

Radio Tube Chart ← RCA Radiotron-Cunningham → Radio Tube Chart

TYPE	NAME	BASE	SOCKET CONNECTIONS	DIMENSIONS MAXIMUM OVERALL LENGTH x DIAMETER	CATHODE TYPE #	RATING			
						FILAMENT OR HEATER		PLATE MAX. VOLTS	SCREEN MAX. VOLTS
						VOLTS	AMPERES		
RCA-1A6	PENTAGRID CONVERTER #	SMALL 6-PIN	FIG. 26	$4\frac{1}{2}'' \times 1\frac{3}{16}''$	D-C FILAMENT	2.0	0.06	180	67.5
RCA-2A3	POWER AMPLIFIER TRIODE	MEDIUM 4-PIN	FIG. 1	$5\frac{1}{2}'' \times 2\frac{1}{16}''$	FILAMENT	2.5	2.5	250	—
RCA-2A5	POWER AMPLIFIER PENTODE	MEDIUM 6-PIN	FIG. 18A	$4\frac{1}{2}'' \times 1\frac{1}{8}''$	HEATER	2.5	1.75	250	250
RCA-2A6	DUPLEX-DIODE HIGH- μ TRIODE	SMALL 6-PIN	FIG. 12	$4\frac{1}{2}'' \times 1\frac{3}{16}''$	HEATER	2.5	0.8	250	—
RCA-2A7	PENTAGRID CONVERTER #	SMALL 7-PIN	FIG. 26	$4\frac{1}{2}'' \times 1\frac{3}{16}''$	HEATER	2.5	0.8	250	100
RCA-2B7	DUPLEX-DIODE PENTODE	SMALL 7-PIN	FIG. 21	$4\frac{1}{2}'' \times 1\frac{3}{16}''$	HEATER	2.5	0.8	250	125
RCA-6A4 also 6A	POWER AMPLIFIER PENTODE	MEDIUM 6-PIN	FIG. 6	$4\frac{1}{2}'' \times 1\frac{1}{8}''$	FILAMENT	6.3	0.3	180	180
RCA-6A7	PENTAGRID CONVERTER #	SMALL 7-PIN	FIG. 26	$4\frac{1}{2}'' \times 1\frac{3}{16}''$	HEATER	6.3	0.3	250	100
RCA-6B7	DUPLEX-DIODE PENTODE	SMALL 7-PIN	FIG. 21	$4\frac{1}{2}'' \times 1\frac{3}{16}''$	HEATER	6.3	0.3	250	125
RCA-6F7	TRIODE- PENTODE	SMALL 7-PIN	FIG. 27	$4\frac{1}{2}'' \times 1\frac{3}{16}''$	HEATER	6.3	0.3	100 250	— 100
UX-200-A	DETECTOR TRIODE	MEDIUM 4-PIN	FIG. 1	$4\frac{1}{2}'' \times 1\frac{1}{8}''$	D-C FILAMENT	5.0	0.25	45	—
RCA-01-A	DETECTOR- AMPLIFIER	MEDIUM 4-PIN	FIG. 1	$4\frac{1}{2}'' \times 1\frac{1}{8}''$	D-C FILAMENT	5.0	0.25	135	—
RCA-10	POWER AMPLIFIER TRIODE	MEDIUM 4-PIN	FIG. 1	$5\frac{1}{2}'' \times 2\frac{1}{16}''$	FILAMENT	7.5	1.25	425	—
# Grids #3 and #5 are screen. Grid #4 is signal-input control-grid. *For Grid-leak Detection—plate volts 45, grid return to + filament or to cathode.									
WD-11 WX-12	DETECTOR- AMPLIFIER TRIODE	WD 4-PIN MEDIUM 4-PIN	FIG. 12 FIG. 1	$4\frac{1}{2}'' \times 1\frac{1}{8}''$ $4\frac{1}{2}'' \times 1\frac{1}{8}''$	D-C FILAMENT	1.1	6.25	135	—
UX-112-A	DETECTOR- AMPLIFIER TRIODE	MEDIUM 4-PIN	FIG. 1	$4\frac{1}{2}'' \times 1\frac{1}{8}''$	D-C FILAMENT	5.0	0.25	180	—
RCA-19	TWIN AMPLIFIER	SMALL 6-PIN	FIG. 26	$4\frac{1}{2}'' \times 1\frac{3}{16}''$	D-C FILAMENT	2.0	0.26	135	—
UX-120	POWER AMPLIFIER TRIODE	SMALL 4-PIN	FIG. 1	$4\frac{1}{2}'' \times 1\frac{3}{16}''$	D-C FILAMENT	3.3	0.132	135	—
RCA-22	R-F AMPLIFIER TETRODE	MEDIUM 4-PIN	FIG. 4	$5\frac{1}{2}'' \times 1\frac{1}{8}''$	D-C FILAMENT	3.3	0.132	135	67.5
RCA-24-A	R-F AMPLIFIER TETRODE	MEDIUM 6-PIN	FIG. 9	$5\frac{1}{2}'' \times 1\frac{1}{8}''$	HEATER	2.5	1.75	275	90
RCA-26	AMPLIFIER TRIODE	MEDIUM 4-PIN	FIG. 1	$4\frac{1}{2}'' \times 1\frac{1}{8}''$	FILAMENT	1.5	1.05	180	—
RCA-27	DETECTOR- AMPLIFIER TRIODE	MEDIUM 6-PIN	FIG. 6	$4\frac{1}{2}'' \times 1\frac{1}{8}''$	HEATER	2.5	1.75	275	—
RCA-30	DETECTOR- AMPLIFIER TRIODE	SMALL 4-PIN	FIG. 1	$4\frac{1}{2}'' \times 1\frac{3}{16}''$	D-C FILAMENT	2.0	0.06	180	—
RCA-31	POWER AMPLIFIER TRIODE	SMALL 4-PIN	FIG. 1	$4\frac{1}{2}'' \times 1\frac{3}{16}''$	D-C FILAMENT	2.0	0.13	180	—
RCA-32	R-F AMPLIFIER TETRODE	MEDIUM 4-PIN	FIG. 4	$5\frac{1}{2}'' \times 1\frac{1}{8}''$	D-C FILAMENT	2.0	0.06	180	67.5
RCA-33	POWER AMPLIFIER PENTODE	MEDIUM 6-PIN	FIG. 6	$4\frac{1}{2}'' \times 1\frac{1}{8}''$	D-C FILAMENT	2.0	0.26	135	135
RCA-34	SUPER-CONTROL R-F AMPLIFIER PENTODE	MEDIUM 4-PIN	FIG. 4A	$5\frac{1}{2}'' \times 1\frac{1}{8}''$	D-C FILAMENT	2.0	0.06	180	67.5
RCA-35	SUPER-CONTROL R-F AMPLIFIER TETRODE	MEDIUM 6-PIN	FIG. 9	$5\frac{1}{2}'' \times 1\frac{1}{8}''$	HEATER	2.5	1.75	275	90
*For Grid-leak Detection—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 stated grid volts by $\frac{1}{2}$ (approx.) of filament voltage.									

USE	PLATE SUP- PLY VOLTS	GRID VOLTS	SCREEN VOLTS	SCREEN MILLI- AMP.	PLATE MILLI- AMP.	A-C PLATE RESIS- TANCE OHMS	MUTUAL CON- DUCTANCE MICRO- MHOS	VOLTA- GE AMPLI- FICATION FACTOR	LOAD FOR STATED POWER OUTPUT OHMS	POWER OUT- PUT WATTS	TYPE
CONVERTER	180	-3.0 min.	67.5	2.4	1.3	500000	Anode Grid (#2) 135 Max. Volts, 2.3 Ma. Oscillator Grid (#1) Resistor, 50000 Ohms. Conversion Conductance, 300 Micromhos.	—	—	—	C-1A6
CLASS A AMPLIFIER	250	-45	—	—	60.0	300	5250	4.2	2500	3.5	C-2A3
PUSH-PULL AMPLIFIER	300	-62	Self-bias Fixed-bias	40.0	40.0	Power Output is for 2 tubes at stated load, plate-to-plate	5000	10.0	5000	15.0	C-2A5
CLASS A AMPLIFIER	250	-16.5	250	6.5	34.0	100000	2300	230	7000	3.0	C-2A6
TRIODE UNIT AS CLASS A AMPLIFIER	250x	-1.35	—	—	0.4	—	—	Gain per stage = 50-60	—	—	C-2A7
CONVERTER	250	-3.0	100	2.2	2.5	300000	Anode Grid (#2) 200 Max. Volts, 4.0 Ma. Oscillator Grid (#1) Resistor, 50000 Ohms. Conversion Conductance, 520 Micromhos.	—	—	—	C-2B7
PENTODE UNIT AS R-F AMPLIFIER	100	-3.0	100	1.7	5.8	300000	950	285	—	—	C-2B7
PENTODE UNIT AS A-F AMPLIFIER	250	-4.5	50	—	0.65	650000	1125	730	—	—	C-2B7
CLASS A AMPLIFIER	100	-6.5	100	1.6	9.0	83250	1200	100	11000	6.31	C-4A4 also 6A
CONVERTER	180	-12.0	180	3.9	22.0	455000	2200	100	8000	1.40	C-6A7
PENTODE UNIT AS R-F AMPLIFIER	250	-3.0	100	2.2	5.5	300000	950	285	—	—	C-6B7
PENTODE UNIT AS A-F AMPLIFIER	100	-3.0	100	1.7	5.8	300000	950	285	—	—	C-6B7
TRIODE UNIT AS AMPLIFIER	250x	-4.5	50	—	0.65	650000	1125	730	—	—	C-6B7
PENTODE UNIT AS AMPLIFIER	100	-3.0	—	—	3.5	17000	450	8	—	—	C-6B7
PENTODE UNIT AS MIXER	250	-3.0	100	1.5	6.5	850000	1100	900	—	—	C-6B7
GRID LEAK DETECTOR	45	Grid Return to (-) Filament	—	—	1.5	30000	666	20	—	—	CX-300-A
CLASS A AMPLIFIER	90	-4.5	—	—	3.5	11000	725	8.0	—	—	C-91-A
CLASS A AMPLIFIER	135	-9.0	—	—	3.0	10000	800	8.0	—	—	C-91-A
CLASS A AMPLIFIER	350	-31.0	—	—	16.0	5150	1350	8.0	11000	6.9	C-10
CLASS A AMPLIFIER	425	-39.0	—	—	18.0	5000	1600	8.0	10200	1.6	C-10
*Applied through plate coupling resistor of 200000 ohms. # Applied through plate coupling resistor of 250000 ohms.											
CLASS A AMPLIFIER	90	-4.5	—	—	2.5	15500	425	6.6	—	—	C-11
CLASS A AMPLIFIER	135	-10.5	—	—	3.0	15000	440	6.6	—	—	CX-12
CLASS A AMPLIFIER	90	-4.5	—	—	5.0	5400	1575	8.5	—	—	CX-112-A
CLASS A AMPLIFIER	180	-13.5	—	—	7.7	4700	1800	8.5	—	—	CX-112-A
CLASS B AMPLIFIER	135	0	—	—	—	Power output value is for one tube at stated load, plate-to-plate.	10000	2.1	—	—	C-19
CLASS B AMPLIFIER	135	-3.0	—	—	—	—	10000	1.0	—	—	C-19
CLASS A AMPLIFIER	90	-16.5	—	—	5.0	8000	415	3.3	9000	0.045	CX-220
SCREEN GRID R-F AMPLIFIER	135	-1.5	45	5.6°	1.7	725000	375	270	—	—	C-22
SCREEN GRID R-F AMPLIFIER	135	-1.5	67.5	1.3°	3.7	525000	500	160	—	—	C-22
SCREEN GRID R-F AMPLIFIER	180	-3.0	90	1.7°	4.0	400000	1000	400	—	—	C-24-A
BIAS DETECTOR	275φ	-5.0 approx.	50 to 45	—	—	Plate current to be adjusted to 0.1 milliamperes with no signal.	1050	630	—	—	C-24-A
CLASS A AMPLIFIER	90	-7.0	—	—	2.9	8900	935	8.3	—	—	C-26
CLASS A AMPLIFIER	180	-14.5	—	—	6.2	7300	1150	8.3	—	—	C-26
CLASS A AMPLIFIER	135	-9.0	—	—	4.5	9000	1000	9.0	—	—	C-27
BIAS DETECTOR	250	-21.0	—	—	3.2	9250	975	9.0	—	—	C-27
CLASS A AMPLIFIER	90	-4.5	—	—	2.5	11000	850	9.3	—	—	C-30
CLASS A AMPLIFIER	135	-9.0	—	—	3.0	10300	900	9.3	—	—	C-30
CLASS A AMPLIFIER	180	-15.5	—	—	3.1	10300	900	9.3	—	—	C-30
CLASS A AMPLIFIER	135	-22.5	—	—	8.0	4100	925	3.6	7000	0.185	C-31
SCREEN GRID R-F AMPLIFIER	180	-3.0	67.5	0.4°	1.7	950000	650	610	5700	0.275	C-31
BIAS DETECTOR	180φ	-6.0 approx.	67.5	—	1.7	1200000	650	700	—	—	C-32
CLASS A AMPLIFIER	135	-13.5	135	3.0	14.5	50000	1450	70	7000	0.7	C-33
SCREEN GRID R-F AMPLIFIER	135	(-3.0) min.	67.5	1.0	2.8	600000	600	360	—	—	C-34
SCREEN GRID R-F AMPLIFIER	180	(-3.0) min.	67.5	1.0	2.8	1000000	620	620	—	—	C-34
SCREEN GRID R-F AMPLIFIER	180	(-3.0) min.	90	2.5°	6.5	300000	1020	305	—	—	C-35
SCREEN GRID R-F AMPLIFIER	250	(-3.0) min.	90	2.5°	6.5	400000	1050	430	—	—	C-35
*Applied through plate coupling resistor of 250000 ohms or 500-henry choke shunted by 0.25 megohm resistor. # Applied through plate coupling resistor of 100000 ohms.											

*Minimum.

Radio Tube Chart (Continued) ← RCA Radiotron - Cunningham → Radio Tube Chart (Continued)

TYPE	NAME	BASE	SOCKET CONNECTIONS	DIMENSIONS MAXIMUM OVERALL LENGTH x DIAMETER	CATHODE TYPE	RATING		
						FILAMENT OR HEATER		SCREEN
						VOLTS	AMPERES	MAX. VOLTS
RCA-36	R-F AMPLIFIER TETRODE	SMALL 8-PIN	FIG. 9	$4\frac{1}{2}'' \times 1\frac{1}{8}''$	HEATER	6.3	0.3	250 90
RCA-37	DETECTOR + AMPLIFIER TRIODE	SMALL 8-PIN	FIG. 8	$4\frac{1}{2}'' \times 1\frac{1}{8}''$	HEATER	6.3	0.3	250 —
RCA-38	POWER AMPLIFIER PENTODE	SMALL 8-PIN	FIG. 8A	$4\frac{1}{2}'' \times 1\frac{1}{8}''$	HEATER	6.3	0.3	250 250
RCA-39-44	SUPER-CONTROL R-F AMPLIFIER PENTODE	SMALL 8-PIN	FIG. 8A	$4\frac{1}{2}'' \times 1\frac{1}{8}''$	HEATER	6.3	0.3	250 90
UX-240	VOLTAJE AMPLIFIER TRIODE	MEDIUM 4-PIN	FIG. 1	$4\frac{1}{2}'' \times 1\frac{1}{8}''$	D-C FILAMENT	5.0	0.25	180 —
RCA-41	POWER AMPLIFIER PENTODE	SMALL 8-PIN	FIG. 15A	$4\frac{1}{2}'' \times 1\frac{1}{8}''$	HEATER	6.3	0.4	250 250
RCA-42	POWER AMPLIFIER PENTODE	MEDIUM 8-PIN	FIG. 15A	$4\frac{1}{2}'' \times 1\frac{1}{8}''$	HEATER	6.3	0.7	250 250
RCA-43	POWER AMPLIFIER PENTODE	MEDIUM 8-PIN	FIG. 15A	$4\frac{1}{2}'' \times 1\frac{1}{8}''$	HEATER	25.0	0.3	135 135
RCA-45	POWER AMPLIFIER TRIODE	MEDIUM 4-PIN	FIG. 1	$4\frac{1}{2}'' \times 1\frac{1}{8}''$	FILAMENT	2.5	1.5	275 —
RCA-48	DUAL-GRID POWER AMPLIFIER	MEDIUM 8-PIN	FIG. 7	$5\frac{1}{2}'' \times 2\frac{1}{8}''$	FILAMENT	2.5	1.75	250 —
RCA-47	POWER AMPLIFIER PENTODE	MEDIUM 8-PIN	FIG. 6	$5\frac{1}{2}'' \times 2\frac{1}{8}''$	FILAMENT	2.5	1.75	250 250
RCA-48	POWER AMPLIFIER TETRODE	MEDIUM 8-PIN	FIG. 18	$5\frac{1}{2}'' \times 2\frac{1}{8}''$	D-C HEATER	30.0	0.4	125 100

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

RCA-49	DUAL-GRID POWER AMPLIFIER	MEDIUM 8-PIN	FIG. 7	$4\frac{1}{2}'' \times 1\frac{1}{8}''$	D-C FILAMENT	2.0	0.120	135 — 180 —
UX-250	POWER AMPLIFIER TRIODE	MEDIUM 4-PIN	FIG. 1	$6\frac{1}{2}'' \times 2\frac{1}{8}''$	FILAMENT	7.5	1.25	450 —
RCA-53	TWIN-TRIODE AMPLIFIER	MEDIUM 7-PIN	FIG. 24	$4\frac{1}{2}'' \times 1\frac{1}{8}''$	HEATER	2.5	2.0	300 —
RCA-55	DUPLEX-DIODE TRIODE	SMALL 8-PIN	FIG. 13	$4\frac{1}{2}'' \times 1\frac{1}{8}''$	HEATER	2.5	1.0	250 —
RCA-56	SUPER-TRIODE AMPLIFIER DETECTOR*	SMALL 8-PIN	FIG. 8	$4\frac{1}{2}'' \times 1\frac{1}{8}''$	HEATER	2.5	1.0	250 —
RCA-57	TRIPLE-GRID AMPLIFIER DETECTOR	SMALL 8-PIN	FIG. 11	$4\frac{1}{2}'' \times 1\frac{1}{8}''$	HEATER	2.5	1.0	250 100
RCA-58	TRIPLE-GRID SUPER-CONTROL AMPLIFIER	SMALL 8-PIN	FIG. 11	$4\frac{1}{2}'' \times 1\frac{1}{8}''$	HEATER	2.5	1.0	250 100
RCA-59	TRIPLE-GRID POWER AMPLIFIER	MEDIUM 7-PIN	FIG. 18	$5\frac{1}{2}'' \times 2\frac{1}{8}''$	HEATER	2.5	2.0	250 — 250 250 400 —
RCA-71-A	POWER AMPLIFIER TRIODE	MEDIUM 4-PIN	FIG. 1	$4\frac{1}{2}'' \times 1\frac{1}{8}''$	FILAMENT	5.0	0.25	180 —
RCA-75	DUPLEX-DIODE HIGH-MU TRIODE	SMALL 8-PIN	FIG. 13	$4\frac{1}{2}'' \times 1\frac{1}{8}''$	HEATER	6.3	0.3	250 —
RCA-77	TRIPLE-GRID AMPLIFIER DETECTOR	SMALL 8-PIN	FIG. 11	$4\frac{1}{2}'' \times 1\frac{1}{8}''$	HEATER	6.3	0.3	250 100
RCA-78	TRIPLE-GRID SUPER-CONTROL AMPLIFIER	SMALL 8-PIN	FIG. 11	$4\frac{1}{2}'' \times 1\frac{1}{8}''$	HEATER	6.3	0.3	250 125

*For Grid-leak Detection—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 stated grid volts by $\frac{1}{4}$ (approx.) of filament voltage.

‡Requires different socket from small 7-pin.

USE	PLATE SUPPLY VOLTS	GRID VOLTS	SCREEN VOLTS	SCREEN MILLI- AMP.	PLATE MILLI- AMP.	A-C PLATE RESISTANCE OHMS	MUTUAL CON- DUCTANCE MICRO- MHMS	VOLT- AGE AMPLI- FICATION FACTOR	LOAD FOR STATED POWER OUTPUT OHMS	POWER OUT- PUT WATTS	TYPE	
SCREEN GRID R-F AMPLIFIER	100 180 250	- 1.5 - 3.0 - 3.0	55 90 90	— — 1.7*	1.8 3.1 3.2	550000 500000 500000	850 1050 1080	470 525 525	— — —	— — —	C - 36	
BIAS DETECTOR	100 250	- 5.0 - 8.0	55 90	— —	Plate current to be adjusted to 0.1 milliamperes with no signal.							
CLASS A AMPLIFIER	90 180 250	- 6.0 - 13.5 - 18.0	— — —	— — —	2.5 4.3 7.5	11500 10200 8400	800 900 1100	9.2 9.2 9.2	— — —	— — —	C - 37	
BIAS DETECTOR	90 250	- 10.0 - 28.0	— —	— —	Plate current to be adjusted to 0.2 milliamperes with no signal.							
CLASS A AMPLIFIER	100 180 250	- 9.0 - 18.0 - 25.0	100 180 250	1.2 2.4 3.8	7.0 14.0 22.0	140000 110000 100000	875 1050 1200	120 120 120	15000 11600 10000	0.37 1.00 2.50	C - 38	
SCREEN GRID R-F AMPLIFIER	90 180 250	(- 3.0) min.	90 90 90	1.6 1.4 1.4	5.6 5.8 5.8	375000 750000 1000000	960 1000 1050	360 750 1050	— — —	— — —	C - 39-44	
CLASS A AMPLIFIER	135 180 250	- 1.5 - 3.0	— — —	— — —	0.2 0.2	150000 150000	200 200	30 30	— — —	— — —	CX-340	
CLASS A AMPLIFIER	100 180 250	- 7.0 - 13.5 - 18.0	100 180 250	1.6 3.0 5.5	9.0 18.5 32.0	103500 81000 68000	1450 1850 2200	150 150 150	12000 9000 7600	0.33 1.50 3.40	C - 41	
CLASS A AMPLIFIER	250	- 16.5	250	6.5	34.0	100000	2200	220	7000	3.00	C - 42	
CLASS A AMPLIFIER	100 135	- 15.0 - 20.0	100 135	4.0 7.0	20.0 34.0	45000 35000	3000 2300	90 80	4500 4000	0.90 2.00	C - 43	
CLASS A AMPLIFIER	180 250	- 31.5 - 50.0	180 250	— —	34.0 36.0	1650 1700	2175 2050	3.5 3.5	2700 4600	0.83 2.00	C - 45	
CLASS A AMPLIFIER	250	- 33.0	—	—	22.0	2380	2350	5.6	6400	1.25	C - 46	
CLASS B AMPLIFIER	300 400	0 0	— —	— —	Power output values are for 2 tubes at indicated plate-to-plate load.				5200 5800	16.0 20.0	C - 46	
CLASS A AMPLIFIER	250	- 16.5	250	6.0	31.0	60000	2500	150	7000	2.7	C - 47	
CLASS A AMPLIFIER	95 125	- 20.0 - 22.5	95 100	9.0 9.0	47.0 50.0	10000 10000	2800 2800	28 28	2000 2000	1.6 2.5	C - 48	
*Applied through plate coupling resistor of 250000 ohms or 500-henry choke shunted by 0.25 megohm resistor.												
†Applied through plate coupling resistor of 250000 ohms.												
‡Two grids tied together.												
*Maximum.												
CLASS A AMPLIFIER	135	- 20.0	—	—	5.7	4000	1125	4.5	11000	0.17	C - 49	
CLASS B AMPLIFIER	180	0	—	—	Power output values are for 2 tubes at indicated plate-to-plate load.					12000	3.5	C - 49
CLASS A AMPLIFIER	300 400 450	- 54.0 - 70.0 - 84.0	— — —	— — —	35.0 55.0 55.0	2000 1800 1800	1900 2100 2100	3.8 3.8 3.8	4600 3670 4350	1.6 3.4 4.6	CX-350	
CLASS B AMPLIFIER	250 300	0 0	— —	— —	Power output value is for one tube at stated load, plate-to-plate.					8000 10000	8.0 10.0	C - 53
TRIODE UNIT AS CLASS A AMPLIFIER	135 180 250	- 10.5 - 13.5 - 20.0	— — —	— — —	3.7 6.0 8.0	11000 8500 7500	750 975 1100	8.3 8.3 8.3	25000 20000 20000	0.075 0.160 0.350	C - 55	
CLASS A AMPLIFIER	250	- 13.5	—	—	5.0	9500	1450	13.8	—	—	C - 58	
BIAS DETECTOR	250	- 20.0	—	—	Plate current to be adjusted to 0.2 milliamperes with no signal.							
SCREEN GRID R-F AMPLIFIER	250	- 3.0	100	0.5	2.0	exceeds 1.5 meg.	1225	exceeds 1500	— —	— —	C - 57	
BIAS DETECTOR	250	- 3.9	100	—	—	Cathode current 0.97 ma.	Plate coupling resistor 250000 ohms. Grid coupling resistor 250000 ohms**.					
SCREEN GRID R-F AMPLIFIER	250	(- 3.0) min.	100	2.0	8.2	800000	1600	1280	— —	— —	C - 58	
MIXER IN SUPERHETERODYNE	250	- 10.0	100	—	—	Oscillator peak volts = 7.0.						
AS TRIODE	250	- 28.0	—	—	26.0	2400	2600	6.0	5000	1.25		
AS PENTODE	250	- 18.0	250	9.0	35.0	40000	2500	100	6000	3.00	C - 59	
AS TRIODE	300 400	0 0	— —	— —	Power output values are for 2 tubes at indicated plate-to-plate load.					4600 6000	15.0 20.0	
CLASS A AMPLIFIER	90 180	- 19.0 - 42.0	— —	— —	10.0 20.0	2170 1750	1400 1700	3.0 3.0	3000 4800	0.125 0.790	C - 71-A	
TRIODE UNIT AS CLASS A AMPLIFIER	250	- 1.35	—	—	0.4	—	Gain per stage = 50-60				C - 75	
SCREEN GRID R-F AMPLIFIER	100 250	- 1.5 - 3.0	60 100	0.4 0.6	1.7 2.3	650000 1500000	1100 1250	715 1500	— —	— —	C - 77	
BIAS DETECTOR	250	- 1.95	50	—	—	Cathode current 0.65 ma.	Plate coupling resistor 250000 ohms. Grid coupling resistor 250000 ohms**.					
SCREEN GRID R-F AMPLIFIER	90 180 250	(- 3.0) min.	90 75 100	1.5 1.0 2.0	5.4 4.0 7.0	315000 1000000 800000	1275 1100 1450	400 1100 1160	— — —	— — —	C - 78	

**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. ‡Applied through plate coupling resistor of 250000 ohms. §Grids #1 and #2 connected together. Grid #3 tied to plate. **For grid of following tube.

Radio Tube Chart (Continued) ← RCA Radiotron-Cunningham → Radio Tube Chart (Continued)

TYPE	NAME	BASE	SOCKET CONNECTIONS	DIMENSIONS MAXIMUM OVERALL LENGTH X DIAMETER	CATHODE TYPE	RATING			
						FILAMENT OR HEATER		PLATE	SCREEN
						VOLTS	AMPERES	MAX. VOLTS	MAX. VOLTS
RCA- 79	TWIN-TRIODE AMPLIFIER	SMALL 8-PIN	FIG. 19	$4\frac{1}{2}" \times 1\frac{1}{8}"$	HEATER	6.3	0.6	250	—
RCA- 85	DUPLEX-DIODE TRIODE	SMALL 8-PIN	FIG. 13	$4\frac{1}{2}" \times 1\frac{1}{8}"$	HEATER	6.3	0.3	250	—
RCA- 89	TRIPLE-GRID POWER AMPLIFIER	SMALL 8-PIN	FIG. 14	$4\frac{1}{2}" \times 1\frac{1}{8}"$	HEATER	6.3	0.4	250	250
UV -199 UX -199	DETECTOR- AMPLIFIER TRIODE	SMALL 4-NUB SMALL 4-PIN	FIG. 10 FIG. 1	$3\frac{1}{2}" \times 1\frac{1}{8}"$ $4\frac{1}{2}" \times 1\frac{1}{8}"$	D-C FILAMENT	3.3	0.063	90	—
RCA-864	AMPLIFIER TRIODE	SMALL 4-PIN	FIG. 1	$4\frac{1}{2}" \times 1\frac{1}{8}"$	D-C FILAMENT	1.1	0.25	135	—

*For Grid-leak Detection—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 stated grid volts by $\frac{1}{4}$ (approx.) of filament voltage.

RECTIFIERS

RCA-523	FULL-WAVE RECTIFIER	MEDIUM 4-PIN	FIG. 2	$5\frac{1}{2}" \times 2\frac{1}{4}"$	FILAMENT	5.0	3.0	—	—
RCA-1223	HALF-WAVE RECTIFIER	SMALL 4-PIN	FIG. 22	$4\frac{1}{2}" \times 1\frac{1}{8}"$	HEATER	12.6	0.3	—	—
RCA-2525	RECTIFIER- DOUBLER	SMALL 8-PIN	FIG. 8	$4\frac{1}{2}" \times 1\frac{1}{8}"$	HEATER	25.0	0.3	—	—
RCA-1-v*	HALF-WAVE RECTIFIER	SMALL 4-PIN	FIG. 22	$4\frac{1}{2}" \times 1\frac{1}{8}"$	HEATER	6.3	0.3	—	—
RCA- 80	FULL-WAVE RECTIFIER	MEDIUM 4-PIN	FIG. 2	$4\frac{1}{2}" \times 1\frac{1}{8}"$	FILAMENT	5.0	2.0	—	—
UX -281	HALF-WAVE RECTIFIER	MEDIUM 4-PIN	FIG. 3	$6\frac{1}{2}" \times 2\frac{1}{8}"$	FILAMENT	7.5	1.25	—	—
RCA- 82	FULL-WAVE RECTIFIER	MEDIUM 4-PIN	FIG. 2	$4\frac{1}{2}" \times 1\frac{1}{8}"$	FILAMENT	2.5	3.0	—	—
RCA- 83	FULL-WAVE RECTIFIER	MEDIUM 4-PIN	FIG. 2	$5\frac{1}{2}" \times 2\frac{1}{8}"$	FILAMENT	5.0	3.0	—	—
RCA- 84 also 82d	FULL-WAVE RECTIFIER	SMALL 8-PIN	FIG. 23	$4\frac{1}{2}" \times 1\frac{1}{8}"$	HEATER	6.3	0.5	—	—
RCA-866	HALF-WAVE RECTIFIER	MEDIUM 4-PIN	FIG. 3 See Note E	$6\frac{1}{2}" \times 2\frac{1}{8}"$	FILAMENT	2.5	5.0	—	—

► Mercury Vapor Type. * Interchangeable with type 1.
 □ Plate connection made to top cap of tube.

PHOTOTUBES

RCA-868	PHOTOTUBE	SMALL 4-PIN	FIG. 1 See Note A	$4\frac{1}{2}" \times 1\frac{1}{8}"$	Note: Pins No. 1 and No. 3—No Con- nections, Pin No. 2—Anode (+), Pin No. 4—Cathode (—).				
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INDEX OF TYPES BY USE AND BY CATHODE VOLTAGE

CATHODE VOLTS	POWER AMPLIFIERS	VOLTAGE AMPLIFIERS Including Duplex-Diode Types	CONVERTERS IN SUPERHETERODYNES
1.1	—	11, 12, 864	—
1.5	—	26	—
2.0	19, 31, 33, 49	30, 32, 34	1A6
2.5	2A3, 2A5, 45, 46, 47, 53, 59	2A6, 2B7, 24-A, 27, 35, 55, 56, 57, 58	2A7
3.3	'20	22, '99	—
5.0	112-A, 71-A	01-A, '40, 112-A	—
6.3	6A4, 38, 41, 42, 79, 89	6B7, 6F7, 36, 37, 39-44, 75, 77, 78, 85	6A7, 6F7
7.5	10, '50	—	—
12.6	—	—	—
25.0	43	—	—
30.0	48	—	—

USE Values to right give operating conditions and characteristics for indicated typical use	PLATE SUP- PLY VOLTS	GRID VOLTS	SCREEN VOLTS	SCREEN MILLI- AMP.	PLATE MILLI- AMP.	A-C PLATE RESIS- TANCE OHMS	MUTUAL CON- DUCT- ANCE MICRO- MHOS	VOLT- AGE AMPLI- FICATION FACTOR	LOAD FOR STATED POWER OUTPUT OWMS	POWER OUT- PUT WATTS	TYPE
CLASS B AMPLIFIER	180 250	0 0	— —	— —	Power output value is for one tube at stated load, plate-to-plate				7000 14000	5.5 8.0	C - 79
TRIODE UNIT AS CLASS A AMPLIFIER	135 180 250	-10.5 -13.5 -20.0	— — —	— — —	3.7 6.0 8.0	11000 8500 7500	750 975 1100	8.3 8.3 8.3	25000 20000 20000	0.075 0.160 0.350	C - 85
AS TRIODE & CLASS A AMPLIFIER	160 180 250	-20.0 -22.5 -31.0	— — —	— — —	17.0 20.0 32.0	3300 3000 2600	1425 1550 1800	4.7 4.7 4.7	7000 6500 5500	0.300 0.400 0.800	C - 80
AS PENTODE == CLASS A AMPLIFIER	100 180 250	-10.0 -18.0 -25.0	100 180 250	1.6 3.0 5.5	9.5 20.0 32.0	104000 80000 70000	1200 1550 1800	125 125 125	10700 8000 6750	0.33 1.50 3.40	
AS TRIODE & CLASS B AMPLIFIER	180	0	—	—	Power output values are for 2 tubes operating at indicated plate-to-plate load.				13600 9400	2.50 3.50	
CLASS A AMPLIFIER	90	- 4.5	—	—	2.5	15500	425	6.6	—	—	C - 290 CX-290
CLASS A AMPLIFIER	90 135	- 4.5 - 9.0	— —	— —	2.9 3.5	13500 12700	610 645	8.2 8.2	—	—	C - 864

**Power output value is for one tube at stated load, plate-to-plate.
 †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.

RECTIFIERS

Maximum A-C Voltage per Plate	500 Volts, RMS		C - 523
Maximum D-C Output Current	350 Milliamperes		
Maximum A-C Voltage per Plate	250 Volts, RMS		C-1223
Maximum D-C Output Current	60 Milliamperes		
Maximum A-C Voltage per Plate	125 Volts, RMS		C-2525
Maximum D-C Output Current	100 Milliamperes		
Maximum A-C Voltage per Plate	350 Volts, RMS		C-1v*
Maximum D-C Output Current	50 Milliamperes		
A-C Voltage per Plate (Volts RMS)	350 400 550	The 550 volt rating applies to filter circuits having an input choke of at least 20 henries.	C - 80
D-C Output Current (Maximum MA.)	125 110 135		
Maximum A-C Plate Voltage	700 Volts, RMS		CX-381
Maximum D-C Output Current	85 Milliamperes		
Maximum A-C Voltage per Plate	500 Volts, RMS	Maximum Peak Inverse Voltage	1400 Volts
Maximum D-C Output Current	125 Milliamperes	Maximum Peak Plate Current	400 Milliamperes
Maximum A-C Voltage per Plate	500 Volts, RMS	Maximum Peak Inverse Voltage	1400 Volts
Maximum D-C Output Current	250 Milliamperes	Maximum Peak Plate Current	800 Milliamperes
Maximum A-C Voltage per Plate	225 Volts, RMS		C - 84
Maximum D-C Output Current	50 Milliamperes		
Maximum Peak Inverse Voltage	7500 Volts		C - 866
Maximum Peak Plate Current	0.6 Ampere		(CX-366)

PHOTOTUBES

Max. Anode Supply Voltage, 90 Volts. Max. Anode Current, 20 Microamperes.
 Static Sensitivity, 35 Microamperes per Lumen.
 Dynamic Sensitivity, 50 and 46 Microamperes per Lumen at 1000 and 5000 Cycles per second, respectively.

INDEX OF TYPES BY USE AND BY CATHODE VOLTAGE

DETECTORS	POWER TUBES IN SUPERHETERODYNES	RECTIFIERS	CATHODE VOLTS
11, 12, 864	—	—	1.1
—	—	—	1.5
30, 32	1A6, 34	—	2.0
2A6, 2B7, 24-A, 27, 55, 56, 57	2A7, 35, 58	82, 866 (C-366)	2.5
'99	—	—	3.3
00-A, 01-A, '40, 112-A	—	523, 80, 83	5.0
6B7, 6F7, 36, 37, 75, 77, 85	6A7, 6F7, 39-44, 78	1-v, 84	6.3
—	—	'81	7.5
—	—	1223	12.6
—	—	2525	25.0
—	—	—	30.0

Tube Symbols and Bottom Views of Socket Connections

Outline Dimensions of RCA Radiotron and Cunningham Radio Tube Types

This chart of tube dimensions is to be used in conjunction with the text. The bulb reference number for each tube is given under its CHARACTERISTICS.

The prefix letters of the bulb designation indicate the bulb shape; as S for "straight side," T for "tubular," ST for a combination of tubular and straight side, or "dome type." The suffix numbers of the bulb designations indicate the nominal maximum diameter of the bulb in eighths of inches, i.e., the diameter of the S-12 is 12 eighths, or 1 1/2".

