Medium-Mu Twin Triode

9-PIN MINIATURE TYPE

For Use in the Matrixing Circuits of Color TV Receivers. Also Useful in Phase-Inverter and Multivibrator Circuits, and as a General-Purpose Amplifier Tube.

GENERAL DATA

Electrical:

Heater Characteristics and Ratings:
- Voltage (AC or DC) ... $6.3^a$ $6.3 \pm 0.6$ volts
- Current .............. $0.600 \pm 0.040$ $0.600^b$ ma
- Warm-up time (Average) ............ 11 - sec

Peak heater-cathode voltage
(Each unit):
- Heater negative with respect to cathode ............ 200 max. volts
- Heater positive with respect to cathode ............ $200^c$ max. volts

Direct Interelectrode Capacitances (Approx.):

<table>
<thead>
<tr>
<th>Unit</th>
<th>No. 1</th>
<th>No. 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grid to plate</td>
<td>3.0</td>
<td>3.0</td>
</tr>
<tr>
<td>Grid to cathode and heater</td>
<td>3.4</td>
<td>3.6</td>
</tr>
<tr>
<td>Plate to cathode and heater</td>
<td>0.44</td>
<td>0.34</td>
</tr>
<tr>
<td>Plate of unit No. 1 to plate of unit No. 2</td>
<td>1.0</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Characteristics, Class A Amplifier (Each unit):

- Plate Voltage .............. 250 volts
- Grid Voltage .............. $-10.5$ volts
- Amplification Factor .............. 17
- Plate Resistance (Approx.) .............. 5500 ohms
- Transconductance .............. 3100 $\mu$hmhos
- Plate Current .............. 11.5 ma
- Plate Current for grid volts $= -14.$ .............. 4 ma
- Grid Voltage (Approx.) for plate $\mu$A $= 50.$ .............. $-23$ volts

Mechanical:

- Operating Position .............. Any
- Type of Cathodes .............. Coated Unipotential
- Maximum Overall Length .............. 2-5/8"
- Maximum Seated Length .............. 2-3/8"
- Length, Base Seat to Bulb Top (Excluding tip) .............. 2" $\pm$ 3/32"
- Diameter .............. 0.750" to 0.875"
- Dimensional Outline .............. See General Section
- Bulb .............. Small-Button Noval 9-Pin (JEDEC No.E9-1)
Basing Designation for BOTTOM VIEW. . . . . . . . . . 9LP
Pin 1 - Plate of Triode No. 2
Pin 2 - Grid of Triode No. 2
Pin 3 - Cathode of Triode No. 2
Pin 4 - Heater
Pin 5 - Heater
Pin 6 - Plate of Triode No. 1
Pin 7 - Grid of Triode No. 1
Pin 8 - Cathode of Triode No. 1
Pin 9 - No Internal Connection

AMPLIFIER — Class A1
Values are for Each Unit

Maximum Ratings, Design-Maximum Values:
PLATE VOLTAGE. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 330 max. volts
GRID VOLTAGE:
Positive-bias value. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 0 max. volts
PLATE DISSIPATION. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 max. watts

Maximum Circuit Values:
Grid-Circuit Resistance:
For fixed-bias operation . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1 max. megohm

a At heater amperes = 0.600.
b At heater volts = 6.3.
c The dc component must not exceed 100 volts.
d Without external shield.