TUNG-SOL

DIODE

COATED UNIPOTENTIAL CATHODE

HEATER
18.9 VOLTS 0.6 AMP.
AC OR DC
ANY MOUNTING POSITION

BOTTOM VIEW
SHORT INTERMEDIATE
SHELL 5 OR 6 PIN
OCTAL

SOCKET TERMINALS #1, #2,
#4 AND #6 SHOULD NOT BE
USED AS TIE POINTS, PIN
#1 OMITTED ON 5-PIN BASE,

THE 19AU4 AND 19AU4GTA ARE SINGLE INDIRECTLY-HEATED DIODES INTENDED FOR USE IN TELEVISION HORIZONTAL FREQUENCY DAMPER SERVICE. THEY ARE DESIGNED TO WITHSTAND HIGH VOLTAGE PULSES OF LINE FREQUENCY BETWEEN CATHODE AND BOTH HEATER AND PLATE ELEMENTS SUCH AS ARE NORMALLY ENCOUNTERED IN "DIRECT DRIVE" CIRCUITS. EXCEPT FOR THE HIGHER MAXIMUM DC OUTPUT CURRENT AND PEAK PLATE CURRENT OF THE 19AU4GTA, THE TWO TUBES ARE IDENTICAL.

DIRECT IntERELECTRODE CapacITANCES.

HEATER TO CATHODE: (H TO K) 4.0 µµF
PLATE TO CATHODE AND HEATER: P TO (H+K) 8.5 µµF
CATHODE TO PLATE AND HEATER: K TO (P+H) 11.5 µµF

RATINGS

INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM

DAMPER DIODE

HEATER VOLTAGE
18.9 VOLTS
MAXIMUM HEATER CATHODE VOLTAGE:
HEATER NEGATIVE WITH RESPECT TO CATHODE
DC 900 VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE
DC 4500 VOLTS
TOTAL DC AND PEAK (ABSOLUTE MAXIMUM)
300 VOLTS

MAXIMUM PEAK INVERSE PLATE VOLTAGE (ABSOLUTE MAXIMUM)
4500 VOLTS
MAXIMUM DC PLATE CURRENT 190 MA.
MAXIMUM STEADY STATE PEAK PLATE CURRENT 150 MA.
MAXIMUM PLATE DISSIPATION 6.0 WATTS
AVERAGE TUBE VOLTAGE DROP (WITH TUBE CONDUCTING 350 MA.)
25 VOLTS
HEATER WARM-UP TIME (APPROX.) 11.0 SECONDS

B FOR OPERATION IN A 525-LINE, 30-FRAME SYSTEM AS DESCRIBED IN "STANDARDS OF GOOD ENGINEERING PRACTICE FOR TELEVISION BROADCASTING STATIONS; FEDERAL COMMUNICATIONS COMMISSION", THE DUTY CYCLE OF THE HORIZONTAL VOLTAGE PULSE, NOT TO EXCEED 1% OF SCANNING CYCLE.

* HEATER WARM-UP TIME IS DEFINED AS THE TIME REQUIRED FOR THE VOLTAGE ACROSS THE HEATER TO REACH 80% OF ITS RATED VOLTAGE AFTER APPLYING 4 TIMES RATED HEATER VOLTAGE TO A CIRCUIT CONSISTING OF THE TUBE HEATER IN SERIES WITH A RESISTANCE OF VALUE 3 TIMES THE NOMINAL HEATER OPERATING RESISTANCE.

A VALUES FOR 19AU4GTA.

B WITHOUT EXTERNAL SHIELD.
$E_f = 18.9$ Volts