

The Type 6287 is a miniature audio beam-power pentode characterized by long life and stable performance. It is suitable for service where severe conditions of mechanical shock and vibration are encountered.

MECHANICAL DATA

GENERAL

Style miniature
 Cathode coated unipotential
 Bulb T-6 1/2
 Base E9-1, miniature button 9 pin
 Basing 9CT
 Connections:
 Pin 1 - cathode Pin 6 - plate
 Pin 2 - grid #2 Pin 7 - grid #2
 Pin 3 - plate Pin 8 - grid #1
 Pin 4 - heater Pin 9 - plate
 Pin 5 - heater

Outline 5-4
 Maximum Diameter 0.875 inch
 Maximum Overall Bulb Length.. 2.470 inches
 Mounting Position any

RATINGS(1)

Maximum Impact Acceleration(2) ... 450 g
 Maximum Uniform Acceleration(3).. 1,000 g
 Maximum Vibrational Acceleration
 for Extended Periods(4) 2.5 g
 Maximum Bulb Temperature 300 °C

ELECTRICAL DATA

GENERAL

Heater Voltage (ac or dc) 6.3 volts
 Heater Current 600 ma

Life Expectancy:
 200 °C Ambient Temperature.. 1,000 hours
 30 °C Ambient Temperature... 5,000 hours

Direct Interelectrode Capacitances:
 Grid #1 to Plate(max.) 1.1 μf
 Input 8.0 μf
 Output 9.0 μf

RATINGS(1)-Absolute Values

Heater Voltage(ac or dc)(5)... 6.3(±5%) volts
 Maximum Plate Voltage (dc)..... 275 volts
 Maximum Grid #2 Voltage (dc)... 275 volts
 Maximum Plate Dissipation 13.2 watts
 Maximum Grid #2 Dissipation ... 3.2 watts
 Maximum Cathode Current 85 ma
 Maximum Negative Grid #1
 Voltage 110 volts
 Maximum Heater-Cathode
 Voltage ±200 volts

CHARACTERISTICS

Conditions:
 Heater Voltage (ac or dc) ... 6.3 volts
 Plate Voltage (dc) 250 volts
 Grid #2 Voltage (dc) 250 volts
 Grid #1 Voltage (dc) -12.5 volts
 Plate Current 46 ma
 Grid #2 Current 5.0 ma
 Transconductance 4,100 μmhos
 Plate Resistance 55,000 ohms

Grid #1 Voltage for 10 μa
 Plate Current -60 volts

Noise Output Voltage(6),
 maximum 300 mv

TYPICAL OPERATION

Audio Amplifier
 Heater Voltage 6.3 volts
 Plate Voltage (dc) 250 volts
 Grid #2 Voltage (dc) 250 volts
 Grid #1 Voltage (dc) -12.5 volts
 Plate Load Resistor 6,000 ohms
 Grid #1 Signal Voltage (ac) ... 8.8 volts
 Plate Current 48 ma
 Grid #2 Current 10.5 ma
 Power Output 4.5 watts
 Total Harmonic Distortion 9.0 %

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(See page 2 for Notes)

Notes

- (1) Limitations beyond which normal tube performance and tube life may be impaired.
- (2) Forces in any direction as applied by the Navy Type High Impact (Flyweight) Shock Machine for Electronic Devices, or equivalent.
- (3) Forces in any direction applied gradually, as in centrifuge.
- (4) Vibrational forces in any direction at 60 cycles per second for a period exceeding 100 hours.
- (5) Tube life and reliability of performance are directly related to the degree of regulation of the heater voltage to its center-rated value of 6.3 volts.
- (6) Across plate resistor of 2,000 ohms, with applied vibrational acceleration of 2.5 g at 25 cycles per second.