



HIGH QUALITY TUBES FOR HI-FI APPLICATIONS

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)	Transconductance (micromhos)	Max. Pow. 2 Tubes Class
				Plate	Screen	Grid						
EF86/6267	6.3	0.2	Voltage Amplifier	250	140	-2.0	3.0	0.6	-	2500	2000	-
ECC81/12AT7	12.6 6.3	0.15 0.30	Voltage Amplifier	250	-	-2.0	10.0	-	55	-	5500	-
ECC82/12AU7	12.6 6.3	0.15 0.30	Voltage Amplifier	250	-	-8.5	10.5	-	17	7.7	2200	-
ECC83/12AX7	12.6 6.3	0.15 0.30	Voltage Amplifier	250	-	-2.0	1.2	-	100	62.5	1600	-
ECC85/6AQ8	6.3	0.435	RF Amplifier and Mixer	RF Amp 230	-	-2.0	10.0	-	57	9.7	6000	-
				Mixer 190	-	**	5.2	-	57	2.2	2300†	-
EL84/6BQ5	6.3	0.76	Power Output Tube	300	300	-14.5	2 X 46	2 X 11	-	-	11,300	17
6CA7/EL34	6.3	1.5	Power Output Tube	800	400	-39	2 X 91	2 X 19	-	-	11,300	100
EZ80/6V4	6.3	0.6	Full Wave Rectifier	AC Supply (Plate-to-Plate) Voltage (RMS) = 2 X DC Output Current (max.) = 90 Max. Capacity Condenser Input Filter = 50 DC Output Voltage = 310								
EZ81/6CA4	6.3	1.0	Full Wave Rectifier	AC Supply (Plate-to-Plate) Voltage (RMS) = 2 X DC Output Current (max.) = 150 Max. Capacity Condenser Input Filter = 50 DC Output Voltage = 347								
GZ34/5AR4	5.0	1.9	Full wave Rectifier	AC Supply (Plate-to-Plate) Voltage (RMS) = 2 X DC Output Current (max.) = 250 Max. Capacity Condenser Input Filter = 60 DC Output Voltage = 610								

**Grid leak resistance = 1 megohm

† Conversion conductance



HYDROGEN THYRATRONS

TYPE NO.	Peak Forward Anode Voltage Max.	Peak Anode Current Max. (Amps)	Av. Anode Current Max. (mA)	Pulse Width Max.
6268/AX-9911	8,000	90	100	6 μ sec
6279/AX-9912	16,000	325	200	6 μ sec



SUB-MINIATURE TUBES (SCREEN GRID TYPES) - MAXIMUM RATINGS

TYPE NO.	Filament		Capacitances μ f			Plate		Grid #1 Volts	Grid #2 Volts	Plate	
	D-C Volts	Current mA	G-P	Input	Output	Volts	Diss. Milliwatts			Micro-Amps	Resistance Megohms
6007/5913	1.25	13.3	0.2	2.5	2.2	45	25	-0.2	45	475	0.4
6008/5911	0.625	13.3	0.2		1.5	45	1.5	-0.2	45	50	0.4

Output-Push-Pull B	Load Resistance (K ohms)	Cut-Off ^c Bias (volts)	DESCRIPTION	TYPE NO.
	-	-	High gain pentode particularly suitable for preamplifier and input stages in which hum, noise and microphony must be kept to a minimum. Electrode structure rigid. Heater is bifilar, twisted pair of wires with magnetic field of one opposed to that of the other.	EF86/6267
	-	-12.0	Medium-gain dual triode with low hum, noise and microphonics. Replaces the 12AT7 without circuit changes.	ECC81/12AT7
	-	-	Low noise dual triode with low hum, noise and microphonics. Replaces the 12AU7 without circuit changes.	ECC82/12AU7
	-	-	High-gain dual triode with low hum, noise and microphonics. Replaces the 12AX7 without circuit changes.	ECC83/12AX7
	-	-	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 overall "front-end" gain of 350.	ECC85/6AQ8
	-	-		
	8 Plate-to-Plate	-	High quality pentodes 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.	EL84/6BQ5
	11 Plate-to-Plate	-		6CA7/EL34
300 volts mA μ f Volts dc			Indirectly heated, full-wave rectifier with 90 mA output capacity and 9 pin miniature construction.	EZ80/6V4
350 volts mA μ f Volts dc			Indirectly heated, full-wave rectifier with 6.3 volt, 1 amp heater, 150 mA output capacity and 9 pin miniature construction.	EZ81/6CA4
550 volts mA μ f Volts dc			Indirectly heated, full-wave rectifier with 5.0 volt, 1.9 amp heater and 250 mA output capacity. Octal base.	GZ34/5AR4

DESCRIPTION	TYPE NO.
These tubes are used as drivers for pulsing magnetrons and other oscillators and as high speed switches. Hydrogen-filled, they have extremely low de-ionization time. They are zero bias tubes, triggered by a positive grid pulse. Maximum pulse repetition frequency (prf in pulses per second) will depend on the peak forward anode voltage (epy in volts) according to formula: $(epy)^2 \times (prf) = 2.6 \times 10^{11} \text{ max.}$	
Completely interchangeable with 4C35 in every respect except that it has self-contained source of hydrogen providing life expectancy of minimum 1000 hours.	6268/AX-9911
Completely interchangeable with 5C22 in every respect except that it has self-contained source of hydrogen providing life expectancy of minimum 1000 hours.	6279/AX-9912

Trans-conductance Micromhos	Output Milliwatts	DESCRIPTION	TYPE NO.
420	6	Radiation-cooled pentode output amplifier for hearing aids and other purposes, where small size, light weight and low battery drain are important. An ideal tube for receivers, etc.	6007/5913
100	2.25	Same as above except this tube is a voltage amplifier.	6008/5911