Beam Power Tube

With Heater Having Controlled Warm-Up Time

GENERAL DATA

Electrical:
Heater, for Unipotential Cathode:
Voltage (AC or DC) .................. 12.6 volts
Current .......................... 0.6 ± 6% amp
Warm-up time (Average) .......... 11 sec
Direct Interelectrode Capacitances:
Grid No.1 to plate .............. 0.55 µf
Grid No.1 to cathode, grid No.3, grid No.2, and heater .... 15 µf
Plate to cathode, grid No.3, grid No.2, and heater .... 7 µf

Characteristics, Class A1 Amplifier:
Plate Voltage .................. 60 250 volts
Grid-No.2 Voltage ............... 150 150 volts
Grid-No.1 Voltage ............... 0 –22.5 volts
Triode Amplification Factor for plate volts = grid-No.2 volts = 150 ....... – 4.1
Plate Resistance (Approx.) .... – 20000 ohms
Transconductance ............... – 6600 µmhos
Plate Current .................. 345b 75 ma
Grid-No.2 Current ............... 30b 2.4 ma
Grid-No.1 Voltage (Approx.) for plate ma. = 1 ........ – 46 volts
Grid-No.1 Voltage (Approx.) for peak positive-pulse plate volts = 5000, grid-No.2 volts = 150, and plate ma. = 1 ... – 100 volts

Mechanical:
Operating Position ................ Any
Maximum Overall Length ....... 4-1/4"
Seated Length .................. 3-1/2" ± 3/16"
Maximum Diameter ............. 1-9/16"
Bulb .................................. T12
Cap .................................. Skirted Miniature (JEDEC No.C1-3)
Base ............................ Short Medium-Shell Octal 6-Pin with External Barriers, Arrangement 2, Style B, (JEDEC Group 1, No.B6-122)
Basing Designation for BOTTOM VIEW ........ 8JX

Pin 2 – Heater
Pin 3 – Cathode, Grid No.3
Pin 4 – Grid No.2
Pin 5 – Grid No.1
Pin 7 – Heater
Pin 8 – Grid No.2
Cap – Plate
HORIZONTAL-DEFLECTION AMPLIFIER

Maximum Ratings, Design-Maximum Values:

For operation in a 525-line, 30-frame system:

<table>
<thead>
<tr>
<th>Component</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC PLATE VOLTAGE</td>
<td>770 max. volts</td>
</tr>
<tr>
<td>PEAK POSITIVE-PULSE PLATE VOLTAGE</td>
<td>6500 max. volts</td>
</tr>
<tr>
<td>PEAK NEGATIVE-PULSE PLATE VOLTAGE</td>
<td>1500 max. volts</td>
</tr>
<tr>
<td>DC GRID-No.2 (SCREEN-GRID) VOLTAGE</td>
<td>220 max. volts</td>
</tr>
<tr>
<td>PEAK NEGATIVE-PULSE GRID-No.1 VOLTAGE</td>
<td>330 max. volts</td>
</tr>
</tbody>
</table>

CATHODE CURRENT:

- Peak: 550 max. ma
- Average: 175 max. ma

GRID-No.2 INPUT: 4.5 max. watts

PLATE DISSIPATION: 17.5 max. watts

PEAK HEATER-CATHODE VOLTAGE:

- Heater negative with respect to cathode: 200 max. volts
- Heater positive with respect to cathode: 200 max. volts

BULB TEMPERATURE (At hottest point on bulb surface): 220 max. °C

Maximum Circuit Values:

Grid-No.1-Circuit Resistance: 1 max. megohm

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a. Without external shield.
b. This value can be measured by a method involving a recurrent wave form such that the maximum ratings of the tube will not be exceeded.
d. This rating is applicable where the duration of the voltage pulse does not exceed 15 per cent of one horizontal scanning cycle. In a 525-line, 30-frame system, 15 per cent of one horizontal scanning cycle is 10 microseconds.
e. An adequate bias resistor or other means is required to protect the tube in the absence of excitation.
f. The dc component must not exceed 100 volts.