THE 17AX3 IS A HEATER-CATHODE SINGLE DIODE IN THE COMPACT 12 PIN T-9 CONSTRUCTION. ITS HIGH HEATER AND CATHODE INSULATION IS DESIGNED FOR USE AS A DAMPING DIODE IN T.V. RECEIVERS.

DIRECT INTERELECTRODE CAPACITANCES
WITHOUT EXTERNAL SHIELD

CATHODE TO PLATE AND HEATER: K TO (P+H) 7.5 pf
PLATE TO CATHODE AND HEATER: P TO (K+H 5.5 pf
HEATER TO CATHODE: (H TO K) 2.8 pf

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

AVERAGE CHARACTERISTICS
HEATER WARM-UP TIME* 16.8 VOLTS 11 SECONDS
HEATER WARM-UP TIME* 450 MA.

HEATER SUPPLY LIMITS:
CURRENT OPERATION 450±30 MA.
MAXIMUM HEATER-CATHODE VOLTAGE:
HEATER NEGATIVE WITH RESPECT TO CATHODE 900 VOLTS
DC COMPONENT 5000 VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE 100 VOLTS
DC COMPONENT 300 VOLTS
TOTAL DC AND PEAK

A FOR SERIES HEATER OPERATION, THE EQUIPMENT DESIGNER SHALL SO DESIGN THE EQUIPMENT THAT THE HEATER CURRENT IS AT THE SPECIFIED BOGEY VALUE, WITH HEATER SUPPLY VARIATIONS RESTRICTED TO MAINTAIN HEATER CURRENT WITHIN THE SPECIFIED TOLERANCE.

CONTINUED ON FOLLOWING PAGE
TUNG-SOL

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MAXIMUM RATINGS\(^\text{B}\)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEAK INVERSE PLATE VOLTAGE</td>
<td>5000 Volts</td>
</tr>
<tr>
<td>PLATE DISSIPATION</td>
<td>5.3 Watts</td>
</tr>
<tr>
<td>STEADY-STATE PEAK PLATE CURRENT</td>
<td>1000 MA.</td>
</tr>
<tr>
<td>DC OUTPUT</td>
<td>165 MA.</td>
</tr>
</tbody>
</table>

TV DAMPER SERVICE

AVERAGE CHARACTERISTICS

TUBE VOLTAGE DROP
\[ V_T = 250 \text{ MILLIAMPERES DC} \]
32 Volts

SIMILAR TYPE REFERENCE: Except for heater ratings, the 17AX3 is identical to the 64AX3 and the 12AX3.

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.

\(^\text{B}\)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.

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**Graph:**

- **Title:** 17AX3
- **Equation:** \( E_f = 16.8 \text{ Volts} \)

**Graph Axes:**
- **X-axis:** Plate Volts (0 to 70)
- **Y-axis:** Plate Current - Milliamperes (0 to 800)
- **Grid:** Small grid lines for precise measurement.