

File Catalog: Special Purpose Electron Tubes  
 Section: Receiving Tubes



Red Bank Type TE-32  
 (Generic Type One  
 Section of 6080)

# METAL-CERAMIC MINIATURE LOW MU TRIODE

## MECHANICAL DATA

Bulb Temperature	500° C Max.
Overall Length	2-13/16 inches Max.
Overall Height	2-3/32 inches Max.
Diameter	3/4 inches Max.
Base	Seven pin miniature
Mounting Position	Any

## PIN CONNECTIONS

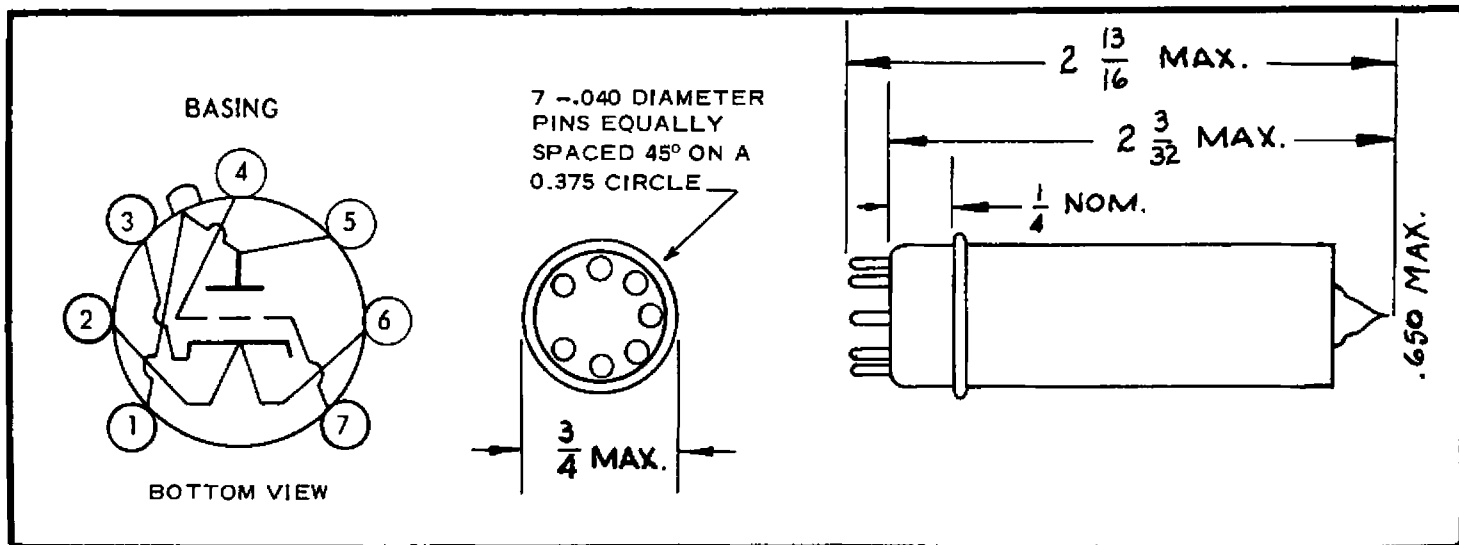
Pin	Element
1	Plate
2	Heater
3	Cathode
4	Grid
5	Plate
6	Heater
7	Grid
Bulb	Plate

## DESCRIPTION

The Bendix 7312, one of the Bendix HY-G-500 line of receiving tubes, is a low mu triode, designed for use in voltage regulator circuits in aircraft, missile and industrial applications where limited space and high ambient temperatures up to 500° C are extremely important. The tube features an external anode with metal-ceramic construction which permits operation in which auxiliary cooling may be used, either by immersion in oil or by clamping of the bulb to a suitable heat sink.

The electrical connections for the remaining elements are by means of the seven pin miniature tube base and the tube may be operated in any position.

The internal structure employs ceramic element spacers and the much smaller size and mass of the tube elements greatly increase resistance to damage by vibration and shock. A pure alumina heater insulator permits operation at high heater-cathode voltages.



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## RATINGS

Heater Voltage (AC or DC)	6.3	Volts
Heater Current	1.25	Amps
Plate Voltage (Maximum DC)	275	Volts
Plate Dissipation (Absolute Max.)	20	Watts
Grid Current (Absolute Max.)	5.0	Milliamperes
Grid Circuit Resistance		
With Fixed Bias (Max.)	0.05	Megohm
With Cathode Bias (Max.)	0.10	Megohm
With any combination of fixed and cathode bias	0.05	Megohm
Heater-Cathode Voltage (Absolute Max.)	±450	Volts

## TYPICAL OPERATION

### Class A<sub>1</sub> Amplifier

Plate Supply Voltage	135	Volts
Cathode Bias Resistor	250	Ohms
Amplification Factor	2	
Plate Resistance	280	Ohms
Transconductance	7000	Micromhos
Plate Current	125	Milliamperes