TUNG-SOL

DIODE

UNIPOTENTIAL CATHODE
FOR DAMPER SERVICE IN
TELEVISION RECEIVERS
ANY MOUNTING POSITION

GLASS BULB
SHADE INTERMEDIATE SHELL
5 PIN OCTAL WITH
EXTERNAL BARRIERS
85-85
OUTLINE DRAWING
JEDEC 9-44

THE 12DM4 IS A HALF-WAVE VACUUM RECTIFIER EMPLOYING A T-9 ENVELOPE. IT IS
DESIGNED SPECIFICALLY FOR USE AS A DAMPER DIODE IN HORIZONTAL-DEFLECTION
CIRCUITS OF BLACK-AND-WHITE TELEVISION RECEIVERS. EXCEPT FOR HEATER
CHARACTERISTICS AND HEATER WARM-UP TIME, THE 12DM4 IS IDENTICAL TO THE

DIRECT INTERELECTRODE CAPACITANCES – APPROX.
WITHOUT EXTERNAL SHIELD

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

HEATER CHARACTERISTICS AND RATINGS
DESIGN MAXIMUM VALUES – SEE E1A STANDARD RS-239

AVERAGE CHARACTERISTICS  12.6 VOLTS  600 MA.
HEATER SUPPLY LIMITS:
VOLTAGE OPERATION  600±36 MA.
MAXIMUM PEAK HEATER CATHODE VOLTAGE:
HEATER NEGATIVE WITH RESPECT TO CATHODE  5000A VOLTS
HEATER, POSITIVE WITH RESPECT TO CATHODE  300B VOLTS

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MAXIMUM RATINGS

DESIGN MAXIMUM VALUES—SEE EIA STANDARD RS-239

DAMPER SERVICE

PEAK INVERSE PLATE VOLTAGE  5000\(^D\)  Volts
PEAK PLATE CURRENT  1100  mA.
DC PLATE CURRENT  175  mA.
PLATE DISSIPATION  6.5  Watts

CHARACTERISTICS

TUBE VOLTAGE DROP FOR PLATE CURRENT OF 400 MA. APPROXIMATE  35  Volts

\(^A\) THE DC COMPONENT MUST NOT EXCEED 900 VOLTS.

\(^B\) THE DC COMPONENT MUST NOT EXCEED 100 VOLTS.

\(^D\) 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. (15% OF ONE HORIZONTAL SCANNING CYCLE IS 20 MICROSECONDS.)