

ENTERTAINMENT & AUDIO TUBES (Continued)

TYPE NO.	FILAMENT		TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS								
	Volts	Amps	Circuit Application	Applied Voltages			Plate Current (ma)	Screen Current (ma)	Amplification Factor	Plate Resistance (K ohms)	
				Plate	Screen	Grid					
6AL5	6.3	0.3	Full Wave Rectifier	117 ac rms (per plate)	—	—	Output Current 9dc (per plate)	Minimum Total Effective Plate Supply Impedance = 300 ohms.			
6AL5W	6.3	0.3	Ratio detector Dual Diode	—	—	—	9 (per plate)	Minimum Total Effective Plate Supply Impedance = 300 ohms.			
6AQ8/ECC85	6.3	0.435	RF Amplifier and Mixer	RF Amp 230	—	-2.0	10.0	—	57	9.7	
				Mixer 190	—	1	5.2	—	57	2.2	
6AT6	6.3	0.3	Duo Diode High Mu Triode	250	—	-3	1	—		58	
6AV6	6.3	0.3	Duo Diode High Mu Triode	250	—	-2	1.2	—	100	62	
6AU6	6.3	0.3	RF-IF Amplifier: Triode	250	Plate	—	12.2	—	36	—	
			RF-IF Amplifier: Pentode	250	150	6.5	10.6	4.3	36	1000	
6BA6	6.3	0.3	Remote cut-off RF Amplifier for broadcast receivers	250	100	-1	11	4.2	—	1 meg.	
6BE6	6.3	0.3	Frequency Converter for broadcast receivers	250	Eg 2-4 100	Eg 3 -1.5	2.9	Ig 2-4 6.8	—	1 meg	
6BL8/ECF80	6.3	0.43	AM/FM Oscillator	170	170	-2	10	2.8	47 ³	400	
			Mixer	100	—	-2	14	—	20	4	
6BM8/ECL82	6.3	0.78	Voltage Amplifier & Power Output Tube	V. Amp. 100	—	0	3.5	—	70	28.0	
				Output 170	170	-11.5	41	9.0	—	—	
6BQ5/EL84	6.3	0.76	Power Output Tube	300	300	-14.5	2 x 46	2 x 11	—	—	
6BX6/EF80	6.3	0.3	RF-IF Amplifier	250	250	-3.5	10	2.8	50	65	
6CA4/EZ81	6.3	1.0	Full Wave Rectifier	AC Supply (Plate-to-Plate) Voltage (RMS) = 2 x 350 volts DC Output Current (max.) = 150 ma Max. Capacity Condenser Input Filter = 50 μ f DC Output Voltage = 347 volts dc							
6CA7/EL34	6.3	1.5	Power Output Tube	800	400	-39	2 x 91	2 x 19	—	—	
6CM4	6.3	0.017	UHF Triode	175	—	-1.5	12	—			
6CW5/EL86	6.3	0.76	Medium Power Hi-Fi Amplifiers	250	200	-18.5	70	170	8	23	
6DA6/EF89	6.3	0.2	RF-IF Pentode	250	100	-1.95	9	3		900	
6DC8/EBF89	6.3	0.30	AM detector and AGC RF or IF Amplifier	200	—	—	0.8	—	—	—	
				250	100	2.0	9	2.7	20	1000	
6DJ8/ECC88	6.3	0.365	Cascode RF Amplifier Mixer	90	—	-1.3	15.0	—	33	2.65	
6DL4/EC88	6.3	0.18	RF grounded-grid amplifier	160	—	-1.25	12.5	—	65	—	
6DX8/ECL84	6.3	0.72	Video Output Tube: Pentode	—	220	—	18	3.1	—	3	
			Keyed AGC, Sync-Separation, Sync-Amplification, Noise Suppression: Triode	200	—	1.7	3	—	65	—	

¹Grid leak resistance = 1 megohm

²Conversion Conductance

³Grid 1 to Grid 2

					DESCRIPTION	TYPE NO.
Trans-conductance (micromhos)	Max. Power Output - 2 Tubes, Push-Pull Class B	Load Resistance (K ohms)	Cut-Off Bias (volts)			
					Miniature high-perveance twin diode for FM or TV detector, or as half or full-wave rectifier or doubler.	6AL5
					Premium Quality version of 6AL5. Resonant frequency 700 Mc.	6AL5W
6,000	—	—	—		Twin triode specifically designed for use in "front-end" stages of FM receivers as a combined RF Amplifier and self-oscillating additive mixer. Features extensive internal screening between the two triodes which reduces oscillator radiation. The high mutual conductance, input resistance and amplification factor make possible an average over-all "front-end" gain of 350.	6AQ8/ECC85
2,300 ²	—	—	—			
1,200	—	—	-5		For second detector audio amplifier service	6AT6
1,600	—	—	-4		For second detector audio amplifier service	6AV6
4,800	—	—	—		Sharp cut-off triode-pentode designed for use as high gain RF or IF amplifier. Valuable in UHF wide band applications.	6AU6
5,200	—	—	—			
4,400	—	—	-20		Miniature RF amplifier pentode with remote cut-off	6BA6
475 ²	—	—	Eg 3 -30		Miniature frequency convertor for superheterodyne circuits in both standard and FM band broadcast receivers.	6BE6
6,200	—	—	—		Single-envelope triode-pentode designed for applications in television and AM/FM receivers as a combined oscillator and mixer.	6BL8/ECF80
5,000	—	—	—			
2,200	—	—	—		Single-envelope triode-pentode designed for application in medium power hi-fi amplifiers. Suitable for one-tube phono amplifiers, simple stereo circuits and for vertical deflection in TV applications.	6BM8/ECL82
7,500	—	—	—			
11,300	17	8 Plate-to-Plate	—		High quality pentode designed especially for high fidelity audio systems. High efficiency with low distortion. High sensitivity. Exceedingly small spread in characteristics between individual tubes so that maximum rated output is obtained with all tubes.	6BQ5/EL84
	—	—	—		Pentode RF, IF, video amplifier or mixer in TV receivers	6BX6/EF80
					Indirectly heated, full-wave rectifier with 6.3 volt, 1 amp heater, 150 ma output capacity and 9 pin miniature construction.	6CA4/EZ81
11,300	100	11 Plate-to-Plate	—		High quality pentode designed especially for high fidelity audio systems. High efficiency with low distortion. High sensitivity. Exceedingly small spread in characteristics between individual tubes so that maximum rated output is obtained with all tubes.	6CA7/EL34
14,000					A high gain frame grid UHF triode	6CM4
10,000	25	—	—		High current, low voltage output pentode for use in medium power hi-fi amplifiers. Useful in single ended push-pull circuits. In a typical transformerless circuit, a pair of tubes can deliver up to 10 watts in class AB.	6CW5/EL86
	—	—	-20			
—	—	—	—		High gain remote cutoff pentode.	6DA6/EF89
3,800	—	—	—		Double diode pentode designed especially for use as an RF or IF amplifier. The diodes are for AM detection and AGC. The pentode features high mutual conduction — important in AM, FM and TV applications.	6DC8/EBF89
12,500	—	—	—		Twin triode designed for use in cascode circuits, RF and IF amplifiers, mixer and phase inverter stages. Frame grid construction provides high transconductance, low noise and extreme reproducibility of characteristics. Operation at low voltage has been successfully shown in DC coupled amplifiers and 12 volt B+, FM and VHF receivers.	6DJ8/ECC88
13,500	—	—	—		Single triode for use as an RF grounded grid amplifier in UHF tuners for TV receivers. Features higher RF gain and improved signal-to-noise ratio. Reduced oscillator radiation because of improved pinning sequence.	6DL4/EC88
9,700	—	—	—			
4,000	—	—	—			
					Triode-pentode with separate cathodes. Triode designed for use in circuits for keyed AGC, sync-separation, sync-amplification and noise suppression. The pentode is designed for use as a video output tube.	6DX8/ECL84