

## JETEC Registration Data

## PENTODE

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)

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Notes

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- (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.