MEDIUM-MU TWIN TRIODE

GENERAL DATA

Electrical:
Heater, for Unipotential Cathodes:
  Voltage. 6.3 ac or dc volts
  Current. 1.5 amp
Direct Interelectrode Capacitances (Approx.):

<table>
<thead>
<tr>
<th></th>
<th>Unit No. 1</th>
<th>Unit No. 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grid to plate.</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Grid to cathode and heater</td>
<td>4.2</td>
<td>4.6</td>
</tr>
<tr>
<td>Plate to cathode and heater</td>
<td>0.9</td>
<td>0.9</td>
</tr>
</tbody>
</table>

Characteristics, Class A Amplifier (Each Unit):

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Plate Voltage.</td>
<td>150</td>
<td>250</td>
</tr>
<tr>
<td>Grid Voltage</td>
<td>0</td>
<td>-17</td>
</tr>
<tr>
<td>Amplification Factor</td>
<td>-</td>
<td>15</td>
</tr>
<tr>
<td>Plate Resistance</td>
<td>-</td>
<td>2150</td>
</tr>
<tr>
<td>Transconductance</td>
<td>-</td>
<td>7000</td>
</tr>
<tr>
<td>Plate Current.</td>
<td>65*</td>
<td>4</td>
</tr>
<tr>
<td>Grid Voltage (Approx.) for plate current of 50 µa</td>
<td>-</td>
<td>-23</td>
</tr>
</tbody>
</table>

Mechanical:

Operating Position. Any
Maximum Overall Length. 3-5/16" 2-3/4"
Maximum Seated Length. 1-9/32" 2-3/4"
Maximum Diameter. 1-9/32" 2-3/4"
Dimensional Outline. See General Section
Bulb. Short Intermediate-Shell Octal 8-Pin with External Barriers (JETEC No.B8-58)
Basing Designation for BOTTOM VIEW. 8BD

Pin 1-Grid of Unit No. 2
Pin 2-Plate of Unit No. 2
Pin 3-Cathode of Unit No. 2
Pin 4-Grid of Unit No. 1

Pin 5-Plate of Unit No. 1
Pin 6-Cathode of Unit No. 1
Pin 7-Heater
Pin 8-Heater

VIRTUAL DEFLECTION OSCILLATOR

Unless Otherwise Specified, Values are for Each Unit

Maximum Ratings, Design-Center Values:

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

DC PLATE VOLTAGE . . . . . . . . . . . . . 500 max. volts
PEAK NEGATIVE-PULSE GRID VOLTAGE . . . . . . 400 max. volts

0, 1, 2, 3: See next page.
CATHODE CURRENT:
Peak .................................. 210 max. ma
DC .................................... 60 max. ma
PLATE DISSIPATION:
Either plate ................................ 10 max. watts
Both plates (Both units operating) .... 12 max. watts
PEAK HEATER–CATHODE VOLTAGE:
Heater negative with respect to cathode. 200 max. volts
Heater positive with respect to cathode. 200 max. volts

Maximum Circuit Values:
Grid–Circuit Resistance .................. 4.7 max. megohms

VERTICAL DEFLECTION AMPLIFIER

Unless Otherwise Specified, Values are for Each Unit

Maximum Ratings, Design–Center Values Except as Noted:

For operation in a 525-line, 30-frame system:
DC PLATE VOLTAGE ............... 500 max. volts
PEAK POSITIVE–PULSE PLATE VOLTAGE *
(Absolute maximum) .............. 2000* max. volts
PEAK NEGATIVE–PULSE GRID VOLTAGE .................. 250 max. volts
CATHODE CURRENT:
Peak .................................. 210 max. ma
DC .................................... 60 max. ma
PLATE DISSIPATION:
Either plate ................................ 10 max. watts
Both plates (Both units operating) .... 12 max. watts
PEAK HEATER–CATHODE VOLTAGE:
Heater negative with respect to cathode. 200 max. volts
Heater positive with respect to cathode. 200 max. volts

Maximum Circuit Values:
Grid–Circuit Resistance:
For Cathode–bias operation† ........... 4.7 max. megohms

○ Without external shield.
* 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.
† When this tube type is operated as a combined vertical deflection oscillator and amplifier, it is recommended that unit No. 1 (pins 4, 5, and 6) be used as the oscillator.
◊ As described in "Standards of Good Engineering Practice Concerning Television Broadcast Stations," Federal Communications Commission.
▲ The dc component must not exceed 100 volts.
# This rating is applicable where the duration of the voltage pulse does not exceed 15 per cent of one vertical scanning cycle. In a 525-line, 30-frame system, 15 per cent of one vertical scanning cycle is 2.5 milliseconds.
† Under no circumstances should this absolute value be exceeded.
† In stages operating with grid–resistor bias, an adequate cathode resistor or other suitable means is required to protect the tube in the absence of excitation.