DIODE

TUNG-SOL

UNIPOTENTIAL CATHODE
HEATER
6.3±0.6 VOLTS 1.2 AMP.

ANY MOUNTING POSITION

A SOCKET PINS 1, 2, 4 & 6 MUST
NOT BE USED AS TIE POINTS.

GLASS BULB

BOTTOM VIEW

SHORT INTERMEDIATE SHELL
5 PIN OCTAL
WITH BARRIERS

THE 60A4A IS A SINGLE INDIRECTLY-HEATED DIODE INTENDED FOR USE IN TELEVISION HORIZONTAL FREQUENCY DAMPER SERVICE. IT IS DESIGNED TO WITHSTAND HIGH VOLTAGE PULSES BETWEEN CATHODE AND BOTH HEATER AND PLATE ELEMENTS SUCH AS NORMALIY ENCOUNTERED IN "DIRECT DRIVE" CIRCUITS.

DIRECT INTERELECTRODE CAPACITANCES - APPROX.
HEATER TO CATHODE: H TO K
CATHODE TO PLATE AND HEATER: K TO (P + H)
PLATE TO CATHODE AND HEATER: P TO (K + H)

RATINGS
INTERPRETED ACCORDING TO DESIGN MAXIMUM SYSTEM

HEATER VOLTAGE
6.3±0.6 VOLTS
MAXIMUM PEAK INVERSE PLATE VOLTAGE
5000 VOLTS
MAXIMUM DC PLATE CURRENT
185 MA.
MAXIMUM STEADY STATE PEAK PLATE CURRENT
900 MA.
MAXIMUM PLATE DISSIPATION
8.0 WATTS
MAXIMUM HEATER-CATHODE VOLTAGE
HEATER NEGATIVE WITH RESPECT TO CATHODE
DC
TOTAL DC AND PEAK

1000 VOLTS
5000 VOLTS

HEATER POSITIVE WITH RESPECT TO CATHODE
DC
TOTAL DC AND PEAK

100 VOLTS
300 VOLTS

AVERAGE CHARACTERISTICS

HEATER VOLTAGE
6.3±0.6 VOLTS
HEATER CURRENT
1.2 AMP.
TUBE VOLTAGE DROP
(WITH TUBE CONDUCTING PLATE CURRENT — 340 MA.)
30 VOLTS

DESIGN-MAXIMUM RATINGS ARE LIMITING VALUES OF OPERATING AND ENVIRONMENTAL CONDITIONS APPLICABLE TO A BOGIE ELECTRON DEVICE OF A SPECIFIED TYPE AS DEFINED BY ITS PUBLISHED DATA, AND SHOULD NOT BE EXCEEDED UNDER THE WORST PROBABLE CONDITIONS. THE DEVICE MANUFACTURER Chooses THESE VALUES TO PROVIDE ACCEPTABLE SERVICEABILITY OF THE DEVICE, TAKING RESPONSIBILITY FOR THE EFFECTS OF CHANGES IN OPERATING CONDITIONS DUE TO VARIATIONS IN DEVICE CHARACTERISTICS. THE EQUIPMENT MANUFACTURER SHOULD DESIGN SO THAT INITIALLY AND THROUGHOUT LIFE NO DESIGN-MAXIMUM VALUE FOR THE INTENDED SERVICE IS EXCEEDED WITH A BOGIE DEVICE UNDER THE WORST PROBABLE OPERATING CONDITIONS WITH RESPECT TO SUPPLY-VOLTAGE VARIATION, EQUIPMENT COMPONENT VARIATION, EQUIPMENT CONTROL ADJUSTMENT, LOAD VARIATION, SIGNAL VARIATION, AND ENVIRONMENTAL CONDITIONS.
The equipment designer shall so design the equipment that the heater current is at the specified logic value. Heater supply variations should be restricted so that the heater current will be maintained within the specified tolerance.

For operation in a 525-line, 25-frame system as described in "STANDARDS OF GOOD ENGINEERING PRACTICE FOR TELEVISION BROADCAST STATIONS: FEDERAL COMMUNICATIONS COMMISSION", the duty cycle of the voltage pulse must not exceed 3% of one scanning cycle.