Dual Triode

With Medium-Mu Unit and Low-Mu Unit

For Equipment Having Series Heater-String Arrangement

GENERAL DATA

Electrical:

Heater, for Unipotential Cathodes:
Voltage (AC or DC) ...................... 9.7 volts
Current .................................. 0.6 ± 6% amp
Warm-up time (Average) .................. 11 sec

Direct Interelectrode Capacitances (Approx.):

<table>
<thead>
<tr>
<th>Unit No. 1</th>
<th>Unit No. 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grid to plate</td>
<td>4.4</td>
</tr>
<tr>
<td>Grid to cathode and heater</td>
<td>2.2</td>
</tr>
<tr>
<td>Plate to cathode and heater</td>
<td>0.6</td>
</tr>
</tbody>
</table>

Characteristics, Class A1 Amplifier:

<table>
<thead>
<tr>
<th>Unit No. 1</th>
<th>Unit No. 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plate Voltage</td>
<td>250</td>
</tr>
<tr>
<td>Grid Voltage</td>
<td>-11</td>
</tr>
<tr>
<td>Amplification Factor</td>
<td>17.5</td>
</tr>
<tr>
<td>Plate Resistance (Approx.)</td>
<td>8750</td>
</tr>
<tr>
<td>Transconductance</td>
<td>2000</td>
</tr>
<tr>
<td>Plate Current</td>
<td>5.5</td>
</tr>
<tr>
<td>Plate Current for grid volts = -25</td>
<td>-</td>
</tr>
<tr>
<td>Plate Current for plate volts = 60 and grid volts = 0</td>
<td>-</td>
</tr>
<tr>
<td>Grid Voltage (Approx.) for plate μa = 10</td>
<td>-20</td>
</tr>
<tr>
<td>Grid Voltage (Approx.) for plate μa = 100</td>
<td>-</td>
</tr>
</tbody>
</table>

Mechanical:

Operating Position, Any
Maximum Overall Length .................. 3"
Maximum Seated Length ................... 2-7/16"
Maximum Diameter ....................... 1-9/32"
Bulb. .................................. T9
Base. Short Intermediate—Shell Octal 8-Pin
with External Barriers (JEDEC Group 1, No.86-58)
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

RADIO CORPORATION OF AMERICA
Electron Tube Division
Harrison, N. J.
VERTICAL-DEFLECTION OSCILLATOR

Values are for Unit No.1

Maximum Ratings, Design-Maximum Values:

- For operation in a 525-line, 30-frame system*:
  - DC PLATE VOLTAGE .................. 330 max. volts
  - PEAK NEGATIVE-PULSE GRID VOLTAGE .. 400 max. volts
  - CATHODE CURRENT:
    - Peak ................................ 77 max. ma
    - Average ................................ 22 max. ma
  - PLATE DISSIPATION ............... 1.5 max. watts
  - PEAK HEATER-CATHODE VOLTAGE:
    - Heater negative with respect to cathode. 200 max. volts
    - Heater positive with respect to cathode. 200 max. volts

Maximum Circuit Values:

Grid-Circuit Resistance:
- For cathode-bias operation ............. 2.2 max. megohms

VERTICAL-DEFLECTION AMPLIFIER

Values are for Unit No.2

Maximum Ratings, Design-Maximum Values:

- For operation in a 525-line, 30-frame system*:
  - DC PLATE VOLTAGE .................. 330 max. volts
  - PEAK POSITIVE-PULSE PLATE VOLTAGE .. 1500 max. volts
  - PEAK NEGATIVE-PULSE GRID VOLTAGE .. 250 max. volts
  - CATHODE CURRENT:
    - Peak ................................ 175 max. ma
    - Average ................................ 50 max. ma
  - PLATE DISSIPATION .................. 10 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 ............. 2.2 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.
* 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.

DIMENSIONAL OUTLINE

shown under Type 6EM7 also applies to the 10EG7

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