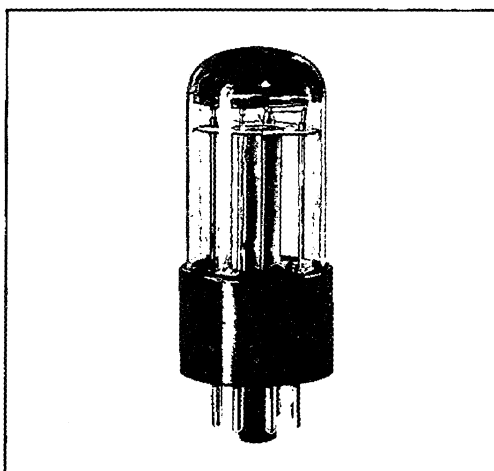




TEMPERATURE LIMITED DIODE



DESCRIPTION

This temperature limited diode is designed for use as a stable reference source for voltage regulator applications, or for use in circuits requiring a tube with temperature limited emission characteristics. Temperature limited operation of the tube causes anode current to become a direct function of filament voltage, and thus small changes in applied filament voltage will produce relatively large changes in anode current. The use of a pure tungsten filament permits continuous use of the tube in the temperature limited region without change or damage to the filament during the life of the tube. Close control of critical dimensions and a processing schedule designed to eliminate residual gas content, provide a tube with highly stable characteristics held to close tolerances.

RATINGS

Anode voltage.....	90 volts DC
Anode current.....	1.5 ma DC
Filament voltage required to give rated anode current.....	4.44 volts ($\pm 2.5\%$) AC or DC
Filament current.....	1.75 amp. AC or DC
Long term filament stability.....	1%

PHYSICAL CHARACTERISTICS

Base.....	Intermediate shell octal, 8-pin micanol
Bulb.....	T-9
Max. overall length.....	3 $\frac{1}{4}$ in.
Max. seated height.....	2 $\frac{1}{16}$ in.
Max. diameter.....	1 $\frac{5}{16}$ in.
Mounting position.....	Base down or base up

MAXIMUM RATINGS

The ratings given above should be closely followed when the tube is used in circuits where stable operating characteristics and long service life are of prime importance. However, the ratings can be increased to the absolute limits specified below with a corresponding reduction in stability of operating characteristics and decrease in service life. (Refer to graphs on the reverse side of this sheet.)

Anode voltage.....	250 volts DC
Anode current.....	45 ma. DC
Anode dissipation.....	7 watts
Filament voltage.....	6.5 volts AC or DC
Filament current.....	2.2 amp. AC or DC

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