD Aluminum tubing. Ultra-sturdy base mount, molded high impact cycloc insulator. Iridite treated hardware for max. weatherability. Installs on masts up to 1 1/2" OD. Freq. range 27-50 mc. Max. RF power 500 watts. Radiator and Radial lengths: 1/4 wavelength. Wind Survival 80 mph. Ship. wt., 6 lbs.

92F534 NET 12.95

CLR-2 COLINEAR GROUND PLANE

Model CLR2. Delivers 9.4db circuit gain in all directions. 6-20db gain in improved Signal-to-Noise Ratio. 52 ohm coax connector imbedded in moisture-safe housing. SWR less than 1.2:1. Installs quickly and easily. A mere 15 minutes from carton to contact. Radiator, 19' 10"; radials, 9'. Shipping weight 10 lbs.

92F641. Model CLR2. NET 29.95

VERSATILE 36" TELESCOPING WHIP

Model TQCW. New chrome-plated whip designed for transceiver mounting. Features high efficiency top loading coil encased in polypropylene plastic. Complete with PL-259 connector for simple screw-in attachment to most CB transceivers. Shipping weight 1 lb.

92F487. Model TLCW. NET 7.95

ACCESSORIES

COAXIAL LIGHTNING ARRESTOR.

Crush Craft. Model LAC-1. For Standard coaxial cable. Eliminates heavy static charge build-up—protecting valuable radio equipment. No insertion loss and will not affect performance or S/W/R to 500 mc. 3/4" O.D. Shpg. wt. 1 lb.

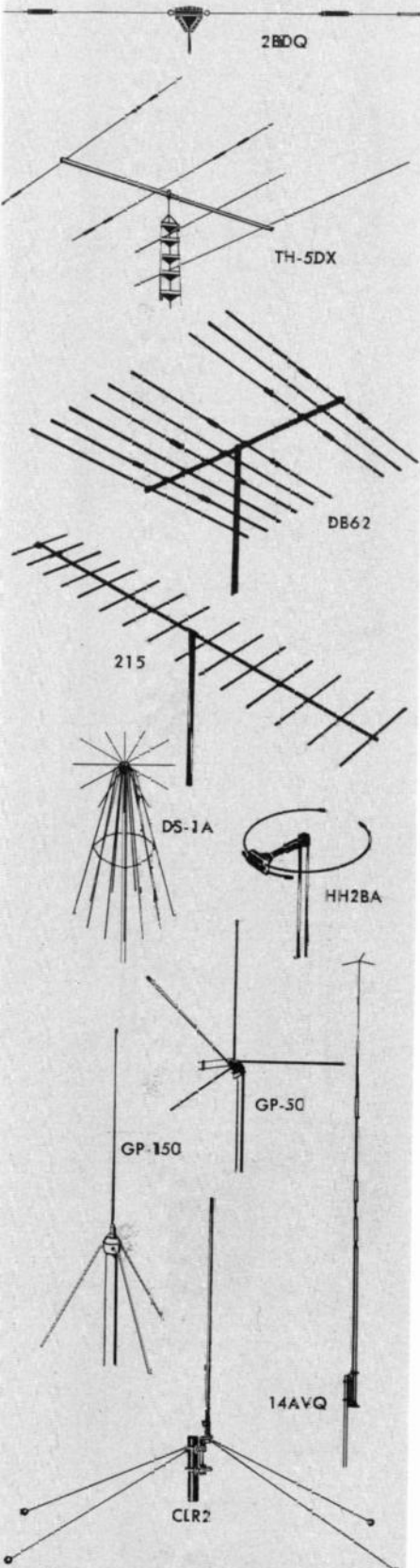
92F096. NET 3.95

HY-Gain Model CL. Heavy duty center insulator. Molded from high impact cycloc plastic. Use for horizontal or inverted V installations. Shpg. wt., 4 oz.

92F540. NET 3.95

Hy-Gain Model EI. High impact cycloc plastic End Insulator. Shpg. wt., 3 oz.

92F541. NET Per Pair 2.00



HALLICRAFTERS' TRANSCEIVERS

● NEW MODEL CB-20 "REACTOR" TRANSCEIVER

Solid state CB transceiver features 5 crystal-controlled channels, low battery drain, and compact size. Also provides high-order modulation, superb sensitivity, built-in noise suppression. A must for the two way communicator. Circuit employs 12 transistors plus 8 diodes with Zener voltage regulator. Sensitivity: 1 microvolt for 10 db signal-plus-noise. Power

input: 5 Watt. Power output: 3 Watt. Push-to-talk ceramic MIC. Current Drain: receive, 0.75 amp; transmit, 1.4 amps. Sat. in black finish with bright chrome-color trim. 7"x6"x2 1/8". Trunion type mounting bracket. Operates only on 12VDC. Includes set of channel 11 crystals. 4 lbs.

98F022. NET **99.95**

MODEL CB-6 TRANSCEIVER

Suited for modern business and personal communications in the 27 mc Class D service. No license required. Hand-held walkie-talkie unit ideal for communications between field, mobile, or base stations. Features plug-in crystals. 9 transistors,

plus 1 diode and thermistor. Power input: 100 mw. 1 mv receiver sensitivity. Antenna 55" long. Size: 3 3/8"x1 3/4"x6 3/8". With instructions. Shpg. wt., 2 3/4 lbs.

98F000. NET **39.95**

● NEW CB-14 TRANSCEIVER

23 channel solid state transceiver features a crystal control synthesizer and a dual conversion receiver. Also includes full time noise limiter. Squelch is adjustable. Has loud hailer capability. This unit is a

12 Volt DC operation. Features described make for a clearer, noise-free reception. Dimensions: 9"x3 3/4"x7 3/4". 6 3/4 lbs.

98F023. NET **259.95**

MODEL CB-8 TRANSCEIVER

All transistorized. Uses nickel cadmium rechargeable battery. Superheterodyne ckt. Double conversion IF system and 2 steps of ceramic filter for stability, sensitivity and selectivity. Effective squelch. High level class B modulation. 2 X-Tal controlled transmit and receive channels. 13 transistors, 3 diodes. Receiver: sensitivity for 6 db signal to noise ratio, 1 uV; selectivity at ±3KC of desired channel, 3 db;

selectivity at ±10KC of desired channel, 36 db; audio output power, 500mW; power input to final, 1.1W; frequency stability, 0.005%. When set to "Receive", battery drain is 20ma @ 12V. When set to "Transmit", battery drain is 120mA @ 12V. Case size, 3 3/4"W x 7"H x 1 3/4"D. 2 1/2 lbs. Complete with case, battery. Battery charger and 2 channels (11-15).

98F051. NET **99.95**

● NEW MODEL CB-11A POCKET PORTABLE TRANSCEIVERS—SET OF 2

Compact transceivers meet the need of modern business and personal communications in the 27 Mc Class D service. Good for hunting, fishing, camping, exploring, and any situation where mobility is a must. Unit is completely self-contained, with battery power supply (ordinary 9 volt radio battery). Features built-in dynamic microphone and speaker, battery replacement indicator, telescoping antenna, and carrying strap. Crystals are plug-

in. No soldering for changing channels. Sturdy die cast front resists rugged use. Includes 10 transistors + 1 diode + thermistor. Power input 100 MW. Receiver sensitivity 1 microvolt. Speaker output 120 MW. 42 1/2" length antenna. Packaged in pairs, less batteries. Units provide easy access to the battery compartment. 5 1/8" x 2 1/8" W x 1 1/8" thick. 2 lbs.

98F054. NET. Per pair **74.95**

● NEW 510-B SOLID STATE CITIZENS BAND TRANSCEIVER

This expertly designed citizens band transceiver puts out 3 1/2 Watts. Pinpoint tuning with a crystal-controlled transmit/receive channel. All channel variable tuner included. Low current drain, no tubes. Features double conversion super-

het receiver (both crystal & tuned ceramic filters). Long life—completely solid state. RF stage, 4 IF stages, 1/2 microvolt sensitivity. 100% transistor reliability. 12VDC, 120VAC. 6 lbs.

98F380. NET **169.95**

AMPHENOL TRANSCEIVERS

● NEW MODELS 600 AND 625 CB TRANSCEIVERS

5 Watt transceivers have power outputs of 3.5 Watts with 10 crystal-controlled channels. All solid-state circuitry. 0.4 microvolts sensitivity for 10 db S/N Ratio. Dual conversion IF. 4 Amplification stages. Model 600. 18 transistors, 5 diodes. Built-

in 12-14 VDC with plug-in power cord. Wt. 6 lbs.

98F381. NET **149.95**

Model 625. Built-in universal 12-14 VDC and 110/220 VAC. Wt. 6 lbs.

98F382. NET **185.95**

● NEW MODEL 650 TRANSCEIVER

650 is a 5 Watt transceiver with an output of up to 3.5 Watts. Features spot control switch, 23 channel crystal correlated tuner, precision S & RF output meter, built-in P.A. system, and a dual power supply. Has rugged ceramic microphone with

coiled cord, matched pair of channel 11 transmit/receive crystals, power cords for both 110/220 VAC and 12 VDC operations. I.R. frequencies: 4.3 mc and 2455 kc.

98F383. NET **229.95**

● NEW MODEL 524 ENCODER DECODER

524 Selective Call great for all Amphenol 5 Watt transceivers and other types with 12 VDC power supply. Eliminates undesirable signals and background noise. 24

codes. 3 sequential tones prevent false triggering. Calls selected remote mobiles in a system. Wt. 31 lbs.

98F384. NET **84.95**

● NEW MODEL 500-1 PORTABLE PACK

Lightweight case with recharger network to adapt the 510-B, citizens band transceiver for full field portability. High gain 6-section antenna. Adjustable angle connector. Built-in recharger for operating on

standard 117 VAC. Operates directly on 117 VAC or 12 V storage batteries through recessed power receptacle.

98F387. NET **37.95**

98F388. 500-2 6 V rechargeable battery. **9.90**

● NEW MODEL C-75 SOLID STATE TRANSCEIVER

This 1.5 Watt transceiver features 2 crystal-controlled channels. Designed for applications where big set performance and convenience are needed in the field, boat, etc. 2 way communications up to 5 miles. Solid state throughout. Power supply: 12 VDC. (Rechargeable batteries

or daylight cells). Sensitive superhet receiver. 1.0 watt power output to antenna. Modulation averages 90% for 500 to 2500 cycles. 1 micro-volt sensitivity. 2 lbs. with battery.

98F385. C-75 **114.50**

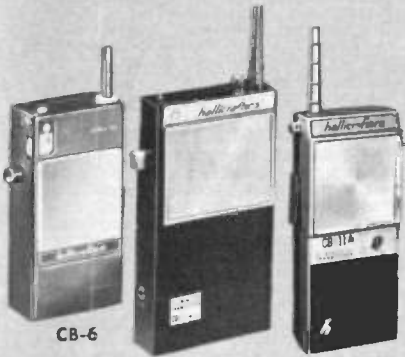
98F386. C-75-7. Antenna Adapt. **6.65**



CB20



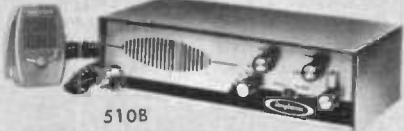
CB14



CB-6

CB-8

CB11A



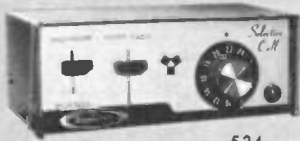
510B



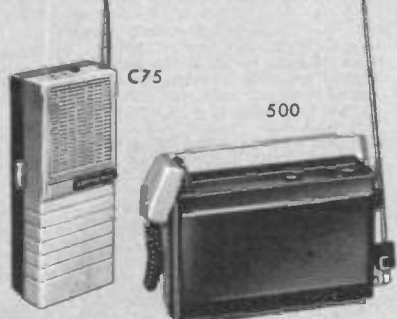
600



650



524



C75

500

1 1/2 WATT PERSONAL MESSENGER TRANSCEIVER

Model 242-102. Superhet receiver, RF amp. gives twice the sensitivity, 40% greater range. Fully effective noise elimination with the use of 11 transistors and 4 diodes. AVC combined with push-pull audio circuit. Squelch control, razor sharp reception Channel 9 carried in stock. Other chan. available. AMERICAN made components add to reliability. Meets all FCC requirements, 23 channel coverage. High-impact plastic case, telescoping antenna, push to talk s.w. 12x4 3/4 x 2 3/4". 2 1/2 lbs.

Stk. No.	Model	1-2	3-6	7-up
97F536	242-102-9	129.50	119.15	109.60

Model 242-101. Same as model 242-102, but 100 Mw transistor. Channel 9.

Stk. No.	Model	1-2	3-6	7-up
97F537	242-101-9	102.95	95.25	87.50

PERSONAL MESSENGER ACCESSORIES

49F262. Burgess Z batteries for above. (8 required.)

Net Each09

Model 250-804. Rechargeable nickel cadmium battery mounted in sealed plug-in compartment for recharging at 115V AC, 50-60 cps. To be used in place of pen-light cells.

97F538. NET 19.95

Model 250-803. Earphone w/cord-plug.

97F539. NET 4.50

Model 251-806. Transceiver carrying case.

97F540. NET 8.50

Model 250-807. Adapter for powering from cigarette lighter on 12 volt cars.

97F541. NET 4.50

MESSENGER TWO CB TONE ALERT

Model 250-811. Designed to work in conjunction with your CB transceiver without the bother or annoyance of listening to unwanted transmissions or noise. Tone Alert attaches to your 2-way radio equipment; a high 'Q' frequency selective resonant reed relay is used and will respond only to its specific frequency from the relay unit. 37 different calling tones easily installed by plugging into the unit. Consisting of a transistor oscillator, resonant reed controlled, is used in the tone generator and a dual vacuum tube is used to drive the resonant reed relay in the receiver circuit. Designed for 12 VDC and 115VAC. Attractively styled—chrome-plated front panel and grey wrinkle finished cabinet. 1 1/2" wide, 4" high, 7 3/4" deep. Shpg. wt. 6 1/2 lbs.

97F526. NET 59.95

MESSENGER—115 VAC—12 VDC TRANSCEIVER

Model 242-128. Ideally suited for daily business use as well as pleasure. A complete 10 tube (including rectifier), crystal-controlled transmitter and receiver enclosed in a steel cabinet. Its compact size and light weight make it easy to install anywhere, even under the dashboard of your car. By moving selector switch on front panel to desired position you may select up to 5 of the 23 available channels. Built-in automatic noise limiter. Automatic volume control effectively prevents distortion at close ranges. Microphone equipped with a push to talk switch. Controls include manual squelch control. Has an effective range up to 20 miles in a car and longer over water. 115V AC and 12V DC. Complete with microphone and cord, crystals for 1 channel, and necessary power cords. Size: 5 5/8" H x 7" W x 11 3/4" D. 14 lbs. Chan. 9.

Stk. No.	Model	1-2	3-6	7-up
97F515	242-128-9	99.95	91.95	84.60



NEWARK Is Cooperating in the National Highway Emergency Locating Plan

MESSENGER TWO—115 VAC—12 VDC TRANSCEIVER

Model 242-163. Chan. 9. Has tunable receiver and 10 channel crystal controlled transmitter. Featuring highly selective and sensitive superheterodyne receiver, automatic volume control, high efficiency noise limiter and direct plug-in provision for Tone Alert selective calling system. 10 tube circuitry meets all FCC regulations and is designed for legal power on all channels without retuning. Improved adjacent channel rejection through the use of the high efficiency automatic noise limiter and suppression of external electrical noises. The rugged microphone is equipped with a conveniently located push-to-talk switch. Compact and lightweight easy to install anywhere: 5 5/8" H x 7" W x 11 3/4" D in a modern grey and black cabinet. 16 lbs.

Stk. No.	Model	1-2	3-6	7-up
97F525	242-163-9	149.95	137.95	126.90

12-CHANNEL MESSENGER III

Model 242-143. Up-to-the-minute in engineering, the Messenger III has 18 transistors and 8 diodes—offers compact size, a husky signal, extreme sensitivity, razor-sharp selectivity and complete adaptability for base station, mobile, or battery powered portable use. Delivers more power and more exacting performance than offered by any other C.B. unit available today. Receiver sensitivity and selectivity are the finest ever offered—double conversion with high list I.F. (4.3 mcs) provides excellent spurious and image rejection. Set-and-forget Volume and Squelch controls eliminate the need for constant readjusting. Multi-stage automatic noise limiting circuit combined with noise-immune squelch, RF, and audio filtering circuits make it quiet to operate. Chan. 9 carried in stock. 2 3/16" x 8 3/4" x 6 5/16". Shpg. wt. 17 lbs. For 12 volts DC.

Stk. No.	Model	1-2	3-6	7-up
97F530	242-143-9	159.95	147.15	135.40

POWER SUPPLY

Model 239-125. 117 V AC Power Supply for the Messenger III and Messenger 100.

97F531. NET 29.95

TRANSISTOR TONE ALERT III

Model 250-827. A selective calling system which completely mutes the speakers on your units until one unit calls another—then, automatically, your stations hear an audio note and an indicator light comes on, remaining lighted until he is answered. Eliminates the annoyance of hearing transmissions not meant for your units—also eliminates "skip", unwanted electrical noise, and other distractions. Three-position switch for Stand-by, Operate, and Call functions. Size: 4x1 1/2 x 7 3/4". Shpg. wt., 5 lbs.

97F532. NET 69.95

tone alert with power supply

Model 239-123. As above but built into a 117-Volt AC Power Supply.

97F533. NET 94.50

EXTERNAL SPEAKER

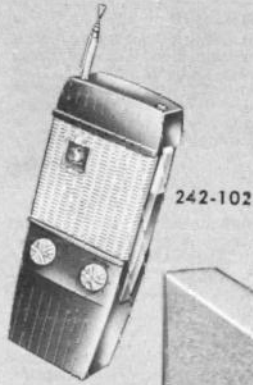
Model 250-822. For Public Address use. Messenger III and this accessory, weather-proof external speaker combine to give you a full 3-watt P.A. system.

97F534. NET 20.95

PORTABLE FIELD PACK

Model 250-825-3. Powered by self-contained, rechargeable nickel-cadmium battery, the Messenger III in portable use with a 4 ft. fiberglass antenna, delivers a signal comparable to most mobile installations. Messenger III slides easily into this rugged portable carrying case to become a full 5 watt portable pack set that is ideal for any type of field application. Uses two batteries—has built-in recharger. Meter function and rate-of-charge selected by separate front panel switches. Built-in meter indicates battery condition. Accessory cables permit operation from 12 v. vehicle battery through cigarette lighter, or from any 117 v. AC outlet. 9 1/2" x 9 3/4" x 4 3/4". Less antenna.

97F535. NET 169.95



242-102



250-811



242-128



242-163



Messenger III

Messenger III Portable Power Pack



Messenger III with Power Supply



CITIZENS BAND EQUIPMENT AND ACCESSORIES

FANON

NEW SELECTIVE CB CALL SYSTEM

MODEL CT-5

- Signals 5 transceivers selectively on each channel
- Avoids unwanted calls
- Efficient and convenient

One of the most annoying aspects of CB operation—that of continually having to listen to unwanted calls and constant "hash" (noise) on the air, now has been eliminated. Model CT-5 is a compatible unit that plugs into built-in sockets on the base of Fanon models L-2000 and DCL-50 transceivers. From the completely quiet "standby" position, these units are always ready to selectively call or receive from other CT-5 equipped transceivers. Any one other unit can now be called without disturbing the others. Simply choose the designated number for the unit being called and a frequency control tone will alert just that party, bypassing the other units. Once alerted, transceivers go into normal voice transmission. The other units, not being alerted, remain in "standby" and are not disturbed by the conversation. Up to 10 Fanon transceivers can be selectively called with the CT-5 (5 on Channel A plus 5 on Channel B). Shpg. wt. 1 lb.

97F350. NET **16.50**

• NEW DCL-50

Offering 100% modulation and extended range in a ruggedly built, dependable unit, the Pathfinder is a top rated performer. Squelch control reduces background noise. Built-in meter indicates battery strength at a glance. Can be operated on AC with an optional power supply. Complete with earphone, 8 penlite cells and handstrap. Use with optional "Call-Tone Selector". Die-cast metal case 8"x3½"x1½".

97F351. NET **39.95**

• NEW DCB-92

2 Channel operation. Deluxe circuit for extended range and durability. Features a "beep" tone signal to alert other DCB-92's. Complete with earphone, batteries and carrying strap. Equipped with crystals for Channel 9 only. Can be used with PS-140 AC power supply or Model RBP-8 rechargeable battery pack. Size: 8"x3½"x1½".

97F353. NET **29.95**

LEATHER CARRYING CASES

LC-4. Leather Case for DCB-92, DCL-50, DCB-11. 97F355. NET 3.75
 LC-5. Leather Case for CT-5. 97F356. NET 1.90
 LC-6. Leather Case for L-2000. 97F357. NET 4.50

• NEW L-2000

2 channel operation. Equipped for Channel 9. Call-Tone signal permits unit to call another with "beep" tone. Use with optional 5-tone selective calling adapter Model CT-5 to "beep" up to 5 others on Channel A and 5 on Channel B. Variable squelch control. Complete with earphone, 10 penlite cells and handy strap. Separate mike and speaker. Jack for external 12v. power source and antenna. Die-cast metal case—8½"x3½"x2½".

97F352 **79.95**

• NEW DCB-11

Basically the same as Model DCL-50 but rated 100 Milliwatts. Every desired feature has been incorporated to assure maximum efficiency and flexibility under all conditions. No license required—input power conforms to FCC regulations. Contains all features of DCL-50 and can be used with the same accessories.

97F354. NET **33.75**

• NEW POWER SUPPLY UNITS

Model PS-140. AC Power Supply for DCB-92, DCB-11 (100 mw.) 97F358. NET **10.50**
 Model PS-150. AC Power Supply for DCL-50 (½ watt), L-2000 (2 watt). 97F359. NET **17.95**

E. F. JOHNSON

• NEW 6-CHANNEL MESSENGER "100" TRANSCIVER

Model 242-156. Chan. 9 carried in stock. Unique "speech compression" circuit transmits only the intelligible portions of the voice signal—eliminating low frequency "hum" and high frequency "warbling"! This circuit delivers a clean, crisp signal without adjacent channel "splatter"—boosts average transmitter power for greater readability at extended ranges! This compact, six-channel unit is small enough to fit snugly under the dashboard

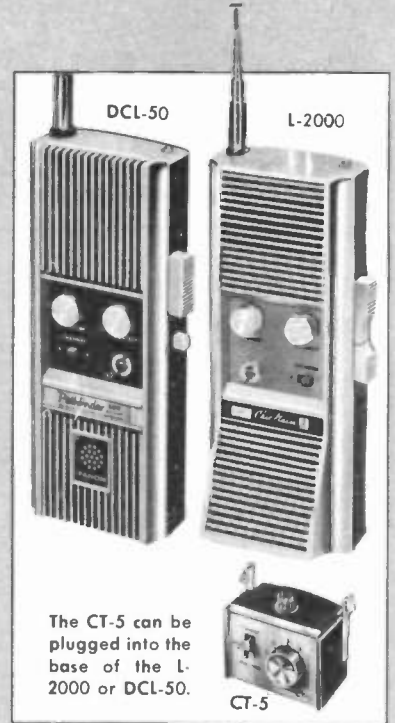
of any mobile vehicle, and its all-transistor circuitry operates with extremely low current drain. Completely flexible in its design, the "100" may also be used for base station or portable field use. Frequency Range: 26.965—27.255Mc. Dimensions of Enclosure: 2½" x 6¼" x 8¾".

Stk. No.	Model	1-2	3-6	7-up
97F529	242-156-9	129.95	119.55	109.95

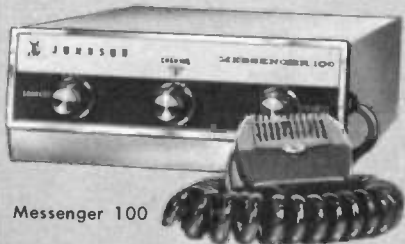
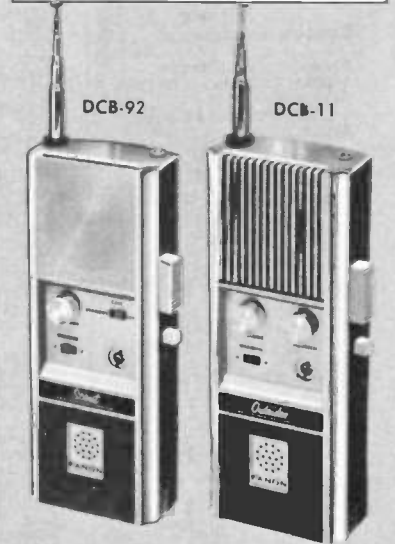
• NEW CB MATCHBOX

Designed to become a permanent part of your CB installation. Just place it in the line between the transmitter and antenna and leave it there. Two simple controls allow correction of an SWR up to 5:1. With the CB Matchbox, you will always

get an SWR of 1.1:1 or better. Power Loss: Less than 0.1 db. Operating Frequency: 26.5 mc to 30 mc. Max. Power: 15 watts. Connectors: Two SO 239 coaxial connectors. Size: 4"x3¼"x2½". 97F528. Model 250-49. NET **15.95**



The CT-5 can be plugged into the base of the L-2000 or DCL-50.



Messenger 100

CB Match Box



**Depend on NEWARK for Everything
 in Industrial Electronics
 To Serve You Better —
 Seven Stocking Warehouses
 from Coast-to-Coast**

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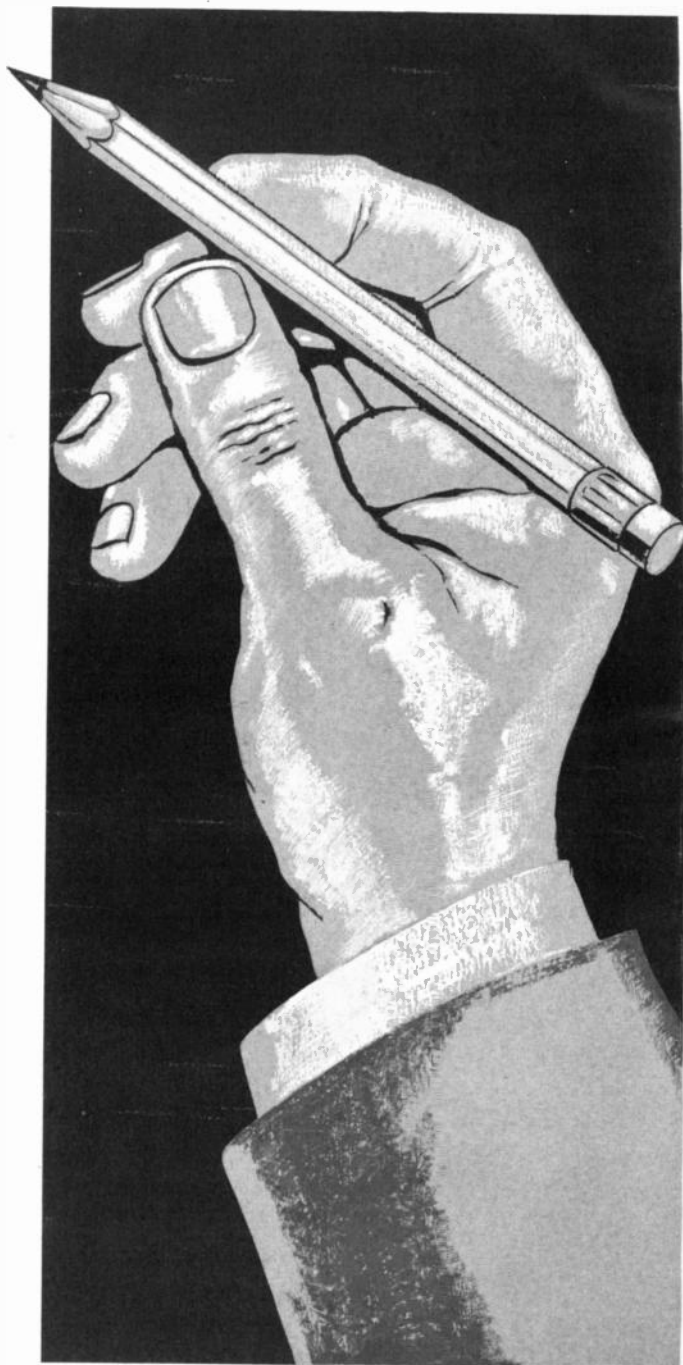
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C.O.D. SHIPMENTS

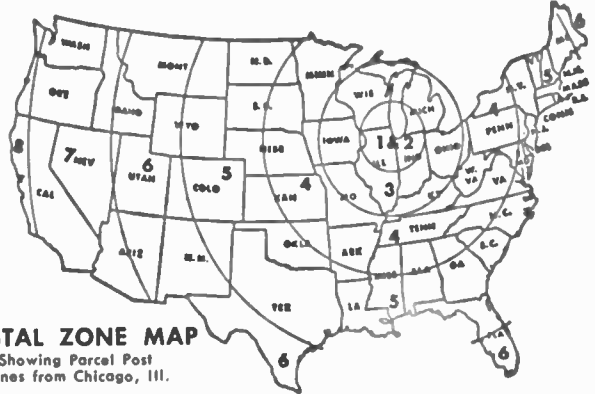
On parcel post C.O.D. shipments, the Post Office charges an additional collection fee and a money order fee for forwarding the amount collected to us. You can save money by sending full remittance with order. The following are the charges on C.O.D. orders.

Amt. C.O.D.	C.O.D. Fee
\$ 0.01 to \$ 5.00.....	.40 Cents
5.01 to 10.00.....	.50 Cents
10.01 to 25.00.....	.70 Cents
25.01 to 50.00.....	.80 Cents
50.01 to 100.00.....	.90 Cents
100.01 to 200.00.....	\$1.00

PARCEL POST RATES

See the table and zone map below for parcel post rates. Save C.O.D. charges by sending enough money to cover postage. On parcels under 16 ounces, allow 4c for first 2 ounces or fraction, and 2c for each additional ounce.

Weight in Pounds	ZONES							
	Local	1-2 Up to 150 Miles	3 150 to 300 Miles	4 300 to 600 Miles	5 600 to 1000 Miles	6 1000 to 1400 Miles	7 1400 to 1800 Miles	8 Over 1800 Miles
1								
2	\$0.29	\$0.40	\$0.42	\$0.46	\$0.52	\$0.59	\$0.66	\$0.72
3	.31	.46	.49	.55	.64	.73	.83	.93
4	.33	.51	.55	.64	.75	.88	1.01	1.13
5	.35	.57	.62	.72	.87	1.02	1.18	1.34
6	.37	.62	.68	.80	.97	1.15	1.34	1.53
7	.39	.68	.75	.88	1.07	1.28	1.50	1.73
8	.41	.73	.81	.95	1.18	1.41	1.66	1.92
9	.43	.78	.87	1.03	1.28	1.53	1.82	2.12
10	.45	.83	.93	1.10	1.38	1.66	1.98	2.31
11	.47	.88	1.00	1.18	1.48	1.78	2.14	2.48
12	.49	.93	1.06	1.26	1.58	1.90	2.29	2.66
13	.51	.98	1.12	1.33	1.69	2.02	2.44	2.83
14	.53	1.03	1.18	1.41	1.79	2.14	2.60	3.01
15	.55	1.08	1.24	1.48	1.89	2.25	2.75	3.18
16	.57	1.13	1.30	1.56	1.99	2.37	2.90	3.36
17	.59	1.18	1.36	1.64	2.09	2.49	3.06	3.53
18	.61	1.23	1.42	1.71	2.20	2.61	3.21	3.71
19	.63	1.28	1.48	1.79	2.30	2.73	3.36	3.88
20	.65	1.32	1.54	1.86	2.40	2.85	3.51	4.06
For Each Extra Lb.	Add 2c	Add 4c	Add 5c	Add 7c	Add 9c	Add 12c	Add 15c	Add 18c



POSTAL ZONE MAP

Showing Parcel Post Zones from Chicago, Ill.

AIR PARCEL POST RATES

ZONES	1 & 2	3	4	5	6	7	8	U. S. Territories & Possessions 8th Zone Rate
1 Lb.	\$0.68	\$0.73	\$0.78	\$0.83	\$0.87	\$0.93	\$0.98	
For Each Extra Lb.	Add 48c	Add 48c	Add 50c	Add 56c	Add 64c	Add 72c	Add 80c	

PARCEL POST INSURANCE

For your protection, all parcel post shipments are insured by the Hartford Insurance Company against loss or damage. Allow for insurance at the following rates:

Amt. Insurance	Ins. Fee	Amt. Insurance	Ins. Fee
\$ 0.01 to \$ 10.00.....	10 Cents	\$ 50.01 to \$100.00.....	30 Cents
10.01 to 50.00.....	20 Cents	100.01 to 200.00.....	40 Cents

EXPRESS CHARGES

Do not remit for express charges unless there is no express agent at your location. Add 3% to amounts shown below to cover Federal Tax.

MAXIMUM DISTANCE IN MILES

Weight Pounds	Local	150 Mi.	300 Mi.	500 Mi.	750 Mi.	1000 Mi.	1500 Mi.	2000 Mi.
5	\$4.00	\$4.00	\$4.05	\$4.15	\$4.25	\$4.30	\$4.35	\$4.35
10	4.50	4.50	4.50	4.55	4.75	4.85	4.95	5.20
15	4.50	4.50	4.60	4.90	5.25	5.40	5.55	6.10
20	4.50	4.50	4.85	5.30	5.75	5.95	6.15	7.00
25	4.50	4.50	5.15	5.70	6.25	6.50	6.75	7.85
35	4.60	4.80	5.70	6.50	7.20	7.55	7.80	9.60
45	4.85	5.20	6.25	7.25	8.20	8.65	9.10	11.35
55	5.10	5.60	6.80	8.05	9.15	9.75	10.35	13.10
70	5.45	6.15	7.60	9.20	10.65	11.35	12.05	15.75
80	5.70	6.55	8.15	9.95	11.60	12.45	13.30	16.50
For Each 100 Lbs	5.75	6.80	8.80	11.10	13.20	14.25	15.30	20.75

EXPRESS INSURANCE RATES

Do Not Send Money for Express Charges if your Station has an agent.

Amt. Insurance	Ins. Fee
\$ 0.01 to \$ 50.00.....	No Fee
\$50.01 to \$150.00.....	25c
Each additional \$100.00 of value or fraction 25c.	

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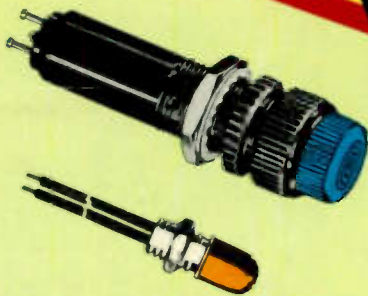


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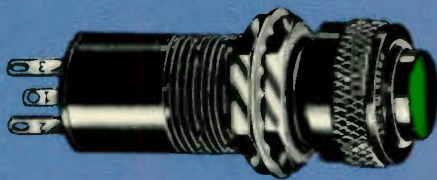


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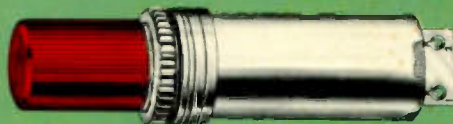
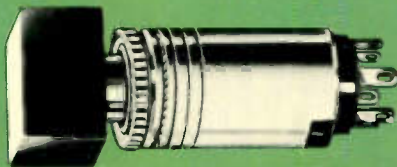
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