

**7408****BEAM POWER TUBE**

Glass octal type used as output amplifier tube in high-quality sound systems. Outlines section, 13D; requires octal socket.

Heater Voltage (ac/dc) .....	6.3	volts
Heater Current .....	0.45	ampere
Heater-Cathode Voltage:		
Peak value .....	±200	volts
Average value .....	100	volts
Direct Interelectrode Capacitances:		
Grid No.1 to Plate .....	0.7	pF
Grid No.1 to Cathode, Heater, Grid No.2, and Grid No.3 .....	.9	pF
Plate to Cathode, Heater, Grid No.2, and Grid No.3 .....	7.5	pF

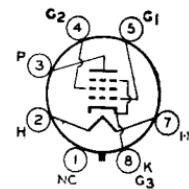
**7AC****Class A<sub>1</sub> Amplifier****MAXIMUM RATINGS (Design-Maximum Values)**

Plate Voltage .....	350	volts
Grid-No.2 (Screen-Grid) Voltage .....	315	volts
Grid-No.2 Input .....	2.2	watts
Plate Dissipation .....	14	watts

**TYPICAL OPERATION AND CHARACTERISTICS**

Plate Voltage .....	60	250	volts
Grid-No.2 Voltage .....	250	250	volts
Grid-No.1 (Control-Grid) Voltage .....	0	-12.5	volts
Peak AF Grid-No.1 Voltage .....	—	12.5	volts
Zero-Signal Plate Current .....	100*	45	mA
Maximum-Signal Plate Current .....	—	47	mA
Zero-Signal Grid-No.2 Current .....	22*	4.5	mA
Maximum-Signal Grid-No.2 Current .....	—	7	mA
Plate Resistance (Approx.) .....	—	50000	ohms
Transconductance .....	—	4100	μhos
Load Resistance .....	—	5000	ohms
Total Harmonic Distortion .....	—	7	per cent
Maximum-Signal Power Output .....	—	4.5	watts

**MAXIMUM CIRCUIT VALUES**

Grid-No.1-Circuit Resistance:			
For fixed-bias operation .....	0.1	megohm	
For cathode-bias operation .....	0.5	megohm	

\* This value can be measured by a method involving a recurrent waveform such that the maximum ratings of the tube will not be exceeded.

**7543****SHARP-CUTOFF PENTODE**

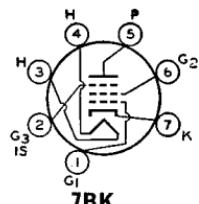
Miniature type used in compact audio equipment. Outlines section, 5C; requires miniature 7-contact socket. This type is identical with miniature type 6AU6A except that it has a controlled hum characteristic.

**HUM OUTPUT VOLTAGE**

Average Value (rms, cathode bypassed) .....	1.2†	millivolts
Average Value (rms, cathode unbypassed) .....	0.9*	millivolt

† Measured in "true rms" units under the following conditions: heater volts (ac), 6.3; center tap of heater transformer connected to ground; plate and grid-No.2 supply volts, 250; plate load resistor, 0.27 megohm; grid No.3 and internal shield connected to cathode at socket; grid-No.2 resistor, 0.68 megohm; grid-No.1 resistor, 0.1 megohm; cathode resistor, 1000 ohms; grid resistor of following stage, 10 megohms; and stage gain, 340.

\* Same conditions as above except that cathode resistor is unbypassed and stage gain is 110.

**7BK**