

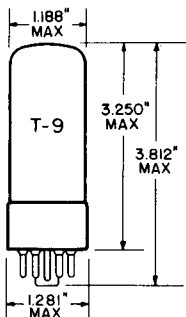
**TUNG-SOL**

DIODE

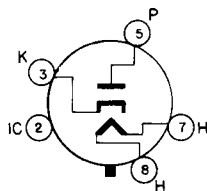
FOR DAMPER SERVICE IN  
TELEVISION RECEIVERS

COATED UNIPOTENTIAL CATHODE

ANY MOUNTING POSITION



GLASS BULB  
SHORT INTERMEDIATE SHELL  
5 PIN OCTAL BASE B5-85  
OUTLINE DRAWING  
JEDEC 9-44



BOTTOM VIEW

BASING DIAGRAM  
JEDEC 4CG

SOCKET TERMINALS 1,2,4 & 6,  
SHOULD NOT BE USED AS  
TIE POINTS.

THE 12DM4A IS AN INDIRECTLY-HEATED HALF-WAVE RECTIFIER EMPLOYING A T-9 ENVELOPE. IT IS DESIGNED SPECIFICALLY FOR USE AS A DAMPER DIODE IN HORIZONTAL DEFLECTION CIRCUITS OF TELEVISION RECEIVERS.

EXCEPT FOR HEATER CHARACTERISTICS AND RATINGS, THE 12DM4A IS IDENTICAL TO THE 6DM4A AND THE 17DM4A.

ALSO, THE 12DM4A IS IDENTICAL TO THE 12DM4 EXCEPT FOR HIGHER PLATE CURRENT RATINGS.

**DIRECT INTERELECTRODE CAPACITANCES**

HEATER TO CATHODE	4	pf
PLATE TO CATHODE	8.5	pf
CATHODE TO PLATE AND HEATER	11.5	pf

**HEATER CHARACTERISTICS AND RATINGS**

DESIGN MAXIMUM VALUES - SEE EIA STANDARD RS-239

AVERAGE CHARACTERISTICS	12.6	VOLTS	600	MA.
HEATER WARM-UP TIME <sup>A</sup>			11	SECONDS
HEATER SUPPLY LIMITS:				
CURRENT OPERATION			600 ± 40	MA.
MAXIMUM HEATER-CATHODE VOLTAGE:				
HEATER NEGATIVE WITH RESPECT TO CATHODE			900	VOLTS
TOTAL DC AND PEAK			5000	VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE			100	VOLTS
TOTAL DC AND PEAK			300	VOLTS

A

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 THREE TIMES THE NOMINAL HEATER OPERATING RESISTANCE.

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**TUNG-SOL**

CONTINUED FROM PRECEDING PAGE

**MAXIMUM RATINGS**

DESIGN MAXIMUM VALUES - SEE EIA STANDARD RS-239

**DAMPER SERVICE<sup>B</sup>**

PEAK INVERSE VOLTAGE	5000	VOLTS
PEAK PLATE CURRENT	1200	MA.
DC PLATE CURRENT	200	MA.
PLATE DISSIPATION	6.5	WATTS

**CHARACTERISTICS**

VOLTAGE DROP AT $I_b = 400$ MA.	35	VOLTS
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<sup>B</sup>

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 VOLTAGE PULSE NOT TO EXCEED 15 PERCENT OF A SCANNING CYCLE.

