
RCA
REFERENCE BOOK
1959
AKRON ELECTRONIC SUPPLY, INC.
AKRON
PO 2-8518
BARBERTON
PL 3-6276

1959

REFERENCE BOOK

RECEIVING TUBES
INDUSTRIAL-TYPE TUBES
PICTURE TUBES
CATHODE-RAY AND POWER TUBES
PHOTOTUBES
SERVICE PARTS
TEST EQUIPMENT
BATTERIES
SEMICONDUCTOR PRODUCTS

A DAILY PRODUCT REMINDER FOR

INDUSTRY
COMMUNICATIONS
RADIO — TELEVISION
RESEARCH

PRICE **1.00**

Published by

RADIO CORPORATION OF AMERICA
RCA Electron Tube Division,
415 South 5th Street
® Harrison, N. J. Tel. Humboldt 5-3900

REGIONAL OFFICES

ATLANTA 3, GA.
1121 Rhodes-Haverty Bldg.
134 Peachtree St., N.W.
Tel. Jackson 4-7703

BOSTON 16, MASS.
200 Berkeley Street, Room 2301
Tel. Hubbard 2-1700

CHICAGO 54, ILL.
Merchandise Mart Plaza, Room 1186
Delaware 7-0700

CLEVELAND 15, OHIO
1600 Keith Bldg., 1621 Euclid Avenue
Tel. Cherry 1-3450

DALLAS 35, TEXAS
7901 Freeway No. 183, P. O. Box 35025
Airlawn Station
Tel. Fleetwood 2-3911

HOLLYWOOD 28, CALIF.
1560 N. Vine Street
Tel. Hollywood 9-2154

KANSAS CITY 6, MO.
340 Dierks Bldg., 1006 Grand Ave.
Tel. Harrison 1-6480

NEW YORK 20, N. Y.
36 W. 49th Street
Tel. Judson 6-3800

SEATTLE, WASHINGTON
2250 First Avenue, S.
Tel. Main 2-8350

TABLE OF CONTENTS

TABLE OF CONTENTS (Continued)

RCA TECHNICAL PUBLICATIONS

The technical publications listed below for each division are packed with up-to-the-minute information logically arranged for ready reference and application to your needs.

NOTE: All prices are net and apply in the U.S.A. They are subject to change and cancellation without notice.

ELECTRON TUBE DIVISION

Ask your RCA Distributor for these publications, or write directly to Commercial Engineering, Electron Tube Division, Radio Corporation of America, Harrison, New Jersey. When ordering from Commercial Engineering make remittance payable in U.S. dollars to Radio Corporation of America.

• **RCA TUBE HANDBOOK**—HB-3 (7⅜" x 5¼"). Five deluxe 2-inch-capacity binders imprinted in gold. The bible of the industry—contains over 3400 pages of loose-leaf data and curves on RCA receiving tubes; picture tubes; oscillograph tubes; special-purpose kinescopes; photosensitive devices including phototubes, photoconductive cells, and camera tubes; storage tubes; power tubes; gas tubes; transistors and semiconductor diodes; and other miscellaneous types for special applications. Available on subscription basis. Price $17.50* including service for first year. Write to Commercial Engineering for descriptive folder and order form.

• **RCA TRANSMITTING TUBES**—TT-4 (8⅜"x5⅜")—256 pages. Written for the engineer, service technician, radio amateur, student, and experimenter. Contains basic information on generic tube types, on tube parts and materials, on tube installation and application and on interpretation of tube data. Includes maximum ratings, typical operating values, and characteristics curves for power tubes having plate-input ratings up to 4 kilowatts, and maximum ratings and operating values for associated rectifier tubes. Contains sections on transmitter-design considerations and on rectifier circuits and filters. Features classification charts for quick, easy selection of tubes, and circuit diagrams for transmitting and industrial applications. Features lie-flat binding. Price $1.00.

---

*Prices shown apply in U.S.A. and are subject to change without notice.

• **RCA RECEIVING TUBE MANUAL**—RC-19 (8⅜" x 5⅜") —416 pages. Revised, expanded, and brought up to date. Contains the latest receiving tubes, including types for high-fidelity and for black-and-white and color television applications. Features tube theory written for the layman, application data, and several new circuits for high-fidelity audio amplifiers. Price 75 cents.

• **RADIOTRON† DESIGNERS' HANDBOOK**—4th Edition (8¾" x 5½")—1500 pages. Comprehensive reference thoroughly covering the design of radio and audio circuits and equipment. Written for the design engineer, student, and experimenter. Contains 1000 illustrations, 2500 references, and cross-referenced index of 7000 entries. Edited by F. Langford-Smith of Amalgamated Wireless Valve Co., Pty., Ltd. in Australia. Price $7.00.

• **RCA POWER AND GAS TUBES**—PG101C (10⅞" x 8⅜")—24 pages. Completely revised and brought up to date. Technical information on 174 RCA vacuum power tubes, rectifier tubes, thyratrons, ignitrons, magnetrons, and vacuum-gauge tubes. Includes terminal connections. Price 20 cents.

• **RCA RECEIVING-TYPE TUBES FOR INDUSTRY AND COMMUNICATIONS**—RIT-104A (10⅞" x 8⅜")—24 pages. Technical information on 150 RCA "special red" tubes, premium tubes, computer tubes, pencil tubes, glow-discharge tubes, small thyratrons, low-microphonic amplifier tubes, and other special types. Includes socket connection diagrams. Price 25 cents.*

• **RCA RECEIVING TUBES FOR AM, FM, AND TELEVISION BROADCAST**—1275-H (10⅞" x 8⅜")—36 pages. New booklet contains classification chart, characteristics chart, and base and envelope connection diagrams on more than 700 entertainment receiving tubes and picture tubes. Price 25 cents.*

• **RCA PHOTOSENSITIVE DEVICES AND CATHODE-RAY TUBES**—CRPD-105A (10⅞" x 8⅜")—32 pages. Contains technical information on 134 RCA tubes including single-unit, twin-unit, multiplier phototubes, and photoconductive cells; camera and image-converter tubes; flying-spot tubes; monitor, projection, transcriber, and view-finder kinescopes; oscillograph and storage tubes. Price 30 cents.*

• **TECHNICAL BULLETINS**—Complete authorized information on RCA transmitting tubes and other tubes for communications and industry. Be sure to mention tube-type bulletin desired. Single copy on any type free on request.

---

†Trademark Registered U. S. Patent Office.

*Prices shown apply in U.S.A. and are subject to change without notice.

Electron Tube Division (cont'd)

• **HEADLINERS FOR HAMS**—HAM-103B (10⅞" x 8⅜")—4 pages. Technical information and terminal-connection diagrams for 48 RCA "HAM" PREFERENCE TYPES: modulators, class C amplifiers and oscillators, frequency multipliers, rectifier tubes, thyratrons, cold-cathode (glow-discharge) tubes, and cathode-ray tubes. Single copy free on request.

• **RCA TUBE PICTURE BOOK**—TPB-1 (10⅞" x 8⅜")—16 pages. Collection of photographs and cutaway drawings of representative tube types. Prepared especially for use by students. A visual aid for the details of tube construction. Price 25 cents.

• **RCA PREFERRED TYPES LIST**—PTL-502E (10⅞" x 8⅜")—2 pages. Lists RCA receiving type tubes by function. An aid to equipment designers in the selection of tube types for AM and FM broadcast receiver and television receiver design.

• **RCA INTERCHANGEABILITY DIRECTORY OF INDUSTRIAL-TYPE ELECTRON TUBES**—ID-1020A (10⅞" x 8⅜")—16 pages. Lists more than 2000 type designations of 26 different manufacturers arranged in alphabetical-numerical sequence; shows the RCA Direct Replacement Type or the RCA Similar Type, when available. Price 20 cents.

• **TV SERVICING**—TVS-1030 (10⅞" x 8⅜")—48 pages. This 48-page booklet is a compilation of articles on TV trouble shooting, TV tuner alignment, and TV circuit analysis. Price 35 cents.

• **TV SERVICING, SUPPLEMENT 1**—TVS-1031 (10⅞" x 8⅜"). A 12-page booklet containing an article by John R. Meagher on solving trouble shooting problems in those hard-to-service television receivers known to service technicians as "tough" sets or "dogs." Price 15 cents.

• **PRACTICAL COLOR TELEVISION** — Revised Edition (11" x 8½")—84 pages. Black-and-white and color illustrations. Presents comprehensive information on basic color principles, transmitted color signal, color camera, and color kinescope. Covers commercial-model receiver circuit using the RCA-15GP22 color picture tube, as well as installation and service of color receivers. Provides detailed description of color-test equipment. Price $2.00.*

• **PRACTICAL COLOR TELEVISION, SUPPLEMENT 1.**—(11" x 8½")—Contains 36 pages plus fold-out schematic and block diagrams; describes theory, operation and servicing of large-screen color TV receiver utilizing RCA-21AXP22 color picture tube; includes 55 black-and-white and color illustrations including schematic and block diagrams, wave-forms, and explanations of color circuits and adjustments. Price 75 cents.*

*Prices shown apply in U.S.A. and are subject to change without notice.

• **RADIO BATTERIES FOR FLASHLIGHT, RADIO AND INDUSTRIAL APPLICATIONS**—BAT-134B (10⅞" x 8⅜")—8 pages. Contains characteristics, terminal types, and socket patterns of 82 RCA dry batteries for radio, flashlight, and industrial applications. Includes a battery interchangeability directory, and a battery replacement guide for portable radios. Price 10 cents.

• **SERVICE PARTS DIRECTORIES FOR RCA VICTOR TV RECEIVERS**—SP-1035 (10⅞" x 16¾")—72 pages. Schematic diagrams, top and bottom chassis views, replacement parts lists, and top and bottom chassis adjustments for the 106 models of 1954 RCA Victor TV receivers. Also included is information on the CT-100 and the 21-CT55 Color-TV Receivers, and the RP-197 and RP-198, 3-speed record changers. The index cross-references model names to model numbers of all RCA Victor TV receivers from 1946 through 1954. Price, $1.25 per copy.

SP-1028 (10⅞" x 16¾")—84 pages. Schematic diagrams, wiring diagrams, replacement parts lists, and top and bottom chassis views for the 108 models of 1953 RCA Victor TV receivers. Also includes schematic diagrams, replacement parts, and other information for radio chassis used in radio-TV combination receivers. Cross-references model names to model numbers of all RCA TV receivers from 1946 through 1953. Cross-references all model numbers and chassis numbers by publication. $1.35 per copy.

SP-1021 (10⅞" x 16¾")—36 pages. Schematic diagrams, wiring diagrams, replacement parts, and top and bottom views for the 27 models of 1952 RCA Victor television receivers. The comprehensive index cross-references RCA TV model names to model numbers, and model numbers to the publication in which information may be found. Price, 50 cents per copy.

SP-1014 (10⅞" x 16¾")—142 pages. Schematic diagrams, replacement parts, and top and bottom views for the 71 models of 1950 and 1951 RCA Victor television receivers. The comprehensive index, easy to read model and chassis numbers, and the grouping of information on each set provide a ready source of reference for the service technician. Price, $1.50 per copy.

Electron Tube Division (cont'd)

SP-1042 (10⅞" x 16¾")—128 pages. Schematic diagrams, parts lists, top and bottom chassis views and top and bottom chassis adjustments for more than 250 models of 1955 and 1956 RCA Victor black-and-white and color TV receivers. Also includes adjustment and trouble-shooting on the RP-205 and RP-208 record changers. The comprehensive index references model names to model numbers, model numbers to chassis numbers and model numbers to the Service Parts Directory in which information may be found for all RCA TV receivers from 1946 through 1956.

• RCA VICTOR TV SERVICE PARTS GUIDE—SP-2001B (10⅞" x 8⅜")—24 pages. Lists stock numbers of major replacement parts for RCA Victor TV sets by receiver-model number and corresponding receiver-chassis number. Also lists stock numbers of tuner-replacement parts by tuner-chassis number. Covers period from 1946 through 1956. Price, 25 cents per copy.

• RCA PHONOGRAPH CARTRIDGE GUIDE—SP-2003B (10⅞" x 8⅜")—4 pages. Lists stock numbers of RCA cartridges and replacement stylii. Also lists stock numbers of RCA cartridges and model numbers of record players by RCA Victor model numbers. Single copy free.

• SERVICE PARTS DIRECTORY FOR RCA VICTOR RADIOS—SP-1008B (8⅜" x 10⅞"). Lists stock numbers of major replacement parts by receiver model number for all RCA Victor radios manufactured from 1954 through June, 1958. Also includes stock numbers of major replacement parts for RCA phonographs, and an index cross-reference of RCA record changers to cartridge and styles.

SEMICONDUCTOR DIVISION

Ask your RCA Distributor for these publications, or write directly to Commercial Engineering, Semiconductor Division, Radio Corporation of America, Somerville, New Jersey. When ordering from Commercial Engineering make remittance payable in U.S. dollars to Radio Corporation of America.

• RCA TRANSISTORS AND SEMICONDUCTOR DIODES—SCD-108-A (10⅞" x 8⅜")—32 pages. New booklet contains technical data on RCA transistors and semiconductor diodes. Includes a section on transistor theory, an interchangeability directory which lists over 500 type designations of 27 different manufacturers, and a section on circuits containing 20 schematics illustrating some of the important applications of transistors and semiconductor diodes. Price 25 cents.

RCA MAGAZINES

RCA RADIO & TELEVISION SERVICE NEWS

This publication is designed to keep the dealer and service technician informed on the latest television and radio sales and servicing techniques. Read it regularly for interesting articles as well as for helpful hints on new merchandising procedures, new products, and new promotions. Published bi-monthly. Available free of charge from your RCA Electron Tube Distributor.

RCA TUBE TIPS

This popular newsletter keeps the broadcast engineer up to date on the latest developments in broadcast tubes. It is a timely publication containing valuable application information, technical tips, and new product data. Published bi-monthly. Sent free of charge to broadcast station personnel by the RCA Electron Tube Division.

RCA HAM TIPS

Contains a wealth of informative articles on all phases of "ham" activity, including exclusive construction articles written by RCA personnel actively engaged in amateur radio work. Keep abreast of the latest, up-to-the-minute information on new circuits, TVI civil defense equipment, and novice gear. Published bi-monthly. Free from your RCA Electron Tube Distributor.

TEST AND MEASURING EQUIPMENT

• **INSTRUCTION BOOKLETS** containing specifications, operating and maintenance data, application information, schematic diagrams, and replacement parts lists, are available for all RCA test instruments.

WA-44A	(Audio Oscillator)	$0.50
WA-44B	(Audio Oscillator)	.50
WO-56A	(7″ Oscilloscope)	.50
WO-78A	(5″ Oscilloscope)	.50
WO-78B	(5″ Oscilloscope)	1.00
WO-88A	(5″ Oscilloscope)	.50
WO-91A	(5″ Oscilloscope)	1.00
WR-36A	(Dot-Bar Gen.)	.50
WR-39C	(TV Calibrator)	.50
WR-46A	(Video Dot/Crosshatch Gen.)	.75
WR-49A	(RF Generator)	.50
WR-49B	(RF Generator)	1.00
WR-59C	(TV Sweep Gen.)	.50
WR-61B	(Color-Bar Gen.)	1.00
WR-67A	(Test-Oscillator)	.25
WR-70A	(RF/IF/VF Marker Adder)	.75
WV-74A	High-Sensitivity AC UTVM	.75
WR-86A	(UHF Sweep Gen.)	.50
WR-89A	(Marker Gen.)	.50
WR-99A	(Marker Calibrator)	1.00
WV-65A	(VoltOhmyst)	.25
WV-75A	(VoltOhmyst)	.25
WV-77A	(VoltOhmyst)	.25
WV-77B	(VoltOhmyst)	.25
WV-77C	(VoltOhmyst)	1.00
WV-84A	(Microammeter)	.25
WV-84B	(Microammeter)	.75
WV-87A	(VoltOhmyst)	.50
WV-87B	(VoltOhmyst)	.75
WV-95A	(VoltOhmyst)	.25
WV-97A	(VoltOhmyst)	.50
WV-98A	(VoltOhmyst)	1.00
195-A	(VoltOhmyst)	.25
WT-100A	(Electron-Tube MicroMhoMeter)	1.75
WT-100A	(Tube Chart)	3.00
WT-110A	Automatic Electron-Tube Tester	1.00

RCA TEST INSTRUMENTS

for servicing • production • research

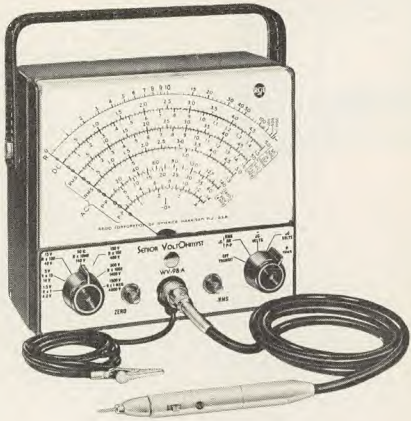
RCA TEST AND MEASURING EQUIPMENT

Junior VoltOhmyst, WV-77C

The new RCA Junior VoltOhmyst WV-77C includes design features and operating characteristics which make this instrument a valuable all-electronic, ac-operated vacuum-tube voltohmeter. The WV-77C is factory-built, factory-tested, and calibrated to rigid laboratory standards. Equipped with five ranges each for dc voltage, ac voltage, and resistance measurements, the WV-77C measures dc from 50 millivolts to 1200 volts; ac from 100 millivolts to 1200 volts rms; and resistance from 0.2 ohm to one billion ohms. Width 5⅜", Height 8", Depth 4½".

Essentially flat frequency response (30 cps to 3 Mc) . . . extends to 250 Mc with WG-301A Crystal-Diode Probe (available as accessory). Carbon-film ±1% multiplier resistors . . . lasting accuracy and dependability. Sturdy 200-microampere meter movement electronically protected against burn-out on all functions. Completely shielded in metal case for stability in presence of rf fields. Negative-feedback bridge circuit . . . provides freedom from effects of line-voltage fluctuations. Zero-centering facilities . . . for TV and FM discriminator alignment. High input-resistance on all ranges . . . 11 megohms for dc, 0.2 to 2 megohms for ac.

Senior VoltOhmyst,® WV-98A



The new Senior VoltOhmyst, WV-98A, includes an improved circuit providing 3% accuracy full scale on both ac and dc measurements with better than 1% tracking error. Separate color-coded peak-to-peak and rms-voltage scales in two distinctive colors simplify readings. Permits direct reading of peak-to-peak voltages of complex waveform, found in video, sync, and deflection circuits. Features die-cast aluminum case; high input resistance; meter electronically protected against burnout; rugged 200-microampere meter movement; and precision multiplier resistors with accuracy of ±1%. Width 7", Height 6½", Depth 3¾".

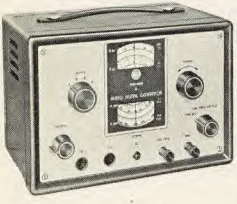
Large easy-to-read, full-vision meter (26 sq. in.). Measures complex waveforms directly from 0.2 volt to 4200 volts peak-to-peak. Measures rms values of sine waves from 0.1 volt to 1500 volts. Frequency response flat to 30 cps—important in hi-fi and TV vertical deflection circuit measurements. Measures from 0.02 volt dc to 1500 volts on two scales, in seven overlapping "3-to-1" ranges. Measures resistance from 0.2 ohm to 1000 megohms on single scale, with seven overlapping ranges.

Master VoltOhmyst,® WV-87B

Featuring a 7½" meter, the Master VoltOhmyst is the deluxe member of the RCA VoltOhmyst family. Its peak-to-peak scales are particularly useful for TV, radar, and other types of pulse work. The WV-87B has the accuracy and stability necessary for many laboratory applications. Its large, easy-to-read meter also makes it especially desirable as a permanently mounted instrument in the factory and repair shop. Width 13½", Height 10", Depth 7".

Measures dc voltages accurately in high-impedance circuits, even with ac present. Reads rms values of sine waves and peak-to-peak values of complex waves or recurrent pulses, even with dc present. Measures resistance from 0.2 ohm to 1000 megohms, current from 10 microamperes to 15 amperes. Frequency response flat to 30 cps—important in hi-fi and vertical deflection circuit measurements. Features ±1% multiplier and shunt resistors, a ±2% meter movement. Zero-center scale adjustment for discriminator alignment. DC polarity reversing switch.

Audio Signal Generator, WA-44B

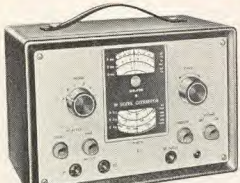


The compact WA-44B is excellent for use in measuring: intermodulation distortion in amplifiers; amplifier frequency response: frequency response of tone controls; frequency response of phonograph equalizers; input and output impedances of amplifiers; resonant frequency of loudspeakers; and speed of recorder/reproducer mechanisms. Continuously tunable from 11 cps to 100 Kc, in four bands.

The WA-44B is equally useful for: tuning bass-reflex enclosures; determining unknown audio frequencies; determining resonant frequency of LC circuits. Width 10½", Height 7", Depth 6".

RC-type oscillator has wide frequency range—facilitates checking of hi-fi amplifiers. Delayed agc circuit insures output uniform within ±1 db over entire frequency range. (Reference frequency of 1100 cps.) Frequency stability ±3%. Separate high and low output terminals, 15 v rms max. or 2.5 v rms max. Hum level 0.1% of maximum output. Voltage-regulated oscillator power supply. Total harmonic distortion 2% or less from 30 cps to 15 Kc. Can be used with high- or low-impedance circuits.

RF Signal Generator, WR-49B



The lightweight WR-49B is ideal for such applications as alignment and signal tracing of AM and FM radio receivers, alignment of low-frequency *if* amplifiers in TV receivers, and signal-tracing and trouble-shooting in TV receivers. Continuously tunable from 85 Kc to 30 Mc.

With the WR-49B you can inject rf signals into plate circuits and other points where dc is present without placing a dc load on circuit under test . . . with protection from burn-out in both equipment and signal generator. Width 10½", Height 7½", Depth 6¼".

Cathode-follower output stage isolates oscillator from effects of load reactance and resistance, thereby maintaining good output waveform, voltage regulation, and frequency stability of the oscillator. Functional-design dial facilitates accurate, easy readings. Full-length shielding of output cable minimizes radiation and hum pickup. Built-in dc blocking capacitors. Built-in 400-cycle audio oscillator for internal modulation or as a separate signal source.

Video-Dot /Crosshatch Generator, WR-46A

The WR-46A is designed for making static and dynamic convergence adjustments in color-TV sets. The WR-46A produces highly stable dot, bar, or crosshatch patterns and will drive a picture tube directly. Equalizer control provided for V and H bar brightness. Solid pattern —exceptionally free of crawl and jitter. Pattern independent of receiver rf/if response. Output cables are dc isolated. Width 13½", Height 10", Depth 8".

Video output of 45 v across 4000 ohms. Vertical bars continuously adjustable from 10 to 25 (approx.) bars. Cable connections on back of cabinet. Reversible video output polarity. Simple connections to TV receiver.

Color-Bar Generator, WR-61B

The WR-61B is essential for checking overall operation of color-TV receivers and for adjusting and trouble-shooting color phasing and matrixing circuits. The WR-61B generates the signals for producing 10 bars of different colors simultaneously, including bars corresponding to the R-Y, B-Y, G-Y, I and Q signals. The output signal consists of a picture carrier, color subcarrier, sync pulses, and an unmodulated sound carrier. All frequencies crystal-controlled for inherent accuracy and stability. Sound carrier can be switched off to check for sound interference, 189-Kc pedestals, adjustable in amplitude, permit checking of phasing and matrixing without the use of a scope. Luminance signals provided at edges of color bars for checking luminance and chrominance registration. Width 13½", Height 10", Depth 7½".

Amplitude of color subcarrier and color-burst signal adjustable from front-panel for checking color sync-lock action of set. Both rf and video output available—video output has both "+" and "—" polarity. RF output at least 0.01 volt peak-to-peak; video output at least 0.25 volt peak-to-peak across 75 ohms; 8 volts peak-to-peak at HI video output.

RF/IF/VF Marker Adder, WR-70A

Designed for *rf*, *if*, and video sweep alignment of both color and black-and-white TV receivers, the WR-70A provides sharp, easy-to-read markers for alignment. The WR-70A is designed for use with conventional marker and sweep generators, such as the RCA WR-39, WR-89 and WR-99 series marker generators and the WR-59 and WR-69 series TV sweep generators.

With the WR-70A, the marker signal is added to the sweep-response curve after the sweep signal is taken out of the receiver under test. This eliminates or reduces distortion of sweep curve by the marker and permits trap alignment without marker "suck-out." Provides four marker choices: positive peak, negative peak, positive and negative peaks (wide band), positive and negative peaks (narrow band) for discriminator alignment. Hi-Q markers are high in amplitude, narrow in width. Power supply voltage is stabilized for rock-steady trace display. Width 10½", Height 7½", Depth 6¼".

Television /FM Sweep Generator, WR-69A

Tops for visual alignment of both TV and FM receivers, the all-new WR-69A 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 or 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 portrayals. The new WR-69A is especially suited to alignment of color receivers. 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. Width 13⅝", Height 10", Depth 7".

IF/Video output frequency continuously tunable from 50 Kc to 5 Mc. 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 bias voltages available on front panel.

Crystal-Calibrated Marker Generator, WR-99A

Versatility and accuracy highlight the all-new WR-99A Calibrator. Variable-frequency oscillator tunes from 19 to 260-Mc in 8 expanded ranges. Precise calibration obtainable at 1 and 10-Mc intervals throughout entire tuning range. All important sound- and picture-carrier frequencies, intermediate frequencies, and color-TV points are spotted on dial scales. Easy-to-read, spreadout dial scales and adjustable index pointer permit precise setting of

frequency. Built-in speaker for zero-beat calibrating checks. Special socket at rear of WR-99A permits insertion of external crystal or L-C circuit into internal oscillator circuit to produce calibrating beats at special intervals. Wide choice of internal modulation for dual sound and picture markers, calibration beats, and for FM-detector alignment. Slide-switch attenuator for precise setting of output voltage level. Width 13½", Height 10", Depth 7".

Ultra-Sensitive DC Microammeter, WV-84B

A valuable instrument which is finding increased use in industrial, chemical, and general laboratory applications, the WV-84B is a battery-operated vacuum-tube microammeter designed for measuring minute direct currents. Self-contained batteries permit use almost anywhere. Low-drain tubes extend battery life and protect the meter against burnout due to accidental overloads. When the WV-84B is used as a voltmeter, it is especially suited to measurements in circuits where loading is a critical factor. Can also be used as an ohmmeter to measure extremely high resistances, such as leakage and insulation resistance.

Six direct-current ranges for measuring currents from 0.0002 to 1000 microamperes. Can be used as ohmmeter to measure resistance in the order of billions of ohms. Input resistance of 100 megohms for measurement of voltages from 0.1 to 1 volt; 1000 megohms input resistance for voltages to 10 volts, 1005 megohms for voltages to 100 volts. Over-all microammeter accuracy on X.01 range ±5% of full scale; accuracy on all other ranges ±4% of full scale. Voltage drop for full-scale deflection only 0.5 volt.

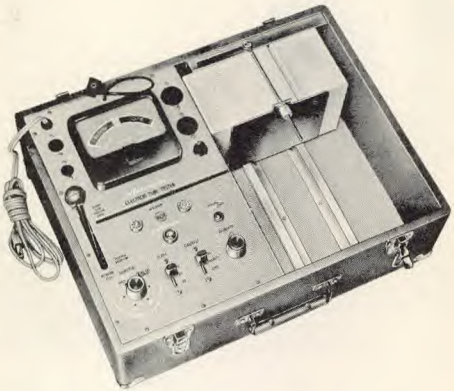
Electron-Tube MicroMhoMeter WT-100A

The WT-100A is a laboratory instrument which measures tube characteristics, under actual operating-voltage and current conditions, with an accuracy comparable to that of tube manufacturers' equipment. Tests receiving-type and small transmitting tubes. Plug-in multiple-socket assemblies and 14-pin selector switches assure utmost flexibility for present and future requirements.

The WT-100A measures: true transconductance with an accuracy of better than ±3%, both control-grid-to-plate and suppressor-grid-to-plate values; electrode currents-plate, screen, grid, suppressor grid, and control-grid currents from 3 microamps full scale to 300 ma full scale; ac heater current; and voltage drop of vacuum and gas tubes, dry-disc rectifiers and crystal diodes. Width 25½", Height 8", Depth 18½".

Built-in gm calibrating circuit—no null meters or extra devices required. Built-in "shorts" test. Meter is burn-out proof, even on 3 microamp full-scale range. Regulated power supplies for dc voltages. 250-ma dc supply for filaments of battery-operated tube types. Measures gm up to 100,000 micromhos in 6 ranges.

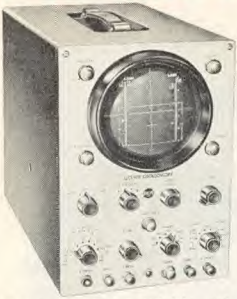
Automatic Electron-Tube Tester, WT-110A



All-new in approach to fast, accurate tube testing, the WT-110A *Automatic* Electron-Tube Tester utilizes punched cards of heavy-duty plastic for automatic internal set-up of pin connections and test voltages. Complete transconductance test-set-up takes only seconds; cards are permanently hinged in case for convenient insertion into test slot. The WT-110A tests for gas, shorts, interelectrode leakage and over-all tube quality. Quality of tube indicated on "Renew-?-Good" meter scale. Tests 7-pin, 9-pin, octal, and lock-in types. Accessory sockets available (at additional cost) to test 4, 5, 6, 7-pin and subminiature types.

Simplified, automatic design speeds testing of diodes, triodes, and other multi-element tubes, as well as double- and triple-section tubes having similar or dissimilar sections. Designed especially for TV and general electron-tube service testing, the WT-110A punch-card system provides for flexibility and easy addition of cards for new tube types. Width 17¼", Height 6⅝", Depth 13¼".

5" Oscilloscope, WO-91A



The WO-91A is designed for production and servicing both black-and-white and color-TV receivers. It can be used to measure color burst signals and for trouble-shooting wide-band color circuits. A multi-scale graph screen makes peak-to-peak voltage measurements as simple as with a VTVM. Panel switch for wide-band or high-sensitivity operation. Response: wide-band operation within ±1 db 10 cps to 4.5 Mc; High-sensitivity operation within −1 db 10 cps to 0.05 Mc; within −db 1.5 Mc. Sensitivity: 0.05 volt peak-to-peak per inch (0.018 volt rms) in high-sensitivity position; 0.15 volt peak-to-peak per inch (0.053 volt rms in wide-band position). Width 9", Height 13½", Depth 16½".

Voltage-calibrated, frequency-compensated, 3-to-1 step attenuator for "V" amplifier. Shielded vertical-input connector and shielded cable minimize hum, stray field pick-up. Z-Axis input terminals. Preset "V" and "H" sweep positions. "Plus" or "minus" internal-sync selector. Positive-lock internal sync.

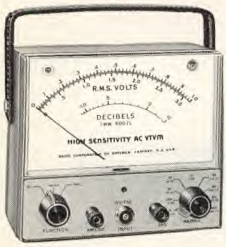
UHF Sweep Generator, WR-86A

Invaluable for UHF TV application from 300 to 950 Mc, this UHF sweep generator combines a wide sweep range with a high output voltage of excellent amplitude linearity. A blanking circuit is included to provide a reference base line on an oscilloscope. Horizontal sweep frequency for the scope can be obtained from front-panel terminals. The WR-86A has 50-ohm output and will work into a 50-ohm unbalanced load or with the WG-296 padded

balun provided, into a 300-ohm balanced load. Use accessory WG-298A UHF Demodulator for visual observation and measurement of standing-wave ratio of termination on 300-ohm line. Width 13½", Height 9¾", Depth 7½".

Output frequency continuously variable on center frequencies from 300 to 950 Mc. Sweep width is 10% of indicated dial frequency up to 750 Mc; 75 Mc width from 750 to 950 Mc. Adjustable piston-type attentuator gives 60 db range of attenuation. At least 0.6-volt output across either 50 ohms or 300 ohms. Amplitude variation at maximum sweep width no greater than 0-1 db/Mc. Lightweight and portable; attractively styled.

High-Sensitivity AC Vacuum-Tube Voltmeter, WV-74A



The WV-74A is designed for use in industry, laboratories, and schools as a laboratory instrument. It is also useful for general servicing in high-fidelity and recorder applications, and in broadcast, design and development, and production line applications.

Applications include frequency response tests of pre-amplifiers, power amplifiers, and tone-control circuits; feedback-circuit design, signal tracing, audio-level and power-level measurements, amplifier balancing applications, and general audio voltage measurements. Width 7", Height 6½", Depth 3¾".

Nine overlapping voltage ranges—from 10 mv to 1000 v full scale in 3-to-1 steps. Large 6½-inch easy-to-read meter. High input impedance—10 megohms with LO-CAP probe permits measurement in circuits sensitive to loading. Frequency response 20 cps to 500 Kc. Power-line frequency range from 50 to 400 cps. Probe cable shielded throughout its length—eliminates pickup from stray fields. May be used as preamplifier—38-db maximum gain on 10 millivolt range. Die-cast aluminum case—provides good shielding, withstands hard usage.

RCA TEST EQUIPMENT ACCESSORIES

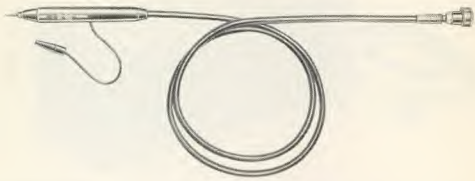
These versatile RCA test equipment accessories are expertly engineered to give you an economical and convenient means of extending the range and usefulness of your test equipment. RCA test equipment accessories are available for most servicing applications. They are especially useful in applications involving very high dc voltages, high frequencies, high impedances, or other special measurements.

Hight Voltage Probe WG-289

Extends dc-voltage range of *VoltOhmysts*® to 50,000 volts for measuring high voltages in TV power supplies, x-ray equipment, and transmitters. Safety features include: low-loss polystyrene body, anti-corona probe tip, grounded arc-over protection baffle, completely insulated from grip, fully shielded cable and attached ground lead. Multiplier resistor completely enclosed in probe.

The WG-289 is provided with a microphone-type connector for use with VoltOhmysts and other voltmeters. Choice of five multiplier resistors permits use with nearly all VTVM's and nonelectronic meters:
WG-206.....1090 megohms multiplier resistor for VTVM's having 11-megohm input resistance.

Direct/Low-Capacitance Probe and Cable WG-300B



The WG-300B is a slim, sturdy, single-unit low-capacitance probe and cable designed for use with RCA Oscilloscopes. The cable is 48 inches long and is completely shielded from the microphone connector to the probe tip to minimize hum and stray field pick-up. A built-in switch provides instant selection of direct or low-capacitance operation. Input characteristics: 10 megohms resistance, 11 $\mu\mu f$ capacitance when used with the WO-91A. Includes ground lead and clip. Replaces WG-216A/B, WG-293 and WG-218.

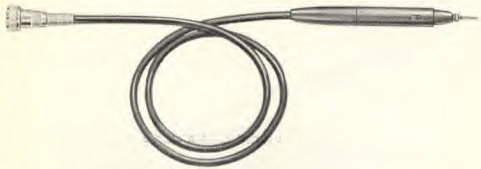
Crystal-Diode Probe WG-301A

"Slip-on" type for use with the WG-299C DC/AC-Ohms Probe and Cable extending the frequency range of *VoltOhmysts* to 250 Mc. When used with WG-299C, replaces WG-264.

Video Multimarker WG-295B

The WG-295B provides seven simultaneous absorption-type markers at accurately preset frequencies for marking video response curves in color receivers. Markers 0.5 Mc, 1.5 Mc, 2.5 Mc, 3 Mc, 3.58 Mc, 4.1 Mc, and 4.5 Mc. Each marker is identified simply by touching a corresponding contact on the WG-295B case. This reduces the amplitude of that particular marker. The WG-295B connects between the IF/VF output on the sweep generator and the video output cable.

DC/AC-Ohms Probe and Cable WG-299C



The WG-299C is a slim, single-unit probe which includes a built-in finger-tip switch for instant selection of dc or ac/ohms operation. The probe, designed for use with VoltOhmysts, is completely shielded from connector-to-tip and is insulated to prevent accidental shorts, grounds and shocks. Replaces WG-217, WG-218 and WG-222.

RF/IF/VF Signal Tracing Probe WG-302A

The WG-302A "slip-on" high-frequency probe is designed for use with the WG-300B probe and cable and the WO-91A Oscilloscope, to permit visual signal tracing for rapid isolation of trouble in radio receivers and in television *if* and video stages. When used with the WG-300B, replaces WG-291.

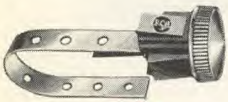
RF Modulator WG-304A

The WG-304A is an accessory used to check the overall frequency response of TV receivers from antenna to picture tube grid. The unit permits modulation of an rf marker signal from a marker generator (such as WR-99A) by a signal from a video sweep generator (such as WR-69A).

TV Isotap WP-25A

Speed up servicing, prevent damage to test equipment, minimize shock hazards, cut down costly returns. The 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 maximum load and is tapped to match line voltages from 105 to 130 volts in six steps.

RCA LIGHTING ARRESTERS AND COUPLERS



214X1

TYPE 214X1 VHF

- Easily mounted on any indoor water pipe
- Accommodates standard 300-ohm twin-lead
- No stripping of insulation —cutting or soldering of line required

TYPE 215X1 VHF

- Wood screw firmly secured in body of arrester
- No special tools needed for direct mounting on wood
- May be installed on brick, stone, or cement surfaces
- Accommodates standard 300-ohm twin-lead

234A1

TYPE 234A1 UHF

- No special tools needed for direct mounting on wood
- Accommodates all popular-type UHF transmission lines
- Ultra-low loss

TYPE 235A1 UHF

- Easily mounted on any indoor water pipe
- Accommodates all popular-type UHF transmission lines
- No stripping of insulation —cutting or soldering of line required
- Ultra-low loss

240A1

RCA TV SET COUPLER TYPE 240A1

- Couples two TV sets to same antenna
- Accomodates 300-ohm ribbon-type line
- Reduces oscillator radiation between sets
- Simple to install—self-contained wood screw

RCA TELEVISION ACCESSORIES

Type	Description
202W1	Record-Player Selector
205W1	Degaussing Coil
206P1	High-Voltage Interlock Plug
211A1	Antenna Guy Ring
220X1	Picture-Tube-Socket Extension Cable (For 600 & 700 series color TV receivers.)
221X1	Deflecting Yoke Extension Cable (For 600 & 700 series color TV receivers.)
222X1	Converging-Magnet Assembly Extension Cable (For 600 series TV receivers.)
223X1	High-Voltage Extension Cable (For 600 series TV receivers.)
224X1	Converging-Magnet Assembly Extension Cable (For 700 series TV receivers.)
225X1	High-Voltage Extension Cable (For 700 series TV receivers.)
226X1	Color Convergence Grid Shunt
227A1	Antenna Mast Mounting
240X1	Record-Player Switch

magnetic recording

RCA sound tape

WIDE VARIETY OF GRADES AND TYPES

RCA offers a wide variety of Magnetic Recording Sound Tape to meet your needs.

Professional Grade

Professional Grade RCA Magnetic Recording Sound Tape is designed to provide high-quality recordings under extremely difficult conditions. Tough and durable, professional-grade tape is available in 1½-mil thickness only on either acetate or "Mylar" base. Reel size, tape length, and base material are identified by the following type numbers:

Type 251C1—5" reel, 600' acetate base
Type 254C1—5" reel, 600' "Mylar" base
Type 256C1—7" reel, 1200' acetate base
Type 259C1—7" reel, 1200' "Mylar" base

Long-Play

Long-Play RCA Magnetic Recording Sound Tape is designed to provide longer recording time on either "Mylar" or acetate base than Professional-Grade and has the same high quality recording characteristics. Long-Play tape is 1-mil thick. Reel size, tape length, and base material are identified by the following type numbers:

Type 250C1—5" reel, 900' acetate base
Type 253C1—5" reel, 900' "Mylar" base
Type 255C1—7" reel, 1800' acetate base
Type 258C1—7" reel, 1800' "Mylar" base

Extra-Long-Play

Extra-Long-Play RCA Magnetic Recording Sound Tape is designed to provide extra-long running time. On 7" reels, running time is up to 4 hours on dual-track recordings. Extra-Long-Play tape is ½-mil thick and available only on "Mylar" base. Because of the thin base material, care must be used in handling and playing this grade of tape. This extra care will result in high-quality, extra-long-play recordings. Reel size, tape length, and base material are identified by the following type numbers:

Type 252C1—5" reel, 1200' "Mylar" base
Type 257C1—7" reel, 2400' "Mylar" base

RCA INTERCHANGEABILITY DIRECTORY OF TUBES FOR COMMUNICATIONS AND INDUSTRY

Direct Replacement Types

RCA types shown below are direct replacements under all circumstances for corresponding types to be replaced.

Type to be Replaced	Replace by RCA Type	Type to be Replaced	Replace by RCA Type
OA3/VR75	OA3	RK-11	1623
OC3/VR105	OC3	12DP7	12DP7-A
OD3/VR150	OD3	FG-17	5557
CE-1(A-D)	868, 918	WL17	5557
1P29/FJ-401	1P29	CE-20	927
1P32	927	RK-20A	804
2AP1	2AP1-A	CE-21(A-D)	920
2B4	885	CE-23(A-D)	923
2C38	2C39-A	PJ-23	868
2C39	2C39-A	CE-25(A-D)	927
ML-381	2C39-A	RK-25	802
3X100A11	2C39-A	RK-25B	802
ZP572	2C39-A	CE-28(A-D)	928
2X2/879	2X2-A	RK-28	803
3-50G2	834	RK-28A	803
3AP1	3AP1-A	CE-29(A-D)	929, 1P39
3BP1	3BP1-A	CE-30(A-D)	930, 1P40
3C45	6130/3C45	CE-30V	925
3D22	3D22-A	RK-30	800
4D21	4-125A/4D21	FG-32	5558
4-250A	4-250A/5D22	WL-32	5558
5BP1	5BP1-A	RK-33	2C21/1642
5CP1	5CP1-A	CE-34	934
5CP7	5CP7-A	RK-39	807
5D22	4-250A/5D22	CE-41	921
5FP7	5FP7-A	CE-42	922
5HP1-A	5BP1-A*	KU-42	6130/3C45
WT-6	6L6	RK-44	837
6Q5-G	884	RK-47	814
7BP7	7BP7-A	UH-50	834
7C24	5762/7C24	CE-55	924
7JP1	7VP1	FG-57	5559
PJ-8	5556	RK-57	805
BW-11	834	WL-57	5559
CE-5(A-D)	927	RK-58	838
CE-11V(A-D)	917	CE-59	5581

*Except in high-altitude service.

Direct Replacement Types *(cont'd)*

RCA types shown below are direct replacements under all circumstances for corresponding types to be replaced.

Type to be Replaced	Replace by RCA Type	Type to be Replaced	Replace by RCA Type
R59A	868	WT-210-0040	6X4
R60A	920	WT-210-0042	5Y3-GT
HY-61/807	807	WT-210-0044	575-A
R61A	930	WT-210-0045	892
CE-64	5583	WT-210-0048	5U4-G
FG-67	5728/FG-67	WT-210-0052	2AP1-A
VR75-30	OA3	WT-210-0053	3AP1-A
CE-91R	1P37	WT-210-0056	5559
FG-95	5560	WT-210-0057	5560
CE-98	5582	WT-210-0058	676
100R	8020	WT-210-0060	OZ4
FG-104	5561	WT-210-0062	5557
WL-104	5561	WT-210-0069	5557
VR105-30	OC3	WT-210-0070	5550
HF120	211	WT-210-0071	5551
VR150-30	OD3	WT-210-0072	5552
WT-210-0001	2D21	WT-210-0073	5553
WT-210-0003	884	WT-210-0074	105
WT-210-0004	2050	WT-210-0078	172
WT-210-0006	6H6	WT-210-0079	105
WT-210-0008	866-A	WT-210-0081	6SJ7
WT-210-0009	84/6Z4	WT-210-0082	6V6
WT-210-0011	OC3	WT-210-0083	7K7
WT-210-0012	80	WT-210-0084	6N7-GT, 6N7
WT-210-0013	5Z3	WT-210-0085	50B5
WT-210-0015	5557	WT-210-0086	833-A
WT-210-0018	OD3	WT-210-0087	6K8-GT
WT-210-0019	83	WT-210-0088	6J5-GT, 6J5
WT-210-0021	6X5	WT-210-0089	6G6-G
WT-210-0025	117Z6-GT	WT-210-0090	6C6
WT-210-0027	872-A	WT-210-0091	0A4-G
WT-210-0028	3Q5-GT	211-D	211
WT-210-0029	6C5	FG-235A	5552
WT-210-0031	902-A	FG-238B	5555
WT-210-0037	117L7/M7-GT	WT-245	884
WT-210-0038	172	WT-246	2050

Direct Replacement Types (cont'd)

RCA types shown below are direct replacements under all circumstances for corresponding types to be replaced.

Type to be Replaced	Replace by RCA Type	Type to be Replaced	Replace by RCA Type
HK-257B	4E27/8001	KU-634	677
FG-258A	555-B	WL-651/656	5552-A
WT-261	6H6	WL-652/657	5551-A
WT-262	866-A	WL-653B	5555
WT-263	84/6Z4	WL-655/658	5553-B
WT-269	0C3	672	672-A
WT-270	80	WL-681/686	5550
WT-270X	5Z3	WT-699	5550
FG-271	5551-A	NL-715	5557
WT-272	5557	ML-728	5557
WT-274B	5R4-GY	WL-735	868
WT-294	0D3	801	801-A
WT-301	83	811	811-A
WE-304B	834	812	812-A
F-307A	207	829	829-B
WT-308	6X5-GT	829-A	829-B
CE-309	5557	UE-530	830-B
CE-311	3C23	832	832-A
UE-317C	217-C	833	833-A
ML-322A	803	857	857-B
NL-331A	805	866	866-A
350A	807	866-A/866	866-A
366-A	866-A	869-A	869-B
WT-377	117Z6-GT	872	872-A
ML-381	2C39-A	872-A/872	872-A
WT-389	3Q5-GT	879	2X2-A
WT-390	6C5	889	889-A
FJ-401	1P29	889-R	889R-A
403A	6AK5	893	893-A
GL-415	5550	902	902-A
GL-451	8020	UE-905	805
ZP-572	2C39-A	906-P1	3AP1-A
WT-606	2D21	908	908-A
WL-630, 630A	2050	914	914-A
WL-631	5559	931	931-A
WL-632-A	632-B	UE-938	838
WL-632-B	632-B	UE-945	845

Direct Replacement Types *(cont'd)*

RCA types shown below are direct replacements under all circumstances for corresponding types to be replaced.

Type to be Replaced	Replace by RCA Type	Type to be Replaced	Replace by RCA Type
UE-966	866-A	WTT-104	575-A
UE-966A	866-A	WTT-105	892
UE-967	5557	WTT-111	5559
UE-972A	872-A	WTT-112	5560
UE-975A	575-A	WTT-113	676
1640	6405/1640	WTT-114	0Z4
1701	5557	WTT-115	117N7-GT
1802-P1	5BP1-A	WTT-117	5557
1811-P1	7CP1	WTT-118	105
1849	1850-A	WTT-119	172
1850	1850-A	WTT-122	6SJ7
1851	6AC7	WTT-123	6V6
1853	6AB7	WTT-124	7K7
1854	6474/1854	WTT-125	6N7-GT
1899	2F21	WTT-126	50B5
2051	2050	WTT-127	833-A
2525A5	5BP1-A	WTT-128	6K8
5551	5551-A	WTT-129	6J5-GT
5552	5552-A	WTT-130	6G6-G
5553	5553-A	WTT-131	6C6
5563	5563-A	WTT-132	0A4-G
5604	5604-A	WTT-135	5U4-G
5814	5814-A	WTT-136	2AP1-A
ML-5897	5718	WTT-137	3AP1-A
ML-5898	5719	WTT-149	172
8001	4E27/8001	EL-C1K	C1K/6014
8012	8012-A	EL-C3J	C3J/5632
8016	1B3-GT	EL-C3J/A	C3J-A/5684
WTT-100	6X4	EL-C6J	C6J/5C21
WTT-102	5Y3-GT	EL-C6J/A	C6J-A/5685
WTT-103	6H6	EL-C16J	C16J/5665

NOTE: For additional replacement data on RCA Tubes for broadcasting and industry, see the 20-page RCA Interchangeability Directory Form ID-1020 listing 1600 industrial tube type numbers used by 24 manufacturers.

Similar Types

RCA types shown below are not directly interchangeable with the types to be replaced because of mechanical and/or electrical differences. For more information as to degree of interchangeability, refer to respective tube data or write to Commercial Engineering, Harrison, New Jersey.

Type to be Replaced	Similar RCA Type	Type to be Replaced	Similar RCA Type
CE-1V(A-D)	930, 1P40	CE-13	868
CE-2(A-D)	917, 919	CE-13V	917
2B22	559	G-15F	927
2C38	2C39-A	HV-18	806
2E25	2E24	FV-20	8000
2E30	5618	T-20	1623
3B27	836	TV-20	810
3B28	866-A	TZ-20	809
3C21	838	PJ-21	5556
3C24	1623	CE-22(A-D)	1P41
3-25A3	809	PJ-22	917
3-50A4	811-A	X-22	1616
3-75A3	8005	KU-23	806
3-250A4	806	RK-23	802
3-450A4	833-A	RK-23A	802
3-1000A2	8000	24-G	808
3-1000A4	810	HY-25	809
3X2500A3	5762/7C24	25T	809
4C21	211	RK-27	806
4C22	8005	FG-27A	5559
4X150G	4X150A	HY-30Z	809
CE5(A-D)	927	CE-31V	919
5C24	8000	FG-33	5728/FG-67
5D24	4-250A/5D22	35T	811-A
6D22	4X500A	35TG	808
WT-6	6L6	CE-36(A-D)	927
7C20	5762/7C24	RK-36	806
7C25	5762/7C24	RK-37	808
7C27	5762/7C24	RK-38	806
HV-12	806	HY-40	812-A
RK-12	809	T-40	812-A

Similar Types (cont'd)

RCA types shown below are not directly interchangeable with the types to be replaced because of mechanical and/or electrical differences. For more information as to degree of interchangeability, refer to respective tube data or write to Commercial Engineering, Harrison, New Jersey.

Type to be Replaced	Similar RCA Type	Type to be Replaced	Similar RCA Type
TZ-40	811-A	R64AV	925
HY-40Z	811-A	HY-69	1624
RK-41	807	V-70-D	8005
RK-46	804	R71A	930, 1P40
RK-87	814	R71AV	925
RK-48A	813	71D	929
SR-50	917	FP-85	8020
HY-51A	830-B	FP-85A	8020
HY-51B	830-B	R85A	928
HY-51Z	838	CE-91R	1P37
RK-51	830-B	HF-100	8005
SR-51	926	100R	8020
RK-52	811-A	100TH	810
53AWB	927	100TL	8000
SR-53	917	111-H	812-A
HK-54	808	ZB-120	838
54-XH	3AP1-A	F123A	806
T-55	8005	HF-125	8005
HY-57	812-A	T-125	810
R-58A	927	F-127A	810
58AWB	927	F-128A	851
59D	929	HF-130	835
CE-60	917	HF-140	211
HF-60	8005	143D	2X2-A
HY-60	807	GL-146	805
SK-60	868	AB-150	845
T-60	8005	TW-150	810
R61BV	929	150P	803
RK-63	806	150T	806
SK-63	918	152TH	806
RK-64	807	152TL	806

Similar Types (cont'd)

RCA types shown below are not directly interchangeable with the types to be replaced because of mechanical and/or electrical differences. For more information as to degree of interchangeability, refer to respective tube data or write to Commercial Engineering, Harrison, New Jersey.

Type to be Replaced	Similar RCA Type	Type to be Replaced	Similar RCA Type
GL-152	805	250TL	806
HK-154	808	HF-250	8000
T-155	806	WE-251A	851
C-200	810	WE-252A	842
HF-200	8000	HK-253	217-C
T-200	806	HK-254	810
C-201	805	WE-254B	865
C-202	805	WE-255B	869-B
HD-203A	805	HF-258B	866-A
HD-203C	805	WE-259A	24-A
HF-203H	8003	260A	860
WE-205D	10-Y	HF-261A	835
WE-205E	10-Y	WE-264A	864
WT-210-0007	6L6	WE-264B, C	864
WT-210-0067	3C23	266B	857-B
211B	211	WE-266C	857-B
211C	835	WE-267B	872-A
HD-211C	805	WE-268A	801-A
211E	835	WE-271A	843
212E	849	WE-274A	5R4-GY
WE-214E	217-C	WE-281A	46
WE-217A	80	T-282A	8000
WE-220C	892	WE-284B	845
Z-225	866-A	WE-284D	845
WE-231D	864	WE-287A	5557
WE-241B	833-A	WE-298A	862-A
WE-242C	211	300	806
T-249B	866-A	WE-301A	83
WE-249A	866-A	T-303C	8000
WE-249B	866-A	UE-303U	8000
250TH	810	UE-304A	204-A

Similar Types (cont'd)

RCA types shown below are not directly interchangeable with the types to be replaced because of mechanical and/or electrical differences. For more information as to degree of interchangeability, refer to respective tube data or write to Commercial Engineering, Harrison, New Jersey.

Type to be Replaced	Similar RCA Type	Type to be Replaced	Similar RCA Type
WE-304B	6AK5	F-363A	892
CE-306	676	F-367A	673
WE-307A	807	F-369B	869-B
UE-310	801-A	F-376A	835
WE-310A	6C6	WE-393A	3C23
UE-311CH	8000	WE-394A	627
UE-311T	8003	WE-395A	5823
UE-311CT	8003	FJ-405	935
WE-312A	828	WL-450	833-A
315A	673	WL-460	806
319A	872-A	WL-463	806
321A	673	UE-468	8000
323B	3C23	WL-468	810
WE-339A	807	WL-471	8003
WE-341AA	891-R	WL-473	5762/7C24
F-342A	858	WL-481	8013-A
343A	858	RH-507	1949
WE-348A	1620	DRJ-524	864
C-350	807	GL-546	5696
WE-350B	807	578	8020
353A	872-A	NL-615	5558
HK-354C	806	WL-632A	5560
HK-354D	806	WL-632B	5560
HK-354E	806	678	5563
HK-354F	806	NL-710	676
ML-356	5771	NL-714	5557
WE-356A	808	WL-734	917
WE-357A	833-A	WL-739	927
F-357A	857-B	WL-741	923
WE-359A	1C21	T-756	809
WE-361A	835	UE-812H	8005

Similar Types (cont'd)

RCA types shown below are not directly interchangeable with the types to be replaced because of mechanical and/or electrical differences. For more information as to degree of interchangeability, refer to respective tube data or write to Commercial Engineering, Harrison, New Jersey.

Type to be Replaced	Similar RCA Type	Type to be Replaced	Similar RCA Type
T-814	806	5667	889R-A
T-822	806	5668	892
825	1623	5669	892-R
C-849A	833-A	5685/C6J	676
C-849H	833-A	5686	5763
F-857A	857-B	5695	816
861-A	861	5720/FG-33	5728/FG-67
863	892	5725	6AS6
866-B	866-A	5736	5726/7C24
C-872	872-A	5788	5555
UE-911CH	835	5891	5671
UE-942	842	5918	5770
NL-1005	5551	5934	579-B
1603	1620, 5879	5959	6130/3C45
1816-P4A	10FP4-A	6140/423A	5651
1847	5527	6155	4D21/4-125A
1851	6AC7	6156	4-250A/5D22
2501-A3	3AP1-A	6333	892
2501-C3	908-A	6336	6080
5514	811-A	6346	5551
5516	2E24	6347	5552
5591	6AK5	6348	5553
5604	889R-A	6394	6082
5606	892	6445	892-R
5654	6AK5	6446	892
5658	880	6447	892-R
5663	5696	6626	6073
5666	889-A	6627	6074
		AX9911	6130/3C45

RCA QUICK-SELECTION GUIDE

To Tubes for Communications, Industry, and Military Uses

VACUUM POWER TUBES

Type	Cathode Volts	Maximum Dimensions Inches		Amplification Factor	Max. Plate Ratings[A]	
		Length	Diam.		DC Volts	Dissipation Watts
TRIODES (AIR-COOLED)						
3C33	12.6	3 11/16	2 3/8	11b	±2000	15
801-A	7.5	5 3/8	2 1/16	8	600	20
805	10	8 1/2	2 5/16	variable	1500	125
808	7.5	6 1/16	2 13/16	47	2000†	75†
809	6.3	6 9/16	2 7/16	50	1000†	30†
810	10	8 3/4	2 1/4 *	36	2500†	175†
811-A	6.3	6 15/32	2 7/16	160	1500†	65†
812-A	6.3	6 15/32	2 7/16	29	1500†	65†
826	7.5	3 11/16	2 3/8	31	1000†	55†
830-B	10	6 11/16	2 1/16	25	1000	60
833-A	10	8 13/16	4 19/32	35	3300†	350†
834	7.5	6 7/8	2 11/16	10.5	1250	50
838	10	7 7/8	2 5/16	variable	1250	100
845	10	7 7/8	2 5/16	5.3	1250	100
1626	12.6	4 1/8	1 9/16	5	250	5
5556	4.5	4 1/2	1 5/8	8.5	350	10
8000	10	8 3/4	2 1/4 *	16.5	2500†	175†
8005	10	6 11/16	2 7/16	20	1500†	85†
8012-A	6.3	3 15/16	1 3/16 *	18	1000	40
8025-A	6.3	4 15/16	1 5/64 *	18	1000†	30†

†For Intermittent Commercial and Amateur Service.

[A]Absolute values for Continuous Commercial Service, unless otherwise specified. b Per Unit. *Maximum Radius.

VACUUM POWER TUBES *(cont'd)*

Type	Cathode Volts	Maximum Dimensions Inches		Amplification Factor	Max. Plate Ratings▲	
		Length	Diam.		DC Volts	Dissipation Watts
TRIODES (WATER-COOLED)						
9C21	19.5	24½	9½	40	17000	40000
207	22	20¼♦	6½ *	20	15000	10000
880	12.6	11½	7	20	10500	20000
889-A	11	10 11/16	3⅝	21	8500	5000
891	11#	20⅞	6½ *	8.5	12000	6000
892	11#	20⅞	6½ *	50	15000	10000
893-A	20#	26¾	6⅜ *	34.5	20000	20000
5770	11	24½	9½	40	17000	50000
5771	7.5	11 5/16	7	20	12500	22500
6383	6.3	4 9/32	1 25/32	27	1500	600
6949	7.5	40	10 1/16	60	20000	400000
TRIODES-(FORCED-AIR-COOLED)						
2C39-A	6.3	2¾	1 17/64	100	1000	100
4C33	5	4⅞	2 1/16	25	13000¶	250
9C22	19.5	25	17	41	17000	20000
9C25	6	17⅜	14¼	32	11500	17500
833-A	10	8 13/16	4 19/32	35	4000	450
889R-A	11	11⅛	5½ *	21	8500	5000
891-R	11#	22	6½ *	8.5	10000	4000
892-R	11#	22	6½ *	50	12500	4000
893A-R	20#	28	8 13/16	34.5	20000	20000
5588	6.3	3 13/32	1¾	16	1000	200
5604-A	11	13¾	5½ *	20	12500	10000
5671	11	25	16 15/16	40	15000	25000
5713	3.3	4⅞	2 1/16	25	1500	250
5762/7C24	12.6	7⅛♦	4 11/16	29	6200	3000
5786	11	9⅝	2 15/16	32	3000	600
5946	6.3	3 13/32	1¾	27	7500¶	250
6161	6.3	3 13/32	1¾	27	1600	250
TETRODES (AIR-COOLED)						
860	10	8¾♦	4¼ *	1100∅	3000	100
861	11	17 7/32	6⅝ *	2400∅	3500	400
865	7.5	5¾	2 1/16	750∅	750	15

*Maximum Radius. #Per Section.
▲Absolute values for Continuous Commercial Service, unless otherwise specified.
¶Peak Positive-Pulse Plate-Supply Volts.
♦Excluding Flexible Leads.
∅Transconductance.

VACUUM POWER TUBES *(cont'd)*

Type	Cathode Volts	Maximum Dimensions Inches		Transconductance*	Max. Plate Ratings▲	
		Length	Diam.	Micromhos	DC Volts	Dissipation Watts
TETRODES (WATER-COOLED)						
8D21	3.2	12 9/32	5 3/4	5§b	6000	6000
TETRODES (FORCED-AIR-COOLED)						
6166	5	11 5/8	6 13/32	10§	6600	10000
BEAM POWER TUBES (FORCED-AIR-COOLED)						
4-65A	6	4 3/8	2 3/8	5 §	3000	65
4-125A/4D21	5	5 11/16	2 1/4	5.9§	3000	125
4-250A/5D22	5	6 3/8	3 9/16	5.1§	4000	250
4-1000A	7.5	9 5/8	5 1/4	7 §	6000	1000
4X150A	6	2 15/32	1.635	5 §	1250	150
4X150D	Same as 4X150A but has 26.5-volt heater.					
4X500A	5	4 3/8	2 5/8	6.2§	4000	500
827-R	7.5	6 3/8 ♦	4 11/16	16 §	3500	800
6155/4-125A	5	5 3/32	2 7/16	6.2§	3000	125
6156/4-250A	5	5 29/32	3 7/16	5.1§	4000	250
6181	120	7 7/16	5 1/32	7 §	2000	2000
6816	6.3	2	1 1/4	16 §	1000	115
6884	Same as 6816 but has 26.5-volt heater.					
7034/4X150A	6	2 15/32	1.635	5 §	••	250
7035/4X150D	Same as 7034/4X150A but has 26.5-volt heater.					
7094	6.3	5	2 9/16	7 §	1500†	125†
BEAM POWER TUBES AND PENTODES (AIR-COOLED)						
2E24	6.3	3 21/32	1 5/16	7.5§	600†	13.5†
2E26	6.3	3 21/32	1 5/16	6.5§	600†	13.5†
3E29	Similar to type 829-B but for pulsed operation.					

*Maximum Radius.
▲Absolute values for Continuous Commercial Service.
†For Intermittent Commercial and Amateur Service.
§Grid-Screen Mu-Factor.
•• Max. DC plate volts, 2000 for frequencies up to 150 mc; max. DC plate volts, 1250 for frequencies of 150 mc to 500 mc. bPer Unit.

VACUUM POWER TUBES *(cont'd)*

BEAM POWER TUBES AND PENTODES (AIR-COOLED) *(cont'd)*

Type	Cathode Volts	Maximum Dimensions Inches		Transconductance	Max. Plate Ratings▲	
		Length	Diam.	Micromhos	DC Volts	Dissipation Watts
4E27/8001	5	6 3/16	2 11/16	2800	4000	75
6893	Same as 2E26 but has 12.6-volt heater.					
4E27A/5-125B	5	6 3/16	2 3/4	2150	4000	125
802	6.3	5 3/4	2 1/16	2250	600†	13†
803	10	9 1/4	2 9/16	4000	2000	125
804	7.5	7 11/16	2 1/16	3250	1500†	50†
807	6.3	5 3/4	2 1/16	6000	750†	30†
813	10	7 1/2	2 9/16	3750	2250†	125†
814	10	7 11/16	2 1/16	3300	1500†	65†
815∅	6.3/12.6	4 9/16	2 3/8	4000	500†	25†
828	10	7 11/16	2 1/16	2700	1500†	80†
829-B∅	6.3/12.6	4 5/16	2 3/8	8500	750†	45†
832-A∅	6.3/12.6	3 5/16	2 3/8	3500	750†	15†
837	12.6	5 3/4	2 1/16	3400	500	12
1613	6.3	3 1/4	1 5/16	2500	350	10
1614	6.3	4 5/16	1 5/8	6050	450†	25†
1619	2.5	4 5/16	1 5/8	4500	400	15
1624	2.5	5 3/4	2 1/16	4000	600	25
1625	12.6	5 3/4	2 1/16	6000	750†	30†
5618	3.0/6.0	2 5/8	3/4	3600	300†	5†
5763	6	2 5/8	7/8	7000	350†	17†
6146	6.3	3 13/16	1 23/32	4.5§	750†	25†
6159	Same as 6146 but has 26.5-volt heater.					
6293	See Technical Bulletin					
6417	Same as 5763 but has 12.6-volt heater.					
6524∅	6.3	3 9/16	1 13/16	4500	600†	25†
6850	Same as 6524 but has 12.6-volt heater.					
6883	Same as 6146 but has 12.6 volt heater.					
6893	Same as 2E26 but has 12.6-volt heater.					
7212	6.3	3 13/16	1 21/32	7000	750†	25†

BEAM POWER TUBES AND PENTODES (Water-Cooled)

6448	1.35 •	7 31/32	11 3/8	8§	7000	26000
6806	1.35 •	7 31/32	11 3/8	8§	9000	36000
6952¶	0.95	8.93	11 1/4	8§	30000	3000

▲Absolute values for Continuous Commercial Service.
†For Intermittent Commercial and Amateur Service.
§Grid-Service Mu-Factor.

GLOW-DISCHARGE (COLD-CATHODE) TUBES

Type	Maximum Dimensions Inches Length	Diam.	Operating Volts	Operating Current DC Ma. Min.	Max.
VOLTAGE-REGULATOR TYPES					
OA2	2⅝	¾	151	5	30
OA3	4⅛	1 9/16	75	5	40
OB2	2⅝	¾	108	5	30
OC2	2⅝	¾	75	5	30
OC3	4⅛	1 9/16	108	5	40
OD3	4⅛	1 9/16	153	5	40
991	1 9/16	⅝	59	0.4	2
5651*	2⅛	¾	87	1.5	3.5
6073	2⅝	¾	151	5	30
6074	2⅝	¾	108	5	30

Type	Dimensions Inches Length	Diam.	Max. Ratings Peak Anode Volts	Peak Cathode Ma.	Av. Cathode Ma.
RELAY TYPES					
OA4-G	4⅛	1 9/16	225	100	25
1C21	2⅝	1 5/16	180	100	25
5823	2⅛	¾	200	100	25

RECTIFIERS

Type	Cathode Volts	Maximum Dimensions Inches Length	Diam.	Max. Plate or Anode Ratings Peak Inv. Volts	Amp. Av.
VACUUM TYPES					
2X2-A	2.5	4 17/32	1 9/16	12500	0.0075
5R4-GY□	5	5 5/16	2 1/16	2800	0.175
579-B	2.5	7 1/16	2 1/16	20000	0.025
836	2.5	6 9/16	2 7/16	5000	0.25
878	2.5	7 5/8	1 13/16	20000	0.005
1616	2.5	6 13/16	2 1/16	6000	0.13
5825	1.6	5 27/32	2 1/16	60000	0.002
8013-A	2.5	6 1/16	2 1/16	40000	0.020
8020	5	8	2 5/16	40000	0.100

*Voltage reference type. □Full-Wave Type.

RECTIFIERS *(cont'd)*

Type	Cathode Volts	Maximum Dimensions Inches Length	Diam.	Max. Plate or Anode Ratings Peak Inv. Volts	Av. Amp
MERCURY-VAPOR TYPES					
83□	5	5 3/8	2 1/16	1550	0.225
575-A	5	11 1/8	3 1/8	15000	1.5
673	5	10 7/16	3 1/8	15000	1.5
816	2.5	4 11/16	1 9/16	7500	0.125
857-B	5	19 7/8♦	7 1/8	22000	10
866-A	2.5	6 9/16	2 7/16	10000	0.25
869-B	5	14 7/16	5 1/8	20000	2.5
872-A	5	8 1/2	2 5/16	10000	1.25
5558	5	7	3	5000	2.5
5561	5	11 1/4	3 13/16	3000	6.4
6894	5	10 17/32	2 5/8	20000	1.8
6895	5	10 13/32	2 5/8	20000	1.8
8008	5	8 3/4	2 5/16	10000	1.25
GAS TYPES					
3B25	2.5	6 5/16	2 1/16	4500	0.5
3B28	2.5	6 5/32	2 1/16	10000	0.25

THYRATRONS

TRIODES					
C1K/6014	2.5	4 1/4	1 9/16	1250	1.0
C3J/5632	2.5	6	1 9/16	1250	2.5
C3J-A/5684	2.5	6	1 9/16	1250	2.5
C6J/5C21	2.5	9 1/2	2 1/32	1250	6.4
C6J-A/5685	2.5	9 1/2	2 1/32	1250	6.4
C16J/5665	2.5	10 1/2♦	2 11/16	1250	18
3C23	2.5	6 1/8	2 1/16	1250	1.5
627	2.5	7	2 7/16	2500	0.64
629	2.5	4 1/4	1 9/16	350	0.04
676	5	11 3/4	3 13/16	2500	6.4
677	5	11 3/4	3 13/16	10000	4.0
884	6.3	4 1/8	1 9/16	350	0.075
885	2.5	4 3/16	1 9/16	350	0.075
5557	2.5	6 1/8	2 1/16	5000	0.5
5559	5	7 1/4	3	1000	2.5
5563-A	5	10 17/32	2 5/8	20000	1.6
6130/3C45¶	6.3	5 5/16	1 9/16	3000	0.045
7086	2.5	11.8	2.88*	650	40
TETRODES					
632-B	5.0	8 5/16	1 3/4 *	1500	2.5
2D21	6.3	2 1/8	3/4	1300	0.1
3D22-A	6.3	4 5/8	2 3/8	1500	0.8
105	5	11 1/4♦	2 13/16*	2500	6.4

• For operation up to 50000 ft.
□Full-Wave Type.
*Maximum Radius.
♦Excluding Flexible Leads.
¶For Government End-Use Only.

THYRATRONS *(cont'd)*

Type	Cathode Volts	Maximum Dimensions Inches Length	Diam.	Max. Plate or Anode Ratings Peak Inv. Volts	Av. Amp.
TETRODES *(cont'd)*					
172	5	10¾	2⅝ *	2000	6.4
502-A	6.3	2⅝	1 5/16	1300	0.1
672-A	5	8⅛	2 5/16	2500	3.2
2050	6.3	4⅛	1 9/16	1300	0.1
5560	5	7 15/16	2¼ *	1000	2.5
5696	6.3	1¾	¾	500	0.025
5727	6.3	2⅛	¾	1300	0.1
6012	6.3	3⅛	1 23/32	1300	0.5

IGNITRONS

Type	Maximum Dimensions Inches Size	Approx. Length	Radius	Max. Anode Ratings†† KVA Demand	Corresponding Av. Anode Amp.	Max. Anode Rating*† Peak Inv. Volts	Av. Amp.
5550	(A)	10	1⅜	300	12.1	.....	.....
5551-A	(B)	13½	2⅞	600	30.2	.....	.....
5552-A	(C)	14½	3⅝	1200	75.6	.....	.....
5553-B	(D)	20	4 11/16	2400	192.	.....	.....
5555		18½	4 9/16	.....	.....	2100	150
5822-A		14½	3⅝	.....	.....	1500¶	56¶

PHOTOTUBES

Type	Maximum Dimensions Inches Length	Diam.	Max. Anode-Supply Volts	Luminous Sensitivity Microamp. Per Lumen	Spectral Response
GAS TYPES					
1P29	4⅛	1⅛	100	40	S-3
1P37	4⅛	1⅛	100	135	S-4
1P40	Same as 930 except for non-hygroscopic base.				
1P41	2 1/16	13/16	90	90	S-1
868	4⅛	1⅛	100	90	S-1
918	4⅛	4⅛	90	150	S-1

*Maximum Radius. ††For welder-control service.
*†For power rectification.
¶For frequency-changer resistance-welding service.

PHOTOTUBES (cont'd)

Type	Maximum Dimensions Inches Length	Diam.	Max. Anode-Supply Volts	Luminous Sensitivity Microamp. Per Lumen	Spectral Response
GAS TYPES (cont'd)					
920¶	4	1 3/16	90	100	S-1
921	1 23/32	29/32	90	135	S-1
923	3 9/16	1 3/16	90	135	S-1
924	2 3/16	13/16	90	90	S-1
927	2 13/32	11/16	90	125	S-1
928	3 9/16	1 3/16	90	65	S-1
930	3 1/16	1 9/32	90	135	S-1
5581	3 1/16	1 9/32	100	135	S-4
5582	1 23/32	29/32	100	120	S-4
5583	2 13/32	11/16	100	135	S-4
5584¶	4	1 3/16	100	120	S-4
6405/1640	4 7/16	1 1/8	90	35	S-1
6953	3 1/16	1 9/32	90	200	S-1
VACUUM TYPES					
1P39	Same as 929 except for non-hygroscopic base.				
1P42	1 13/32	1/4	180	37	S-9
917	4 1/16	1 1/8	500	20	S-1
919	4 1/16	1 1/8	500	20	S-1
922	1 23/32	29/32	500	20	S-1
925	2 5/8	1 9/32	250	20	S-1
926	1 23/32	29/32	500	6.5	S-3
929	3 1/16	1 9/32	250	45	S-4
934	2 13/32	11/16	250	30	S-4
935	4 1/4	1 9/32	250	35	S-5
5652*	2 7/8	1 9/32	250	45	S-4
5653	3 1/16	1 9/32	250	20-100	S-4
6570	4 7/16	1 1/8	500	30	S-1
7043	3 5/16	1 9/32	250	45	S-4

MULTIPLIER PHOTOTUBES

Type	Maximum Dimensions Inches Length	Diam.	Max. Anode-Supply Volts	Luminous Sensitivity Amp/Lumen	Spectral Response
1P21	3 11/16	1 5/16	1250	80 •	S-4
1P22	3 11/16	1 5/16	1250	1.0 •	S-8
1P28	3 11/16	1 5/16	1250	50 •	S-5
931-A	3 11/16	1 5/16	1250	24 •	S-4
2020	5 13/16	2 5/16	1500	6 • •	S-11
5819	5 13/16	2 5/16	1250	25 •	S-11
6199	4 9/16	1 9/16	1250	27 •	S-11

¶Twin type. *Twin type; each unit has a composite anodecathode.
• With supply volts=1000. • • With supply volts=1250.

MULTIPLIER PHOTOTUBES *(cont'd)*

Type	Max. Dimensions Inches Length	Diam.	Max. Anode-Supply Volts	Luminous Sensitivity Amp/Lumen	Spectral Response
6217	5 13/16	2 5/16	1250	24 •	S-10
6328▲	3 1/8	1 5/16	1250	35 •	S-4
6342	5 13/16	2 5/16	1500	7.5 • •	S-11
6372	7 3/4	2 9/16	1200	20 •	S-11
6472▲	2 3/4 !	1 3/16	1250	35 •	S-4
6655-A	5 13/16	2 5/16	1250	50 •	S-11
6810-A	7 1/2	2 3/8	2400	750 ♦	S-11
6903	6 9/16	2 5/16	1250	24 •	S-13
7029	3 3/4	1 9/16	1250	40 •	S-17
7046	11 1/8	5 1/4	3400	180 #	□
7102	4 9/16	1 9/16	1500	4.5 • •	S-1
7117▲	3 1/8	1 5/16	1250	35 •	S-4
7200	5 11/16	1 5/16	1250	40 •	S-19

PHOTO CONDUCTIVE CELLS

Type	Maximum Dimensions Inches Overall Length	Width	Depth	Max. Polarizing Volts	Luminous Sensitivity Amp/Lumen	Spectral Response
6694-A	1/2	3/8	1/4	150	1¶	S-12
6957	2 7/32	1 9/32 Dia.	—	250	1.64¶¶	S-15
7163	0.9	1.26 Dia.	—	250	0.082	S-15

PHOTO JUNCTION CELLS

Type	Maximum Dimensions Inches Length	Diam.	Max. Polarizing Volts	Illumination Sensitivity A/FE-C	Spectral Response
7223	0.580!	0.083	50	0.2	S-14

▲For headlight dimming service. !Excluding flexible leads. • With Supply Volts=1000. • • With Supply Volts=1250. ♦With Supply Volts=2000. ¶With polarizing volts=90 and ambient temp.=25°C. #With Supply Volts=2800. □Extended S-11, with response 2500 to 6500°A. ¶¶With Polarizing Volts=50 and Ambient Temp.=25°C.

CATHODE-RAY TUBES‡

Type	Max. Overall Length Inches	Min. Screen Diam. Inches	Max. Final Electrode Volts	Volts DC/In† Deflection Factor	
				DJ_1-DJ_2††	DJ_3-DJ_4*
OSCILLOGRAPH TYPES *(cont'd)*					
Medium Persistence, Electrostatic Focus: *(cont'd)*					
3BP1-A	10¼	2¾	2000	85-115	62-85
3JP1◉	10¼	2¾	4000	85-115	62-85
3KP1	11¾	2¾	2500	50-68	38-52
3RP1	9⅜	2¾	2500	73-99	52-70
3RP1-A	Same as type 3RP1, except has flat face.				
3WP1	11⅝	2¾	2500	41.5-50.5	28.5-35
5ABP1◉	17⅛	4 9/16	6000	26-36	18-24
5ADP1◉	16 15/16	4½	6000	26.7-33.3	20.3-25
5BP1-A	17⅛	4½	2000	35-38	32-44
5CP1-A◉	17⅛	4½	4000	39-53	33-45
5UP1	15⅛	4½	2500	28-39	23-31
7CP1	13 13/16	6½	8000	**	**
7VP1	14⅛	6	4000	31-41	25-34
902-A	7⅝	1¾	600	183-277	160-235
Medium-Short Persistence:					
1EP11	Same as type 1EP1, except for phosphor.				
2BP11	Same as type 2BP1, except for phosphor.				
3KP4	Same as type 3KP1, except for phosphor.				
3KP11	Same as type 3KP1, except for phosphor.				
3RP4	Same as type 3RP1, except for phosphor.				
3WP11	Same as type 3WP1, except for phosphor.				
5ABP4◉	Same as type 5ABP1, except for phosphor.				
5ABP11◉	Same as type 5ABP1, except for phosphor.				
5CP11-A◉	Same as type 5CP1-A, except for phosphor.				
5UP11	Same as type 5UP1, except for phosphor.				
908-A	Same as type 3AP1-A, except for phosphor.				
Short Persistence:					
5FP15-A§	11½	4¼	8000	Mag. focus & deflec.	
Medium-Long Persistence:					
1EP2	Same as type 1EP1, except for phosphor.				
Long Persistence:					
5CP12◉	Same as type 5CP1-A, except for phosphor.				
5FP14-A§	Same as type 5FP15-A, except for phosphor.				
7MP14	Same as type 7MP7, except for phosphor.				
Very Long Persistence:					
1EP2	Same as 1EP1, except for phosphor.				
3JP7◉	Same as type 3JP1, except for phosphor.				

‡All have 6.3-v heaters except: the 3AP1-A which has 2.5-v heater; and the 7NP4 and 7WP4 which have 6.6-v heaters. †Per KV of final electrode volts. ††Deflecting electrodes nearer the face. *Deflecting electrodes nearer the base. ◉Post-deflection accelerator type. **Magnetic deflection. §High resolution type.

CATHODE-RAY TUBES‡ *(cont'd)*

Type	Max. Over-all Length Inches	Min. Screen Diam. Inches	Max. Final Electrode Volts	Deflection Factor Volts DC/In† DJ1-DJ2††	DJ3-DJ4*
Very Long Persistence: *(cont'd)*					
3KP7	Same as type 3KP1, except for phosphor.				
3WP2	Same as type 3WP1, except for phosphor.				
5ABP7◉	Same as type 5ABP1, except for phosphor.				
5AHP7	11⅜	4¼	10000	Elec. focus, mag. defl.	
5AHP7-A	Same as 5AHP7, but has aluminized screen.				
5CP7-A◉	Same as type 5CP1-A, except for phosphor.				
5FP7-A	11½	4¼	8000	Mag. focus & deflec.	
5UP7	Same as type 5UP1, except for phosphor.				
7BP7-A	13⅜	6	8000	Mag. focus & deflec.	
7MP7	13⅛	6	8000	Mag. focus & deflec.	
10KP7	18	9	10000	Mag. focus & deflec.	
12DP7-A	20⅛	10	10000	Mag. focus & deflec.	
16ADP7	22	14⅜	14000	Mag. focus & deflec.	

Type	Max. Over-all Length Inches	Min. Screen Diam. Inches	Max. Final Electrode Volts	Max. Focusing Electrode Volts	Deflection Angle Approx. Degrees
FLYING-SPOT TYPES:					
5AUP24#	12⅞	4¼	27000	6000	40
5WP15#	11^{13}⁄$_{16}$	4¼	27000	6000	50
5ZP16#	14¾	4¼	27000	7000	40
TRANSCRIBER KINESCOPE:					
5WP11#	11^{13}⁄$_{16}$	4¼	27000	6000	50
VIEW-FINDER KINESCOPES:					
5AYP4#	11^{15}⁄$_{16}$	4¼	10000	1500	53
5FP4-A	11½	4¼	8000	§	53
PROJECTION KINESCOPES (For Theater Television):					
5AZP4#	12^{9}⁄$_{16}$	4½	40000	9000	50
7NP4★#	20⅛	5x3¾	80000	20000	35
7WP4▲#	20^{1}⁄$_{16}$	5x3¾	80000	20000	35
MONITOR KINESCOPES:					
7CP4	13^{13}⁄$_{16}$	6½	8000	2400	57
7QP4	13¼	6	10000	§	52
7TP4#	13½	6	12000	2000	50
10SP4#	17	9⅛	14000	2700	50

‡All have 6.3-v heaters except: the 3AP1-A which has 2.5-v heater; and the 7NP4 and 7WP4 which have 6.6-v heaters. #Aluminized. †, ††, *See preceding page. *Projection-throw distance=60 ft. ▲Projection-throw distance=80 ft. §Magnetic focus.

RCA QUICK-SELECTION GUIDE

CAMERA TUBES

ICONOSCOPES:

1850-A—For pick-up from motion-picture film or slides. Utilizes electrostatic focus and magnetic deflection. Has a high ratio of signal to noise but relatively low sensitivity. Response covers entire visible spectrum.

IMAGE ORTHICONS:

Employs magnetic focus and deflection.

5820 For both outdoor and studio pickup. Has exceptional sensitivity combined with spectral response approaching that of the eye. Very stable in performance at all incident light levels on the object ranging from bright sunlight to a deep shadow. Utilizes magnetic focus and deflection.

6474/1854 For use in color cameras utilizing the method of simultaneous pickup of the studio or outdoor scene to be televised. Capable of producing a picture having natural tone value and accurate detail. Utilizes magnetic focus and deflection.

6849 For use in industrial and scientific research television applications involving extremely low light levels. In a standard TV system can produce signal information with illumination on the photocathode as low as 0.00001 foot-candle.

VIDICONS:

6198 For use in industrial TV applications. Features small size and simplicity. Employs as its light-sensitive element a photoconductive layer having spectral response approaching that of the eye. Has very good sensitivity. Utilizes magnetic focus and deflection.

6326 Similar to 6198 but intended primarily for use in compact TV cameras for either film or limited-motion live pickup.

6326-A—Like the 6326 but features a structure without a side-tip and thus allows the use of a longer deflecting yoke.

7038 Broadcast-quality type. For live pickup with black-and-white TV cameras or with color-TV cameras utilizing the method of simultaneous pickup. Also useful for film pickup. No side tip.

MONOSCOPES:

2F21 A 5" type with Indian-head test pattern for supplying signal to test video performance of TV receivers and transmitters. Utilizes electrostatic focus and magnetic deflection.

1699 Custom-built type like the 2F21 except that its pattern is individually styled to customer requirements.

Image-Converter Tubes

6032 For use with suitable optical systems for viewing a scene with infrared radiation.

6032-A—Unilaterally interchangeable with 6032 but is controlled for threshold visibility.

STORAGE TUBES

6499 Radechon. Useful in digital or analogue information-processing systems.

6571 Computer type. For use primarily in binary-digital systems.

6866 Direct-view display type. For applications where a bright, non-flickering display of stored information is desired. Electrostatically deflected writing beam.

6896/1855 Graphechon. For use in data-processing applications where signal information must be transformed continuously from one time base to another.

7183 Direct-view display type. Similar in application to type 6866. Magnetically deflected writing beam.

VACUUM-GAUGE TUBES

1946 Thermocouple Type. For measuring gas pressures in the range from 1 mm to 0.0001 mm of mercury (1000 to 0.1 micron).

1947 Pirani Type. For measuring gas pressures in the range from 0.5 mm to 0.01 mm of mercury (500 to 10 microns).

1949 Ionization Type, hard-glass construction. For measuring gas pressures below 0.001 mm of mercury (0.1 micron).

1950 Ionization Type. Similar to type 1949, but soft-glass construction.

"SPECIAL RED" TUBES

Designed and manufactured for critical industrial applications where 10000-hour life, rigid construction, extreme uniformity and exceptional stability are paramount.

5690 Full-Wave Vacuum Rectifier. Features two separate diode units of the indirectly-heated-cathode type. Max. peak inverse plate volts, 1120; max. peak plate current per plate, 375 ma.; max. dc output current per plate, 75 ma.

5691 High-Mu Twin Triode similar to type 6SL7-GT.

5692 Medium-Mu Twin Triode similar to type 6SN7-GT.

5693 Sharp-Cutoff Pentode similar to type 6SL7.

TYPES FOR SPECIAL APPLICATIONS

ACORNS

6F4 Oscillator Triode. Heater-cathode type. For frequencies up to 1200 Mc.

6L4 UHF Oscillator Triode. Heater-cathode type. For frequencies up to 1200 Mc.

954 Detector Amplifier Pentode. Heater-cathode type. For frequencies up to 430 Mc.

955 Medium-Mu Triode. Heater-cathode type. For frequencies up to 600 Mc.

TYPES FOR SPECIAL APPLICATIONS *(cont'd)*

ACQRNS *(cont'd)*

956 Remote-Cutoff Pentode. Remote cutoff, heater-cathode type. For frequencies up to 430 Mc.

957 Medium-Mu Triode. Filament volts, 1.25. Amplification factor, 13.5.

958-A—Medium-Mu. Filament volts, 1.25. For oscillator and r-f amplifier service.

959 Sharp-Cutoff Pentode. Filament volts, 1.25 for r-f amplifier and detector service.

9004 UHF Diode. Heater-cathode type. For u-h-f service as a rectifier, detector or measuring device. Resonant frequency, about 850 Mc.

9005 UHF Diode. Heater-cathode type. For u-h-f service as a rectifier, detector or measuring device. Resonant frequency, about 1500 Mc.

MINIATURES

3A4 Power Pentode. Filament volts, 1.4/2.8. A-F power output of 700 milliwatts.

3A5 Medium-Mu Twin Triode. Class C power output of 2 watts at 40 Mc.

6AS6 Sharp-cutoff Pentode. 7-pin miniature type. Grids No. 1 and No. 3 can each be used as independent control electrodes. For use in gated amplifier circuits, delay circuits, gain-controlled amplifiers, and mixer circuits.

6J4 UHF Amplifier Triode. Cathode-drive amplifier. For frequencies up to 500 Mc.

12AY7—Medium-Mu Twin Triode. 9-pin Miniature Type. For use in the first stages of high-gain audio-frequency amplifiers, where reduction of microphonics, leakage noise, and hum are primary considerations.

26A6 Remote-Cutoff Pentode. Remote-cutoff, heater-cathode type. Useful in aircraft receivers operating directly from 12-cell storage batteries.

26C6 Twin-Diode—Medium-Mu Triode. Heater-cathode type. Useful in aircraft receivers operating directly from 12-cell storage batteries.

26D6 Pentagrid Converter. Heater-cathode type. Useful in aircraft receivers operating directly from 12-cell storage batteries.

5879 Sharp-Cutoff Pentode. 9-pin miniature type. Intended for use as an audio amplifier in applications requiring reduced microphonics, leakage noise, and hum. Especially useful in the input stages of medium-gain public address systems, home sound recorders, and general-purpose audio systems.

MINIATURES *(cont'd)*

9001 Sharp-Cutoff Pentode. A sharp cut-off pentode for use as an r-f amplifier or detector in u-h-f service.

9002 UHF Triode. Useful as a u-h-f detector, amplifier and oscillator.

9003 Remote-Cutoff Pentode. Remote cutoff type useful as a mixer or as an r-f or i-f amplifier in u-h-f services.

9006 UHF Diode. Heater-cathode type. Resonant frequency, about 700 Mc. For u-h-f service as a rectifier, detector, or measuring device.

METAL, GT, AND OTHER GLASS TYPES

2C40 Lighthouse Triode. A high frequency amplifier and oscillator for use up to 3000 Mc. Plate dissipation, 6.5 watts max., mu = 36, gm = 4800 micromhos.

2C43 Lighthouse Triode. Has the same design features as the 2C40 except for a plate dissipation of 12 watts max., mu = 48, and gm = 8000 micromhos.

6AG7-Y—Power Pentode. Similar to type 6AG7 except for micanol base.

6AS7-G—Low-Mu Twin Triode. Heater-cathode type. Has high perveance, a mu of 2, and an ac plate resistance of 280 ohms. For use as a regulator tube in dc power supplies, and in projection television booster scanning applications.

6SJ7-Y—Triple-Grid Detector Amplifier. Same as type 6SJ7 except for micanol base.

12A6 Beam Power Tube. Metal type. Designed particularly for aircraft applications. Heater volts, 12.6. Max. plate volts, 250.

12L8GT—Twin-Power Pentode. Heater volts, 12.6. Max. plate volts, 180. Plate dissipation per plate, 2.5 watts. Similar to type 1644.

12SW7—Twin-Diode—Medium-Mu Triode. Heater-cathode type. Useful in aircraft receivers.

12SX7-GT—Medium-Mu Twin Triode. Heater-cathode type. Useful in aircraft receivers.

12SY7—Pentagrid Converter. Single-ended metal type. Useful in aircraft receivers.

26A7-GT—Twin Beam Power Tube. Heater volts, 26.5. Max. plate volts, 50. For 12-cell battery service.

1609 Amplifier Pentode. For low-microphonic applications. Filament volts, 1.1. Max. plate volts, 135.

1612 Pentagrid Amplifier. For low-microphonic applications. Heater volts, 6.3. Max. plate volts, 250. Similar to type 6L7.

TYPES FOR SPECIAL APPLICATIONS *(cont'd)*

METAL, GT, AND OTHER GLASS TYPES *(cont'd)*

1620 Triple-Grid Detector Amplifier. For low-microphonic applications. Heater volts, 6.3. Max. plate volts, 250. Similar to type 6J7.

1621 Power Amplifier Pentode. Metal type. For application requiring continuity of service. Heater volts, 6.3. In push-pull service: Max. plate volts, 300; a-f power output, 5 watts.

1622 Beam Power Tube. Metal type. For applications requiring continuity of service. Heater volts, 6.3. In push-pull service: Max. plate volts, 300; power output, 10 watts.

1629 Electron-Ray Tube. Indicator type. Similar to type 6E5 except for a 12.6-volt heater and an octal base.

1631 Beam Power Amplifier. Metal type. Similar to type 6L6 except for a 12.6-volt heater. Max. plate dissipation, 16 watts.

1632 Beam Power Tube. Metal type. Similar to type 25L6 except for 12.6-volt heater, and plate voltage and dissipation ratings.

1635 Class B Twin Amplifier. Heater-cathode type. For audio amplifier applications.

5642 Diode. Subminiature type with flexible leads for TV high-voltage rectifier applications. Heater volts 1.25. Peak inverse plate voltage 10,000.

5687 Medium-Mu Twin Triode. For general purpose amplifier applications. Heater volts 6.3 and 12.6 for parallel and series operation.

5881 Beam Power Amplifier. For audio-frequency power amplifier applications. Heater volts, 6.3. In push-pull AB1 service, max. power output, 26.5 watts.

5890 Low-current beam pentode of the remote-cutoff type intended particularly for the regulation of high-voltage dc power supplies.

6026 Oscillator Triode. Subminiature type intended for transmitting service in radiosonde applications at 400 Mc.

6080 Low-Mu Twin Triode. Similar to type 6AS7-G in characteristics, but is smaller in size. Intended for applications critical as to shock and vibration, and requiring reduced susceptibility to electrolysis.

6082 Same as 6080 but has 26.5-volt heater. Intended for use in aircraft receivers.

UHF "PENCIL" TUBES

5675 Medium-Mu Triode. For use in cathode-drive circuits at frequencies up to 3000 Mc. As a local oscillator, it is capable of giving a power output of 475 milliwatts at 1700 Mc.

5876 High-Mu Triode. General purpose type. For use in cathode-drive circuits as an r-f amplifier, i-f amplifier, or mixer tube up to 1000 Mc; as a frequency mutiplier up to 1500 Mc; and as an oscillator up to 1700 Mc. Delivers useful output of 5 watts at 500 Mc as an unmodulated Class C r-f amplifier, and 750 milliwatts as an oscillator at 1700 Mc.

5876-A—Like the 5786 but designed for military and critical industrial application.

5893 Medium-Mu Triode. Designed for use in cathode-drive circuits as a plate-pulsed oscillator up to 3300 Mc and as a cw oscillator, rf power amplifier, and frequency doubler up to 1000 Mc.

6173 UHF Diode. For use in pulse detection and pulse-power-measuring service. May be operated at frequencies as high as 3300 Mc.

6263 Medium-Mu Triode. For use in cathode-drive, rf power amplifiers and oscillators in mobile transmitters operating up to 60000 feet without pressurized chambers. Under ICAS conditions, gives a useful power output of about 10 watts at 500 Mc. in unmodulated class C service with a plate input of only 14 watts.

6264 Like the 6263 but has a mu of 40. For frequency-multiplier service.

6562 Intended for transmitting service in radiosonde application at 1680 Mc.

TYPES FOR ELECTRONIC-COMPUTER AND OTHER "ON-OFF" CONTROL APPLICATIONS

5915 Pentagrid Amplifier. 7-pin miniature type designed for use as a gated amplifier in electronic computers. Grids No. 1 and No. 3 can each be used as independent control electrodes.

5963 Medium-Mu Twin Triode. 9-pin miniature type intended for frequency-divider circuits in computers. Separate terminal for each cathode, and a mid-tapped heater for 6.3-volt or 12.6-volt operation.

5964 Medium-Mu Twin Triode. 7-pin miniature type intended for frequency-divider circuits in computers.

TYPES FOR ELECTRONIC-COMPUTER AND OTHER "ON-OFF" CONTROL APPLICATIONS *(cont'd)*

5965 Medium-Mu Triode. 9-pin miniature type. Balance of cutoff bias between the two units is closely controlled.

6197 Sharp-cutoff Power Pentode. 9-pin miniature type with a transconductance of 11000 micromhos. For frequency-divider and pulse amplifier service.

6211 Same as 5963 except that balance of cutoff bias between the two units is closely controlled.

6350 Medium-Mu Twin Triode. 9-pin miniature type particularly intended for high-speed digital type equipment.

6814 Medium-Tu Triode. 8-lead subminiature type. Intended for pulse-amplifier, inverter, and cathode-follower circuits of high-speed digital-type electronic computers.

6887 Twin Diode. 7-pin miniature type: Specifically intended for use in switching circuits of compact, medium-speed computers.

MECHANO-ELECTRONIC TRANSDUCER

5734 Triode type for applications involving the measurement of mechanical vibration. Has a minimum free cantilever resonance of the internal section of the plate shaft of 12000 cycles per second.

KLYSTRONS

2K26 Single-resonator, reflex type oscillator for operation in the frequency range from 6250 to 7060 megacycles. It has a useful power output of about 100 milliwatts.

TRAVELING-WAVE TUBES

6861 Low noise, low-level type intended especially for the input stage of microwave receivers, such as radar, operating in the range of 2700 to 3500 Mc. Has a noise figure of 6.5 db and a gain of approximately 25 db. The rf-input and rf-output transducers are permanently set during manufacture.

MAGNETRONS

6521 Designed and conservatively rated for long, reliable performance as a pulsed oscillator at a fixed frequency of 5400 Mc in weather radar equipment. Peak power output is 85 Kw.

6865-A—Tunable from 8750 to 9600 Mc. in pulsed oscillator service. Peak power output is 220 Kw.

7008 Servo-tunable from 8500-9600 Mc. in pulsed oscillator service. Peak power output is 220 Kw.

RCA PREFERRED TUBE TYPES

For New Equipment Design

The list of Preferred Tube Types is presented to assist equipment manufacturers in formulating their plans for future production of electronic equipment. It is based on a careful survey of the needs of the engineering and manufacturing fields.

By using Preferred Tube Types, electronic-equipment manufacturers can reduce manufacturing costs for the following reasons:

1. LOWER INITIAL COST OF TUBES
2. UNIFORM TUBE QUALITY FROM LONGER PRODUCTION RUNS
3. STANDARDIZATION ON FEWER COMPONENTS
4. BETTER TUBE AVAILABILITY
5. CUSTOMER SATISFACTION

This list is subject to change resulting from technological advances in tube design and application. Such changes will be incorporated in revised issues of this list, which will be available on request.

INDUSTRIAL TV TYPES

3RP4	View-Finder Kinescope
5AYP4	View-Finder Kinescope
5AZP4	Projection Kinescope
7WP4	Projection Kinescope
6198-A	Vidicon

BROADCAST CAMERA & TV STUDIO TYPES

5AYP4	View-Finder Kinescope
7TP4	Monitor Kinescope
10SP4	Monitor Kinescope
5820	Image Orthicon
6474/1854	Image Orthicon
6326-A	Vidicon

RCA PREFERRED TUBE TYPES

TYPES FOR AM AND FM BROADCAST RECEIVER APPLICATIONS

RECTIFIERS and DIODE DETECTORS	CONVERTERS	AMPLIFIERS, OSCILLATORS, MIXERS					OUTPUT AMPLIFIERS
		Triodes		Pentodes			
		Twin	With Diodes	Sharp Cutoff	Remote Cutoff	With Diode	
5Y3-GT 6AL5	1R5 6BE6 6X8	6CG7	6AV6	1U4 6AU6	1T4 6BA6	1U5	3V4 6AQ5 6L6-GB 6V6-GT
12X4 35W4	12BE6	12AX7	12AV6		12BA6		35C5 50C5

SMALL TYPES FOR INDUSTRIAL AND COMMUNICATION SERVICES

HOME ENTERTAINMENT TYPES OF SPECIAL INTEREST*	VACUUM TYPES FOR CRITICAL APPLICATIONS	TYPES FOR REGULATOR SERVICE	GLOW-DISCHARGE TRIODE	COMPUTER TYPES
6AK6 6BJ6 6AV6 6CG7 6BH6 6L6-GB 12AX7†	1620 5879 "Special Red" Types 5690 5692 5691 5693	OA2 OB2 5651 6080	5823	5915 5965† 5963† 6197 5964 6211† 6350†

* Also see types for AM, FM & TV Receivers.

† Tapped heater, for 6.3-volt or 12.6-volt operation.

TYPES FOR TELEVISION RECEIVER APPLICATIONS

TUNER TUBES		AMPLIFIERS				DEFLECTION OSCILLATORS & CONTROL TYPES
RF Amplifiers	Oscillators, Mixers	IF	Video	Audio	Deflection	
3BC5 6BC5 6BC8 6BZ7	2AF4-A* 6AF4-A* 5CG8 6CG8-A 5U8 6U8-A	6AM8-A 3AU6 6AU6 3BZ6 6BZ6 3CB6 6CB6	6AW8-A 12BY7-A	5AQ5 6AQ5 6AV6 12CU5	6CB5-A** 6CD6-GA 6CM7 6DQ6-A 12DQ6-A 6W6-GT 12W6-GT	6BY6 6CG7 6CM7

DETECTORS		RECTIFIERS			HV REGULATOR
Sound	Video	High-Voltage	Low-Voltage	Damper Types	
3DT6 6DT6	6AM8-A	1B3-GT 1V2** 3A3**	5U4-GB	6AU4-GTA 6AX4-GT 12AX4-GTA	6BK4**

* For UHF Oscillator Service.

** For Color TV only.

VACUUM TYPES FOR RF AND AF POWER APPLICATIONS

TYPE	CLASS	FILAMENT OR HEATER (H) VOLTS	MAXIMUM INPUT POWER vs FREQUENCY *Values shown are Unmodulated Class C Ratings for Continuous Commercial Service (CCS)*									UNITS
			7.5	25	75	110	175	220	450	900	1200	Mc
5763*	Beam	6.3 (H)	15	15	14	13	12	—	—	—	—	watts
6417*	Beam	12.6 (H)	15	15	14	13	12	—	—	—	—	watts
2E24*	Beam	6.3	30	30	30	30	20	—	—	—	—	watts
2E26*	Beam	6.3 (H)	30	30	30	30	20	—	—	—	—	watts
6893*	Beam	12.6 (H)	30	30	30	30	20	—	—	—	—	watts
832-A*	Beam¶	6.3/12.6 (H)	36	36	36	36	36	34	—	—	—	watts
807*	Beam	6.3 (H)	60	60	51	37	—	—	—	—	—	watts
6146*	Beam	6.3 (H)	67.5	67.5	63	56	45	—	—	—	—	watts
6883*	Beam	12.6 (H)	67.5	67.5	63	56	45	—	—	—	—	watts
829-B*	Beam¶	6.3/12.6 (H)	120	120	120	120	120	114	—	—	—	watts
812-A*	Triode	6.3	175	175	130	—	—	—	—	—	—	watts
811-A*	Triode	6.3	175	175	130	—	—	—	—	—	—	watts
6816	Beam	6.3 (H)	180	180	180	180	180	180	180	180	180	watts
4X150A	Beam	6.0	250	250	250	250	250	250	250	—	—	watts
813*	Beam	10.0	360	360	240	140	—	—	—	—	—	watts
6161	Triode	6.3 (H)	400	400	400	400	400	400	400	400	320	watts
833-A*	Triode	10.0	1.8	1.75	1.2	—	—	—	—	—	—	kw
6181	Beam	117	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	—	kw

¶ Twin Type—Input values per tube for push-pull operation.
* Type may be operated at higher ratings in Intermittent Commercial and Amateur Service (ICAS) as given in published data for each type.

VACUUM TYPES FOR RF AND AF POWER APPLICATIONS *(Cont'd)*

TYPE	CLASS	FILAMENT OR HEATER (H) VOLTS	MAXIMUM INPUT POWER vs FREQUENCY *Values shown are Unmodulated Class C Ratings for Continuous Commercial Service (CCS)*									UNITS
			7.5	25	75	110	175	220	450	900	1200	Mc
5762/7C24	Triode	12.6	8.7	8.7	7.6‡	7.3‡	5.5‡	4.5‡	—	—	—	kw
6166	Tetrode	5.0	18	18	17.6†	17.2†	16.5†	16.2†	—	—	—	kw
6806	Beam	1.35	60	60	60	60	60	60	60§	60§	—	kw
5771	Triode	7.5	60	60	—	—	—	—	—	—	—	kw
5671	Triode	11	100	80	—	—	—	—	—	—	—	kw
5770	Triode	11	150	135	—	—	—	—	—	—	—	kw

‡ The CCS maximum rated input power for VHF Television Service is 6.5 kw.
† The CCS maximum rated input power for VHF Television Service is 22 kw.
§ The CCS maximum rated input power for UHF Television Service is 70 kw.

VACUUM TYPES FOR PULSED POWER APPLICATIONS

TYPE	CLASS	APPLICATION	PEAK PLATE AMPERES	PULSE LENGTH μsec	DUTY FACTOR	PLATE-SUPPLY VOLTS
6293	Beam	Pulse Modulator	{ 3.0	30	0.003	2000
			{ 1.4	200	0.02	3500
5946	Triode	Plate-Pulsed Oscillator	4.5	5	0.01	7500
3E29	Beam**	Pulse Modulator	{ 10.0	12	0.001	5000
			{ 2.25	240	0.02	5000

* Peak Pulse value.

** Values are per tube with both units in parallel.

THYRATRONS

2D21	5560
3D22-A	5563-A
672-A	5696
2050	6012

IGNITRONS

5551-A
5552-A
5553-B
5822-A

RECTIFIERS‡

2X2-A	816
3B28	857-B
5R4-GY	866-A
673	869-B
8008	

‡ For additional vacuum-type rectifiers, see listing of types for Receiver Applications.

CATHODE-RAY OSCILLOGRAPH TYPES

P1 SCREEN	P2 SCREEN	P7 SCREEN	P11 SCREEN	P14 SCREEN	P16 SCREEN
1EP1	1EP2		1EP11		
2BP1			2BP11		
3JP1*		3JP7*			
			3KP11		
3RP1					
5ABP1*		5ABP7*	5ABP11*		
		5AHP7			
		5FP7-A		5FP14-A	
5UP1		5UP7	5UP11		
			5WP11†		5ZP16‡
		7MP7		7MP14	
		10KP7			
		12DP7-A			
		16ADP7			

† Transcriber Type.
‡ Flying-Spot Type.
* Post-Deflection Accelerator Type.

PHOTOTUBES

SINGLE-UNIT TYPES		MULTIPLIER TYPES	
S1 Response	S4 Response	S4 Response	S11 Response
1P40	1P39	931-A	6199
921			6810-A
922			
927			

STORAGE TUBES

6866	Display Storage Type

PREMIUM TUBES

For Critical Military and Commercial Applications

Type	Proto-type	Description	Class
0A2-WA*	0A2	Voltage Regulator	7-Pin Min.
0B2-WA*	0B2	Voltage Regulator	7-Pin Min.
0C2	.....	Voltage Regulator	7-Pin Min.
2D21-W*	2D21	Thyratron	7-Pin Min.
6AC7-W*	6AC7	Sharp-Cutoff Pentode	Metal-Octal 8-Pin
6AU6-WA*	6AU6	Sharp-Cutoff Pentode	7-Pin Min.
6J4-WA*	6J4	High-Mu Triode	7-Pin Min.
6J6-WA*	6J6	Medium-Mu Twin Triode	7-Pin Min.
12AT7-WA*	12AT7	High-Mu Twin Triode	9-Pin Min.
5636	.....	Sharp-Cutoff Pentode	Subminiature (Flexible Leads)
5654	6AK5	Sharp-Cutoff Pentode	7-Pin Min.
5654/6AK5-W	6AK5	Sharp-Cutoff Pentode	7-Pin Min.
5654/6AK5-W/6096	6AK5	Sharp-Cutoff Pentode	7-Pin Min.
5670	.....	Medium-Mu Twin Triode	9-Pin Min.
5670WA*	5670	Medium-Mu Twin Triode	9-Pin Min.
5686	.....	Beam Power Tube	9-Pin Min.
5718	.....	Medium-Mu Triode	Subminiature (Flexible Leads)
5719	.....	High-Mu Triode	Subminiature (Flexible Leads)
5725	6AS6	Twin Diode	7-Pin Min.
5726	6AL5	Twin Diode	7-Pin Min.
5726/6AL5-W*	6AW5	Twin Diode	7-Pin Min.
5726/6AL5-W/6097*	6AL5	Twin Diode	7-Pin Min.
5727/2D21-W*	2D21	Thyratron	7-Pin Min.
5749	6BA6	Sharp-Cutoff Pentode	7-Pin Min.
5750	6BE6	Pentagrid Amplifier	7-Pin Min.
5751	12AX7	High-Mu Twin Triode	9-Pin Min.
5751-WA*	12AX7	High-Mu Twin Triode	9-Pin Min.
5814-A	12AU7	Medium-Mu Twin Triode	9-Pin Min.
5814-WA*	12AU7	Medium-Mu Twin Triode	9-Pin Min.
5840	.....	Sharp-Cutoff Pentode	Subminiature (Flexible Leads)

*Types manufactured to conform to a particular military specification.

PREMIUM TUBES *(cont'd)*

For Critical Military and Commercial Applications

Type	Proto-type	Description	Class
5896*	.....	Twin Diode	Subminiature (Flexible Leads)
5899	.....	Semiremote-Cutoff Pentode	Subminiature (Flexible Leads)
6005	6AQ5	Beam Power Tube	7-Pin Min.
6005/6AQ5-W*	6AQ5	Beam Power Tube	7-Pin Min.
6005/ 6AQ5-W/6095*	6AQ5-W	Beam Power Tube	7-Pin Min.
6021	.....	Medium-Mu Twin Triode	Subminiature (Flexible Leads)
6072	12AY7	Medium-Mu Twin Triode	9-Pin Min.
6073	OA2	Voltage Regulator	7-Pin Min.
6073/OA2*	OA2	Voltage Regulator	7-Pin Min.
6074	OB2	Voltage Regulator	7-Pin Min.
6074/OB2*	OB2	Voltage Regulator	7-Pin Min.
6080-WA*	6AS7-G	Low-Mu Twin Power Triode	Glass-Octal 8-Pin
6101	6J6	Medium-Mu Twin Triode	7-Pin Min.
6101/6J6-WA*	6J6	Medium-Mu Twin Triode	7-Pin Min.
6111	.....	Medium-Mu Twin Triode	Subminiature (Flexible Leads)
6136	.....	Sharp-Cutoff Pentode	7-Pin Min.
6186/ 6AG5-WA*	6AG5	Sharp-Cutoff Pentode	7-Pin Min.
6189/ 12AU7-WA*	12AU7	Medium-Mu Twin Triode	9-Pin Min.
6201	12AT7	High-Mu Twin Triode	9-Pin Min.
6205*	.....	Sharp-Cutoff Pentode	Subminiature (Flexible Leads)
6206	.....	Semiremote-Cutoff Pentode	Subminiature (Flexible Leads)
6626/ OA2-WA*	OA2-WA	Voltage Regulator	7-Pin Min.

*Types manufactured to conform to a particular military specification.

TUBES FOR MOBILE COMMUNICATIONS EQUIPMENT

(Operating from 3- and 6-Cell Storage Battery Systems)

For 6-Cell Storage Battery Systems

Type	Description	Class	Service
7054	Power Pentode	9-Pin Min.	Class C rf power amplifier, oscillator, frequency multiplier up to 40mc.
7055	Twin Diode	7-Pin Min.	Detector in am and fm receivers, low-current rectifier, speech clipper
7056	Sharp-Cutoff Pentode	7-Pin Min.	Rf and if amplifier up to 45mc.
7057	Medium-Mu Twin Triode	9-Pin Min.	Rf amplifier in cascode-type circuits up to 200mc.
7058	High-Mu Twin Triode	9-Pin Min.	Phase inverter, resistance-coupled amplifier, low-frequency oscillator
7059	Medium-Mu Triode—Sharp-Cutoff Pentode	9-Pin Min.	Oscillator and mixer in receivers utilizing if frequencies up to 40 mc.
7060	Medium-Mu Triode—Power Pentode	9-Pin Min.	Pentode as Class C rf amplifier and frequency multiplier up to 40 mc.; triode unit as reactance modulator
7061	Beam Power Tube	9-Pin Min.	Audio-frequency power amplifier

For 3-Cell Storage Battery Systems

6660/ 6BA6	Remote-Cutoff Pentode	7-Pin Min.	Rf amplifier in standard broadcast and fm receiver and in wide-band and high-frequency applications
6661/ 6BH6	Sharp-Cutoff Pentode	7-Pin Min.	Rf amplifier in high-frequency, wide-band applications
6662/ 6BJ6	Remote-Cutoff Pentode	7-Pin Min.	Rf amplifier in high-frequency, wide-band applications
6663/ 6AL5	Twin Diode	7-Pin Min.	Detector in fm receivers, clipper and clamper applications

For 3-Cell Storage Battery Systems—*continued*

Type	Description	Class	Service
6669/ 6AQ5	Beam Power Tube	7-Pin Min.	Audio-frequency power amplifier
6677/ 6CL6	Power Pentode	9-Pin Min.	Power amplifier
6678/ 6U8-A	Medium-Mu Triode—Sharp-Cutoff Pentode	9-Pin Min.	Oscillator and mixer for very high frequencies
6679/ 12AT7	High-Mu Twin Triode	9-Pin Min.	Grounded-grid amplifier, frequency converter up to 300mc.
6680/ 12AU7-A	Medium-Mu Twin Triode	9-Pin Min.	Phase inverter, amplifier, oscillator, multivibrator
6681/ 12AX7	High-Mu Twin Triode	9-Pin Min.	Phase inverter, resistance-coupled amplifier, multivibrator

TRANSISTOR INTERCHANGEABILITY DIRECTORY

For keys to symbols, see page 74.

Type To Be Replaced				Class of Service	Replace by RCA Type*	Similar RCA Type†
Mfr. Prefix	Basic Designation	Mfr.	Description			
	2N27	WE	GNG	AF Amp		2N104
	2N28	WE	GNG	AF Amp		2N104
	2N34	GT	GPA	AF Amp		2N109
	2N34	RCA*	GPA	AF Amp		2N109
	2N34	S	GPA	AF Amp		2N109
	2N34	TEC	GPA	AF Amp		2N109
	2N34A	RCA*	GPA	AF Amp		2N109
	2N36	CBS	GPA	General Purpose		2N109
	2N36	GT	GPA	General Purpose		2N109
	2N37	CBS	GPA	General Purpose		2N109
	2N37	GT	GPA	General Purpose		2N109
	2N37	TEC	GPA	General Purpose		2N109
	2N38	CBS	GPA	AF Amp		2N109
	2N38	GT	GPA	AF Amp		2N109
	2N38	TEC	GPA	AF Amp		2N109
	2N38A	CBS	GPA	AF Amp		2N109
	2N38A	GT	GPA	AF Amp		2N109
	2N41	RCA*	GPA	AF Amp		2N77
	2N43	GE	GPA	AF Amp		2N109
	2N43	GT	GPA	AF Amp		2N109
	2N43	TEC	GPA	AF Amp		2N109
	2N43A	GE	GPA	AF Amp		2N206
	2N43A	TEC	GPA	AF Amp		2N206
	2N44	GE	GPA	AF Amp		2N109
	2N44	GT	GPA	AF Amp		2N109
	2N44	TEC	GPA	AF Amp		2N109
	2N44A	GE	GPA	AF Amp		2N109
	2N45	GE	GPA	AF Amp		2N109
	2N45	GT	GPA	AF Amp		2N109
	2N45	TEC	GPF	AF Amp		2N109
	2N46	RCA*	GPA	AF Amp		2N77
	2N47	P	GPA	AF Amp		2N77
	2N48	P	GPA	AF Amp		2N77
	2N49	P	GPA	AF Amp		2N77
	2N54	WL	GPA	AF Amp		2N109

Transistor Interchangeability Directory (cont'd)

Type To Be Replaced				Class of Service	Replace by RCA Type*	Similar RCA Type†
Mfr. Prefix	Basic Designation	Mfr.	Description			
	2N55	WL	GPA	AF Amp		2N109
	2N56	WL	GPA	AF Amp		2N109
	2N62	P	GPA	General Purpose		2N109
	2N63	GTC	GPA	AF Amp		2N109
	2N63	RK	GPA	AF Amp		2N109
	2N63	TEC	GPA	AF Amp		2N109
	2N64	GT	GPA	AF Amp		2N109
	2N64	RK	GPA	AF Amp		2N109
	2N64	TEC	GPA	AF Amp		2N109
	2N65	GT	GPA	AF Amp		2N109
	2N76	GE	GPA	AF Amp		2N104
	2N76	TEC	GPA	AF Amp		2N104
	2N77	RCA	GPA	AF Amp	2N77	
	2N78	GE	GNG	IF-RF Amp		2N139
	2N79	RCA*	GPA	AF Amp		2N206
	2N85	TEC	GPA	AF Amp		2N109
	2N86	TEC	GPA	AF Amp		2N109
	2N87	TEC	GPA	AF Amp		2N109
	2N88	TEC	GPA	AF Amp		2N105
	2N89	TEC	GPA	AF Amp		2N105
	2N90	TEC	GPA	AF Amp		2N105
	2N94	S	GNA	Switching		2N139
	2N94A	S	GNA	Switching		2N139
	2N104	RCA	GPA	AF Amp	2N104	
	2N105	RCA	GPA	AF Amp	2N105	
	2N106	RK	GPA	AF Amp		2N104
	2N109	GT	GPA	AF Amp	2N109	
	2N109	RCA	GPA	AF Amp	2N109	
	2N111	CC	GPA	IF Amp		2N139
	2N111	GT	GPA	IF Amp		2N139
	2N111	RK	GPA	IF Amp		2N139
	2N111A	RK	GPA	IF Amp		2N139
	2N112	CC	GPA	IF Amp		2N139
	2N112	GT	GPA	IF Amp		2N139
	2N112	RK	GPA	IF Amp		2N139
	2N112A	RK	GPA	IF Amp		2N139
	2N113	CC	GPA	IF Amp Switching	2N139	2N269
	2N113	GT	GPA	IF Amp, Switching	2N139	2N269
	2N113	RK	GPA	IF Amp, Switching	2N139	2N269
	2N114	GT	GPA	Converter	2N140	

Transistor Interchangeability Directory (cont'd)

Type To Be Replaced				Class of Service	Replace by RCA Type*	Similar RCA Type†
Mfr. Prefix	Basic Designation	Mfr.	Description			
	2N114	RK	GPA	Converter	2N140	
	2N116	CBS	GPA	AF Amp		2N175
	2N123	GE	GPA	Switching		2N269
	2N128	P	GPS	4 Mc Amp		2N247
	2N129	P	GPS	455 Kc Amp		2N247
	2N130	GT	GPA	AF Amp		2N105
	2N130	RK	GPA	AF Amp		2N105
	2N131	GTC	GPA	AF Amp		2N105
	2N131	RK	GPA	AF Amp		2N105
	2N132	GT	GPA	AF Amp		2N105
	2N132	RK	GPA	AF Amp		2N105
	2N133	GT	GPA	AF Amp		2N175
	2N133	RK	GPA	AF Amp		2N175
	2N135	GE	GPA	IF-RF Amp		2N139
	2N136	GE	GPA	IF-RF Amp	2N139	
	2N137	GE	GPA	IF-RF Amp	2N140	
	2N138	RK	GPA	AF Amp		2N109
	2N139	RCA	GPA	IF Amp	2N139	
	2N140	RCA	GPA	Converter	2N140	
	2N145	TI	GNG	455 Kc Amp		2N139
	2N146	TI	GNG	455 Kc Amp		2N139
	2N147	TI	GNG	455 Kc Amp		2N139
	2N155	CBS	GPA	AF Amp		2N301
	2N158	CBS	GPA	AF Power Amp		2N301A
	2N167	GE	GNG	Switching		2N269
	2N168	GE	GNG	IF Amp		2N139
	2N168A	GE	GNG	Converter		2N140
	2N169	GE	GNG	IF Amp		2N139
	2N169A	GE	GNG	IF Amp		2N139
	2N172	TI	GNG	Converter		2N140
	2N175	RCA	GPA	AF Amp	2N175	
	2N176	RCA	GPA	AF Power Amp	2N176	
	2N176	M	GPA	AF Power Amp	2N176	
	2N180	CBS	GPA	General Purpose		2N109
	2N181	CBS	GPA	General Purpose		2N270
	2N182	CBS	GNA	Switching		2N269
	2N183	CBS	GNA	Switching		2N269
	2N184	CBS	GNA	Switching		2N269
	2N185	TI	GPA	AF Amp		2N109
	2N186	GE	GPA	AF Amp		2N109
	2N186A	GE	GPA	AF Amp		2N270

Type To Be Replaced				Class of Service	Replace by RCA Type*	Similar RCA Type†
Mfr. Prefix	Basic Designation	Mfr.	Description			
	2N187	GE	GPA	AF Amp		2N209
	2N187A	GE	GPA	AF Amp		2N170
	2N188	GE	GPA	AF Amp		2N109
	2N188A	GE	GPA	AF Amp		2N270
	2N189	GE	GPA	AF Amp		2N109
	2N190	GE	GPA	AF Amp		2N109
	2N191	GE	GPA	AF Amp		2N109
	2N192	GE	GPA	AF Amp		2N109
	2N194	S	GNA	Converter		2N140
	2N195	TEC	GPA	AF Amp		2N109
	2N196	TEC	GPA	AF Amp		2N109
	2N197	TEC	GPA	AF Amp		2N109
	2N198	TEC	GPA	AF Amp		2N109
	2N199	TEC	GPA	AF Amp		2N109
	2N200	TEC	GPA	AF Amp		2N206
	2N204	TEC	GPA	General Purpose		2N206
	2N205	TEC	GPA	General Purpose		2N206
	2N206	RCA	GPA	AF Amp	2N206	
	2N207	P	GPA	AF Amp		2N105
	2N207A	P	GPA	AF Amp		2N105
	2N207B	P	GPA	AF Amp		2N105
	2N217	RCA	GPA	AF Amp	2N217	2N109
	2N218	RCA	GPA	IF Amp	2N218	
	2N219	RCA	GPA	Converter	2N219	
	2N220	RCA	GPA	AF Amp	2N220	
	2N223	P	GPA	AF Amp		2N270
	2N224	P	GPA	AF Amp		2N270
	2N225	P	GPA	AF Amp		2N270
	2N226	P	GPA	AF Amp		2N270
	2N227	P	GPA	AF Amp		2N270
	2N231	P	GPS	455 Kc Amp		2N139
	2N232	P	GPS	455 Kc Amp		2N139
	2N237	NA	GPA	AF Amp		2N175
	2N238	TI	GPA	AF Amp		2N109
	2N241	GE	GPA	AF Amp		2N109
	2N241A	GE	GPA	AF Amp		2N109
	2N242	S	GPA	AF Amp		2N301
	2N247	RCA	GPD	RF Amp	2N247	
	2N248	TI	GPG	RF Amp		2N247
	2N249	TI	GPA	AF Amp		2N270

Transistor Interchangeability Directory (cont'd)

Type To Be Replaced				Class of Service	Replace by RCA Type*	Similar RCA Type†
Mfr. Prefix	Basic Desig-nation	Mfr.	De-scrip-tion			
	2N252	TI	GPA	Converter		2N140
	2N253	TI	GNG	455 Kc Amp		2N139
	2N254	TI	GNG	455 Kc Amp		2N139
	2N267	RCA*	GPD	RF Amp		2N247
	2N269	RCA	GPA	Switching	2N269	
	2N270	RCA	GPA	AF Amp	2N270	
	2N301	RCA	GPA	AF Power Amp	2N301	
	2N301A	RCA	GPA	AF Power Amp	2N301A	
	2N311	M	GPA	Switching		2N269
	2N351	RCA	GPA	AF Power Amp	2N351	
	2N356	RCA	GNA	Switching	2N356	
	2N357	RCA	GNA	Switching	2N357	
	2N358	RCA	GNA	Switching	2N358	
	2N370	RCA	GPD	RF Amp	2N370	
	2N371	RCA	GPD	Oscillator	2N371	
	2N372	RCA	GPD	Mixer	2N372	
	2N373	RCA	GPD	455 Kc Amp	2N373	
	2N374	RCA	GPD	Converter	2N374	
	2N376	RCA	GPA	AF Power Amp	2N376	
	2N384	RCA	GPD	VHF Amp	2N384	
	2N398	RCA	GPA	Switching	2N398	
	2N404	RCA	GPA	Switching	2N404	
	2N405	RCA	GPA	AF Driver	2N405	
	2N406	RCA	GPA	AF Driver	2N406	
	2N407	RCA	GPA	AF Amp	2N407	
	2N408	RCA	GPA	AF Amp	2N408	
	2N409	RCA	GPA	IF Amp	2N409	
	2N410	RCA	GPA	IF Amp	2N410	
	2N411	RCA	GPA	Converter	2N411	
	2N412	RCA	GPA	Converter	2N412	
	2N544	RCA	GPD	RF Amp	2N544	
	2N578	RCA	GPA	Switching	2N578	
	2N579	RCA	GPA	Switching	2N579	
	2N580	RCA	GPA	Switching	2N580	
	2N581	RCA	GPA	Switching	2N581	
	2N582	RCA	GPA	Switching	2N582	
	2N583	RCA	GPA	Switching	2N583	
	2N584	RCA	GPA	Switching	2N584	
	2N585	RCA	GNA	Switching	2N585	
	2N586	RCA	GPA	Switching	2N586	
	2N591	RCA	GPA	AF Driver	2N591	

Transistor Interchangeability Directory (cont'd)

Type To Be Replaced				Class of Service	Replace by RCA Type*	Similar RCA Type†
Mfr. Prefix	Basic Designation	Mfr.	Description			
GT	14	GT	GPA	AF Amp		2N109
GT	14H	GT	GPA	AF Amp		2N105
GT	20	GT	GPA	AF Amp		2N109
GT	20H	GT	GPA	AF Amp		2N105
T	34A	NU	GPA	AF Amp		2N77
T	34B	NU	GPA	AF Amp		2N77
T	34C	NU	GPA	AF Amp		2N77
T	34D	NU	GPA	AF Amp		2N109
T	34E	NU	GPA	AF Amp		2N109
T	34F	NU	GPA	AF Amp		2N109
GT	38	GT	GPA	AF Amp		2N77
OC	65	A	GPA	AF Amp		2N105
OC	66	A	GPA	AF Amp		2N105
OC	70	A	GPA	AF Amp		2N77
OC	71	A	GPA	AF Amp		2N77
ZJ	71	GE	GNG	RF Amp		2N247
OC	72	A	GPA	AF Amp		2N109
ZJ	72	GE	GNG	VHF Amp		2N247
ZJ	73	GE	GNG	RF Amp		2N247
GT	81	GT	GPA	AF Amp		2N109
GT	81H	GT	GPA	AF Amp		2N105
GT	109	GT	GPA	AF Amp	2N109	
GT	122	GT	GPA	Switching		2N269
DR	126	TS	GPA	AF Amp		2N105
DR	128	TS	GPA	AF Amp		2N105
TS	161	TS	GPA	AF Amp		2N109
TS	162	TS	GPA	General Purpose		2N104
TS	163	TS	GPA	AF Amp		2N104
TS	164	TS	GPA	AF Amp		2N104
TS	165	TS	GPA	AF Amp		2N109
TS	166	TS	GPA	AF Amp		2N175
TS	176	TS	GPA	AF Power Amp		2N301
	206	TI	GNG	AF Amp		2N77
	207	TI	GNG	AF Amp		2N77
	208	TI	GNG	AF Amp		2N77
	222	TI	GNG	IF Amp		2N139
GT	222	GT	GPA	General Purpose		2N104
	223	TI	GNG	Converter		2N140
	225	TI	GNG	IF Amp		2N139
	228	TI	GNG	Converter		2N140
GT	269	GT	GPA	Switching		2N269

Type To Be Replaced				Class of Service	Replace by RCA Type*	Similar RCA Type†
Mfr. Prefix	Basic Designation	Mfr.	Description			
	300	TI	GPA	AF Amp		2N109
	301	TI	GPA	AF Amp		2N109
	302	TI	GPA	AF Amp		2N109
	310	TI	GPA	AF Amp		2N109
	350	TI	GPA	AF Amp		2N109
	352	Ti	GPA	AF Amp		2N109
	353	TI	GPA	AF Amp		2N109
CK	721	RK	GPA	AF Amp		2N104
CK	722	RK	GPA	AF Amp		2N104
CK	725	RK	GPA	AF Amp		2N104
CK	727	RK	GPA	AF Amp		2N104
CK	751	RK	GPA	AF Amp		2N109
CK	759	RK	GPA	RF Amp		2N139
GT	759	GT	GPA	Switching		2N139
CK	760	RK	GPA	RF Amp		2N139
GT	760	GT	GPA	455 Kc Amp		2N139
CK	761	RK	GPA	RF Amp, Switching	2N139	
GT	761	GT	GPA	455 Kc Amp	2N139	
CK	762	RK	GPA	Converter	2N140	
GT	762	GT	GPA	Converter	2N140	
CK	766	RK	GPA	RF Amp		2N140
CK	766A	RK	GPA	RF Amp		2N140
	830	TI	GNG	455 Kc Converter		2N140
	1032	CC	GPA	AF Amp		2N109
	1033	CC	GPA	AF Amp		2N109
	1034	CC	GPA	AF Amp		2N109
	1035	CC	GPA	AF Amp		2N109
	1036	CC	GPA	AF Amp		2N109
	1320	CC	GPA	AF Amp		2N109
	1330	CC	GPA	AF Amp		2N109
	1340	CC	GPA	AF Amp		2N109
	1350	CC	GPA	AF Amp		2N109
	1360	CC	GPA	AF Amp		2N109
	1390	CC	GPA	IF-RF Amp		2N139
	1400	CC	GPA	IF-RF Amp		2N139
	1410	CC	GPA	IF-RF Amp		2N139
	A01	P	GPS	AF Amp		2N247
	CQ1	NA	GPA	AF Amp		2N109
	GFT20	N	GPA	AF Amp		2N109
	HA1	CBS	GPA	AF Amp		2N77

Transistor Interchangeability Directory (cont'd)

Type To Be Replaced				Class of Service	Replace by RCA Type*	Similar RCA Type†
Mfr. Prefix	Basic Designation	Mfr.	Description			
	HA1	NA	GPA	AF Amp		2N77
	HA2	CBS	GPA	AF Amp		2N77
	HA3	CBS	GPA	AF Amp		2N77
	HA8	CBS	GPA	AF Amp		2N105
	HA9	CBS	GPA	AF Amp		2N105
	HA10	CBS	GPA	AF Amp		2N105
	HS3	NA	GPA	Switching		2N269
	HS4	NA	GPA	Switching		2N269
	J1	NA	GPA	AF Amp		2N109
	J2	NA	GPA	AF Amp		2N109
	J3	NA	GPA	AF Amp		2N109
	JP1	NA	GPA	AF Amp		2N109
	L5108	P	GPS	RF Amp		2N247
	L5121	P	GPS	Switching		2N247
	L5122	P	GPS	Switching		2N247
	OC32	N	GPA	AF Amp		2N109
	OC33	N	GPA	AF Amp		2N109
	OC34	N	GPA	AF Amp		2N109
	SB100	P	GPS	IF Amp Oscillator		2N247
	SB100	SPR	GPS	IF Amp Oscillator		2N247

KEY TO SYMBOLS IN COLUMN 3

A = Amperex	M = Motorola	RR = Radio Recepter
B = Bendix	MAL = Mallory	S = Sylvania
CBS = CBS-Hytron	MH = Minneapolis-Honeywell	SPR = Sprague
CC = Clevite Corporation	N = Nucleonics	SS = Scientific Specialties
DEL = Delco	NA = National Aircraft	TEC = Transitron
GE = General Electric	NU = National Union	TI = Texas Instruments
GPC = Germanium Products	P = Philco	TS = Tung-Sol
GT = General Transistor	RCA = Radio Corporation of America	WE = Western Electric
HA = Hughes Aircraft	RK = Raytheon	WL = Westinghouse

KEY TO SYMBOLS IN COLUMN 4

GC = Germanium, Point-Contact Type	SNA = Silicon, n-p-n, Alloy-Junction Type
GNA = Germanium, n-p-n, Alloy-Junction Type	SNG = Silicon, n-p-n,Grown-Junction Type
GNG = Germanium, n-p-n, Grown-Junction Type	SPA = Silicon, p-n-p, Alloy-Junction Type
GPA = Germanium, p-n-p, Alloy-Junction Type	SPG = Silicon, p-n-p, Grown-Junction Type
GPD = Germanium, p-n-p, "Drift" Type	SU = Silicon, Unijunction Type
GPG = Germanium, p-n-p, Grown-Junction Type	SD = Semiconductor Diode
GPS = Germanium, p-n-p, Surface-Barrier Type	

* RCA types shown in this column are direct replacements under all circumstances for corresponding types to be replaced.

† RCA types shown in this column are not directly interchangeable with the types to be replaced because of mechanical and/or electrical differences. For more information as to degree of interchangeability, refer to respective type data or write to Commercial Engineering, RCA, Somerville, New Jersey.

Information contained herein has been carefully checked and is believed to be reliable but no responsibility is assumed for inaccuracies. The reporting of errors to Commercial Engineering, RCA, Somerville, N. J., will be appreciated.

RCA TRANSISTOR D[illegible] CHART GERMANIUM ALLOY-JUNCTION TYPES
P-N-P AUDIO FREQUENCY TYPES
Small-Signal Amplifier Applications—Class A

Type	Typical Application	Basing	Max. Case Dimensions Inches		Maximum Ratings		Characteristics						
			Lgth.	Dia.	Collector to-Base Volts	Collector Ma	DC Collector Volts	DC Collector Ma	Current Transfer Ratio at 1 Kc	Alpha Cutoff Frequency Mc	Power Gain db	Noise Factor db	Frequency For Unity Power Amplification Mc
2N104	Amplifier	3-Pin Base	.495	.26	−30	−50	− 6	−1	44	0.7	41	6.5	1.6
2N105	Amplifier	3 Flexible Leads	.255	.14	−25	−15	− 4	−0.7	55	0.75	33.2	7.5	2.6
2N175	Amplifier	3-Pin Base	.495	.26	−10	− 2	− 4	−0.5	65	0.85	43	6	2.1
2N206	Amplifier	3 Flexible Leads	.405	.24	−30	−50	− 5	−1	47	0.78	46	9	1.6
2N215	Amplifier	3 Flexible Leads	.405	.24	−30	−50	− 6	−1	44	0.7	41	6.5	1.6
2N220	Amplifier	3 Flexible Leads	.405	.24	−10	− 2	− 4	−0.5	65	0.85	43	6	2.1
2N405	Driver Amplifier	3-Pin Base	.495	.26	−12	−70	− 6	−1	35	0.65	43	—	—
2N406	Driver Amplifier	3 Flexible Leads	.405	.24	−12	−70	− 6	−1	35	0.65	43	—	—
2N591	Driver Amplifier	3 Flexible Leads	.405	.24	−32	−40	−12	−2	70	0.7	41	—	—

Large-Signal Amplifier Applications—Classes A and B

Type	Typical Application	Basing	Max. Case Dimensions Inches		Maximum Ratings		Characteristics						
										Class A		Class B Push-Pull	
			Lgth.	Dia.	Collector-to-Base Volts	Collector Ma	DC Collector Volts	DC Collector Ma	DC Current Transfer Ratio	Power Gain db	Power Output Watts	Power Gain db	Power Output Watts
2N109	Amplifier	3-Pin Base	.495	.26	−25	− 70	−1	− 50	75	—	—	33	0.25
2N176	Power Amplifier	Special Base▲	.800	1.56	−40	−3000	−2	− 500	63	35.5	2	—	—
2N217	Amplifier	3 Flexible Leads	.405	.24	−25	− 70	−1	− 50	75	—	—	33	0.25
2N270	Amplifier	3 Flexible Leads	.375	.36	−25	− 150	−1	− 150	70	35	0.06	32	0.5
2N301	Power Amplifier	Special Base▲	.720	1.56	−40	−3000	−1.5	−1000	70	33	5	30	12
2N301-A	Power Amplifier	Special Base▲	.720	1.56	−60	−3000	−1.5	−1000	70	33	5	30	12
2N351	Power Amplifier	Special Base▲	.800	1.56	−40	−3000	−2	− 700	58	33.5	4	—	—
2N376	Power Amplifier	Special Base▲	.800	1.56	−40	−3000	−2	− 700	78	35	4	—	—
2N407	Amplifier	3-Pin Base	.495	.26	−20	− 70	−1	− 50	75	—	—	33	0.25
2N408	Amplifier	3 Flexible Leads	.405	.24	−20	− 70	−1	− 50	75	—	—	33	0.25

SWITCHING AND COMPUTER TYPES†

Type	Basing	Max. Case Dimensions Inches		Maximum Ratings		Characteristics				Switching Time		
		Lgth.-	Dia.	Collector-to-Base Volts	Collector Ma	DC Collector Volts	DC Collector Ma	DC Current Transfer Ratio	Alpha Cutoff Frequency Mc	"Turn-On" Time† usec	"Turn-Off" Time‡ usec	"On" Collector Current Ma
Low-Speed Switching Applications												
2N109	3-Pin Base	.495	.26	For data on these types, see Audio Frequency Types section								
2N217	3 Flexible Leads	.405	.24									
2N270	3 Flexible Leads	.375	.36									
2N398	3 Flexible Leads	.260	.37	−105	−100	−0.35	− 5	60	—	—	—	—
2N586	3 Flexible Leads	.375	.36	− 45	−250	−1	−250	60	—	—	—	—
Medium-Speed Switching Applications												
2N139	3-Pin Base	.495	.26	For data on these types, see Radio Frequency Types section								
2N140	3-Pin Base	.495	.26									
2N218	3 Flexible Leads	.405	.24									
2N219	3 Flexible Leads	.405	.24									
2N269	3 Flexible Leads	.405	.24	− 20	−100	−1.5	− 20	40	12	—	—	—
2N356	3 Flexible Leads	.260	.37	20	500	0.25	100	30	3	1	1.3	100
2N357	3 Flexible Leads	.260	.37	20	500	0.25	200	30	6	0.6	0.9	200
2N358	3 Flexible Leads	.260	.37	20	500	0.25	300	30	9	0.4	1.1	300
2N404	3 Flexible Leads	.260	.37	− 25	−100	−1.5	− 20	40	12	—	—	—
2N578	3 Flexible Leads	.260	.37	− 20	−400	−0.3	−400	15	5	0.9	0.6	−200
2N579	3 Flexible Leads	.260	.37	− 20	−400	−0.3	−400	30	8	0.4	0.5	−200
2N581	3 Flexible Leads	.260	.37	− 18	−100	−0.3	− 20	30	8	0.3	0.35	− 20
2N583	3 Flexible Leads	.405	.24	− 18	−100	−0.3	− 20	30	8	0.3	0.35	− 20
2N585	3 Flexible Leads	.260	.37	25	200	0.2	20	40	5	0.35	0.45	20

SWITCHING AND COMPUTER TYPES♦ — Continued

Type	Basing	Max. Case Dimensions Inches		Maximum Ratings		Characteristics				Switching Time		
		Lgth.	Dia.	Collector-to-Base Volts	Collector Ma	DC Collector Volts	DC Collector Ma	DC Current Transfer Ratio	Alpha Cutoff Frequency Mc	"Turn-On" Time† usec	"Turn-Off" Time‡ usec	"On" Collector Current Ma
High-Speed Switching Applications												
2N247	4 Flexible Leads	.375	.36	For data on these types see Radio Frequency Types section								
2N274	4 Flexible Leads	.405	.24									
2N384	4 Flexible Leads	.405	.24									
2N580	3 Flexible Leads	.260	.37	— 20	—400	—0.3	—400	45	15	0.2	0.4	—200
2N582	3 Flexible Leads	.260	.37	— 25	—100	—0.2	— 20	60	18	0.15	0.3	— 20
2N584	3 Flexible Leads	.405	.24	— 25	—100	—0.2	— 20	60	18	0.15	0.3	— 20

□Drift transistor with one lead, connected internally to case, acting as a shield to minimize interlead capacitance and coupling to adjacent circuit components.

▲ 2-pin base with mounting-flange

■Conversion Power Gain.

*Minimum value.

†Delay time plus rise time.

♦All types are p-n-p transistors except for 2N356, 2N357, 2N358 and 2N585 which are n-p-n transistors.

‡Storage time plus fall time.

P-N-P RADIO FREQUENCY TYPES

Type	Typical Application	Basing	Max. Case Dimensions Inches		Maximum Ratings		Characteristics						
											Power Gain		Frequency For Unity Power Amplification Mc
			Lgth.	Dia.	Collector-to-Base Volts	Collector Ma	DC Collector Volts	DC Collector Ma	Current Transfer Ratio	Alpha Cutoff Frequency Mc	Frequency Mc	Useful db	
Amplifier Applications													
2N139	455-Kc Amplifier	3-Pin Base	.495	.26	−16	−15	− 9	−1	48	6.8	0.455	32	14
2N218	455-Kc Amplifier	3 Flexible Leads	.405	.24	−16	−15	− 9	−1	48	6.8	0.455	32	14
2N247	RF Amplifier	4 Flexible Leads□	.375	.36	−35	−10	− 9	−1	60	30	1.5	30	132
2N274	RF Amplifier	4 Flexible Leads□	.405	.24	−35	−10	− 9	−1	60	30	1.5	30	132
2N370	RF Amplifier	4 Flexible Leads□	.375	.36	−20	−10	−12	−1	60	30	20	12.5	132
2N373	455-Kc Amplifier	4 Flexible Leads□	.375	.36	−25	−10	−12	−1	60	30	0.455	40	132
2N384	RF Amplifier	4 Flexible Leads□	.405	.24	−30	−10	−12	−1.5	60	100	50	15*	250
2N409	455-Kc Amplifier	3-Pin Base	.495	.26	−12	−15	− 9	−1	48	6.8	0.455	32	14
2N410	455-Kc Amplifier	3 Flexible Leads	.405	.24	−12	−15	− 9	−1	48	6.8	0.455	32	14
2N544	535–1640 Kc Amplifier	4 Flexible Leads□	.375	.36	−18	−10	−12	−0.5	60	30	1.5	30.4	132
Converter, Mixer, Oscillator Applications													
2N140	Converter	3-Pin Base	.495	.26	−16	−15	− 9	−0.6	75	10	1	32■	16.5
2N219	Converter	3 Flexible Leads	.405	.24	−16	−15	− 9	−0.6	75	10	1	32■	16.5
2N371	Oscillator	4 Flexible Leads□	.375	.36	−20	−10	−12	−1	60	30	—	—	132
2N372	Mixer	4 Flexible Leads□	.375	.36	−20	−10	−12	−1	60	30	20	12.5	132
2N374	Converter	4 Flexible Leads□	.375	.36	−25	−10	−12	−1	60	30	1	40■	132
2N411	Converter	3-Pin Base	.495	.26	−13	−15	− 9	−0.6	75	10	1	32■	16.5
2N412	Converter	3 Flexible Leads	.405	.24	−13	−15	− 9	−0.6	75	10	1	32■	16.5

RCA SEMICONDUCTOR DIODES

- **Germanium Point-Contact Types**
- **Sealed-in-Glass Construction**
- **Low Shunt And Series Capacitances**

TYPE	DESCRIPTION	MAXIMUM RATINGS			CHARACTERISTICS (at Ambient Temperature = 25°C)		Maximum Bulb Dimensions‡ Inches	
		Peak Inverse Volts	Peak Forward Ma	Average Forward Ma	Minimum Forward Ma at dc volts = 1	Maximum Average Inverse Current at stated dc volts	Length	Diameter
1N34-A	General-Purpose Type	60	150	50	5	30 μa at −10VDC 500 μa at −50VDC	.875	.25
1N38-A	Large-Signal Type	100	150	50	4	6 μa at −3VDC 500 μa at −100VDC	.875	.25
1N54-A	High-Back Resistance Type	50	150	50	5	7 μa at −10VDC 100 μa at −50VDC	.875	.25
1N58-A	Large-Signal Type	100	150	50	4	600 μa at −100VDC	.875	.25

‡Not including flexible leads.

RCA RADIO BATTERIES

Radio-Engineered for Extra Listening Hours

RCA Type	Volts			Replaces		NEDA • Type No.	Max. Overall Dimensions		
	A	B	C	Eveready	Burgess		L	W. or Dia.	Ht.
VS006C	1½	—	—	6GL	—	914	—	2⅝	6 11/16
VS006S	1½	—	—	61GN	61GN	905	—	2⅝	6⅜
VS028	—	—	4½	781	5360	714	2½	1 3/16	3 1/16
VS029	—	—	7½ ◉	773	5540	713	3⅞	1 3/16	2 15/16
VS030	—	—	3, 4½	771	2370P1	718	3 15/16	1⅜	3
VS031	—	—	22½ ♦	768	5156P1	721	4	2½	3
VS039	6	—	—	1461	S461	907	10¾	2⅛	7⅜
VS040S	6	—	—	510S	F4BP	915	2 11/16	2 11/16	4⅜
VS083	—	15	—	411	U10	208	1 1/32	⅝	1 7/16
VS084	—	22½	—	412	U15	215	1 1/32	⅝	2
VS085	—	30	—	413	U20	210	1 1/32	⅝	2 9/16
VS093	—	300	—	493	U200	722	2⅝	2 1/16	3 29/32
VS100	3	—	—	W352	F2BP	701	2⅝	1⅜	4 9/16
VS101	1½	—	—	W354	2FBP	700	2⅝	1⅜	4 9/16
VS102	—	22½	—	763	4156	710	3⅜	2⅛	2¾
VS103	6	—	—	706	4F4H	902	8 5/16	2 13/16	6 3/16
VS106	1½	—	—	735	4FH	900	2 11/16	2 11/16	4 3/16
VS112	—	22½, 45	—	W376	5308	709	4⅛	2⅝	5 7/16
VS114	—	22½, 45	—	W350	Z30NX	711	3	1⅞	4 15/16
VS126	—	22½, 45	—	W365F	2308SC	723	8⅛	3¼	7 11/16
VS127	—	22½, 45	—	W363F	10308SC	716	8	4	7⅜
VS127W ▶	—	22½, 45	—	W363F	10308SC	724	8	4	7⅜
VS130	—	—	4½ ••	761T	2370ST	712	3 15/16	1⅜	3
VS131	—	—	22½ §	778	5156SC	708	4⅛	2½	3 7/16
VS132	9	—	—	—	D6BP	909	4 1/16	2 13/16	3
VS133	4½	—	—	703	532	706	2⅜	1 3/16	2½
VS134	3	—	—	750	422	704	1 7/16	¾	2 9/16
VS136	3	—	—	W356	2F2H	703	2 11/16	2 11/16	4 3/16
VS138	3	—	—	W357	4F2H	901	3⅞	2 11/16	5⅞
VS139	7½	—	—	715	4F5H	903	7¼	4	6 9/16
VS140	9	—	—	716	4F6H	904	8½	4 1/16	6 7/16
VS142	4½	—	—	751	432	705	2	¾	2⅝
VS157	—	22½, 45	—	W364F	21308SC	715	8⅛	4⅝	7 11/16
VS317	6	—	—	731	TWI	918	5 7/16	2⅞	1 5/16

(For socket and terminal information see pages 84-86)

INDUSTRIAL AND SPECIAL-PURPOSE BATTERIES

• National Electronic Distributors Association. ▶Wax Coated.
◉Other voltage taps: 1½, 3, 4½, 6. ♦Other voltage taps: 3, 4½, 16½.
••Other voltage taps: 1½, 3.
§Other voltage taps: 3, 4½, 6, 9, 10½, 16½.

RCA Type	Volts		Replaces		NEDA • Type No.	Max. Overall Dimensions		
	A	B	Eveready	Burgess		L	W. or Dia.	Ht.
(For socket and terminal information see pages 84-86)								
PORTABLE "A" TYPES								
VS002	4½	—	746	G3	7	4	1⅜	4 1/16
VS004	1½	—	742	4F	4	2⅝	2⅝	4 1/16
VS005	1½	—	—	4FL	12	3 1/16	1⅜	5⅞
VS009	6	—	744	F4P1	6	2⅝	2⅝	4¼
VS010	6	—	718	2F4	1	3⅛	2 13/16	5½
VS011	6	—	747	2F4L	16	3⅛	1 7/16	10¾
VS035	1½	—	935	1	14	—	1	1 5/16
VS036	1½	—	950	2R	13	—	1 5/16	2⅜
VS065	7½	—	717	C5	9	2 9/16	2	3 1/16
VS067	4½	—	736	F3	3	4	1⅜	4⅛
VS068	6	—	724	Z4	2	1 3/16	1 3/16	2⅜
VS069	1½	—	720	2D	18	2 5/16	1 5/16	2⅞
VS070	1½	—	960P	BR	23	—	1 5/16	3 15/16
VS072	4½	—	726	D3	19	3 13/16	1 5/16	2 15/16
VS129	7½	—	713	B5	8	4 1/16	1 5/16	3 1/16
VS141	1½	—	W353	2F	11	2 9/16	1 5/16	4¼
VS236	1½	—	964	21R	20	—	1⅜	4 1/16
VS315	7.5	—	707	D5	26	2 9/16	2 1/32	2 1/16
PORTABLE "B" TYPES								
VS012	—	45	484	B30	207	3 21/32	2⅛	5 5/16
VS013	—	45	482	M30	202	3 9/16	1 13/16	5½
VS014	—	45	W359	A30	206	3 7/16	2¼	4 9/16
VS015	—	22½, 45	738	Z30	205	3	2¼	4⅛
VS016	—	67½	467	XX45	200	2¾	1⅜	3¾
VS055	—	45	455	XX30	201	2 1/16	1	3 1/16
VS082	—	67½	457	K45	203	2 13/16	1⅜	2½

• National Electronic Distributors Association.

RCA Type	Volts		Replaces		NEDA * Type No.	Max. Overall Dimensions		
	A	B	Eveready	Burgess		L	W. or Dia.	Ht.
(For socket and terminal information see pages 84-86)								
PORTABLE "B" TYPES (cont'd)								
VS086	—	45	415	U30	213	1 1/16	9/16	3 9/16
VS090	—	90	490	N60	204	3 11/16	1 3/8	3 3/4
VS215	—	67½	—	P45M	211M	1 29/32	1	5 1/16
VS216	—	67½	—	P45M	211M	1 15/16	1 1/32	5 9/16
VS217	—	75	437	XX50	212	1 13/16	1 3/8	6 1/4
VS218	—	67½	477	P45	211P	1 29/32	1	5 1/16
VS219	—	90	479	P60	214	1 31/32	1 1/32	7 15/32
VS316	—	90	495	—	216	1 15/16	1 15/32	7 3/8
VS318	—	67.5	416	—	217	1 21/64	63/64	3 1/2
FARM "A-B" AND "B" TYPES								
VS019	7½, 9	90	753	F6A60	401	9 1/16	2 1/4	4 1/8
VS038	7½	63	W367	G5A42	408	8 5/8	2 1/4	4 1/16
VS043	1½	90	—	5DA60	409	5 1/2	2 11/16	7 1/2
VS046	6	75	—	G4B50	422	12 5/8	2 1/4	4 1/2
VS047	9	90	752	G6B60	400	13 5/32	2 1/4	4 9/16
VS050	6, 7½	75	755	T5Z50	403	8 9/16	2 7/16	3 11/16
VS052	1½	61½	—	4GA41	423	9 5/16	2 11/16	3 7/16
VS053	1½	63	W366	4GA42	407	9 1/8	2	4 1/4
VS054	1½	90	W369	6TA60	410	10	2 5/16	4 13/16
VS057W	7½, 9	90	756	T6Z60	405	8 11/16	2 5/16	3 3/4
VS058	9	90	757	F6A60P	406	9 1/4	2 1/4	4 1/8
VS059	9	90	727	T6Z60P	428	8 11/16	2 5/16	3 3/4
VS060	7½	75	—	T5Z50P	431	8 9/16	2 7/16	3 11/16
VS064	1½	90	729	4TZ60	425	7 1/4	2 1/16	3 5/8
FARM "A-B" AND "B" TYPES								
VS022	1½	90	759	17GD60	413	16	4 1/4	6 13/16
VS026	—	22½, 45	W365P	2308P1	717	8 1/16	3 5/16	7 5/16
VS045	1½	90	—	18GD60	426	12 5/8	5 9/16	6 13/16
VS119	7½, 9	90	—	S6D60	415	8 1/4	4 1/2	13 7/8
FLASHLIGHT AND LANTERN TYPES								
VS034	1½	—	915	Z	15	—	9/16	2
VS035	1½	—	935	1	14	—	1	1 15/16
VS036	1½	—	950	2	13	—	1 5/16	2 5/8
VS040C	6	—	509F	F4H	916	2 11/16	2 11/16	4 5/16
VS040S	6	—	510S	F4BP	915	2 11/16	2 11/16	4 5/16
VS073	1½	—	—	N	910	—	7/16	1 1/16
VS074	1½	—	912	7	24	—	7/16	1 1/4
VS138	3	—	W357	4F2H	901	3 1/8	2 11/16	5 5/8
VS317	6	—	731	TWI	918	5 7/16	2 1/8	15/16

* National Electronic Distributors Association.

TRANSISTOR APPLICATION TYPES

RCA Type	Volts	Replaces		NEDA Type No.	Max. Overall Dimensions		
		Eveready	Burgess		L	W. or Dia.	Ht.
VS300	9	226	—	1600	—	31/32	1 31/32
VS301	3, 6, 9	—	D6P1	1601	8	1 9/16	2 1/4
VS304	9, 13. 5	239	XX9	1900	1 3/8	2 1/32	2 1/4
VS305	9	246	2N6	1602	1 3/8	1 3/8	2 1/4
VS306	9	276	D6	1603	2 9/16	2 1/32	3 5/32
VS307	5. 5	—	—	1402	—	31/32	1 9/32
VS308	4	—	—	1302	—	31/32	1 1/16
VS309	9	—	—	1606	—	35/64	1 29/32
VS310	5, 5	—	—	1401	—	35/64	1/4
VS311	4	—	—	1301	—	35/64	1 1/32
VS312	8. 4	—	—	—	1 1/32	19/32	2
VS313	1. 4	—	—	—	—	35/64	1 31/32
VS314	9	—	—	—	1	1	1 15/16
VS321	4.5	2731	—	—	2 13/16	1 1/4	8 11/32
VS322	9	266	M6	—	—	2 1/16	1 13/16
VS336	1.5	A-100	230	—	—	1 21/64	2 13/32
VS400	4	E233	—	—	—	1 1/32	1 31/32

TERMINAL GUIDE FOR RCA BATTERIES

Battery Type	Terminals	Battery Type	Terminals
VS002	Fig. 2	VS084	Flashlight
VS004	Fig. 1	VS085	Flashlight
VS005	Fig. 1	VS086	2 Snap
VS006C	2 Fahnestock Clips	VS090	2 Snap
VS006S	2 Screw	VS093	2 Flush-Pin Jack
VS009	Fig. 3	VS100	2 Screw
VS010	Fig. 3	VS101	2 Screw
VS011	Fig. 3	VS102	2 Screw
VS012	Fig. 7	VS103	2 Screw
VS013	Fig. 6	VS106	2 Screw
VS014	Fig. 7	VS112	3 Screw
VS015	Fig. 8	VS114	3 Screw
VS016	2 Snap	VS119	Fig. 13
VS019	Fig. 14	VS126	3 Fahnestock Clips
VS022	Fig. 12	VS127	3 Fahnestock Clips
VS026	Fig. 5	VS127W	3 Fahnestock Clips
VS028	2 Screw	VS129	Fig. 4
VS029	5 Screw, 1 Pigtail	VS130	4 Screw
VS030	Fig. 9	VS131	8 Fahnestock Clips
VS031	Fig. 10	VS133	2 Flat-Spring

TERMINAL GUIDE FOR RCA BATTERIES *(cont'd)*

Battery Type	Terminals
VS034	Flashlight
VS035	Flashlight
VS036	Flashlight
VS038	Fig. 15
VS039	2 Screw
VS040C	2 Coil-Spring
VS040S	2 Screw
VS043	Fig. 12
VS045	Fig. 11
VS046	Fig. 17
VS047	Fig. 18
VS050	Fig. 16
VS052	Fig. 19
VS053	Fig. 19
VS054	Fig. 12
VS055	2 Snap
VS057W	Fig. 14
VS058	Fig. 18
VS059	Fig. 18
VS060	Fig. 20
VS064	Fig. 12
VS065	Fig. 4
VS067	Fig. 2
VS068	Flashlight
VS069	Fig. 1
VS070	Fig. 1
VS072	Fig. 2
VS073	Flashlight
VS074	Flashlight
VS082	2 Snap
VS083	Flashlight

Battery Type	Terminals
VS134	2 Flat-Spring
VS136	2 Screw
VS138	2 Fahnestock Clips
VS139	2 Screw
VS140	2 Screw
VS141	Fig. 1
VS142	2 Flat-Spring
VS157	3 Fahnestock Clips
VS215	2 Snap
VS216	2 Snap
VS217	2 Snap
VS218	2 Snap
VS219	2 Snap
VS236	2 Snap Flashlight
VS300	2 Snap
VS301	Fig. 21
VS304	Fig. 22
VS305	2 Snap
VS306	2 Snap
VS307	2 Snap
VS308	2 Snap
VS309	2 Snap
VS310	2 Snap
VS311	2 Snap
VS312	2 Snap
VS313	Flashlight
VS314	2 Snap
VS315	2 Snap
VS316	2 Snap
VS317	2 Screw
VS318	2 Snap
VS321	Fig. 2
VS322	2 Snap
VS336	Flashlight
VS400	Flashlight

TERMINAL PATTERNS FOR RCA BATTERIES

FIG. 1
"A"

RETMA 101

FIG. 2
"A"

RETMA 103

FIG. 3
"A"

RETMA 104

FIG. 4
"A"

RETMA 105

FIG. 5
"B"

RETMA 107

FIG. 6
"B"

RETMA 110

FIG. 7
"B"

RETMA 111

FIG. 8
"B"

RETMA 111

FIG. 9
"C"

RETMA 112

FIG. 10
"C"

RETMA 113

FIG. 11
"A-B"

"A-B"

RETMA 115

FIG. 12
"A-B"

RETMA 115

FIG. 13
"A-B"

RECESSED TERMINALS

"A-B"

RETMA 116

FIG. 14
"A-B"

RETMA 116

FIG. 15
"A-B"

RETMA 116

FIG. 16
"A-B"

RETMA 116

FIG. 17
"A-B"

RECESSED TERMINALS

FIG. 18
"A-B"

RECESSED TERMINALS

FIG. 19
"A-B"

* VS052: +61.5B
VS053: +63B

FIG. 20
"A-B"

RECESSED TERMINALS

FIG. 21
"A"

FIG. 22
"A"

92CM-8792R1

(For Types Added After Mid-1957, See Chart II, Page 138)

RCA RECEIVING TUBE CHART I

Miniature, Metal, GT, and other Receiving Types

(For Footnotes and Base Diagrams, See Pages 126-137)

Type	Name	Tube Dimensions and Socket Connections: Dimen.	S. C.	Cathode Type and Rating: C. T.	Volts	Amp.	Use (Values to right give operating conditions and characteristics for indicated typical use)	Plate Supply Volts	Grid Bias ■ Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Transconductance (Grid-plate) μmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts
00-A	Detector Triode	D12a	4D	D.C. F	5.0	0.25	Grid-Leak Detector	45	Grid Return to (−) Filament			1.5	30000	666	20	—	—
01-A	Detector★ Amplifier	D12a	4D	D.C. F	5.0	0.25	Class A Amplifier	90 135	− 4.5 − 9.0	—	—	2.5 3.0	11000 10000	725 800	8.0 8.0	—	—
0Y4	Half-Wave Gas Rectifier	B2	4BU	Cold	—	—	Rectifier	Max. Peak Inverse Plate Volts, 300 Max. DC Starting Volts, 95				Max. Peak Plate Current, 500 ma. Max. DC Output Current, 75 ma.					
0Z4 0Z4-G	Full-Wave Gas Rectifier	B2 B1a	4R 4R	Cold	—	—	Rectifier	Starting-Supply Voltage per Plate, 300 min. peak volts. Peak Plate Current, 200 max. ma. DC Output Current, 75 max., 30 min. ma. DC Output Voltage, 300 max. volts.									
1A3	HF Diode	B0	5AP	H	1.4	0.15	Detector Rectifier	Max. Peak Inverse Volts, 330 Max. Peak Plate Ma., 5				Max. DC Output Ma., 0.5 Max. Peak Heater-Cathode Volts, 140					
1A4-P	Remote-Cutoff Pentode	D9	4M	D.C. F	2.0	0.06	Amplifier	For other characteristics, refer to Type 1D5-GP									
1A5-GT	Power Amplifier Pentode	C2b	6X	D.C. F	1.4	0.05	Class A Amplifier	85 90	− 4.5 − 4.5	85 90	0.7 0.8	3.5 4.0	300000 300000	800 850	—	25000 25000	0.100 0.115
1A6	Pentagrid Converter ◘	D9	6L	D.C. F	2.0	0.06	Converter	135 180	− 3.0 min.	67.5 67.5	2.5 2.4	1.2 1.3	400000 500000	Anode-Grid (♯2): 180★ max. volts, 2.3 ma. Oscillator-Grid (♯1) Resistor ■. Conversion Transcond., 300 micromhos.			
1A7-GT	Pentagrid Converter ◘	C3	7Z♯	D.C. F	1.4	0.05	Converter	90	0	45♣	0.7	0.6	600000	Anode-Grid (♯2): 90 max. volts, 1.2 ma. Oscillator-Grid (♯1) Resistor, 0.2 meg. Conversion Transcond., 250 micromhos.			
1AC5	Power Pentode	A	8CP	F	1.25	0.04	Class A Amplifier	30 45 67.5	− 2 − 3 − 4.5	30 45 67.5	0.1 0.2 0.4	0.5 1.0 2.0	200000 170000 150000	450 600 750	—	50000 40000 25000	0.005 0.015 0.050
1AD5	Sharp-Cutoff Pentode	A	8CP	F	1.25	0.04	Class A Amplifier	30 45 67.5	0 0 0	30 45 67.5	0.16 0.35 0.75	0.45 0.9 1.85	700000 700000 700000	430 580 735	—	—	—
1AX2	Half-Wave Rectifier	B5a	9Y	F	1.4	0.65	Pulsed-Rectifier in TV Receivers	Max. Peak Inverse Plate Volts, 25000 Max. Peak Plate Ma., 11				Max. Average Plate Ma., 1					
1B3-GT	Half-Wave Rectifier	D2	3C	F	1.25	0.2	Pulsed-Rectifier in Scanning Systems of TV Receivers	Max. Peak Inverse Plate Volts, 30000 Max. Peak Plate Ma., 17				Max. Average Plate Ma., 2 Max. Frequency of Supply Voltage, 300 Kc					

1B4-P	RF Amplifier Pentode	D9	4M	D.C. F	2.0	0.06	Amplifier	For other characteristics, refer to Type 1E5-GP.										
1B5/25S	Duplex-Diode Triode	D5	8M	D.C. F	2.0	0.06	Triode Unit as Amplifier	For other characteristics, refer to Type 1H6-G.										
1B7-GT	Pentagrid Converter ◘	C3	7Z✓	D.C. F	1.4	0.10	Converter	90	0	45♣	1.3	1.5	350000	Anode-Grid (§2): 90 max. volts, 1.6 ma. Oscillator-Grid (§1) Resistor, 0.2 meg. Conversion Transcond., 350 micromhos.				
1C5-GT	Power Amplifier Pentode	C2b	6X	D.C. F	1.4	0.10	Class A Amplifier	83 90	− 7.0 − 7.5	83 90	1.6 1.6	7.0 7.5	110000 115000	1500 1550	——	——	9000 8000	0.20 0.24
1C6	Pentagrid Converter ◘	D9	6L	D.C. F	2.0	0.12	Converter	For other characteristics, refer to Type 1C7-G.										
1C7-G	Pentagrid Converter ◘	D8	7Z	D.C. F	2.0	0.12	Converter	135 180	− 3.0 − 3.0	67.5 67.5	2.5 2.0	1.3 1.5	600000 700000	Anode-Grid (§2): 180 max. volts, 4.0 ma. Oscillator-Grid (§1) Resistor■. Conversion Transcond., 325 micromhos.				
1D5-GP	Remote-Cutoff Pentode	D8	5Y	D.C. F	2.0	0.06	Class A Amplifier	90 180	− 3.0 min.	67.5 67.5	0.9 0.8	2.2 2.3	600000 1.0§	720 750	——	——	——	——
1D5-GT	Remote-Cutoff Tetrode	D8	5R	D.C. F	2.0	0.06	Class A Amplifier	180	− 3.0	67.5	0.7	2.2	600000	650	——	——	——	——
1D7-G	Pentagrid Converter ◘	D8	7Z	D.C. F	2.0	0.06	Converter	For other characteristics, refer to Type 1A6.										
1D8-GT	Diode-Triode-Power Pentode	C2b	8AJ	D.C. F	1.4	0.10	Pentode Unit as Class A Amplifier	45 90	− 4.5 − 9.0	45 90	0.3 1.0	1.6 5.0	300000 200000	650 925	——	——	20000 12000	0.035 0.200
							Triode Unit as Class A Amplifier	45 90	0 0	——	——	0.3 1.1	77000 43500	325 575	25 25	——	——	——
1DN5	Diode Remote-Cutoff Pentode	B0	6BW	F	1.4	0.5	Triode Unit as Class A Amplifier	67.5	0	67.5	0.55	2.1	600000	630	——	——	——	——
1E5-GP	RF Amplifier Pentode	D8	5Y	D.C. F	2.0	0.06	Class A Amplifier	90 180	− 3.0 − 3.0	67.5 67.5	0.7 0.6	1.6 1.7	1.0§ 1.3§	600 650	——	——	——	——
1E7-GT	Twin-Pentode Power Amplifier	C2b	8C	D.C. F	2.0	0.24	Class A Amplifier	135	− 7.5	135	——	Power Output is for one tube at stated plate-to-plate load.					24000	0.575
1E8	Pentagrid Converter▲	A	8CN	F	1.25	0.04	Converter	30 45 67.5	0 0 0	30 45 67.5	0.8 1.1 1.5	0.3 0.6 1.0	300000 400000 400000	Oscillator Grid (§1) Resistor, 0.1 meg. Conversion Transcond., 150 micromhos				
1F4	Power Amplifier Pentode	D12a	5K	D.C. F	2.0	0.12	Amplifier	For other characteristics, refer to Type 1F5-G.										
1F5-G	Power Amplifier Pentode	D11b	6X	D.C. F	2.0	0.12	Class A Amplifier	90 135	− 3.0 − 4.5	90 135	1.1 2.4	4.0 8.0	240000 200000	1400 1700	——	——	20000 16000	0.11 0.31
1F6	Duplex-Diode Pentode	D9	6W	D.C. F	2.0	0.06	Pentode Unit as Amplifier	For other characteristics, refer to Type 1F7-G.										
1F7-G	Duplex-Diode Pentode	D8	7AF	D.C. F	2.0	0.06	Pentode Unit as RF Amplifier	180	− 1.5	67.5	0.7	2.2	1.0§	650	——	——	——	——
							Pentode Unit as AF Amplifier	135×	− 2.0	Screen Supply, 135 volts applied through 0.8-megohm resistor Grid Resistor,** 1.0 megohm. Voltage Gain, 46.								

Discontinued types are shown in light face.

RCA Type	Name	Tube Dimensions and Socket Connections: Dimen.	S. C.	Cathode Type and Rating: C. T.	Volts	Amp.	Use (Values to right give operating conditions and characteristics for indicated typical use)	Plate Supply Volts	Grid Bias ■ Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Transconductance (Grid-plate) μmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts
1G3-GT/ 1B3-GT	Half-Wave Rectifier	C10	3C	F	1.25	0.2	Pulsed-Rectifier in TV Receivers	Max. Peak Inverse Plate Volts, 26000 (Abs.) Max. Peak Plate Ma., 50									Max. Average Plate Ma., 0.5
							HV Rectifier in RF Power Supplies	Max. Peak Inverse Plate Volts, 33000 (Abs.) Max. Peak Plate Ma., 30						Max. Average Plate Ma., 1.0 Frequency Range of Supply Voltage, 1.5 to 100 Kc			
1G4-GT	Medium-Mu Triode	C2b	5S	D.C. F	1.4	0.05	Class A Amplifier	90	− 6.0	—	—	2.3	10700	825	8.8	—	—
1G5-G	Power Amplifier Pentode	D11b	6X	D.C. F	2.0	0.12	Class A Amplifier	90 135	− 6.0 −13.5	90 135	2.5 2.5	8.5 8.7	133000 160000	1500 1550	—	8500 9000	0.25 0.55
1G6-GT	Twin-Triode Amplifier	C2b	7AB	D.C. F	1.4	0.10	Class B Amplifier	90	0	—	—	Power Output is for one tube at stated plate-to-plate load.				12000	0.350
1H4-G	Detector★ Amplifier	D3	5S	D.C. F	2.0	0.06	Class A Amplifier	90 135 180	− 4.5 − 9.0 −13.5	—	—	2.5 3.0 3.1	11000 10300 10300	850 900 900	9.3 9.3 9.3	—	—
							Class B Amplifier	157.5	−15.0	—	—	1.0♣	—	—	—	8000	2.1†
1H5-GT	Diode High-Mu Triode	C3	5Z#	D.C. F	1.4	0.05	Triode Unit as Class A Amplifier	90	0	—	—	0.15	240000	275	65	—	—
1H6-G	Duplex-Diode Triode	D3	7AA	D.C. F	2.0	0.06	Triode Unit as Class A Amplifier	135	− 3.0	—	—	0.8	35000	575	20	—	—
1J5-G	Power Pentode	D11b	6X	D.C. F	2.0	0.12	Class A Amplifier	135	−16.5	135	2.0	7.0	105000	950	—	13500	0.45
1J6-G 1J6-GT	Twin-Triode Amplifiers	C10	7AB	D.C. F	2.0	0.24	Class B Amplifier	135 135	0 − 3.0	—	—	Power Output is for one tube at stated plate-to-plate load.				10000 10000	2.1 1.9
1L4	RF Amplifier Pentode	B0	6AR	D.C. F	1.4	0.05	Class A Amplifier	90 90	0 0	67.5 90	1.2 2.0	2.9 4.5	600000 260000	925 1025	—	—	—
1L6	Pentagrid Converter ◘	B0	7DC	D.C. F	1.4	0.05	Converter	90	0	45	0.6	0.5	650000	Anode-Grid (♯2): 90 max. volts, 1.2 ma. Oscillator Grid (♯1) Resistor, 0.2 meg. Conversion Transcond., 300 micromhos.			
1LA4	Power Amplifier Pentode	B5	5AD	D.C. F	1.4	0.05	Amplifier	For other characteristics, refer to Type 1A5-GT.									
1LA6	Pentagrid Converter ◘	B5	7AK	D.C. F	1.4	0.05	Converter	90	0	45♣	0.6	0.55	750000	Anode-Grid (♯2): 90 max. volts, 1.2 ma. Oscillator Grid (♯1) Resistor, 0.2 meg. Conversion Transcond., 250 micromhos.			
1LB4	Power Amplifier Pentode	B5	5AD	D.C. F	1.4	0.05	Class A Amplifier	For other characteristics, refer to Pentode Unit of Type 1D8-GT.									
1LC5	Sharp-Cutoff Pentode	B5	7AO	D.C. F	1.4	0.05	Class A Amplifier	45 90	0 0	45 45	0.35 0.30	1.10 1.15	700000 1.0§	750 775	—	—	—

1LC6	**Pentagrid Converter ¤**	B5	7AK	D.C. F	1.4	0.05	Converter	45 90	0 0	35 35	0.75 0.70	0.70 0.75	300000 650000	Anode-Grid (# 2): 50 max. volts, 1.4 ma. Oscillator-Grid (# 1) Resistor, 0.2 meg. Conversion Transcond., 275 micromhos.			
1LD5	**Diode-Pentode**	B5	6AX	D.C. F	1.4	0.05	Pentode Unit as Class A Amplifier	Plate Supply, 90 v applied through 1 meg. resistor. Screen Supply, 90 v applied through 5.6 meg. resistor. Grid Bias, 0 v, Grid Resistor, 10 megohms. Voltage Gain, 101 approx.								
1LE3	**Medium-Mu Triode**	B5	4AA	D.C. F	1.4	0.05	Class A Amplifier	90 90	0 — 3	— —	— —	4.5 1.4	11200 19000	1300 760	14.5 14.5	— —	— —
1LG5	**Remote-Cutoff Pentode**	B5	7AO	D.C. F	1.4	0.05	Class A Amplifier	90 90	0 — 1.5	45 90	0.4 0.9	1.7 3.7	1.0§ 500000	800 1150	— —	— —	— —
1LH4	**Diode High-Mu Triode**	B5	5AG	D.C. F	1.4	0.05	Triode Unit as Class A Amplifier	For other characteristics, refer to Type 1H5-GT.								
1LN5	**Sharp-Cutoff Pentode**	B5	7AO	D.C. F	1.4	0.05	Class A Amplifier	90	0	90	0.35	1.6	1.1§	800	—	—	—
1N5-GT	**Sharp-Cutoff Pentode**	C3	5Y#	D.C. F	1.4	0.05	Class A Amplifier	90	0	90	0.3	1.2	1.5§§	750	—	—	—
1N6-G	**Diode—Power Amplifier Pentode**	D1	7AM	D.C. F	1.4	0.05	Pentode Unit as Class A Amplifier	90	— 4.5	90	0.7	3.4	300000	800	—	25000	0.1
1P5-GT	**Remote-Cutoff Pentode**	C3	5Y♭	D.C. F	1.4	0.05	Class A Amplifier	90	0	90	0.7	2.3	800000	750	—	—	—
1Q5-GT	**Beam Power Tube**	C2b	6AF	D.C. F	1.4	0.1	Class A Amplifier	90	— 4.5	90	1.3	9.5	90000	2200	—	8000	0.27
1R5	**Pentagrid Converter▲**	B0	7AT	D.C. F	1.4	0.05	Converter	45 90	0 0	45 67.5	1.9 3.2	0.7 1.6	600000 600000	Grid # 1 Resistor, 100000 ohms. Conversion Transcond., 300 μmhos.			
1S4	**Power Amplifier Pentode**	B0	7AV	D.C. F	1.4	0.1	Class A Amplifier	45 90	— 4.5 — 7.0	45 67.5	0.8 1.4	3.8 7.4	100000 100000	1250 1575	—	8000 8000	0.065 0.27
1S5	**Diode-Pentode**	B0	6AU	D.C. F	1.4	0.05	Pentode Unit as AF Amplifier	Plate Supply, 90 v applied through 1 meg. resistor. Screen Supply, 90 v applied through 3.1 meg. resistor. Grid Bias, 0 volts. Grid Resistor, 10 megohms. Voltage Gain, 66 approx.								
1T4	**Remote-Cutoff Pentode**	B0	6AR	D.C. F	1.4	0.05	Class A Amplifier	45 90	0 0	45 67.5	0.7 1.4	1.7 3.5	350000 500000	700 900	—	—	—
1T5-GT	**Beam Power Tube**	C2b	6X	D.C. F	1.4	0.05	Class A Amplifier	90	— 6.0	90	0.8	6.5	250000	1150	—	14000	0.17
1T6	**Diode-Pentode**	A	8DA	F	1.25	0.04	Pentode Unit as Class A Amplifier	30 45 67.5	0 0 0	30 45 67.5	0.10 0.21 0.4	0.33 0.75 1.6	500000 500000 400000	330 475 600	— — —	— — —	— — —
1U4	**Sharp-Cutoff Pentode**	B0	6AR	D.C. F	1.4	0.05	Class A Amplifier	90	0	90	0.50	1.0	1.0§	900	—	—	—
1U5	**Diode-Pentode**	B0	6BW	D.C. F	1.4	0.05	Pentode Unit as Class A Amplifier	Plate Supply, 90 volts applied through 1 meg. resistor. Screen Supply, 90 volts applied through 3.1 meg. resistor. Grid Bias, 0 volts. Grid Resistor, 10 megohms. Voltage Gain, 66 approx.								
1-v	**Half-Wave Rectifier**	D5	4G	H	6.3	0.3	With Capacitive-Input Filter	Max. AC Plate Volts (RMS), 325 ; Min. Total Effective Plate-Supply Impedance: Up to 117 Max. DC Output Ma., 45 volts, 0 ohms; at 150 volts, 30 ohms; at 325 volts, 75 ohms.								
1V2	**Half-Wave Rectifier**	B0a	9U	F	0.625	0.3	Pulsed Rectifier	Max. Peak Inverse Plate Volts, 7500 Max. Peak Plate Ma., 10					Max. Average Plate Ma., 0.5			
1X2-A	**Half-Wave Rectifier**	B4	9Y	F	1.25	0.2	Pulsed-Rectifier in Scanning Systems of TV Receivers	Max. Peak Inverse Plate Volts, 18000 Max. Peak Plate Ma., 10					Max. Average Plate Ma., 1			

Discontinued types are shown in light face.

RCA Type	Name	Tube Dimensions and Socket Connections: Dimen.	S. C.	Cathode Type and Rating: C. T.	Volts	Amp.	Use (Values to right give operating conditions and characteristics for indicated typical use)	Plate Supply Volts	Grid Bias ■ Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Transconductance (Grid-plate) μmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts
1X2-B	Half-Wave Rectifier	B4	9Y	F	1.25	0.2	Pulsed-Rectifier in Scanning Systems of TV Receivers	Max. Peak Inverse Plate Volts, 22000 (Absolute Value) Max. Peak Plate Ma., 45 Max. Average Plate Ma., 0.5									
2A3	Power Amplifier Triode	E3	4D	F	2.5	2.5	Class A Amplifier	250	−45.0	—	—	60.0	800	5250	4.2	2500	3.5
							Push-Pull Class AB_1 Amplifier	300	Cath. Bias, 780 ohms ♠			80.0 ♠	—	—	—	5000	10.0†
								300	−62 volts, fixed bias			80.0 ♠				3000	15.0†
2A4-G	Glow-Discharge Triode	D3	5S	D.C. F	2.5	2.5	Relay Service	Max. Peak Inverse Anode Volts, 200 Max. Peak Forward Anode Volts, 200				Max. Peak Anode Current, 1.25 ampere Max. Av. Anode Current, 0.1 ampere					
2A5	Power Amplifier Pentode	D12a	6B	H	2.5	1.75	Amplifier	For other characteristics, refer to Type 6F6-G.									
2A6	Duplex-Diode High-Mu Triode	D9	6G	H	2.5	0.8	Triode Unit as Amplifier	For other characteristics, refer to Type 6SQ7.									
2A7	Pentagrid Converter ◘	D9	7C	H	2.5	0.8	Converter	For other characteristics, refer to Type 6A8.									
2AF4-A	Medium-Mu Triode	B0	7DK	H●	2.35	0.6	Class A Amplifier	80	Cath. Bias Res., 150 ohms			16	2270	6600	15	—	—
								100				20	2130	7500	16	—	—
							Oscillator at 950 Mc.	100	Grid Bias Volts, −4 Grid Res., 10000 ohms			22	Grid Current (Approx.), 400 μamp. Useful Power Output, 160 milliwatts				
2B7	Duplex-Diode Pentode	D9	7D	H	2.5	0.8	Pentode Unit as Amplifier	For other characteristics, refer to Type 6B8-G.									
2BN4	Medium-Mu Triode	B0	7EG	H●	2.3	0.6	Class A Amplifier	150	Cath. Bias	—	—	9	6300	6800	43	Cath. Bias Res., 220 ohms	
2E5	Electron-Ray Tube	D5	6R	H	2.5	0.8	Visual Indicator	For other characteristics, refer to Type 6E5.									
3A2	Half-Wave Rectifier	B4	9DT	H	3.15	0.22	Pulsed-Rectifier in Scanning Systems of TV Receivers	Max. Peak Inverse Plate Volts, 18000 Max. Peak Plate Ma., 80 Max. Average Plate Ma., 1.5									
3A3	Half-Wave Rectifier	D2	8EZ	H	3.15	0.22	Pulsed-Rectifier in Scanning Systems of TV Receivers	Max. Peak Inverse Plate Volts, 30000 Max. Peak Plate Ma., 80 Max. Average Plate Ma., 1.5									
3A8-GT	Diode-Triode RF Amplifier Pentode	C6	8AS	D.C. F	1.4	0.1	Triode Unit as Class A Amplifier	90	0	—	—	0.2	200000	325	65	—	—
					2.8	0.05	Pentode Unit as Class A Amplifier	90	0	90	0.5	1.5	800000	750	—	—	—
3AF4-A	Medium-Mu Triode	A1	7DK	H●	3.2	0.45	Class A Amplifier	100	Cathode Bias Res., 150 ohms			16	2270	6600	15	—	—
												20	2130	7500	16	—	—
							Oscillator at 950 Mc.	100	Grid Bias Volts, −4 Grid Res., 10000 ohms			22	Grid Current (Approx.), 400 μamp. Useful Power Output, 160 milliwatts				

3AL5	**Twin Diode**	A1	6BT	H●	3.15	0.6	Detector Rectifier	Max. Peak Inverse Volts, 330 Max. Peak Plate Ma. per Plate, 54					Max. DC Output Ma. per Plate, 9 Max. Peak Heater-Cathode Volts, 330				
3AU6	**Sharp-Cutoff Pentode**	B0	7BK	H●	3.15	0.6	Class A Amplifier	100 250	Cath. Bias	100 150	2.1 4.3	5.0 10.6	500000 1.0§	3900 5200	Cath. Bias Res., 150 ohms Cath. Bias Res., 68 ohms		
3AV6	**Twin Diode High-Mu Triode**	B0	7BT	H●	3.15	0.6	Triode Unit as Class A Amplifier	100 250	− 1.0 − 2.0	——	——	0.5 1.2	80000 62500	1250 1600	100 100	——	——
3B2	**Half-Wave Rectifier**	E1a	8GH	H	3.15	0.22	Pulsed Rectifier in TV Service	Max. DC Inverse Plate Volts, 25000 Max. Peak Plate Ma. 80 Max. Average Plate Ma., 1.1							Max. Total DC and Peak Inverse Plate Volts, 35000 (Absolute)		
3BC5	**Sharp-Cutoff Pentode**	B0	7BD	H●	3.15	0.6	Class A Amplifier	250	Cath. Bias	150	2.1	7.5	800000	5700	Cath. Bias Res., 180 ohms		
3BN6	**Beam Tube**	B1	7DF	H●	3.15	0.6	Limiter and Discriminator Service	Max. DC Plate Volts, 300 Max. Grid-No. 2 Volts, 100 Max. Peak Heater-Cathode Volts, 90							Max. Positive-Peak Grid-No. 1 Volts, 55 Max. Cathode Ma., 11.5		
3BU8	**Sharp-Cutoff Twin Pentode**	B3	9FG	H●	3.15	0.6	Class A Amplifier With Both Sections Operating	100 100	: :	67.5 67.5	6.5 3.3	—— 2.2	Grid-No. 3 Volts, each section, −10 Grid-No. 3 Volts, each section, 0				
								:Grid current adjusted for 100 microamperes DC.									
3BY6	**Pentagrid Amplifier**	B0	7CH	H●	3.15	0.6	Sync Separator and Sync Clipper	10	0	25	3.5	1.4	0.6§	6100	Grid-No. 3 Volts, 0		
3BZ6	**Semiremote-Cutoff Pentode**	B0	7CM	H●	6.3	0.3	Class A Amplifier	200	Cath. Bias	150	2.6	11	600000	6100	Cath. Bias Res., 180 ohms		
3CB6	**Sharp-Cutoff Pentode**	B0	7CM	H●	3.15	0.6	Class A Amplifier	200	Cath. Bias	150	2.8	9.5	600000	6200	Cath. Bias Res., 180 ohms		
3CF6	**Sharp-Cutoff Pentode**	B0	7CM	H●	3.15	0.6	Class A Amplifier	200	− 6.5	150	2.8	9.5	600000	6200	Cath. Bias Res., 180 ohms		
3CS6	**Pentagrid Amplifier**	B0	7CH	H●	3.15	0.6	Sync Separator and Sync Clipper	10	——	30	4.5	2	Grid-No. 3 Volts, 0 Grid-No. 1 Volts, 0		——	——	——
							Class A Amplifier	100	− 1	30	5.5	0.8	700000	——	Grid-No. 3 Volts, −1 Transcond., 1500 μmhos		
								100	0	30	1.3	1	1§	1100	Grid-No. 3 Volts, 0 Transcond., 0 μmhos		
3DT6	**Sharp-Cutoff Pentode**	B0	7CM	H●	3.15	0.6	Class A Amplifier	150	Cath. Bias	100	2.1	1.1	150000	615	Cath. Bias Res., 560 ohms		
							FM Detector	250	Cath. Bias	100	5.5	0.22	Grid-No. 3 Volts, −6; Cath. Resistor, 560 ohms Plate Load Resistor, 270000 ohms				
3LF4	**Beam Power Tube**	B5	6BA	D.C. F	1.4 2.8	0.1 0.05	Class A Amplifier	For other characteristics, refer to Type 3Q5-GT.									
3Q4	**Power Amplifier Pentode**	B0	7BA	D.C. F	1.4 2.8	0.1 0.05	Class A Amplifier	For other characteristics, refer to Type 3V4									
3Q5-GT	**Beam Power Tube**	C2b	7AP	D.C. F	1.4 2.8	0.1 0.05	Class A Amplifier	110 110	− 6.6 − 6.6	110 110	1.4 1.1	10.0 8.5	100000 110000	2200 2000	——	8000 8000	0.40 0.33
3S4	**Power Amplifier Pentode**	B0	7BA	D.C. F	1.4 2.8	0.1 0.05	Class A Amplifier	90 90	− 7 − 7	67.5 67.5	1.4 1.1	7.4 6.1	100000 100000	1575 1425	——	8000 8000	0.27 0.235

Discontinued types are shown in light face.

RCA Type	Name	Tube Dimensions and Socket Connections		Cathode Type and Rating			Use Values to right give operating conditions and characteristics for indicated typical use	Plate Supply	Grid Bias ■	Screen Supply	Screen Current	Plate Current	AC Plate Resistance	Transconductance (Grid-plate)	Amplification Factor	Load for Stated Power Output	Power Output
		Dimen.	S. C.	C. T.	Volts	Amp.		Volts	Volts	Volts	Ma.	Ma.	Ohms	μmhos		Ohms	Watts
3V4	Power Amplifier Pentode	B0	6BX	D.C. F	1.4 2.8	0.1 0.05	Class A Amplifier	90 90	− 4.5 − 4.5	90 90	2.1 1.7	9.5 7.7	100000 120000	2150 2000	—— ——	10000 10000	0.27 0.24
4AU6	Sharp-Cutoff Pentode	B0	7BK	H●	4.2	0.45	Class A Amplifier	100 250	Cath. Bias	100 150	2.1 4.3	5 10.6	500000 1§	3900 5200	Cath. Bias Res., 150 ohms Cath. Bias Res., 68 ohms		
4BC8	Medium-Mu Twin-Triode	B0a	9AJ	H●	4.2	0.6	Each Unit as Class A Amplifier	150	Cath. Res., 220 ohms			10	——	6200	35	——	——
4BQ7-A	Medium-Mu Twin-Triode	B0a	9AJ	H●	4.2	0.6	Each Unit as Class A Amplifier	150	Cathode Bias Res., 220 ohms			9.0	6100	6400	39	Cutoff Volts, −10	
4BS8	Medium-Mu Twin Triode	B0a	9AJ	H●	4.2	0.6	Cascode Amplifier	250	− 1	——	——	16	——	10000	——	——	——
							Each Unit as Class A Amplifier	150	Cath. Bias			10	5000	7200	36	Cath. Bias Res., 220 ohms	
4BZ7	Medium-Mu Twin-Triode	B0a	9AJ	H●	4.2	0.6	Each Unit as Class A Amplifier	150	Cathode Bias Res., 220 ohms			10	5600	6800	38	Cutoff Volts, −11	
4CB6	Sharp-Cutoff Pentode	B0	7CM	H●	4.2	0.45	Class A Amplifier	200	Catli. Bias	150	2.8	9.5	600000	6200	Cath. Bias Res., 180 ohms		
4DT6	Sharp-Cutoff Pentode	B0	7CM	H●	4.2	0.45	Class A Amplifier	150	Cath. Bias	100	2.1	1.1	150000	515	Cath. Bias Res., 560 ohms		
							FM Detector	250	Cath. Bias	100	5.5	0.22	Grid-No. 3 Volts, −6; Cath. Res., 560 ohms Plate Load Resistor, 270000				
5AM8	Diode—Sharp-Cutoff Pentode	B0a	9CY	H●	4.7	0.6	Diode Unit	Max. DC Plate Ma., 5					Max. Peak Heater-Cathode Volts, ±200 DC Volts Not to Exceed +100				
							Pentode Unit as Class A Amplifier	200	Cath. Bias	150	2.7	11.5	——	7000	Cath. Bias Res., 120 ohms		
5AN8	Medium-Mu Triode—Sharp-Cutoff Pentode	B0a	9DA	H●	4.7	0.6	Triode Unit as Class A Amplifier	200	− 6	——	——	13	5750	3300	19	——	——
							Pentode Unit as Class A Amplifier	200	Cath. Bias	150	2.8	9.5	300000	6200	Cath. Bias Res., 180 ohms		
5AQ5	Beam Power Tube	B1	7BZ	H●	4.7	0.6	Single Tube Class A Amplifier	180 250	− 8.5 −12.5	180 250	3.0 4.5	29.0 45.0	58000 52000	3700 4100	—— ——	5500 5000	2.0 4.5
							Push-Pull Class AB_1 Amplifier	250	−15	250	5.0♠	70♠	60000	——	——	10000	10†
5AS4 5AS4-A	Full-Wave Rectifiers	E3a D6	5T‡	H	4.7	3.0	With Capacitive-Input Filter	Max. AC Volts per Plate (RMS), 550 Max. Peak Inverse Volts, 1550					Max. DC Output Ma., 300 Max. Peak Plate Ma., 1000		Min. Total Effect. Supply Imped. per Plate, 97 ohms		
							With Inductive-Input Filter	Max. AC Volts per Plate (RMS), 550 Max. Peak Inverse Volts, 1550					Max. DC Output Ma., 275 Max. Peak Plate Ma., 1000		Min. Value of Input Choke, 10 henries		

5AS8	**Diode—Sharp-Cutoff Pentode**	B0a	9DS	H●	4.7	0.6	**Diode Unit**	Max. Peak Inverse Plate Volts, 330 Max. Peak Plate Ma., 50							Max. Average Plate Ma., 5.0	
							Pentode Unit as Class A Amplifier	200	Cath. Bias	150	3.0	9.5	300000	6200	Cath. Bias Res., 180 ohms	
5AT8	**Triode—Pentode Converter**	B0a	9DW	H●	4.7	0.45	Triode Unit as 250-Mc. Oscillator	150	Grid Resistor, 2700 ohms Grid Current, 3.6 Ma.						Plate Current, 13 Ma. Power Output (Approx.), 0.5 Watt	
							Pentode Unit as Mixer√	150	Grid-No. 2 Volts, 150 Mixer Grid-No. 1 Supply Volts, −3.5 Plate Current, 6.2 Ma.						Osc. Volts at Mixer Grid-No. 1 (RMS), 2.6 Mixer Grid-No. 1 Resistor, 120000 ohms Conversion Transconductance, 2100 μmhos	
5AV8	**Medium-Mu Triode Sharp-Cutoff Pentode**	B0a	9DZ	H●	4.7	0.6	Triode Unit as Class A Amplifier	200	− 6	——	——	13	5750	3300	19	——	——
							Pentode Unit as Class A Amplifier	200	Cath. Bias	150	2.8	9.5	300000	6200	——	Cath. Bias Res., 180 ohms
5AZ4	**Full-Wave Rectifier**	C2a	5T	F	5.0	2.0	For ratings and characteristics, refer to Type 5Y3-GT.									
5BK7-A	**Medium-Mu Twin Triode**	B0a	9AJ	H●	4.7	0.6	Each Unit as Class A Amplifier	150	Cath. Bias Res., 56 ohms			18	4600	9300	43	Cutoff Volts, −11
5BQ7-A	**Medium-Mu Twin Triode**	B0a	9AJ	H●	4.7	0.45	Each Unit as Class A Amplifier	150	Cath. Bias Res., 220 ohms			9	6100	6400	39	Cutoff Volts, −10
5BR8	**Medium-Mu Triode Sharp-Cutoff Pentode**	B0a	9FA	H●	4.7	0.6	Triode Unit as Class A Amplifier	150	Cath. Bias	——	——	18	5000	8500	40	Cath. Bias Res., 56 ohms
							Pentode Unit as Class A Amplifier	250	Cath. Bias	110	3.5	10	400000	5200	——	Cath. Bias Res., 68 ohms
5CG8	**Triode Pentode Converter**	B0a	9GF	H●	4.7	0.6	Triode Unit as 250-Mc Oscillator	150	Grid Resistor, 2700 ohms Grid Current, 3.6 Ma.						Plate Current, 13 Ma. Power Output (Approx.) 0.5 watt	
							Pentode Unit As Mixer√	150	Conversion Transconductance, 2100 μmhos Grid-No. 2 Volts, 150 Mixer Grid-No. 1 Supply Volts, −3.5						Plate Current, 6.2 Ma. Osc. Volts at Mixer Grid-No. 1 (RMS), 2.6 Mixer Grid-No. 1 Resistor, 120000 ohms	
							Triode Unit as Class A Amplifier	100	Cath. Bias	——	——	8.5	6900	5800	40	Cath. Bias Res., 100 ohms
							Pentode Unit as Class A Amplifier	250	Cath. Bias	150	1.6	7.7	750000	4600	——	Cath. Bias Res., 200 ohms
5CQ8	**Medium-Mu Triode Sharp-Cutoff Tetrode**	B0a	9GE	H●	4.7	0.6	Triode Unit as Class A Amplifier	125	Cath. Bias	——	——	15	5000	8000	40	Cath. Bias Res., 56 ohms
							Tetrode Unit as Class A Amplifier	125	− 1	125	4.2	12	140000	5800	——	——	——
5CZ5	**Beam Power Tube**	B3	9HN	H●	4.7	0.6	Vertical Deflection Amplifier in TV Receivers	Max. DC Plate Volts, 315. Max. Peak Cathode Ma., 140					Max. Peak Positive Pulse Plate Volts, 2200 (Abs.) Max. Plate Dissipation, 10 watts			
							Class A Amplifier	250	−14	250	4.6	46	73000	4800	——	5000	5.4
							Push-Pull Class AB1 Amplifier	350	−23.5	280	3	46	——	——	——	7500	21.5
5J6	**Medium-Mu Twin-Triode**	B0	7BF	H●	4.7	0.6	Each Unit as Class A Amplifier	100	Cath. Res., 220 ohms, both units		——	8.5	7100	5300	38	——	——
							Push-Pull Class C Amplifier	150	−10	Cath. Res., 220 ohms, both units		30	Grid Current, 16 Ma. Driving Power, 0.35 Watt			——	3.5

Discontinued types are shown in light face.

Type	Name	Tube Dimensions and Socket Connections		Cathode Type and Rating			Use (Values to right give operating conditions and characteristics for indicated typical use)	Plate Supply Volts	Grid Bias ■ Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Transconductance (Grid-plate) μmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts
		Dimen.	S. C.	C. T.	Volts	Amp.											
5T4	Full-Wave Rectifier	D7	5T	F	5.0	2.0	With Capacitive-Input Filter	Max. AC Volts per Plate (RMS), 450 Max. Peak Inverse Volts, 1550				Max. DC Output Ma., 225 Max. Peak Plate Ma., 675			Min. Total Effect. Supply Imped. per Plate, 150 ohms		
							With Inductive-Input Filter	Max. AC Volts per Plate (RMS), 550 Max. Peak Inverse Volts, 1550				Max. DC Output Ma., 225 Max. Peak Plate Ma., 675			Min. Value of Input Choke, 3 henries		
5T8	Triple Diode High-Mu Triode	B0a	9E	H●	4.7	0.6	Triode Unit as Class A Amplifier	100	− 1	—	—	0.8	54000	1300	70	—	—
								250	− 3	—	—	1	58000	1200	70	—	—
5U4-G	Full-Wave Rectifier	E2	5T↕	F	5.0	3.0	With Capacitive-Input Filter	Max. AC Volts per Plate (RMS), 450 Max. Peak Inverse Volts, 1550				Max. DC Output Ma., 225 Max. Peak Plate Ma., 675			Min. Total Effect. Supply Imped. per Plate, 170 ohms		
							With Inductive-Input Filter	Max. AC Volts per Plate (RMS), 550 Max. Peak Inverse Volts, 1550				Max. DC Output Ma., 225 Max. Peak Plate Ma., 675			Min. Value of Input Choke, 10 henries		
5U4-GB	Full-Wave Rectifier	D12b	5T↕	H	5.0	3.0	With Capacitive-Input Filter	Max. AC Volts per Plate (RMS), 550 Max. Peak Inverse Volts, 1550				Max. DC Output Ma., 300 Max. Peak Plate Ma., 1000			Min. Total Effect. Supply Imped. per Plate, 97 ohms		
							With Inductive-Input Filter	Max. AC Volts per Plate (RMS), 550 Max. Peak Inverse Volts, 1550				Max. DC Output Ma., 275 Max. Peak Plate Ma., 1000			Min. Value of Input Choke, 10 henries		
5U8	Triode—Pentode Converter	B0a	9AE	H●	4.7	0.6	Triode Unit as Class A Amplifier	150	Cath. Bias	—	—	18	5000	8500	40	Cath. Res., 56 ohms	
							Pentode Unit as Class A Amplifier	250	Cath. Bias	110	3.5	10	40000	5200	—	Cath. Res., 68 ohms	
5V4-G	Full-Wave Rectifier	D11b	5L↕	H	5.0	2.0	With Capacitive-Input Filter	Max. AC Volts per Plate (RMS), 375 Max. Peak Inverse Volts, 1400				Max. DC Output Ma., 175 Max. Peak Plate Ma., 525			Min. Total Effect. Supply Imped. per Plate, 100 ohms		
							With Inductive-Input Filter	Max. AC Volts per Plate (RMS), 500 Max. Peak Inverse Volts, 1400				Max. DC Output Ma., 175 Max. Peak Plate Ma., 525			Min. Value of Input Choke, 4 henries		
5W4	Full-Wave Rectifiers	C2	5T	F	5.0	1.5	With Capacitive-Input Filter	Max. AC Volts per Plate (RMS), 350 Max. Peak Inverse Volts, 1400				Max. DC Output Ma., 100 Max. Peak Plate Ma., 300			Min. Total Effect. Supply Imped. per Plate, 50 ohms		
5W4-GT		C5	5T↕				With Inductive-Input Filter	Max. AC Volts per Plate (RMS), 500 Max. Peak Inverse Volts, 1400				Max. DC Output Ma., 100 Max. Peak Plate Ma., 300			Min. Value of Input Choke, 6 henries		
5X4-G	Full-Wave Rectifier	E2	5Q	F	5.0	3.0	For other ratings, refer to Type 5U4-G.										
5X8	Triode—Pentode Converter	B0a	9AK	H●	4.7	0.6	Triode Unit as 250-Mc. Oscillator	150	Grid Resistor, 2700 ohms Grid Current, 3.6 Ma.				Plate Current, 13 Ma. Power Output (Approx.), 0.5 Watt				
							Pentode Unit as Mixer√	150	Grid-No. 2 Volts, 150 Mixer Grid-No. 1 Supply Volts, −3.5 Plate Current, 6.2 Ma.				Osc. Volts at Mixer Grid-No. 1 (RMS), 2.6 Mixer Grid-No. 1 Resistor, 12000 ohms Conversion Transconductance, 2100 μmhos				
5Y3-G **5Y3-GT**	Full-Wave Rectifiers	D11b C6	5T↕ 5T↕	F F	5.0 5.0	2.0 2.0	With Capacitive-Input Filter	Max. AC Volts per Plate (RMS), 350 Max. Peak Inverse Volts, 1400				Max. DC Output Ma., 125 Max. Peak Plate Ma., 400			Min. Total Effect. Supply Imped. per Plate, 50 ohms		
							With Inductive-Input Filter	Max. AC Volts per Plate (RMS), 500 Max. Peak Inverse Volts, 1400				Max. DC Output Ma., 125 Max. Peak Plate Ma., 400			Min. Value of Input Choke, 10 henries		

5Y4-G **5Y4-GT**	**Full-Wave Rectifier**	D11b	5Q	F	5.0	2.0		For other ratings, refer to Type 5Y3-GT.											
5Z3	**Full-Wave Rectifier**	E3	4C	F	5.0	3.0		For other ratings, refer to Type 5U4-G.											
5Z4	**Full-Wave Rectifier**	C2	5L	H	5.0	2.0	With Capacitive-Input Filter	Max. AC Volts per Plate (RMS), 350 Max. Peak Inverse Volts, 1400				Max. DC Output Ma., 125 Max. Peak Plate Ma., 375				Min. Total Effect. Supply Imped. per Plate, 50 ohms			
							With Inductive-Input Filter	Max. AC Volts per Plate (RMS), 500 Max. Peak Inverse Volts, 1400				Max. DC Output Ma., 125 Max. Peak Plate Ma., 375				Min. Value of Input Choke, 5 henries		
6A3	Power Amplifier Triode	E3	4D	F	6.3	1.0	Amplifier	For other characteristics, refer to Type 6B4-G.											
6A4/LA	Power Amplifier Pentode	D12a	5B	F	6.3	0.3	Class A Amplifier	100 180	− 6.5 −12.0	100 180	1.6 3.9	9.0 22.0	83250 45500	1200 2200	——	11000 8000	0.31 1.40		
6A6	Twin-Triode Amplifier	D12a	7B	H	6.3	0.8	Amplifier	For other characteristics, refer to Type 6N7-GT.											
6A7 6A7S	Pentagrid Converters ◘	D9	7C	H	6.3	0.3	Converter	For other characteristics, refer to Type 6A8.											
6A8 **6A8-G** **6A8-GT**	Pentagrid Converters ◘	C1 D8 C3	8A 8A‡ 8A‡	H	6.3	0.3	Converter	100 250	− 1.5 − 3.0	50 100	1.3 2.7	1.1 3.5	600000 360000	Anode-Grid (♯2): 250 ▽ max. ▽ 4.0 ma. Oscillator-Grid (♯1) Res. ◆ Conversion Transcond., 550 μmhos					
6AB4	High-Mu Triode	B0	5CE	H	6.3	0.15	Class A Amplifier	100 250	Cath. Res., 270 ohms Cath. Res., 200 ohms			3.7 10.0	15000 10900	4000 5500	60 60	——	——		
6AB5/ **6N5**	Electron-Ray Tube Indicator Type	D4	6R	H	6.3	0.15	Visual Indicator	Plate & Target Supply = 135 volts. Triode Plate Resistor = 0.25 meg. Target Current = 2.0 ma. Grid Bias, − 10.0 volts; Shadow Angle, 0°. Bias, 0 volts; Angle, 90°; Plate Current, 0.5 ma. Plate & Target Supply = 135 volts. Triode Plate Resistor = 1.0 meg. Target Current = 1.9 ma. Grid Bias, −15.5 volts; Shadow Angle, 0°. Bias, 0 volts; Angle 90°; Plate Current, 0.13 ma.										
6AB7	Remote-Cutoff Pentode	B2	8N	H	6.3	0.45	Class A Amplifier	300	− 3.0	200	3.2	12.5	700000	5000	——	——	——		
							Class B Amplifier	250	0	——	——	5.0◆	——	——	——	10000	8.0†		
6AC5-GT	High-Mu Power Amplifier Triode	C2b	6Q‡	H	6.3	0.4	Dynamic-Coupled Amplifier With 76 Driver	250	Bias for both 6AC5-GT and 76 is developed in coupling circuit. Average Plate Current of Driver = 5.5 milliamperes. Average Plate Current of 6AC5-GT = 32 milliamperes.							7000	3.7		
6AC7	Sharp-Cutoff Pentode	B2	8N	H	6.3	0.45	Class A Amplifier	300	Cath. Bias	150	2.5	10.0	1.0§	9000	Cathode-Bias Resistor, 160 ohms				
6AD6-G	Electron-Ray Tube Twin Indicator Type	B5b	7AG	H	6.3	0.15	Visual Indicator	Target Voltage, 100 volts. Control-Electrode Voltage, −23 volts; Shadow Angle, 135°; Target Current, 0.8 ma. Control-Electrode Voltage, 45 volts; Angle, 0°; Target Current, 1.5 ma. Target Voltage, 150 volts. Control-Electrode Voltage, −50 volts; Shadow Angle, 135°; Target Current, 1.2 ma. Control-Electrode Voltage, 75 volts; Angle, 0°; Target Current, 3 ma.										
6AD7-G	Triode— Power Pentode	D11b	8AY	H	6.3	0.85	Triode Unit as Class A Amplifier	250	−25.0	——	——	3.7	19000	325	6	——	——		
							Pentode Unit as Class A Amplifier	250	−16.5	250	6.5	34.0	80000	2500	——	7000	3.2		
							Pentode Unit With 6F6-G as Push-Pull Class AB_1 Amplifier	375	Cath. Bias	250	6.7◆	41.0◆	Cathode-Bias Resistor, 470 ohms◆			16000	9.0†		

Discontinued types are shown in light face.

Type	Name	Tube Dimensions and Socket Connections		Cathode Type and Rating			Use Values to right give operating conditions and characteristics for indicated typical use	Plate Supply Volts	Grid Bias ■ Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Transconductance (Grid-plate) μmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts
		Dimen.	S. C.	C. T.	Volts	Amp.											
6AE5-GT	Amplifier Triode	C5	6Q‡	H	6.3	0.3	Class A Amplifier	95	−15.0	——	——	7.0	3500	1200	4.2	——	——
6AE6-G	Twin-Plate Control Tube	D3	7AH	H	6.3	0.15	Remote Cutoff Triode	250	− 1.5	——	——	6.5	25000	1000	25	——	——
								250	−35.0	——	——	0.01	——	——	——	——	——
							Remote Cutoff Triode	250	− 1.5	——	——	4.5	35000	950	33	——	——
								250	− 9.5	——	——	0.01	——	——	——	——	——
6AE7-GT	Twin-Input Triode Amplifier	C2b	7AX	H	6.3	0.5	Class A Amp.▲▲	250	−13.5	——	——	10.0	4650	3000	14	——	——
							Driver For Push-Pull 6AC5-GT In Dynamic-Coupled Amplifier	250	Bias for both 6AC5-GT and 6AE7-GT developed in coupling circuit. Zero-Signal Plate Current of 6AE7-GT = 10 milliamperes. Zero-Signal Plate Current of 6AC5-GT = 64 milliamperes. Power Output is for two 6AC5-GT at stated plate-to-plate load.					10000	9.5
6AF4 6AF4-A	Medium-Mu Triodes	A1 B0	7DK	H	6.3	0.225	Class A Amplifier	100	Cathode Bias Res., 150 ohms			16 20	2270 2130	6600 7500	15 16	——	——
							Oscillator at 950 Mc.	100	Grid Bias Volts, −4 Grid Res., 10000 ohms		22		Grid Current (Approx.), 400 μamp Useful Power Output, 160 milliwatts				
6AF6-G	Electron-Ray Tube Twin Indicator Type	B0c	7AG	H	6.3	0.15	Visual Indicator	Target Voltage, 125 volts. Control-Electrode Voltage, 0 volts; Shadow Angle, 95°; Target Current, 0.65 ma. Control-Electrode Voltage, 80 volts; Angle, 0°.									
								Target Voltage, 250 volts. Control-Electrode Voltage, 0 volts; Shadow Angle, 95°; Target Current, 2.2 ma. Control-Electrode Voltage, 160 volts; Angle, 0°.									
6AG5	Sharp-Cutoff Pentode	B0	7BD	H	6.3	0.3	As Pentode Class A Amplifier	100	Cath. Bias	100 150	1.4 2.0	4.5 6.5	600000 800000	4500 5000	Cath. Bias Res., 180 ohms Cath. Bias Res., 180 ohms		
								250									
							As Triode□ Class A Amplifier	180	Cath. Bias	—— ——	—— ——	7.0 5.5	8000 10000	5700 3800	Cath. Bias Res., 330 ohms Cath. Bias Res., 820 ohms		
								250									
6AG7	Power Pentode	C2	8Y	H	6.3	0.65	Class A Amplifier 4-Mc. Bandwidth Video Circuit	300	Cath. Bias − 2.0	125	7.0	28.0	Cathode-Bias Resistor, 57 ohms. Load Resistance, 3500 ohms. Peak-to-Peak Volts Output, 140 approx.				
6AH4-GT	Medium-Mu Triode	C2b	8EL	H	6.3	0.75	Vertical Deflection Amplifier in TV Receivers	Max. DC Plate Volts, 500 Max. DC Cathode Ma., 60					Max. Peak Positive-Pulse Plate Volts, 2000 Max. Plate Dissipation, 7.5 watts				
6AH6	Sharp-Cutoff Pentode	B0	7BK	H	6.3	0.45	Class A Amplifier	300	Cath. Bias	150	2.5	10.0	500000	9000	Cath. Res., 160 ohms		
6AK5	Sharp-Cutoff Pentode	A1	7BD	H	6.3	0.175	Class A Amplifier	120	Cath. Bias	120	2.5	7.5	300000	5000	Cath. Res., 180 ohms		
								180		120	2.4	7.7	500000	5100			
6AK6	Power Amplifier Pentode	B0	7BK	H	6.3	0.15	Class A Amplifier	180	− 9.0	180	2.5	15	200000	2300	——	10000	1.1
6AL5	Twin Diode	A1	6BT	H	6.3	0.3	Detector Rectifier	Max. Peak Inverse Volts, 330 Max. Peak Plate Ma. per Plate, 54					Max. DC Output Ma. per Plate, 9 Max. Peak Heater-Cathode Volts, 330				

								Target Voltage, 315 volts					Grid Voltage for Pattern Cutoff, −7 volts approx.				
								Grid Voltage = 0 volts					Deflecting-Electrodes—No. 1, No. 2 and No. 3				
6AL7-GT	Electron-Ray Tube Indicator Type	C0a	8CH	H	6.3	0.15	Visual Indicator	Cathode Bias Res., 3300 ohms approx.					Voltage = 0				
6AM4	High-Mu Triode	A1b	9BX	H	6.3	0.225	Class A Amplifier	150	Cath. Bias	—	—	7.5	9500	9000	85	Cath. Bias Res., 100 ohms	
6AM8 **6AM8-A**	Diode—Sharp-Cutoff Pentodes	B0a	9CY	H H●	6.3	0.45	Diode Unit	Max. DC Plate Ma., 5					Max. Peak Heater-Cathode Volts, ±200 DC Volts Not to Exceed, +100				
							Pentode Unit as Class A Amplifier	200	Cath. Bias	150	2.7	11.5	—	7000	Cath. Bias Res., 120 ohms		
6AN4	High-Mu Triode	A1	7DK	H	6.3	0.225	Class A Amplifier	200	Cath. Bias	—	—	13	—	10000	70	Cath. Bias Res., 100 ohms	
							Mixer Service	125	Cath. Bias Res., 270 ohms			7	Conversion Transcond., 2900 micromhos Oscillator Injection Volts (RMS), 1.4				
6AN8	Triode—Sharp-Cutoff Pentode	B0a	9DA	H	6.3	0.45	Triode Unit as Class A Amplifier	200	− 6	—	—	13.0	5750	3300	19	—	—
							Pentode Unit as Class A Amplifier	200	Cath. Bias	150	2.8	9.5	300000	6200	—	Cath. Res., 180 ohms	
6AQ5 **6AQ5-A**	Beam Power Tubes	B1	7BZ	H H●	6.3	0.45	Single Tube Class A Amplifier	180	− 8.5	180	3.0	29.0	58000	3700	—	5500	2.0
								250	−12.5	250	4.5	45.0	52000	4100	—	5000	4.5
							Push-Pull Class AB1 Amplifier	250	−15.0	250	5.0♣	70.0♣	60000	—	—	10000	10.0†
6AQ6	Twin-Diode High-Mu Triode	B0	7BT	H	6.3	0.15	Triode Unit as Class A Amplifier	100	− 1.0	—	—	0.8	61000	1150	70	—	—
								250	− 3.0	—	—	1.0	58000	1200	70	—	—
6AQ7-GT	Twin-Diode High-Mu Triode	C2b	8CK	H	6.3	0.3	Triode Unit as Class A Amplifier	250	− 2	—	—	2.3	44000	1600	70	—	—
6AR5	Power Pentode	B1	6CC	H	6.3	0.4	Class A Amplifier	250	−16.5	250	5.7	34.0	65000	2400	—	7000	3.2
								250	−18	250	5.5	32.0	68000	2300	—	7600	3.4
6AS5	Beam Power Tube	B1	7CV	H	6.3	0.8	Class A Amplifier	150	− 8.5	110	2.0	35	—	5600	—	4500	2.2
6AS8	Diode—Sharp-Cutoff Pentode	B0a	9DS	H	6.3	0.45	Diode Unit	Max. Peak Inverse Plate Volts, 330 Max. Peak Plate Ma., 50					Max. Average Plate Ma., 5.0				
							Pentode Unit as Class A Amplifier	200	Cath. Bias	150	3.0	9.5	300000	6200	Cath. Res., 180 ohms		
6AT6	Twin-Diode High-Mu Triode	B0	7BT	H	6.3	0.3	Triode Unit as Class A Amplifier	100	− 1.0	—	—	0.8	54000	1300	70	—	—
								250	− 3.0	—	—	1.0	58000	1200	70	—	—
6AT8 6AT8-A	Triode—Pentode Converters	B0a	9DW	H H●	6.3	0.45	Triode Unit as 250-Mc. Oscillator	150	Grid Resistor, 2700 ohms Grid Current, 3.6 Ma.				Plate Current, 13 ma. Power Output (Approx.), 0.5 watt				
							Pentode Unit as Mixer√	150	Grid-No. 2 Volts, 150 Mixer Grid-No. 1 Supply Volts, −3.5 Plate Current, 6.2 Ma.				Osc. Volts at Mixer Grid-No. 1 (RMS), 2.6 Mixer Grid-No. 1 Resistor, 120000 ohms Conversion Transconductance, 2100 μmhos		
6AU4-GT	Half-Wave Rectifier	C10b	4CG	H	6.3	1.8	Television Damper Service	Max. Peak Inverse Plate Volts, 4500 (Absolute) Max. Peak Plate Ma., 1050					Max. Average Plate Ma., 175 Max. Plate Dissipation 6.0 watts				
6AU4-GTA	Half-Wave Rectifier	C10b	4CG	H	6.3	1.8	Television Damper Service	Max. Peak Inverse Plate Volts, 4500 (Absolute) Max. Peak Plate Ma., 1150					Max. Average Plate Ma., 190 Max. Plate Dissipation, 6.0 Watts				

Discontinued types are shown in light face.

Type	Name	Tube Dimensions and Socket Connections: Dimen.	S. C.	Cathode Type and Rating: C. T.	Volts	Amp.	Use (Values to right give operating conditions and characteristics for indicated typical use)	Plate Supply Volts	Grid Bias ■ Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Transconductance (Grid-plate) μmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts
6AU5-GT	Beam Power Tube	C2b	6CK	H	6.3	1.25	Horizontal Deflection Amplifier in TV Receivers	Max. DC Plate Volts, 550 Max. DC Cathode Ma., 110				Max. Peak Positive-Pulse Plate Volts, 5500 Absolute Max. Plate Dissipation, 10 watts					
6AU6	Sharp-Cutoff Pentode	B0	7BK	H	6.3	0.3	Class A Amplifier	100 250	Cath. Bias	100 150	2.1 4.3	5.0 10.6	500000 1.0§	3900 5200	Cath. Bias Res., 150 ohms Cath. Bias Res., 68 ohms	—	—
6AU7	Medium-Mu Twin-Triode	B0a	9A	H	3.15 6.3	0.6 0.3	Each Unit as Class A Amplifier	100 250	0 − 8.5	— —	— —	13 10.5	6300 7950	3500 2200	22 17.5	— —	— —
6AU8	Triode—Sharp-Cutoff Pentode	B3	9DX	H●	6.3	0.6	Triode Unit as Class A Amplifier	150	Cath. Res., 150 ohms			9	8200	4900	40	—	—
							Pentode Unit as Class A Amplifier	200	Cath. Bias	—	3.4	15	150000	7000	Cath. Bias Res., 82 ohms		
6AV5-GA 6AV5-GT	Beam Power Tubes	D1a C2b	6CK	H	6.3	1.2	Horizontal Deflection Amplifier in TV Receivers	Max. DC Plate Volts, 550 Max. DC Cathode Ma., 110				Max. Peak Positive-Pulse Plate Volts, 5500 Max. Plate Dissipation, 11 watts					
6AV6	Twin-Diode High-Mu Triode	B0	7BT	H	6.3	0.3	Triode Unit as Class A Amplifier	100 250	− 1.0 − 2.0	— —	— —	0.5 1.2	80000 62500	1250 1600	100 100	— —	— —
6AW8	High-Mu Triode—Sharp-Cutoff Pentode	B3	9DX	H●	6.3	0.6	Triode Unit as Class A Amplifier	200	−2	—	—	4	17500	4000	70	—	—
							Pentode Unit as Class A Amplifier	200	Cath. Bias	150	3.5	13	400000	9000	Cath. Res., 180 ohms		
6AW8-A	High-Mu Triode—Sharp-Cutoff Pentode	B3	9DX	H●	6.3	0.6	Triode Unit as Class A Amplifier	200	− 2	—	—	4	17500	4000	70	—	—
							Pentode Unit as Class A Amplifier**	200	Cath. Bias	150	3.5	13	400000	9000	Cath. Bias Res., 180 ohms		
								•• Features a plate current characteristic with a controlled knee. Max. Plate Dissipation, 3.25 watts									
6AX4-GT	Half-Wave Rectifier	C2b	4CG	H	6.3	1.2	Television Damper Service	Max. Peak Inverse Plate Volts, 4400 Max. Peak Plate Ma., 750 Max. DC Plate Ma., 125				Max. Peak Heater-Cathode Volts: −4400** +300 **DC component must not exceed 900 volts.					
6AX5-GT	Full-Wave Rectifier	C2b	6S	H	6.3	1.2	With Capacitive-Input Filter	Max. AC Volts per Plate (RMS), 450 Max. Peak Inverse Volts, 1250				Max. DC Output Ma., 80 Max. Peak Plate Ma., 375			Min. Total Effec. Supply Imped. per Plate, 105		
							With Inductive-Input Filter	Max. AC Volts per Plate (RMS), 450 Max. Peak Inverse Volts, 1250				Max. DC Output Ma., 125 Max. Peak Plate Ma., 375			Min. Value of Input Choke, 10 henries		
6AZ8	Medium-Mu Triode—Semiremote-Cutoff Pentode	B0a	9ED	H	6.3	0.45	Triode Unit as Class A Amplifier	200	− 6	—	—	13	5750	3300	19	—	—
							Pentode Unit as Class A Amplifier	200	Cath. Bias	150	3	9.5	300000	6000	Cath. Res., 180 ohms		

6B4-G	Power Amplifier Triode	E2	5S	F	6.3	1.0	Class A Amplifier	250	−45.0	——	——	60.0	800	5250	4.2	2500	3.20
							Push-Pull Class AB$_1$ Amplifier	325 325	Cath. Bias, 850 ohms ♣ −68 volts, fixed bias			80.0 ♣ 80.0 ♣	——	——	——	5000 3000	10.0† 15.0†
6B5	Direct-Coupled Power Amplifier	D12a	6AS	H	6.3	0.8	Class A Amplifier	For other characteristics, refer to Type 6N6-G.									
6B6-G	Twin-Diode High-Mu Triode	D8	7V‡	H	6.3	0.3	Triode Unit as Amplifier	For other characteristics, refer to Type 6SQ7.									
6B7 6B7S	Twin-Diode Remote-Cutoff Pentode	D9	7D	H	6.3	0.3	Pentode Unit as Amplifier	Input Triode: Plate Volts, 300 max; Grid Volts, 0; Plate Ma., 8; AF Signal Volts (Peak), 21 Output Triode: Plate Volts, 300 max.; Plate Ma., 45; Plate Res., 24000 ohms; Load Resistance, 7000 ohms; Power Output, 4 watts.									
6B8	Twin-Diode Pentode	C1	8E	H	6.3	0.3	Pentode Unit as Amplifier	For other characteristics, refer to Type 12C8.									
6B8-G	Twin Diode—Remote-Cutoff Pentode	D8	8E‡	H	6.3	0.3	Pentode Unit as RF Amplifier	100 250	− 3.0 − 3.0	100 125	1.7 2.3	5.8 9.0	300000 600000	950 1125	——	——	——
							Pentode Unit as AF Amplifier	90 × 300 ×	Cath. Bias, 3500 ohms. Screen Resistor = 1.1 meg. Cath. Bias, 1600 ohms. Screen Resistor = 1.2 meg.				Grid Resistor,** 0.5 megohm.		Gain per stage = 55 Gain per stage = 79	
6BA6	Remote-Cutoff Pentode	B0	7BK	H	6.3	0.3	Class A Amplifier	100 250	Cath. Bias	100 100	4.4 4.2	10.8 11.0	250000 1.0§	4300 4400	Cath. Bias Res., 68 ohms Cath. Bias Res., 68 ohms		
6BA7	Pentagrid Converter ▲	B3	8CT	H	6.3	0.3	Converter	100 250	− 1.0 − 1.0	100 100	10.2 10.0	3.6 3.8	500000 1.0§	Grid-No. 1 Resistor, 20000 ohms Conversion Transcond., 950 micromhos			
6BA8-A	Medium-Mu Triode Sharp-Cutoff Pentode	B3	9DX	H●	6.3	0.6	Triode Unit as Class A Amplifier	200	− 8	—	—	8	6700	2700	18	——	——
							Pentode Unit as Class A Amplifier	200	Cath. Bias	150	3.5	13	400000	9000	——	Cath. Bias Res., 180 ohms	
6BC4	Medium-Mu Triode	A1b	9DR	H	6.3	0.225	Class A Amplifier	150	Cath. Bias	——	——	14.5	4800	10000	48	Cath. Res., 100 ohms	
6BC5	Sharp-Cutoff Pentode	B0	7BD	H	6.3	0.3	Class A Amplifier	250	Cath. Bias	150	2.1	7.5	800000	5700	Cath. Bias Res., 180 ohms		
6BC7	Triple Diode	B0a	9AX	H	6.3	0.45	DC Restorer in Color TV	Each Diode: Max. Peak Inverse Plate Volts, 300 Max. Peak Plate Ma., 54							Max. Average Plate Ma., 12		
6BC8	Medium-Mu Twin-Triode	B0a	9AJ	H	6.3	0.4	Each Unit as Class A Amplifier	150	Cath. Res., 220 ohms			10	——	6200	35	——	——
6BD4	Sharp-Cutoff Beam Triode	E0	8FU	H	6.3	0.6	Voltage-Control	Max. DC Plate Volts, 20000 Max. Unregulated DC Supply Volts, 40000							Max. DC Plate Ma., 1.5 Max. Plate Dissipation, 20.0 watts		
6BD4-A	Sharp-Cutoff Beam Triode	E0	8FU	H	6.3	0.6	Voltage-Control	Max. DC Plate Volts, 27000 Max. Unregulated DC Supply Volts, 55000							Max. DC Plate Ma., 1.5 Max. Plate Dissipation, 25.0 watts		
6BD6	Remote-Cutoff Pentode	B0	7BK	H	6.3	0.3	Class A Amplifier	100 250	− 1 − 3	100 100	5.0 3.0	13.0 9.0	150000 800000	2550 2000	——	——	——
6BE6	Pentagrid Converter▲	B0	7CH	H	6.3	0.3	Converter	100 250	− 1.5 − 1.5	100 100	7.0 6.8	2.6 2.9	400000 1.0§	Grid ❶1 Resistor, 20000 ohms Conversion Transcond., 475 micromhos			
6BF5	Beam Power Tube	B1	7BZ	H	6.3	1.2	Class A Amplifier	110	− 7.5	110	4.0	36.0	12000	7500	——	2500	1.9
							Vertical Deflection Amplifier in TV Receivers□	Max. DC Plate Volts, 250 Max. DC Cathode Ma. 40				Absolute Max. Peak Positive-Pulse Plate Volts, 900 Max. Plate Dissipation, 5 watts				

Discontinued types are shown in light face.

Type	Name	Tube Dimensions and Socket Connections: Dimen.	S. C.	Cathode Type and Rating: C. T.	Volts	Amp.	Use (Values to right give operating conditions and characteristics for indicated typical use)	Plate Supply Volts	Grid Bias ■ Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Transconductance (Grid-plate) μmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts
6BF6	Twin-Diode Triode	B0	7BT	H	6.3	0.3	Triode Unit as Class A Amplifier	250	− 9.0	——	——	9.5	8500	1900	16	Power Output, 300 milliwatts	
6BG6-G **6BG6-GA**	Beam Power Tubes	F1 E	8BT	H	6.3	0.9	Horizontal Deflection Amplifier in TV Receivers	Max. DC Plate Volts, 700 Max. DC Plate Ma., 110					Max. Peak Positive-Pulse Plate Volts, 6600 (Abs.) Max. Plate Dissipation, 20 watts				
6BH6	Sharp-Cutoff Pentode	B0	7CM	H	6.3	0.15	Class A Amplifier	100 250	− 1.0 − 1.0	100 150	1.4 2.9	3.6 7.4	700000 1.4§	3400 4600	——	——	——
6BH8	Triode—Sharp-Cutoff Pentode	B3	9DX	H●	6.3	0.6	Triode Unit as Class A Amplifier	150	− 5	——	——	9.5	5150	3300	17	——	——
							Pentode Unit as Class A Amplifier	200	Cath. Bias	125	3.4	15	150000	7000	Cath. Bias Res., 82 ohms		
6BJ6	Remote-Cutoff Pentode	B0	7CM	H	6.3	0.15	Class A Amplifier	100 250	− 1.0 − 1.0	100 100	3.5 3.3	9.0 9.2	250000 1.3§	3650 3600	——	——	——
6BK4	Sharp-Cutoff Beam Triode	E2a	8GC	H	6.3	0.2	Voltage-Control	Max. DC Plate Volts, 25000 Max. Unregulated DC Supply Volts, 55000						Max. DC Plate Ma., 1.5 Max. Plate Dissipation, 25 Watts			
6BK5	Beam Power Tube	B3	9BQ	H	6.3	1.2	Class A Amplifier	250	− 5	250	3.5	35	100000	8500	——	6500	3.5
6BK7-A **6BK7-B**	Medium-Mu Twin Triodes	B0a	9AJ	H H●	6.3	0.45	Each Unit as Class A Amplifier	150	Cathode Bias Res., 56 ohms			18	4600	9300	43	Cutoff Volts, −11	
6BL4	Half-Wave Rectifier	D11a	8GB	H	6.3	3.0	Television Damper Service	Max. Peak Inverse Plate Volts, 4500 (Abs.) Max. Peak Plate Ma., 1200 Max. DC Plate Ma., 200					Max. Peak Heater-Cathode Volts $\begin{pmatrix}-4500^{*}\text{ (Abs.)}\\+300\end{pmatrix}$ *DC component not to exceed −900 volts				
6BL7-GT	Medium-Mu Twin Triode	C2b	8BD	H	6.3	1.5	Vertical Deflection Amplifier in TV Receivers	Max. DC Plate Volts, 500 Max. DC Cathode Ma. (Each Unit), 60					Max. Peak Positive-Pulse Plate Volts, 1800 Max. Plate Dissipation (Each Unit), 10 watts				
6BN4	Medium-Mu Triode	B0	7EG	H	6.3	0.2	Class A Amplifier	150	Cathode Bias Res., 150 ohms			9	6300	6800	43	——	——
6BN6	Beam Pentode	B1	7DF	H	6.3	0.3	Limiter and Discriminator Service	Max. DC Plate Volts, 300 Max. Positive-Peak Grid-No. 1 Volts, 55 Max. Cathode Ma., 11.5					Max. Grid-No. 2 Volts, 100 Max. Peak Heater-Cathode Volts, 90				
6BN8	Twin-Diode High-Mu Triode	B3	9ER	H●	6.3	0.6	Triode Unit as Class A Amplifier	100 250	− 1 − 3	——	——	1.5 1.6	21000 28000	3500 2500	75 70	——	——
6BQ6-GT	Beam Power Tube	C11	8AM	H	6.3	1.2	Horizontal Deflection Amplifier	Max. DC Plate Volts, 550 Max. DC Cathode Ma., 110					Max. Peak Positive-Pulse Plate Volts, 5500 (Abs.) Max. Plate Dissipation, 11 watts				
6BQ6-GTB/ 6CU6	Beam Power Tube	C11	8AM	H	6.3	1.2	Horizontal Deflection Amplifier	Max. DC Plate Volts, 600 Max. DC Cathode Ma., 112.5					Max. Peak Positive-Pulse Plate Volts, 6000 (Abs.) Max. Plate Dissipation, 11 Watts				

6BQ7	Medium-Mu Twin Triode	B0a	9AJ	H	6.3	0.4	Each Unit as Class A Amplifier	150	Cathode Bias Res., 220 ohms			9.0	5800	6000	35	Cutoff Volts, −10	
6BQ7-A	Medium-Mu Twin Triode	B0a	9AJ	H	6.3	0.4	Each Unit as Class A Amplifier	150	Cathode Bias Res., 220 ohms			9.0	6100	6400	39	Cutoff Volts, −10	
6BR8	Medium-Mu Triode Sharp-Cutoff Pentode	B0a	9FA	H	6.3	0.4	Triode Unit as Class A Amplifier	150	Cath. Bias	——	——	18	5000	8500	40	Cath. Bias Res., 56 ohms	
							Pentode Unit as Class A Amplifier	250	Cath. Bias	110	3.5	10	400000	5200	——	Cath. Bias Res., 68 ohms	
							Cascode Amplifier	250	− 1	——	——	16	——	10000	——	——	——
6BS8	Medium-Mu Twin Triode	B0a	9AJ	H	6.3	0.4	Each Unit as Class A Amplifier	150	Cath. Bias	——	——	10	5000	7200	36	Cath. Bias Res., 220 ohms	
6BU8	Sharp-Cutoff Twin Pentode	B3	9FG	H	6.3	0.3	Class A Amplifier	100	‡	67.5	6.5	——	Grid-No. 3 volts, each section, −10				
							With Both Sections Operating	100	‡	67.5	3.3	2.2	Grid-No. 3 volts, each section, 0				
								‡Grid current adjusted for 100 microamperes DC										
6BX7-GT	Medium-Mu Twin Triodes	C2b	8BD	H	6.3	1.5	Vertical Deflection Oscillator	Max. DC Plate Volts, 500 Max. Plate Dissipation: 10 watts either plate; 12 watts both plates								Max. DC Cathode Ma., 180	
							Vertical Deflection Amplifier	Max. DC Plate Volts, 500 Max. DC Cathode Ma., 180					Max. Peak Positive-Pulse Plate Volts, 2000 (Abs.) Max. Plate Dissipation: 10 watts either plate; 12 watts both plates.				
6BY5-GA	Full-Wave Rectifier	C11a	6CN	H	6.3	1.6	Television Damper Service	Max. Peak Inverse Plate Volts, 3000 (Abs.) Max. Peak Plate Ma., 525 Max. DC Plate Ma., 175								Peak Heater-Cathode Volts: +100 Max., −450 Max.	
6BY6	Pentagrid Amplifier	B0	7CH	H	6.3	0.3	Sync Separator and Sync Clipper	10	0	25	3.5	1.4	Grid-No. 3 Volts, 0				
6BZ6	Semiremote-Cutoff Pentode	B0	7CM	H	6.3	0.3	Class A Amplifier	200	Cath. Bias	150	2.6	11	0.6§	6100	Cath. Bias Res., 180 ohms		
6BZ7	Medium-Mu Twin-Triode	B0a	9AJ	H	6.3	0.4	Each Unit as Class A Amplifier	150	Cathode Bias Res., 220 ohms			10	5600	6800	38	Cutoff Volts, −11	
6C4	HF Power Triode	B0	6BG	H	6.3	0.15	Class A Amplifier	100	0	——	——	11.8	6250	3100	19.5	——	——
								250	− 8.5			10.5	7700	2200	17		
							Class C Amplifier	300	−27.0	——	——	25.0	Grid Current, 7 ma. Driving Power, 0.35 watt			——	5.5
6C5 **6C5-GT**	Medium-Mu Triodes	B2 C3	6Q 6Q§	H	6.3	0.3	Class A Amplifier	250	− 8.0	——	——	8.0	10000	2000	20	——	——
								90♥	Cath. Bias, 6400 ohms.			Grid Resistor,** 0.25 megohm.				Gain per stage = 11	
								300♥	Cath. Bias, 5300 ohms.							Gain per stage = 13	
							Bias Detector	250	−17.0 approx. Plate current to be adjusted to 0.2 milliampere with no signal.								
6C6	Sharp-Cutoff Pentode	D13a	8F	H	6.3	0.3	Amplifier Detector	For other characteristics, refer to Type 6J7.									
6C7	Twin-Diode Triode	D9	7G	H	6.3	0.3	Triode Unit as Class A Amplifier	250	− 9.0	——	——	4.5	16000	1250	20	——	——
6C8-G	Twin-Triode Amplifier	D8	8G	H	6.3	0.3	Each Unit as Amplifier	250	− 4.5	——	——	3.2	22500	1600	36	——	——
6CB5 **6CB5-A**	Beam Power Tubes	E0a E0	8GD	H	6.3	2.5	Horizontal Deflection Amplifier in TV Receivers	Max. DC Plate Volts, 700 Max. DC Plate Ma., 200					Max. Peak Positive-Pulse Plate Volts, 6800 (Abs.) Max. Plate Dissipation, 23 Watts				

Discontinued types are shown in light face.

RCA Type	Name	Tube Dimensions and Socket Connections: Dimen.	Tube Dimensions and Socket Connections: S. C.	Cathode Type and Rating: C. T.	Cathode Type and Rating: Volts	Cathode Type and Rating: Amp.	Use (Values to right give operating conditions and characteristics for indicated typical use)	Plate Supply Volts	Grid Bias ■ Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Transconductance (Grid-plate) μmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts
6CB6	Sharp-Cutoff Pentode	B0	7CM	H	6.3	0.3	Class A Amplifier	200	Cath. Bias	150	2.8	9.5	600000	6200	Cath. Bias Res., 180 ohms		
6CD6-G **6CD6-GA**	Beam Power Tubes	F1 E0	5BT	H	6.3	2.5	Horizontal Deflection Amplifier in TV Receivers	Max. DC Plate Volts, 700 Max. DC Plate Ma., 170					Max. Peak Positive-Pulse Plate Volts, 6000 Max. Plate Dissipation, 15 watts				
6CF6	Sharp-Cutoff Pentode	B0	7CM	H	6.3	0.3	Class A Amplifier	200	− 6.5	150	2.8	9.5	600000	6200	Cath. Bias Res., 180 ohms		
6CG7	Medium-Mu Twin-Triode	B3	9AJ	H●	6.3	0.6	Horizontal Deflection Oscillator in TV Receivers	Max. DC Plate Volts, 300 Max. Peak Neg.-Pulse Grid Volts, 600					Max. Peak Cathode Ma., 300 Max. DC Cathode Ma., 20		Dissipation Watts either plate, 3.5; both plates, 5.		
							Vertical Deflection Oscillator in TV Receivers	Max. DC Plate Volts, 300 Max. Peak Neg.-Pulse Grid Volts, 400					Max. Peak Cathode Ma., 70 Max. DC Cathode Ma., 20		Dissipation Watts either plate, 3.5; both plates, 5.		
6CG8 **6CG8-A**	Triode Pentode Converter	B0a	9GF	H H●	6.3	0.45	Triode Unit as 250-Mc. Oscillator	150	Grid Resistor, 2700 ohms Grid Current, 3.6 ma.				Plate Current, 13 ma. Power Output (Approx.), 0.5 watt				
							Pentode Unit as Mixer√	150	Grid-No. 2 Volts, 150 Mixer Grid-No. 1 Supply Volts, −3.5 Conversion Transcond., 2100 μmhos				Plate Current, 6.2 ma. Mixer Grid-No. 1 Resistor, 120000 ohms Osc. Volts at Mixer Grid-No. 1 (RMS), 2.6				
							Triode Unit as Class A Amplifier	100	Cath. Bias	—	—	8.5	6900	5800	40	Cath. Bias Res., 100 ohms	
							Pentode Unit as Class A Amplifier	250	Cath. Bias	150	1.6	7.7	750000	4600	—	Cath. Bias Res., 200 ohms	
6CH8	Medium-Mu Triode Sharp-Cutoff Pentode	B0a	9FT	H	6.3	0.45	Triode Unit as Class A Amplifier	200	− 6	—	—	13	5750	3300	19	—	—
							Pentode Unit as Class A Amplifier	200	Cath. Bias	150	2.8	9.5	300000	6200	—	Cath. Bias Res., 120 ohms	
6CL6	Power Pentode	B3	9BV	H	6.3	0.65	Class A Amplifier 4-Mc. Bandwidth Video Circuit	300	− 2	300	7.0	30.0	Load Resistor, 3900 ohms Peak-to-Peak Grid-No. 1 Signal Volts, 3 Peak-to-Peak Output Volts, 132 approx.				
6CM7	Dual Triode With Dissimilar Pentode	B3	9ES	H●	6.3	0.6	Vertical Deflection Oscillator in TV Receivers	Unit No. 1: Max. DC Plate Volts, 500 Max. Peak Neg.-Pulse Grid Volts, 200					Max. Peak Cathode Ma., 70 Max. DC Cathode Ma., 15		Max. Plate Dissipation Watts, 1.25		
							Vertical Deflection Amplifier in TV Receivers	Unit No. 2: Max. DC Plate Volts, 500 Max. Peak Positive-Pulse Plate Volts, 2200 (Abs.)					Max. Peak Neg.-Pulse Grid Volts, 200 Max. Peak Cathode Ma., 70			
6CN7	Twin Diode High-Mu Triode	B0a	9EN	H	●3.15 6.3	0.6 0.3	Triode Unit as Class A Amplifier	100 250	− 1 − 3	—	—	0.8 1	54000 58000	1300 1200	70 70	—	—

6CQ8	Medium-Mu Triode Sharp-Cutoff Tetrode	B0a	9GE	H●	6.3	0.45	Triode Unit as Class A Amplifier	125	Cath. Bias	——	——	15	5000	8000	40	Cath. Bias Res., 56 ohms	
							Tetrode Unit as Class A Amplifier	125	− 1	125	4.2	12	140000	5800	——	——	——
6CS6	Pentagrid Amplifier	B0	7CH	H	6.3	0.3	Sync Separator and Sync Clipper	10	——	30	4.5	2	Grid-No. 3 Volts, 0 Grid-No. 1 Volts, 0		——	——	——
							Class A Amplifier	100	− 1	30	5.5	0.8	700000	——	Grid-No. 3 Volts, −1 Transcond., 1500 μmhos Grid-No. 3 Volts, 0 Transcond., 0 μmhos		
								100	0	30	1.3	1	1§	1100			
6CU5	Beam Power Tube	B1	7CV	H	6.3	1.2	Class A Amplifier	120	− 8	110	4	49	10000	7500	——	2500	2.3
6CU8	Medium-Mu Triode Sharp-Cutoff Pentode	B0a	9GM	H●	6.3	0.45	Triode Unit as Class A Amplifier	200■	− 6	——	——	13	5750	3300	19	——	——
							Pentode Unit as Class A Amplifier	200	Cath. Bias	150	2.8	9.5	300000	6200	——	Cath. Bias Res., 180 ohms	
6CZ5	Beam Power Tube	B3	9HN	H	6.3	0.45	Vertical Deflection Amplifier	Max. DC Plate Volts, 315 Max. Peak Cathode Ma., 140					Max. Peak Positive-Pulse Plate Volts, 2200 (Abs.) Max. Plate Dissipation, 10 watts				
							Class A Amplifier	250	−14	250	4.6	46	73000	4800	——	5000	5.4
							Push-Pull Class AB_1 Amplifier	350	−23.5	280	3	46	——	——	——	7500	21.5
6D6	Remote-Cutoff Pentode	D13a	8F	H	6.3	0.3	Amplifier Mixer	For other characteristics, refer to Type 6U7-G.									
6D7	Sharp-Cutoff Pentode	D13a	7H	H	6.3	0.3	Amplifier Detector	For other characteristics, refer to Type 6J7.									
6D8-G	Pentagrid Converter ●	D8	8A‡	H	6.3	0.15	Converter	135	− 3.0	67.5	1.7	1.5	600000	Anode-Grid (#2): 250 max. volts, 4.3 ma. Oscillator-Grid (#1) Resistor ●, Conversion Transcond., 550 micromhos.			
								250	− 3.0	100	2.6	3.5	400000				
6DC6	Semiremote-Cutoff Pentode	B0	7CM	H	6.3	0.3	Class A Amplifier	200	Cath. Bias	150	3.0	9.0	500000	5500	Cath. Bias Res., 180 ohms		
6DE6	Sharp-Cutoff Pentode	B0	7CM	H	6.3	0.3	Class A Amplifier	200	Cath. Bias	150	2.8	9.5	0.6§	6200	Cath. Bias Res., 180 ohms		
6DG6-GT	Beam Power Tube	C2b	7S	H	6.3	1.2	Class A Amplifier	110	− 7.5	110	4	49	13000	8000	——	2000	2.1
								200	Cath. Bias	125	2.2	46	28000	8000	Cath. Bias Res., 180 ohms	4000	3.8
6DQ5	Beam Power Tube	D11	8JC	H	6.3	2.5	Horizontal Deflection Amplifier in TV Receivers	Max. DC Plate Volts, 900 Max. DC Cathode Ma., 285					Max. Peak Positive-Pulse Plate Volts, 7000 (Abs.) Max. Plate Dissipation, 24 watts				
6DQ6-A	Beam Power Tube	D6	6AM	H	6.3	1.2	Horizontal Deflection Amplifier in TV Receivers	Max. DC Plate Volts, 700 Max. DC Cathode Ma., 140					Max. Peak Positive-Pulse Plate Volts, 6000 (Abs.) Max. Plate Dissipation, 15 watts				
6DS5	Beam Power Tube	B1	7BZ	H	6.3	0.8	Class A Amplifier	200	− 7.5	200	3	35	28000	6000	——	6000	3
								250	− 8.5	200	3	29	28000	5800	——	8000	3.8

Discontinued types are shown in light face.

Type	Name	Tube Dimensions and Socket Connections: Dimen.	Tube Dimensions and Socket Connections: S. C.	Cathode Type and Rating: C. T.	Cathode Type and Rating: Volts	Cathode Type and Rating: Amp.	Use (Values to right give operating conditions and characteristics for indicated typical use)	Plate Supply Volts	Grid Bias ■ Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Transconductance (Grid-plate) μmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts
6DT6	Sharp-Cutoff Pentode	B0	7CM	H	6.3	0.3	Class A Amplifier	150	Cath. Bias	100	2.1	1.1	150000	515	Cath. Bias Res., 560 ohms		
							FM Detector	250	Cath. Bias	100	5.5	0.22	Grid-No. 3 Volts, −6; Cath. Res., 560 ohms Plate Load Resistor, 270000 ohms				
6DT8	High-Mu Twin Triodes	B0a	9DE	H	6.3	0.3	Class A Amplifier	100	Cath. Bias Res., 270 ohms			3.7	15000	4000	60	——	——
								250	Cath. Bias Res., 200 ohms			10	10900	5500	60	——	——
6E5	Electron-Ray Tube	D4	6R	H	6.3	0.3	Visual Indicator	Plate & Target Supply = 125 volts. Triode Plate Resistor = 1.0 meg. Target Current = 0.8 ma. Grid Bias, −4.0 volts; Shadow Angle, 0°. Bias, 0 volts; Angle, 90°; Plate Current, 0.1 ma.									
								Plate & Target Supply = 250 volts. Triode Plate Resistor = 1.0 meg. Target Current = 2.0 ma. Grid Bias, −7.5 volts; Shadow Angle, 0°. Bias, 0 volts; Angle, 90°; Plate Current, 0.2 ma.									
6E6	Twin-Triode Power Amplifier	D12a	7B	H	6.3	0.6	Push Pull Class A Amplifier	180	−20.0	——	——	Power Output is for one tube at stated plate-to-plate load.				15000	0.75
								250	−27.5							14000	1.60
6E7	Remote-Cutoff Pentode	D13a	7H	H	6.3	0.3	Amplifier	For other characteristics, refer to Type 6U7-G.									
6F5	High-Mu Triodes	C1	5M	H	6.3	0.3	Class A Amplifier	100	− 1.0	——	——	0.4	85000	1150	100	——	——
6F5-GT		C2b	5M‡					250	− 2.0			0.9	66000	1500	100		
								90 ✖ 300 ✖	Cath. Bias, 8800 ohms. Cath. Bias, 3200 ohms.			Grid Resistor, **0.5 megohm.			Gain per stage = 43 Gain per stage = 63		
6F6	Power Pentodes	C2	7S	H	6.3	0.7	Pentode Class A Amplifier	250	-16.5	250	6.5	34.0	80000	2500	——	7000	3.2
								285	−20.0	285	7.0	38.0	78000	2550		7000	4.8
							Triode— Class A Amplifier	250	−20.0	——	——	31.0	2600	2600	6.8	4000	0.85
6F6-G		D11b	7S‡				Pentode Push-Pull Class A Amplifier	315	Cath. Bias	285	12.0◆	62.0◆	Cath. Bias Resistor, 320 ohms◆			10000	10.5†
								315	−24.0	285	12.0◆	62.0◆	——	——	——	10000	11.0†
6F6-GT		C10	7S‡				Pentode Push-Pull Class AB_1 Amplifier	375	Cath. Bias	250	8.0◆	54.0◆	Cath. Bias Resistor, 340 ohms◆			10000	19.0†
								375	−26.0	250	5.0◆	34.0◆	——	——	——	10000	18.5†
							Triode Push-Pull□ Class AB_1 Amplifier	350	Cath. Bias	——	——	50.0◆ 48.0◆	Cath. Bias Resistor, 730 ohms◆			10000 6000	9.0† 13.0†
								350	−38.0				——	——	——		
6F7	Triode—Remote-Cutoff Pentode	D9	7E	H	6.3	0.3	Triode Unit as Class A Amplifier	100	(− 3.0 min.	——	——	3.5	16000	500	8	——	——
							Pentode Unit as Class A Amplifier	100	(− 3.0	100	1.6	6.3	290000	1050	——	——	——
								250	min.	100	1.5	6.3	850000	1100			
							Pentode Unit as Mixer	250	−10.0	100	0.6	2.8	Oscillator Peak Volts = 7.0. Conversion Transcond. = 300 micromhos.				
6F8-G	Twin-Triode Amplifier	D8	8G	H	6.3	0.6	Each Unit as Amplifier	For other characteristics, refer to Type 6J5.									

6G6-G	Power Amplifier Pentode	D2	7S‡	H	6.3	0.15	Pentode Class A Amplifier	135 180	− 6.0 − 9.0	135 180	2.0 2.5	11.5 15.0	170000 175000	2100 2300	——	12000 10000	0.6 1.1
							Triode□ Class A Amplifier	180	−12.0	——	——	11.0	4750	2000	9.5	12000	0.25
6H6 6H6-GT	Twin Diodes	A1a C3	7Q 7Q‡‡	H	6.3	0.3	Voltage Doubler Half-Wave Rectifier	Max. AC Supply Volts per Plate (RMS), 150 Min. Total Effect, Plate-Supply Imped. per Plate: half-wave, 30 ohms; full-wave, 15 ohms. Max. AC Plate Volts (RMS), 150 Max. DC Output Ma., 8 per Plate						Max. DC Output Ma., 8. min. Min. Total Effective Plate-Supply Impedance: up to 117 volts, 15 ohms; at 150 volts, 40 ohms.				
6J5 **6J5-GT**	Medium-Mu Triodes	B2 C3	6Q 6Q‡‡	H	6.3	0.3	Class A Amplifier	90 250	0 − 8.0	——	——	10.0 9.0	6700 7700	3000 3600	20 20	——	——
6J6	Medium-Mu Twin Triode	B0	7BF	H	6.3	0.45	Each Unit as Class A Amplifier	100	Cathode Resistor, for both units, 30 ohms			8.5	7100	5300	38	——	——
							Push-Pull Class C Amplifier	150	−10.0	Cath. Res., 320 ohms, both units		30.0	Grid Current, 16 ma. Driving Power, 0.35 watt.			——	3.5
6J7 6J7-G **6J7-GT**	Sharp-Cutoff Pentodes	C1 D8 C3	7R 7R‡‡ 7R‡‡	H	6.3	0.3	Pentode Class A AF Amplifier	90 × 300 ×	Cath. Bias, 2600 ohms. Screen Resistor = 1.2 meg. Cath. Bias, 1200 ohms. Screen Resistor = 1.2 meg.			2.0 1.0 + §	1185 1225	——	——	——	——
							Pentode Bias Detector	250	− 4.3	100	Cathode Current 0.43 ma.		——	Grid Resistor,** 0.5 megohm. Plate Resistor, 500000 ohms. Grid Resistor,** 250000 ohms.		Gain per stage = 140	
							Triode‡‡ Class A Amplifier	180 250	− 5.3 − 8.0	——	——	5.3 6.5	11000 10500	1800 1900	20 20	——	——
6J8-G	Triode-Heptode Converter	D8	8H	H	6.3	0.3	Triode Unit as Oscillator	100 250 ♭	Triode-Grid Resistor, 50000 ohms			4.0 5.8	Triode-Grid & Heptode-Grid Current, 0.3 ma. Triode-Grid & Heptode-Grid Current, 0.4 ma.				
							Heptode Unit as Mixer	100 250	− 3.0 − 3.0	100 100	3.0 2.9	1.4 1.3	900000 4.0§	Conversion Transcond., 260 micromhos. Conversion Transcond., 290 micromhos.			
6K5-GT	High-Mu Triode	C3	5U	H	6.3	0.3	Class A Amplifier	100 250	− 1.5 − 3.0	——	——	0.35 1.1	78000 50000	900 1400	70 70	——	——
6K6-GT	Power Pentode	D2b	7S‡	H	6.3	0.4	Single-Tube Class A Amplifier	100 250 315	− 7.0 −18.0 −21.0	100 250 250	1.6 5.5 4.0	9.0 32.0 25.5	104000 90000 110000	1500 2300 2100	—— —— ——	12000 7600 9000	0.35 3.40 4.50
							Push-Pull Class A Amplifier	285 285	−25.5 Cath. Bias	285 285	9.0♣ 9.0♣	55.0♣ 55.0♣	—— Cath. Bias Resistor, 400 ohms.♣	——	——	12000 12000	10.5† 9.8†
6K7 6K7-G **6K7-GT**	Remote-Cutoff Pentodes	C1 D8 C3	7R 7R† 7R‡‡	H	6.3	0.3	Class A Amplifier	100 250	− 1.0 − 3.0	100 125	2.7 2.6	9.5 10.5	150000 600000	1650 1650	—— ——	——	——
							Mixer in Superheterodyne	250	−10.0	100	——	——	Oscillator Peak Volts = 7.0				
6K8 6K8-G 6K8-GT	Triode-Hexode Converters	C1 D8 C10	8K 8K† 8K‡‡	H	6.3	0.3	Triode Unit as Oscillator	100	Triode-Grid Resistor, 50000 ohms			3.8	Triode-Grid & Hexode-Grid Current, 0.15 ma.				
							Hexode Unit as Mixer	100 250	− 3.0 − 3.0	100 100	6.2 6.0	2.3 2.5	400000 600000	Conversion Transcond., 325 micromhos. Conversion Transcond., 350 micromhos.			
6L5-G	Medium-Mu Triode	D3	6Q†	H	6.3	0.15	Class A Amplifier	135 250	− 5.0 − 9.0	——	——	3.5 8.0	11300 9000	1500 1900	17 17	——	——

Discontinued types are shown in light face.

Type	Name	Tube Dimensions and Socket Connections: Dimens.	Tube Dimensions and Socket Connections: S. C.	Cathode Type and Rating: C. T.	Cathode Type and Rating: Volts	Cathode Type and Rating: Amp.	Use (Values to right give operating conditions and characteristics for indicated typical use)	Plate Supply Volts	Grid Bias ■ Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Transconductance (Grid-plate) μmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts
6L6	Beam Power Tubes	D7	7AC	H	6.3	0.9	Single-Tube	250	−14.0	250	5.0	72.0	—	—	—	2500	6.5
							Class A Amplifier	250	Cath. Bias	250	5.4	75.0	Cath. Bias Resistor, 170 ohms.			2500	6.5
							Push-Pull	270	−17.5	270	11.0♠	134.0♠	—	—	—	5000	17.5†
							Class A Amplifier	270	Cath. Bias	270	11.0♠	134.0♠	Cath. Bias Resistor, 125 ohms. ♠			5000	18.5†
6L6-G		E2	7AC‡				Push-Pull	360	−22.5	270	5.0♠	88.0♠	—	—	—	6600	26.5†
							Class AB_1 Amplifier	360	Cath. Bias	270	5.0♠	88.0♠	Cath. Bias Resistor, 250 ohms. ♠			9000	24.5†
							Push-Pull	360	−18.0	225	3.5♠	78.0♠	—	—	—	6000	31.0†
							Class AB_1 Amplifier	360	−22.5	270	5.0♠	88.0♠	—	—	—	3800	47.0†
6L6-GB		D6	7AC				Single Triode□	250	−20.0	—	—	40.0	1700	4700	8.0	5000	1.4
							Class A Amplifier	250	Cath. Bias			40.0	Cath. Bias Resistor, 490 ohms.			6000	1.3
6L7	Pentagrid Mixers▲	C1	7T	H	6.3	0.3	Mixer in Superheterodyne	250	− 3.0	100	7.1	2.4	Oscillator-Grid (No. 3) Bias, −10 volts. Grid-No. 3 Peak Swing, 12 volts minimum. Conversion Transcond., 375 micromhos.				
6L7-G		D8	7T‡				Class A Amplifier	250	− 3.0♦	100	6.5	5.3	600000	1100	—	—	—
6N6-G	Direct-Coupled Power Triode	D11b	7AU	H	6.3	0.8	Class A Amplifier	Output Triode: Plate Volts, 300; Plate Ma., 45; Load, 7000 ohms. Triode: Plate Volts, 300; Grid Volts, 0; A-F Signal Volts (Peak), 21; Plate Ma., 8.								Input	4.0
6N7	High-Mu Twin Power Triodes	C2	8B	H	6.3	0.8	Class A Amplifier (as Driver)°	250	− 5.0	—	—	6.0	11300	3100	35	20000	exceeds
6N7-GT		C2b	8B‡					294	− 6.0			7.0	11000	3200	35	or more	0.4
							Class B Amplifier	300	0	—	—	Power Output is for one tube at stated plate-to-plate load.				8000	10.0
6P5-GT	Medium-Mu Triode	C2b	6Q‡	H	6.3	0.3	Amplifier Detector	For other characteristics, refer to Type 76.									
6P7-G	Triode-Pentode	D8	7U	H	6.3	0.3	Amplifier and Converter	For other characteristics, refer to Type 6F7.									
6Q7	Twin-Diode High-Mu Triodes	C1	7V	H	6.3	0.3	Triode Unit as Class A Amplifier	100	− 1.0	—	—	0.8	58000	1200	70	—	—
6Q7-G		D8	7V‡					250	− 3.0			1.1	58000	1200	70		
6Q7-GT		C3	7V♀					90×	Cath. Bias, 7600 ohms.			Grid Resistor,** 0.5 megohm				Gain per stage = 32	
								300×	Cath. Bias, 3000 ohms.							Gain per stage = 45	
6R7	Twin-Diode Medium-Mu Triodes	C1	7V	H	6.3	0.3	Triode Unit as Class A Amplifier	250	− 9.0	—	—	9.5	8500	1900	16	—	—
6R7-G		D8	7V‡					90♥	Cath. Bias, 5400 ohms.			Grid Resistor,** 0.22 megohm.				Gain per stage = 11	
6R7-GT		C2b	7V‡					300♥	Cath. Bias, 5000 ohms.							Gain per stage = 12	
6S4	Medium-Mu Triode	B3	9AC	H	6.3	0.6	Vertical Deflection Amplifier in TV Receivers	Max. DC Plate Volts, 500 Max. DC Cathode Ma., 30					Max. Peak Positive-Pulse Plate Volts, 2000 Max. Plate Dissipation, 7.5 watts				
6S4-A				H●													

6S7 6S7-G	**Remote-Cutoff Pentodes**	C1 D8	7R 7R‡	H	6.3	0.15	Class A Amplifier	135 250	— 3.0 — 3.0	67.5 100	0.9 2.0	3.7 8.5	1.0§ 1.0§	1250 1750	——	——	——
6S8-GT	**Triple-Diode Triode**	C9a	8CB	H	6.3	0.3	Triode Unit as Class A Amplifier	100 250	— 1.0 — 2.0	——	——	0.4 0.9	110000 91000	900 1100	100 100	——	——
6SA7 **6SA7-GT**	**Pentagrid Converter▲**	B2 C3	8R 8AD	H	6.3	0.3	Mixer	100 250	Self-Excited	100 100	8.5 8.5	3.3 3.5	500000 1.0§	Grid-No. 1 Resistor, 20000 ohms. Conversion Transcond., 450 micromhos.			
6SB7-Y	**Pentagrid Converter▲**	B2	8R	H	6.3	0.3	Mixer	100 250	— 1.0 — 1.0	100 100	10.2 10.0	3.6 3.8	500000 1.0§	Grid-No. 1 Resistor, 20000 ohms Conversion Transcond., 950 micromhos			
6SC7	**Twin-Triode Amplifier**	B2	8S	H	6.3	0.3	Each Unit as Amplifier	250	— 2.0	——	——	2.0	53000	1325	70	——	——
6SF5 **6SF5-GT**	**High-Mu Triodes**	B2 C2b	6AB 6AB‡	H	6.3	0.3	Class A Amplifier	100 250	— 1.0 — 2.0	——	——	0.4 0.9	85000 66000	1150 1500	100 100	——	——
								90 ✕ 300 ✕	Cath. Bias, 8800 ohms. Cath. Bias, 3200 ohms.	Grid Resistor,** 0.5 megohm.				Gain per stage = 43 Gain per stage = 63			
6SF7	**Diode-Remote-Cutoff Pentode**	B2	7AZ	H	6.3	0.3	Pentode Unit as Class A Amplifier	100 250	— 1.0 — 1.0	100 100	4.3 4.1	13.5 13.9	200000 700000	1975 2050	——	——	——
6SG7	**Remote-Cutoff Pentode**	B2	8BK	H	6.3	0.3	Class A Amplifier	100 250 250	— 1.0 — 1.0 — 2.5	100 125 150	3.2 4.4 3.4	8.2 11.8 9.2	250000 900000 1.0+§	4100 4700 4000	——	——	——
6SH7	**Sharp-Cutoff Pentode**	B2	8BK	H	6.3	0.3	Class A Amplifier	100 250	— 1.0 — 1.0	100 150	2.1 4.1	5.3 10.8	350000 900000	4000 4900	——	——	——
6SJ7 **6SJ7-GT**	**Sharp-Cutoff Pentodes**	B2 C3	8N 8N‡	H	6.3	0.3	Class A Amplifier	100 250	— 3.0 — 3.0	100 100	0.9 0.8	2.9 3.0	700000 1.0+§	1575 1650	——	——	——
								90 ✕ 300 ✕	Cath. Bias, 1700 ohms. Cath. Bias, 860 ohms.	Grid Resistor,** 0.5 megohm.				Gain per stage = 93 Gain per stage = 167			
6SK7 **6SK7-GT**	**Remote-Cutoff Pentodes**	B2 C3	8N 8N‡	H	6.3	0.3	Class A Amplifier	100 250	— 1.0 — 3.0	100 100	4.0 2.6	13.0 9.2	120000 800000	2350 2000	——	——	——
6SL7-GT	**High-Mu Twin Triode**	C2b	8BD	H	6.3	0.3	Each Unit as Class A Amplifier	250	— 2.0	——	——	2.3	44000	1600	70	——	——
6SN7-GT 6SN7-GTA **6SN7-GTB**	**Medium-Mu Twin Triodes**	C2b	8BD	H H H●	6.3	0.6	Each Unit as Class A Amplifier Vertical Deflection Amplifier in TV Receivers +	90 250 Max. DC Plate Volts, 450 Max. Peak Cathode Ma., 70	0 — 8.0	——	——	10.0 9.0	6700 7700 Max. Peak Positive Pulse Plate Volts, 1500 Max. Plate Dissipation: 5 watts either plate; 7.5 watts both plates.	3000 2600	20 20	——	——
6SQ7 **6SQ7-GT**	**Twin-Diode High-Mu Triodes**	B2 C3	8Q 8Q‡	H	6.3	0.3	Triode Unit as Class A Amplifier	100 250	— 1.0 — 2.0	——	——	0.5 1.1	110000 85000	925 1175	100 100	——	——
								90 ✕ 300 ✕	Cath. Bias, 11000 ohms. Cath. Bias, 3900 ohms.	Grid Resistor, ** 0.5 megohm.				Gain per stage = 40 Gain per stage = 53			
6SR7	**Duplex-Diode Triode**	B2	8Q	H	6.3	0.3	Triode Unit as Class A Amplifier	250	— 9.0	——	——	9.5	8500	1900	16	10000	0.3

Discontinued types are shown in light face.

RCA Type	Name	Tube Dimensions and Socket Connections		Cathode Type and Rating			Use (Values to right give operating conditions and characteristics for indicated typical use)	Plate Supply Volts	Grid Bias ■ Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Transconductance (Grid-plate) μmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts
		Dimen.	S. C.	C. T.	Volts	Amp.											
6SS7	Remote-Cutoff Pentode	B2	8N	H	6.3	0.15	Class A Amplifier	100 250	— 1.0 — 3.0	100 100	3.1 2.0	12.2 9.0	120000 1.0§	1930 1850	——	——	——
6ST7	Duplex-Diode Triode	B2	8Q	H	6.3	0.15	Triode Unit as Amplifier	For other characteristics, refer to Type 6SR7.									
6SZ7	Twin-Diode High-Mu Triode	B2	8Q	H	6.3	0.15	Triode Unit as Class A Amplifier	100 250	— 1.0 — 3.0	——	——	0.8 1.0	61000 58000	1150 1200	70 70	——	——
6T4	Medium-Mu Triode	A1	7DK	H	6.3	0.225	Oscillator in UHF TV Receivers	Max. DC Plate Volts, 200 Max. DC Cathode Ma., 30						Max. Grid Ma., 8 Max. Plate Dissipation, 3.5 watts			
							Class A Amplifier	80	Cath. Bias	——	——	18	——	7000	12	Cath. Bias Res., 150 ohms	
6T7-G	Twin-Diode High-Mu Triode	D8	7V‡	H	6.3	0.15	Triode Unit as Class A Amplifier	135 250	— 1.5 — 3.0	——	——	0.9 1.2	65000 62000	1000 1050	65 65	——	——
6T8	Triple-Diode High-Mu Triode	B9a	9E	H	6.3	0.45	Triode Unit as Class A Amplifier	90 × 300 ×	Cath. Bias, 8300 ohms. Cath. Bias, 4580 ohms.			Grid Resistor,** 0.5 megohm.				Gain per stage = 30 Gain per stage = 40	
								100 250	— 1 — 3	——	——	0.8 1.0	54000 58000	1300 1200	70 70	——	——
6U5	Electron-Ray Tube	D4	6R	H	6.3	0.3	Visual Indicator	Plate & Target Supply = 200 volts. Triode Plate Resistor = 1.0 meg. Target Current = 3.0 ma. Grid Bias, —18.5 volts; Shadow Angle, 0°. Bias, 0 volts; Angle, 90°; Plate Current, 0.19 ma.									
								Plate & Target Supply = 250 volts. Triode Plate Resistor = 1.0 meg. Target Current = 4.0 ma. Grid Bias, —22 volts; Shadow Angle, 0°. Bias, 0 volts; Angle, 90°; Plate Current, 0.24 ma.									
6U7-G	Remote-Cutoff Pentode	D13	7R‡	H	6.3	0.3	Class A Amplifier	100 250	— 3.0 — 3.0	100 100	2.2 2.0	8.0 8.2	250000 800000	1500 1600	——	——	——
							Mixer in Superheterodyne	100 250	—10.0 —10.0	100 100	——	——	Oscillator Peak Volts = 7.0				
6U8 **6U8-A**	Triode—Remote-Cutoff Pentodes	B9a	9AE	H H●	6.3	0.45	Triode Unit as Class A Amplifier	150	Cath. Bias	——	——	18	5000	8500	40	Cath. Res., 56 ohms	
							Pentode Unit as Class A Amplifier	250	Cath. Bias	110	3.5	10	40000	5200	——	Cath. Res., 68 ohms	
6V3-A	Half-Wave Rectifier	B4a	9BD	H	6.3	1.75	Television Damper Service	Max. Peak Inverse Plate Volts, 6000 (Abs.) Max. Peak Plate Ma., 800 Max. DC Plate Ma., 135					Max. Peak Heater-Cathode Volts			——	——
													*DC component not to exceed — 750 volts				
6V6 **6V6-GT**	Beam Power Tubes	G2 G2b	7AC 7AC‡	H	6.3	0.45	Single-Tube Class A Amplifier	180 250 315	— 8.5 —12.5 —13.0	180 250 225	3.0 4.5 2.2	29.0 45.0 34.0	50000 50000 80000	3700 4100 3750	—— —— ——	5500 5000 8500	2.0 4.5 5.5
							Push-Pull Class AB1 Amplifier	250 285	—15.0 —19.0	250 285	5.0♣ 4.0♣	70.0♣ 70.0♣	60000 70000	3750 3600	—— ——	10000 8000	10.0† 14.0†
6V7-G	Duplex-Diode Triode	D8	7V‡	H	6.3	0.3	Triode Unit as Amplifier	For other characteristics, refer to Type 85.									

6W4-GT	**Half-Wave Rectifier**	C2b	4CG	H	6.3	1.2	With Capacitive-Input Filter	Max. AC Plate Volts (RMS), 350 Max. Peak Inverse Volts 3500‖, 1250					Max. DC Output Ma., 125 Max. Peak Plate Ma., 600					Min. Total Effect. Supply Imped. per Plate, 145 ohms.		
6W6-GT	**Beam Power Amplifier**	C2b	7AC‡	H	6.3	1.2	Vertical Deflection Amplifier in TV Receivers	Max. DC Plate Volts, 300 Max. Plate Dissipation, 7.5 watts								Max. Peak Positive-Pulse Plate Volts, 1200 Max. Peak Negative-Pulse Grid Volts, 250				
6W7-G	**Sharp-Cutoff Pentode**	D8	7R‡	H	6.3	0.15	Class A Amplifier	250	— 3.0	100	0.5	2.0	1.5§	1225	——	——			
6X4	**Full-Wave Rectifier**	B1	5BS	H	6.3	0.6	With Capacitive-Input Filter	Max. AC Volts per Plate (RMS), 325 Max. Peak Inverse Volts, 1250					Max. DC Output Ma., 70 Max. Peak Plate Ma., 210					Total Effect. Supply Imped. per Plate, 520 ohms		
							With Inductive-Input Filter	Max. AC Volts per Plate (RMS), 450 Max. Peak Inverse Volts, 1250					Max. DC Output Ma., 70 Max. Peak Plate Ma., 210					Min. Value of Input Choke, 10 henries		
6X5 **6X5-GT**	**Full-Wave Rectifiers**	C2 C2b	6S 6S‡	H	6.3	0.6	With Capacitive-Input Filter	Max. AC Volts per Plate (RMS), 325 Max. Peak Inverse Volts, 1250					Max. DC Output Ma., 70 Max. Peak Plate Ma., 210					Min. Total Effect. Supply Imped. per Plate, 520 ohms		
							With Inductive-Input Filter	Max. AC Volts per Plate (RMS), 450 Max. Peak Inverse Volts, 1250					Max. DC Output Ma., 70 Max. Peak Plate Ma., 210					Min. Value of Input Choke, 10 henries		
6X8	**Triode-Pentode Converter**	B0a	9AK	H	6.3	0.45	Triode Unit as 250-Mc. Oscillator	150	Grid Resistor, 2700 ohms Grid Current, 3.6 ma.				Plate Current, 13 ma. Power Output (Approx.), 0.5 watt							
							Pentode Unit as Mixer‡	150	Grid-No. 2 Volts, 150 Mixer Grid-No. 1 Supply Volts, —3.5 Plate Current, 6.2 ma.				Osc. Volts at Mixer Grid No. 1 (RMS), 2.6 Mixer Grid-No. 1 Resistor, 120000 ohms Conversion Transconductance, 2100 μmhos				
6Y5	**Full-Wave Rectifier**	D5	6J	H	6.3	0.8	With Capacitive-Input Filter	Max. AC Volts per Plate (RMS), 350 Max. DC Output Ma., 50												
6Y6-G	**Beam Power Tube**	D11b	7AC‡	H	6.3	1.25	Single-Tube Class A Amplifier	135 200	—13.5 —14.0	135 135	3.5 2.2	58.0 61.0	9300 18300	7000 7100	—— ——			2000 2600		3.6 6.0
6Y7-G	**Twin-Triode Amplifier**	D3	8B‡	H	6.3	0.6	Class B Amplifier	For other characteristics, refer to Type 79.												
6Z5	**Full-Wave Rectifier**	D5	6K	H	6.3 12.6	0.8 0.4	With Capacitive-Input Filter	Max. AC Volts per Plate (RMS), 230 Max. DC Output Ma., 60												
6Z7-G	**Twin-Triode Amplifier**	D3	8B‡	H	6.3	0.3	Class B Amplifier	135 180	0 0	——	——		Power Output is for one tube at stated plate-to-plate load.					9000 12000		2.5 4.2
6ZY5-G	**Full-Wave Rectifier**	D3	6S‡	H	6.3	0.3	With Capacitive-Input Filter	Max. AC Volts per Plate (RMS), 325 Max. Peak Inverse Volts, 1250					Max. DC Output Ma., 40 Max. Peak Plate Ma., 120					Min. Total Effect. Supply Imped. per Plate, 225 ohms		
							With Inductive-Input Filter	Max. AC Volts per Plate (RMS), 450 Max. Peak Inverse Volts, 1250					Max. DC Output Ma., 40 Max. Peak Plate Ma., 120					Min. Value of Input Choke, 13.5 henries		
7A4	**Medium-Mu Triode**	B5	5AC	H	6.3	0.3	Amplifier	For other characteristics, refer to Type 6J5.												
7A5	**Beam Power Tube**	C2a	8AA	H	6.3	0.75	Class A Amplifier	110 125	— 7.5 — 9.0	110 125	3.0 3.3	40.0 44.0	16000 17000	5800 6000	——			2500 2700		1.5 2.2
7A6	**Twin Diode**	B5	7AJ	H	6.3	0.15	Detector Rectifier	Maximum AC Voltage per Plate ..... 150 Volts, RMS Maximum DC Output Current per plate ..... 8 Milliamperes												
7A7	**Remote-Cutoff Pentode**	B5	8V	H	6.3	0.3	Class A Amplifier	For other characteristics, refer to Type 6SK7.												
7A8	**Octode Converter**	B5	8U	H	6.3	0.15	Converter	100 250	— 3.0 — 3.0	75 100	2.7 3.2	1.8 3.0	650000 700000	Anode-Grid (# 2): 250 ▪ max. volts, 4.2 ma. Oscillator-Grid (# 1) Resistor ▪. Conversion Transcond., 550 micromhos.						

Discontinued types are shown in light face.

Type	Name	Tube Dimensions and Socket Connections		Cathode Type and Rating			Use (Values to right give operating conditions and characteristics for indicated typical use)	Plate Supply Volts	Grid Bias ■ Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Transconductance (Grid-plate) μmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts
		Dimen.	S. C.	C. T.	Volts	Amp.											
7AD7	Power Pentode	C2a	8V	H	6.3	0.6	Class A Amplifier	300	Cath. Bias	150	7.0	28.0	300000	9500	Cath. Res., 68 ohms		
7AF7	Medium-Mu Twin Triode	B5	8AC	H	6.3	0.3	Each Unit as Class A Amplifier	250 100	−10 Cath. Bias	— —	— —	9.0 10.8	7600 6500	2100 2600	16 17	— Cath. Res., 600 ohms	—
7AG7	Sharp-Cutoff Pentode	B5	8V	H	6.3	0.15	Class A Amplifier	250	Cath. Bias	250	2.0	6.0	1 meg.	4200	Cathode-Bias Resistor, 250 ohms		
7AH7	Sharp-Cutoff Pentode	B5	8V	H	6.3	0.15	Class A Amplifier	250	Cath. Bias	250	1.9	6.8	1 meg.	3300	Cath. Res., 250 ohms		
7AU7	Medium-Mu Twin-Triode	B0a	9A	H●	3.5 7.0	0.6 0.3	Each Unit as Class A Amplifier	100 250	0 − 8.5	— —	— —	13.0 10.5	6300 7950	3500 2200	22 17.5	— —	— —
7B4	High-Mu Triode	B5	5AC	H	6.3	0.3	Amplifier	For other characteristics, refer to Type 6SF5.									
7B5	Power Amplifier Pentode	C2a	6AE	H	6.3	0.4	Class A Amplifier	For other characteristics, refer to Type 6K6-GT.									
7B6	Twin-Diode High-Mu Triode	B5	8W	H	6.3	0.3	Triode Unit as Amplifier	For other characteristics, refer to Type 6SQ7.									
7B7	Remote-Cutoff Pentode	B5	8V	H	6.3	0.15	Class A Amplifier	250	− 3.0	100	1.7	8.5	750000	1750	—	—	—
7B8	Pentagrid Converter●	B5	8X	H	6.3	0.3	Converter	For other characteristics, refer to Type 6A8.									
7C5	Beam Power Tube	C2a	6AA	H	6.3	0.45	Class A Amplifier	For other characteristics, refer to Type 6V6-GT.									
7C6	Twin-Diode High-Mu Triode	B5	8W	H	6.3	0.15	Triode Unit as Class A Amplifier	250	− 1.0	—	—	1.3	100000	1000	100	—	—
7C7	Sharp-Cutoff Pentode	B5	8V	H	6.3	0.15	Class A Amplifier	100 250	− 3.0 − 3.0	100 100	0.4 0.5	1.8 2.0	1.2§ 2.0§	1225 1300	—	—	—
7E6	Twin-Diode Triode	B5	8W	H	6.3	0.3	Triode Unit as Amplifier	For other characteristics, refer to Type 6R7.									
7E7	Twin-Diode Pentode	B5	8AE	H	6.3	0.3	Pentode Unit as Class A Amplifier	100 250	Cath. Bias	100 100	2.7 1.6	10.0 7.5	150000 700000	1600 1300	Cath. Res., 800 ohms Cath. Res., 330 ohms		
7F7	Twin-Triode Amplifier	B5	8AC	H	6.3	0.3	Each Unit as Amplifier	For other characteristics, refer to Type 6SL7-GT.									
7F8	Twin-Triode Amplifier	B0b	8BW	H	6.3	0.3	Each Unit as Class A Amplifier	250	Cathode-Bias Res., 500 ohms			6.0	—	3300	48	—	—
7G7	Sharp-Cutoff Pentode	B5	8V	H	6.3	0.45	Class A Amplifier	250	− 2.0	100	2.0	6.0	800000	4500	—	—	—

7H7	**Sharp-Cutoff Pentode**	B5	8V	H	6.3	0.3	Class A Amplifier	100 250	− 1.5 Cath. Bias	100 150	2.6 3.2	7.5 10.0	350000 800000	4000 4000	Cath. Bias Res., 180 ohms		
7J7	**Triode-Heptode Converter**	B5	8BL	H	6.3	0.3	Triode Unit as Oscillator	100 250	Triode-Grid Resistor, 50000 ohms			3.2 5.0	Triode-Grid & Heptode-Grid Current, 0.3 ma. Triode-Grid & Heptode-Grid Current, 0.4 ma.				
							Heptode Unit as Mixer	100 250	− 3.0 − 3.0	100 100	2.6 2.8	1.5 1.4	500000 1.5§	Conversion Transcond., 280 μmhos. Conversion Transcond., 290 μmhos.			
7K7	**Twin-Diode-High-Mu Triode**	B5	8BF	H	6.3	0.3	Triode Unit as Class A Amplifier	250	− 2	——	——	2.3	44000	1600	70	——	——
7L7	**RF Amplifier Pentode**	B5	8V	H	6.3	0.3	Class A Amplifier	100 250	− 1.0 − 1.5	100 100	2.4 1.5	5.5 4.5	100000 1.0§	3000 3100	——	——	——
7N7	**Twin-Triode Amplifier**	C2a	8AC	H	6.3	0.6	Each Unit as Class A Amplifier	For other characteristics, refer to Type 6SN7-GT									
7Q7	**Pentagrid Converter▲**	B5	8AL	H	6.3	0.3	Converter	100 250	− 2.0 − 2.0	100 100	8.5 8.5	3.3 3.5	500000 1.0§	Grid #1 Resistor, 20000 ohms. Conversion Transcond., 550 μmhos.			
7R7	**Twin-Diode Pentode**	B5	8AE	H	6.3	0.3	Pentode Unit as Class A Amplifier	100 250	− 1.0 − 1.0	100 100	2.2 2.1	5.5 5.7	350000 1.0§	3000 3200	——	——	——
7S7	**Triode-Heptode Converter**	B5	8BL	H	6.3	0.3	Triode Unit as Oscillator	100 250	Triode-Grid Resistor, 50000 ohms			3.0 5.0	Triode-Grid & Heptode-Grid Current, 0.3 ma. Triode-Grid & Heptode-Grid Current, 0.4 ma.				
							Heptode Unit as Mixer	100 250	− 2.0 − 2.0	100 100	3.0 3.0	1.9 1.8	500000 1.25§	Conversion Transcond., 500 μmhos. Conversion Transcond., 525 μmhos.			
7V7	**RF Amplifier Pentode**	B5	8V	H	6.3	0.45	Class A Amplifier	300	——	150	3.9	10.0	300000	5800	Cath. Bias Res., 160 ohms		
7W7	**RF Amplifier Pentode**	B5	8BJ	H	6.3	0.45	Class A Amplifier	For other characteristics, refer to Type 7V7.									
7X7	**Twin Diode-High-Mu Triode**	C2a	8BZ	H	6.3	0.3	Triode Unit as Class A Amplifier	100 250	0 − 1.0	——	——	1.2 1.9	85000 67000	1000 1500	85 100	——	——
7Y4	**Full-Wave Rectifier**	B5	5AB	H	6.3	0.5	With Capacitive-Input Filter	Max. AC Volts per Plate (RMS), 325 Max. Peak Inverse Volts, 1250				Max. DC Output Ma., 70 Max. Peak Plate Ma., 180		Min. Total Effect. Supply Imped. per Plate, 150 ohms.			
							With Inductive-Input Filter	Max. AC Volts per Plate (RMS), 450 Max. Peak Inverse Volts, 1250				Max. DC Output Ma., 70 Max. Peak Plate Ma., 180		Min. Value of Input Choke, 10 henries		
7Z4	**Full-Wave Rectifier**	C2a	5AB	H	6.3	0.9	With Capacitive-Input Filter	Max. AC Volts per Plate (RMS), 325 Max. Peak Inverse Volts, 1250				Max. DC Output Ma., 100 Max. Peak Plate Ma., 300		Min. Total Effec. Supply Imped. per Plate, 75 ohms			
							With Inductive-Input Filter	Max. AC Volts per Plate (RMS), 450 Max. Peak Inverse Volts, 1250				Max. DC Output Ma., 100 Max. Peak Plate Ma., 300		Min. Value of Input Choke, 6 henries		
8AW8-A	**High-Mu Triode Sharp-Cutoff Pentode**	B3	9DX	H●	8.4	0.45	Triode Unit as Class A Amplifier	200	− 2	——	——	4	17500	4000	70	——	——
							Pentode Unit as Class A Amplifier	200	Cath. Bias	150	3.5	13	400000	9000	Cath. Bias Res., 180 ohms		
8CG7	**Medium-Mu Twin Triode**	B3	9AJ	H●	8.4	0.45	Horizontal Deflection Oscillator	Max. DC Plate Volts, 300 Max. Peak Neg.-Pulse Grid Volts, 400				Max. Peak Cathode Ma., 300 Max. DC Cathode Ma., 20		Dissipation watts either plate, 3.5; both plates, 5			
							Vertical Deflection Oscillator	Max. DC Plate Volts, 300 Max. Peak Neg.-Pulse Grid Volts, 400				Max. Peak Cathode Ma., 70 Max. DC Cathode Ma., 20		Dissipation watts either plate, 3.5; both plates, 5		

Discontinued types are shown in light face.

Type	Name	Tube Dimensions and Socket Connections: Dimen.	S. C.	Cathode Type and Rating: C. T.	Volts	Amp.	Use (Values to right give operating conditions and characteristics for indicated typical use)	Plate Supply Volts	Grid Bias ■ Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Transconductance (Grid-plate) μmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts
8CM7	Dual Triode With Dissimilar Units	B3	9ES	H●	8.4	0.45	Vertical Deflection Oscillator in TV Receivers	Unit No. 1: Max. DC Plate Volts, 500 Max. Peak Cathode Ma., 70 Max. Peak Neg.-Pulse Grid Volts, 200 Max. DC Cathode Ma., 15 Max. Plate Dissipation watts, 1.25									
							Vertical Deflection Amplifier in TV Receivers	Unit No. 2: Max. DC Plate Volts, 500 Max. Peak Negative-Pulse Plate Volts, 2200 (Abs.) Max. Peak Neg.-Pulse Grid Volts, 200 Max. Peak Cathode Ma., 70								
10●	Power Amplifier Triode	E3	4D	F	7.5	1.25	Class A Amplifier	350 425	−32.0 −40.0	—	—	16.0 18.0	5150 5000	1550 1600	8.0 8.0	11000 10200	0.9 1.6
10DE7	Dual Triode With Dissimilar Units	B3	9HF	H●	10.0	0.6	Vertical Deflection Oscillator in TV Receivers	Unit No. 1: Max. Peak Neg.-Pulse Grid Volts, 300 Max. DC Plate Volts, 330 Max. Peak Cathode Ma., 22 Max. Plate Dissipation watts, 1.5									
							Vertical Deflection Amplifier in TV Receivers	Unit No. 2: Max. DC Plate Volts, 275 Max. Peak Neg.-Pulse Grid Volts, 250 Max. Plate Dissipation Max. Peak Negative-Pulse Plate Volts, 1000 (Abs.) Max. Peak Cathode Ma., 50 watts, 7								
11 12	Detector★ Amplifier Triode	D2a D12	4F 4D	D.C. F	1.1	0.25	Class A Amplifier	90 135	− 4.5 −10.5	—	—	2.5 3.0	15500 15000	425 440	6.6 6.6	—	—
12A5	Power Amplifier Pentode	D5	7F	H	6.3 12.6	0.6 0.3	Class A Amplifier	100 180	−15.0 −25.0	100 180	3.0 8.0	17.0 45.0	50000 35000	1700 2400	— —	4500 3300	0.8 3.4
12A7	Rectifier-Pentode	D9	7K	H	12.6	0.3	Pentode Unit as Class A Amplifier	135	−13.5	135	2.5	9.0	102000	975	—	13500	0.55
							Half-Wave Rectifier	Maximum AC Plate Voltage.....125 Volts, RMS Maximum DC Output Current.....30 Milliamperes								
12A8-GT	Pentagrid Converter ■	C3	8A	H	12.6	0.15	Converter	For other characteristics, refer to Type 6A8.									
12AB5	Beam Power Tube	B3	9EU	H	10.0 to 15.9	0.2 approx.	Single-Tube Class A Amplifier	250	Cath. Bias	200	1.6	33.5	Cath. Bias Res., 270 ohms			6000	3.3
							Push-Pull Class AB_1 Amplifier	250	−15.0	250	5.0♣	70.0♣	60000	3750	—	10000	10.0†
12AD6	Pentagrid Converter⊙	B0	7CH	H	10.0 to 15.9	0.15 approx.	Converter	12.6	Self-excited	12.6	1.5	0.45	1§	Grid-No. 1 Resistor, 33000 ohms Conversion Transcond., 260 micromhos			
12AE6	Twin Diode Medium-Mu Triode⊙	B0	7BT	H	10.0 to 15.9	0.15 approx.	Triode Unit as Class A Amplifier	12.6	0	—	—	0.75	15000	1000	15	—	—
12AF6	Sharp-Cutoff Pentode⊙	B0	7BK	H	10.0 to 15.9	0.15 approx.	Class A Amplifier	12.6	Grid-No. 1 Supply Volts, 0	12.6	0.3	0.8	300000	1250	Grid-No. 1 Volts for transcond. of 40 micromhos, −2.7		

12AH7-GT	**Twin Triode**	C0a	8BE	H	12.6	0.15	Each Unit as Class A Amplifier	100 180	− 3.6 − 6.5	——	——	3.7 7.6	10300 8400	1550 1900	16 16	——	——
12AJ6	**Twin Diode Medium-Mu Triode⊙**	B0	7BT	H	10.0 to 15.9	0.15 approx.	Triode Unit as Class A Amplifier	12.6	0	——	——	0.75	45000	1200	55	——	——
12AL5	**Twin-Diode**	A1	6BT	H	12.6	0.15	Detector Rectifier	For other characteristics, refer to Type 6AL5.									
12AQ5	**Beam Power Tube**	B1	7BZ	H	12.6	0.225	Amplifier	For other characteristics, refer to Type 6V6.									
12AT6	**Twin-Diode High-Mu Triode**	B0	7BT	H	12.6	0.15	Triode Unit as Class A Amplifier	For other characteristics, refer to Type 6AT6.									
12AT7	**High-Mu Twin Triode**	B0a	9A	H	6.3 12.6	0.3 0.15	Each Unit as Class A Amplifier	100 250	Cath. Res., 270 ohms Cath. Res., 200 ohms			3.7 10.0	15000 10900	4000 5500	60 60	——	——
12AU6	**Sharp-Cutoff Pentode**	B0	7BK	H	12.6	0.15	Class A Amplifier	For other characteristics, refer to Type 6AU6.									
12AU7 **12AU7-A**	**Medium-Mu Twin Triodes**	B0a	9A	H	6.3 12.6	0.3 0.15	Each Unit As Class A Amplifier	100 250	0 − 8.5	——	——	11.8 10.5	6500 7700	3100 2200	20 17.5	——	——
12AV6	**Twin-Diode High-Mu Triode**	B0	7BT	H	12.6	0.15	Triode Unit as Class A Amplifier	For other characteristics, refer to Type 6AV6.									
12AV7	**Medium-Mu Twin Triode**	B0a	9A	H	6.3 12.6	0.45 0.225	Each Unit as Class A Amplifier	150	Cathode Bias Res., 56 ohms			18	48000	8500	41	Cutoff Volts, −12	
12AW6	**Sharp-Cutoff Pentode**	B0	7CM	H	12.6	0.15	As Pentode Class A Amplifier As Triode □ Class A Amplifier	For other characteristics, refer to Type 6AG5.									
12AX4-GT **12AX4-GTA**	**Half-Wave Rectifiers**	C2b	4CG	H H⊕	12.6	0.6	Television Damper Service	Max. Peak Inverse Plate Volts, 4000 Max. Peak Plate Ma., 600 Max. DC Plate Ma., 125				Max. Peak Heater-Cathode Volts: −4000** +100 **DC component must not exceed 900 volts						
12AX7	**High-Mu Twin Triode**	B0a	9A	H	6.3 12.6	0.3 0.15	Each Unit as Class A Amplifier	100 250	− 1.0 − 2.0	——	——	0.5 1.2	80000 62500	1250 1600	100 100	——	——
12AZ7	**High-Mu Twin-Triode**	B0a	9A	H	6.3 12.6	0.45 0.225	Each Unit as Class A Amplifier	100 250	Cath. Bias Res., 270 ohms Cath. Bias Res., 200 ohms			3.7 10.0	15000 10900	4000 5500	60 60	——	——
12B4-A	**Low-Mu Triode**	B3	9AG	H⊕	6.3 12.6	0.6 0.3	Vertical Deflection Amplifier in TV Receivers	Max. DC Plate Volts, 550 Max. Peak Positive-Pulse Plate Volts, 1000 (Abs.) Max. Peak Dissipation, 5.5 Watts						Max. Peak Neg.-Pulse Grid Volts, 250 Max. Peak Cathode Ma., 105 Max. Average Cathode Ma., 30			
12B8-GT	**Triode-Pentode**	C10a	8T	H	12.6	0.3	Triode Unit as Class A Amplifier Pentode Unit as Class A Amplifier	90 90	0 − 3.0	——	——	2.8 7.0	37000 200000	2400 1800	90 ——	——	——
12BA6	**Remote-Cutoff Pentode**	B0	7BK	H	12.6	0.15	Class A Amplifier	For other characteristics, refer to Type 6BA6.									
12BA7	**Pentagrid Converter▲**	B3	8CT	H	12.6	0.15	Converter	For other characteristics, refer to Type 6BA7.									

Discontinued types are shown in light face.

Type	Name	Tube Dimensions and Socket Connections		Cathode Type and Rating			Use — Values to right give operating conditions and characteristics for indicated typical use	Plate Supply Volts	Grid Bias ■ Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Transconductance (Grid-plate) μmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts
		Dimen.	S. C.	C. T.	Volts	Amp.											
12BD6	Remote-Cutoff Pentode	B0	7BK	H	12.6	0.15	Class A Amplifier	For other characteristics, refer to Type 6BD6.									
12BE6	Pentagrid Converter▲	B0	7CH	H	12.6	0.15	Converter	For other characteristics, refer to Type 6BE6.									
12BF6	Twin-Diode Triode	B0	7BT	H	12.6	0.15	Triode Unit as Class A Amplifier	250	− 9.0	——	——	9.5	8500	1900	16	Power Output, 300 milliwatts	
12BH7 **12BH7-A**	Medium-Mu Twin Triodes	B3	9A	H H●	6.3 12.6	0.6 0.3	Vertical Deflection Amplifier in TV Receivers	Max. DC Plate Volts, 450 Max. DC Plate Ma., 20				Absolute Max. Peak Positive-Pulse Plate Volts, 1500 Max. Plate Dissipation (Each Unit), 3.5 watts					
12BL6	Sharp-Cutoff Pentode⊙	B0	7BK	H	10.0 to 15.9	0.15 approx.	Class A Amplifier	12.6	Grid-No. 1 Supply Volts, 0	12.6	0.5	1.35	500000	1350	Grid-No. 1 and Grid-No. 3 Volts for transcond. of 10 micromhos, −5		
12BQ6-GTB/ 12CU6	Beam Power Tube	C11	6AM	H●	12.6	0.6	Horizontal Deflection Amplifier in TV Receivers	Max. DC Plate Volts, 600 Max. DC Cathode Ma., 112.5				Max. Peak Positive-Pulse Plate Volts, 6000 (Abs.) Max. Plate Dissipation, 11 Watts					
12BR7	Twin Diode High-Mu Triode	B0a	9CF	H	6.3 12.6	0.45 0.225	Triode Unit as Class A Amplifier	100 250	Cath. Bias Cath. Bias.	—— ——	—— ——	3.7 10	15000 10900	4000 5500	60 60	Cath. Bias Res., 270 ohms Cath. Bias Res., 200 ohms	
12BV7	Sharp-Cutoff Pentode	B3	9BF	H	6.3 12.6	0.6 0.3	Class A Amplifier	250 250	Cath. Bias − 8	150 180	6 ——	27 0.5×	85000 × Minimum Plate Current	13000	Cath. Bias Res., 68 ohms ——		
12BY7 **12BY7-A**	Sharp-Cutoff Pentodes	B3	9BF	H H●	6.3 12.6	0.6 0.3	Class A Amplifier	250	Cath. Bias	150	6	25	110000	12000	Cath. Res., 68 ohms		
12BZ7	High-Mu Twin Triode	B3	9A	H	6.3 12.6	0.6 0.3	Each Unit as Class A Amplifier	250	− 2	——	——	2.5	31800	3200	100	——	——
12C8	Twin-Diode Pentode	C1	8E	H	12.6	0.15	Pentode Unit as RF Amplifier	250	− 3.0	125	2.3	10.0	600000	1325	——	——	——
							Pentode Unit as AF Amplifier	90× 300×	Cath. Bias, 3500 ohms. Screen Resistor = 1.1 meg. Grid Resistor,** Cath. Bias, 1600 ohms. Screen Resistor = 1.2 meg. / 0.5 megohm.						Gain per stage = 55 Gain per stage = 79	
12CA5	Beam Power Tube	B1	7CV	H●	12.6	0.6	Class A Amplifier	110 125	− 4 − 4.5	110 125	3.5 4.0	32 37	16000 15000	8100 9200	——	3500 4500	1.1 1.5
12CR6	Diode Remote-Cutoff Pentode	B0	7EA	H	12.6	0.15	Pentode Unit as Class A Amplifier	250	− 2	100	2.6	9.6	800000	2200	Grid-No. 1 Volts for transcond. of 10 micromhos, −32		
12CU5	Beam Power Tube▲	B1	7CV	H●	12.6	0.6	Class A Amplifier	120	− 8	110	4	49	10000	7500	——	2500	2.3

12DQ6-A	**Beam Power Tube**	D6	6AM	H●	12.6	0.6	Horizontal Deflection Amplifier in TV Receivers	Max. DC Plate Volts, 700 Max. DC Cathode Ma., 140						Max. Peak Positive-Pulse Plate Volts, 6000 (Abs.) Max. Plate Dissipation, 15 watts				
12DT8	**High-Mu Twin Triodes**	B0a	9DE	H	12.6	0.15	Class A Amplifier	For other characteristics, refer to Type 6DT8.										
12F5-GT	**High-Mu Triode**	C2b	5M‡	H	12.6	0.15	Amplifier	For other characteristics, refer to Type 6SF5.										
12F8	**Twin Diode Remote-Cutoff Pentode⊙**	B0a	9FH	H	10.0 to 15.9	0.15 approx.	Pentode Unit as Class A Amplifier	12.6	0	12.6	0.38	1	330000	1000	Grid-No. 1 Volts for transcond. of 10 micromhos, −5			
12H6	**Twin-Diode**	A1a	7Q	H	12.6	0.15	Detector Rectifier	For other ratings, refer to Type 6H6.										
12J5-GT	**Medium-Mu Triode**	C3	6Q‡	H	12.6	0.15	Amplifier	For other characteristics, refer to Type 6J5.										
12J7-GT	**Sharp-Cutoff Pentode**	C3	7R	H	12.6	0.15	Amplifier	For other characteristics, refer to Type 6J7.										
12K5	**Power Tetrode⊙**	B1	7EK	H	10.0 to 15.9	0.4 approx.	Class A Amplifier	12.6	12.6	−0.5	—	40	480	Grid-No. 1 Ma., 75 Transcond., Grid-No. 2 to Plate, 15000 μmhos				
12K7-GT	**Remote-Cutoff Pentode**	C3	7R	H	12.6	0.15	Amplifier	For other characteristics, refer to Type 6K7.										
12K8	**Triode-Hexode Converter**	C1	8K	H	12.6	0.15	Oscillator Mixer	For other characteristics, refer to Type 6K8.										
12L6-GT	**Beam Power Tube**	C2b	7AC‡	H●	12.6	0.6	Class A Amplifier	110 200	− 7.5 △	110 125	4.0 2.2	49 46	13000 28000	8000 8000	— —	2000 4000	**2.1** **3.8**	
12Q7-GT	**Twin-Diode High-Mu Triode**	C3	7V	H	12.6	0.15	Triode Unit as Amplifier	For other characteristics, refer to Type 6Q7.										
12R5	**Beam Power Tube**	B1	7CV	H●	12.6	0.6	Vertical Deflection Amplifier in TV Receivers	Max. DC Plate Volts, 150 Max. Peak Cathode Ma., 155 Max. Plate Dissipation, 4.5 watts						Max. Peak Neg.-Pulse Grid-No. 1 Volts, 150 Max. Grid-No. 2 Volts, 150 Max. Peak Positive-Pulse Plate Volts, 1500 (Abs.)				
12S8-GT	**Triple-Diode-High-Mu Triode**	C9a	8CB	H	12.6	0.15	Triode Unit as Class A Amplifier	100 250	− 1 − 2	— —	— —	0.4 0.9	110000 91000	900 1100	100 100	— —	— —	
12SA7 **12SA7-GT**	**Pentagrid Converter▲**	B2 C2b	8R 8AD	H	12.6	0.15	Mixer	For other characteristics, refer to Type 6SA7.										
12SC7	**Twin-Triode Amplifier**	B2	8S	H	12.6	0.15	Each Unit as Class A Amplifier	For other characteristics, refer to Type 6SC7.										
12SF5 12SF5-GT	**High-Mu Triode**	B2 C2b	6AB 6AB‡	H	12.6	0.15	Class A Amplifier	For other characteristics, refer to Type 6SF5.										
12SF7	**Diode-Remote-Cutoff Pentode**	B2	7AZ	H	12.6	0.15	Pentode Unit as Amplifier	For other characteristics, refer to Type 6SF7.										
12SG7	**Remote-Cutoff Pentode**	B2	8BK	H	12.6	0.15	Class A Amplifier	For other characteristics, refer to Type 6SG7.										
12SH7	**Sharp-Cutoff Pentode**	B2	8BK	H	12.6	0.15	Class A Amplifier	For other characteristics, refer to Type 6SH7.										

Discontinued types are shown in light face.

Type	Name	Tube Dimensions and Socket Connections		Cathode Type and Rating			Use (Values to right give operating conditions and characteristics for indicated typical use)	Plate Supply Volts	Grid Bias ■ Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Transconductance (Grid-plate) μmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts
		Dimen.	S. C.	C. T.	Volts	Amp.											
12SJ7 12SJ7-GT	Sharp-Cutoff Pentodes	B2 C3	8N 8N	H	12.6	0.15	Class A Amplifier	For other characteristics, refer to Type 6SJ7.									
12SK7 **12SK7-GT**	Remote-Cutoff Pentodes	B2 C3	8N 8N	H	12.6	0.15	Class A Amplifier	For other characteristics, refer to Type 6SK7.									
12SL7-GT	Twin-Triode Amplifier	C2b	8BD	H	12.6	0.15	Each Unit as Amplifier	For other characteristics, refer to Type 6SL7-GT.									
12SN7-GT	Twin-Triode Amplifier	C2b	8BD	H	12.6	0.3	Each Unit as Amplifier	For other characteristics, refer to Type 6J5.									
12SQ7 **12SQ7-GT**	Twin-Diode High-Mu Triode	B2 C3	8Q 8Q	H	12.6	0.15	Triode Unit as Amplifier	For other characteristics, refer to Type 6SQ7.									
12SR7 12SR7-GT	Duplex-Diode Triode	B2 C2b	8Q 8Q	H	12.6	0.15	Triode Unit as Amplifier	For other characteristics, refer to Type 6SR7.									
12V6-GT	Beam Power Amplifier	C2b	7AC	H	12.6	0.225	Amplifier	For other characteristics, refer to Type 6V6.									
12W6-GT	Beam Power Tube	C2b	7AC	H●	12.6	0.6	Vertical Deflection Amplifier in TV Receivers	Triode Connection: Max. DC Plate Volts, 300 Max. DC Cathode Ma., 40					Absolute Max. Peak Positive-Pulse Plate Volts, 1200 Max. Plate Dissipation, 7.5 Watts				
12X4	Full-Wave Rectifier	B1	5BS	H	12.6	0.225	Rectifier	For other characteristics, refer to Type 6X4.									
12Z3	Half-Wave Rectifier	D5	4G	H	12.6	0.3	With Capacitive-Input Filter	Max. AC Plate Volts (RMS), 235 Max. DC Output Ma., 55					Min. Total Effective Plate-Supply Impedance: Up to 117 volts, 0 ohms; at 150 volts, 30 ohms; at 235 volts, 75 ohms.				
14A4	Medium-Mu Triode	B5	5AC	H	12.6	0.15	Class A Amplifier	For other characteristics, refer to Type 6J5.									
14A5	Beam Power Tube	B5	6AA	H	12.6	0.15	Class A Amplifier	250	−12.5	250	3.5	30	70000	3000	——	7500	2.8
14A7	Remote-Cutoff Pentode	B5	8V	H	12.6	0.15	Class A Amplifier	100 250	− 1.0 − 3.0	100 100	4.0 2.6	13.0 9.2	120000 800000	2350 2000	—— ——	—— ——	—— ——
14AF7	Medium-Mu Twin Triode	B5	8AC	H	12.6	0.15	Each Unit as Class A Amplifier	For other characteristics, refer to Type 7AF7.									
14B6	Duplex-Diode High-Mu Triode	B5	8W	H	12.6	0.15	Triode Unit as Class A Amplifier	For other characteristics, refer to Type 6SQ7.									
14B8	Pentagrid Converter ●	B5	8X	H	12.6	0.15	Converter	For other characteristics, refer to Type 6A8.									

14C5	Beam Power Tube	C2a	6AA	H	12.6	0.225	Class A Amplifier	180 315	— 8.5 −13	180 225	3.0 2.2	29.0 34.0	50000 77000	3700 3750	——	5500 8500	2 5.5
14C7	Sharp-Cutoff Pentode	B5	6V	H	12.6	0.15	Class A Amplifier	For other characteristics, refer to Type 6SJ7.										
14E6	Twin-Diode Triode	B5	6W	H	12.6	0.15	Triode Unit as Class A Amplifier	For other characteristics, refer to Type 6SR7.										
14E7	Twin-Diode-Remote-Cutoff Pentode	B5	6AE	H	12.6	0.15	Pentode Unit as Class A Amplifier	100 250	Cath. Bias	100 100	2.7 1.6	10.0 7.5	150000 700000	1600 1300	Cath. Res., 80 ohms Cath. Res., 330 ohms			
14F7	Twin-Triode Amplifier	B5	8AC	H	12.6	0.15	Each Unit as Class A Amplifier	For other characteristics, refer to Type 6SL7-GT.										
14F8	Medium-Mu Twin Triode	B0b	8BW	H	12.6	0.15	Each Unit as Class A Amplifier	250	Cathode-Bias Res., 500-ohms			6.0	——	3300	48	——	——	
14H7	Remote-Cutoff Pentode	B5	8V	H	12.6	0.15	Class A Amplifier	For other characteristics, refer to Type 7H7.										
14J7	Triode-Heptode Converter	B5	8BL	H	12.6	0.15	Converter	For other characteristics, refer to Type 7J7.										
14N7	Twin-Triode Amplifier	C2a	8AC	H	12.6	0.3	Each Unit as Class A Amplifier	For other characteristics, refer to Type 6J5.										
14Q7	Pentagrid Converter▲	B5	8AL	H	12.6	0.15	Converter	For other characteristics, refer to Type 6SA7.										
14R7	Twin-Diode Pentode	B5	8AE	H	12.6	0.15	Pentode Unit as Class A Amplifier	For other characteristics, refer to Type 7R7.										
15	RF Amplifier Pentode	D9	5F	D.C. H	2.0	0.22	Class A Amplifier	67.5 135	— 1.5 — 1.5	67.5 67.5	0.3 0.3	1.85 1.85	630000 800000	710 750	——	——	——	
17AX4-GT	Half-Wave Rectifier	C2b	4CG	H●	16.8	0.45	Television Damper Service	Max. Peak Inverse Plate Volts, 4400 Max. Peak Plate Ma., 750 Max. DC Plate Ma., 125 Max. Peak Heater-Cathode Volts: −4000•• +300 ••DC component must not exceed 900 volts										
17BQ6-GTB	Beam Power Tube	C11	6AM	H●	16.8	0.45	Horizontal Deflection Amplifier	Max. DC Plate Volts, 600 Max. DC Cathode Ma., 112.5 Max. Peak Positive-Pulse Plate Volts, 6000 (Abs.) Max. Plate Dissipation, 11 watts										
17DQ6-A	Beam Power Tube	D6	6AM	H●	16.8	0.45	Horizontal Deflection Amplifier	Max. DC Plate Volts, 700 Max. DC Cathode Ma., 140 Max. Peak Positive-Pulse Plate Volts, 6000 (Abs.) Max. Plate Dissipation, 15 watts										
19	Twin-Triode Amplifier	D5	6C	D.C. F	2.0	0.26	Amplifier	For other characteristics, refer to Type 1J6-G.										
19AU4	Half-Wave Rectifier	C10b	4CG	H●	18.9	0.3	Television Damper Service	Max. Peak Inverse Plate Volts, 4500 Max. Peak Plate Ma., 1050 Max. Peak Heater-Cathode Volts: −4500•• Max. DC Plate Ma., 175 +300 ••DC component must not exceed 900 volts										
19BG6-G **19BG6-GA**	Beam Power Tubes	F_1 E	9BT	H	18.9	0.3	Horizontal Deflection Amplifier in TV Receivers	Max. DC Plate Volts, 700 Max. DC Plate Current, 110 ma. Max. Peak Positive-Pulse Plate Volts, 6600 (Abs.) Max. Plate Dissipation, 20 watts										
19J6	Medium-Mu Twin Triode	B0	7BF	H	18.9	0.15	Each Unit as Class A Amplifier	100	Cathode-Bias Res., 50 ohms *			8.5	7100	5300	38	——	——	
19T8	Triple-Diode High-Mu Triode	B0a	9E	H	18.9	0.15	Triode Unit as Class A Amplifier	For other characteristics, refer to Type 6T8.										

Discontinued types are shown in light face.

RCA Type	Name	Tube Dimensions and Socket Connections: Dimen.	S. C.	Cathode Type and Rating: C. T.	Volts	Amp.	Use (Values to right give operating conditions and characteristics for indicated typical use)	Plate Supply Volts	Grid Bias ■ Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Transconductance (Grid-plate) μmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts
19X8	Triode-Pentode Converter	B0a	9AK	H	18.9	0.15		For characteristics, refer to Type 6X8.									
20	Power Amplifier Triode	D1	4D	D.C. F	3.3	0.132	Class A Amplifier	90 135	−16.5 −22.5	——	——	3.0 6.5	8000 6300	415 525	3.3 3.3	9600 6500	0.045 0.110
22	RF Amplifier Tetrode	E1	4K	D.C. F	3.3	0.132	Screen-Grid RF Amplifier	135 135	− 1.5 − 1.5	45 67.5	0.6* 1.3*	1.7 3.7	725000 325000	375 500	——	——	——
24-A	RF Amplifier Tetrode	E1	5E	H	2.5	1.75	Screen-Grid RF Amplifier	180 250	− 3.0 − 3.0	90 90	1.7* 1.7*	4.0 4.0	400000 600000	1000 1050	——	——	——
							Bias Detector	250	− 5.0 (approx.)	20 to 45	——	Plate current to be adjusted to 0.1 milliampere with no signal.					
25A6 25A6-GT	Power Amplifier Pentodes	C2 C3	7S 7S‡	H	25.0	0.3	Class A Amplifier	95 160	−15.0 −18.0	95 120	4.0 6.5	20.0 33.0	45000 42000	2000 2375	——	4500 5000	0.9 2.2
25A7-GT	Rectifier Pentode	C3	8F	H	25.0	0.3	Pentode Unit as Class A Amplifier	100	−15.0	100	4.0	20.5	50000	1800	——	4500	0.77
							Half-Wave Rectifier	Max. AC Plate Volts (RMS), 117 Max. Peak Inverse Volts, 350				Max. DC Output Ma., 75 Max. Peak Plate Ma., 450			Min. Total Effect. Supply Impedance, 15 ohms.		
25AC5-GT	High-Mu Power Amplifier Triode	C3	6Q‡	H	25.0	0.3	Class B Amplifier	180	0	——	——	4.0♦	——	——	——	4800	6.0
							Dynamic-Coupled Amp. With Type 6AE5-GT Driver	110	Bias for both 25AC5-GT and 6AE5-GT developed in circuit. Average Plate Current of Driver = 7 milliamperes. Average Plate Current of 25AC5-GT = 45 milliamperes.						2000	2.0
25AX4-GT	Half-Wave Rectifier	C2b	4CG	H	25	0.3	Television Damper Service	Max. Peak Inverse Plate Volts, 4400 Max. Peak Plate Ma., 750 Max. DC Plate Ma., 125				Max. Peak Heater-Cathode Volts: (−4400 +300)					
25B5	Direct-Coupled Power Amplifier	D10	8D	H	25.0	0.3	Amplifier	For other characteristics, refer to Type 25N6-G.									
25B6-G	Power Amplifier Pentode	D11b	7S‡	H	25.0	0.3	Class A Amplifier	105 200	−16.0 −23.0	105 135	2.0 1.8	48.0 62.0	15500 18000	4800 5000	——	1700 2500	2.4 7.1
25B8-GT	Triode-Pentode	C3	8T	H	25.0	0.15	Triode Unit as Class A Amplifier	100	− 1.0	——	——	0.6	75000	1500	112	——	——
							Pentode Unit as Class A Amplifier	100	− 3.0	100	2.0	7.6	185000	2000	——	——	——
25BQ6-GT **25BQ6-GTB/ 25CU6**	Beam Power Tubes	C11	6AM	H	25.0	0.3	Horizontal Deflection Amplifier in TV Receivers	Max. DC Plate Volts, 600 Max. DC Cathode Ma., 112.5				Absolute Max. Peak Positive-Pulse Plate Volts, 6000 Max. Plate Dissipation, 11 Watts					

25C6-G	Beam Power Tube	D11b	7AC‡	H	25.0	0.3	Class A Amplifier	For other characteristics, refer to Type 6Y6-G.										
25CD6-GA **25CD6-GB**	Beam Power Tubes	F1 E0	5BT	H● H●	25	0.6	Horizontal Deflection Amplifier in TV Receivers	Max. DC Plate Volts, 700 Max. DC Plate Ma., 170						Max. Peak Positive-Pulse Plate Volts, 6000 (Abs.) Max. Plate Dissipation, 15 Watts					
25L6	Beam Power Tube	C2	7AC	H	25.0	0.3	Amplifier	110 200	− 7.5 − 8.0	110 110	4.0 2.0	49.0 50.0	13000 30000	9000 9500	——	2000 3000	2.1 4.3	
25L6-GT	Beam Power Tube	C2b	7AC‡	H	25.0	0.3	Amplifier	For other characteristics, refer to Type 50L6-GT.										
25N6-G	Direct-Coupled Power Amplifier	D9	7W	H	25.0	0.3	Class A Amplifier	Output Triode: Plate Volts, 180; Plate Ma., 46; Load, 4000 ohms. Triode-Plate Volts, 100; Grid Volts, 0; A-F Signal Volts (Peak), 29.7; Plate Ma., 5.8.										3.8
25W4-GT	Half-Wave Rectifier	C2b	4CG	H	25.0	0.3	With Capacitive-Input Filter	Max. AC Plate Volts (RMS), 350 Max. Peak Inverse Volts, 2000 ϕ, 1250					Max. DC Output Ma., 125 Max. Peak Plate Ma., 600		Min. Total Effect. Supply Imped. per Plate, 145 ohms			
25Y5	Rectifier-Doubler	D5	6E	H	25.0	0.3	Half-Wave Rectifier	Max. AC Volts per Plate (RMS), 235 Max. DC Output Ma. per Plate, 75					Min. Total Effective Plate-Supply Impedance per Plate, 0 ohms.					
25Z5	Rectifier-Doubler	D5	6E	H	25.0	0.3	Rectifier-Doubler	For other ratings, refer to Type 25Z6.										
25Z6 **25Z6-GT**	Vacuum Rectifier-Doublers	C2 C2b	7Q 7Q‡	H	25.0	0.3	Voltage Doubler Half-Wave Rectifier	Max. AC Volts per Plate (RMS), 117 Max. DC Output Ma., 75 Max. AC Volts per Plate (RMS), 235 Max. DC Output Ma. per Plate, 75					Min. Total Effective Plate-Supply Impedance: Half-Wave, 30 ohms; Full-Wave, 15 ohms. Min. Total Effect. Supply Imped. per Plate: Up to 117 volts, 15 ohms; at 150 volts, 40 ohms; at 235 volts, 100 ohms.					
26	Amplifier Triode	D12a	4D	F	1.5	1.05	Class A Amplifier	90 180	− 7.0 −14.5	——	——	2.9 6.2	8900 7300	935 1150	8.3 8.3	——	——	
27	Detector★ Amplifier Triode	D5	5A	H	2.5	1.75	Class A Amplifier	135 250	− 9.0 −21.0	——	——	4.5 5.2	9000 9250	1000 975	9.0 9.0	——	——	
							Bias Detector	250	−30.0 approx.	——	Plate current to be adjusted to 0.2 milliampere with no signal.							
30	Medium-Mu Triode	D5	4D	D.C. F	2.0	0.06	Amplifier	For other characteristics, refer to Type 1H4-G.										
31	Power Amplifier Triode	D5	4D	D.C. F	2.0	0.13	Class A Amplifier	135 180	−22.5 −30.0	——	——	8.0 12.3	4100 3600	925 1050	3.8 3.8	7000 5700	0.185 0.375	
32	RF Amplifier Tetrode	E1	4K	D.C. F	2.0	0.06	Screen-Grid RF Amplifier	135 180	− 3.0 − 3.0	67.5 67.5	0.4 0.4	1.7 1.7	950000 1.0+§	640 650	——	——	——	
							Bias Detector	180▼	− 6.0 approx.	67.5	——	Plate current to be adjusted to 0.2 milliampere with no signal.						
32L7-GT	Rectifier-Beam Power Amplifier	C3	8Z	H	32.5	0.3	Amplifier Unit as Class A Amplifier	90 90	− 5.0 − 7.0	90 90	3.0 2.0	38.0 27.0	15000 17000	6000 4800	——	2600 2600	0.8 1.0	
							Half-Wave Rectifier	Maximum AC Plate Voltage..... 125 Volts, RMS Maximum DC Output Current..... 60 Milliamperes.										
33	Power Amplifier Pentode	D12a	5K	D.C. F	2.0	0.26	Class A Amplifier	180	−18.0	180	5.0	22.0	55000	1700	——	6000	1.5	
34	Remote-Cutoff Pentode	E1	4M	D.C. F	2.0	0.06	Screen-Grid RF Amplifier	135 180	− 3.0 min. 67.5	67.5 67.5	1.0 1.0	2.8 2.8	600000 1.0§	600 620	——	——	——	
35	Remote-Cutoff Tetrode	E1	5E	H	2.5	1.75	Screen-Grid RF Amplifier	180 250	− 3.0 min. 90	90 90	2.5* 2.5*	6.3 6.5	300000 400000	1020 1050	——	——	——	

Discontinued types are shown in light face.

Type	Name	Tube Dimensions and Socket Connections		Cathode Type and Rating			Use (Values to right give operating conditions and characteristics for indicated typical use)	Plate Supply Volts	Grid Bias ■ Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Transconductance (Grid-plate) μmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts
		Dimen.	S. C.	C. T.	Volts	Amp.											
35A5	Beam Power Tube	C2a	6AA	H	35.0	0.15	Single-Tube Class A Amplifier	For other characteristics, refer to Type 35L6-GT.									
35B5	Beam Power Tube	B1	7BZ	H	35.0	0.15	Class A Amplifier	For other characteristics, refer to Type 35C5.									
35C5	Beam Power Tube	B1	7CV	H	35.0	0.15	Class A Amplifier	110	− 7.5	110	3.0	40.0	13000	5800	—	2500	1.5
35L6-GT	Beam Power Tube	C2b	7AC‡	H	35.0	0.15	Single-Tube Class A Amplifier	110 200	− 7.5 △	110 125	3.0 2.0	40.0 43.0	14000 34000	5800 6100	—	2500 5000	1.5 3.0
35W4	Half-Wave Rectifier Heater Tap for Pilot	B1	5BQ	H	35.0	0.15	With Capacitive-Input Filter	Max AC Plate Volts (RMS), 117. Min. Total Effect. Plate-Supply Impedance, 15 ohms. Max. DC Output Ma.: With Pilot and No Shunt Res., 60; With Pilot and Shunt Res., 90; Without Pilot, 100.									
		Pilot Between Pins 4 and 6															
35Y4	Half-Wave Rectifier Heater Tap for Pilot	C2a	5AL	H	35.0	0.15	With Capacitive-Input Filter	For other characteristics, refer to Type 35W4.									
		Pilot Between Pins 1 and 4															
35Z3	Half-Wave Rectifier	C2a	4Z	H	35.0	0.15	With Capacitive-Input Filter	For other ratings, refer to Type 35Z4-GT.									
35Z4-GT	Half-Wave Rectifier	C2b	5AA	H	35.0	0.15	With Capacitive-Input Filter	Max. AC Plate Volts (RMS), 235 Max. DC Output Ma., 100					Min. Total Effective Plate-Supply Impedance: Up to 117 volts, 15 ohms; at 235 volts, 100 ohms.				
35Z5-GT	Half-Wave Rectifier Heater Tap for Pilot	C2b	6AD	H	35.0	0.15	With Capacitive-Input Filter	Max. AC Plate Volts (RMS), 235. Min. Total Effect. Plate-Supply Imped.: Up to 117 volts, 15 ohms; at 235 volts, 100 ohms. Max. DC Output Ma.: With Pilot and No Shunt Res., 60; With Pilot and Shunt Res., 90; Without Pilot, 100.									
		Pilot Between Pins 2 and 3															
36	RF Amplifier Tetrode	D9	5E	H	6.3	0.3	Screen-Grid RF Amplifier	100 250	− 1.5 − 3.0	55 90	1. 1.7*	1.8 3.2	550000 550000	850 1080	— —	— —	— —
							Bias Detector	100 250	− 5.0 − 8.0	55 90	— —	Grid-bias values are approximate. Plate current to be adjusted to 0.1 milliampere with no signal.					
37	Detector★ Amplifier Triode	D5	5A	H	6.3	0.3	Class A Amplifier	90 250	− 6.0 −18.0	— —	— —	2.5 7.5	11500 8400	800 1100	9.2 9.2	— —	— —
							Bias Detector	90 250	−10.0 −28.0	— —	— —	Grid-bias values are approximate. Plate current to be adjusted to 0.2 milliampere with no signal.					
38	Power Amplifier Pentode	D9	5F	H	6.3	0.3	Class A Amplifier	100 250	− 9.0 −25.0	100 250	1.2 3.8	7.0 22.0	140000 100000	875 1200	— —	15000 10000	0.27 2.50
39/44	Remote-Cutoff Pentode	D9	5F	H	6.3	0.3	Class A Amplifier	90 250	(− 3.0 min.	90 90	1.6 1.4	5.6 5.8	400000 1.0‡	1000 1050	— —	— —	— —
40	Medium-Mu Triode	D12a	4D	D.C. F	5.0	0.25	Class A Amplifier	135× 180×	− 1.5 − 3.0	— —	— —	0.2 0.2	150000 150000	200 200	30 30	— —	— —
41	Power Amplifier Pentode	D5	6B	H	6.3	0.4	Amplifier	For other characteristics, refer to Type 6K6-GT.									

42	**Power Amplifier Pentode**	D12a	6B	H	6.3	0.7	Amplifier	For other characteristics, refer to Type 6F6-G.								
43	**Power Amplifier Pentode**	D12a	6B	H	25.0	0.3	Amplifier	For other characteristics, refer to Type 25A6.								
45	**Power Amplifier Triode**	D12a	4D	F	2.5	1.5	Class A Amplifier	180	−31.5	—	—	31.0	1650	2125	3.5	2700	0.82
								275	−56.0			36.0	1700	2050	3.5	4600	2.00
							Push-Pull Class AB_1 Amplifier	275	Cath. Bias, 775 ohms♣			36.0♣	—	—	—	5060	12.0†
								275	−68.0 volts, fixed bias			28.0♣			—	3200	18.0†
45Z3	**Half-Wave Rectifier**	B8	5AM	H	45.0	0.075	Half-Wave Rectifier	Max. AC Plate Volts (RMS), 117 Max. Peak Inverse Volts, 350				Max. DC Output Ma., 65 Max. Peak Plate Ma., 390			Min. Total Effect. Plate-Supply Imped., 15 ohms.		
45Z5-GT	**Half-Wave Rectifier** Heater Tap for Pilot	C2b	6AD	H	45.0	0.15	With Capacitive-Input Filter	For other ratings, refer to Type 35Z5-GT.								
		Pilot Between Pins 2 and 3														
46	**Dual-Grid Power Amplifier**	E3	5C	F	2.5	1.75	Class A Amplifier □	250	−33.0	—	—	22.0	2380	2350	5.6	6400	1.25
							Class B Amplifier♦	300	0	—	—	8.0♣	—	—	—	5200	16.0†
								400	0	—	—	12.0♣	—	—	—	5800	20.0†
47	**Power Amplifier Pentode**	E3	5B	F	2.5	1.75	Class A Amplifier	250	−16.5	250	6.0	31.0	60000	2500	—	7000	2.7
48	**Power Amplifier Tetrode**	E3	6A	D.C. H	30.0	0.4	Tetrode Class A Amplifier	96	−19.0	96	9.0	52.0	—	3800	—	1500	2.0
								125	−20.0	100	9.5	56.0	—	3900	—	1500	2.5
							Tetrode Push-Pull Class A Amplifier	125	−20.0	100	—	100.0♣	—	—	—	3000	5.0†
49	**Dual-Grid Power Amplifier**	D12a	5C	D.C. F	2.0	0.12	Class A Amplifier □	135	−20.0	—	—	6.0	4175	1125	4.7	11000	0.17
							Class B Amplifier♦	180	0	—	—	4.0♣	—	—	—	12000	3.5†
50	**Power Amplifier Triode**	F1a	4D	F	7.5	1.25	Class A Amplifier	300	−54.0	—	—	35.0	2000	1900	3.8	4600	1.6
								400	−70.0	—	—	55.0	1800	2100	3.8	3670	3.4
								450	−84.0	—	—	55.0	1800	2100	3.8	4350	4.6
50A5	**Beam Power Tube**	C2a	6AA	H	50.0	0.15	Class A Amplifier	For other characteristics, refer to Type 50L6-GT.								
50B5	**Beam Power Tube**	B1	7BZ	H	50.0	0.15	Class A Amplifier	For other characteristics, refer to Type 50C5.								
50C5	**Beam Power Tube**	B1	7CV	H	50.0	0.15	Class A Amplifier	110	− 7.5	110	4.0	49.0	10000	7500	—	2500	1.9
50C6-G	**Beam Power Tube**	D11b	7AC	H	50.0	0.15	Single-Tube Class A Amplifier	135	−13.5	135	3.5	58.0	9300	7000	—	2000	3.6
								200	−14.0	135	2.2	61.0	18300	7100	—	2600	6.0
50L6-GT	**Beam Power Tube**	C2b	7AC‡	H	50.0	0.15	Single-Tube Class A Amplifier	100	− 7.5	110	4.0	49.0	13000	8000	—	2000	2.1
								200	△	125	2.2	46.0	28000	8000	—	4000	3.8
50X6	**Rectifier-Doubler**	C2a	7DX	H	50.0	0.15	Rectifier-Doubler	Max. AC Volts per Plate (RMS), 117 Max. DC Output Ma., 75				Min. Total Effective Plate-Supply Impedance: Half-Wave, 30 ohms; Full-Wave, 15 ohms.					
							Half-Wave Rectifier	Max. AC Volts per Plate (RMS), 235 Max. DC Output Ma. per Plate, 75				Min. Total Effect. Supply Imped. per Plate: Up to 117 volts, 15 ohms; at 150 volts, 40 ohms; at 235 volts, 100 ohms.				
50Y6-GT	**Rectifier-Doubler**	C2b	7Q‡	H	50.0	0.15	Rectifier-Doubler	For other ratings, refer to Type 25Z6.								

Discontinued types are shown in light face.

Type	Name	Tube Dimensions and Socket Connections		Cathode Type and Rating			Use (Values to right give operating conditions and characteristics for indicated typical use)	Plate Supply Volts	Grid Bias ■ Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Transconductance (Grid-plate) μmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts
		Dimen.	S. C.	C. T.	Volts	Amp.											
50Y7-GT	Rectifier-Doubler Heater Tap for Pilot	C2b	8AN	H	50.0	0.15	Voltage Doubler	Max. AC Volts per Plate (RMS), 117 Max. DC Output ma., 65				Min. Total Effective Plate-Supply Impedance per Plate, 15 ohms					
		Pilot Between Pins 6 and 7					Half-Wave Rectifier	Max. AC Volts per Plate (RMS), 235 Max. DC Output ma. per Plate, 65				Min. Total Effec. Plate-Supply Imped. per Plate: Up to 117 volts, 15 ohms; at 150 volts, 40 ohms; at 235 volts, 100 ohms					
50Z7-G	Rectifier-Doubler Heater Tap for Pilot	D3	8AN	H	50.0	0.15	Voltage Doubler	Max. AC Volts per Plate (RMS), 117 Max. DC Output Ma., 65				Min. Total Effective Plate-Supply Impedance: 15 ohms.					
		Pilot Between Pins 6 and 7					Half-Wave Rectifier	Max. AC Volts per Plate (RMS), 235 Max. DC Output Ma. per Plate, 65				Min. Total Effective Plate-Supply Impedance per Plate: Up to 117 volts, 15 ohms; at 235 volts, 100 ohms.					
53	Twin-Triode Amplifier	D12a	7B	H	2.5	2.0	Amplifier	For other characteristics, refer to Type 6N7-GT.									
55	Duplex-Diode Triode	D9	6G	H	2.5	1.0	Triode Unit as Amplifier	For other characteristics, refer to Type 85.									
56	Medium-Mu Triode★	D5	5A	H	2.5	1.0	Amplifier Detector	For other characteristics, refer to Type 76.									
57	Sharp-Cutoff Pentode	D13a	6F	H	2.5	1.0	Amplifier Detector	For other characteristics, refer to Type 6J7.									
58	Remote-Cutoff Pentode	D13a	6F	H	2.5	1.0	Amplifier Mixer	For other characteristics, refer to Type 6U7-G.									
59	Triple-Grid Power Amplifier	E3	7A	H	2.5	2.0	Triode‡ Class A Amplifier	250	−28.0	—	—	26.0	2300	2600	6.0	5000	1.25
							Pentode▪▪ Class A Amplifier	250	−18.0	250	9.0	35.0	55000	2500	—	6000	3.0
							Triode● Class B Amplifier	300 400	0 0	—	—	20.0♣ 26.0♣	—	—	—	4600 6000	15.0† 20.0†
70L7-GT	Rectifier-Beam Power Amplifier	C10	8AA	H	70.0	0.15	Amplifier Unit as Class A Amplifier	110	− 7.5	110	3.0	40.0	15000	7500	—	2000	1.8
							Half-Wave Rectifier	Max. AC Plate Volts (RMS), 117 Max. Peak Inverse Volts, 350				Max. DC Output Ma., 70 Max. Peak Plate Ma., 420			Min. Total Effect. Plate-Supply Imped., 15 ohms		
71-A	Power Amplifier Triode	D12a	4D	F	5.0	0.25	Class A Amplifier	90 180	−16.5 −40.5	—	—	10.0 20.0	2170 1750	1400 1700	3.0 3.0	3000 4800	0.125 0.790
75	Twin-Diode High-Mu Triode	D9	6G	H	6.3	0.3	Amplifier	For other characteristics, refer to Type 6SQ7.									
76	Detector Amplifier Triode★	D5	5A	H	6.3	0.3	Class A Amplifier	250	−13.5	—	—	5.0	9500	1450	13.8	—	—
							Bias Detector	250	−20.0 approx.	—	—	Plate current to be adjusted to 0.2 milliampere with no signal.					

77	Triple-Grid Detector Amplifier	D9	6F	H	6.3	0.3	Class A Amplifier	100 250	− 1.5 − 3.0	60 100	0.4 0.5	1.7 2.3	600000 1.0+§	1100 1250	——	——	——
							Bias Detector	250	− 1.95	50	Cathode current 0.65 ma.		——	Plate Resistor, 250000 ohms. Grid Resistor,** 250000 ohms.			
78	Remote-Cutoff Pentode	D9	6F	H	6.3	0.3	Amplifier Mixer	For other characteristics, refer to Type 6K7.									
79	Twin-Triode Amplifier	D9	6H	H	6.3	0.6	Class B Amplifier	180 250	0 ——	——	——	Power Output is for one tube at stated plate-to-plate load.			7000 14000		5.5 8.0
80	Full-Wave Rectifier	D12a	4C	F	5.0	2.0	With Capacitive-Input Filter	Max. AC Volts per Plate (RMS), 350 Max. Peak Inverse Volts, 1400				Max. DC Output Ma., 125 Max. Peak Plate Ma., 375			Min. Total Effect. Supply Imped. per Plate, 50 ohms		
							With Inductive-Input Filter	Max. AC Volts per Plate (RMS), 500 Max. Peak Inverse Volts, 1400				Max. DC Output Ma., 125 Max. Peak Plate Ma., 375			Min. Value of Input Choke, 10 henries		
81	Half-Wave Rectifier	F1a	4B	F	7.5	1.25	With Capacitive-Input Filter	Max. AC Plate Volts (RMS), 700 Max. Peak Inverse Volts, 2000						Max. DC Output Ma., 85 Max. Peak Plate Ma., 500			
82	Full-Wave Rectifier	D12a	4C	F	2.5	3.0	With Capacitive-Input Filter	Max. AC Volts per Plate (RMS), 450 Max. Peak Inverse Volts, 1550				Max. DC Output Ma., 115 Max. Peak Plate Ma., 600			Min. Total Effect. Supply Imped. per Plate, 50 ohms.		
							With Inductive-Input Filter	Max. AC Volts per Plate (RMS), 550 Max. Peak Inverse Volts, 1550				Max. DC Output Ma., 115 Max. Peak Plate Ma., 600			Min. Value of Input Choke, 6 henries		
83	Full-Wave Rectifier	E3	4C	F	5.0	3.0	With Capacitive-Input Filter	Max. AC Volts per Plate (RMS), 450 Max. Peak Inverse Volts, 1550				Max. DC Output Ma., 225 Max. Peak Plate Ma., 1000			Min. Total Effect. Supply Imped. per Plate, 50 ohms.		
							With Inductive-Input Filter	Max. AC Volts per Plate (RMS), 550 Max. Peak Inverse Volts, 1550				Max. DC Output Ma., 225 Max. Peak Plate Ma., 1000			Min. Value of Input Choke, 3 henries		
83-v	Full-Wave Rectifier	D12a	4AD	H	5.0	2.0	For other ratings, refer to Type 5V4-G.										
84/6Z4	Full-Wave Rectifier	D5	5D	H	6.3	0.5	With Capacitive-Input Filter	Max. AC Volts per Plate (RMS), 325 Max. Peak Inverse Volts, 1250				Max. DC Output Ma., 60 Max. Peak Plate Ma., 180			Min. Total Effect. Supply Imped. per Plate, 150 ohms.		
							With Inductive-Input Filter	Max. AC Volts per Plate (RMS), 450 Max. Peak Inverse Volts, 1250				Max. DC Output Ma., 60 Max. Peak Plate Ma., 180			Min. Value of Input Choke, 10 henries		
85	Twin-Diode Triode	D8	6G	H	6.3	0.3	Triode Unit as Class A Amplifier	135 250	−10.5 −20.0	——	——	3.7 8.0	11000 7500	750 1100	8.3 8.3	25000 20000	0.075 0.350
89	Triple-Grid Power Amplifier	D9	6F	H	6.3	0.4	As Triode¶ Class A Amplifier	160 250	−20.0 −31.0	——	——	17.0 32.0	3300 2600	1425 1800	4.7 4.7	7000 5500	0.30 0.90
							As Pentode▪▪ Class A Amplifier	100 250	−10.0 −25.0	100 250	1.6 5.0	9.5 32.0	104000 70000	1200 1800	——	10700 6750	0.33 3.40
							As Triode◆ Class B Amplifier	180	0	——	——	6.0♠	——	——	——	13600 9400	2.50† 3.50†
							Amplifier Unit as Class A Amplifier	105	− 5.2	105	4.0	43.0	17000	5300	——	4000	0.85
117L7/ M7-GT	Rectifier-Beam Power Tube	C10	8AQ	H	117	0.09	Half-Wave Rectifier	Max. AC Plate Volts (RMS), 117 Max. Peak Inverse Volts, 350				Max. DC Output Ma., 75 Max. Peak Plate Ma., 450			Min. Total Effect. Plate-Supply Imped., 15 ohms.		
117N7-GT	Rectifier-Beam Power Tube	C10	8AV	H	117	0.09	Amplifier Unit as Class A Amplifier	100	− 6.0	100	5.0	51.0	16000	7000	——	3000	1.2
							Half-Wave Rectifier	Max. AC Plate Volts (RMS), 117 Max. Peak Inverse Volts, 350				Max. DC Output Ma., 75 Max. Peak Plate Ma., 450			Min. Total Effect. Plate-Supply Impedance, 15 ohms.		

Discontinued types are shown in light face.

Type	Name	Tube Dimensions and Socket Connections		Cathode Type and Rating			Use Values to right give operating conditions and characteristics for indicated typical use	Plate Supply Volts	Grid Bias ■ Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Transconductance (Grid-plate) micromhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts
		Dimen.	S. C.	C. T.	Volts	Amp.											
117P7-GT	Rectifier-Beam Power Tube	C10	8AV	H	117	0.09	Amplifier Unit as Class A Amplifier	For other characteristics, refer to Type 117L7/M7-GT.									
							Half-Wave Rectifier	For other ratings, refer to Type 117L7/M7-GT.									
117Z3	Half-Wave Rectifier	B1a	4CB	H	117	0.04	With Capacitive-Input Filter	Max. AC Plate Volts (RMS), 117 Max. Peak Inverse Volts, 330				Max. DC Output Ma., 90 Max. Peak Plate Ma., 540			Min. Total Effect. Plate-Supply Imped., 20 ohms		
117Z4-GT	Half-Wave Rectifier	C0	5AA	H	117.0	0.04	With Capacitive-Input Filter	Max. AC Plate Volts (RMS), 117 Max. Peak Inverse Volts, 350				Max. DC Output ma., 90 Max. Peak Plate ma., 540			Min. Total Effect. Plate-Supply Imped., 30 ohms		
117Z6-GT	Rectifier-Doubler	C2b	7Q‡	H	117	0.075	Voltage Doubler	Max. AC Volts per Plate (RMS), 117 Max. DC Output Ma., 60				Min. Total Effective Plate-Supply Impedance per Plate: Half-Wave, 30 ohms; Full-Wave, 15 ohms.					
							Half-Wave Rectifier	Max. AC Volts per Plate (RMS), 235 Max. DC Output Ma. per Plate, 60				Min. Total Effect. Supply Imped. per Plate: Up to 117 volts, 15 ohms; at 150 volts, 40 ohms; at 235 volts, 100 ohms.				

KEY TO TUBE DIMENSIONS

Symbol	Maximum Overall Length x Diameter	Symbol	Maximum Overall Length x Diameter	Symbol	Maximum Overall Length x Diameter	Symbol	Maximum Overall Length x Diameter	Symbol	Maximum Overall Length x Diameter
A	1 1/2" x 3/8"	B4a	3 1/16" x 3/4"	C6	3 1/16" x 1 9/16"	D6	4 1/16" x 1 9/16"	E	5" x 1 9/16"
A1	1 1/2" x 1/4"	B5	2 23/32" x 1 3/16"	C9a	3 1/16" x 1 3/16"	D7	4 5/16" x 1 1/2"	E0	5" x 1 29/32"
A1a	1 1/2" x 1 3/16"	B5a	2 23/32" x 1"	C10	3 1/16" x 1 29/32"	D8	4 15/32" x 1 9/16"	E0a	5 1/16" x 1 29/32"
A1b	1 1/2" x 3/8"	B5b	2 29/32" x 1 1/16"	C10a	3 1/16" x 1 5/16"	D9	4 17/32" x 1 9/16"	E0b	5 1/16" x 2 1/16"
B0	2 1/4" x 1 3/32"	C0	3 3/32" x 1 9/32"	C10b	3 1/32" x 1 1/32"	D10	4 19/32" x 1 9/16"	E1	5 1/32" x 1 13/16"
B0a	2 1/32" x 1 3/32"	C0a	3 1/32" x 1 9/32"	C11	3 1/2" x 1 9/16"	D11	4 5/8" x 1 9/16"	E1a	5 1/32" x 1 13/16"
B0b	2 1/32" x 1 3/32"	C1	3 1/16" x 1 3/16"	C11a	3 1/2" x 1 1/16"	D11a	4 5/8" x 1 13/16"	E2	5 1/32" x 1 1/16"
B0c	2 1/16" x 1 9/16"	C2	3 1/16" x 1 7/16"	D1	4" x 1 3/16"	D11b	4 5/8" x 1 13/16"	E2a	5 1/32" x 1 13/16"
B1	2 5/16" x 3/8"	C2a	3 1/32" x 1 7/16"	D1a	4" x 1 9/16"	D12	4 11/16" x 1 7/16"	E3	5 1/32" x 2 1/16"
B1a	2 5/16" x 1 1/16"	C2b	3 1/16" x 1 9/16"	D2	4 1/16" x 1 9/16"	D12a	4 11/16" x 1 13/16"	E3a	5 1/16" x 2 1/16"
B2	2 5/16" x 1 5/16"	C3	3 1/16" x 1 5/16"	D2a	4 1/16" x 1 3/16"	D12b	4 21/32" x 1 33/64"	F1	5 11/16" x 2 1/16"
B3	2 1/16" x 3/8"	C4	3 1/16" x 1 1/16"	D3	4 1/16" x 1 1/16"	D13	4 1/2" x 1 9/16"	F1a	6 1/16" x 2 1/16"
B4	2 11/16" x 3/8"	C5	3 3/8" x 1 9/32"	D4	4 1/16" x 1 3/16"	D13a	4 15/16" x 1 13/16"	G1	8" x 2 1/16"
				D5	4 1/16" x 1 1/16"				

★ For Grid-leak Detection—plate volts, 45; grid return to + filament or to cathode.

■ Either ac or dc may be used on filament or heater, except as specifically noted. For use of dc on ac filament types, decrease stated grid volts by ½ (approx.) of filament voltage.

➴ Supply voltage applied through 20000-ohm voltage-dropping resistor.

➤ Mercury-Vapor Type.

■■ Grid # 1 is control grid. Grid # 2 is screen. Grid # 3 tied to cathode.

¶ Grid # 1 is control grid. Grids # 2 and # 3 tied to plate.

❦ Grids # 1 and # 2 connected together. Grid # 3 tied to plate.

o Grids # 3 and # 5 are screen. Grid # 4 is signal-input control grid.

▲ Grids # 2 and # 4 are screen. Grid # 1 is signal-input control grid.

** For grid of following tube.

° Both grids connected together; likewise, both plates.

† Power output is for two tubes at stated plate-to-plate load.

♠ For two tubes.

‡ This diagram is like the one having the same designation, except that Pin No. 1 has no connection.

♣ Obtained preferably by using 70000-ohm voltage-dropping resistor in series with a 90-volt supply.

↘ This diagram is like the one having the same designation, except that base sleeve is connected to Pin No. 1.

▣ With tube mounted horizontally and pins No. 4 and No. 8 in a vertical plane (pin No. 4 on top), deflecting electrode No. 1 controls left-hand section of pattern, deflecting electrode No. 2 controls top right-hand section of pattern, deflecting electrode No. 3 controls bottom section of pattern.

+ Each unit.

● Heater has controlled warm-up time for series-string operation.

ϟ Value is for both units operating at the specified conditions.

‡‡ This diagram is like the one having the same designation, except that Pin No. 1 is connected to internal shield.

✣ Grids # 2 and # 3 tied to plate.

▲▲ Both grids connected together; likewise both cathodes.

⁂ This diagram is like the one having the same designation, except that the base sleeve is connected to Pin No. 1.

▼ Applied through plate resistor of 100000 ohms.

✖ Applied through plate resistor of 250000 ohms.

□ Grid # 2 tied to plate.

°° Applied through plate resistor of 150000 ohms.

◀ For signal-input control-grid (# 1); control-grid # 3 bias, —3 volts.

▲ Grids # 2 and # 4 are screen. Grid # 3 is signal-input control grid.

Note 1: Subscript 1 on class of amplifier service (as AB_1) indicates that grid current does not flow during any part of input cycle.

Note 2: Subscript 2 on class of amplifier service (as AB_2) indicates that grid current flows during some part of the input cycle.

ϕ For television damper service.

△ Cathode-bias resistor, 180 ohms.

⓫ Superseded by 10-Y. See Power and Gas Tubes Booklet PG-101A.

√ With separate excitation and triode unit grounded.

⊙ For use in automobile receivers which use transistors in the output stage; with tube and transistor electrode voltages supplied directly from a 12.6-volt storage battery.

* Maximum.

§ Megohms.

ⁿ 50000 ohms.

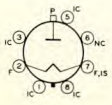
ϕ Grids # 1 and # 2 tied together.

LEGEND FOR BASE AND ENVELOPE CONNECTION DIAGRAMS

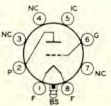
Bottom Views

Subscripts B, D, HP, HX, P, T, and TR indicate, respectively, beam unit, diode unit, heptode unit, hexode unit, pentode unit, triode unit, and tetrode unit in multi-unit types.

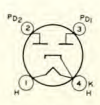
BC = Base Sleeve
BS = Base Shell
DJ = Deflecting Electrode
ES = External Shield
F = Filament
F_M = Filament Mid-Tap
G = Grid
H = Heater
H_L = Heater Tap for Panel Lamp
H_M = Heater Mid-Tap
HS = Heater Shield
IC = Internal Connection-Do Not Use
IS = Internal Shield
K = Cathode
NC = No Connection
P = Plate (Anode)
RC = Ray-Control Electrode
S = Shell
TA = Target
U = Unit
● = Gas-Type Tube



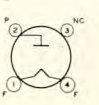
3C



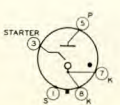
4AA



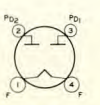
4AD



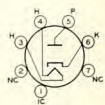
4B



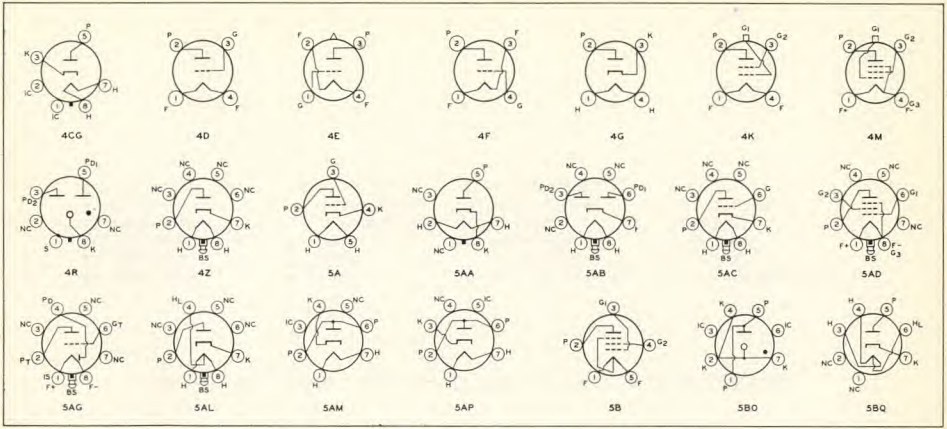
4BU

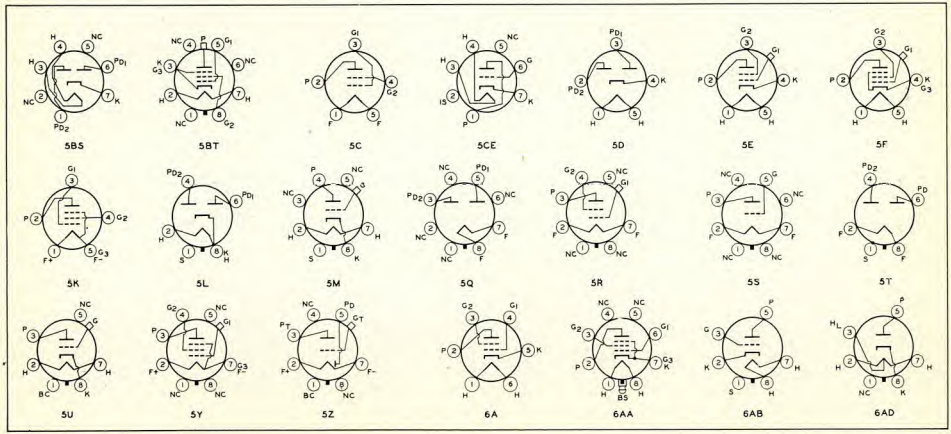


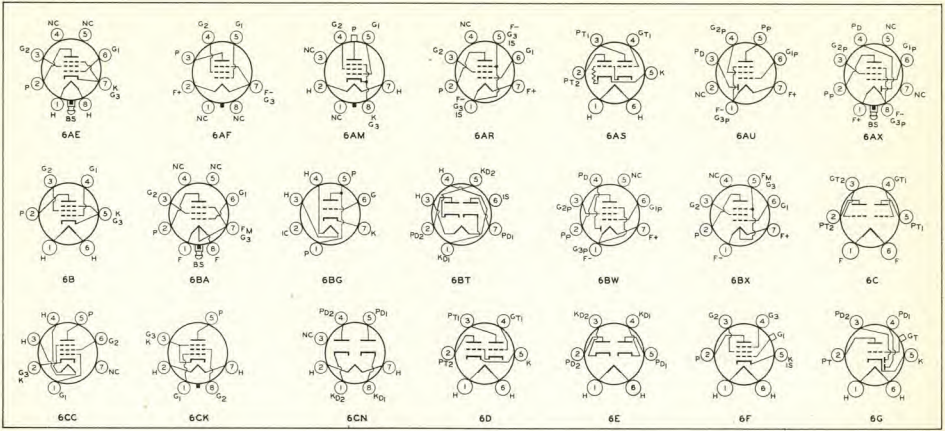
4C

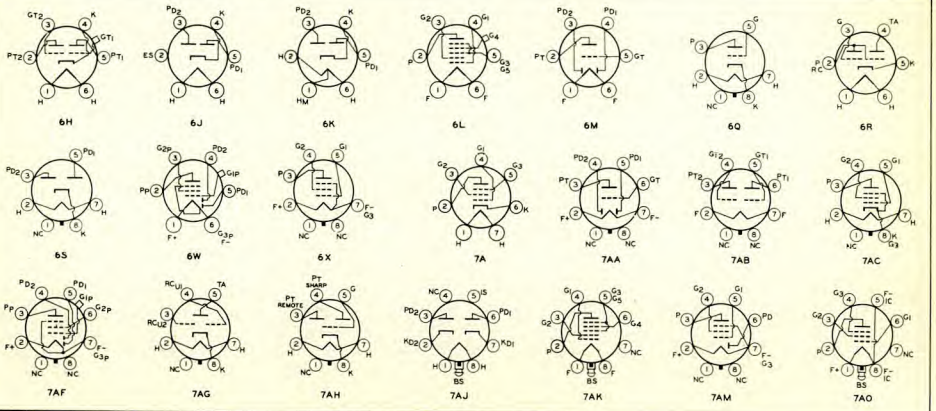


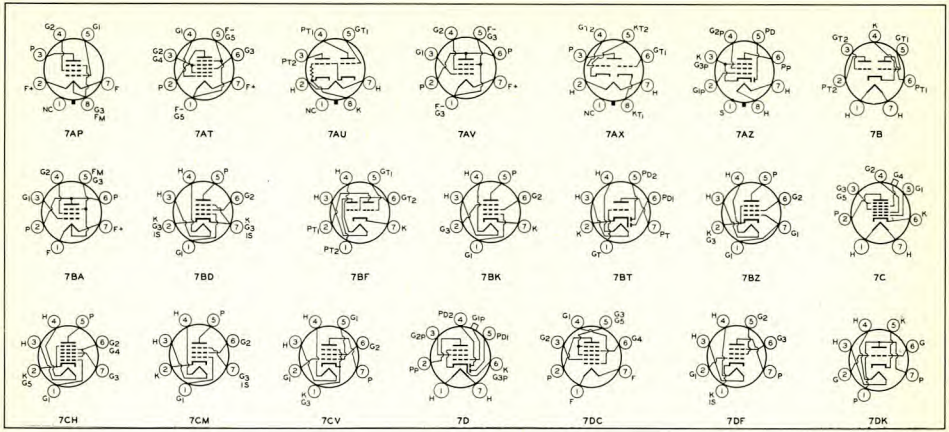
4CB

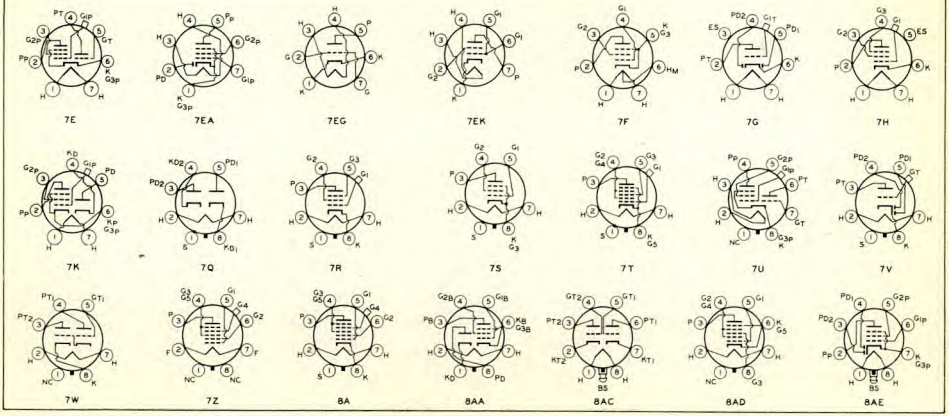

4CG
4D
4E
4F
4G
4K
4M
4R
4Z
5A
5AA
5AB
5AC
5AD
5AG
5AL
5AM
5AP
5B
5B0
5BQ

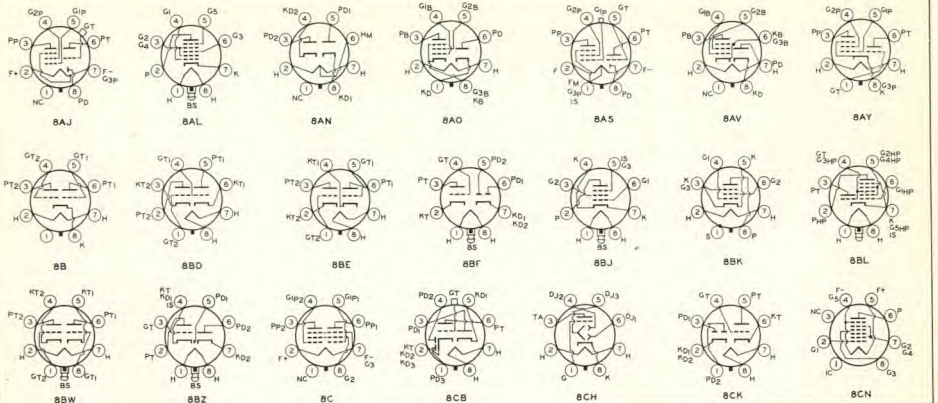

5BS
5BT
5C
5CE
5D
5E
5F
5K
5L
5M
5Q
5R
5S
5T
5U
5Y
5Z
6A
6AA
6AB
6AD

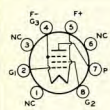

6AE
6AF
6AM
6AR
6AS
6AU
6AX
6B
6BA
6BG
6BT
6BW
6BX
6C
6CC
6CK
6CN
6D
6E
6F
6G


6H
6J
6K
6L
6M
6Q
6R
6S
6W
6X
7A
7AA
7AB
7AC
7AF
7AG
7AH
7AJ
7AK
7AM
7AO

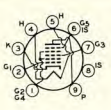

7AP
7AT
7AU
7AV
7AX
7AZ
7B
7BA
7BD
7BF
7BK
7BT
7BZ
7C
7CH
7CM
7CV
7D
7DC
7DF
7DK


7E
7EA
7EG
7EK
7F
7G
7H
7K
7Q
7R
7S
7T
7U
7V
7W
7Z
8A
8AA
8AC
8AD
8AE

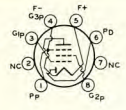

8AJ
8AL
8AN
8AO
8AS
8AV
8AY
8B
8BD
8BE
8BF
8BJ
8BK
8BL
8BW
8BZ
8C
8CB
8CH
8CK
8CN



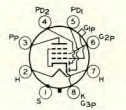
8CP



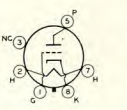
8CT



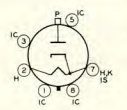
8DA



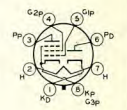
8E



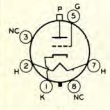
8EL



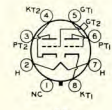
8EZ



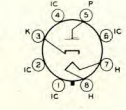
8F



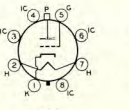
8FU



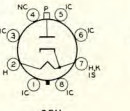
8G



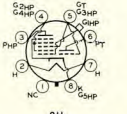
8GB



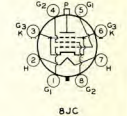
8GC



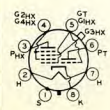
8GH



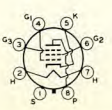
8H



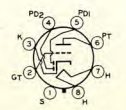
8JC



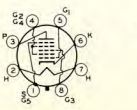
8K



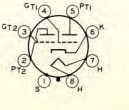
8N



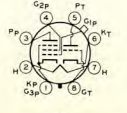
8Q



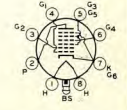
8R



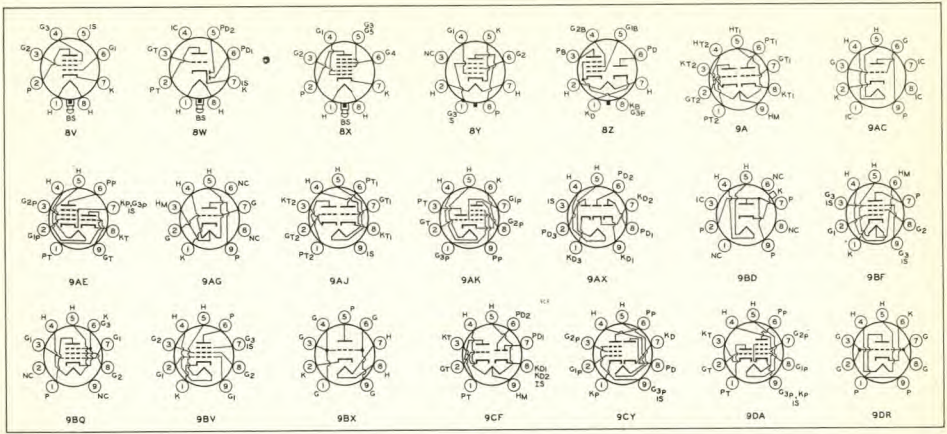
8S

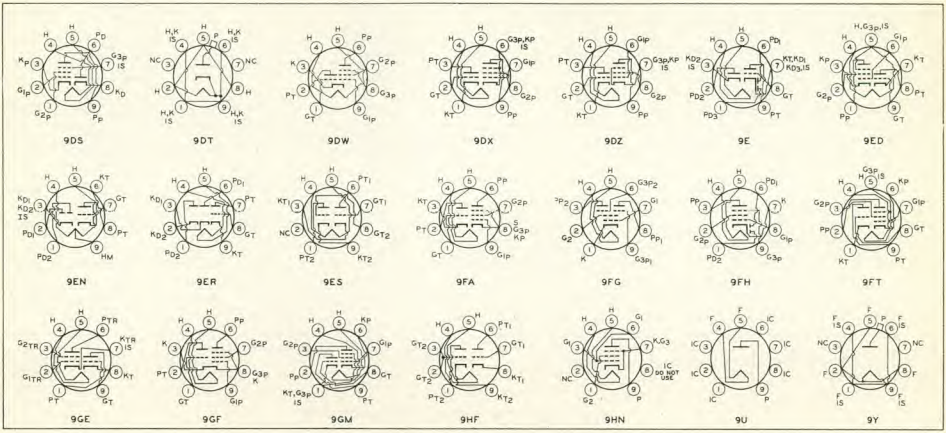


8T



8U


8V
8W
8X
8Y
8Z
9A
9AC
9AE
9AG
9AJ
9AK
9AX
9BD
9BF
9BQ
9BV
9BX
9CF
9CY
9DA
9DR


9DS
9DT
9DW
9DX
9DZ
9E
9ED
9EN
9ER
9ES
9FA
9FG
9FH
9FT
9GE
9GF
9GM
9HF
9HN
9U
9Y

RCA RECEIVING TUBE CHART II

Covering Types Added After Mid-1957

Type	Name	Tube Dimensions and Socket Connections		Cathode Type and Rating			Use (Values to right give operating conditions and characteristics for indicated typical use)	Plate Supply Volts	Grid Bias ■ Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Transconductance (Grid-Plate) μmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts
		Dimen.	S. C.	C. T.	Volts	Amp.											
2CY5	Sharp-Cutoff Tetrode	B0	7EW	He	2.4	0.6	Class A Amplifier	125	−1	80	1.5	10	100000	8000	——	——	——
4BN6	Beam Tube	B1	7DF	He	4.2	0.45	Limiter and Discriminator Service	Max. DC Plate Volts, 300 Max. Positive-Peak Grid-No. 1 Volts, 55 Max. Cathode Ma., 11.5						Max. Grid-No. 2 Volts, 100 Max. Peak Heater-Cathode Volts, 90			
4BU8	Sharp-Cutoff Twin Pentode	B3	9FG	He	4.2	0.3	Class A Amplifier (With both sections operating)	100	♦	67.5	6.5	——	Grid-No. 3, volts, each section, −10				
								100	♦	67.5	3.3	2.2	Grid-No. 3, volts, each section, 0				
								♦ Grid-bias voltage adjusted to give grid-No. 1 current of 0.1 milliampere									
4BZ6	Semiremote-Cutoff Pentode	B0	7CM	He	4.2	0.45	Class A Amplifier	200	Cath. Bias	150	2.6	11	600000	6100	Cath. Bias Res., 180 ohms		
5B8	Medium-Mu Triode-Sharp-Cutoff Pentode	B0a	9EC	He	4.7	0.6	Triode Unit as Class A Amplifier	200	−6	——	——	13	5750	3300	19	——	——
							Pentode Unit as Class A Amplifier	200	Cath. Bias	150	2.8	9.5	300000	6200	Cath. Bias Res., 180 ohms		
5BT8	Twin-Diode-Sharp-Cutoff Pentode	B0a	9FE	He	4.7	0.6	Class A Amplifier	200	Cath. Bias	150	2.8	9.5	300000	6200	Cath. Bias Res., 180 ohms		
5CL8	Medium-Mu Triode-Sharp-Cutoff Tetrode	B0a	9FX	He	4.7	0.6	Triode Unit as Class A Amplifier	125	Cath. Bias	——	——	15	5000	8000	40	Cath. Bias Res., 56 ohms	
							Tetrode Unit as Class A Amplifier	125	−1	125	4	12	100000	5800	——	——	——
5V4-GA	Full-Wave Rectifier	C11a	5L2	H	5.0	2.0	With Capacitive-Input Filter	Max. AC Volts per Plate (RMS), 375 Max. Peak Inverse Volts, 1400					Max. DC Output Ma., 175 Max. Peak Plate Ma., 525		Min. Total Effect. Supply Imped. per Plate, 100 ohms		
							With Inductive-Input Filter	Max. AC Volts per Plate (RMS), 500 Max. Peak Inverse Volts, 1400					Max. DC Output Ma., 175 Max. Peak Plate Ma., 525		Min. Value of Input Choke, 4 henries		

Type	Name	Tube Dimensions and Socket Connections		Cathode Type and Rating			Use	Plate Supply	Grid Bias ■	Screen Supply	Screen Current	Plate Current	AC Plate Resistance	Transconductance (Grid-Plate)	Amplification Factor	Load for Stated Power Output	Power Output
		Dimen.	S. C.	C. T.	Volts	Amp.	Values to right give operating conditions and characteristics for indicated typical use	Volts	Volts	Volts	Ma.	Ma.	Ohms	μmhos		Ohms	Watts
5V6-GT	Beam Power Tube	C2b	7AC	He●	4.7	0.6	Single-Tube Class A Amplifier	180	−8.5	180	3	29	50000	3700	——	5500	2
								250	−12.5	250	4.5	45	50000	4100	——	5000	4.5
								315	−13	225	2.2	34	80000	3750	——	8500	5.5
							Push-Pull Class AB1 Amplifier	250	−15	250	5♠	70♠	60000	3750	——	10000	10†
								285	−19	285	4♠	70♠	70000	3600	——	8000	14†
6BJ8	Twin Diode–Medium-Mu Triode	B3	9ER	He●	6.3	0.6	Triode Unit as Class A Amplifier	90	0	——	——	13.5	4700	4700	22	——	——
								250	−9	——	——	8	7150	2800	20	——	——
							Triode Unit as Vertical Deflection Amplifier	Max. DC Plate Volts, 300 Max. Peak Cathode Ma., 70					Max. Peak Positive-Pulse Plate Volts, 1200 (Abs.) Max. Plate Dissipation, 3.3 watts				
6BL7-GTA	Medium-Mu Twin Triode	C2b	8BD	H	6.3	1.5	Vertical Deflection Amplifier	Unit No. 2: Max. DC Plate Volts, 500 Max. DC Cathode Ma., 60					Max. Peak Positive-Pulse Plate Volts, 2000 (Abs.) Max. Plate Dissipation, 10 watts				
							Vertical Deflection Oscillator	Unit No. 1: Max. DC Plate Volts, 500 Max. Plate Dissipation, 10 watts					Max. DC Cathode Ma., 60 Max. Peak Neg. Grid Volts, 400				
6BQ5	Beam Power Tube	B4a	9CV	H	6.3	0.76	Class A Amplifier	250	−7.3	250	5.5	48	38000	11300	——	4500	5.7
							Push-Pull Class AB1 Amplifier	250	Cath. Bias	250	7♠	62♠	Cath. Bias Res., 130 ohms			8000	11†
								330	Cath. Bias	300	8♠	72♠	Cath. Bias Res., 130 ohms			8000	17†
6BY8	Diode–Sharp-Cutoff Pentode	B3	9FN	He●	6.3	0.6	Diode Unit	Max. Peak Inverse Plate Volts, 430 Max. Peak Plate Ma., 180					Max. DC Plate Ma., 45 Max. Peak Heater-Cathode Volts, 200				
							Pentode Unit as Class A Amplifier	100	Cath. Bias	100	2.1	5	500000	3900	Cath Bias Res., 150 ohms		
								250		150	4.3	10.6	1§	5200	Cath. Bias Res., 68 ohms		
6CL8	Medium-Mu Triode–Sharp-Cutoff Tetrode	B0a	9FX	He●	6.3	0.45	Triode Unit as Class A Amplifier	125	Cath. Bias	——	——	15	5000	8000	40	Cath. Bias Res., 56 ohms	
							Tetrode Unit as Class A Amplifier	125	−1	125	4	12	100000	5800	——	——	——
6CM6	Beam Power Tube	B3	9CK	H	6.3	0.45	Class A Amplifier	180	−8.5	180	3	29	50000	3700	——	5500	2
								315	−13	225	2.2	34	80000	3750	——	8500	5.5
							Vertical Deflection Amplifier	Max. DC Plate Volts, 315 Max. Peak Cathode Ma., 140					Max. Peak Positive-Pulse Plate Volts, 2000 (Abs.) Max. Plate Dissipation, 8 watts				
6CR6	Diode–Remote-Cutoff Pentode	B0	7EA	H	6.3	0.3	Pentode Unit as Class A Amplifier	250	−2	100	3	9.5	200000	1950	Grid-No. 1 Volts for trans-cond. of 10 micromhos, −40		

Type	Name	Tube Dimensions and Socket Connections		Cathode Type and Rating			Use Values to right give operating conditions and characteristics for indicated typical use	Plate Supply Volts	Grid Bias ■ Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Transconductance (Grid-Plate) „mhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts
		Dimen.	S. C.	C. T.	Volts	Amp.											
6CS7	Dual Triode With Dissimilar Units	B3	9EF	H●	6.3	0.6	Vertical Deflection Oscillator	Unit No. 1: Max. DC Plate Volts, 500 Max. Peak Neg.-Pulse Grid Volts, 400					Max. Peak Cathode Ma., 70 Max. DC Cathode Ma., 15		Max. Plate Dissipation, 1.25 watts		
							Vertical Deflection Amplifier	Unit No. 2: Max. DC Plate Volts, 500 Max. Peak Positive-Pulse Plate Volts, 2200 (Abs.)					Max. Peak Neg.-Pulse Grid Volts, 250 Max. Peak Cathode Ma., 105			
6CY5	Sharp-Cutoff Tetrode	B0	7EW	H	6.3	0.2	Class A Amplifier	125	−1	80	1.5	10	100000	8000	——	——	——
6EA8	Triode–Pentode Converter	B0a	9AE	H●	6.3	0.45	Triode Unit as Class A Amplifier	150	Cath. Bias	——	——	18	5000	8500	40	Cath. Bias Res., 56 ohms	
							Pentode Unit as Class A Amplifier	125	−1	125	4	12	80000	6400	——	——	——
6EH5	Power Pentode	B1	7CV	H	6.3	1.2	Class A Amplifier	110	∴	115	11.5	42	11000	14600	——	8000	1.4
6EM5	Beam Power Tube	B4a	9HN	H	6.3	0.8	Vertical Deflection Amplifier	Max. DC Plate Volts, 315 Max. Peak Cathode Ma., 210					Max. Peak Positive-Pulse Plate Volts, 2200 (Abs.) Max. Plate Dissipation, 10 watts				
							Class A Amplifier	250	−18	250	3	36	——	5100	8.7	——	——
6T8-A	Triple-Diode–High-Mu Triode	B0a	9E	H●	6.3	0.45	Triode Unit as Class A Amplifier	100	−1	——	——	0.8	54000	1300	70	——	——
								250	−3	——	——	1	58000	1200	70	——	——
8EM5	Beam Power Tube	B4a	9HN	H●	8.4	0.6	Vertical Deflection Amplifier	Max. DC Plate Volts, 315 Max. Peak Cathode Ma., 210					Max. Peak Positive-Pulse Plate Volts, 2200 (Abs.) Max. Plate Dissipation, 10 watts				
							Class A Amplifier	250	−18	250	3	36	——	5100	8.7	——	——
12AV5-GA	Beam Power Tube	D1a	6CK	H●	12.6	0.6	Horizontal Deflection Amplifier	Max. DC Plate Volts, 550 Max. DC Cathode Ma., 110					Max. Peak Positive-Pulse Plate Volts, 5500 Max. Plate Dissipation, 11 watts				
12AY7	Medium-Mu Twin Triode	B0a	9A	H	6.3 12.6	0.3 0.15	Each Unit as Class A Amplifier	250	−4	——	——	3	25000	1750	44	——	——
12BK5	Beam Power Tube	B3	9BQ	H●	12.6	0.6	Class A Amplifier	250	−5	250	3.5	35	100000	8500	——	6500	3.5
12CN5	Remote-Cutoff Pentode ‡	B1	7CV	H	10.0 to 15.9	0.45 —●—	Class A Amplifier	12.6	Grid-No. 1 Supply Volts, 0	12.6	3.5	4.5	40000	3800	Grid-No. 1 Volts for trans-cond. of 10 micromhos, −4.5		
12CU5/ 12C5	Beam Power Tube	B1	7CV	H●	12.6	0.6	Class A Amplifier	120	−8	110	4	49	10000	7500	——	2500	2.3

RCA Type	Name	Tube Dimensions and Socket Connections		Cathode Type and Rating			Use (Values to right give operating conditions and characteristics for indicated typical use)	Plate Supply Volts	Grid Bias ■ Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Transconductance (Grid-Plate) μmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts
		Dimen.	S. C.	C. T.	Volts	Amp.											
12CX6	Sharp-Cutoff Pentode ♭	B0	7BK	H	10.0 to 15.9	0.15	Class A Amplifier	12.6	Grid-No. 1 Supply Volts, 0	12.6	1.4	3	40000	3100	Grid-No. 1 Volts for Plate Current of 10 μa., −4.5		
12D4	Half-Wave Rectifier	C2b	4CG	H●	12.6	0.6	Television Damper Service	Max. Peak Inverse Volts, 4400 (Abs.) Max. Peak Plate Ma., 900					Max. Average Plate Ma., 155 Max. Plate Dissipation 5.5 watts				
12DL8	Twin-Diode–Power Tetrode ♭	B3	9HR	H	10.0 to 15.9	0.55	Tetrode Unit as Class A Amplifier	12.6	Grid-No. 1 (Space-Charge Grid) Volts, 12.6 Transcond. (Grid-No. 2 to Plate) 15000 μmhos		Grid-No. 1 Ma., 75 Plate Ma., 40 Grid-No. 2 (Control-Grid) Volts, −.5		Plate Resistance, 480 ohms		Amplification Factor (Grid No. 2 to Plate) 7.2		
							Diode Units	Plate Current (Each Diode Unit) with 10 Volts Applied, 3 Ma.									
12DS7	Twin-Diode–Power Tetrode ♭	B3	9JU	H	10.0 to 15.9	0.4	Tetrode Units as Class A Amplifier	12.6	Grid-No. 1 (Space-Charge Grid) Volts, 12.6 Transcond. (Grid-No. 2 to Plate) 15000 μmhos		Grid-No. 1 Ma., 75 Plate Ma., 40 Grid-No. 2 (Control-Grid) Volts, −.5		Plate Resistance, 480 ohms		Amplification Factor (Grid No. 2 to Plate) 7.2		
							Diode Units	Plate Current (Each Diode Unit) with 10 Volts Applied, 3 Ma.									
12DZ6	Remote-Cutoff Pentode ♭	B0	7BK	H	10.0 to 15.9	0.175	Class A Amplifier	12.6	−.5	12.6	2.4	4.5	30000	3800	Bias voltage developed across 10-megohm resistor		
12EG6	Pentagrid ♭ Amplifier	B0	7CH	H	10.0 to 15.9	0.13	Class A Amplifier	12.6	−.6*	12.6	2.8	.55	150000		Transconductance (Grid-No. 3 to Plate), 800 micromhos		
12EH5	Power Pentode	B1	7CV	H●	12.6	0.6	Class A Amplifier	110	..	115	11.5	42	11000	14600	——	8000	1.4
12EK6	Sharp-Cutoff Pentode ♭	B0	7BK	H	10.0 to 15.9	0.19	Class A Amplifier	12.6	——	12.6	2	4.4	40000	4200	Grid-No. 1 Supply Volts, 0 Grid-No. 1 Res. (Bypassed), 2.2 megohms		
12J8	Twin-Diode–Power Tetrode ♭	B0a	9GC	H	10.0 to 15.9	0.325	Tetrode Unit as Class A Amplifier	12.6	0	12.6	1.5	12	6000	5500	——	2700	0.02
12R5	Beam Power Tube	B1	7CV	H●	12.6	0.6	Class A Amplifier	110	−8.5	110	3.3	40	13000	7000	Grid-No. 1 Volts for Plate Current of 0.5 Ma, −22		
							Vertical Deflection Amplifier	Max. DC Plate Volts, 150 Max. Peak Cathode Ma., 155					Max. Peak Positive-Pulse Plate Volts, 1500 (Abs.) Max. Plate Dissipation, 4.5 watts				

RCA Type	Name	Tube Dimensions and Socket Connections		Cathode Type and Rating			Use (Values to right give operating conditions and characteristics for indicated typical use)	Plate Supply Volts	Grid Bias ■ Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Transconductance (Grid-Plate) μmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts
		Dimen.	S. C.	C. T.	Volts	Amp.											
25C5	Beam Power Tube	B1	7CV	H	25.0	0.3	Class A Amplifier	120	−8	110	4	49	10000	7500	——	2500	2.3
25DN6	Beam Power Tube	E	5BT	H●	25.0	0.6	Horizontal Deflection Amplifier	Max. DC Plate Volts, 700 Max. DC Cathode Ma., 200					Max. Peak Positive-Pulse Plate Volts, 6600 (Abs.) Max. Plate Dissipation, 15 watts				
25EH5	Power Pentode	B1	7CV	H	25.0	0.3	Class A Amplifier	110	∴	115	11.5	42	11000	14600	——	8000	1.4
50EH5	Power Pentode	B1	7CV	H	50.0	0.15	Class A Amplifier	110	∴	115	11.5	42	11000	14600	——	8000	1.4
5881	Beam Power Tube	C9b	7AC	H	6.3	0.9	Single Tube Class A Amplifier	250 350	−14 −18	250 250	4.3 2.5	75 53	30000 48000	6100 5200	—— ——	2500 4200	6.7 11.3
							Push-Pull Class A Amplifier	250 270	−16 −17.5	250 270	10♣ 11♣	120♣ 134♣	24500 23500	5500 5700	—— ——	5000 5000	14.5† 17.5†
							Push-Pull Class AB_1 Amplifier	360 360	−22.5 −22.5	270 270	5♣ 5♣	88♣ 88♣	—— ——	—— ——	—— ——	6600 3800	26.5† 18 †
							Push-Pull Class AB_2 Amplifier	360 360	−18 −22.5	225 270	3.5♣ 5♣	78♣ 88♣	—— ——	—— ——	—— ——	6000 3800	31 † 47 †
6973	Beam Power Tube	B3	9EU	H	6.3	0.45	Push-Pull Class AB_1 Amplifier	250 400	−15 −25	250 290	7♣ 2.5♣	92♣ 50♣	—— ——	—— ——	—— ——	8000 8000	12.5 24
								300 310	Cath. Bias Cath. Bias	300 310	6 5	80 77	Cath. Bias Resistor, 230 ohms Cath. Bias Resistor, 270 ohms			5500 6000	15 17
							Push-Pull Class AB_1 Amplifier	375 370	−33.5 Cath. Bias	≈ ≈	Cath. Ma., 62 Cath. Ma., 74		—— Cath. Bias Resistor, 355 ohms	—— ——	—— ——	12500 13000	18.5 15
7025	High-Mu Twin-Triode	B9a	9A	H	6.3 12.6	0.3 0.15	Each Unit as Class A Amplifier	100 250	−1 −2	—— ——	—— ——	.5 1.2	80000 62500	1250 1600	100 100	—— ——	—— ——
7027	Beam Power Tube	D11c	8HY	H	6.3	0.9	Push-Pull Class AB_1 Amplifier	330 450	−24 −30	330 350	506♣ 304♣	122♣ 95♣	—— ——	—— ——	—— ——	4500 6000	31.5 50
								400	Cath. Bias	300	7♣	112♣	Cath. Bias Resistor, 200 ohms			6600	32
								380	Cath. Bias	380	506♣	138♣	Cath. Bias Resistor, 180 ohms			4500	36
							Push-Pull Class AB_1 Amplifier	410	Cath. Bias	≈	Cath. Ma., 134		Cath. Bias Resistor, 220 ohms			8000	24

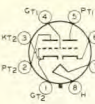
RCA Type	Name	Tube Dimensions and Socket Connections		Cathode Type and Rating			Use — Values to right give operating conditions and characteristics for indicated typical use	Plate Supply Volts	Grid Bias ■ Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Transconductance (Grid-Plate) μmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts
		Dimen.	S. C.	C. T.	Volts	Amp.											
7199	Medium-Mu Triode—Sharp-Cutoff Pentode	B0a	9JT	H	6.3	0.45	Triode Unit as Class A Amplifier	215	−8.5	——	——	9	8100	2100	17	——	——
							Pentode Unit as Class A Amplifier	100 220	Cath. Bias	50 130	.35 3.5	1.1 12.5	1§ 400000	1500 7000	Cath. Bias Res., 1000 ohms Cath. Bias Res., 62 ohms		

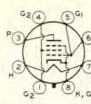
∴ Cathode-bias resistor, 62 ohms.
♭ For use in automobile receivers which operate directly from 12-volt storage batteries.
ª Grid-No. 2 of each tube connected to tap on plate winding of output transformer. This arrangement permits approximately 40% to 50% of the plate signal voltage to be applied to Grid-No. 2 of each output tube.
† Power output is for two tubes at stated plate-to-plate load.
♠ For two tubes.
● Heater has controlled warm-up time for series-string operation.
■ Either ac or dc may be used on filament or heater, except as specifically noted. For use of dc on ac filament types, decrease stated grid volts by ½ (approx.) of filament voltage.
§ Megohms.
* Bias voltage developed across 2.2-megohm resistor.

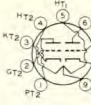
−●− At heater volts = 12.6.
‡ This diagram is like the one having the same designation without the prefix G, except that Pin No. 1 has no connection.

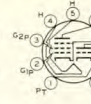
KEY TO TUBE DIMENSIONS

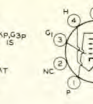
Symbol	Maximum Overall Length	x	Diameter	Symbol	Maximum Overall Length	x	Diameter	Symbol	Maximum Overall Length	x	Diameter
BO	2-1/8″	x	3/4″	B4a	3-1/16″	x	7/8″	D1a	4″	x	1-9/16″
BOa	2-3/16″	x	7/8″	C9b	3-5/16″	x	1-9/32″	D11c	4-5/8″	x	1-5/8″
B1	2-5/8″	x	3/4″	C9b	3-15/32″	x	1-7/16″	E	5″	x	1-9/16″
B3	2-5/8″	x	7/8″	C11a	3-7/8″	x	1-9/16″				

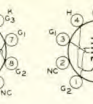

GT
PTI
KT2
KTI
PT2
H
GT2
8BD

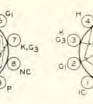

G2
GI
P
H
G2
K, G3
8HY

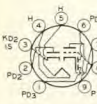

HT1
HT2
PTI
KT2
GTI
GT2
KTI
PT2
HM
9A

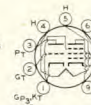

PP
G2P
KP, G3P IS
GIP
AT
PT
GT
9AE

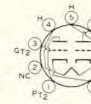

K G3
GI
GI
NC
G2
P
NC
9BQ

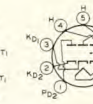

GI
GI
NC
K, G3
G2
NC
P
9CK

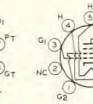

IC
K G3
P
GI
IC
IC
G2
9CV


PD1
KD2 IS
KT, KD1
KD3 IS
KT
PD2
GT
PD3
PT
9E

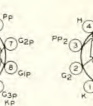

GP1
PT
KP
GT
GP2
GP1
KT
IS
PP
9EC

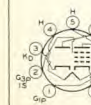

PTI
GT2
GTI
NC
KTI
PT2
9EF

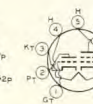

PD1
KD
PT
KD2
GT
PD2
KT
9ER


GI
K G3
GI
NC
G2
G2
P
9EU

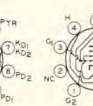

PP
KD
G2P
PD1
GIP
PD2
G3P
KP
9FE

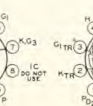

G3P2
PP2
GI
G2
PP1
K
G3PI
9FG

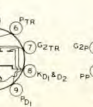

PD
PP
PG
G2P
G3P IS
GIP
KP
9FN

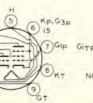

PTR
KT
G2TR
PT
KTR
GT
GITR
9FX


PTR
G2TR
KD1
KTR
KD2
GITR
PD2
PD1
9GC


GI
K, G3
G
IC
DO NOT USE
NC
G2
P
9HN


PTR
GITR
G2TR
KTR
KD1 & D2
PD2
PD1
9HR


KP, G3P IS
G2P
GIP
PP
KT
PT
GT
9JT


PTR
GITR
G2TR
K
NC
PD2
PD1
9JU

LEGEND FOR BASE AND ENVELOPE CONNECTION DIAGRAMS

Bottom Views

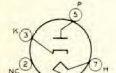
Subscripts D, P, and T indicate, respectively, diode unit, pentode unit, and triode unit, in multi-unit types.

F = Filament
G = Grid

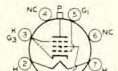
H = Heater
IS = Internal Shield

K = Cathode
NC = No Connection

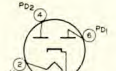
P = Plate (Anode)



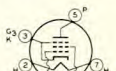
4CG



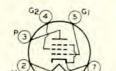
5BT



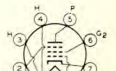
5L



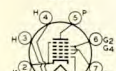
6CK



7AC

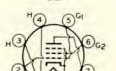


7BK



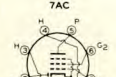
7CH

7CM

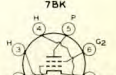


7CV

7DF



7EA



7EW

RCA PICTURE TUBE CHARACTERISTICS CHART

RCA Type	Envelope	Aluminized Screen (Asterisk (*) denotes "Silverama" type)	Faceplate	External Conductive Coating Max. mmf	External Conductive Coating Min. mmf	Focusing Method	Deflection Method	Approx. Deflection Angle Degrees Diag.	Horiz.	Vert.	Maximum Dimensions Inches Overall Length	Envelope Dia. or Diagonal	Width	Height	Neck Length Inches	Minimum Screen Size Inches
Black-and-White Types																
5TP4•	G	Yes	CL	500	100	E	M	—	50	—	12 1/8	5 1/8	—	—	7 13/32	4 1/2 Dia.
7DP4	G	No	CL	1500	400	E	M	—	50	—	14 7/16	7 3/16	—	—	8 1/8	6 5/8 Dia.
7JP4	G	No	CL	None	None	E	E⊙	—	—	—	14 7/8	7 1/8	—	—	—	6 Dia.
8DP4	G	No	FG	350	250	E	M	90	85	68	10 3/4	8 1/2	7 15/16	6 1/8	6 1/2	7 5/16 x 5 3/8
9AP4	G	No	CL	None	None	E	M	—	40	—	21 3/4	9 1/8	—	—	10	7 7/8 Dia.
10ABP4	G	No	CL	850	400	E	M	90	85	—	12 3/16	10 1/2	9 7/8	7 5/8	6 1/2	8 7/8 x 6 9/16
10BP4	G	No	Same as 10BP4-A, except has clear glass faceplate.													
10BP4-A	G	No	FG	2500	500	M	M	—	50	—	18	10 5/8	—	—	8 1/16	9 1/8 Dia.
10FP4-A	G	*Yes	FG	2500	500	M	M	—	50	—	18	10 9/16	—	—	8 1/16	9 1/8 Dia.
12AP4	G	No	CL	None	None	E	M	—	40	—	25 3/8	12 3/16	—	—	9 1/16	10 3/4 Dia.
12KP4-A	G	*Yes	FG	2500	500	M	M	—	54	—	18	12 1/2	—	—	7 1/8	11 1/4 Dia.
12LP4	G	No	Same as 12LP4-A, except has clear glass faceplate.													
12LP4-A	G	No	FG	3000	750	M	M	—	54	—	19 1/8	12 1/2	—	—	8 1/4	11 Dia.
14ATP4	G	*Yes	FG	1000	500	E	M	90	85	68	13 1/2	14 1/8	13 5/16	10 11/16	5 1/2	12 1/16 x 9 1/2
14EP4/ 14CP4/ 14BP4	G	No	FG	2000	750	M	M	70	65	50	16 7/8	13 13/16	12 21/32	9 27/32	7 5/16	11 1/2 x 8 3/8

Data for these types continued on next page.

High Voltage Terminal	Basing	Maximum Ratings							Typical Operating Conditions in Grid-Drive Service				P M Ion-Trap Magnet Min. Gausses	RCA Type
		Final High Voltage Electrode (Ultor*) Volts	Focusing Electrode Volts	Grid-No. 2 Volts	Grid-No. 1 Volts‡	Peak Heater-Cathode Volts H(−) During Warm-Up*	Peak Heater-Cathode Volts H(−) After Warm-Up	Peak Heater-Cathode Volts H(+)	Final High-Voltage Electrode (Ultor*) Volts	Grid-No. 2 Volts	Focusing Electrode Volts	Grid-No. 1 Volts For Visual Extinction of Focused Raster		
Black-and-White Types														
Cavity Cap	B	27000	6000	350	−150	410	175	10	27000	200	4320 to 5400	−37 to −93	None	**5TP4**#
Cavity Cap	B	8000	2400	410	−125	410	150	150	6000	250	1215 to 1645	−22 to −58	—	7DP4
Base Pin	C	6000	2800	∞	−200	410	125	125	6000	∞	1620 to 2400	−67 to −163	None	**7JP4**
Cavity Cap	J	8000	+500 −500	300	−100	—	180	180	6000 8000	150 200	+15 to +315 +60 to +360	−13 to −35 −17 to −46	31 36	**8DP4**
Medium Cap	D	7000	2000	300	−125	—	—	—	7000	250	1190 to 1790	−15 to −55	None	9AP4
Cavity Cap	H	12000	+1000 −500	500	−140	410	180	180	7500	300	0 to 500	−38 to −62	32	**10ABP4**
Ratings and typical operating conditions are same as for type 10BP4-A.														10BP4
Cavity Cap	E	12000	—	410	−125	410	150	150	8000 to 12000	250	—	−22 to −58	—	**10BP4-A**
Cavity Cap	E	12000	—	410	−125	410	140	140	8000 to 12000	250	—	−22 to −58	None	**10FP4-A**
Medium Cap	D	7000	2000	300	−125	—	—	—	7000	250	1190 to 1790	−15 to −55	None	12AP4
Cavity Cap	E	12000	—	410	−125	410	140	140	9000 to 12000	250	—	−22 to −58	None	**12KP4-A**
Ratings and typical operating conditions are same as for type 12LP4-A.														12LP4
Cavity Cap	E	12000	—	410	−125	410	150	150	9000 to 12000	250	—	−22 to −58	—	**12LP4-A**
Cavity Cap	H	14000	+1000 −500	500	−140	—	180	180	10000 14000	300 400	0 to +400 0 to +400	−25 to −69 −31 to −90	None	**14ATP4**
Cavity Cap	E	14000	—	410	−125	410	150	150	12000 14000	300 300	—	−28 to −72 −28 to −72	29 31	**14EP4/ 14CP4/ 14BP4**

RCA PICTURE TUBE CHARACTERISTICS CHART (Cont'd)

Type	Envelope	Aluminized Screen (Asterisk (*) denotes "Silverama" type)	Faceplate	External Conductive Coating Max.	External Conductive Coating Min.	Focusing Method	Deflection Method	Approx. Deflection Angle Degrees Diag.	Approx. Deflection Angle Degrees Horiz.	Approx. Deflection Angle Degrees Vert.	Maximum Dimensions Inches Overall Length	Maximum Dimensions Inches Envelope Dia. or Diagonal	Maximum Dimensions Inches Width	Maximum Dimensions Inches Height	Neck Length Inches	Minimum Screen Size Inches
Black-and-White Types (Cont'd)																
14HP4	G	No	FG	2000	750	E	M	70	65	50	17 5/32	13 13/16	12 21/32	9 27/32	7 1/2	11 1/2 x 8 3/4
14QP4-A	G	*Yes	FG	1000	600	E	M	70	65	50	16 11/32	13 13/16	12 21/32	9 27/32	6 7/8	11 1/2 x 8 3/4
14RP4	G	No	Same as 14RP4-A, except has non-aluminized screen.													
14RP4-A	G	*Yes	FG	1200	800	E	M	90	85	68	14 1/2	14 1/8	13 3/16	10 11/16	6 1/2	12 1/16 x 9 1/2
14WP4/ 14ZP4	G	*Yes	FG	1200	800	E	M	90	85	68	13 1/2	14 1/8	13 3/16	10 11/16	5 1/2	12 1/16 x 9 1/2
16AP4	M	No	Same as 16AP4-A, except has clear glass faceplate.													
16AP4-A	M	No	FG	None	None	M	M	—	53	—	22 5/16	16	—	—	7 9/16	14 3/8 Dia.
16DP4-A	G	No	FG	None	None	M	M	—	60	—	21	16	—	—	7 7/8	14 1/2 Dia.
16GP4	M	No	Same as 16GP4-B, except has Filterglass faceplate.													
16GP4-A	M	No	Same as 16GP4-B, except has clear glass faceplate.													
16GP4-B	M	No	FFG	None	None	M	M	—	70	—	17 11/16	16	—	—	6 7/8	14 3/8 Dia.
16GP4-C	M	No	Same as 16GP4-B, except has frosted clear glass faceplate.													
16LP4-A	G	No	FG	2000	750	M	M	—	52	—	22 5/8	16	—	—	7 3/8	14 1/2 Dia.
16RP4/ 16KP4	G	No	Same as 16RP4-A/16KP4-A, except has non-aluminized screen.													
16RP4-A/ 16KP4-A	G	*Yes	FG	1500	750	M	M	70	65	50	19 1/8	16 1/4	14 7/8	11 5/8	7 1/2	13 1/2 x 10 1/8

Data for these types continued on next page.

High Voltage Terminal	Basing	Maximum Ratings: Final High-Voltage Electrode (Ultor*) Volts	Focusing Electrode Volts	Grid-No. 2 Volts	Grid-No. 1 Volts	Peak Heater-Cathode Volts H(−) During Warm-Up*	Peak Heater-Cathode Volts H(−) After Warm-Up	Peak Heater-Cathode Volts H(+)	Typical Operating Conditions in Grid-Drive Service: Final High-Voltage Electrode (Ultor*) Volts	Grid-No. 2 Volts	Focusing Electrode Volts	Grid-No. 1 Volts For Visual Extinction of Focused Raster	P M Ion-Trap Magnet Min. Gausses	RCA Type
Black-and-White Types (Cont'd)														
Cavity Cap	H	14000	+500 −500	500	−125	410	180	180	12000 14000	300 300	−50 to +265 −55 to +310	−28 to −72 −28 to −72	29 31	**14HP4**
Cavity Cap	H	11000	+1000 −500	500	−180	410	180	180	10000	300	−15 to +285	−29 to −77	29	**14QP4-A**
Ratings and typical operating conditions are same as for type 14RP4-A.														**14RP4**
Cavity Cap	H	14000	+500 −500	400	−110	—	180	180	10000 14000	300 300	−50 to +350 +70 to +470	−26 to −70 −26 to −70	36 43	**14RP4-A**
Cavity Cap	H	14000	+1000 −500	500	−140	410	180	180	12000	300	0 to +350	−28 to −72	None	**14WP4/ 14ZP4**
Ratings and typical operating conditions are same as for type 16AP4-A.														16AP4
Metal-Shell Lip	F	14000	—	410	−125	410	150	150	9000 12000	300 300	— —	−28 to −72 −28 to −72	25 29	**16AP4-A**
Cavity Cap	F	15000	—	410	−125	410	125	125	9000 to 15000	250	—	−22 to −58	—	**16DP4-A**
Ratings and typical operating conditions are same as for type 16GP4-B.														16GP4
Ratings and typical operating conditions are same as for type 16GP4-B.														16GP4-A
Metal-Shell Lip	F	14000	—	410	−125	410	150	150	12000	300	—	−28 to −72	29	**16GP4-B**
Ratings and typical operating conditions are same as for type 16GP4-B.														16GP4-C
Cavity Cap	E	14000	—	410	−125	410	125	125	12000 to 14000	300	—	−28 to −72	—	**16LP4-A**
Ratings and typical operating conditions are same as for type 16RP4-A/16KP4-A.														**16RP4/ 16KP4**
Cavity Cap	A	16000	—	410	−125	410	150	150	12000 14000	300 300	— —	−28 to −72 −28 to −72	29 31	**16RP4-A/ 16KP4-A**

RCA PICTURE TUBE CHARACTERISTICS CHART (Cont'd)

Type	Envelope	Aluminized Screen (Asterisk (*) denotes "Silvermatrix" type)	Faceplate◇	External Conductive Coating Max. μμf	External Conductive Coating Min. μμf	Focusing Method	Deflection Method	Approx. Deflection Angle Degrees Diag.	Approx. Deflection Angle Degrees Horiz.	Approx. Deflection Angle Degrees Vert.	Maximum Dimensions Inches Overall Length	Maximum Dimensions Inches Envelope Dia. or Diagonal	Maximum Dimensions Inches Width	Maximum Dimensions Inches Height	Neck Length Inches	Minimum Screen Size Inches
Black-and-White Types (Cont'd)																
16TP4	G	No	FG	2000	750	M	M	70	65	50	18 1/2	16 1/2	14 7/8	11 5/8	6 7/8	13 1/16 x 10 1/8
16WP4-A	G	No	FG	1500	750	M	M	—	70	—	18 1/8	16	—	—	7 1/16	14 1/2 Dia.
17AVP4/ 17ATP4	G	No	Same as 17AVP4-A/17ATP4-A, except has non-aluminized screen.													
17AVP4-A/ 17ATP4-A	G	*Yes	FG	1500	1200	E	M	90	85	68	16	16 3/4	15 39/64	12 13/32	6 1/2	14 5/16 x 11 1/8
17BJP4	G	*Yes	FG	1500	1000	E	M	90	85	68	15	16 3/4	15 39/64	12 13/32	5 1/2	14 5/16 x 11 1/8
17BP4-A	G	No	Same as 17BP4-B, except has non-aluminized screen.													
17BP4-B	G	*Yes	FG	1500	750	M	M	70	65	50	19 9/16	16 3/4	15 39/64	12 13/32	7 1/2	14 5/16 x 11 1/8
17BWP4	G	*Yes	FG	1500	1000	E	M	110	105	87	12 5/8	16 11/16	15 3/4	12 7/8	5 5/16	14 3/4 x 11 11/16
17BZP4	G	*Yes	FG	1500	1000	E	M	110	105	87	12 13/16	16 11/16	15 3/4	12 7/8	5 7/16	14 3/4 x 11 11/16
17CDP4	G	*Yes	Same as 17BZP4, except has 450-ma./8.4-volt heater.													
17CP4	M	No	FFG	None	None	M	M	70	66	50	19	17	16 1/16	12 3/8	7 5/16	14 3/8 x 10 11/16
17CP4-A	M	No	Same as 17CP4, except has Filterglass faceplate.													
17GP4	M	No	FFG	None	None	E	M	70	66	50	19 3/16	17	16 1/16	12 3/8	7 1/2	14 3/8 x 10 11/16
17HP4/ 17RP4	G	No	FG	1500	750	E	M	70	65	50	19 9/16	16 3/4	15 39/64	12 13/32	7 1/2	14 5/16 x 11 1/8

Data for these types continued on next page.

Data for these types continued from preceding page.

High Voltage Terminal	Basing	Maximum Ratings: Final High-Voltage Electrode (Ultor*) Volts	Focusing Electrode Volts	Grid-No. 2 Volts	Grid-No. 1 Volts§	Peak Heater-Cathode Volts: H(−) During Warm-Up*	H(−) After Warm-Up	H(+)	Typical Operating Conditions in Grid-Drive Service: Final High-Voltage Electrode (Ultor*) Volts	Grid-No. 2 Volts	Focusing Electrode Volts	Grid-No. 1 Volts For Visual Extinction of Focused Raster	P-M Ion-Trap Magnet Min. Gauss	Type
Black-and-White Types (Cont'd)														
Cavity Cap	E	14000	—	410	−125	410	150	150	12000 14000	300 300	— —	−28 to −72 −28 to −72	29 31	**16TP4**
Cavity Cap	E	16000	—	410	−125	410	125	125	12000 to 16000	250	—	−22 to −58	—	**16WP4-A**
Ratings and typical operating conditions are same as for type 17AVP1 A/17ATP4-A.														**17AVP4/ 17ATP4**
Cavity Cap	H	16000	+1000 −500▲	500	−140	410	180	180	14000 16000	300 300	−55 to +310 −65 to +350	−28 to −72 −28 to −72	31 33	**17AVP4-A/ 17ATP4-A**
Cavity Cap	H	16000	+1000 −500	500	−140	410	180	180	16000	300	−65 to +350	−28 to −72	None	**17BJP4**
Ratings and typical operating conditions are same as for type 17BP4-B.														**17BP4-A**
Cavity Cap	A	16000	—	500	−140	410	150	150	12000 14000	300 300	— —	−28 to −72 −28 to −72	29 31	**17BP4-B**
Cavity Cap	L	16000	+1000 −500	500	−140	410	180	180	14000	300	−50 to +350	−35 to −72	None	**17BWP4**
Cavity Cap	K	16000	+1000 −500	500	−140	—	180	180	14000 16000	300 400	0 to +400 0 to +400	−28 to −72 −36 to −94	None	**17BZP4**
Ratings (other than heater) and typical operating conditions are same as for type 17BZP4.														**17CDP4**
Metal-Shell Lip	F	16000	—	410	−125	410	180	180	12000 14000	300 300	— —	−28 to −72 −28 to −72	29 31	**17CP4**
Ratings and typical operating conditions are same as for type 17CP4.														17CP4-A
Metal-Shell Lip	G	16000	5000	500	−125	410	180	180	12000 14000	300 300	2040 to 2760 2380 to 3220	−28 to −72 −28 to −72	29 31	**17GP4**
Cavity Cap	H	16000	+1000 −500▲	500	−140	410	180	180	14000 16000	300 300	−55 to +300 −65 to +350	−28 to −72 −28 to −72	31 33	**17HP4/ 17RP4**

RCA PICTURE TUBE CHARACTERISTICS CHART (Cont'd)

Type	Envelope	Aluminized Screen (Asterisk (*) denotes "Silverama" type)	Faceplate◇	External Conductive Coating		Focusing Method	Deflection Method	Approx. Deflection Angle Degrees			Maximum Dimensions Inches				Neck Length Inches	Minimum Screen Size Inches
				Max. μμf	Min. μμf			Diag.	Horiz.	Vert.	Overall Length	Envelope Dia. or Diagonal	Width	Height		
Black-and-White Types (Cont'd)																
17HP4-B/ 17RP4-C	G	*Yes	FG	1500	750	E	M	70	65	50	19 9/16	16 3/4	15 55/64	12 13/32	7 1/2	14 5/16 x 11 1/8
17JP4	G	No	FG	750	500	M	M	70	65	50	19 9/16	16 3/4	15 55/64	12 13/32	7 1/2	14 3/16 x 11 1/8
17LP4/ 17VP4	G	No	FG**	1500	750	E	M	70	65	50	19 9/16	16 3/4	15 55/64	12 13/32	7 1/2	14 1/4 x 10 3/4
17LP4-A/ 17VP4-B	G	*Yes	FG**	1500	750	E	M	70	65	50	19 9/16	16 3/4	15 55/64	12 13/32	7 1/2	14 1/4 x 10 3/4
17QP4	G	No	FG**	1500	750	M	M	70	65	50	19 9/16	16 3/4	15 55/64	12 13/32	7 1/2	14 1/4 x 10 3/4
17QP4-A	G	*Yes	FG**	1500	750	M	M	70	65	50	19 9/16	16 3/4	15 55/64	12 13/32	7 1/2	14 1/4 x 10 3/4
17TP4	M	No	FFG	None	None	E	M	70	66	50	19 1/16	17	16 1/16	12 3/8	7 1/2	14 3/8 x 10 11/16
19AP4	M	No	Same as 19AP4-B, except has clear glass faceplate.													
19AP4-A	M	No	Same as 19AP4-B, except has Filterglass faceplate.													
19AP4-B	M	No	FFG	None	None	M	M	—	66	—	22	18 3/8	—	—	7 1/8	17 1/4 Dia.
19AP4-D	M	No	Same as 19AP4-B, except has frosted clear glass faceplate.													
20CP4	G	No	FG	None	None	M	M	70	66	50	21 13/16	20 5/32	18 7/8	15 1/8	7 3/16	17 x 12 3/4
20DP4-A/ 20CP4-A	G	No	FG	1500	500	M	M	70	66	50	21 7/8	20 7/32	18 15/16	15 1/16	7 5/16	17 x 12 3/4
20DP4-C/ 20CP4-D	G	*Yes	FG	1500	500	M	M	70	66	50	21 7/8	20 7/32	18 15/16	15 1/16	7 5/16	17 x 12 3/4

Data for these types continued on next page.

Data for these types continued from preceding page.

High-Voltage Terminal	Basing	Maximum Ratings: Final High-Voltage Electrode (Ultor*) Volts	Focusing Electrode Volts	Grid-No. 2 Volts	Grid-No. 1 Volts‡	Peak Heater-Cathode Volts: H(−) During Warm-Up*	Peak Heater-Cathode Volts: H(−) After Warm-Up	Peak Heater-Cathode Volts: H(+)	Typical Operating Conditions in Grid-Drive Service: Final High-Voltage Electrode (Ultor*) Volts	Grid-No. 2 Volts	Focusing Electrode Volts	Grid-No. 1 Volts For Visual Extinction of Focused Raster	PM Ion-Trap Magnet Min. Gaussas	RCA Type
Black-and-White Types (Cont'd)														
Cavity Cap	H	16000	+1000 −500▲	500	−140	410	180	180	14000 16000	300 300	−55 to +300 −65 to +350	−28 to −72 −28 to −72	31 33	**17HP4-B/ 17RP4-C**
Cavity Cap	A	18000	—	400	−140	410	150	150	14000 16000	300 300	— —	−28 to −72 −28 to −72	31 33	17JP4
Cavity Cap	H	16000	+1000 −500▲	500	−140	410	180	180	14000 16000	300 300	−55 to +300 −65 to +350	−28 to −72 −28 to −72	31 33	**17LP4/ 17VP4**
Cavity Cap	H	16000	+1000 −500▲	500	−140	410	180	180	14000 16000	300 300	−55 to +300 −65 to +350	−28 to −72 −28 to −72	31 33	**17LP4-A/ 17VP4-B**
Cavity Cap	A	16000	—	410	−125	410	150	150	12000 14000	300 300	— —	−28 to −72 −28 to −72	29 31	**17QP4**
Cavity Cap	A	18000	—	500	−125	410	150	150	12000 14000	300 300	— —	−28 to −72 −28 to −72	29 31	**17QP4-A**
Metal-Shell Lip	G	16000	+1000 −500▲	500	−125	410	180	180	14000 16000	300 300	−55 to +300 −65 to +350	−28 to −72 −28 to −72	31 33	**17TP4**
Ratings and typical operating conditions are same as for type 19AP4-B.														19AP4
Ratings and typical operating conditions are same as for type 19AP4-B.														19AP4-A
Metal-Shell Lip	F	16000	—	410	−125	410	150	150	12000 14000	300 300	— —	−28 to −72 −28 to −72	29 31	**19AP4-B**
Ratings and typical operating conditions are same as for type 19AP4-B.														19AP4-D
Cavity Cap	F	18000	—	410	−125	410	150	150	14000 16000	300 300	— —	−28 to −72 −28 to −72	31 33	20CP4
Cavity Cap	A	18000	—	410	−125	410	180	180	14000 16000	300 300	— —	−28 to −72 −28 to −72	31 33	**20DP4-A/ 20CP4-A**
Cavity Cap	A	18000	—	410	−125	410	180	180	14000 16000	300 300	— —	−28 to −72 −28 to −72	31 33	**20DP4-C/ 20CP4-D**

RCA PICTURE TUBE CHARACTERISTICS CHART (Cont'd)

RCA Type	Envelope	Aluminized Screen (Asterisk (*) denotes "Silvercama" type)	Faceplate	External Conductive Coating		Focusing Method	Deflection Method	Approx. Deflection Angle Degrees			Maximum Dimensions Inches				Neck Length Inches	Minimum Screen Size Inches
				Max. μμf	Min. μμf			Diag.	Horiz.	Vert.	Overall Length	Envelope Dia. or Diagonal	Width	Height		
Black-and-White Types (Cont'd)																
20HP4-A/ 20MP4	G	No	FG	1500	500	E	M	70	66	50	22 1/8	20 7/32	18 13/16	15 1/16	7 1/2	17 x 12 3/4
20HP4-D	G	*Yes	FG	1500	500	E	M	70	66	50	22 1/8	20 7/32	18 13/16	15 1/16	7 1/2	17 x 12 3/4
21ACP4-A/ 21BSP4/ 21AMP4-A	G	*Yes	FG	2500	2000	M	M	90	85	68	20 3/8	21 1/2	20 3/8	16 1/2	7 1/2	19 1/16 x 15 1/16
21ALP4	G	No	FG	750	500	E	M	90	85	68	20 3/8	21 1/2	20 3/8	16 1/2	7 1/2	19 1/16 x 15 1/16
21ALP4-B/ 21ALP4-A	G	*Yes	FG	750	500	E	M	90	85	68	20 3/8	21 1/2	20 3/8	16 1/2	7 1/2	19 1/16 x 15 1/16
21AP4	M	No	FFG	None	None	M	M	70	66	50	22 5/8	21	19 27/32	15 7/16	7 1/2	18 3/4 x 13 11/16
21ATP4-A/ 21ATP4	G	*Yes	FG	1500	1200	E	M	90	85	68	20 3/8	21 1/2	20 3/8	16 1/2	7 1/2	19 1/16 x 15 1/16
21AVP4/ 21AUP4	G	No	FG	2500	2000	E	M	72	67	53	23 13/32	21 1/2	20 3/8	16 1/2	7 1/2	19 1/16 x 15 1/16
21AVP4-B/ 21AUP4-B/ 21AVP4-A/ 21AUP4-A	G	*Yes	FG	2500	2000	E	M	72	67	53	23 13/32	21 1/2	20 3/8	16 1/2	7 1/2	19 1/16 x 15 1/16
21AWP4	G	*Yes	FG	2500	2000	M	M	72	67	53	23 13/32	21 1/2	20 3/8	16 1/2	7 1/2	19 1/16 x 15 1/16
21BTP4	G	*Yes	FG	2500	2000	E	M	90	85	68	20 3/8	21 1/2	20 3/8	16 1/2	7 1/2	19 1/16 x 15 1/16
21CBP4-A	G	*Yes	FG	2500	2000	E	M	90	85	68	18 3/8	21 1/2	20 3/8	16 1/2	8 1/2	19 1/16 x 15 1/16

Data for these types continued on next page.

High Voltage Terminal	Basing	Maximum Ratings: Final High-Voltage Electrode (Ultor*) Volts	Maximum Ratings: Focusing Electrode Volts	Maximum Ratings: Grid-No. 2 Volts	Maximum Ratings: Grid-No. 1 Volts‡	Maximum Ratings: Peak Heater-Cathode Volts: H(−) During Warm-Up*	Maximum Ratings: Peak Heater-Cathode Volts: H(−) After Warm-Up	Maximum Ratings: Peak Heater-Cathode Volts: H(+)	Typical Operating Conditions in Grid-Drive Service: Final High-Voltage Electrode (Ultor*) Volts	Typical Operating Conditions in Grid-Drive Service: Grid-No. 2 Volts	Typical Operating Conditions in Grid-Drive Service: Focusing Electrode Volts	Typical Operating Conditions in Grid-Drive Service: Grid-No. 1 Volts For Visual Extinction of Focused Raster	P M Ion-Trap Magnet Min. Gausses	RCA Type
Black-and-White Types (Cont'd)														
Cavity Cap	H	16000	+1000 −500▲	500	−125	410	180	180	14000 16000	300 300	−55 to +300 −65 to +350	−28 to −72 −28 to −72	31 33	20HP4-A/ 20MP4
Cavity Cap	H	16000	+1000 −500▲	500	−125	410	180	180	14000 16000	300 300	−55 to +300 −65 to +350	−28 to −72 −28 to −72	31 33	20HP4-D
Cavity Cap	A	20000	—	500	−140	410	180	180	16000 18000	300 400	— —	−28 to −72 −37 to −96	33 35	21ACP4-A/ 21BSP4/ 21AMP4-A
	H	18000	All other ratings and typical operating conditions are same as for type 21ALP4-B/21ALP4-A.											21ALP4
Cavity Cap	H	20000	+1000 −500▲	500	−140	410	180	180	16000 18000	300 400	−65 to +350 −75 to +400	−28 to −72 −37 to −96	33 35	21ALP4-B/ 21ALP4-A
Metal-Shell Lip	F	18000	—	500	−125	410	180	180	14000 16000	300 300	— —	−28 to −72 −28 to −72	31 33	21AP4
			Ratings and typical operating conditions are same as for type 21ALP4-B/21ALP4-A.											21ATP4-A/ 21ATP4
Cavity Cap	H	18000	+1000 −500▲	500	−140	410	180	180	16000 18000	300 400	−65 to +350 −75 to +400	−28 to −72 −37 to −96	33 35	21AVP4/ 21AUP4
Cavity Cap	H	20000	+1000 −500▲	500	−140	410	180	180	16000 18000	300 400	−65 to +350 −75 to +400	−28 to −72 −37 to −96	33 35	21AVP4-B/ 21AUP4-B/ 21AVP4-A/ 21AUP4-A
Cavity Cap	A	18000	—	500	−140	410	180	180	16000 18000	300 400	— —	−28 to −72 −37 to −96	33 35	21AWP4
			Ratings and typical operating conditions are same as for type 21ALP4-B/21ALP4-A.											21BTP4
Cavity Cap	H	20000	+1000 −500	500	−140	410	180	180	16000	300	0 to +450	−28 to −72	None	21CBP4-A

RCA PICTURE TUBE CHARACTERISTICS CHART (Cont'd)

RCA Type	Envelope	Aluminized Screen (Asterisk (*) denotes "Silverama" type)	Faceplate	External Conductive Coating Max. μμf	External Conductive Coating Min. μμf	Focusing Method	Deflection Method	Approx. Deflection Angle Degrees Diag.	Approx. Deflection Angle Degrees Horiz.	Approx. Deflection Angle Degrees Vert.	Maximum Dimensions Inches Overall Length	Maximum Dimensions Inches Envelope Dia. or Diagonal	Maximum Dimensions Inches Width	Maximum Dimensions Inches Height	Neck Length Inches	Minimum Screen Size Inches
Black-and-White Types (Cont'd)																
21CEP4	G	*Yes	FG	2500	2000	E	M	110	105	87	14 3/4	21 1/2	20 3/8	16 1/2	5 7/16	19 1/16 x 15 1/16
21CXP4	G	*Yes	FG	2500	2000	E	M	90	85	—	18 3/4	21 1/2	20 3/8	16 1/2	5 1/2	19 1/16 x 15 1/16
21DAP4	G	*Yes	FG	2500	2000	E	M	110	105	87	15	21 1/2	20 3/8	16 1/2	5 7/16	19 1/16 x 15 1/16
21DFP4	G	*Yes	FG	2500	1700	E	M	110	105	87	14 3/4	21 1/2	20 3/8	16 1/2	5 7/16	19 1/16 x 15 1/16
21DLP4	G	*Yes	FG	2500	2000	E	M	90	85	68	17 3/8	21 1/2	20 3/8	16 1/2	4 1/2	19 1/16 x 15 1/16
21EP4	G	No	Same as 21EP4-B, except has no external conductive coating.													
21EP4-A	G	No	Same as 21EP4-B, except has non-aluminized screen.													
21EP4-B	G	*Yes	FG**	750	500	M	M	70	65	50	23 3/8	21 11/32	20 3/8	15 11/16	7 19/32	19 1/16 x 13 7/8
21FP4-A	G	No	Same as 21FP4-C, except has non-aluminized screen.													
21FP4-C	G	*Yes	FG**	750	500	E	M	70	65	50	23 3/8	21 11/32	20 3/8	15 11/16	7 19/32	19 1/16 x 13 7/8
21MP4	M	No	FFG	None	None	E	M	70	66	50	22 5/8	21	19 27/32	15 7/16	7 1/2	18 1/16 x 13 11/16
21WP4	G	No	Same as 21WP4-A, except has non-aluminized screen.													
21WP4-A	G	*Yes	FG	750	500	M	M	70	66	50	22 13/16	20 13/16	18 13/16	15 1/16	7 1/2	17 3/8 x 13 3/8
21XP4-A	G	*Yes	FG	2500	2000	E	M	70	66	50	22 13/16	20 13/16	18 13/16	15 1/16	7 1/2	17 3/8 x 13 3/8

Data for these types continued on next page.

High Voltage Terminal	Base	Maximum Ratings: Final High-Voltage Electrode (Ultor*) Volts	Maximum Ratings: Focusing Electrode Volts	Maximum Ratings: Grid-No. 2 Volts	Maximum Ratings: Grid-No. 1 Volts§	Maximum Ratings: Peak Heater-Cathode Volts: H(−) During Warm-Up#	Maximum Ratings: Peak Heater-Cathode Volts: H(−) After Warm-Up	Maximum Ratings: Peak Heater-Cathode Volts: H(+)	Typical Operating Conditions in Grid-Drive Service: Final High-Voltage Electrode (Ultor*) Volts	Typical Operating Conditions in Grid-Drive Service: Grid-No. 2 Volts	Typical Operating Conditions in Grid-Drive Service: Focusing Electrode Volts	Typical Operating Conditions in Grid-Drive Service: Grid-No. 1 Volts For Visual Extinction of Focused Raster	P M Ion-Trap Magnet Min. Gausses	Type
Black-and-White Types (Cont'd)														
Cavity Cap	K	18000	+1000 −500	500	−140	—	180	180	14000 16000	300 400	0 to +400 0 to +400	−28 to −72 −36 to −94	None	**21CEP4**
Cavity Cap	H	20000	+1000 −500	65	−140	410	180	180	18000♦	50♦	0 to +350♦	35 to 50♦	None	**21CXP4**
Cavity Cap	K	18000	+1000 −500	500	−140	410	180	180	16000	400	0 to +400	−36 to −94	None	**21DAP4**
Cavity Cap	H	11000	+1000 −500	500	−180	410	180	180	9000	250	−50 to +250	−25 to −64	27	**21DFP4**
Cavity Cap	H	20000	+1000 −500	500	−140	410	180	180	16000	300	0 to +400	−28 to −72	None	**21DLP4**
Cavity Cap	F	Ratings and typical operating conditions are same as for type 21EP4-B.												21EP4
Ratings and typical operating conditions are same as for type 21EP4-B.														**21EP4-A**
Cavity Cap	A	18000	—	500	−125	410	180	180	14000 16000	300 300	— —	−28 to −72 −28 to −72	31 33	**21EP4-B**
Ratings and typical operating conditions are same as for type 21FP4-C.														**21FP4-A**
Cavity Cap	H	18000	+1000 −500▲	500	−125	410	180	180	14000 16000	300 300	−55 to +300 −65 to +350	−28 to −72 −28 to −72	31 33	**21FP4-C**
Metal-Shell Lip	G	16000	+1000 −500▲	500	−125	410	180	180	14000 16000	300 300	−55 to +300 −65 to +350	−28 to −72 −28 to −72	31 33	**21MP4**
Ratings and typical operating conditions are same as for type 21WP4-A.														**21WP4**
Cavity Cap	A	18000	—	500	−125	410	180	180	16000 18000	300 300	— —	−28 to −72 −28 to −72	33 35	**21WP4-A**
Cavity Cap	H	18000	+1000 −500	500	−125	410	180	180	16000 18000	300 300	−65 to +350 −70 to +395	−28 to −72 −28 to −72	33 35	**21XP4-A**

RCA PICTURE TUBE CHARACTERISTICS CHART (Cont'd)

Type	Envelope	Aluminized Screen	Faceplate	External Conductive Coating		Focusing Method	Deflection Method	Approx. Deflection Angle Degrees			Maximum Dimensions Inches				Neck Length Inches	Minimum Screen Size Inches
		Asterisk (*) denotes "Silverama" type		Max.	Min.			Diag.	Horiz.	Vert.	Overall Length	Envelope Dia. or Diagonal	Width	Height		
Black-and-White Types (Cont'd)																
21YP4	G	No	Same as 21YP4-A, except has non-aluminized screen.													
21YP4-A	G	*Yes	FG	750	500	E	M	70	65	50	23 13/32	21 11/32	20 3/8	15 11/16	7 1/2	19 1/16 x 14 3/16
21ZP4-A	G	No	Same as 21ZP4-B, except has non-aluminized screen.													
21ZP4-B	G	*Yes	FG	750	500	M	M	70	65	50	23 13/32	21 11/32	20 3/8	15 11/16	7 1/2	19 1/16 x 14 3/16
24ADP4/ 24VP4-A/ 24CP4-A/ 24TP4	G	*Yes	FG	2500	2000	M	M	90	85	68	21 1/2	24 1/8	22 13/16	18 5/16	7 1/2	21 7/16 x 16 7/8
24AEP4	G	*Yes	FG	2500	2000	E	M	90	85	68	19 1/2	24 1/8	22 13/16	18 5/16	5 1/2	21 7/16 x 16 7/8
24AHP4	G	*Yes	FG	2500	2000	E	M	110	105	87	16 5/16	24 1/8	22 13/16	18 5/16	5 1/16	21 7/16 x 16 7/8
24DP4-A/ 24YP4	G	*Yes	FG	2500	2000	E	M	90	85	68	21 1/2	24 1/8	22 13/16	18 5/16	7 1/2	21 7/16 x 16 7/8
27MP4	M	*Yes	FFG	None	None	M	M	90	85	69	22 3/16	27 1/4	25 7/16	20 1/8	7 1/2	23 7/16 x 18 1/8
Color Types																
15GP22**	G	Yes	CL	3000	1500	E	M	—	45	35	26 1/8	14 33/64•	—	—	10 3/8	11 1/2 x 8 3/8
21AXP22	M	Yes	FG	None	None	E	M	—	70	55	25 3/16	20 11/16†	—	—	9 21/32	19 1/16 x 15 1/4

Data for these types continued on next page.

Data for these types continued from preceding page.

High Voltage Terminal	Basing	Maximum Ratings: Final High-Voltage Electrode (Ultor*) Volts	Maximum Ratings: Focusing Electrode Volts	Maximum Ratings: Grid-No. 2 Volts	Maximum Ratings: Grid-No. 1 Volts‡	Maximum Ratings: Peak Heater-Cathode Volts: H(−) During Warm-Up*	Maximum Ratings: Peak Heater-Cathode Volts: H(−) After Warm-Up	Maximum Ratings: Peak Heater-Cathode Volts: H(+)	Typical Operating Conditions in Grid-Drive Service: Final High-Voltage Electrode (Ultor*) Volts	Typical Operating Conditions in Grid-Drive Service: Grid-No. 2 Volts	Typical Operating Conditions in Grid-Drive Service: Focusing Electrode Volts	Typical Operating Conditions in Grid-Drive Service: Grid-No. 1 Volts For Visual Extinction of Focused Raster	P M Ion-Trap Magnet Min. Gausses	RCA Type
Black-and-White Types (Cont'd)														
Ratings and typical operating conditions are same as for type 21YP4-A.														**21YP4**
Cavity Cap	H	18000	+1000 −500▲	500	−140	410	180	180	16000 18000	300 400	−65 to +350 −75 to +400	−28 to −72 −37 to −96	33 35	**21YP4-A**
Ratings and typical operating conditions are same as for type 21ZP4-B.														**21ZP4-A**
Cavity Cap	A	18000	—	500	−140	410	180	180	16000 18000	300 300	— —	−28 to −72 −28 to −72	33 35	**21ZP4-B**
Cavity Cap	A	22000	—	500	−140	410	180	180	16000 18000	300 300	— —	−28 to −72 −28 to −72	33 35	**24ADP4/ 24VP4-A/ 24CP4-A/ 24TP4**
Cavity Cap	H	20000	+1000 −500	500	−140	410	180	180	18000	400	−50 to +350	−36 to −94	None	**24AEP4**
Cavity Cap	K	20000	+1000 −500	500	−140	410	180	180	14000 16000	300 400	−50 to +350 −50 to +350	−28 to −72 −36 to −94	None	**24AHP4**
Cavity Cap	H	20000	+1000 −500▲	500	−140	410	180	180	16000 18000	300 400	−65 to +350 −75 to +400	−28 to −72 −37 to −96	33 35	**24DP4-A/ 24YP4**
Metal-Shell Lip	F	18000	—	500	−125	410	180	180	16000 16000	300 400	— —	−28 to −72 −37 to −96	33 33	**27MP4**
Color Types														
Metal Flange	M	20000	5000	500▫	−200▫	410	180	180	For additional data, refer to technical bulletin available on request.				None	**15GP22**
Metal-Shell Lip	N	25000	6000	800▫	−400▫	410	180	180	For additional data, refer to technical bulletin available on request.				None	21AXP22

RCA PICTURE TUBE CHARACTERISTICS CHART (Cont'd)

RCA Type	Envelope	Aluminized Screen Asterisk (*) denotes "Silverama" type	Faceplate◇	External Conductive Coating		Focusing Method	Deflection Method	Approx. Deflection Angle Degrees			Maximum Dimensions Inches				Neck Length Inches	Minimum Screen Size Inches
				Max. μμf	Min. μμf			Diag.	Horiz.	Vert.	Overall Length	Envelope Dia. or Diagonal	Width	Height		
Black-and-White Types (Cont'd)																
21AXP22-A	Ⓜ	Yes	FG	None	None	E	M	—	70	55	$25\frac{5}{16}$	$20\frac{11}{16}$†	—	—	$9\frac{21}{32}$	$19\frac{1}{16}$ x $15\frac{1}{4}$
21CYP22	Ⓖ	Yes	FG	2500	2000	E	M	—	70	55	$25\frac{13}{32}$	$20\frac{15}{16}$	—	—	$9\frac{5}{8}$	$19\frac{1}{4}$ x $15\frac{1}{2}$

Light face = Discontinued type.
G = Glass rectangular.
M = Metal rectangular.
C_L = Clear glass.
FFG = Frosted Filterglass.
FG = Filterglass.
M = Magnetic.
E = Electrostatic.
G = Glass round.
M = Metal round.

Note:
All picture tubes shown have 6.3-volt/0.6-ampere heaters except types 9AP4 and 12AP4 which have 2.5-volt/2.1-ampere heaters and types 14ATP4 and 17CDP4 which have 8.4-volt/450-milliampere heaters.

◇ Spherical, unless otherwise specified.
** Cylindrical faceplate.
† At ultor lip-terminal.
◆ At faceplate.
• Projection type.

** This type has a flat, aluminized, Filterglass, phosphor-dot, screen plate.
◎ Deflection factors (dc/in.) for typical operating conditions shown:

DJ, & DJ, (nearer screen)	DJ, & DJ, (nearer base)
186 to 246	150 to 204

Data for these types continued on next page.

Data for these types continued from preceding page.

High Voltage Terminal	Basing	Maximum Ratings: Final High Voltage Electrode (Ultor*) Volts	Maximum Ratings: Focusing Electrode Volts	Maximum Ratings: Grid-No. 2 Volts	Maximum Ratings: Grid-No. 1 Volts§	Maximum Ratings: Peak Heater-Cathode Volts: H(−) During Warm-Up♦	Maximum Ratings: Peak Heater-Cathode Volts: H(−) After Warm-Up	Maximum Ratings: Peak Heater-Cathode Volts: H(+)	Typical Operating Conditions in Grid-Drive Service: Final High-Voltage Electrode (Ultor*) Volts	Typical Operating Conditions in Grid-Drive Service: Grid-No. 2 Volts	Typical Operating Conditions in Grid-Drive Service: Focusing Electrode Volts	Typical Operating Conditions in Grid-Drive Service: Grid-No. 1 Volts For Visual Extinction of Focused Raster	P M Ion-Trap Magnet Min. Gausses	RCA Type
Black-and-White Types (Cont'd)														
Metal Shell	O	25000	6000	800△	−400△	410	180	180	For additional data, refer to technical bulletin available on request.				None	21AXP22-A
Cavity Cap	P	25000	6000	600△	−400△	410	180	180	For additional data, refer to technical bulletin available on request.				None	21CYP22

* ULTOR is defined as the electrode, or the electrode in combination with one or more additional electrodes connected within the tube to it, to which is applied the highest dc voltage for accelerating the electrons in the beam prior to its deflection.

§ Positive bias value = 0 volts; positive peak value = 2 volts.

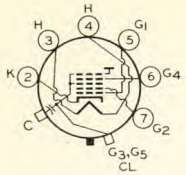
♦ Referred to grid No. 1—Cathode-Drive Service.

• During equipment warm-up not exceeding 15 seconds.

∞ Grid No. 2 connected to final high-voltage electrode within tube.

△ Each gun.

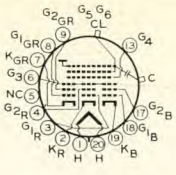
▲ This value has been specified to take care of the condition where an ac voltage is provided for dynamic focusing.



L

ULTOR = $G_3 + G_5 + CL$

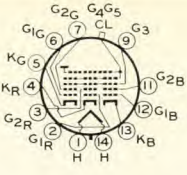
FOCUSING ELECTRODE = G_4



M

ULTOR = $G_5 + G_6 + CL$

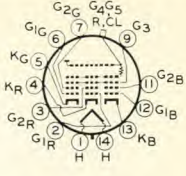
FOCUSING ELECTRODE = G_3



N

ULTOR = $G_4 + G_5 + CL$

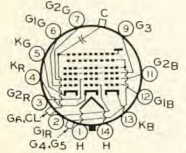
FOCUSING ELECTRODE = G_3



O

ULTOR = $G_4 + G_5 + CL + R$

FOCUSING ELECTRODE = G_3

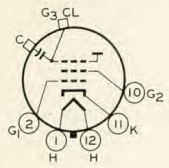


P

CAP OVER PIN No. 1:
ULTOR = $G_4 + G_5$

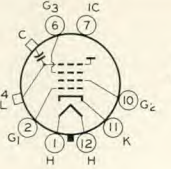
CAP OVER PIN No. 2:
G_4 + CL & HIGH-VOLTAGE TERMINAL. Connect High-Voltage Supply to this Cap and also connect 50,000-ohm resistor between this Cap and the Cap over Pin No. 1 (Ultor Cap).

FOCUSING ELECTRODE = G_3



A

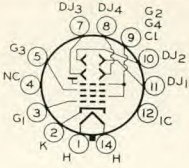
ULTOR = G_3 + CL



B

ULTOR = G_4 + CL

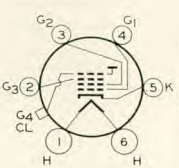
FOCUSING ELECTRODE = G_3



C

ULTOR = G_2 + G_4 + CL

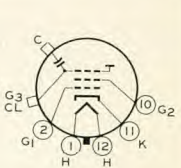
FOCUSING ELECTRODE = G_3



D

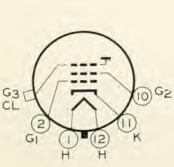
ULTOR = G_4 + CL

FOCUSING ELECTRODE = G_3



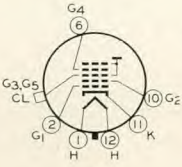
E

ULTOR = G_3 + CL



F

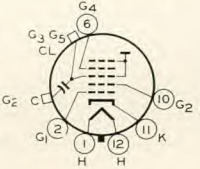
ULTOR = G_3 + CL



G

ULTOR = G_3 + G_5 + CL

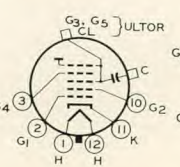
FOCUSING ELECTRODE = G_4



H

ULTOR = G_3 + G_5 + CL

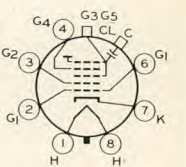
FOCUSING ELECTRODE = G_4



J

ULTOR = G_3 + G_5 + CL

FOCUSING ELECTRODE = G_4



K

ULTOR = G_3 + G_5 + CL

FOCUSING ELECTRODE = G_4


ELECTRON TUBES
BATTERIES
TEST EQUIPMENT
PARTS & ACCESSORIES
SEMICONDUCTOR PRODUCTS