

RCA RECEIVING TUBES

FOR AM, FM, AND TELEVISION
BROADCAST



CHARACTERISTICS AND SOCKET CONNECTIONS

*Rectifiers • Detectors • Converters
Mixers • Power Amplifiers • Kinescopes
Voltage Amplifiers • Oscillators*



RCA Receiving Tubes

Chart I is arranged to permit quick determination of the type designations of (A) RCA kinescopes according to their envelope size, focus method, and

deflection method; and (B) all other RCA receiving tubes according to their functions and filament or heater voltages. Chart II starting on page 4 lists

1. RECEIVING TUBE CLASSIFICATION CHART

A—Kinescopes

KINESCOPES					
Directly Viewed	Approx. Envelope Diameter (Inches)		3-14	16-17	19-27
	Focusing Method	Deflection Method			
	electrostatic	electrostatic	3KP4 7JP4		
	electrostatic	magnetic	7DP4 9AP4 12AP4	17CP4 17HP4 17LP4 17TP4	20MP4 21MP4
	magnetic	magnetic	10BP4-A 10FP4-A 12KP4-A 12LP4-A 14CP4 14EP4	16AP4-A 16DP4-A 16CP4 16GP4-B 16KP4 16LP4-A 16RP4 16TP4 16WP4-A 17BP4-A 17CP4 17JP4 17QP4	19AP4-A 19AP4-B 20CP4 21AP4 21EP4 27MP4
Projection	electrostatic	magnetic	5TP4		

B—Rectifiers, Detectors, Power and Voltage Amplifiers, Converters and Mixers, Electron-Ray Tubes

Types having similar characteristics and the same filament or heater voltage are bracketed.

Filament or Heater Volts		1.25—1.4			2.0—5.0		6.3—117.0			
		Sub-miniature	Miniature	Other	Octal	Other	Miniature	Octal	Other	
RECTIFIERS (For rectifiers with amplifier units, see POWER AMPLIFIERS).										
Half-Wave	vacuum	Peak Inverse Volts: Below 1500					35W4 45Z3 117Z3	6W4-GT 25W4-GT 6AX4-GT 12AX4-GT (35Z4-GT 35Z5-GT) 45Z5-GT 117Z4-GT	1-v 12Z3 35Y4 35Z3	
		Above 1500	1V2 1X2-A	1B3-GT					8I	
Full-Wave	vacuum	Peak Inverse Volts: Below 1500			5Y3-G, 5AZ4 5Y3-GT, 5Y4-G (5V4-G 5W4-GT 83-v)	5Z4 80	(6X4	6X5, 6X5-GT) 6AX5-GT 6ZY5-G 84/6Z4	7Y4 7Z4	
		Above 1500			(5T4, 5U4-G 5X4-G)	5Z3				
	mercury-vapor	Above 1500				82 83				
	gas	Below 1500			Cold-Cathode Types 0Y4, 0Z4, 0Z4-C					
Doubler	vacuum	Peak Inverse Volts: Below 1500						(25Z6, 25Z6-GT) (50Y6-GT) (50Y7-GT) 117Z6-GT	25Z5 50X6	
DIODE DETECTORS (For diode detectors with amplifier units, see VOLTAGE AMPLIFIERS and also POWER AMPLIFIERS).										
One Diode			1A3							
Two Diodes							6AL5 12AL5	(6H6, 6H6-GT) 12H6	7A6	
POWER AMPLIFIERS with and without Rectifiers, Diode Detectors, and Voltage Amplifiers.										
Triodes	low-mu	single unit				2A3 31 49 45 46 71-A		6B4-G	6A3 50	
		twin unit						6AS7-G		
	high-mu	single unit						6AC5-GT		
		twin unit				(1J6-GT 19)	53		(6N7, 6N7-GT) 6A6	
direct-coupled arrangement			1G6-GT					6AQ7-GT 6Z7-G	79	
Beam Tubes	single unit			(1Q5-GT) 3Q5-GT* 1T5-GT 3LF4			6AS5 6AQ5 (35B5, 35CS) (50B5, 50CS)	6AU5-GT 6BG6-G 6BQ6-GT 6CD6-G (6V6 6V6-GT) 12V6-GT 6W6-GT 25BQ6-GT 6Y6-G 19BG6-G 50C6-G 50L6-GT	(6L6) (6L6-G) 25L6 (25L6-GT) 35L6-GT 50L6-GT	7A5 14A5 7CS 14CS 35A5 50A5
	with rectifier							32L7-GT 70L7-GT (117L7/M7-GT) 117P7-GT 117N7-GT		
Pentodes	single unit	1AC5	(1S4) 35A* (3Q4* 3V4*	1A5-GT 1C5-GT 1LA4 1LB4	(1F4) 1G5-G	1F5-G 2A5 33 47 59	6CL6 (6AK6 6AR5	6AG7 6CG6-G	(6F6, 6F6-G, 6F6-GT) (6K6-GT 41) (25A6 43)	7B5 7AD7 38 89
	with medium-mu triode							6AD7-G		
	with diode and triode			1D8-GT						
	twin unit				1E7-GT				12A7	

RCA RECEIVING TUBES

characteristics and operating data of all RCA receiving tubes. Chart III on pages 22 and 23 lists characteristics and operating data of all RCA

kinescopes. Both Charts II and III include RCA discontinued types.

RECEIVING TUBE CLASSIFICATION CHART—Cont'd

Types having similar characteristics and the same filament or heater voltage are bracketed.

Filament or Heater Volts		1.25—1.4			2.0—5.0		6.3—117.0			
		Sub-miniature	Miniature	Other	Octal	Other	Miniature	Octal	Other	
CONVERTERS & MIXERS (For other types used as Mixers, see VOLTAGE AMPLIFIERS).										
Converters	pentagrid	1E8	1R5	1A7-GT 1LA6 1LC6	(1C7-G 1D7-G)	1C6 1A6 2A7	(6BE6 6SA7 6SA7-GT)	(6A8, 6A8-G 6A8-GT 6D8-G)	6A7 7B8 14B8 7Q7 14Q7	
	triode-pentode						(12BE6 12BA7 6BA7)	12A8-GT		
	triode-hexode							6X8 19X8		
	triode-heptode							6K8, 6K8-G 12K8		
	octode							6J8-G	7S7 7J7 14J7	
Mixers	pentagrid							(6L7, 6L7-G)	7A8	
ELECTRON-RAY TUBES										
Single	with remote-cutoff triode								6AB5/6N5 6U5*	
	with sharp-cutoff triode					2E5			6E5	
Twin	without triode							6AF6-G		
Triple								6AL7-GT		
VOLTAGE AMPLIFIERS with and without Diode Detectors, TRIODE, TETRODE, AND PENTODE DETECTORS, OSCILLATORS.										
Triodes	medium-mu	single unit			1G4-GT 1LE3 26	(1H4-G 30) 27 56	6AF4 6C4 6S4	(6C5, 6C5-GT) 6J5, 6J5-GT	12J5-GT 6L5-G 6P5-GT	7A4 14A4 76 37
		with rf pentode						6U8 6F7		
		with power pentode							6AD7-G	
		with pentode and diode			1D8-GT 3A8-GT*					
		with two diodes				(1H6-G 1B5/25S) 55	(6BF6 12BF6)	6R7, 6R7-GT 6SR7 6ST7 12SR7		7E6 14E6 85
	twin unit					6BQ7 12AU7* 6BQ7-A 6J6 12BH7* 19J6	(6F8-G, 6SN7-GT) 6C8-G 12AH7-GT 6BL7-GT	12SN7-GT 12AH7-GT	7AF7 14AF7 7F8 14F8 7N7 14N7	
	high-mu	single unit					6AB4	(6F5, 6F5-GT) (6SF5, 6SF5-GT) 12SF5	12F5-GT 6K5-G 25AC5-GT	7B4
		with diode			1H5-GT 1LH4					
		with two diodes				2A6	12AT6 (6AT6 6AQ6 12AV6 (6AV6)	6Q7, 6Q7-G 6Q7-GT, 6SZ7 6SQ7, 6SQ7-GT 6B6-G	12Q7-GT 6T7-G (12SQ7-GT)	7B6 14B6 7C6 75
		with three diodes					6T8 19T8		6S8-GT 12S8-GT	
twin unit						12AT7* 12AX7*		6SC7, 12SC7 6SL7-GT 12SL7-GT	7F7 14F7 7K7 7X7	
Tetrodes	remote-cutoff					35				
sharp-cutoff						24-A 32			36	
Pentodes	remote-cutoff	single unit	1T4	1LC5 1P5-GT	(1D5-GP 1A4-P) 34 58	(6BD6 12BD6 6BA6 12BA6 6BJ6)	6SK7, 6SK7-GT 12SK7, 12SK7-GT 6SC7 (6D6 12SC7) (6U7-G 6AB7 6SS7	(6K7, 6K7-G 6K7-GT 12K7-GT (6S7 6S7-G)	78) 7A7 14A7 7H7 14H7 7AH7 7B7 39/44	
		with triode							6F7	
		with diode						6SF7 12SF7		
	with two diodes				2B7			12C8 (6B8 6B8-G)	6B7 7E7 14E7 6B7-S 7R7 14R7	
	sharp-cutoff	single unit	1AD5	1L4 1U4	1LC5 1LN5 1N5-GT	(1E5-GP 1B4-P) 57	(6AC5 6AK5) (6BC5 6CB6) 12AW6 6AH6 6BH6 (6AU6 12AU6)	(6SJ7 6SJ7-GT) (12SJ7 12SJ7-GT) 6AC7 12J7-GT	7AG7 7C7 7C7 14C7 7L7 7V7 77) 7W7	
with diode	1T6	1S5 1U5	1LD5				6SH7 12SH7	(6J7, 6J7-G, 6J7-GT 6C6 6W7-G)		
with two diodes				1F7-G	1F6					

* Filament arranged for either 1.4 or 2.8-volt operation. ^ Heater arranged for either 6.3 or 12.6-volt operation.

2. RECEIVING TUBE CHARACTERISTICS CHART

In this chart, characteristics of RCA receiving tubes, including discontinued RCA types, are listed in numerical-alphabetical sequence of type designations.

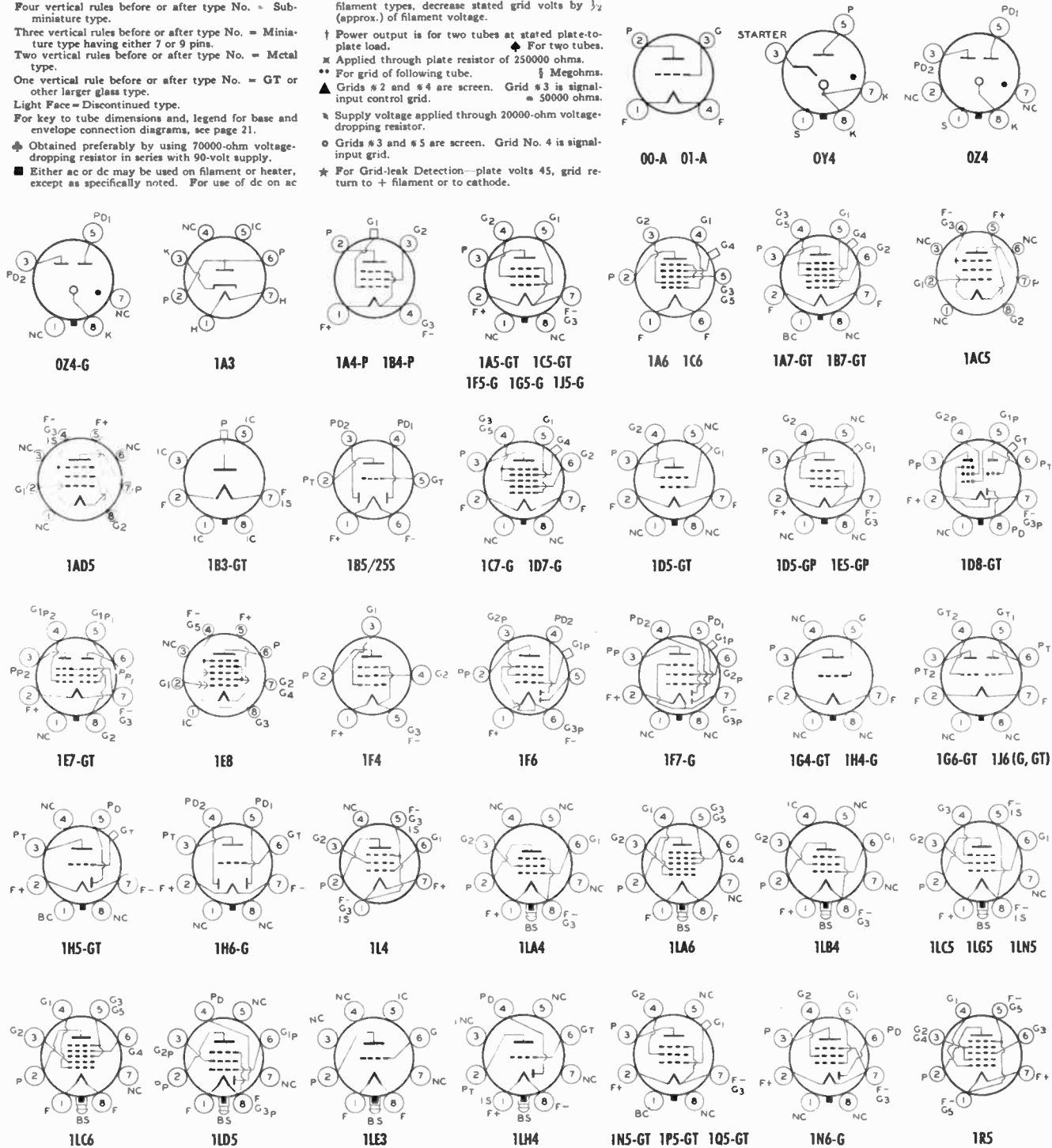
RCA Type	Name	Tube Dimensions	Cathode Type and Rating			Use <small>Values to right give operating conditions and characteristics for indicated typical use</small>	Plate Supply Volts	Grid Bias Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Trans-conductance (Grid-plate) μ mhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	RCA Type	
			C.T.	Volts	Amp.													
00-A	Detector Triode	D12	D.C. F	5.0	0.25	Grid-Leak Detector	45	Grid Return to (-) Filament			1.5	30000	666	20	—	—	00-A	
01-A	Detector & Amplifier	D12	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	—	—	01-A	
0Y4	Half-Wave Gas Rectifier	B2	Cold	—	—	Rectifier	Max. Peak Inverse Plate Volts, 300 Max. D-C Starting Volts, 95					Max. Peak Plate Current, 500 ma. Max. D-C Output Current, 75 ma.					0Y4	
0Z4	Full-Wave Gas Rectifier	B2	Cold	—	—	Rectifier	Starting-Supply Voltage per Plate, 300 min. peak volts. Peak Plate Current, 200 max. ma. D-C Output Current, 75 max., 30 min. ma. D-C Output Voltage, 300 max. volts.										0Z4	
0Z4-G	Full-Wave Gas Rectifier	B1a	Cold	—	—	Rectifier											0Z4-G	
1A3	HF Diode	B0	H	1.4	0.15	Detector Rectifier	Max. Peak Inverse Volts, 330 Max. Peak Plate Ma., 5					Max. D-C Output Ma., 0.5 Max. Peak Heater-Cathode Volts, 140					1A3	
1A4-P	Remote-Cutoff Pentode	D8	D.C. F	2.0	0.06	Amplifier	For other characteristics, refer to Type 1D5-GP.										1A4-P	
1A5-GT	Power Amplifier Pentode	C3	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	1A5-GT	
1A6	Pentagrid Converter	D8	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 μ max. volts, 2.3 ma. Oscillator-Grid (#1) Resistor μ Conversion Transcond., 300 micromhos.				1A6	
1A7-GT	Pentagrid Converter	C3	D.C. F	1.4	0.05	Converter	90	0	45 ϕ	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.				1A7-GT	
1AC5	Power Pentode	A	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	5 15 50	1AC5	
1AD5	Sharp-Cutoff Pentode	A	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	—	—	—	1AD5	
1B3-GT	Half-Wave Rectifier	D2	F	1.25	0.2	Half-Wave Rectifier	Max. Peak Inverse Plate Volts, 30000 Max. Peak Plate Ma., 17					Max. Average Plate Ma., 2 Max. Frequency of Supply Voltage, 300 Kc					1B3-GT	
1B4-P	RF Amplifier Pentode	D8	D.C. F	2.0	0.06	Amplifier	For other characteristics, refer to Type 1E5-GP.										1B4-P	
1B5/25S	Duplex-Diode Triode	D8	D.C. F	2.0	0.06	Triode Unit as Amplifier	For other characteristics, refer to Type 1H6-G.										1B5/25S	
1B7-GT	Pentagrid Converter	C3	D.C. F	1.4	0.10	Converter	90	0	45 ϕ	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.				1B7-GT	
1C5-GT	Power Amplifier Pentode	C2b	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	1C5-GT	
1C6	Pentagrid Converter	D8	D.C. F	2.0	0.12	Converter	For other characteristics, refer to Type 1C7-G.										1C6	
1C7-G	Pentagrid Converter	D8	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 μ max. volts, 4.0 ma. Oscillator-Grid (#1) Resistor μ Conversion Transcond., 325 micromhos.				1C7-G	
1D5-GP	Remote-Cutoff Pentode	D8	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 ϕ	720 750	—	—	—	1D5-GP	
1D5-GT	Remote-Cutoff Tetrode	D8	D.C. F	2.0	0.06	Class A Amplifier	180	- 3.0	67.5	0.7	2.2	600000	650	—	—	—	1D5-GT	
1D7-G	Pentagrid Converter	D8	D.C. F	2.0	0.06	Converter	For other characteristics, refer to Type 1A6.										1D7-G	
1D8-GT	Diode-Triode-Power Amplifier Pentode	C2b	D.C. F	1.4	0.10	Pentode Unit as Class A Amplifier Triode Unit as Class A Amplifier	45 90 45 90	- 4.5 - 9.0 0 0	45 90 — —	0.3 1.0 0.3 1.1	1.6 5.0 77000 43500	650 925 325 575	— — 25 25	20000 12000	0.035 0.200	1D8-GT		
1E5-GP	RF Amplifier Pentode	D8	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 ϕ 1.3	600 650	—	—	—	1E5-GP	
1E7-GT	Twin-Pentode Power Amplifier	C2b	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	1E7-GT
1E8	Pentagrid Converter	A	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 0.5 1.0	300000 400000 400000	Oscillator Grid (#1) Resistor, 0.1 meg. Conversion Transcond., 150 micromhos.				1E8	
1F4	Power Amplifier Pentode	D12	D.C. F	2.0	0.12	Amplifier	For other characteristics, refer to Type 1F5-G.										1F4	
1F5-G	Power Amplifier Pentode	D10	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	1F5-G	
1F6	Duplex-Diode Pentode	D8	D.C. F	2.0	0.06	Pentode Unit as Amplifier	For other characteristics, refer to Type 1F7-G.										1F6	
1F7-G	Duplex-Diode Pentode	D8	D.C. F	2.0	0.06	Pentode Unit as RF Amplifier Pentode Unit as AF Amplifier	180 135 μ	- 1.5 - 2.0	67.5 —	0.7 —	2.2 —	1.0 ϕ —	650 —	—	—	—	1F7-G	
1G4-GT	Medium-Mu Triode	C4	D.C. F	1.4	0.05	Class A Amplifier	90	- 6.0	—	—	2.3	10700	825	8.8	—	—	1G4-GT	
1G5-G	Power Amplifier Pentode	D10	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	1G5-G	
1G6-GT	Twin-Triode Amplifier	C4	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	1G6-GT	
1H4-G	Detector & Amplifier	D3	D.C. F	2.0	0.06	Class A Amplifier Class B Amplifier	90 135 180 157.5	- 4.5 - 9.0 - 13.5 - 15.0	— — — —	— — — —	2.5 3.0 3.1 1.0 ϕ	11000 10300 10300	850 900 900	9.3 9.3 9.3	— — — 8000	— — — 2.1 \dagger	1H4-G	
1H5-GT	Diode High-Mu Triode	C3	D.C. F	1.4	0.05	Triode Unit as Class A Amplifier	90	0	—	—	0.15	240000	275	65	—	—	1H5-GT	
1H6-G	Duplex-Diode Triode	D3	D.C. F	2.0	0.06	Triode Unit as Class A Amplifier	135	- 3.0	—	—	0.8	35000	575	20	—	—	1H6-G	
1J5-G	Power Pentode	D10	D.C. F	2.0	0.12	Class A Amplifier	135	- 16.5	135	2.0	7.0	105000	950	—	13500	0.45	1J5-G	
1J6-G	Twin-Triode Amplifiers	C10	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	2.2 2.0	1J6-G	
1L4	RF Amplifier Pentode	B0	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	—	—	—	1L4	
1LA4	Power Amplifier Pentode	B5	D.C. F	1.4	0.05	Amplifier	For other characteristics, refer to Type 1A5-GT.										1LA4	
1LA6	Pentagrid Converter	B5	D.C. F	1.4	0.05	Converter	90	0	45 ϕ	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.				1LA6	
1LB4	Power Amplifier Pentode	B6	D.C. F	1.4	0.05	Class A Amplifier	For other characteristics, refer to Pentode Unit of Type 1D8-GT.										1LB4	
1LC5	RF Amplifier Pentode	B6	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 ϕ	750 775	—	—	—	1LC5	
1LC6	Pentagrid Converter	B5	D.C. F	1.4	0.05	Converter	45 90	0 0	35 35	0.75 0.70	0.70 0.75	300000 300000	Anode-Grid (#2): 45 max. volts, 1.4 ma. Oscillator-Grid (#1) Resistor, 1.0 meg. Conversion Transcond., 275 micromhos.				1LC6	
1LD5	Diode-Pentode	B5	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 5.6 meg. resistor. Grid Bias, 0 volts, Grid Resistor, 10 megohms. Voltage Gain, 101 approx.										1LD5	
1LE3	Medium-Mu Triode	B5	F	1.4	0.05	Class A Amplifier	90 90	0 - 3	— —	— —	— —	4.5 1.4	11200 19000	1300 760	14.5 14.5	—	—	1LE3

For data on RCA Kinescopes, see pages 22 and 23.

RCA Type	Name	Tube Dimensions	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	Trans-conductance (Grid-plate) μ mhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	RCA Type
			C. T.	Volts	Amp.												
1LG5	Remote-Cutoff Pentode	B5	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 \ddagger 500000	800 1150	—	—	—	1LG5
1LH4	Diode High-Mu Triode	B5	D.C. F	1.4	0.05	Triode Unit as Class A Amplifier	For other characteristics, refer to Type 1H5-GT.										1LH4
1LN5	RF Amplifier Pentode	B5	D.C. F	1.4	0.05	Class A Amplifier	90	0	90	0.35	1.6	1.1 \ddagger	800	—	—	—	1LN5
1N5-GT	RF Amplifier Pentode	C3	D.C. F	1.4	0.05	Class A Amplifier	90	0	90	0.3	1.2	1.5 \ddagger	750	—	—	—	1N5-GT
1N6-G	Diode-Power Amplifier Pentode	D1	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	1N6-G
1P5-GT	Remote-Cutoff Pentode	C3	D.C. F	1.4	0.05	Class A Amplifier	90	0	90	0.7	2.3	800000	750	—	—	—	1P5-GT
1Q5-GT	Beam Power Amplifier	C3	D.C. F	1.4	0.1	Class A Amplifier	90	-4.5	90	1.3	9.5	90000	2200	—	8000	0.27	1Q5-GT
1R5	Pentagrid Converter	B0	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 micromhos.			1R5	

Four vertical rules before or after type No. = Subminiature type.
 Three vertical rules before or after type No. = Miniature type having either 7 or 9 pins.
 Two vertical rules before or after type No. = Metal type.
 One vertical rule before or after type No. = GT or other larger glass type.
 Light Face = Discontinued type.
 For key to tube dimensions and, legend for base and envelope connection diagrams, see page 21.
 † Obtained preferably by using 70000-ohm voltage-dropping resistor in series with 90-volt supply.
 ‡ 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 1/2 (approx.) of filament voltage.
 † Power output is for two tubes at stated plate-to-plate load. ‡ For two tubes.
 ‡ Applied through plate resistor of 250000 ohms.
 ‡ For grid of following tube.
 ‡ Megohms.
 ‡ Grids #2 and #4 are screen. Grid #3 is signal-input control grid.
 ‡ Supply voltage applied through 20000-ohm voltage-dropping resistor.
 ‡ Grids #3 and #5 are screen. Grid No. 4 is signal-input grid.
 ‡ For Grid-leak Detection—plate volts 45, grid return to + filament or to cathode.



RCA Type	Name	Tube Dimensions	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	Trans-conductance (Grid-plate) μmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	RCA Type
			C.T.	Volts	Amp.												
1S4	Power Amplifier Pentode	80	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	0.27	1S4
1S5	Diode-Pentode	80	D.C. F	1.4	0.05	Pentode Unit as AF Amplifier	Plate Supply, 90 volts applied through 1 meg. resistor. Screen Supply, 90 volts applied through 3 meg. resistor. Grid Bias, 0 volts. Grid Resistor, 10 megohms. Voltage Gain, 50 approx.										1S5
1T4	Remote-Cutoff Pentode	80	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				1T4
1T5-GT	Beam Power Amplifier	C4	D.C. F	1.4	0.05	Class A Amplifier	90	- 6.0	90	0.8	6.5		1150		14000	0.17	1T5-GT
1T6	Diode-Pentode	A	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				1T6
1U4	RF Amplifier Pentode	80	D.C. F	1.4	0.05	Class A Amplifier	90	0	90	0.50	1.6	1.0†	900				1U4
1U5	Diode-Pentode	80	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 3.3 meg. resistor. Grid Bias, 0 volts. Grid Resistor, 10 megohms. Voltage Gain, 66 approx.										1U5
1-v	Half-Wave Rectifier	D8	H	6.3	0.3	With Capacitive-Input Filter	Max. A-C Plate Volts (RMS), 325 Max. D-C Output Ma., 45										1-v
1V2	Half-Wave Rectifier	80a	F	0.625	0.3	Pulsed Rectifier	Max. Peak Inverse Plate Volts, 7500 Max. Peak Plate Ma., 10										1V2
1X2-A	Half-Wave Rectifier	B4	F	1.25	0.2	Half-Wave Rectifier	Max. Peak Inverse Plate Volts, 18000 Max. Peak Plate Ma., 10										1X2-A
2A3	Power Amplifier Triode	E3	F	2.5	2.5	Class A Amplifier	250	- 45.0			60.0	800	5250	4.2	2500	3.5	2A3
2A4-G	Glow-Discharge Triode	D3	D.C. F	2.5	2.5	Relay Service	Max. Peak Inverse Anode Volts, 200 Max. Peak Forward Anode Volts, 200										2A4-G
2A5	Power Amplifier Pentode	D12	H	2.5	1.75	Amplifier	For other characteristics, refer to Type 6F6-G.										2A5
2A6	Duplex-Diode High-Mu Triode	D9	H	2.5	0.8	Triode Unit as Amplifier	For other characteristics, refer to Type 6SQ7.										2A6
2A7	Pentagrid Converter	D9	H	2.5	0.8	Converter	For other characteristics, refer to Type 6A8.										2A7
2B7	Duplex-Diode Pentode	D6	H	2.5	0.8	Pentode Unit as Amplifier	For other characteristics, refer to Type 6BB-G.										2B7
2E5	Electron-Ray Tube	D6	H	2.5	0.8	Visual Indicator	For other characteristics, refer to Type 6E5.										2E5
3A8-GT	Diode-Triode RF Amplifier Pentode	C6	D.C. F	1.4 2.8	0.1 0.05	Triode Unit as Class A Amplifier Pentode Unit as Class A Amplifier	90 90	0 0	— 90	— 0.5	0.2 1.5	200000 800000	325 750	65	—	—	3A8-GT
3LF4	Beam Power Amplifier	B5	D.C. F	1.4 2.8	0.1 0.05	Class A Amplifier	For other characteristics, refer to Type 3Q5-GT.										3LF4
3Q4	Power Amplifier Pentode	80	D.C. F	1.4 2.8	0.1 0.05	Class A Amplifier	For other characteristics, refer to Type 3V4										3Q4
3Q5-GT	Beam Power Amplifier	C3	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	3Q5-GT
3S4	Power Amplifier Pentode	80	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	3S4
3V4	Power Amplifier Pentode	80	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	3V4
5A2A	Full-Wave Rectifier	C2a	F	5.0	2.0		For ratings and characteristics, refer to Type 5Y3-GT.										5A2A
5T4	Full-Wave Rectifier	D7	F	5.0	2.0	With Capacitive-Input Filter	Max. A-C Volts per Plate (RMS), 450 Max. Peak Inverse Volts, 1550 Max. D-C Output Ma., 225 Min. Total Effect. Supply Imped. per Plate, 150 ohms										5T4
5U4-G	Full-Wave Rectifier	E2	F	5.0	3.0	With Inductive-Input Filter	Max. A-C Volts per Plate (RMS), 550 Max. Peak Inverse Volts, 1550 Max. D-C Output Ma., 225 Min. Value of Input Choke, 3 henries										5U4-G
5V4-G	Full-Wave Rectifier	D10	H	5.0	2.0	With Capacitive-Input Filter	Max. A-C Volts per Plate (RMS), 450 Max. Peak Inverse Volts, 1550 Max. D-C Output Ma., 225 Min. Total Effect. Supply Imped. per Plate, 230 ohms										5V4-G
5W4	Full-Wave Rectifiers	C2	F	5.0	1.5	With Inductive-Input Filter	Max. A-C Volts per Plate (RMS), 550 Max. Peak Inverse Volts, 1550 Max. D-C Output Ma., 225 Min. Value of Input Choke, 10 henries										5W4
5W4-GT	Full-Wave Rectifiers	C8	F	5.0	1.5	With Capacitive-Input Filter	Max. A-C Volts per Plate (RMS), 375 Max. Peak Inverse Volts, 1400 Max. D-C Output Ma., 175 Min. Total Effect. Supply Imped. per Plate, 100 ohms										5W4-GT
5X4-G	Full-Wave Rectifier	E2	F	5.0	3.0	With Inductive-Input Filter	Max. A-C Volts per Plate (RMS), 500 Max. Peak Inverse Volts, 1400 Max. D-C Output Ma., 175 Min. Value of Input Choke, 4 henries										5X4-G
5Y3-G	Full-Wave Rectifiers	C6	F	5.0	2.0	With Capacitive-Input Filter	Max. A-C Volts per Plate (RMS), 350 Max. Peak Inverse Volts, 1400 Max. D-C Output Ma., 100 Min. Total Effect. Supply Imped. per Plate, 50 ohms										5Y3-G
5Y3-GT	Full-Wave Rectifiers	C6	F	5.0	2.0	With Inductive-Input Filter	Max. A-C Volts per Plate (RMS), 500 Max. Peak Inverse Volts, 1400 Max. D-C Output Ma., 100 Min. Value of Input Choke, 6 henries										5Y3-GT
5Y4-G	Full-Wave Rectifier	D10	F	5.0	2.0		For other ratings, refer to Type 5Y3-GT.										5Y4-G
5Z3	Full-Wave Rectifier	E3	F	5.0	3.0		For other ratings, refer to Type 5U4-G.										5Z3
5Z4	Full-Wave Rectifier	C2	H	5.0	2.0	With Capacitive-Input Filter	Max. A-C Volts per Plate (RMS), 350 Max. Peak Inverse Volts, 1400 Max. D-C Output Ma., 125 Min. Total Effect. Supply Imped. per Plate, 50 ohms										5Z4
6A3	Power Amplifier Triode	E3	F	6.3	1.0	Amplifier	With Inductive-Input Filter Max. A-C Volts per Plate (RMS), 500 Max. Peak Inverse Volts, 1400 Max. D-C Output Ma., 125 Min. Value of Input Choke, 5 henries										6A3
6A4/LA	Power Amplifier Pentode	D12	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	6A4/LA
6A6	Twin-Triode Amplifier	D12	H	6.3	0.8	Amplifier	For other characteristics, refer to Type 6N7-GT.										6A6
6A7	Pentagrid Converter	D9	H	6.3	0.3	Converter	For other characteristics, refer to Type 6A8.										6A7
6A7S	Pentagrid Converter	D9	H	6.3	0.3	Converter	For other characteristics, refer to Type 6A8.										6A7S
6A8	Pentagrid Converter	C1	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 μ max. volts, 4.0 ma. Oscillator-Grid (#1) Resistor = Conversion Transcond., 550 micromhos.			6A8	
6A8-G	Pentagrid Converter	D8	H	6.3	0.3	Converter	For other characteristics, refer to Type 6A8.										6A8-G
6A8-GT	Pentagrid Converter	C3	H	6.3	0.3	Converter	For other characteristics, refer to Type 6A8.										6A8-GT
6AB4	High-Mu Triode	80	H	6.3	0.15	Class A Amplifier	100 250	Cath. Res., 270 ohms Cath. Res., 200 ohms		3.7 10.0		4000 5500	60 60				6AB4
6AB5/6N5	Electron-Ray Tube Indicator Type	D4	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.										6AB5/6N5
6AB7	Remote-Cutoff Pentode	B2	H	6.3	0.45	Class A Amplifier	300	- 3.0	200	3.2	12.5	700000	5000				6AB7
6AC5-GT	High-Mu Power Amplifier Triode	C3	H	6.3	0.4	Class B Amplifier	250	0			5.0†			10000	8.0†		6AC5-GT
6AC7	Sharp-Cutoff Pentode	B2	H	6.3	0.45	Class A Amplifier	300	Cath. Bias	150	2.5	10.0	1.0†	9000		Cathode-Bias Resistor, 160 ohms		6AC7

For data on RCA Kinescopes, see pages 22 and 23.

RCA Type	Name	Tube Dimensions	Cathode Type and Rating			Use <small>Values to right give operating conditions and characteristics for indicated typical use</small>	Plate Supply Volts	Grid Bias Ma	Screen Supply Volts	Screen Current Ma	Plate Current Ma	AC Plate Resistance Ohms	Trans-conductance (Grid-plate) μ mhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	RCA Type
			C. T.	Volts	Amp.												
6AD6-G	Electron-Ray Tube Twin Indicator Type	B5a	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.										6AD6-G
6AD7-G	Triode-Power Amplifier Pentode	D10	H	6.3	0.85	Triode Unit as Class A Amplifier	250	-25.0	—	—	3.7	19000	325	6	—	—	6AD7-G
						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	—	250	6.7 ϕ	41.0 ϕ	Cathode-Bias Resistor, 470 ohms ϕ		16000	9.0 \dagger		
6AE5-GT	Amplifier Triode	C3	H	6.3	0.3	Class A Amplifier	95	-15.0	—	—	7.0	3500	1200	4.2	—	—	6AE5-GT
6AE6-G	Twin-Plate Control Tube	D3	H	6.3	0.15	Remote Cutoff Triode	250	-1.5	—	—	6.5	25000	1000	25	—	—	6AE6-G
						Remote Cutoff Triode	250	-35.0	—	—	0.01	—	—	—	—		
						Remote Cutoff Triode	250	-1.5	—	—	4.5	35000	950	33	—		
6AE7-GT	Twin-Input Triode Amplifier	C3	H	6.3	0.5	Class A Amp. AA	250	-13.5	—	—	10.0	4650	3000	14	—	—	6AE7-GT
						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					

Four vertical rules before or after type No. = Sub-miniature type.
 Three vertical rules before or after type No. = Miniature type having either 7 or 9 pins.
 Two vertical rules before or after type No. = Metal type.
 One vertical rule before or after type No. = GT or other larger glass type.

Light Face = Discontinued type.
 For key to tube dimensions and, legend for base and envelope connection diagrams, see page 21.

■ 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 1/2 (approx.) of filament voltage.

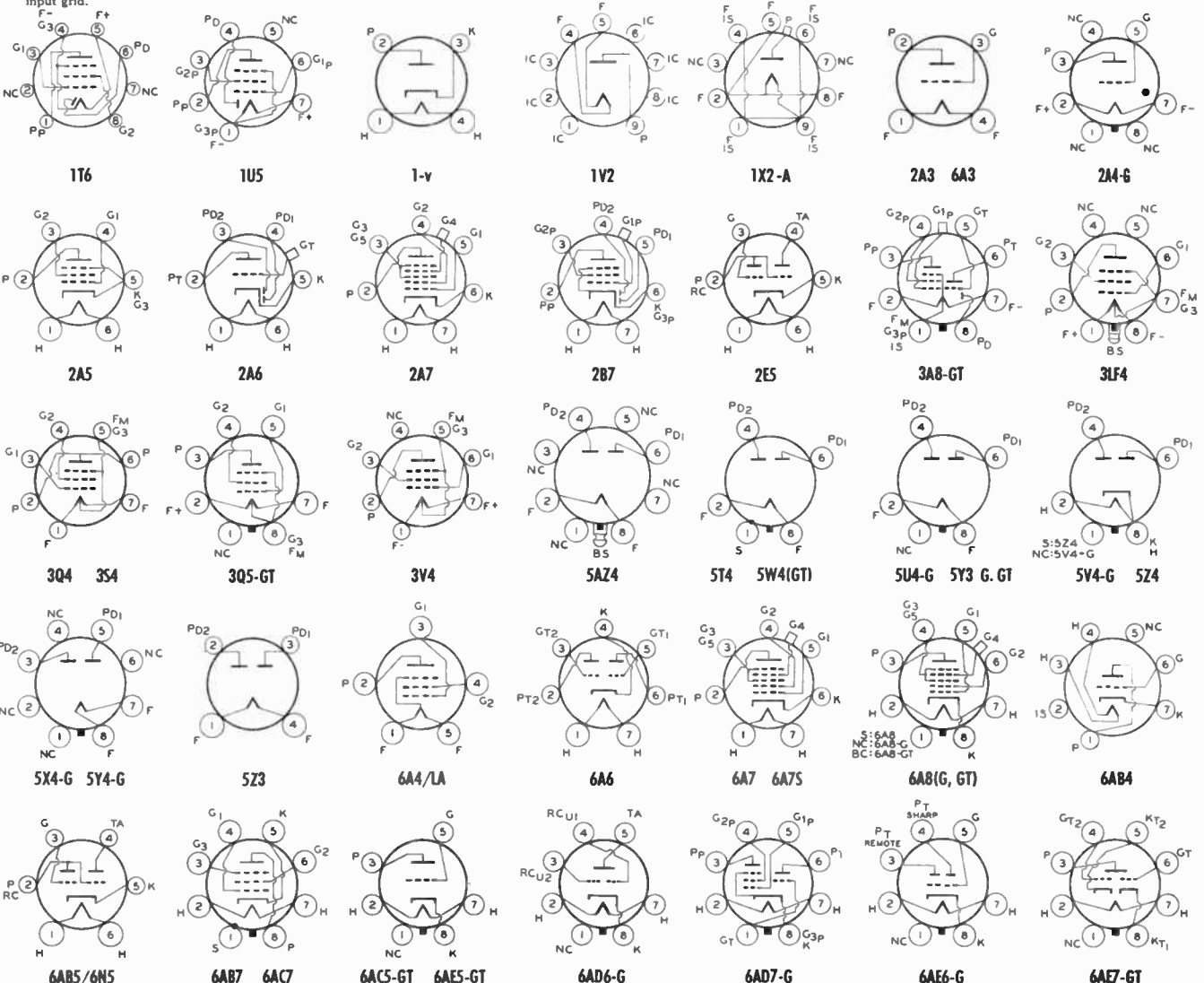
AA Both grids connected together; likewise both cathodes.

■ Grids #3 and #5 are screen. Grid No. 4 is signal-input grid.

Note 1: Subscript 1 on class of amplifier service (as AB₁) indicates that grid current does not flow during any part of input cycle.

◆ For two tubes.
 † Megohms.

‡ Power output is for two tubes at stated plate-to-plate load.
 § Supply voltage applied through 20000-ohm voltage-dropping resistor.



6AF4 to 6C5-GT

RCA RECEIVING TUBES

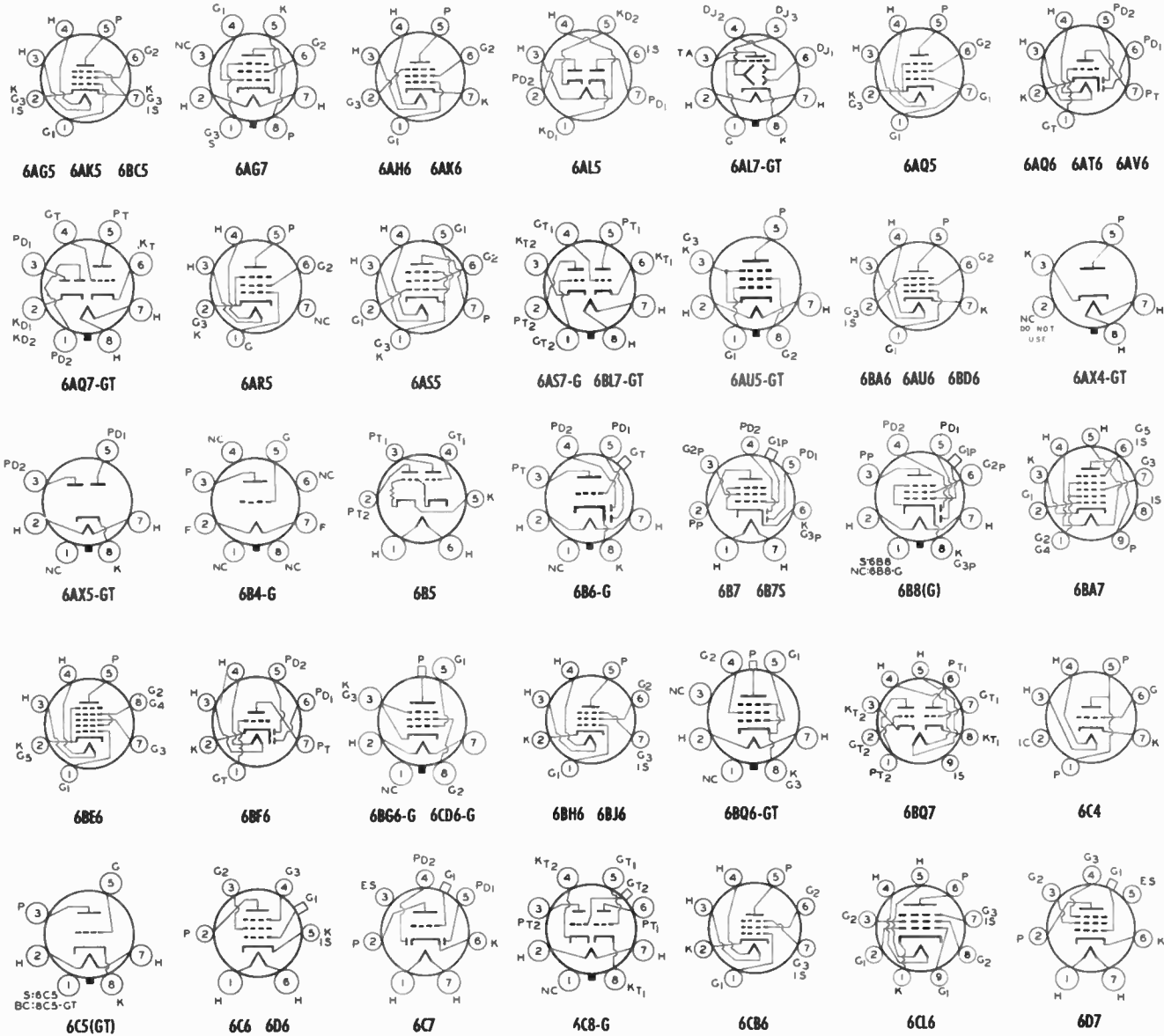
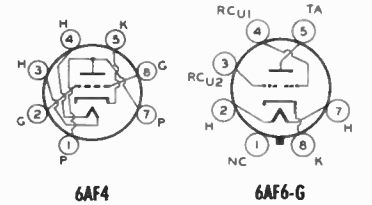
RCA Type	Name	Tube Dimensions	Cathode Type and Rating			Use Values to right give operating conditions and characteristics for indicated typical use	Plate Supply Volts	Grid Bias Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Trans-conductance (Grid-plate) μ mhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	RCA Type	
			C.T.	Volts	Amp.													
6AF4	UHF Oscillator Triode	80	H	6.3	0.225	Class A Amplifier	80	Cathode Bias Res., 150 ohms			16	2270	6600	15			6AF4	
						Oscillator at 950 Mc.	100	Grid Bias Volts, -4 Grid Res., 10000 ohms			22	2130	7500	16	Grid Current (Approx.), 400 μ amp Useful Power Output, 160 milliwatts			
6AF6-G	Electron-Ray Tube Twin Indicator Type	80c	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°.									6AF6-G		
6AG5	Sharp-Cutoff Pentode	80	H	6.3	0.3	As Pentode Class A Amplifier	100	Cath. Bias	100	1.5	4.5	700000	4250	Cath. Bias Res., 150 ohms			6AG5	
						As Triode Class A Amplifier	250	Cath. Bias	150	2.0	7.0	800000	5000	Cath. Bias Res., 200 ohms				
6AG7	Power Pentode	C2	H	6.3	0.65	Class A Amplifier I-Me. Bandwidth Video Circuit	300	Cath. Bias - 2.0	125	7.0	28.0	10000	3800	Cath. Bias Res., 330 ohms	Cath. Bias Res., 820 ohms	6AG7		
6AH6	Sharp-Cutoff Pentode	80	H	6.3	0.45	Class A Amplifier	300	Cath. Bias	150	2.5	10.0	500000	9000	Cath. Res., 160 ohms		6AH6		
6AK5	Sharp-Cutoff Pentode	A1	H	6.3	0.175	Class A Amplifier	120	Cath. Bias	120	2.5	7.5	300000	5000	Cath. Res., 180 ohms		6AK5		
6AK6	Power Amplifier Pentode	80	H	6.3	0.15	Class A Amplifier	180	- 9.0	180	2.5	15	200000	2300		10000	1.1	6AK6	
6AL5	Twin Diode	A1	H	6.3	0.3	Detector Rectifier	Max. Peak Inverse Volts, 330 Max. Peak Plate Ma. per Plate, 54									6AL5		
6AL7-GT	Electron-Ray Tube Indicator Type	C0a	H	6.3	0.15	Visual Indicator	Target Voltage, 315 volts Grid Voltage = 0 volts Cathode Bias Res., 3300 ohms approx.									6AL7-GT		
						Single Tube Class A Amplifier Push-Pull Class AB ₁ Amplifier	180	- 8.5	180	3.0	29.0	58000	3700		5500	2.0		
6AQ5	Beam Power Amplifier	B1	H	6.3	0.45	Class A Amplifier	250	- 12.5	250	4.5	45.0	52000	4100		5000	4.5	6AQ5	
6AQ6	Twin-Diode High-Mu Triode	80	H	6.3	0.15	Triode Unit as Class A Amplifier	100	- 1.0			0.8	61000	1150	70			6AQ6	
6AQ7-GT	Twin-Diode High-Mu Triode	C2b	H	6.3	0.3	Triode Unit as Class A Amplifier	250	- 3.0			1.0	58000	1200	70			6AQ7-GT	
6AR5	Power Pentode	B1	H	6.3	0.4	Class A Amplifier	250	- 2			2.3	44000	1600	70			6AR5	
6AS5	Beam Power Amplifier	B1	H	6.3	0.8	Class A Amplifier	250	- 16.5	250	10	34.0	65000	2400		7000	3.2	6AS5	
						DC Amplifier	150	- 18	250	10	32.0	68000	2300		7600	3.4		
6AS7-G	Low-Mu Twin Power Triode	E2	H	6.3	2.5	DC Amplifier Booster Tube for Television Scanning	135	Cath. Res., 250 ohms		125	280	7000	2.0			6AS7-G		
6AT6	Twin-Diode High-Mu Triode	80	H	6.3	0.3	Triode Unit as Class A Amplifier	100	- 1.0			0.8	54000	1300	70			6AT6	
						Horizontal Deflection Amplifier in TV Equipment	250	- 3.0			1.0	58000	1200	70				
6AU5-GT	Beam Power Amplifier	C2b	H	6.3	1.25	Horizontal Deflection Amplifier in TV Equipment	Max. DC Plate Volts, 450; Max. DC Plate Ma., 100									6AU5-GT		
6AU6	Sharp-Cutoff Pentode	80	H	6.3	0.3	Class A Amplifier	100	Cath. Bias	100	2.1	5.0	50000	3900	Cath. Bias Res., 150 ohms			6AU6	
6AV6	Twin-Diode High-Mu Triode	80	H	6.3	0.3	Triode Unit as Class A Amplifier	100	- 1.0			0.5	80000	1250	100			6AV6	
6AX4-GT	Half-Wave Rectifier	C2b	H	6.3	1.2	Television Damper Service	Max. Peak Inverse Plate Volts, 4000 Max. Peak Plate Ma., 600 Max. DC Plate Ma., 125									6AX4-GT		
						With Capacitive-Input Filter With Inductive-Input Filter	Max. AC Volts per Plate (RMS), 450 Max. Peak Inverse Volts, 1250 Max. AC Volts per Plate (RMS), 450 Max. Peak Inverse Volts, 1250											
6AX5-GT	Full-Wave Rectifier	C2b	H	6.3	1.2	Class A Amplifier	250	- 45.0			60.0	800	5250	4.2	2500	3.20	6AX5-GT	
6B4-G	Power Amplifier Triode	E2	F	6.3	1.0	Class A Amplifier Push-Pull Class AB ₁ Amplifier	325	Cath. Bias, 850 ohms ϕ			80.0 ϕ			5000	10.0 ϕ	6B4-G		
6B5	Direct-Coupled Power Amplifier	D12	H	6.3	0.8	Class A Amplifier	For other characteristics, refer to Type 6N6-G.									6B5		
6B6-G	Twin-Diode High-Mu Triode	D8	H	6.3	0.3	Triode Unit as Amplifier	For other characteristics, refer to Type 6SQ7.									6B6-G		
6B7	Twin-Diode Remote-Cutoff Pentode	D8	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.									6B7		
6B7S	Twin-Diode Pentode	C1	H	6.3	0.3	Pentode Unit as Amplifier	For other characteristics, refer to Type 12C8.									6B7S		
6B8-G	Twin Diode-Remote-Cutoff Pentode	D8	H	6.3	0.3	Pentode Unit as RF Amplifier	100	- 3.0	100	1.7	5.8	300000	950				6B8-G	
						Pentode Unit as AF Amplifier	250	- 3.0	125	2.3	9.0	600000	1125					
6BA6	Remote-Cutoff Pentode	80	H	6.3	0.3	Class A Amplifier	100	Cath. Bias	100	4.4	11.0	250000	4300	Cath. Bias Res., 68 ohms			6BA6	
6BA7	Pentagrid Converter A	80a	H	6.3	0.3	Converter	100	- 1.0	100	10.2	3.6	500000	4400	Cath. Bias Res., 68 ohms			6BA7	
6BC5	Sharp-Cutoff Pentode	80	H	6.3	0.3	Class A Amplifier	250	- 1.0	100	10.0	3.8	1.0 ϕ	4300	Cath. Bias Res., 68 ohms			6BC5	
6BD6	Remote-Cutoff Pentode	80	H	6.3	0.3	Class A Amplifier	100	- 1	100	5.0	13.0	150000	2550				6BD6	
6BE6	Pentagrid Converter A	80	H	6.3	0.3	Converter	100	- 1.5	100	7.5	2.6	400000	2000				6BE6	
6BF6	Twin-Diode Triode	80	H	6.3	0.3	Triode Unit as Class A Amplifier	250	- 1.5	100	7.5	2.6	1.0 ϕ	400000	2000	Grid #1 Resistor, 20000 ohms Conversion Transcond., 475 micromhos			6BF6
6BG6-G	Beam Power Amplifier	F1	H	6.3	0.9	Horizontal Deflection Amplifier in TV Equipment	Max. DC Plate Volts, 700 Max. DC Plate Ma., 100									6BG6-G		
6BH6	Sharp-Cutoff Pentode	80	H	6.3	0.15	Class A Amplifier	100	- 1.0	100	1.4	3.6	700000	3400				6BH6	
6BJ6	RF Amplifier Pentode	80	H	6.3	0.15	Class A Amplifier	100	- 1.0	100	3.5	9.0	250000	3550				6BJ6	
6BL7-GT	Medium-Mu Twin Triode	C2b	H	6.3	1.5	Vertical Deflection Amplifier in TV Equipment	Max. DC Plate Volts, 500 Max. DC Cathode Ma. (Each Unit), 60									6BL7-GT		
6BQ6-GT	Beam Power Amplifier	C11	H	6.3	1.2	Horizontal Deflection Amplifier in TV Equipment	Max. DC Plate Volts, 550 Max. DC Plate Ma., 100									6BQ6-GT		
6BQ7	Medium-Mu Twin Triode	80a	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		
6BQ7-A	Medium-Mu Twin Triode	80a	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	6BQ7-A		
6C4	HF Power Triode	80	H	6.3	0.15	Class A Amplifier	100	0			11.8	6250	3100	19.5		6C4		
						Class C Amplifier	250	- 8.5			10.5	7700	2200	17				
6C5	Medium-Mu Triodes	B2	H	6.3	0.3	Class A Amplifier	250	- 8.0			8.0	10000	2000	20		6C5		
6C5-GT	Medium-Mu Triodes	C3	H	6.3	0.3	Bias Detector	90 ∇ 300 ∇	Cath. Bias, 6400 ohms. Cath. Bias, 5300 ohms.				8.0	10000	2000	20	Gain per stage = 11 Gain per stage = 13	6C5-GT	

For data on RCA Kinescopes, see pages 22 and 23.

RCA Type	Name	Tube Dimensions	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	Trans-conductance (Grid-plate) μ mhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	RCA Type
			C. T.	Volts	Amp.												
6C6	Sharp-Cutoff Pentode	D13	H	6.3	0.3	Amplifier Detector										6C6	
6C7	Twin-Diode Triode	D8	H	6.3	0.3	250	- 9.0	—	—	4.5	16000	1250	20	—	—	6C7	
6C8-G	Twin-Triode Amplifier	D8	H	6.3	0.3	250	- 4.5	—	—	3.2	22500	1600	36	—	—	6C8-G	
6CB6	Sharp-Cutoff Pentode	B0	H	6.3	0.3	200	Cath. Bias	150	2.8	9.5	600000	6200	Cath. Bias Res., 180 ohms		6CB6		
6CL6	Power Pentode	B3	H	6.3	0.65	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.				6CL6		
6CD6-G	Beam Power Amplifier	F1	H	6.3	2.5	Max. DC Plate Volts, 700 Max. DC Plate Ma., 170						Max. Peak Positive-Pulse Plate Volts, 6000 Max. Plate Dissipation, 15 watts			6CD6-G		
6D6	Remote-Cutoff Pentode	D13	H	6.3	0.3	Amplifier Mixer										6D6	
6D7	Sharp-Cutoff Pentode	D13	H	6.3	0.3	Amplifier Detector										6D7	

Three vertical rules before or after type No. = Miniature type having either 7 or 9 pins.
Two vertical rules before or after type No. = Metal type.
One vertical rule before or after type No. = GT or other larger glass type.
Light Face = Discontinued type.
For key to tube dimensions and, legend for base and envelope connection diagrams, see page 21.
■ 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 1/2 (approx.) of filament voltage.
† For two tubes.
‡ Megohms.
□ Grid # 2 tied to plate.

† Power output is for two tubes at stated plate-to-plate load.
■ Applied through plate resistor of 250000 ohms.
•• For grid of following tube.
▲ Grids # 2 and # 4 are screen. Grid # 3 is signal-input control grid.
♥ Applied through plate resistor of 100000 ohms.
Note 1: Subscript 1 on class of amplifier service (as AB₁) indicates that grid current does not flow during any part of input cycle.
• With tube mounted horizontally and pins No. 4 and No. 8 in a vertical plane (pin 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.



RCA Type	Name	Tube Dimensions	Cathode Type and Rating			Use <small>Values to right give operating conditions and characteristics for indicated typical use</small>	Plate Supply Volts	Grid Bias Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Trans-conductance (Grid-plate) μ mhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	RCA Type	
			C. T.	Volts	Amp.													
6D8-G	Pentagrid Converter	D6	H	6.3	0.15	135 250	- 3.0 - 3.0	67.5 100	1.7 2.6	1.5 3.5	600000 400000	Anode-Grid (#2): 250 μ max. volts, 4.3 ma. Oscillator-Grid (#1) Resistor = Conversion Transcond., 550 micromhos.			6D8-G			
6E5	Electron-Ray Tube	D4	H	6.3	0.3	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.			Visual Indicator			6E5						
6E6	Twin-Triode Power Amplifier	D12	H	6.3	0.6	180 250	-20.0 -27.5	—	—	—	Power Output is for one tube at stated plate-to-plate load.			15000 14000	0.75 1.60	6E6		
6E7	Remote-Cutoff Pentode	D13	H	6.3	0.3	For other characteristics, refer to Type 6U7-G.										6E7		
6F5	High-Mu Triode	C1	H	6.3	0.3	For other characteristics, refer to Type 6SF5.										6F5		
6F5-GT	High-Mu Triode	C2b	H	6.3	0.3	For other characteristics, refer to Type 6SF5.										6F5-GT		
6F6	Power Pentodes	D10	H	6.3	0.7	Pentode Class A Amplifier	250 285	-16.5 -20.0	250 285	6.5 7.0	34.0 38.0	80000 78000	2500 2550	—	7000 7000	3.2 4.8	6F6	
6F6-G						Triode Class A Amplifier	250 315	-20.0 -24.0	—	—	31.0 12.0	2600 62.0	2600 62.0	6.8 —	4000 10000	10.5 11.0		6F6-G
6F6-GT						Pentode Push-Pull Class AB ₂ Amplifier	375 375	Cath. Bias -26.0	250 250	8.0 5.0	54.0 34.0	Cath. Bias Resistor, 320 ohms	10000 10000	19.0 18.5	6F6-GT			
6F7	Triode-Remote-Cutoff Pentode	D6	H	6.3	0.3	Triode Unit as Class A Amplifier	100	- 3.0 min.	—	—	3.5	16000	500	8		—	6F7	
6F7-G						Pentode Unit as Class A Amplifier	100 250	- 3.0 min.	100 100	1.6 1.5	6.3 6.3	290000 850000	1050 1100	—		—		6F7-G
6F8-G						Pentode Unit as Mixer	250	-10.0	100	0.6	2.8	Oscillator Peak Volts = 7.0. Conversion Transcond. = 300 micromhos.			—	—		
6G6-G	Twin-Triode Amplifier	D6	H	6.3	0.6	For other characteristics, refer to Type 6J5.										6G6-G		
6G6-G	Power Amplifier Pentode	D3	H	6.3	0.15	135 180 180	- 6.0 - 9.0 -12.0	135 180	2.0 2.5	11.5 15.0	170000 175000	2100 2300	—	12000 10000	0.6 1.1	6G6-G		
6H6	Twin Diodes	A1a	H	6.3	0.3	Voltage Doubler	Max. A-C Supply Volts per Plate (RMS), 150			Max. D-C Output Ma., 8. min. Total Effect. Plate-Supply Imped. per Plate: half-wave, 30 ohms; full-wave, 15 ohms.			6H6					
6H6-GT						Half-Wave Rectifier	Max. A-C Plate Volts (RMS), 150			Min. Total Effective Plate-Supply Impedance: up to 117 volts, 15 ohms; at 150 volts, 40 ohms.			6H6-GT					
6J5	Medium-Mu Triodes	B2 B3	H	6.3	0.3	Class A Amplifier	90	0	—	—	10.0	6700	3000	20	—	6J5		
6J5-GT						Class A Amplifier	250	- 8.0	—	—	9.0	7700	2600	20	—	6J5-GT		
6J6	Medium-Mu Twin Triode	B0	H	6.3	0.45	100	—	Cathode Resistor, for both units, 50 ohms			8.5	7100	5300	38	—	6J6		
6J7	Sharp-Cutoff Pentodes	C1	H	6.3	0.3	Each Unit as Class A Amplifier	150	-10.0	100 220 ohms, both units	30.0	—	Grid Current, 16 ma. Driving Power, 0.35 watt.			—	3.5	6J7	
6J7-G						Pentode Class A RF Amplifier	100	- 3.0	100	0.5	2.0	1.0	185	—	—	6J7-G		
6J7-GT						Pentode Class A AF Amplifier	250	- 3.0	100	0.5	2.0	1.0 + $\frac{1}{2}$	1225	—	—			
6J8-G	Triode-Heptode Converter	D6	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.				6J8-G	
6K5-GT						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	H	6.3	0.3	Class A Amplifier	100 250	- 1.5 - 3.0	—	—	0.35 1.1	78000 50000	900 1400	70 70	—	6K5-GT		
6K6-GT	Power Pentode	C3	H	6.3	0.4	Single-Tube Class A Amplifier	100 250	- 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	6K6-GT	
6K7						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	Remote-Cutoff Pentodes	D6 C3	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	—	—	6K7		
6K7-GT						Mixer in Superheterodyne	250	-10.0	100	—	—	Oscillator Peak Volts = 7.0						
6K8	Triode-Hexode Converters	D6 D10	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.			6K8		
6K8-GT						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	H	6.3	0.15	Class A Amplifier	135 250	- 5.0 - 9.0	—	—	3.5 8.0	11300 9000	1500 1900	17 17	—	6L5-G		
6L6	Beam Power Amplifiers	D7	H	6.3	0.9	Single-Tube Class A Amplifier	250	-14.0	250	5.0	72.0	—	—	2500	6.5	6L6		
6L6-G						Push-Pull Class A Amplifier	270 360	-17.5 -22.5	270 270	11.0 5.0	134.0 88.0	Cath. Bias Resistor, 125 ohms	5000 6600	17.5 24.5				
6L7						Push-Pull Class AB ₂ Amplifier	360 360	-22.5 -22.5	270 270	5.0 5.0	88.0 88.0	Cath. Bias Resistor, 250 ohms	9000 6000	24.5 31.0				
6L7-G	Pentagrid Mixers	C1 D6	H	6.3	0.3	Mixer in Superheterodyne	250	- 3.0	100	7.1	2.4	Oscillator-Grid (#3) Bias, -10 volts. Grid #3 Peak Swing, 12 volts minimum. Conversion Transcond., 375 micromhos.			6L7-G			
6N6-G						Class A Amplifier	250	- 3.0	100	6.5	5.3	600000	1100	—		—		
6N6-G	Direct-Coupled Power Triode	D10	H	6.3	0.8	Class A Amplifier	Output Triode: Plate Volts, 300; Plate Ma., 45; Load, 7000 ohms. Input Triode: Plate Volts, 300; Grid Volts, 0; A-F Signal Volts (Peak), 21; Plate Ma., 8.			4.0	—	—	6N6-G					
6N7	High-Mu Twin Power Triodes	C2 C3	H	6.3	0.8	Class A Amplifier (as Driver)	250 294	- 5.0 - 6.0	—	—	6.0 7.0	11300 11000	3100 3200	35 35	20000 or more	exceeds 0.4	6N7	
6N7-GT						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	C3	H	6.3	0.3	For other characteristics, refer to Type 76.										6P5-GT		
6P7-G	Triode-Pentode	D6	H	6.3	0.3	For other characteristics, refer to Type 6F7.										6P7-G		
6Q7	Twin-Diode High-Mu Triodes	D6 C3	H	6.3	0.3	Triode Unit as Class A Amplifier	100 250	- 1.0 - 3.0	—	—	0.8 1.1	58000 58000	1200 1200	70 70	—	6Q7		
6Q7-G						90 μ Cath. Bias, 7600 ohms.	300 μ Cath. Bias, 3000 ohms.	Grid Resistor, ** 0.5 megohm.			Gain per stage = 32	Gain per stage = 45	6Q7-G					

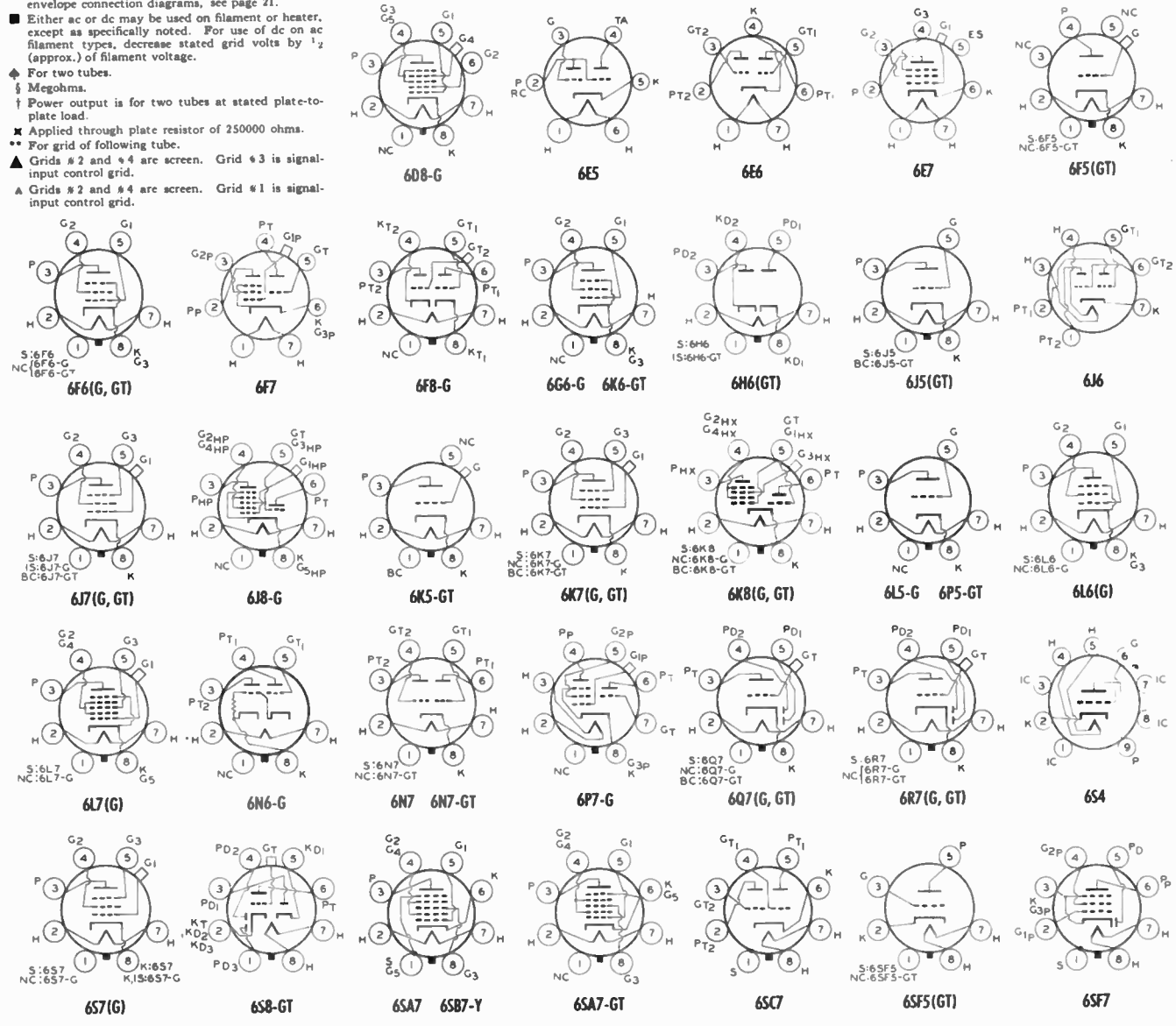
For data on RCA Kinescopes, see pages 22 and 23.

RCA Type	Name	Tube Dimensions	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	Trans-conductance (Grid-plate) μ mas	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	RCA Type
			C. T.	Volts	Amp.												
6R7 6R7-G 6R7-GT	Twin-Diode Medium-Mu Triodes	C1 D8 C2b	H	6.3	0.3	250	- 9.0			9.5	8500	1900	16			6R7 6R7-G 6R7-GT	
6S4	Medium-Mu Triode	B3	H	6.3	0.6	135 250	- 3.0 - 3.0	67.5 100	0.9 2.0	3.7 8.5	1.0 \ddagger 1.0 \ddagger	1250 1750				6S4	
6S7 6S7-G	Remote-Cutoff Pentodes	C1 D8	H	6.3	0.15	100 250	- 1.0 - 2.0			0.4 0.9	110000 91000	900 1100	100 100			6S7 6S7-G	
6S8-GT	Triple-Diode Triode	C9b	H	6.3	0.3	100 250	- 1.0 - 2.0			0.4 0.9	110000 91000	900 1100	100 100			6S8-GT	
6SA7	Pentagrid Converter	B2	H	6.3	0.3	100 250	Self-Excited	100 100	8.5 8.5	3.3 3.5	500000 1.0 \ddagger	500000 1.0 \ddagger	100 100			6SA7	
6SA7-GT	Pentagrid Converter	C3	H	6.3	0.3	100 250	- 1.0 - 1.0	100 100	10.2 10.0	3.6 3.8	500000 1.0 \ddagger	500000 1.0 \ddagger	100 100			6SA7-GT	
6SB7-Y	Pentagrid Converter	B2	H	6.3	0.3	100 250	- 1.0 - 1.0	100 100	10.0	3.8	500000 1.0 \ddagger	500000 1.0 \ddagger	100 100			6SB7-Y	
6SC7	Twin-Triode Amplifier	B2	H	6.3	0.3	100 250	- 2.0 - 2.0			2.0	53000	1325	70			6SC7	
6SF5 6SF5-GT	High-Mu Triodes	B2 C3	H	6.3	0.3	100 250	- 1.0 - 2.0			0.4 0.9	85000 66000	1150 1500	100 100			6SF5 6SF5-GT	
6SF7	Diode-Remote-Cutoff Pentode	B2	H	6.3	0.3	100 250	- 1.0 - 1.0	100 100	4.3 4.1	13.5 13.9	200000 700000	1975 2050				6SF7	

Three vertical rules before or after type No. = Miniature tube having either 7 or 9 pins.
Two vertical rules before or after type No. = Metal type.
One vertical rule before or after type No. = GT or other larger glass type.
Light Face = Discontinued type.
For key to tube dimensions and, legend for base and envelope connection diagrams, see page 21.
■ 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 1/2 (approx.) of filament voltage.
♦ For two tubes.
‡ Megohms.
† Power output is for two tubes at stated plate-to-plate load.
* Applied through plate resistor of 250000 ohms.
** For grid of following tube.
▲ Grids #2 and #4 are screen. Grid #3 is signal-input control grid.
△ Grids #2 and #4 are screen. Grid #1 is signal-input control grid.

Supply voltage applied through 20000-ohm voltage-dropping resistor.
Grids #3 and #5 are screen. Grid No. 4 is signal-input grid.
Grids #2 and #3 tied to plate.
Both grids connected together; likewise, both plates.
Grid #2 tied to plate.

50000 ohms.
Applied through plate resistor of 100000 ohms.
Note 1: Subscript 1 on class of amplifier service (as AB₁) indicates that grid current does not flow during any part of input cycle.
Note 2: Subscript 2 on class of amplifier service (as AB₂) indicates that grid current flows during some part of input cycle.



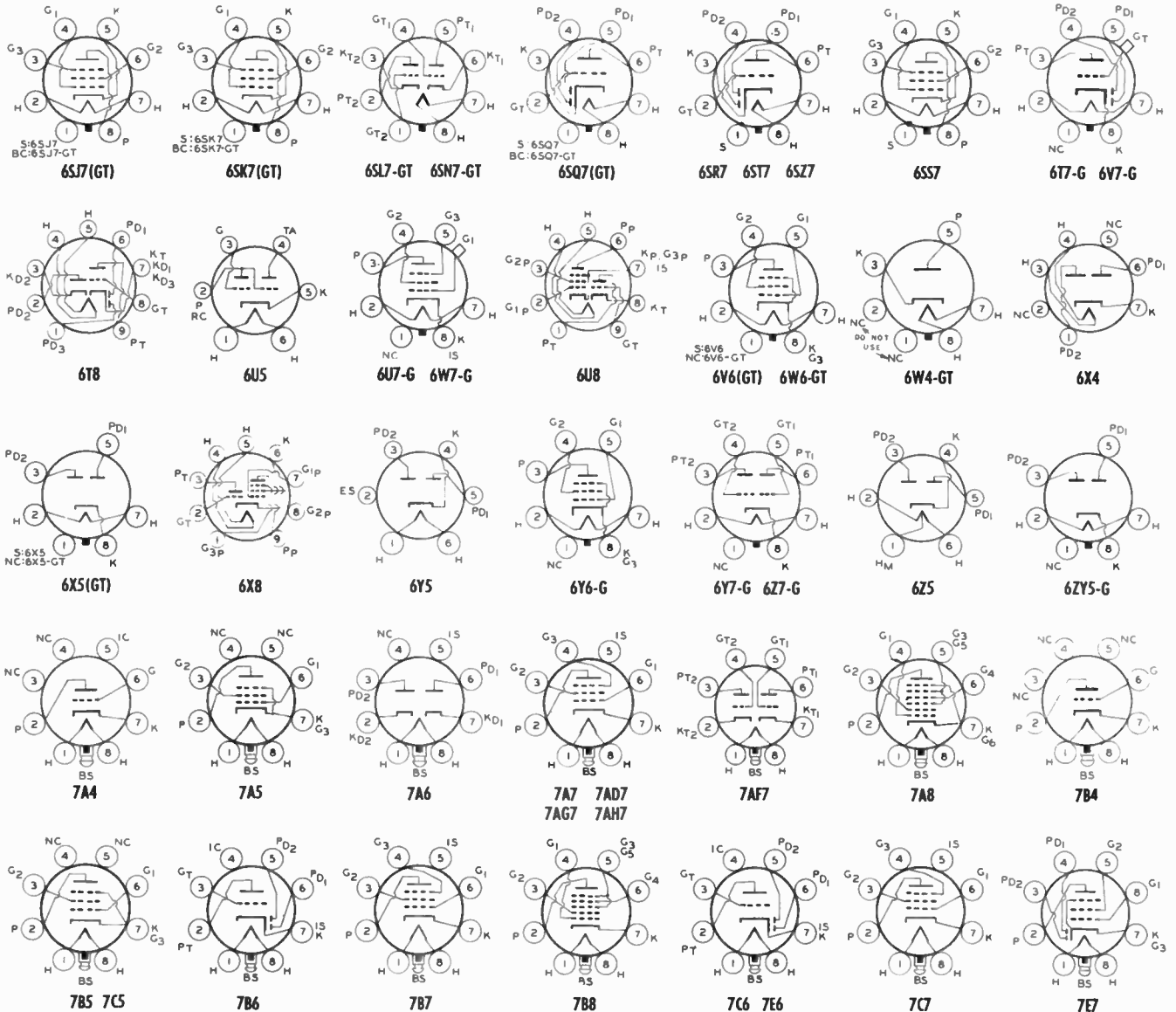
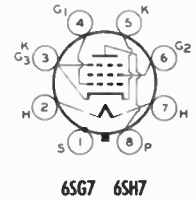
RCA Type	Name	Tube Dimensions	Cathode Type and Rating			Use Values to right give operating conditions and characteristics for indicated typical use	Plate Supply Volts	Grid Bias Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Trans-conductance (Grid-plate) μ mmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	RCA Type			
			C.T.	Volts	Amp.															
6SG7	Remote-Cutoff Pentode	B2	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	—	—	—	6SG7			
6SH7	Sharp-Cutoff Pentode	B2	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	—	—	—	6SH7			
6SJ7 6SJ7-GT	Sharp-Cutoff Pentodes	B2 C3	H	6.3	0.3	Class A Amplifier	100 250 90 μ 300 μ	- 3.0 - 3.0 Cath. Bias, 1700 ohms. Cath. Bias, 860 ohms.	100 100 100	0.9 0.8	2.9 3.0	700000 1.0 + §	1575 1650	—	—	—	6SJ7 6SJ7-GT			
6SK7 6SK7-GT	Remote-Cutoff Pentodes	B2 C3	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	—	—	—	6SK7 6SK7-GT			
6SL7-GT	High-Mu Twin Triode	C3	H	6.3	0.3	Each Unit as Amplifier	250	- 2.0	—	—	2.3	44000	1600	70	—	—	6SL7-GT			
6SN7-GT	Medium-Mu Twin Triode	C3	H	6.3	0.6	Each Unit as Amplifier	For other characteristics, refer to Type 6J5.													6SN7-GT
6SQ7 6SQ7-GT	Twin-Diode High-Mu Triodes	B2 C3	H	6.3	0.3	Triode Unit as Class A Amplifier	100 250 90 μ 300 μ	- 1.0 - 2.0 Cath. Bias, 11000 ohms. Cath. Bias, 3900 ohms.	—	—	0.5 1.1	110000 85000	925 1175	100 100	—	—	—	6SQ7 6SQ7-GT		
6SR7	Duplex-Diode Triode	B2	H	6.3	0.3	Triode Unit as Class A Amplifier	250	- 9.0	—	—	9.5	8500	1900	16	10000	0.3	6SR7			
6SS7	Remote-Cutoff Pentode	B2	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	—	—	—	6SS7			
6ST7	Duplex-Diode Triode	B2	H	6.3	0.15	Triode Unit as Amplifier	For other characteristics, refer to Type 6SR7.													6ST7
6SZ7	Twin-Diode High-Mu Triode	B2	H	6.3	0.15	Triode Unit as Class A Amplifier	100 250 135 250	- 1.0 - 3.0 - 1.5 - 3.0	—	—	0.8 1.0 0.9 1.2	61000 58000 65000 62000	1150 1200 1000 1050	70 70 65 65	—	—	6SZ7			
6T7-G	Twin-Diode High-Mu Triode	D8	H	6.3	0.15	Triode Unit as Class A Amplifier	90 μ 300 μ	Cath. Bias, 8300 ohms. Cath. Bias, 4580 ohms.	—	—	—	—	—	—	—	—	—	6T7-G		
6T8	Triple-Diode High-Mu Triode	B0a	H	6.3	0.45	Triode Unit as Class A Amplifier	100 250	- 1 - 3	—	—	0.8 1.0	54000 58000	1300 1200	70 70	—	—	6T8			
6U5	Electron-Ray Tube	D4	H	6.3	0.3	Visual Indicator	Plate & Target Supply = 125 volts. Triode Plate Resistor = 0.5 meg. Target Current = 1.0 ma. Grid Bias, -8 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.													6U5
6U7-G	Remote-Cutoff Pentode	D12a	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	—	—	—	6U7-G			
6U8	Triode-Remote-Cutoff Pentode	B0a	H	6.3	0.45	Mixer in Superheterodyne Triode Unit as Class A Amplifier Pentode Unit as Class A Amplifier	100 250 150 250	- 10.0 - 10.0 Cath. Bias Cath. Bias	100 100	—	—	18 10	50000 40000	8500 5200	40 —	Cath. Res., 56 ohms Cath. Res., 68 ohms	6U8			
6V6 6V6-GT	Beam Power Amplifiers	C2 C3	H	6.3	0.45	Single-Tube Class A Amplifier Push-Pull Class AB ₁ Amplifier	180 250 315 250 285	- 8.5 - 12.5 - 13.0 - 15.0 - 19.0	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	6V6 6V6-GT			
6V7-G	Duplex-Diode Triode	D8	H	6.3	0.3	Triode Unit as Amplifier	For other characteristics, refer to Type 85.													6V7-G
6W4-GT	Half-Wave Rectifier	C2a	H	6.3	1.2	With Capacitive-Input Filter	Max. A-C Plate Volts (RMS), 350 Max. Peak Inverse Volts 3500 ϕ , 1250			Max. D-C Output Ma., 125 Max. Peak Plate Ma., 600			Min. Total Effect. Supply Imped. per Plate, 145 ohms.			6W4-GT				
6W6-GT	Beam Power Amplifier	C3	H	6.3	1.2	Vertical Deflection Amplifier in TV Equipment	Max. D-C Plate Volts, 300 Max. Plate Dissipation, 10 watts			Max. Peak Positive-Pulse Plate Volts, 1000 Max. Peak Negative-Pulse Grid Volts, 200						6W6-GT				
6W7-G	Sharp-Cutoff Pentode	D8	H	6.3	0.15	Class A Amplifier	250	- 3.0	100	0.5	2.0	1.5 §	1225	—	—	—	6W7-G			
6X4	Full-Wave Rectifier	B3	H	6.3	0.6	With Capacitive-Input Filter	Max. A-C Volts per Plate (RMS), 325 Max. Peak Inverse Volts, 1250			Max. D-C Output Ma., 70 Max. Peak Plate Ma., 210			Min. Total Effect. Supply Imped. per Plate, 150 ohms			6X4				
6X5 6X5-GT	Full-Wave Rectifiers	C2 C3	H	6.3	0.6	With Inductive-Input Filter	Max. A-C Volts per Plate (RMS), 450 Max. Peak Inverse Volts, 1250			Max. D-C Output Ma., 70 Max. Peak Plate Ma., 210			Min. Value of Input Choke, 8 henries			6X5 6X5-GT				
6X8	Triode-Pentode Converter	B0a	H	6.3	0.45	Triode Unit as 250-Mc. Oscillator Pentode Unit as Mixer	150 150	Grid Resistor, 2700 ohms Grid Current, 3.6 ma. Grid-No. 2 Volts, 150 Mixer Grid-No. 1 Supply Volts, -3.5 Plate Current, 6.2 ma.	—	—	—	—	—	—	—	—	—	6X8		
6Y5	Full-Wave Rectifier	D8	H	6.3	0.8	With Capacitive-Input Filter	Max. A-C Volts per Plate (RMS), 350 Max. D-C Output Ma., 50			Max. D-C Output Ma., 125 Max. Peak Plate Ma., 600			Min. Total Effect. Supply Imped. per Plate, 150 ohms			6Y5				
6Y6-G	Beam Power Amplifier	D10	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	6Y6-G			
6Y7-G	Twin-Triode Amplifier	D3	H	6.3	0.6	Class B Amplifier	For other characteristics, refer to Type 79.													6Y7-G
6Z5	Full-Wave Rectifier	D8	H	6.3 12.6	0.8 0.4	With Capacitive-Input Filter	Max. A-C Volts per Plate (RMS), 230 Max. D-C Output Ma., 60			Max. D-C Output Ma., 40 Max. Peak Plate Ma., 120			Min. Total Effect. Supply Imped. per Plate, 225 ohms			6Z5				
6Z7-G	Twin-Triode Amplifier	D3	H	6.3	0.3	Class B Amplifier	135 180	0 0	—	—	—	—	—	—	—	—	—	6Z7-G		
6ZY5-G	Full-Wave Rectifier	D3	H	6.3	0.3	With Capacitive-Input Filter	Max. A-C Volts per Plate (RMS), 325 Max. Peak Inverse Volts, 1250			Max. D-C Output Ma., 40 Max. Peak Plate Ma., 120			Min. Total Effect. Supply Imped. per Plate, 225 ohms			6ZY5-G				
7A4	Medium-Mu Triode	B8	H	6.3	0.3	Amplifier	For other characteristics, refer to Type 6J5.													7A4
7A5	Beam Power Amplifier	C2a	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	7A5			
7A6	Twin Diode	B5	H	6.3	0.15	Detector Rectifier	Maximum A-C Voltage per Plate..... 150 Volts, RMS Maximum D-C Output Current per plate..... 8 Milliamperes													7A6
7A7	Remote-Cutoff Pentode	B8	H	6.3	0.3	Class A Amplifier	For other characteristics, refer to Type 6SK7.													7A7
7A8	Octode Converter	B8	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 ϕ max. volts, 4.2 ma. Oscillator-Grid (#1) Resistor ϕ , Conversion Transcond., 550 micromhos.	—	—	—	7A8			
7AD7	Power Pentode	C2a	H	6.3	0.6	Class A Amplifier	300	Cath. Bias -10	150	7.0	28.0	300000	9500	—	—	—	7AD7			
7AF7	Medium-Mu Twin Triode	B8	H	6.3	0.3	Each Unit as Class A Amplifier	250 100	— Cath. Bias	— —	— —	9.0 10.8	7600 6500	2100 2600	16 17	—	Cath. Res., 1100 ohms	7AF7			
7AG7	Sharp-Cutoff Pentode	B8	H	6.3	0.15	Class A Amplifier	250	Cath. Bias	250	2.0	6.0	1 meg.	4200	—	—	Cathode-Bias Resistor, 250 ohms	7AG7			
7AH7	Sharp-Cutoff Pentode	B5	H	6.3	0.15	Class A Amplifier	250	Cath. Bias	250	1.9	6.8	1 meg.	3300	—	—	Cath. Res., 250 ohms	7AH7			
7B4	High-Mu Triode	B8	H	6.3	0.3	Amplifier	For other characteristics, refer to Type 6SF5.													7B4
7B5	Power Amplifier Pentode	C2a	H	6.3	0.4	Class A Amplifier	For other characteristics, refer to Type 6K6-GT.													7B5
7B6	Twin-Diode High-Mu Triode	B8	H	6.3	0.3	Triode Unit as Amplifier	For other characteristics, refer to Type 6SQ7.													7B6

For data on RCA Kinescopes, see pages 22 and 23.

RCA Type	Name	Tube Dimensions	Cathode Type and Rating			Use <small>Values to right give operating conditions and characteristics for indicated typical use</small>	Plate Supply Volts	Grid Bias Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Trans-conductance (G _m /plate) <small>at 1000 ohms</small>	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	RCA Type
			C.T.	Volts	Amp.												
7B7	Remote-Cutoff Pentode	B5	M	6.3	0.15	Class A Amplifier	250	- 3.0	100	1.7	8.5	750000	1750	—	—	—	7B7
7B8	Pentagrid Converter	B5	M	6.3	0.3	Converter	For other characteristics, refer to Type 6A8.										7B8
7C5	Beam Power Amplifier	C2a	M	6.3	0.45	Class A Amplifier	For other characteristics, refer to Type 6V6-GT.										7C5
7C6	Twin-Diode High-Mu Triode	B5	M	6.3	0.15	Triode Unit as Class A Amplifier	250	- 1.0	—	—	1.3	100000	1000	100	—	—	7C6
7C7	Sharp-Cutoff Pentode	B5	M	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	—	—	—	7C7
7E6	Twin-Diode Triode	B5	M	6.3	0.3	Triode Unit as Amplifier	For other characteristics, refer to Type 6R7.										7E6
7E7	Twin-Diode Pentode	B5	M	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	—	—	7E7

Three vertical rules before or after type No. = Miniature type having either 7 or 9 pins.
 Two vertical rules before or after type No. = Metal type.
 One vertical rule before or after type No. = GT or other larger glass type.
 Light Face = Discontinued type.
 For key to tube dimensions and, legend for base and envelope connection diagrams, see page 21.
 ■ 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 1/2 (approx.) of filament voltage.
 † For two tubes.
 § Megohms.

‡ Applied through plate resistor of 250000 ohms.
 •• For grid of following tube.
 † Power output is for two tubes at stated plate-to-plate load.
 Note 1: Subscript 1 on class of amplifier service (as AB1) indicates that grid current does not flow during any part of input cycle.
 • 50000 ohms.
 ‡ With separate excitation and triode unit grounded.
 † For television damper service.
 ‡ Supply voltage applied through 20000-ohm voltage-dropping resistor.
 • Grids # 3 and # 5 are screen. Grid No. 4 is signal-input grid.



RCA Type	Name	Tube Dimensions	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	Trans-conductance (Grid-plate) μ mhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	RCA Type
			C. T.	Volts	Amp.												
7F7	Twin-Triode Amplifier	B8	H	6.3	0.3	Each Unit as Amplifier										7F7	
7F8	Twin-Triode Amplifier	B8	H	6.3	0.3	For other characteristics, refer to Type 6SL7-GT.										7F8	
7G7	Sharp-Cutoff Pentode	B8	H	6.3	0.45	Class A Amplifier										7G7	
7H7	Sharp-Cutoff Pentode	B8	H	6.3	0.3	Class A Amplifier										7H7	
7J7	Triode-Heptode Converter	B8	H	6.3	0.3	Triode Unit as Oscillator										7J7	
						Heptode Unit as Mixer											
7K7	Twin-Diode-High-Mu Triode	B8	H	6.3	0.3	Triode Unit as Class A Amplifier										7K7	
7L7	RF Amplifier Pentode	B8	H	6.3	0.3	Class A Amplifier										7L7	
7N7	Twin-Triode Amplifier	C2a	H	6.3	0.6	Each Unit as Class A Amplifier										7N7	
7Q7	Pentagrid Converter	B8	H	6.3	0.3	Converter										7Q7	
7R7	Twin-Diode Pentode	B8	H	6.3	0.3	Pentode Unit as Class A Amplifier										7R7	
7S7	Triode-Heptode Converter	B8	H	6.3	0.3	Triode Unit as Oscillator										7S7	
						Heptode Unit as Mixer											
7V7	RF Amplifier Pentode	B8	H	6.3	0.45	Class A Amplifier										7V7	
7W7	RF Amplifier Pentode	B8	H	6.3	0.45	Class A Amplifier										7W7	
7X7	Twin-Diode-High-Mu Triode	C2a	H	6.3	0.3	Triode Unit as Class A Amplifier										7X7	
7Y4	Full-Wave Rectifier	B8	H	6.3	0.5	With Capacitive-Input Filter										7Y4	
						With Inductive-Input Filter											
7Z4	Full-Wave Rectifier	C2a	H	6.3	0.9	With Capacitive-Input Filter										7Z4	
						With Inductive-Input Filter											
10B	Power Amplifier Triode	E3	F	7.5	1.25	Class A Amplifier										10B	
11 12	Detector Amplifier Triode	D2a D8a	D.C. F	1.1	0.25	Class A Amplifier										11 12	
						Class A Amplifier											
12A5	Power Amplifier Pentode	D8	H	6.3 12.6	0.6 0.3	Class A Amplifier										12A5	
12A7	Rectifier-Pentode	D8	H	12.6	0.3	Pentode Unit as Class A Amplifier										12A7	
						Half-Wave Rectifier											
						Maximum A-C Plate Voltage 125 Volts, RMS Maximum D-C Output Current 30 Milliamperes											
12A8-GT	Pentagrid Converter	C3	H	12.6	0.15	Converter										12A8-GT	
12AH7-GT	Twin Triode	C0a	H	12.6	0.15	Each Unit as Class A Amplifier										12AH7-GT	
12AL5	Twin-Diode	A1	H	12.6	0.15	Detector Rectifier										12AL5	
12AT6	Twin-Diode-High-Mu Triode	B0	H	12.6	0.15	Triode Unit as Class A Amplifier										12AT6	
12AT7	High-Mu Twin Triode	B0a	H	6.3 12.6	0.3 0.15	Each Unit as Class A Amplifier										12AT7	
12AU6	Sharp-Cutoff Pentode	B0	H	12.6	0.15	Class A Amplifier										12AU6	
12AU7	Twin-Triode Amplifier	B0a	H	6.3 12.6	0.3 0.15	Each Unit as Class A Amplifier										12AU7	
12AV6	Twin-Diode-High-Mu Triode	B0	H	12.6	0.15	Triode Unit as Class A Amplifier										12AV6	
12AW6	Sharp-Cutoff Pentode	B0	H	12.6	0.15	Class A Amplifier										12AW6	
12AX4-GT	Half-Wave Rectifier	C2b	H	12.6	0.6	Television Damper Service										12AX4-GT	
12AX7	High-Mu Twin Triode	B0a	H	6.3 12.6	0.3 0.15	Each Unit as Class A Amplifier										12AX7	
12B8-GT	Triode-Pentode	C10a	H	12.6	0.3	Triode Unit as Class A Amplifier										12B8-GT	
12BA6	Remote-Cutoff Pentode	B0	H	12.6	0.15	Class A Amplifier										12BA6	
12BA7	Pentagrid Converter	B0a	H	12.6	0.15	Converter										12BA7	
12BD6	Remote-Cutoff Pentode	B0	H	12.6	0.15	Class A Amplifier										12BD6	
12BE6	Pentagrid Converter	B0	H	12.6	0.15	Converter										12BE6	
12BF6	Twin-Diode Triode	B0	H	12.6	0.15	Triode Unit as Class A Amplifier										12BF6	
12BH7	Medium-Mu Twin Triode	B3	H	6.3 12.6	0.6 0.3	Vertical Deflection Amplifier in TV Equipment										12BH7	
12C8	Twin-Diode Pentode	C1	H	12.6	0.15	Pentode Unit as RF Amplifier										12C8	
						Pentode Unit as AF Amplifier											
12F5-GT	High-Mu Triode	C2b	H	12.6	0.15	Detector Rectifier										12F5-GT	
12H6	Twin-Diode	A1a	H	12.6	0.15	Detector Rectifier										12H6	
12J5-GT	Medium-Mu Triode	C3	H	12.6	0.15	Amplifier										12J5-GT	
12J7-GT	Sharp-Cutoff Pentode	C3	H	12.6	0.15	Amplifier										12J7-GT	
12K7-GT	Remote-Cutoff Pentode	C3	H	12.6	0.15	Amplifier										12K7-GT	
12K8	Triode-Hexode Converter	C1	H	12.6	0.15	Oscillator Mixer										12K8	

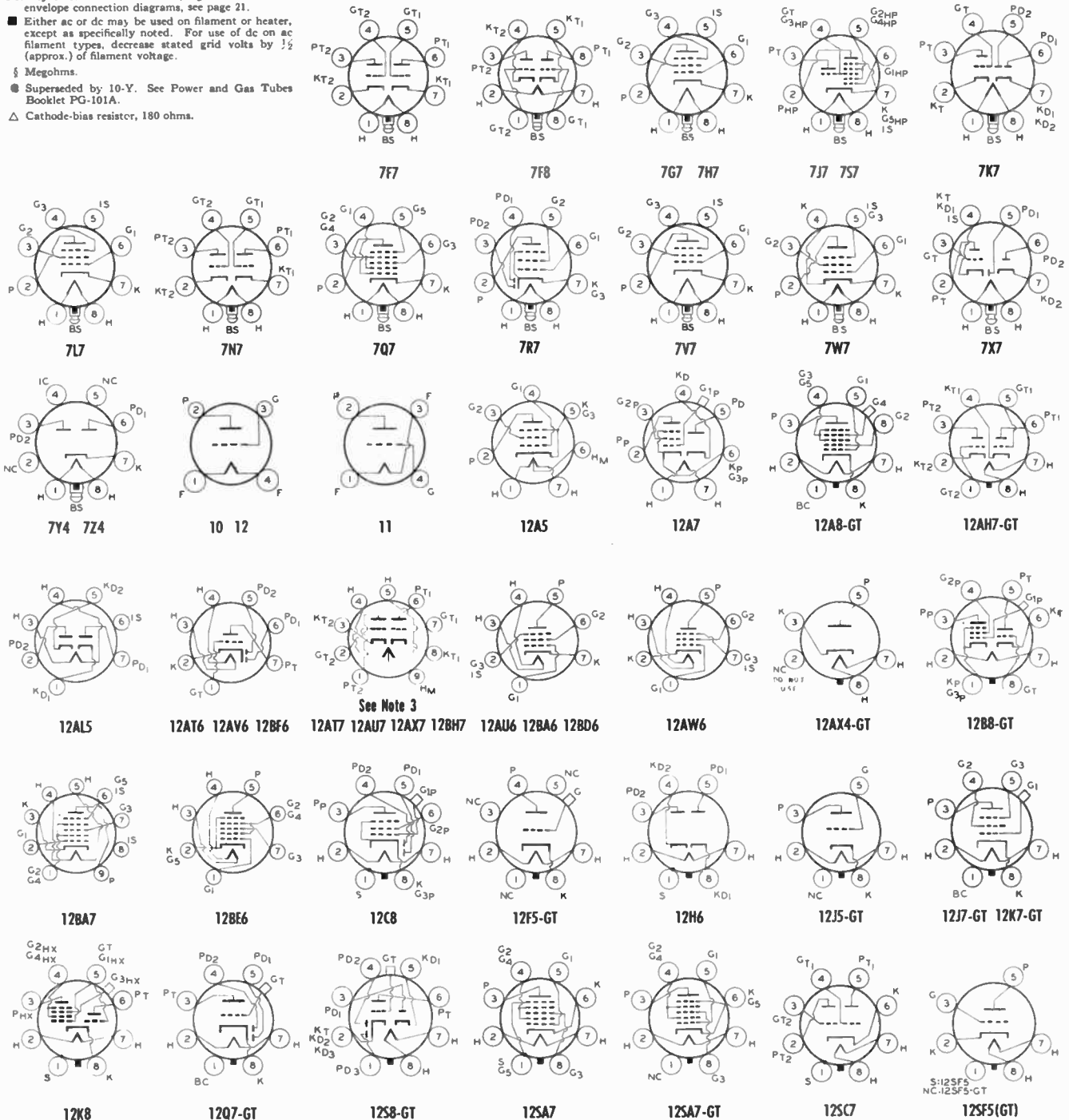
For data on RCA Kinescopes, see pages 22 and 23.

RCA Type	Name	Tube Dimensions	Cathode Type and Rating			Use <small>Values in right give operating conditions and characteristics for indicated typical use</small>	Plate Supply Volts	Grid Bias Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Trans-conductance (Grid-plate) μ mhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	RCA Type
			C. T.	Volts	Amp.												
12Q7-GT	Twin-Diode High-Mu Triode	C3	H	12.6	0.15	Triode Unit as Amplifier										12Q7-GT	
12S8-GT	Triple-Diode High-Mu Triode	C6	H	12.6	0.15	Triode Unit as Class A Amplifier										12S8-GT	
12SA7	Pentagrid Converter	B2	H	12.6	0.15	Mixer										12SA7	
12SA7-GT	Pentagrid Converter	C3	H	12.6	0.15	Mixer										12SA7-GT	
12SC7	Twin-Triode Amplifier	B2	H	12.6	0.15	Each Unit as Class A Amplifier										12SC7	
12SF5	High-Mu Triode	B2	H	12.6	0.15	Class A Amplifier										12SF5	
12SF5-GT	High-Mu Triode	C3	H	12.6	0.15	Class A Amplifier										12SF5-GT	

Three vertical rules before or after type No. = Miniature type having either 7 or 9 pins.
 Two vertical rules before or after type No. = Metal type.
 One vertical rule before or after type No. = GT or other larger glass type.
 Light Face = Discontinued type.
 For key to tube dimensions and, legend for base and envelope connection diagrams, see page 21.
 ■ 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 1/2 (approx.) of filament voltage.
 § Megohms.
 ● Superseded by 10-Y. See Power and Gas Tubes Booklet PG-101A.
 △ Cathode-bias resistor, 180 ohms.

■ Applied through plate resistor of 250000 ohms.
 ** For grid of following tube.
 ▲ Grids #2 and #4 are screen. Grid #3 is signal-input control grid.
 ● Supply voltage applied through 20000-ohm voltage-dropping resistor.
 □ Grid #2 tied to plate.

● Grids #3 and #5 are screen. Grid No. 4 is signal-input grid.
 ★ For Grid-leak Detection—plate volts 45, grid return to + filament or to cathode.
 Note 3: Heater for section 2 between pins 4 and 9; for section 1, 1 between pins 5 and 9.



RCA Type	Name	Tube Dimensions	Cathode Type and Rating		Use <small>Values to right give operating conditions and characteristics for indicated typical use</small>	Plate Supply Volts	Grid Bias Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Trans-conductance (Grid-plate) μ mhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	RCA Type
			C. T.	Volts												
12SF7	Diode-Remote-Cutoff Pentode	B2	H	12.6	0.15	Pentode Unit as Amplifier									12SF7	
12SG7	Remote-Cutoff Pentode	B2	H	12.6	0.15	Class A Amplifier									12SG7	
12SH7	Sharp-Cutoff Pentode	B2	H	12.6	0.15	Class A Amplifier									12SH7	
12SJ7	Sharp-Cutoff Pentodes	B2	H	12.6	0.15	Class A Amplifier									12SJ7	
12SJ7-GT	Sharp-Cutoff Pentodes	C3	H	12.6	0.15	Class A Amplifier									12SJ7-GT	
12SK7	Remote-Cutoff Pentodes	B2	H	12.6	0.15	Class A Amplifier									12SK7	
12SK7-GT	Remote-Cutoff Pentodes	C3	H	12.6	0.15	Class A Amplifier									12SK7-GT	
12SL7-GT	Twin-Triode Amplifier	C3	H	12.6	0.15	Each Unit as Amplifier									12SL7-GT	
12SN7-GT	Twin-Triode Amplifier	C3	H	12.6	0.3	Each Unit as Amplifier									12SN7-GT	
12SQ7	Twin-Diode High-Mu Triode	B2	H	12.6	0.15	Triode Unit as Amplifier									12SQ7	
12SQ7-GT	Twin-Diode High-Mu Triode	00	H	12.6	0.15	Triode Unit as Amplifier									12SQ7-GT	
12SR7	Twin-Diode Triode	B2	H	12.6	0.15	Triode Unit as Amplifier									12SR7	
12SR7-GT	Twin-Diode Triode	C3	H	12.6	0.15	Triode Unit as Amplifier									12SR7-GT	
12V6-GT	Beam Power Amplifier	C3	H	12.6	0.225	For characteristics, refer to Type 6V6-GT.									12V6-GT	
12Z3	Half-Wave Rectifier	D6	H	12.6	0.3	With Capacitive-Input Filter Max. A-C Plate Volts (RMS), 235 Min. Total Effective Plate-Supply Impedance: Up to 117 Max. D-C Output Ma., 55 volts, 0 ohms; at 150 volts, 30 ohms; at 235 volts, 75 ohms.									12Z3	
14A4	Medium-Mu Triode	B5	H	12.6	0.15	Class A Amplifier									14A4	
14A5	Beam Power Amplifier	B5	H	12.6	0.15	Class A Amplifier									14A5	
14A7	Remote-Cutoff Pentode	B5	H	12.6	0.15	Class A Amplifier									14A7	
14AF7	Medium-Mu Twin Triode	B5	H	12.6	0.15	Each Unit as Class A Amplifier									14AF7	
14B6	Twin-Diode High-Mu Triode	B5	H	12.6	0.15	Triode Unit as Class A Amplifier									14B6	
14B8	Pentagrid Converter	B5	H	12.6	0.15	Converter									14B8	
14C5	Beam Power Amplifier	C2a	H	12.6	0.225	Class A Amplifier									14C5	
14C7	Sharp-Cutoff Pentode	B5	H	12.6	0.15	Class A Amplifier									14C7	
14E6	Twin-Diode Triode	B5	H	12.6	0.15	Triode Unit as Class A Amplifier									14E6	
14E7	Twin-Diode-Remote-Cutoff Pentode	B5	H	12.6	0.15	Pentode Unit as Class A Amplifier									14E7	
14F7	Twin-Triode Amplifier	B5	H	12.6	0.15	Each Unit as Class A Amplifier									14F7	
14F8	Medium-Mu Twin Triode	B0b	H	12.6	0.15	Each Unit as Class A Amplifier									14F8	
14H7	Remote-Cutoff Pentode	B5	H	12.6	0.15	Class A Amplifier									14H7	
14J7	Triode-Heptode Converter	B5	H	12.6	0.15	Converter									14J7	
14N7	Twin-Triode Amplifier	C2a	H	12.6	0.3	Each Unit as Class A Amplifier									14N7	
14Q7	Pentagrid Converter	B5	H	12.6	0.15	Converter									14Q7	
14R7	Twin-Diode Pentode	B5	H	12.6	0.15	Pentode Unit as Class A Amplifier									14R7	
15	RF Amplifier Pentode	D8	D.C. H	2.0	0.22	Class A Amplifier									15	
19	Twin-Triode Amplifier	D8	D.C. F	2.0	0.26	Amplifier									19	
19BG6-G	Beam Power Amplifier	F1	H	18.9	0.3	Horizontal Deflection Amplifier in TV Equipment Max. DC Plate Volts, 700 Max. DC Plate Current, 100 ma. Max. Peak Positive-Pulse Plate Volts, 6000 Max. Plate Dissipation, 20 watts									19BG6-G	
19J6	Medium-Mu Twin Triode	B0	H	18.9	0.15	Each Unit as Class A Amplifier									19J6	
19T8	Triple-Diode High-Mu Triode	B0a	H	18.9	0.15	Triode Unit as Class A Amplifier									19T8	
19X8	Triode-Pentode Converter	B0a	H	18.9	0.15	Converter									19X8	
20	Power Amplifier Triode	D1	D.C. F	3.3	0.132	Class A Amplifier									20	
22	RF Amplifier Tetrode	E1	D.C. F	3.3	0.132	Screen-Grid RF Amplifier									22	
24-A	RF Amplifier Tetrode	E1	H	2.5	1.75	Screen-Grid RF Amplifier									24-A	
25A6	Power Amplifier Pentode	C2	H	25.0	0.3	Class A Amplifier									25A6	
25A6-GT	Power Amplifier Pentode	C3	H	25.0	0.3	Class A Amplifier									25A6-GT	
25A7-GT	Rectifier Pentode	C3	H	25.0	0.3	Pentode Unit as Class A Amplifier									25A7-GT	
25AC5-GT	High-Mu Power Amplifier Triode	C3	H	25.0	0.3	Class B Amplifier									25AC5-GT	
25B5	Direct-Coupled Power Amplifier	D9a	H	25.0	0.3	Amplifier									25B5	
25B6-G	Power Amplifier Pentode	D10	H	25.0	0.3	Class A Amplifier									25B6-G	
25B8-GT	Triode-Pentode	C3	H	25.0	0.15	Triode Unit as Class A Amplifier									25B8-GT	
25BQ6-GT	Beam Power Amplifier	C11	H	25.0	0.3	Horizontal Deflection Amplifier in TV Equipment									25BQ6-GT	
25C6-G	Beam Power Amplifier	D10	H	25.0	0.3	Class A Amplifier									25C6-G	

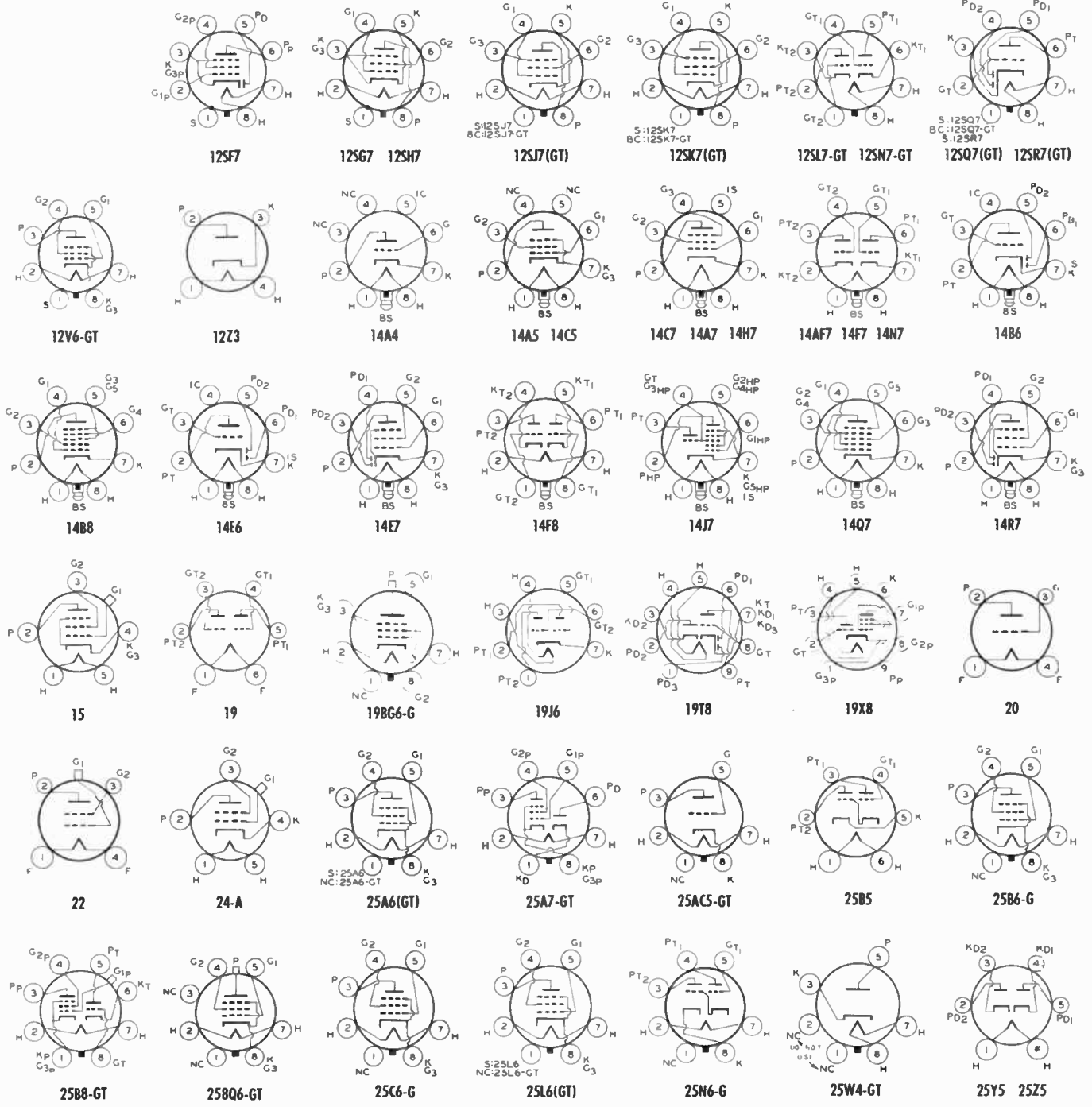
For data on RCA Kinescopes, see pages 22 and 23.

RCA Type	Name	Tube Dimensions	Cathode Type and Rating			Use <small>Values in right give operating conditions and characteristics for indicated typical use</small>	Plate Supply Volts	Grid Bias Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Trans-conductance (Grid-plate) μ mmhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	RCA Type
			C. T.	Volts	Amp.												
25L6	Beam Power Amplifier	C2	H	25.0	0.3	110 200	- 7.5 - 8.0	110	4.0 2.0	49.0 50.0	13000 30000	9000 9500	—	—	2000 3000	2.1 4.3	25L6
25L6-GT	Beam Power Amplifier	C3	H	25.0	0.3	For other characteristics, refer to Type 50L6-GT.										25L6-GT	
25N6-G	Direct-Coupled Power Amplifier	D9	H	25.0	0.3	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.										25N6-G	
25W4-GT	Half-Wave Rectifier	C2h	H	25.0	0.3	Max. A-C Plate Volts (RMS), 350 Max. D-C Output Ma., 125 Min. Total Effect. Supply Imped. per Plate, 145 ohms										25W4-GT	
25Y5	Rectifier-Doubler	D8	H	25.0	0.3	Max. Peak Inverse Volts, 2000 ϕ , 1250 Max. A-C Volts per Plate (RMS), 235 Min. Total Effective Plate-Supply Impedance per Plate, 0 ohms.										25Y5	
25Z5	Rectifier-Doubler	D8	H	25.0	0.3	Max. D-C Output Ma. per Plate, 75										25Z5	

Three vertical rules before or after type No. = Miniature type having either 7 or 9 pins.
Two vertical rules before or after type No. = Metal type.
One vertical rule before or after type No. = GT or other larger glass type.
Light Face = Discontinued type.
For key to tube dimensions and, legend for base and envelope connection diagrams, see page 21.

✦ Applied through plate resistor of 250000 ohms.
■ 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 1/2 (approx.) of filament voltage.
♣ For two tubes.
% Value is for both units operating at the specified conditions.

* Maximum.
▲ Grids #2 and #4 are screen. Grid #3 is signal-input control grid.
⊖ Grids #3 and #5 are screen. Grid No. 4 is signal-input grid.
♣ For television damper service.



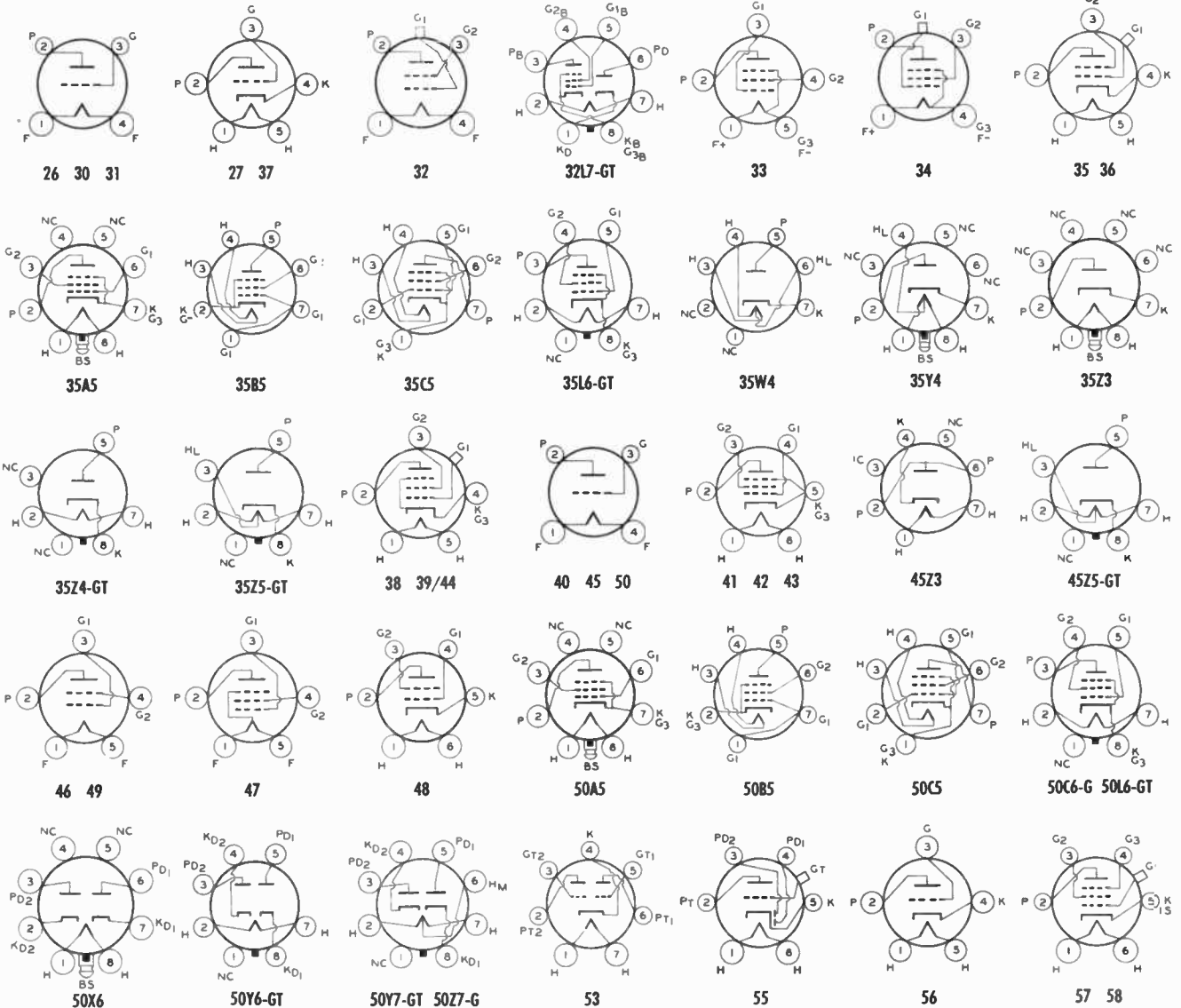
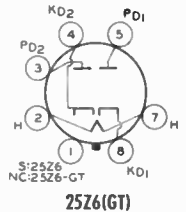
RCA Type	Name	Tube Dimensions	Cathode Type and Rating			Use Values to right give operating conditions and characteristics for indicated typical use	Plate Supply Volts	Grid Bias Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Trans-conductance (Grid-Plate) μ mbas	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	RCA Type
			C.T.	Volts	Amp.												
25Z6	Vacuum Rectifier-Doublers	C2	H	25.0	0.3	Voltage Doubler Max. A-C Volts per Plate (RMS), 117 Max. D-C Output Ma., 75										25Z6	
25Z6-GT	Half-Wave Rectifier	C3	H	25.0	0.3	Max. A-C Volts per Plate (RMS), 235 Max. D-C Output Ma. per Plate, 75										25Z6-GT	
26	Amplifier Triode	D12	F	1.5	1.05	Class A Amplifier 90 -7.0 180 -14.5 135 -9.0 250 -21.0										26	
27	Detector* Amplifier Triode	D6	H	2.5	1.75	Class A Amplifier 250 -21.0 Bias Detector 250 (-30.0 approx.)										27	
30	Medium-Mu Triode	D6	F	2.0	0.06	Amplifier For other characteristics, refer to Type 1H4-G.										30	
31	Power Amplifier Triode	D6	F	2.0	0.13	Class A Amplifier 135 -22.5 180 -30.0 135 -3.0 180 -3.0										31	
32	RF Amplifier Tetrode	E1	F	2.0	0.06	Screen-Grid RF Amplifier 180 -3.0 180 -3.0 Bias Detector 180 (-6.0 approx.)										32	
32L7-GT	Rectifier-Beam Power Amplifier	C3	H	32.5	0.3	Amplifier Unit as Class A Amplifier 90 -5.0 90 -7.0 Half-Wave Rectifier Maximum A-C Plate Voltage.....115 Volts, RMS Maximum D-C Output Current.....60 Milliamperes.										32L7-GT	
33	Power Amplifier Pentode	D12	F	2.0	0.26	Class A Amplifier 180 -18.0 135 (-3.0 min.) 180 min.										33	
34	Remote-Cutoff Pentode	E1	F	2.0	0.06	Screen-Grid RF Amplifier 180 -3.0 180 min.										34	
35	Remote-Cutoff Tetrode	E1	H	2.5	1.75	Screen-Grid RF Amplifier 180 -3.0 250 min.										35	
35A5	Beam Power Amplifier	C2a	H	35.0	0.15	Single-Tube Class A Amplifier For other characteristics, refer to Type 35L6-GT.										35A5	
35B5	Beam Power Amplifier	B3	H	35.0	0.15	Class A Amplifier For other characteristics, refer to Type 35C5.										35B5	
35C5	Beam Power Amplifier	B3	H	35.0	0.15	Class A Amplifier 110 -7.5 110 3.0 40.0 13000 5800 2500 1.5										35C5	
35L6-GT	Beam Power Amplifier	C3	H	35.0	0.15	Single-Tube Class A Amplifier 110 -7.5 200 Δ 125 2.0 40.0 14000 5800 34000 6100 2500 1.5 5000 3.0										35L6-GT	
35W4	Half-Wave Rectifier Heater Tap for Pilot	B3	H	35.0	0.15	With Capacitive-Input Filter Max. A-C Plate Volts (RMS), 117 Max. D-C Output Ma.: With Pilot and No Shunt Res., 60; With Pilot and Shunt Res., 90; Without Pilot, 100										35W4	
35Y4	Half-Wave Rectifier	C2a	H	35.0	0.15	With Capacitive-Input Filter For other characteristics, refer to Type 35W4.										35Y4	
35Z3	Half-Wave Rectifier	C2a	H	35.0	0.15	With Capacitive-Input Filter For other ratings, refer to Type 35Z4-GT.										35Z3	
35Z4-GT	Half-Wave Rectifier	C3	H	35.0	0.15	With Capacitive-Input Filter Max. A-C Plate Volts (RMS), 235 Max. D-C Output Ma., 100 Min. Total Effective Plate-Supply Impedance: Up to 117 volts, 15 ohms; at 235 volts, 100 ohms.										35Z4-GT	
35Z5-GT	Half-Wave Rectifier Heater Tap for Pilot	C3	H	35.0	0.15	With Capacitive-Input Filter Max. A-C Plate Volts (RMS), 235 Max. D-C Output Ma.: With Pilot and No Shunt Res., 60; With Pilot and Shunt Res., 90; Without Pilot, 100										35Z5-GT	
36	RF Amplifier Tetrode	D6	H	6.3	0.3	Screen-Grid RF Amplifier 100 -1.5 250 -3.0 90 55 1.7* 1.8 550000 850 3.2 550000 1080										36	
37	Detector* Amplifier Triode	D6	H	6.3	0.3	Class A Amplifier 90 -6.0 250 -18.0 Bias Detector 90 -10.0 250 -28.0										37	
38	Power Amplifier Pentode	D6	H	6.3	0.3	Class A Amplifier 100 -9.0 250 -25.0 100 1.2 250 3.8 7.0 140000 875 22.0 100000 1200										38	
39/44	Remote-Cutoff Pentode	D6	H	6.3	0.3	Class A Amplifier 90 (-3.0 min.) 250 min.										39/44	
40	Medium-Mu Triode	D12	F	5.0	0.25	Class A Amplifier 135M -1.5 180M -3.0 0.2 150000 200 0.2 150000 200										40	
41	Power Amplifier Pentode	D6	H	6.3	0.4	Amplifier For other characteristics, refer to Type 6K6-GT.										41	
42	Power Amplifier Pentode	D12	H	6.3	0.7	Amplifier For other characteristics, refer to Type 6P6-G.										42	
43	Power Amplifier Pentode	D12	H	25.0	0.3	Amplifier For other characteristics, refer to Type 25A6.										43	
45	Power Amplifier Triode	D12	F	2.5	1.5	Class A Amplifier 180 -31.5 275 -56.0 Push-Pull Class AB ₁ Amplifier 275 Cath. Bias, 775 ohms ϕ 275 -68.0 volts, fixed bias 36.0 ϕ 28.0 ϕ										45	
45Z3	Half-Wave Rectifier	B0	H	45.0	0.075	Half-Wave Rectifier Max. A-C Plate Volts (RMS), 117 Max. Peak Inverse Volts, 350 Max. D-C Output Ma., 65 Max. Peak Plate Ma., 390 Min. Total Effect. Plate-Supply Imped., 15 ohms.										45Z3	
45Z5-GT	Half-Wave Rectifier Heater Tap for Pilot	C3	H	45.0	0.15	With Capacitive-Input Filter For other ratings, refer to Type 35Z5-GT.										45Z5-GT	
46	Dual-Grid Power Amplifier	E3	F	2.5	1.75	Class A Amplifier 250 -31.0 300 0 400 0 22.0 2380 2350 5.6 6400 1.25 8.0 ϕ 5200 16.0 \dagger 12.0 ϕ 5800 20.0 \dagger										46	
47	Power Amplifier Pentode	E3	F	2.5	1.75	Class A Amplifier 250 -16.5 250 6.0 31.0 60000 2500 7000 2.7										47	
48	Power Amplifier Tetrode	E3	F	30.0	0.4	Tetrode Class A Amplifier 96 -19.0 125 -20.0 96 9.0 100 9.5 52.0 3800 1500 2.0 56.0 3900 1500 2.5										48	
49	Dual-Grid Power Amplifier	D12	F	2.0	0.12	Tetrode Push-Pull Class A Amplifier 125 -20.0 100 100.0 ϕ 3000 5.0 \dagger										49	
50	Power Amplifier Triode	F1a	F	7.5	1.25	Class A Amplifier 135 -20.0 180 0 6.0 4175 1125 4.7 11000 0.17 4.0 ϕ 12000 3.5 \dagger										50	
50A5	Beam Power Amplifier	C2a	H	50.0	0.15	Class A Amplifier 300 -54.0 400 -70.0 450 -84.0 35.0 2000 1900 3.8 4600 1.6 55.0 1800 2100 3.8 3670 3.4 55.0 1800 2100 3.8 4350 4.6										50A5	
50B5	Beam Power Amplifier	B3	H	50.0	0.15	Class A Amplifier For other characteristics, refer to Type 50L6-GT.										50B5	
50C5	Beam Power Amplifier	B3	H	50.0	0.15	Class A Amplifier 110 -7.5 110 4.0 49.0 10000 7500 2500 1.9										50C5	
50C6-G	Beam Power Amplifier	D10	H	50.0	0.15	Single-Tube Class A Amplifier 135 -13.5 200 -14.0 135 3.5 135 2.2 58.0 9300 7000 2000 3.6 61.0 18300 7100 2600 6.0										50C6-G	
50L6-GT	Beam Power Amplifier	C3	H	50.0	0.15	Single-Tube Class A Amplifier 110 -7.5 200 Δ 110 4.0 125 2.2 49.0 13000 8000 2000 2.1 46.0 28000 8000 4000 3.8										50L6-GT	
50X6	Rectifier-Doubler	C2a	H	50.0	0.15	Rectifier-Doubler Max. A-C Volts per Plate (RMS), 117 Max. D-C Output Ma., 75 Min. Total Effective Plate-Supply Impedance: Half-Wave, 30 ohms; Full-Wave, 15 ohms.										50X6	
50Y6-GT	Rectifier-Doubler	C3	H	50.0	0.15	Half-Wave Rectifier Max. A-C Volts per Plate (RMS), 235 Max. D-C Output Ma. per Plate, 75 15 ohms; at 150 volts, 40 ohms; at 235 volts, 100 ohms.										50Y6-GT	

For data on RCA Kinescopes, see pages 22 and 23.

RCA Type	Name	Tube Dimensions	Cathode Type and Rating			Use <small>Values to right give operating conditions and characteristics for indicated typical use</small>	Plate Supply Volts	Grid Bias Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Trans-conductance (Grid-plate) μ mhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	RCA Type
			C. T.	Volts	Amp.												
50Y7-GT	Rectifier-Doubler Heater Tap for Pilot	C2b	H	50.0	0.15	Voltage Doubler	Max. A-C Volts per Plate (RMS), 117 Max. D-C Output ma., 65	Min. Total Effective Plate-Supply Impedance per Plate, 15 ohms	50Y7-GT								
						Half-Wave Rectifier											
50Z7-G	Rectifier-Doubler Heater Tap for Pilot	D3	H	50.0	0.15	Voltage Doubler	Max. A-C Volts per Plate (RMS), 117 Max. D-C Output Ma., 65	Min. Total Effective Plate-Supply Impedance: 15 ohms	50Z7-G								
						Half-Wave Rectifier											
53	Twin-Triode Amplifier	D12	H	2.5	2.0	Amplifier	For other characteristics, refer to Type 6N7-GT.								53		
55	Duplex-Diode Triode	D9	H	2.5	1.0	Triode Unit as Amplifier	For other characteristics, refer to Type 85.								55		
56	Medium-Mu Triode*	D8	H	2.5	1.0	Amplifier Detector	For other characteristics, refer to Type 76.								56		
57	Sharp-Cutoff Pentode	D13	H	2.5	1.0	Amplifier Detector	For other characteristics, refer to Type 6J7.								57		
58	Remote-Cutoff Pentode	D13	H	2.5	1.0	Amplifier Mixer	For other characteristics, refer to Type 6U7-G.								58		

Three vertical rules before or after type No. = Miniature type having either 7 or 9 pins.
Two vertical rules before or after type No. = Metal type.
One vertical rule before or after type No. = GT or other larger glass type.
Light Face = Discontinued type.
For key to tube dimensions and, legend for base and envelope connection diagrams, see page 21.
■ 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 1/2 (approx.) of filament voltage.
♣ For two tubes.
§ Megohms.
† Power output is for two tubes at stated plate-to-plate load.

★ For Grid-leak Detection—plate volts 45, grid return to + filament or to cathode.
□ Grid #2 tied to plate.
♥ Applied through plate resistor of 100000 ohms.
Note 2: Subscript 2 on class of amplifier service (as AB₁) indicates that grid current flows during some part of input cycle.
♣ Grids #1 and #2 tied together.
△ Cathode-bias resistor, 180 ohms.
* Maximum.
✖ Applied through plate resistor of 250000 ohms.
◆ Panel lamp section is between pins 6 and 7.

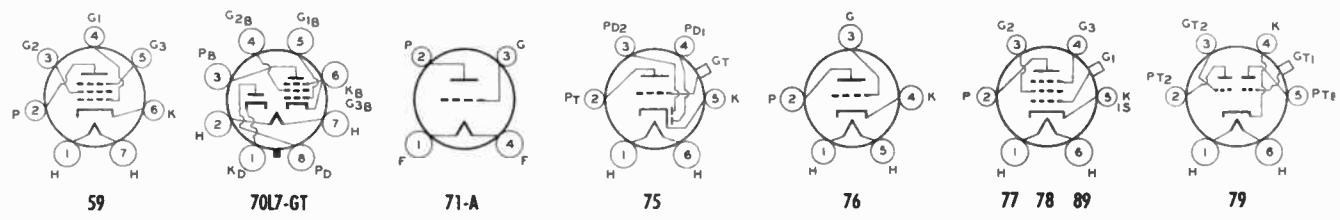


RCA Type	Name	Tube Dimensions	Cathode Type and Rating			Use <small>Values to right give operating conditions and characteristics for indicated typical use</small>	Plate Supply Volts	Grid Bias # Volts	Screen Supply Volts	Screen Current Ma.	Plate Current Ma.	AC Plate Resistance Ohms	Trans-conductance (Grid-plate) μ mhos	Amplification Factor	Load for Stated Power Output Ohms	Power Output Watts	RCA Type
			C. T.	Volts	Amp.												
59	Triple-Grid Power Amplifier	E3	H	2.5	2.0	Triode [†] Class A Amplifier	250	-28.0	—	—	26.0	2300	2600	6.0	5000	1.25	59
						Pentode ^{**} Class A Amplifier	250	-18.0	250	9.0	35.0	55000	2500	—	6000	3.0	
						Triode [†] Class B Amplifier	300	0	—	—	20.0 [‡]	—	—	—	4600	15.0 [†]	
70L7-GT	Rectifier-Beam Power Amplifier	C10	H	70.0	0.15	Triode [†] Class A Amplifier	400	0	—	—	26.0 [‡]	—	—	—	6000	20.0 [†]	70L7-GT
						Amplifier Unit as Class A Amplifier	110	-7.5	110	3.0	40.0	15000	7500	—	2000	1.8	
71-A	Power Amplifier Triode	D12	F	5.0	0.25	Class A Amplifier	90	-16.5	—	—	10.0	2170	1400	3.0	3000	0.125	71-A
75	Twin-Diode High-Mu Triode	D8	H	6.3	0.3	Amplifier	180	-40.5	—	—	20.0	1750	1700	3.0	4800	0.790	75
76	Detector Amplifier Triode*	D8	H	6.3	0.3	Class A Amplifier	250	-13.5	—	—	5.0	9500	1450	13.8	—	—	76
77	Triple-Grid Detector Amplifier	D8	H	6.3	0.3	Class A Amplifier	100	1.5	60	0.4	1.7	600000	1100	—	—	—	77
						Bias Detector	250	-3.0	100	0.5	2.3	1.0+ [‡]	1250	—	—	—	
78	Remote-Cutoff Pentode	D8	H	6.3	0.3	Amplifier Mixer	250	-1.95	50	—	—	—	—	—	—	78	
79	Twin-Triode Amplifier	D8	H	6.3	0.6	Class B Amplifier	180	0	—	—	—	—	—	—	7000	5.5	79
80	Full-Wave Rectifier	D12	F	5.0	2.0	—	250	0	—	—	—	—	—	—	14000	8.0	80
81	Half-Wave Rectifier	F1a	F	7.5	1.25	With Capacitive-Input Filter	—	—	—	—	—	—	—	—	—	—	81
82	Full-Wave Rectifier	D12	F	2.5	3.0	With Capacitive-Input Filter	—	—	—	—	—	—	—	—	—	—	82
						With Inductive-Input Filter	—	—	—	—	—	—	—	—	—	—	
83	Full-Wave Rectifier	E3	F	5.0	3.0	With Capacitive-Input Filter	—	—	—	—	—	—	—	—	—	83	
						With Inductive-Input Filter	—	—	—	—	—	—	—	—	—		—
83-v	Full-Wave Rectifier	D12	H	5.0	2.0	—	—	—	—	—	—	—	—	—	—	83-v	
84/6Z4	Full-Wave Rectifier	D8	H	6.3	0.5	With Capacitive-Input Filter	—	—	—	—	—	—	—	—	—	84/6Z4	
						With Inductive-Input Filter	—	—	—	—	—	—	—	—	—		—
85	Twin-Diode Triode	D8	H	6.3	0.3	Triode Unit as Class A Amplifier	135	-10.5	—	—	3.7	11000	750	8.3	25000	0.075	85
						As Triode [†] Class A Amplifier	250	-20.0	—	—	8.0	7500	1100	8.3	20000	0.350	
						As Pentode ^{**} Class A Amplifier	160	-20.0	—	—	17.0	3300	1425	4.7	7000	0.30	
89	Triple-Grid Power Amplifier	D8	H	6.3	0.4	As Triode [†] Class A Amplifier	250	-31.0	—	—	32.0	2600	1800	4.7	5500	0.90	89
						As Pentode ^{**} Class A Amplifier	100	-10.0	100	1.6	9.5	104000	1200	—	10700	0.33	
						As Triode [†] Class B Amplifier	250	-25.0	250	5.0	32.0	70000	1800	—	6750	3.40	
V-99 X-99	Detector* Amplifier Triodes	C4 D1	D.C. F	3.3	0.063	Class A Amplifier	90	-4.5	—	—	2.5	15500	425	6.6	—	—	V-99 X-99
112-A	Detector* Amplifier Triode	D12	D.C. F	5.0	0.25	Class A Amplifier	90	-4.5	—	—	5.0	5400	1575	8.5	—	—	112-A
117L7/ M7-GT	Rectifier-Beam Power Amplifier	C8b	H	117	0.09	Amplifier Unit as Class A Amplifier	105	-5.2	105	4.0	43.0	17000	5300	—	4000	0.85	117L7/ M7-GT
						Half-Wave Rectifier	—	—	—	—	—	—	—	—	—	—	
117N7-GT	Rectifier-Beam Power Amplifier	C8b	H	117	0.09	Amplifier Unit as Class A Amplifier	100	-6.0	100	5.0	51.0	16000	7000	—	3000	1.2	117N7-GT
						Half-Wave Rectifier	—	—	—	—	—	—	—	—	—	—	
117P7-GT	Rectifier-Beam Power Amplifier	C8b	H	117	0.09	Amplifier Unit as Class A Amplifier	—	—	—	—	—	—	—	—	—	117P7-GT	
117Z3	Half-Wave Rectifier	B1a	H	117	0.04	With Capacitive-Input Filter	—	—	—	—	—	—	—	—	—	117Z3	
117Z4-GT	Half-Wave Rectifier	C0	H	117.0	0.04	With Capacitive-Input Filter	—	—	—	—	—	—	—	—	—	117Z4-GT	
117Z6-GT	Rectifier-Doubler	C3	H	117	0.075	Voltage Doubler	—	—	—	—	—	—	—	—	—	117Z6-GT	
						Half-Wave Rectifier	—	—	—	—	—	—	—	—	—		—
183/ 483	Power Amplifier Triode	D12	F	5.0	1.25	Class A Amplifier	250	-60.0	—	—	30.0	1750	1700	3.0	5000	1.8	183/ 483
485	Detector Amplifier Triode	D8	H	3.0	1.25	Class A Amplifier	180	-9.0	—	—	5.8	8900	1400	12.5	—	—	485
876	Current Regulator	Q1	F	—	—	—	—	—	—	—	—	—	—	—	—	876	
886	Current Regulator	Q1	F	—	—	—	—	—	—	—	—	—	—	—	—	886	

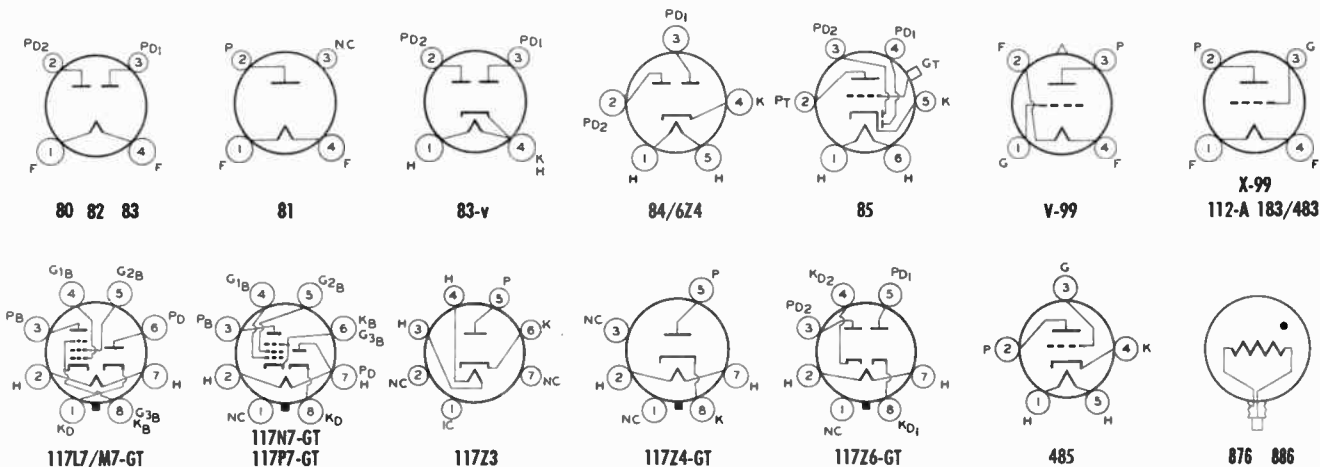
Three vertical rules before or after type No. = Miniature type having either 7 or 9 pins.
 Two vertical rules before or after type No. = Metal type.
 One vertical rule before or after type No. = GT or other larger glass type.
 Light Face = Discontinued type.

■ 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 1/2 (approx.) of filament voltage.
 † Power output is for two tubes at stated plate-to-plate load.
 * For Grid-leak Detection—plate volts 45, grid return to + filament or to cathode.

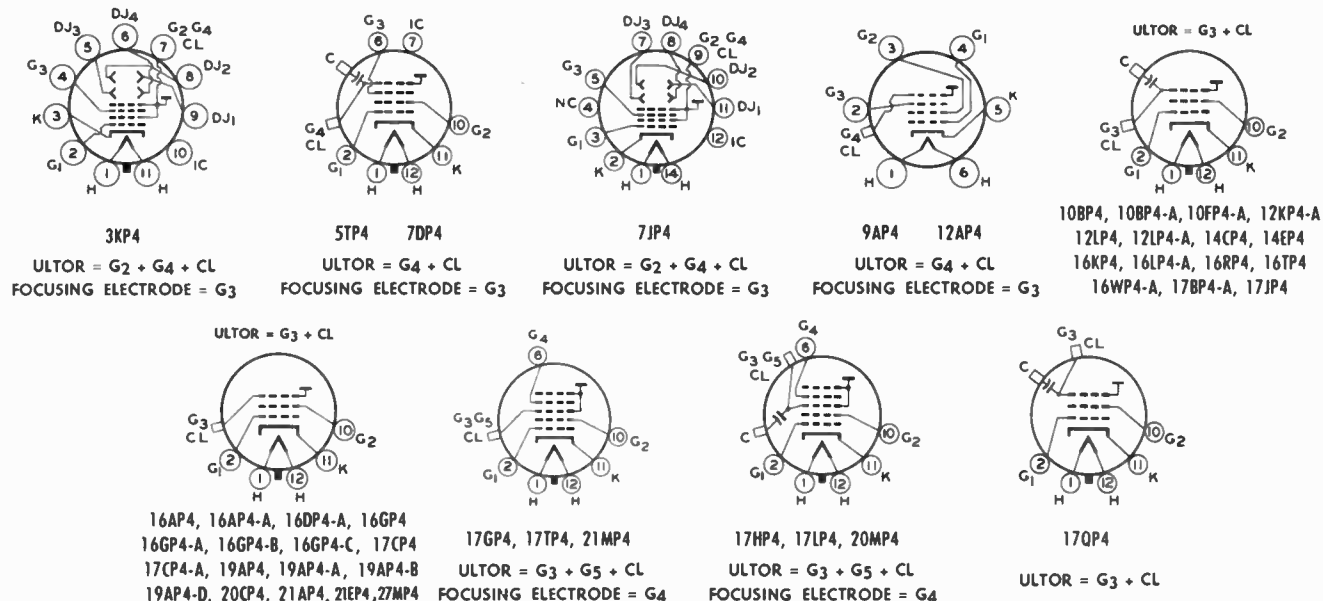
‡ Grid #1 is control grid. Grids #2 and #3 tied to plate.
 ** Grid #1 is control grid. Grid #2 is screen. Grid #3 tied to cathode.
 † Grids #1 and #2 connected together. Grid #3 tied to plate.
 †† For grid of following tube.
 ††† For two tubes.
 †††† Megohms.



RCA RECEIVING TUBES



BASE DIAGRAMS FOR RCA KINESOPES



LEGEND FOR BASE AND ENVELOPE CONNECTION DIAGRAMS

Bottom Views

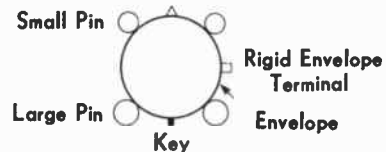
Subscripts B, D, HP, HX, P, T, and TR indicate, respectively, beam unit, diode unit, heptode unit, hexode unit, pentode unit, triode unit, and tetrode unit in multi-unit types.

BC - Base Sleeve
BS - Base Shell
C - External Conductive Bulb Coating
CL - Collector
DJ - Deflecting Electrode
ES - External Shield
F - Filament

FM - Filament Mid-Tap
G - Grid
H - Heater
HL - Heater Tap for Panel Lamp
HM - Heater Mid-Tap
IC - Internal Connection-Do Not Use
● - Gas-Type Tube

IS - Internal Shield
K - Cathode
NC - No Connection
P - Plate (Anode)
RC - Ray-Control Electrode
S - Shell
TA - Target
U - Unit

Orientation Symbol other than Key



KEY TO TUBE DIMENSIONS

Symbol	Maximum Length	Overall Diameter	Symbol	Maximum Length	Overall Diameter	Symbol	Maximum Length	Overall Diameter	Symbol	Maximum Length	Overall Diameter	Symbol	Maximum Length	Overall Diameter
A	1 1/2"	x 3/4"	B3	2 3/8"	x 7/8"	C3	3 1/8"	x 1 1/8"	D3	4 1/8"	x 1 9/16"	D12	4 11/16"	x 1 11/16"
A1	1 1/2"	x 3/4"	B4	2 11/16"	x 7/8"	C5	3 1/2"	x 1 9/16"	D4	4 3/8"	x 1 9/16"	D12a	4 3/8"	x 1 9/16"
A1a	1 1/2"	x 1 1/8"	B5	2 3/8"	x 1 1/8"	C5a	3 1/2"	x 1 7/8"	D5	4 1/8"	x 1 9/16"	D13	4 11/16"	x 1 9/16"
B0	2 1/8"	x 1 1/8"	B5a	2 3/8"	x 1 1/8"	C9a	3 1/2"	x 1 7/8"	D7	4 3/8"	x 1 13/16"	E1	5 1/8"	x 1 11/16"
B0a	2 3/8"	x 1 1/8"	C0	3"	x 1 3/8"	C10	3 1/8"	x 1 7/8"	D8	4 13/16"	x 1 9/16"	E2	5 3/8"	x 1 11/16"
B0b	2 3/8"	x 1 1/8"	C0a	3 1/16"	x 1 3/8"	C10a	3 1/8"	x 1 11/16"	D8a	4 13/16"	x 1 11/16"	E3	5 3/8"	x 2 1/16"
B0c	2 1/8"	x 1 3/8"	C1	3 1/8"	x 1 1/8"	C11	4 1/8"	x 1 7/8"	D9	4 3/8"	x 1 11/16"	F1	5 11/16"	x 2 1/16"
B1	2 1/8"	x 1 1/8"	C2	3 1/8"	x 1 1/8"	D1	4 1/8"	x 1 11/16"	D9a	4 3/8"	x 1 13/16"	F1a	6 1/8"	x 2 1/16"
B1a	2 1/8"	x 1 1/8"	C2a	3 3/8"	x 1 1/8"	D2	4 1/8"	x 1 3/8"	D10	4 3/8"	x 1 11/16"	G1	8"	x 2 1/16"
B2	2 1/8"	x 1 1/8"	C2b	3 1/8"	x 1 3/8"	D2a	4 1/8"	x 1 1/8"						

RCA Type	Envelope	Faceplate ϕ	External Conductive Coating		Focusing Method	Deflection Method	Ion-Trap Magnet	Approx. Deflection Angle \dagger Degrees	Maximum Dimensions Inches				Neck Length Inches
			Max. μ i	Min. μ i					Overall Length	Envelope Diameter	Width	Height	
3KP4	Glass Round	Clear	None	None	E	E \odot	None	None	11 $\frac{3}{4}$	3 $\frac{1}{16}$	—	—	—
5TP4*	Glass Round	Clear	500	100	E	M	‡	50	12 $\frac{1}{8}$	5 $\frac{1}{8}$	—	—	7 $\frac{1}{2}$
7DP4	Glass Round	Clear	1500	400	E	M	Double	50	14 $\frac{7}{16}$	7 $\frac{5}{16}$	—	—	8 $\frac{1}{8}$
7JP4	Glass Round	Clear	None	None	E	E \odot	None	None	14 $\frac{7}{8}$	7 $\frac{1}{8}$	—	—	—
9AP4	Glass Round	Clear	None	None	E	M	None	40	21 $\frac{3}{8}$	9 $\frac{1}{8}$	—	—	10
10BP4	Same as 10BP4-A, except has clear glass faceplate.												
10BP4-A	Glass Round	Filterglass	2500	500	M	M	Double	52	18	10 $\frac{5}{8}$	—	—	8 $\frac{5}{16}$
10FP4-A	Glass Round	Filterglass	2500	500	M	M	‡	50	18	10 $\frac{5}{8}$	—	—	8 $\frac{5}{16}$
12AP4	Glass Round	Clear	None	None	E	M	None	40	25 $\frac{3}{8}$	12 $\frac{3}{16}$	—	—	9 $\frac{9}{16}$
12KP4-A	Glass Round	Filterglass	2500	500	M	M	‡	54	18	12 $\frac{3}{16}$	—	—	7 $\frac{1}{8}$
12LP4	Same as 12LP4-A, except has clear glass faceplate.												
12LP4-A	Glass Round	Filterglass	2500	750	M	M	Double	57	19 $\frac{1}{8}$	12 $\frac{9}{16}$	—	—	8 $\frac{1}{4}$
14CP4	Glass Rectangular	Filterglass	2000	750	M	M	Single	65	17 $\frac{1}{8}$	13 $\frac{13}{16}$	12 $\frac{21}{32}$	9 $\frac{27}{32}$	7 $\frac{1}{2}$
14EP4	Glass Rectangular	Filterglass	2000	750	M	M	Single	65	16 $\frac{7}{8}$	13 $\frac{13}{16}$	12 $\frac{21}{32}$	9 $\frac{27}{32}$	7 $\frac{3}{16}$
16AP4	Same as 16AP4-A, except has clear glass faceplate.												
16AP4-A	Metal Round	Filterglass	None	None	M	M	Double	53	22 $\frac{5}{16}$	16	—	—	7 $\frac{9}{16}$
16DP4-A	Glass Round	Filterglass	None	None	M	M	Double	60	21	16	—	—	7 $\frac{7}{8}$
16GP4	Same as 16GP4-B, except has Filterglass faceplate.												
16GP4-A	Same as 16GP4-B, except has clear glass faceplate.												
16GP4-B	Metal Round	Frosted Filterglass	None	None	M	M	Single	70	17 $\frac{11}{16}$	16	—	—	6 $\frac{7}{8}$
16GP4-C	Same as 16GP4-B, except has frosted clear glass faceplate.												
16KP4	Glass Rectangular	Filterglass	1500	750	M	M	Single	65	19 $\frac{1}{8}$	16 $\frac{1}{4}$	14 $\frac{7}{8}$	11 $\frac{5}{8}$	7 $\frac{1}{2}$
16LP4-A	Glass Round	Filterglass	2000	750	M	M	Double	52	22 $\frac{5}{8}$	16	—	—	7 $\frac{3}{8}$
16RP4	Glass Rectangular	Filterglass	2000	750	M	M	Single	65	19 $\frac{1}{8}$	16 $\frac{5}{16}$	14 $\frac{13}{16}$	11 $\frac{11}{16}$	7 $\frac{1}{2}$
16TP4	Glass Rectangular	Filterglass	2000	750	M	M	Single	65	18 $\frac{1}{2}$	16 $\frac{5}{16}$	14 $\frac{13}{16}$	11 $\frac{11}{16}$	6 $\frac{7}{8}$
16WP4-A	Glass Round	Filterglass	1500	750	M	M	Double	70	18 $\frac{1}{8}$	16	—	—	7 $\frac{7}{16}$
17BP4-A	Glass Rectangular	Filterglass	1500	750	M	M	Single	65	19 $\frac{9}{16}$	16 $\frac{3}{4}$	15 $\frac{1}{2}$	12 $\frac{13}{32}$	7 $\frac{1}{2}$
17CP4	Metal Rectangular	Frosted Filterglass	None	None	M	M	Single	66	19	17	16 $\frac{1}{16}$	12 $\frac{3}{8}$	7 $\frac{3}{16}$
17CP4-A	Same as 17CP4, except has Filterglass faceplate.												
17GP4	Metal Rectangular	Frosted Filterglass	None	None	E	M	Single	66	19 $\frac{5}{16}$	17	16 $\frac{1}{16}$	12 $\frac{3}{8}$	7 $\frac{1}{2}$
17HP4	Glass Rectangular	Filterglass	1500	750	E	M	Single	65	19 $\frac{9}{16}$	16 $\frac{3}{4}$	15 $\frac{1}{2}$	12 $\frac{13}{32}$	7 $\frac{1}{2}$
17JP4	Glass Rectangular	Filterglass	750	500	M	M	Single	65	19 $\frac{9}{16}$	16 $\frac{3}{4}$	15 $\frac{1}{2}$	12 $\frac{13}{32}$	7 $\frac{1}{2}$
17LP4	Glass Rectangular	Filterglass ^{▲▲}	1500	750	E	M	Single	65	19 $\frac{9}{16}$	16 $\frac{3}{4}$	15 $\frac{1}{2}$	12 $\frac{3}{8}$	7 $\frac{1}{2}$
17QP4	Glass Rectangular	Filterglass ^{▲▲}	1500	750	M	M	Single	65	19 $\frac{9}{16}$	16 $\frac{3}{4}$	15 $\frac{1}{2}$	12 $\frac{3}{8}$	7 $\frac{1}{2}$
17TP4	Metal Rectangular	Frosted Filterglass	None	None	E	M	Single	66	19 $\frac{5}{16}$	17	16 $\frac{1}{16}$	12 $\frac{3}{8}$	7 $\frac{1}{2}$
19AP4	Same as 19AP4-B, except has clear glass faceplate.												
19AP4-A	Same as 19AP4-B, except has Filterglass faceplate.												
19AP4-B	Metal Round	Frosted Filterglass	None	None	M	M	Single	66	22	18 $\frac{5}{8}$	—	—	7 $\frac{1}{8}$
19AP4-D	Same as 19AP4-B, except has frosted clear glass faceplate.												
20CP4	Glass Rectangular	Filterglass	None	None	M	M	Single	66	21 $\frac{13}{16}$	20 $\frac{9}{32}$	18 $\frac{7}{8}$	15 $\frac{1}{8}$	7 $\frac{3}{16}$
20MP4	Glass Rectangular	Filterglass	750	500	E	M	Single	66	22 $\frac{1}{8}$	20 $\frac{9}{32}$	18 $\frac{7}{8}$	15 $\frac{1}{8}$	7 $\frac{1}{2}$
21AP4	Metal Rectangular	Frosted Filterglass	None	None	M	M	Single	66	22 $\frac{5}{8}$	21	19 $\frac{27}{32}$	15 $\frac{7}{16}$	7 $\frac{1}{2}$
21EP4	Glass Rectangular	Filterglass ^{▲▲}	None	None	M	M	Single	65	23 $\frac{3}{8}$	21 $\frac{31}{32}$	20 $\frac{1}{16}$	15 $\frac{3}{4}$	7 $\frac{1}{2}$
21MP4	Metal Rectangular	Frosted Filterglass	None	None	E	M	Single	66	22 $\frac{5}{8}$	21	19 $\frac{27}{32}$	15 $\frac{7}{16}$	7 $\frac{1}{2}$
27MP4	Metal Rectangular	Frosted Filterglass	None	None	M	M	Single	85*	22 $\frac{3}{16}$	27 $\frac{1}{8}$	25 $\frac{1}{16}$	20 $\frac{1}{8}$	7 $\frac{1}{2}$


E = Electrostatic. M = Magnetic.
 Note: All kinescopes shown have 6.3-volt/0.6-ampere heaters except types 9AP4 and 12AP4 which have 2.5-volt/2.1-ampere heaters.
 Light face = Discontinued type.
 ϕ Spherical, unless otherwise specified.

‡ Utilizes metal-backed screen to prevent ion-spot blemish. ^{▲▲} Cylindrical faceplate.
 ∞ Grid-No. 2 connected to final high-voltage electrode within tube. \blacksquare Projection type.
 * Corresponding diagonal deflection angle is 90°.

\dagger For rectangular tubes, horizontal deflection angle is shown; corresponding diagonal deflection angle is 70° unless otherwise specified.
[▲] This value has been specified to take care of the condition where an ac voltage is provided for dynamic focusing.

For base diagrams, see page 21

CHARACTERISTICS CHART

Minimum Screen Size Inches	High-Voltage Terminal	Maximum Ratings				Typical Operating Conditions				 Type
		Final High-Voltage Electrode (ULTOR*) Volts	Focusing Electrode Volts	Grid-No. 2 Volts	Grid-No. 1 Bias Volts ‡	Final High-Voltage Electrode (ULTOR*) Volts	Focusing Electrode Volts	Grid-No. 2 Volts	Grid-No. 1 Volts ‡	
2 3/4 Diam.	Base Pin	2500	1000	∞	200	2000	320 to 600	∞	-38 to -90	3KP4
4 1/4 Diam.	Small Cavity Cap	27000	6000	350	150	27000	4320 to 5400	200	-42 to -98	5TP4*
6 Diam.	Small Cavity Cap	8000	2400	410	125	6000	1200 to 1650	250	-27 to -63	7DP4
6 Diam.	Base Pin	6000	2800	∞	200	6000	1620 to 2400	∞	-72 to -168	7JP4
7 1/8 Diam.	Medium Cap	7000	2000	300	125	7000	1190 to 1790	250	-20 to -60	9AP4
Ratings and characteristics are same as for type 10BP4-A.										10BP4
9 1/8 Diam.	Small Cavity Cap	12000	—	410	125	8000 to 12000	—	250	-27 to -63	10BP4-A
9 1/8 Diam.	Small Cavity Cap	12000	—	410	125	8000 to 12000	—	250	-27 to -63	10FP4-A
10 3/4 Diam.	Medium Cap	7000	2000	300	125	7000	1190 to 1790	250	-20 to -60	12AP4
11 1/8 Diam.	Small Cavity Cap	12000	—	410	125	9000 to 12000	—	250	-27 to -63	12KP4-A
Ratings and characteristics are same as for type 12LP4-A.										12LP4
11 Diam.	Small Cavity Cap	12000	—	410	125	9000 to 12000	—	250	-27 to -63	12LP4-A
11 1/8 x 8 5/16	Small Cavity Cap	14000	—	410	125	10000 to 14000	—	300	-33 to -77	14CP4
11 1/8 x 8 5/16	Small Cavity Cap	14000	—	410	125	10000 to 14000	—	300	-33 to -77	14EP4
Ratings and characteristics are same as for type 16AP4-A.										16AP4
14 3/8 Diam.	Metal-Shell Lip	14000	—	410	125	9000 to 14000	—	300	-33 to -77	16AP4-A
14 1/2 Diam.	Small Cavity Cap	15000	—	410	125	12000 to 15000	—	250	-33 to -77	16DP4-A
Ratings and characteristics are same as for type 16GP4-B.										16GP4
Ratings and characteristics are same as for type 16GP4-B.										16GP4-A
14 3/8 Diam.	Metal-Shell Lip	14000	—	410	125	12000 to 14000	—	300	-33 to -77	16GP4-B
Ratings and characteristics are same as for type 16GP4-B.										16GP4-C
13 1/2 x 10 1/8	Small Cavity Cap	16000	—	410	125	12000 to 16000	—	300	-33 to -77	16KP4
14 1/2 Diam.	Small Cavity Cap	14000	—	410	125	12000 to 14000	—	300	-33 to -77	16LP4-A
13 1/2 x 10 1/8	Small Cavity Cap	16000	—	410	125	12000 to 16000	—	300	-33 to -77	16RP4
13 1/2 x 10 1/8	Small Cavity Cap	14000	—	410	125	12000 to 14000	—	300	-33 to -77	16TP4
14 1/2 Diam.	Small Cavity Cap	16000	—	410	125	12000 to 16000	—	250	-27 to -63	16WP4-A
14 1/4 x 10 3/4	Small Cavity Cap	16000	—	410	125	12000 to 16000	—	300	-33 to -77	17BP4-A
14 3/8 x 10 1 1/16	Metal-Shell Lip	16000	—	410	125	12000 to 16000	—	300	-33 to -77	17CP4
Ratings and characteristics are same as for type 17CP4.										17CP4-A
14 3/8 x 10 1 1/16	Metal-Shell Lip	16000	5000	500	125	12000 14000	2040 to 2760 2380 to 3220	300 300	-33 to -77 -33 to -77	17GP4
14 1/4 x 10 3/4	Small Cavity Cap	16000	{ +1000 -500*	500	125	14000 16000	-55 to +300 -65 to +350	300 300	-33 to -77 -33 to -77	17HP4
14 1/4 x 10 3/4	Small Cavity Cap	18000	—	410	125	14000 to 18000	—	300	-33 to -77	17JP4
14 1/4 x 10 3/4	Small Cavity Cap	16000	{ +1000 -500*	500	125	14000 16000	-55 to +300 -65 to +350	300 300	-33 to -77 -33 to -77	17LP4
14 1/4 x 10 3/4	Small Cavity Cap	16000	—	410	125	12000 to 16000	—	300	-33 to -77	17QP4
14 3/8 x 10 1 1/16	Metal-Shell Lip	16000	{ +1000 -500*	500	125	14000 16000	-55 to +300 -65 to +350	300 300	-33 to -77 -33 to -77	17TP4
Ratings and characteristics are same as for type 19AP4-B.										19AP4
Ratings and characteristics are same as for type 19AP4-B.										19AP4-A
17 1/4 Diam.	Metal-Shell Lip	19000	—	410	125	12000 to 19000	—	300	-33 to -77	19AP4-B
Ratings and characteristics are same as for type 19AP4-B.										19AP4-D
17 x 12 3/4	Small Cavity Cap	18000	—	410	125	14000 to 18000	—	300	-33 to -77	20CP4
17 x 12 3/4	Small Cavity Cap	16000	{ +1000 -500*	500	125	14000 16000	-55 to +300 -65 to +350	300 300	-33 to -77 -33 to -77	20MP4
18 1/8 x 13 1 1/16	Metal-Shell Lip	18000	—	410	125	14000 to 18000	—	300	-33 to -77	21AP4
19 1/8 x 13 7/8	Small Cavity Cap	18000	—	500	125	14000 to 18000	—	300	-33 to -77	21EP4
18 3/8 x 13 1 1/16	Metal-Shell Lip	16000	{ +1000 -500*	500	125	14000 16000	-55 to +300 -65 to +350	300 300	-33 to -77 -33 to -77	21MP4
23 7/16 x 18 1/8	Metal-Shell Lip	18000	—	500	125	16000 to 18000	—	300	-33 to -77	27MP4

‡ Positive bias value = 0 volts; positive peak value = 2 volts.
 * For visual extinction of undeflected focused spot. The values for visual extinction of focused raster are about 5 volts less negative than the indicated values.

⊙ Deflection Factors (volts dc/in.) for typical operating conditions shown:

Type	D ₁ & D ₂ (near screen)	D ₁ & D ₂ (near base)
3KP4	100 to 136	76 to 104
7JP4	186 to 246	150 to 204

* 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.

For base diagrams, see page 21

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