Medium-Mu Twin Triode

9-PIN MINIATURE TYPE

GENERAL DATA

Electrical:

Heater Characteristics and Ratings (Design-Center Values):
Voltage (AC or DC) .................. 6.3 ± 0.6 volts
Current at heater volts = 6.3 ........ 0.300 amp
Peak heater-cathode voltage (Each unit):
  Heater negative with respect to cathode .................. 60 max. volts
  Heater positive with respect to cathode .................. 120 max. volts
Direct Interelectrode Capacitances:

<table>
<thead>
<tr>
<th>Unit No. 1</th>
<th>Unit No. 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grid to plate</td>
<td>1.4</td>
</tr>
<tr>
<td>Grid to cathode, internal shield, and heater</td>
<td>3.1</td>
</tr>
<tr>
<td>Plate to cathode, internal shield, and heater</td>
<td>1.75</td>
</tr>
<tr>
<td>Heater to cathode</td>
<td>2.6</td>
</tr>
</tbody>
</table>

Characteristics, Class A1 Amplifier (Each Unit):
Plate Supply Voltage .................. 100 90 volts
Grid Supply Voltage ................. 9 0 volts
Cathode Resistor ..................... 680 120 ohms
Amplification Factor ................. 33
Transconductance .................. 12500 11500 μmhos
Plate Current .................. 15 12 ma

Mechanical:
Operating Position ................. Any
Type of Cathodes .................. Coated Unipotential
Maximum Overall Length ................. 2-3/16"
Maximum Seated Length ................. 1-15/16"
Length, Base Seat to Bulb Top (Excluding tip) .................. 1-9/16" ± 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 ................. 9AJ

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-Internal Shield
AMPLIFIER — Class A1
Values are for Each Unit

Maximum Ratings, Design-Center Values:

PLATE VOLTAGE:
With plate dissipation = 0.8 watt or greater.................. 220 max. volts
With plate dissipation less than 0.8 watt....................... 250 max. volts
With plate ma. = 0........................................... 400 max. volts
With cathode ma. = 0....................................... 550 max. volts

GRID VOLTAGE:
Negative-bias value........................................... 100 max. volts
Peak-negative value......................................... 200 max. volts

CATHODE CURRENT:
Peak.............................................................. 100 max. ma
Average.......................................................... 20 max. ma

GRID INPUT....................................................... 0.03 max. watt

PLATE DISSIPATION:
Either plate..................................................... 1.5 max. watts
Both plates (Both units operating).......................... 2 max. watts

BULB TEMPERATURE (At hottest point on bulb surface). . . . 170 max. °C

Maximum Circuit Values:

Grid-Circuit Resistance:
For fixed-bias operation. . . . . Permitted only when plate ma. < 5

For cathode-bias operation. . . . . . . 1 max. megohm

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a Without external shield.
b Operation under conditions listed in left-hand column is recommended because of the small spread in characteristics.
c Pulse duration (microseconds) = 200 max., duty factor = 0.10 max.

SPECIAL RATINGS & PERFORMANCE DATA

Shock Rating:
Impact Acceleration........................................... 500 max. g

This test is performed on a sample lot of tubes from each production run to determine ability of tube to withstand the specified impact acceleration. Tubes are held rigid in four different positions in a Navy Type, High-impact (Flyweight) Shock Machine and are subjected to 5 blows at a hammer angle of 30°.

Fatigue Rating:
Vibrational Acceleration..................................... 2.5 max. g

This test is performed on a sample lot of tubes to determine ability of tube to withstand the specified vibrational acceleration. Tubes are rigidly mounted and are subjected for 32 hours to 2.5-g vibrational acceleration at 50 cycles per second in each of three directions.