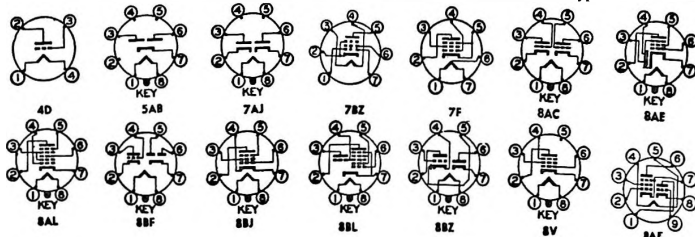


Tube Type	Classification by Construction	Base Connections	Out-line Dwg	Type Cathode	Filament Volts	Filament Amp	Max Plate Volts	Max Screen Volts	Capacitance in Micromicrofarads		
									Input	Out-put	Grid-plate
7K7	Duplex-Diode High-Mu Triode	8BF	9-30	Htr	6.3	0.3	250	—	—	—	—
7L7	Sharp-Cutoff Pentode	8V	9-30	Htr	6.3	0.3	300	125	8.0	6.5	0.01
7N7	Medium-Mu Twin Triode	8AC	9-31	Htr	6.3	0.6	300	—	—	—	—
7Q7	Pentagrid Converter	8AL	9-30	Htr	6.3	0.3	300	100	Osc $I_{g1} = 0.5$ ma $R_{g1} = 20,000$ ohms	—	—
7R7	Duplex-Diode Remote-Cutoff Pentode	8AE	9-30	Htr	6.3	0.3	250	125	5.6	5.3	0.004
7S7	Triode-Heptode Converter	8BL	9-30	Htr	6.3	0.3	300	100	Osc $I_{g1} = 0.4$ ma $R_{g1} = 50,000$ ohms	—	—
7T7	Sharp-Cutoff RF Pentode	8V	9-30	Htr	6.3	0.3	300	150	7.5	5.5	0.005
7V7	Sharp-Cutoff RF Pentode	8V	9-30	Htr	6.3	0.45	300	150	—	—	—
7W7	Sharp-Cutoff RF Pentode	8BJ	9-30	Htr	6.3	0.45	300	150	—	—	—
7X6	High-Vacuum Rectifier-Doubler	7AJ	9-31	Htr	6.3	1.2	Tube Voltage Drop: Δ 22 v at 150 ma d-c				
7X7	Duplex-Diode High-Mu Triode	8BZ	9-31	Htr	6.3	0.3	300	—	—	—	—
7Y4	Full-Wave High-Vacuum Rectifier	5AB	9-30	Htr	6.3	0.5	Tube Voltage Drop: Δ 22 v at 70 ma d-c				
7Z4	Full-Wave High-Vacuum Rectifier	5AB	9-31	Htr	6.3	0.9	Tube Voltage Drop: Δ 40 v at 100 ma				
9BM6	Power Amplifier Pentode	7BZ	5-3	Htr	9.5	0.3	250	250	8.0	5.5	0.5
9BW6	Beam Power Amplifier	9AM	6-3	Htr	9.45	0.3	315	285	—	—	—
9U8	Triode-Pentode	9AE	6-2	Htr	9.45	0.3	300	150	Pentode Section		
							300	—	Triode Section		
10	Power Amplifier Triode	4D	T-X	Fil	7.5	1.25	425	—	4.0	3.0	7.0
12A	Detector Amplifier Triode	4D	14-1	Fil	5.0 DC	0.25	180	—	4.0	2.0	8.5
12A4	Medium-Mu Triode	9AG	6-3	Htr	12.6 6.3	0.3 0.6	450	—	4.9	0.9	5.6
12A5	Power Amplifier Pentode	7F	12-5	Htr	12.6 6.3	0.3 0.6	180	180	—	—	—

Metal tubes are shown in bold-face type, miniature tubes in italics.

③ Subminiature type.



Service	Plate Volts	Screen Volts	Neg Grid Volts	Plate Milli-amperes	Screen Milli-amperes	R _p Ohms	G _m μ hos	# Factor	Load for Rated Out-put, Ohms	Power Out-put, Watts	Tube Type
Class A Amplifier	250	—	2.0	2.3	—	44,000	1,600	70	—	—	7K7
Class A Amplifier	250	100	1.5	4.5	1.5	1,000,000	3,100	—	—	—	7L7
Class A Amplifier	250	—	8.0	9.0	—	7,700	2,600	20	—	—	7N7
Converter	250	100	2.0	3.5	8.5	1,000,000	550 #	—	—	—	7Q7
Class A Amplifier	250 100	100 100	1.0 1.0	5.7 5.5	2.1 2.2	1,000,000 350,000	3,200 3,000	—	—	—	7R7
Converter	250	100	2.0	1.8	3.0	1,250,000	525 #	—	—	—	7S7
Class A Amplifier	250	150	1.0	10.8	4.1	900,000	4,900	—	—	—	7T7
Class A Amplifier	300	150	R _k = 180	10	3.9	300,000	5,800	—	—	—	7V7
Class A Amplifier	300	150	R _k = 160	10	3.9	300,000	5,800	—	—	—	7W7
Rectifier or Doubler	Max d-c output current per plate = 75 ma; max peak inverse voltage = 700 volts; rms supply voltage per plate = 235 volts; max peak current per plate = 450 ma										7X6
Class A Amplifier	250	—	1.0	1.9	—	67,000	1,500	100	—	—	7X7
Full-Wave Rectifier	Max d-c output current = 70 ma; max peak inverse voltage = 1250 volts; max rms supply voltage per plate = 325 volts; max peak current per plate = 210 ma										7Y4
Full-Wave Rectifier	Max d-c output current = 100 ma; max peak inverse voltage = 1,250 volts; max rms supply voltage per plate = 325 volts; max peak current per plate = 300 ma										7Z4
Class A Amplifier	250	250	6.0	30†	3.0†	60,000	7,000	—	7,000	3.5	9BM6
Class A Amplifier	250	250	12.5	45†	4.5†	52,000	4,100	—	5,000	4.5	9BW6
Class A Amplifier	250	110	R _k = 68	10	3.5	400,000	5,200	—	—	—	9U8
Class A Amplifier	150	—	R _k = 56	18	—	5,000	8,500	40	—	—	
Class A Amplifier	425	—	40	18†	—	5,000	1,600	8.0	10,200	1.6	10
Class A Amplifier	180	—	13.5	7.7†	—	4,700	1,800	8.5	10,650	0.285	12A
Vertical Deflection Amplifier	250	—	9.0	23	—	2,500	8,000	20	—	—	12A4
	Max positive pulse plate voltage; $\Phi = 1,000$ volts; max plate dissipation = 5.9 watts; max d-c cathode current = 30 ma										
Class A Amplifier	180	180	25	45†	8†	35,000	2,400	—	3,300	3.4	12A5
	100	100	15	17†	3†	50,000	1,700	—	4,600	0.8	

§ Approximate.

† Without external shield.

‡ Grids 3 and 5 are screen. Grid 4 is signal-input grid.

§ Conversion transconductance.

¶ Maximum.

♥ Grids 2 and 4 are screen. Grid 3 is signal-input grid.

✱ Screen supply voltage.

① Absolute maximum rating.

1. Plate-to-plate.

♣ Per section.

② For both sections.

* Minimum.

Ⓢ Heater warm-up time controlled for series-string service.

‡ Plate supply voltage.

|| Input plate.

— The duration of the pulse voltage must not exceed 15 percent of one scanning cycle.

1. Section 1.

2. Section 2.

♣ A resistor of 3 ohms must be put in series with heater.

