



RCA RADIO TUBE CHART

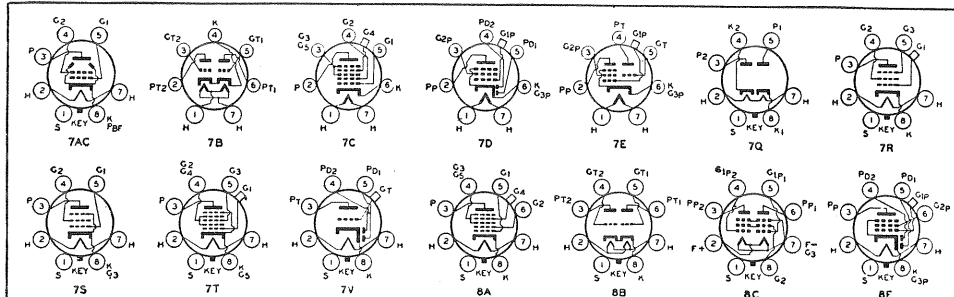
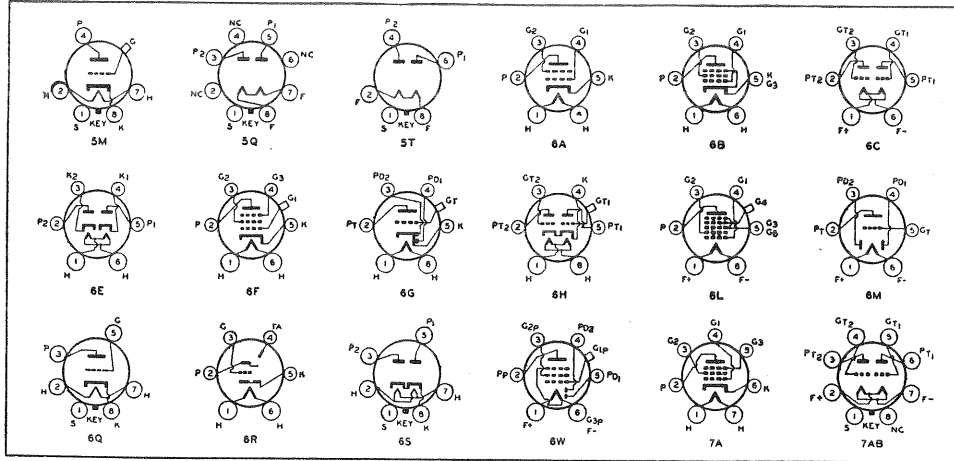
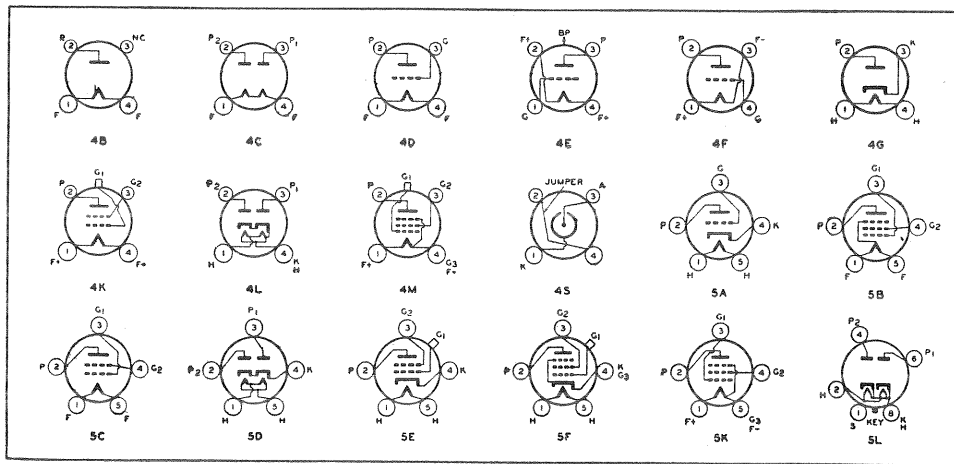


TYPE	NAME	BASE	SOCKET CONNECTIONS	DIMENSIONS MAXIMUM OVERALL LENGTH DIAMETER	CATHODE TYPE	BATING			USE Values in right column operating conditions and characteristics for indicated typical use	PLATE SUPPLY VOLTS	GRID BIAS m	SCREEN SUPPLY VOLTS	SCREEN CURR. MA.	PLATE RESISTANCE OHMS	A.C. PLATE RESISTANCE OHMS	TRANSFORMER TURNS RATIO	AMPLIFIER FACTOR	LEAD IN POWER OUTPUT WATTS	POWER OUT. WATTS	TYPE
						FILAMENT OR HEATER VOLTS AMPERES	FILATE MAX. VOLTS	SCREEN MAX. VOLTS												
00-A	DETECTOR TRIODE	MEDIUM 4-PIN	4D	4 1/2" x 1 1/8"	D-C FILAMENT	3.0	0.25	45	—	—	—	—	—	—	—	—	—	—	—	00-A
01-A	CLASS A AMPLIFIER	MEDIUM 4-PIN	4D	4 1/2" x 1 1/8"	D-C FILAMENT	3.0	0.25	135	—	—	—	—	—	—	—	—	—	—	—	01-A
1A4	DIODE-TRAY RECTIFIER	MEDIUM 4-PIN	4M	4 1/2" x 1 1/8"	D-C FILAMENT	2.0	0.06	180	67.5	—	—	—	—	—	—	—	—	—	—	1A4
1A8	PENTAROD CONVERTER	SMALL 8-PIN	8L	4 1/2" x 1 1/8"	D-C FILAMENT	2.0	0.06	180	67.5	—	—	—	—	—	—	—	—	—	—	1A8
1B4	RF AMPLIFIER	SMALL 8-PIN	8M	4 1/2" x 1 1/8"	D-C FILAMENT	2.0	0.06	180	67.5	—	—	—	—	—	—	—	—	—	—	1B4
1B5/2B5	DUPLEX-DIODE TRIODE	SMALL 8-PIN	8H	4 1/2" x 1 1/8"	D-C FILAMENT	2.0	0.06	135	—	—	—	—	—	—	—	—	—	—	—	1B5/2B5
1C8	PENTAROD CONVERTER	SMALL 8-PIN	8L	4 1/2" x 1 1/8"	D-C FILAMENT	2.0	0.12	180	67.5	—	—	—	—	—	—	—	—	—	—	1C8
1F4	POWER AMPLIFIER	MEDIUM 8-PIN	8K	4 1/2" x 1 1/8"	D-C FILAMENT	2.0	0.12	135	135	—	—	—	—	—	—	—	—	—	—	1F4
1F6	DUPLEX-DIODE TRIODE	SMALL 8-PIN	8W	4 1/2" x 1 1/8"	D-C FILAMENT	2.0	0.06	180	67.5	—	—	—	—	—	—	—	—	—	—	1F6
1-Y	HALF-WAVE RECTIFIER	SMALL 4-PIN	4C	4 1/2" x 1 1/8"	HEATER	6.3	2.5	—	—	—	—	—	—	—	—	—	—	—	—	1-Y
2A5	POWER AMPLIFIER	MEDIUM 8-PIN	8D	4 1/2" x 1 1/8"	FILAMENT	2.5	1.75	—	—	—	—	—	—	—	—	—	—	—	—	2A5
2A6	POWER AMPLIFIER	SMALL 8-PIN	8G	4 1/2" x 1 1/8"	HEATER	2.5	0.8	250	100	—	—	—	—	—	—	—	—	—	—	2A6
2A7	POWER AMPLIFIER	SMALL 7-PIN	7D	4 1/2" x 1 1/8"	HEATER	2.5	0.8	250	135	—	—	—	—	—	—	—	—	—	—	2A7
2B7	DUPLEX-DIODE TRIODE	SMALL 7-PIN	7D	4 1/2" x 1 1/8"	HEATER	2.5	0.8	250	135	—	—	—	—	—	—	—	—	—	—	2B7

TYPE	NAME	BASE	SOCKET	DIMENSIONS OVERALL LENGTH & DIAMETER	CATHODE TYPE #	BATINGS			BSE Values for grid and screening conditions and approximations for inflated typical use	PLATE RES FLY VOLTS	GRID BIAS W VOLTS	SCREEN SUPPLY VOLTS	SCREEN CURRENT MA	PLATE CURRENT MA	A-C PLATE RESIST- ANCE OHMS	TRANS- FORMER RATIO	AMPLIF- ICATION GAIN	LOAD POWER WATTS	POWER OUT WATTS	TYPE	
						FILAMENT OR HEATER	PLATE	BIASING													
31	POWER AMPLIFIER TRIODE	SMALL 6-PIN	4D	4 1/2" x 1 1/2"	D-C FILAMENT	2.0	0.13	180	---	CLASS A AMPLIFIER	125 -25.0	---	---	8.0 4100 3800	4100 3800	825 380	3.8	7000 3700	0.183 0.275	31	
32	R-F AMPLIFIER TRIODE	MEDIUM 6-PIN	4K	5 1/2" x 1 1/2"	D-C FILAMENT	2.0	0.06	180	67.5	SCREEN GRID R-F AMPLIFIER BIAS DETECTOR	133 -3.0 180W*	67.5 6.4 67.5	1.7 1.7 1.7	950000 1000000	660 660	440 700	3.8	7000 3700	0.183 0.275	32	
33	POWER AMPLIFIER TRIODE	MEDIUM 6-PIN	4K	4 1/2" x 1 1/2"	D-C FILAMENT	2.0	0.26	180	180	CLASS A AMPLIFIER	180 -18.0	180	5.0	22.0	55000	1700	50	6000	1.4	33	
34	SUPER-CONTROL RF AMPLIFIER TRIODE	MEDIUM 6-PIN	4M	5 1/2" x 1 1/2"	D-C FILAMENT	2.0	0.06	180	67.5	SCREEN GRID R-F AMPLIFIER	133 -3.0	67.5	1.0	2.8	600000	600	360	3.8	7000	0.183	34
35	SUPER-CONTROL RF AMPLIFIER TRIODE	MEDIUM 6-PIN	4E	5 1/2" x 1 1/2"	HEATER	2.5	1.75	275	90	CLASS A AMPLIFIER	180W -18.0	180	2.2*	6.3	400000	1050	420	5000	1.4	35	
36	R-F AMPLIFIER TRIODE	SMALL 6-PIN	4E	4 1/2" x 1 1/2"	HEATER	6.3	0.3	250	90	SCREEN GRID R-F AMPLIFIER	100 -3.0	90	1.7*	3.3	550000	850	470	3.8	7000	0.183	36
37	DETECTOR & AMPLIFIER TRIODE	SMALL 6-PIN	4A	4 1/2" x 1 1/2"	HEATER	6.3	0.3	250	---	CLASS A AMPLIFIER	90 -18.0	---	---	2.1	11500	900	9.3	1100	9.2	37	
38	POWER AMPLIFIER TRIODE	SMALL 6-PIN	4F	4 1/2" x 1 1/2"	HEATER	6.3	0.3	250	250	CLASS A AMPLIFIER	100 -9.0	100	1.2	7.0	140000	875	150	10000	0.27	38	
38/44	SUPER-CONTROL RF AMPLIFIER TRIODE	SMALL 6-PIN	4F	4 1/2" x 1 1/2"	HEATER	6.3	0.3	250	90	SCREEN GRID R-F AMPLIFIER	90 -3.0	90	1.4	3.6	375000	950	360	10000	0.27	38/44	
40	VOLTAGE REGULATOR	MEDIUM 6-PIN	4D	4 1/2" x 1 1/2"	D-C FILAMENT	5.0	0.25	180	---	CLASS A AMPLIFIER	125W -1.5	---	---	0.2	150000	200	30	---	---	40	
41	POWER AMPLIFIER TRIODE	SMALL 6-PIN	4D	4 1/2" x 1 1/2"	HEATER	6.3	0.4	250	250	CLASS A AMPLIFIER	100 -18.0	100	1.4	3.8	185000	150	150	10000	6.33	41	
42	POWER AMPLIFIER TRIODE	MEDIUM 6-PIN	4B	4 1/2" x 1 1/2"	HEATER	6.3	0.7	315	315	CLASS A AMPLIFIER	250 -16.5	250	6.3	34.0	80000	2550	190	7000	3.0	42	
43	POWER AMPLIFIER TRIODE	MEDIUM 6-PIN	4B	4 1/2" x 1 1/2"	HEATER	6.3	0.3	180	135	CLASS A AMPLIFIER	180 -18.0	180	7.5	24.0	40000	2500	150	5000	2.75	43	
45	POWER AMPLIFIER TRIODE	MEDIUM 6-PIN	4D	4 1/2" x 1 1/2"	FILAMENT	2.5	1.5	275	---	CLASS A AMPLIFIER	180 -31.5	---	---	31.0	1450	2175	3.5	2700	0.81	45	
46	DUAL-GRID POWER AMPLIFIER	MEDIUM 6-PIN	4E	5 1/2" x 2 1/2"	FILAMENT	2.5	1.75	250	---	CLASS A AMPLIFIER	250 -18.0	---	---	22.0	2380	3350	5.6	6400	1.35	46	
47	POWER AMPLIFIER TRIODE	MEDIUM 6-PIN	4D	5 1/2" x 2 1/2"	FILAMENT	2.5	1.75	250	250	CLASS A AMPLIFIER	250 -16.5	250	6.0	31.0	60000	3500	150	7000	2.7	47	
48	POWER AMPLIFIER TRIODE	MEDIUM 6-PIN	4A	5 1/2" x 2 1/2"	D-C FILAMENT	30.0	0.4	135	100	TETRODE CLASS A AMPLIFIER	90 -19.0	90	9.0	53.0	3800	3800	1500	2.0	48		
49	DUAL-GRID POWER AMPLIFIER	MEDIUM 6-PIN	4E	4 1/2" x 1 1/2"	D-C FILAMENT	2.0	0.12	180	---	CLASS A AMPLIFIER	125 -30.0	100	10.0	0	4175	1135	4.7	11000	0.17	49	
50	POWER AMPLIFIER TRIODE	MEDIUM 6-PIN	4E	6 1/2" x 2 1/2"	FILAMENT	7.5	1.25	450	---	CLASS A AMPLIFIER	180 -3.0	---	---	4.0	3000	1900	3.8	13000	3.3	50	
53	TWIN-TRIODE AMPLIFIER	MEDIUM 7-PIN	7B	4 1/2" x 1 1/2"	HEATER	2.5	2.0	300	---	AMPLIFIER	400 -40.0	---	---	8.0	4000	2000	6.0	5000	1.25	53	
55	DUPLEX-GRID TRIODE	SMALL 6-PIN	4D	4 1/2" x 1 1/2"	HEATER	2.5	1.0	250	---	TRIODE UNIT AS AMPLIFIER	250 -18.0	---	---	26.0	2300	3000	6.0	5000	1.35	55	
56	DUPLEX-GRID TRIODE	SMALL 6-PIN	4E	4 1/2" x 1 1/2"	HEATER	2.5	1.0	250	---	AMPLIFIER	250 -18.0	---	---	26.0	4000	5500	100	6000	3.0	56	
57	TRIPLE-GRID AMPLIFIER	SMALL 6-PIN	4F	4 1/2" x 1 1/2"	HEATER	2.5	1.0	350	100	AMPLIFIER	400 -40.0	---	---	22.0	2380	3350	5.6	6400	1.35	57	
58	DUPLEX-GRID TRIODE	SMALL 6-PIN	4F	4 1/2" x 1 1/2"	HEATER	2.5	1.0	350	100	MIXER	250 -18.0	---	---	26.0	4000	5500	100	6000	3.0	58	
59	DUPLEX-GRID TRIODE	MEDIUM 7-PIN	7A	5 1/2" x 2 1/2"	HEATER	2.5	2.0	350	250	CLASS A AMPLIFIER	250 -18.0	250	9.0	35.0	40000	2500	100	6000	3.0	59	
71-A	POWER AMPLIFIER TRIODE	MEDIUM 6-PIN	4D	4 1/2" x 1 1/2"	FILAMENT	5.0	0.25	180	---	CLASS A AMPLIFIER	90 -19.0	---	---	30.0	2170	1400	3.0	3000	0.133	71-A	
75	DUPLEX-GRID HIGH-TRIODE	SMALL 6-PIN	4D	4 1/2" x 1 1/2"	HEATER	6.3	0.3	350	---	TRIODE UNIT AS CLASS A AMPLIFIER	250W -1.35	---	---	10.0	1150	1150	13.8	1400	5.09	75	
76	SUPER-CONTROL TRIODE	SMALL 6-PIN	4A	4 1/2" x 1 1/2"	HEATER	6.3	0.3	350	---	CLASS A AMPLIFIER	100 -13.5	---	---	2.5	12000	1150	13.8	1400	5.09	76	
77	TRIPLE-GRID DETECTOR AMPLIFIER	SMALL 6-PIN	4F	4 1/2" x 1 1/2"	HEATER	6.3	0.3	250	100	BIAS DETECTOR	250 -20.0	---	---	---	---	---	---	---	---	77	
78	TRIPLE-GRID SUPER-CONTROL AMPLIFIER	SMALL 6-PIN	4F	4 1/2" x 1 1/2"	HEATER	6.3	0.3	250	125	AMPLIFIER MIXER	180 -19.0	---	---	31.0	1450	2175	3.5	2700	0.81	78	
79	TWIN-TRIODE AMPLIFIER	SMALL 6-PIN	4H	4 1/2" x 1 1/2"	HEATER	6.3	0.6	250	---	CLASS B AMPLIFIER	250 -18.0	---	---	22.0	2380	3350	5.6	6400	1.35	79	
80	HULL-WAVE RECTIFIER	MEDIUM 6-PIN	4C	4 1/2" x 1 1/2"	FILAMENT	5.0	2.0	---	---	A-C Voltage per Plate (Volts RMS) D-C Output Current (MAXIMUM, MA)	450 450	---	---	---	---	---	---	---	---	80	
81	HALF-WAVE RECTIFIER	MEDIUM 6-PIN	4D	6 1/2" x 2 1/2"	FILAMENT	7.5	1.25	---	---	Maximum A-C Plate Voltage Maximum D-C Output Current	500 500	---	---	---	---	---	---	---	---	81	
82	FULL-WAVE RECTIFIER	MEDIUM 6-PIN	4E	4 1/2" x 1 1/2"	FILAMENT	2.5	3.0	---	---	Maximum A-C Voltage per Plate Maximum D-C Output Current	500 500	---	---	---	---	---	---	---	---	82	
83	FULL-WAVE RECTIFIER	MEDIUM 6-PIN	4E	5 1/2" x 2 1/2"	FILAMENT	5.0	3.0	---	---	Maximum A-C Voltage per Plate Maximum D-C Output Current	500 500	---	---	---	---	---	---	---	---	83	
83-V	FULL-WAVE RECTIFIER	MEDIUM 6-PIN	4L	4 1/2" x 1 1/2"	HEATER	5.0	3.0	---	---	Maximum A-C Voltage per Plate Maximum D-C Output Current	500 500	---	---	---	---	---	---	---	---	83-V	
84/84A	TRIPLE-GRID TRIODE	SMALL 6-PIN	4D	4 1/2" x 1 1/2"	HEATER	6.3	0.5	---	---	TRIODE UNIT AS CLASS A AMPLIFIER	110 -20.0	---	---	3.7	11000	750	8.3	2500	0.975	84/84A	
85	DUPLEX-GRID TRIODE	SMALL 6-PIN	4D	4 1/2" x 1 1/2"	HEATER	6.3	0.3	250	---	CLASS A AMPLIFIER	180 -18.0	---	---	8.0	1700	1100	8.3	2800	0.350	85	
89	POWER AMPLIFIER TRIODE	SMALL 6-PIN	4F	4 1/2" x 1 1/2"	HEATER	6.3	0.4	250	250	CLASS A AMPLIFIER	160 -20.0	---	---	17.0	3300	1475	4.7	7000	0.30	89	
V-99	DETECTOR X-COU	SMALL 6-PIN	4E	3 1/2" x 1 1/2"	D-C FILAMENT	3.3	0.063	90	---	CLASS A AMPLIFIER	90 -4.5	---	---	2.5	15500	425	6.6	---	V-99		
112-A	DETECTOR & AMPLIFIER TRIODE	MEDIUM 6-PIN	4D	4 1/2" x 1 1/2"	D-C FILAMENT	5.0	0.25	180	---	CLASS A AMPLIFIER	90 -4.5	---	---	3.0	3400	1375	8.5	---	112-A		
874	VOLTAGE REGULATOR	MEDIUM 6-PIN	4D	5 1/2" x 2 1/2"	FILAMENT	---	---	---	---	Minimum D-C Steering Supply Voltage D-C Operating Voltage	135 90	---	---	---	---	---	---	10-50 Ma	874		
875	CURRENT REGULATOR	MEDIUM 6-PIN	4D	5 1/2" x 2 1/2"	FILAMENT	---	---	---	---	Minimum D-C Steering Supply Voltage D-C Operating Voltage	135 90	---	---	---	---	---	---	10-50 Ma	875		
888	CURRENT REGULATOR	MEDIUM 6-PIN	4D	5 1/2" x 2 1/2"	FILAMENT	---	---	---	---	Minimum D-C Steering Supply Voltage D-C Operating Voltage	135 90	---	---	---	---	---	---	10-50 Ma	888		

*For Grid-Leak Detector—plate volts 45, grid return to + filament or to cathode.
 #Either A, C, or D, C, may be used on filament or heater, except as specifically noted. For use of D.C. on A-C filament types, decrease rated grid volts by 1/2 (approx.) of filament voltage.
 \$ Supply voltage applied through 2000-ohm voltage-dropping resistor.
 @ Mercury Vapor Type.
 **Grid #1 is control grid. Grid #2 is screen. Grid #3 tied to cathode.
 ***Grid #1 is control grid. Grids #2 and #3 tied to plate.
 # Grids #1 and #2 connected together. Grid #3 tied to plate.
 @ Grids #3 and #5 are screen. Grid #4 is signal-input control grid.
 * Grids #1 and #4 are screen. Grid #3 is signal-input control grid.
 † Triode Plate Supply Voltage and Bias. Target Voltage: Min. Target Voltage = 90 volts.
 ‡ Both grids connected together; likewise, both plates.
 † Power output is for two tubes at stated plate-to-plate load.
 @ Applied through plate resistor of 250000 ohms or 100-henry choke shunted by 0.25-megohm resistor.
 * Applied through plate resistor of 100000 ohms.
 † Applied through plate resistor of 250000 ohms.
 # 50000 ohms.
 ** Requires different socket from small 7-pin.
 † Grid #1 tied to plate. † Grid #2 and #3 tied together. *** For grid of following tube.
 † Plate voltages greater than 125 volts RMS require 100-ohm series-plate resistor.
 @ Applied through plate resistor of 150000 ohms.
 † For signal-input control grid (41); control grid #3 bias, -3 volts.
 † Applied through 200000-ohm plate resistor.
 Note: 1) Types with actual bases have Miniature Metal Caps; all others have Small Metal Caps.
 Note: 2) Subscripts to a class of amplifier service (as AB) indicate that grid current does not flow during any part of input cycle.
 Subscript 2 on class of amplifier service (as AB) indicates that grid current flows during some part of the input cycle.

INDEX OF TYPES BY USE AND BY CATHODE VOLTAGE								
Tubes of All-Metal construction are shown in BOLD FACE								
CATHODE VOLTS	RECTIFIERS	VOLTAGE AMPLIFIERS Including Duplex-Diode Types	POWER AMPLIFIERS	CONVERTERS IN SUPERHETERODYNES	DETECTORS	MIXER TUBES IN SUPERHETERODYNES	INDICATORS (Vmm)	CATHODE VOLTS
1.1	---	11, 12	---	---	11, 12	---	---	1.1
1.5	---	36	---	---	---	---	---	1.5
2.0	---	1A1, 1A6, 1B4, 1B5/2S5, 1F6, 1S, 30, 37, 34	1F4, 19, 31, 33, 49	1A6, 1C6	1A6, 1B5/2S5, 1F6, 30, 32	1A6, 1C6, 34	---	2.0
2.5	82	2A6, 2B7, 24A, 27, 35, 35, 56, 57, 58	2A3, 2A5, 45, 46, 47, 53, 59	2A7	2A6, 2B7, 24A, 27, 27, 35, 56, 57	2A7, 35, 58	---	2.5
3.3	---	21, 29	---	---	---	---	---	3.3
5.0	8M4, 8Z4, 8Z5, 80, 83, 83-V	01A, 40, 112-A	71-A, 112-A	---	60-A, 01-A, 40, 112-A	---	---	5.0
6.3	8M5, 8X5, 1-V, 84/84A	6B7, 6B8, 6C5, 6C6, 6D6, 6F6, 6F7, 6F8, 6G7, 6H7, 6K7, 6R7, 36, 37, 39, 44, 75, 76, 77, 78, 85	6A1, 6A5, 6F6, 6L6, 6H7, 36, 41, 42, 79, 89	6A7, 6A8	6B7, 6B8, 6C5, 6C6, 6F7, 6F8, 6F9, 6Q7, 6R7, 36, 37, 75, 76, 77, 85	6A7, 6A8, 6D6, 6K7, 6L7, 39, 44, 78	6B5, 6O5	6.3
7.5	81	---	---	---	---	---	---	7.5
12.8	12Z5	---	---	---	---	---	---	12.8
25.0	25Z5, 26Z5	---	25A6, 43	---	---	---	---	25.0
30.0	---	---	48	---	---	---	---	30.0



KEY TO TERMINAL DESIGNATIONS OF SOCKETS (Bottom Views)

BP = Bayonet Pin
 F = Filament
 G = Grid
 H = Heater
 K = Cathode
 NC = No Connection
 P = Plate
 P_F = Beam Forming Plate
 TA = Target

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

Numerical subscripts are used (1) in multi-grid types to indicate relative position of grids to cathode or filament, and (2) in multi-unit types to differentiate between two identical electrodes which would otherwise have the same designation.

RCA G-TYPE RADIO TUBES (Octal-Base, Glass-Bulb Types)

In addition to the types of tubes shown on pages 52 to 58, the following octal-base, glass-bulb types are also available. These types are identified by the letter "G" following the type number. For each of these types, the corresponding glass or metal types are indicated below, together with socket connections and overall dimensions. Characteristic data for the G-types are the same as those for the corresponding types on pages 52 to 58.

G-Series Type	Corresponding		Socket Connections	Max. Overall Dimensions Length x Diam.
	Glass Type	Metal Type		
1E7-G	19†	...	8C**	4 1/2" x 1 1/2"
1E6-G	19†	...	7AB**	4 1/2" x 1 1/2"
5V4-G	83-v	...	5L**	4 1/2" x 1 1/2"
5X4-G	5Z3	...	5Q**	4 1/2" x 2 1/2"
5Y3-G	80	...	5T**	4 1/2" x 1 1/2"
6A8-G	...	6A8	8A*	4 1/2" x 1 1/2"
6C5-G	...	6C5	6Q*	4 1/2" x 1 1/2"
6E5-G	...	6E5	5M#	4 1/2" x 1 1/2"
6F6-G	...	6F6	7S*	4 1/2" x 1 1/2"
6H6-G	...	6H6	7Q¶	4 1/2" x 1 1/2"
6J7-G	...	6J7	7R#	4 1/2" x 1 1/2"
6K6-G	41	...	7S**	4 1/2" x 1 1/2"
6K7-G	...	6K7	7R*	4 1/2" x 1 1/2"
6L6-G	...	6L6	7AC*	4 1/2" x 1 1/2"
6L7-G	...	6L7	7T*	4 1/2" x 1 1/2"
6N7-G	...	6N7	8B*	4 1/2" x 1 1/2"
6Q7-G	...	6Q7	7V*	4 1/2" x 1 1/2"
6R7-G	...	6R7	7V*	4 1/2" x 1 1/2"
6X5-G	...	6X5	6S*	4 1/2" x 1 1/2"
25A6-G	...	25A6	7S*	4 1/2" x 1 1/2"
25Z6-G	...	25Z6	7Q*	4 1/2" x 1 1/2"

** Except that Pin No. 1 has no connection. † Except that filament current is 0.24 ampere.
 * Except that Pin No. 1 has no connection. ‡ Two 1F4's in the same bulb.
 ¶ Except that Pin No. 1 is connected to shield between diode units. # Except that Pin No. 1 is connected to shield external to plate.