Medium-Mu Twin Triode

9-PIN MINIATURE TYPE
With Heater Having Controlled Warm-Up Time

GENERAL DATA

Electrical:
Heater, for Unipotential Cathodes:
Voltage (AC or DC) ..................... 6.3 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>3.6</td>
</tr>
<tr>
<td>Grid to cathode and heater</td>
<td>2.4</td>
</tr>
<tr>
<td>Plate to cathode and heater</td>
<td>0.34</td>
</tr>
<tr>
<td>Plate of unit No.1 to plate of unit No.2</td>
<td>1</td>
</tr>
</tbody>
</table>

Characteristics, Class A1 Amplifier (Each Unit):
Plate Voltage ........................ 90 250 volts
Grid Voltage ........................ 0 -8 volts
Amplification Factor .................. 20 20
Plate Resistance (Approx.) .......... 6700 7700 ohms
Transconductance ................. 3000 2600 μmhos
Plate Current ......................... 10 9 ma
Plate Current for grid voltage = -12.5 1.3 ma
Grid Voltage (Approx.) for plate μa = 10 -7 -18 volts

Mechanical:
Operating Position ..................... Any
Maximum Overall Length ............... 2-5/8"
Maximum Seated Length ............... 2-3/8"
Length, Base Seat to Bulb Top (Excluding tip) ........ 2" ± 3/32"
Diameter ................................ 0.750" to 0.875"
Dimensional Outline ................. See General Section
Bulb .................................... T6-1/2
Base .................................. Small-Button Noval 9-Pin (JEDEC No.E9-1)
Basing Designation for BOTTOM VIEW .......... 9LP

Pin 1 - Plate of Unit No.2
Pin 2 - Grid of Unit No.2
Pin 3 - Cathode of Unit No.2
Pin 4 - Heater
Pin 5 - Heater

Pin 6 - Plate of Unit No.1
Pin 7 - Grid of Unit No.1
Pin 8 - Cathode of Unit No.1
Pin 9 - No Connection
AMPLIFIER — Class A

Values are for Each Unit

Maximum Ratings, Design-Maximum Values:

PLATE VOLTAGE: ........................................... 330 max. volts
GRID VOLTAGE:
   Positive-bias value: .................................. 0 max. volts
CATHODE CURRENT: ....................................... 22 max. ma
PLATE DISSIPATION:
   Either plate ........................................... 4 max. watts
   Both plates (Both units operating) .... 5.7 max. watt:
PEAK HEATER-CATHODE VOLTAGE:
   Heater negative with respect to cathode ... 200 max. volts
   Heater positive with respect to cathode ... 200b max. volts

Typical Operation as Resistance-Coupled Amplifier:

See RESISTANCE-COUPL ED AMPLIFIER CHART No. 29 at front of this Section

Maximum Circuit Values:

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

HORIZONTAL-DEFLECTION OSCILLATOR

Values are for Each Unit

Maximum Ratings, Design-Maximum Values:

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

DC PLATE VOLTAGE: ................................. 330 max. volts
PEAK NEGATIVE-PULSE GRID VOLTAGE: ........... 660 max. volts
CATHODE CURRENT:
   Peak .................................................. 330 max. ma
   Average .............................................. 22 max. ma
PLATE DISSIPATION:
   Either plate ........................................... 4 max. watts
   Both plates (Both units operating) .... 5.7 max. watts
PEAK HEATER-CATHODE VOLTAGE:
   Heater negative with respect to cathode ... 200 max. volts
   Heater positive with respect to cathode ... 200b max. volts

Maximum Circuit Values:

Grid-Circuit Resistance ................. 2.2 max. megohms

VERTICAL-DEFLECTION OSCILLATOR

Values are for Each Unit

Maximum Ratings, Design-Maximum Values:

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

DC PLATE VOLTAGE: ................................. 330 max. volts
PEAK NEGATIVE-PULSE GRID VOLTAGE: ........... 440 max. volts
CATHODE CURRENT:
   Peak .................................................. 77 max. ma
   Average .............................................. 22 max. ma
PLATE DISSIPATION:
   Either plate .................................. 4 max. watts
   Both plates (Both units operating) ........ 5.7 max. watts

PEAK HEATER-CATHODE VOLTAGE:
   Heater negative with respect to cathode .......... 200 max. volts
   Heater positive with respect to cathode .......... 200b max. volts

Maximum Circuit Values:
Grid-Circuit Resistance .................. 2.2 max. megarms

a Without external shield.
b The dc component must not exceed 100 volts.
c As described in "Standards of Good Engineering Practice Concerning Tele-
vision Broadcast Stations," Federal Communications Commission.
AVERAGE PLATE CHARACTERISTICS
Each Unit

$E_f = 6.3$ VOLTS

PLATE MILLIAMPERES

92CM-8442

RADIO CORPORATION OF AMERICA
Electron Tube Division