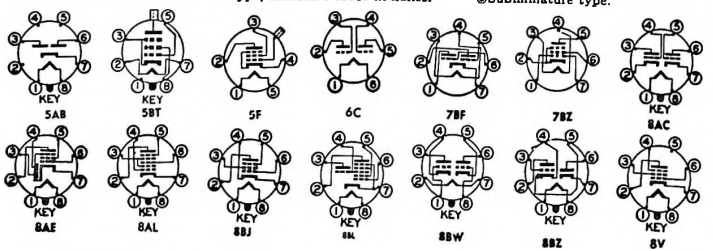
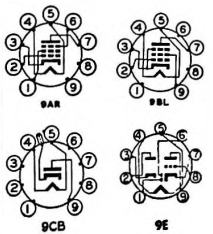
Tube Type	Classification by Construction	Base Connections	Outline Dwg	Type Cathode	Filament Volts	Filament Amp	Max Plate Volts	Max Screen Volts	Capacitance in Micromicrofarads: Input	Output	Grid-plate
14F8	High-Frequency Twin Triode	8BW	9–32	Htr	12.6	0.15	300	—	2.8	1.4	1.6
14H7	Semi-Remote-Cutoff RF Pentode	8V	9–30	Htr	12.6	0.15	300	150	8.0	7.0	0.004 ♣
14J7	Triode-Heptode Converter	8BL	9–30	Htr	12.6	0.15	300	100	Osc I_{g1} = 0.4 ma, R_{g1} = 50,000 ohms		
14N7	Medium-Mu Twin Triode	8AC	9–31	Htr	12.6	0.3	300	—	—	—	—
14Q7	Pentagrid Converter	8AL▼	9–30	Htr	12.6	0.15	300	100	Osc I_{g1} = 0.5 ma, R_{g1} = 20,000 ohms		
14R7	Duplex-Diode Remote-Cutoff Pentode	8AE	9–30	Htr	12.6	0.15	250	125	5.6	5.3	0.004 ♣
14S7	Triode-Heptode Converter	8BL	9–30	Htr	12.6	0.15	300	100	Osc I_{g1} = 0.4 ma, R_{g1} = 50,000 ohms		
14W7	Sharp-Cutoff RF Pentode	8BJ	9–30	Htr	12.6	0.225	300	150	—	—	—
14X7	Duplex-Diode High-Mu Triode	8BZ	9–31	Htr	12.6	0.15	300	—	—	—	—
14Y4	Full-Wave High-Vacuum Rectifier	5AB	9–30	Htr	12.6	0.3	Tube Voltage Drop: ♠ 22 v at 70 ma d-c				
15	Sharp-Cutoff RF Pentode	5F	12–6	Htr	2.0 DC	0.22	135	67.5	2.35▲	7.80▲	0.01
16A6	Sharp-Cutoff Pentode	9AR	6–4	Htr	15.0	0.3	250	250	—	—	—
16A5	Power Amplifier Pentode	9BL	6–4	Htr	16.5	0.3	250	250	11▲	5.9▲	1.0 ♣ ▲
17Z3	Half-Wave High-Vacuum Rectifier	9CB	T-X	Htr	17	0.3	—	—	—	—	—
19	Twin-Triode Power Amplifier	6C	12–5	Fil	2.0 DC	0.26	135	—	Both Sections in Push-pull		
19AQ5	Beam Power Amplifier	7BZ	5–3	Htr	18.9	0.15	250	250	—	—	—
19BG6-G	Beam Power Amplifier	5BT	16–5	Htr	18.9	0.3	700‖	350	12▲	6.5▲	0.34▲
19C8	Triple-Diode, High-Mu Triode	9E	6–2	Htr	18.9	0.15	250	—	—	—	—
19J6	Medium-Mu Twin Triode	7BF	5–2	Htr	18.9	0.15	300	—	2.0▲	0.4▲	1.5▲
19T8	Triple-Diode High-Mu Triode	9E	6–2	Htr	18.9	0.15	300	—	1.6▲	1.0▲	2.2▲

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



Service	Plate Volts	Screen Volts	Neg Grid Volts	Plate Milliamperes	Screen Milliamperes	$R_{p'}$ Ohms	$G_{m'}$ μmhos	μ Factor	Load for Rated Output, Ohms	Power Output, Watts	Tube Type
Class A Amplifier ♣	250	—	R_k = 500	6.0	—	—	3,300	48	—	—	14F8
Class A Amplifier	250	150	R_k = 180	10	3.2	800,000§	4,000	—	—	—	14H7
	100	100	1.5	7.5	2.6	350,000§	4,000	—	—	—	
Converter	250	100	3.0	1.4	2.8	1,500,000§	290 #	E_b (Triode Osc) = 250 thru 20,000 ohms; I_b (Triode) = 5.0 ma			14J7
Class A Amplifier ♣	250	—	8.0	9.0	—	7,700	2,600	20	—	—	14N7
Converter	250	100	2.0	3.5	8.5	1,000,000§	550 #	—	—	—	14Q7
Class A Amplifier	250	100	1.0	5.7	2.1	1,000,000§	3,200	—	—	—	14R7
	100	100	1.0	5.5	2.2	350,000§	3,000	—	—	—	
Converter	250	100	2.0	1.8	3.0	1,250,000§	525 #	(E_b Triode Osc) = 250 thru 20,000 ohms; I_b (Triode) = 5.0 ma			14S7
Class A Amplifier	300	150	R_k = 160	10	3.9	300,000	5,800	—	—	—	14W7
Class A Amplifier	250	—	1.0	1.9	—	67,000	1,500	100	—	—	14X7
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										14Y4
Class A Amplifier	135	67.5	1.5	1.85	0.3	800,000	750	—	—	—	15
Class A Amplifier	180	180	2.9	36	4.6	100,000	10,000	—	—	—	*16A6*
Class A Amplifier	170	170	10.4	53	10	20,000	9,000	—	3,000	4.0	*16A5*
TV Damper Service	Max d-c output current = 150 ma; max peak inverse voltage = 4,500 volts; max peak current = 450 ma										*17Z3*
Class B Amplifier	135	—	0	5.0† ♠	—	Input Signal = 0.170 watt§			10,000‡	2.1§	19
Class A Amplifier	250	250	12.5	45†	4.5†	52,000§	4,100	—	5,000	4.5	19AQ5
	180	180	8.5	29†	3.0†	58,000§	3,700	—	5,500	2.0	
Horizontal Deflection Amplifier	250	250	15	75	4	25,000§	6,000	—	—	—	19BG6-G
	60	250	0	180	18	—	—	—	—	—	
	Max positive pulse plate voltage◉ = 6,600 volts; max plate dissipation = 20 watts; max screen dissipation = 3.2 watts; max d-c cathode current = 110 ma										
Class A Amplifier	100	—	1.0	0.5	—	80,000	1,250	100	—	—	*19C8*
Class A Amplifier ♣	100	—	R_k = 150 ⊕	8.5	—	7,100	5,300	38	—	—	*19J6*
Class A Amplifier	250	—	3.0	1.0	—	58,000§	1,200	70	—	—	*19T8*
	100	—	1.0	0.8	—	54,000§	1,300	70	—	—	



♠Per section.
♣Maximum.
§ Approximate.
# Conversion transconductance.
▼Grids 2 and 4 are screen. Grid 3 is signal-input grid.
▲Without external shield.
‖—The duration of the pulse voltage must not exceed 15 percent of one scanning cycle.
† Zero signal.
‡ Plate-to-plate.
‖ Plate supply voltage.
◉Absolute maximum rating.
⊕For both sections.