### GENERAL DATA

**Electrical:**
Heater, for Unipotential Cathodes:
- Voltage: 6.3 ac or dc volts
- Current: 0.3 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><strong>Grid-Drive Operation:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grid to plate</td>
<td>1.6</td>
<td>1.6</td>
</tr>
<tr>
<td>Grid to cathode, internal shield, and heater</td>
<td>2.7</td>
<td>2.7</td>
</tr>
<tr>
<td>Plate to cathode, internal shield, and heater</td>
<td>1.6</td>
<td>1.6</td>
</tr>
<tr>
<td>Heater to cathode</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>Cathode-Drive Operation:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cathode to grid, internal shield, and heater</td>
<td>-</td>
<td>5.3</td>
</tr>
<tr>
<td>Plate to grid, internal shield, and heater</td>
<td>-</td>
<td>2.8</td>
</tr>
</tbody>
</table>

**Characteristics, Class A Amplifier (Each Unit):**
- Plate-Supply Voltage: 100 250 volts
- Cathode Resistor: 270 200 ohms
- Amplification Factor: 60 60
- Plate Resistance (Approx.): 15000 10900 ohms
- Transconductance: 4000 5500 \(\mu\)hos
- Plate Current: 3.7 10 ma
- Grid Voltage (Approx.) for plate current of 10 \(\mu\)a: -5 -12 volts

**Mechanical:**
- Operating Position: Any
- Maximum Overall Length: 2-3/16" 60 mm
- Maximum Seated Length: 1-15/16" 46 mm
- Length, Base Seat to Bulb Top (Excluding tip): 1-9/16" ± 3/32" 37.1 + 0.8 mm
- Maximum Diameter: 7/8" 22.2 mm
- Dimensional Outline: See General Section
- Bulb: T6-1/2
- Base: Small-Button Noval 9-Pin (JETEC No.E9-1)

Basing Designation for BOTTOM VIEW: 9AJ

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**Note:**  
* With external shield JETEC No.315 connected to cathode of unit under test except as noted.
* See next page.
HIGH-MU TWIN TRIODE

AMPLIFIER — Class A₁
Values are for Each Unit

Maximum Ratings, Design-Center Values:

<table>
<thead>
<tr>
<th>Component</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLATE VOLTAGE</td>
<td>300 max. volts</td>
</tr>
<tr>
<td>GRID VOLTAGE:</td>
<td></td>
</tr>
<tr>
<td>Negative bias value</td>
<td>50 max. volts</td>
</tr>
<tr>
<td>PLATE DISSIPATION</td>
<td>2.5 max. watts</td>
</tr>
<tr>
<td>PEAK HEATER-CATHODE VOLTAGE:</td>
<td></td>
</tr>
<tr>
<td>Heater negative with respect to cathode</td>
<td>200 max. volts</td>
</tr>
<tr>
<td>Heater positive with respect to cathode</td>
<td>200 max. volts</td>
</tr>
</tbody>
</table>

Maximum Circuit Values:

Grid-Circuit Resistance:
- For fixed-bias operation: 0.25 max. megohm
- For cathode-bias operation: 1 max. megohm

* With external shield JETEC No.315 connected to ground.
□ With external shield JETEC No.315 connected to grid of unit under test.
▲ The dc component must not exceed 100 volts.
AVERAGE PLATE CHARACTERISTICS
E_F = 6.3 VOLTS
E_0 = 6.3 VOLTS
PLATE VOLTS = 250

AMPLIFICATION FACTOR (A)

TRANSCONDUCTANCE (g_m) — MICROMOSU

PLATE RESISTANCE (r_p) — OHMS

PLATE MILLIAMPERES