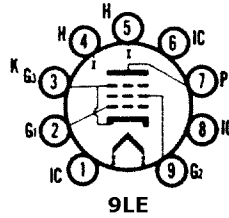


AUDIO POWER AMPLIFIER

7189A

Beam Power Pentode

Construction Miniature T-6½
 Base Button 9 Pin, E9-1
 Basing 9LE
 Outline 6-4
 Maximum Diameter 0.875 In.
 Maximum Seated Height 2.812 In.
 Maximum Overall Height 8.062 In.



ELECTRICAL DATA

HEATER OPERATION

Heater Voltage	6.3 Volts
Heater Current	760 Ma
Maximum Heater-Cathode Voltage	
Heater Negative with Respect to Cathode	100 Volts
Heater Positive with Respect to Cathode	100 Volts

DIRECT INTERELECTRODE CAPACITANCES

Grid No. 1 to Plate (Max.)	0.5 Pf
Input	10.8 Pf
Output	6.5 Pf
Grid No. 1 to Heater (Max.)	0.25 Pf

RATINGS (Design Maximum Rating System)

	Class AB Pentode Conn.	Class AB Ultra-linear Conn.
Plate Voltage (Max.)	440	415 Volts
Grid No. 2 Voltage (Max.) ⁽¹⁾	400	415 Volts
Plate Dissipation (Max.)	13.2	13.2 Watts
Grid No. 2 Dissipation (Zero Signal) (Max.)	2.2	2.2 Watts
Grid No. 2 Dissipation (Max. Signal) (Max.)	4.4	4.4 Watts
Cathode Current (Max.)	72	72 Ma
Grid No. 1 Circuit Resistance		
Fixed Bias (Max.)	0.3	0.3 Megohm
Cathode Bias (Max.)	1.0	1.0 Megohm

CHARACTERISTICS AND TYPICAL OPERATION

	Pentode Conn.		Ultra-linear
	Single Tube Class A1	Class AB Push-Pull	Conn. Class AB Push-Pull
Plate Voltage	250	400	375 Volts
Grid No. 2 Voltage	250	300	Note 1 Volts
Grid No. 1 Voltage	-7.3	-15	— Volts
Cathode Resistor	—	—	220 Ohms
Grid Voltage (RMS) ⁽²⁾	—	10.5	12.5 Volts
Plate Current (Zero Signal)	48	30	70 Ma
Plate Current (Max. Signal)	—	105	81 Ma
Grid No. 2 Current (Zero Signal)	5.5	1.6	— Ma
Grid No. 2 Current (Max. Signal)	—	25	— Ma
Transconductance	11.3K	—	— μmhos
Amplification Factor ⁽³⁾	19.5	—	—
Plate Resistance	40K	—	— Ohms
Load Resistance (P to P)	—	8K	11K Ohms
Maximum Signal Power Output	—	24	16.5 Watts
Total Harmonic Distortion	—	4.0	3 Percent

NOTES:

- (1) Grid No. 2 voltage is obtained from taps located at 43 percent of the output transformer windings.
- (2) Per grid
- (3) Measured from Grid No. 1 to Grid No. 2.