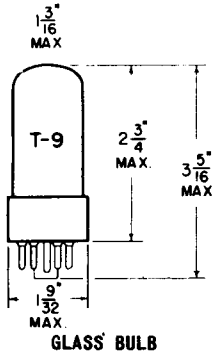
TUNG-SOL

DIODE



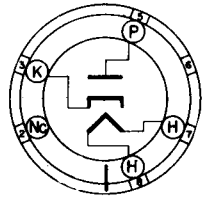
GLASS BULB

COATED UNIPOTENTIAL CATHODE

HEATER

12.6 VOLTS 0.6±6% AMP.
AC OR DC

ANY MOUNTING POSITION



BOTTOM VIEW
INTERMEDIATE-SHELL
5 PIN OCTAL
4QG

THE 12AX4GTB IS A HEATER-CATHODE-TYPE SINGLE DIODE INTENDED FOR USE AS THE DAMPING DIODE IN THE HORIZONTAL-DEFLECTION CIRCUIT OF TELEVISION RECEIVERS. IT IS PARTICULARLY USEFUL IN AUTOTRANSFORMER DEFLECTION SYSTEMS IN WHICH HIGH PULSE VOLTAGES ARE APPLIED TO THE CATHODE OF THE DAMPER TUBE.

EXCEPT FOR HEATER RATINGS, THE 12AX4GTB IS IDENTICAL TO THE 6AX4GTB AND ← IS UNILATERALLY INTERCHANGEABLE WITH THE 12AX4GTA.

DIRECT INTERELECTRODE CAPACITANCES - APPROX.
WITHOUT EXTERNAL SHIELD

CATHODE TO PLATE AND HEATER	8.5	μμf
PLATE TO CATHODE AND HEATER	5.0	μμf
HEATER TO CATHODE	4.0	μμf

RATINGS
INTERPRETED ACCORDING TO DESIGN MAXIMUM SYSTEM[A]

TV DAMPER SERVICE

HEATER VOLTAGE	12.6	VOLTS
MAXIMUM PEAK INVERSE PLATE VOLTAGE	5000	VOLTS
MAXIMUM PLATE DISSIPATION	5.3	WATTS
MAXIMUM STEADY-STATE PEAK PLATE CURRENT	1000	MA.
MAXIMUM DC OUTPUT CURRENT	165	MA.
MAXIMUM HEATER-CATHODE VOLTAGE:		
HEATER POSITIVE WITH RESPECT TO CATHODE		
DC COMPONENT	100	VOLTS
TOTAL DC AND PEAK	300	VOLTS
HEATER NEGATIVE WITH RESPECT TO CATHODE		
DC COMPONENT	900	VOLTS
TOTAL DC AND PEAK	5000	VOLTS
HEATER WARM-UP TIME (APPROX.)*	11.0	SECONDS

→INDICATES A CHANGE

*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.

CONTINUED ON FOLLOWING PAGE

TUNG-SOL

CONTINUED FROM PRECEDING PAGE

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

AVERAGE CHARACTERISTICS

HEATER VOLTAGE	12.6	VOLTS
HEATER CURRENT	0.6±6%	AMP.
TUBE VOLTAGE DROP I_b=250 MA. DC	32	VOLTS

NOTE:

OPERATION OF THIS TUBE AS A POWER RECTIFIER IS NOT RECOMMENDED.

[A] FOR OPERATION IN A 525-LINE, 30-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 15% OF ONE SCANNING CYCLE.

DESIGN-MAXIMUM RATINGS ARE LIMITING VALUES OF OPERATING AND ENVIRONMENTAL CONDITIONS APPLICABLE TO A BOGEY 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 BOGEY 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.