6AM8-A
DIODE-SHARP-CUTOFF PENTODE
9-PIN MINIATURE TYPE

With heater having controlled warm-up time

<table>
<thead>
<tr>
<th>GENERAL DATA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Electrical:</strong></td>
</tr>
<tr>
<td>Heater, for Unipotential Cathodes:</td>
</tr>
<tr>
<td>Voltage (AC or DC)</td>
</tr>
<tr>
<td>Current</td>
</tr>
<tr>
<td>Warm-up time (Average.)</td>
</tr>
<tr>
<td>Direct Interelectrode Capacitances:</td>
</tr>
<tr>
<td><strong>Diode Unit:</strong></td>
</tr>
<tr>
<td>Plate to cathode and heater</td>
</tr>
<tr>
<td>Cathode to plate and heater</td>
</tr>
<tr>
<td><strong>Pentode Unit:</strong></td>
</tr>
<tr>
<td>Grid No. 1 to plate</td>
</tr>
<tr>
<td>Grid No. 1 to cathode, grid No. 3 &amp; internal shield, grid No. 2, and heater</td>
</tr>
<tr>
<td>Plate to cathode, grid No. 3 &amp; internal shield, grid No. 2, and heater</td>
</tr>
<tr>
<td>Pentode grid No. 1 to diode plate</td>
</tr>
<tr>
<td>Pentode plate to diode cathode</td>
</tr>
<tr>
<td>Pentode plate to diode plate</td>
</tr>
</tbody>
</table>

**Characteristics, Class A Amplifier (Pentode Unit):**
- Plate Supply Voltage | 125 volts
- Grid No. 3...Connected to cathode at socket
- Grid-No. 2 Supply Voltage | 125 volts
- Cathode Resistor | 56 ohms
- Plate Resistance (Approx.) | 0.3 megohm
- Transconductance | 7800 μhmhos
- Plate Current | 12.5 ma
- Grid-No. 2 Current | 3.2 ma
- Grid-No. 1 Voltage (Approx.) for plate μa = 20 | −6 volts
- Grid-No. 1 Voltage (Approx.) for plate ma = 2, and cathode resistor (ohms) = 0 | −3 volts

**Mechanical:**
- Operating Position | Any
- Maximum Overall Length | 2-3/16"
**DIODE—SHARP-CUTOFF PENTODE**

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<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Cathode</td>
<td>Grid No.1</td>
<td>Grid No.2</td>
<td></td>
<td></td>
<td>Cathode</td>
<td>Plate</td>
<td>Plate</td>
<td>No.3, Internal</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Shield</td>
<td>Shield</td>
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</tr>
</tbody>
</table>

**PENTODE UNIT — Class A1 Amplifier**

**Maximum Ratings, Design—Maximum Values:**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLATE VOLTAGE</td>
<td>330 max. volts</td>
</tr>
<tr>
<td>GRID-No. 3 (SUPPRESSOR-GRID) VOLTAGE</td>
<td>0 max. volts</td>
</tr>
<tr>
<td>GRID-No. 2 (SCREEN-GRID) SUPPLY VOLTAGE</td>
<td>330 max. volts</td>
</tr>
<tr>
<td>GRID-No. 1 (CONTROL-GRID) VOLTAGE:</td>
<td>0 max. volts</td>
</tr>
<tr>
<td>Positive-bias value</td>
<td></td>
</tr>
<tr>
<td>GRID-No. 2 INPUT:</td>
<td></td>
</tr>
<tr>
<td>For grid-No. 2 voltages up to 165 volts</td>
<td>0.55 max. watt</td>
</tr>
<tr>
<td>and 330 volts</td>
<td></td>
</tr>
<tr>
<td>See Grid-No. 2 Input Rating Chart at front of Receiving Tube Section</td>
<td></td>
</tr>
<tr>
<td>PLATE DISSIPATION</td>
<td>3.2 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>
<tr>
<td>See Grid-No. 2 Input Rating Chart at front of Receiving Tube Section</td>
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</tbody>
</table>

**Maximum Circuit Values:**

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>0.25</td>
<td>Grid-No.1—Circuit Resistance:</td>
</tr>
<tr>
<td>0.25</td>
<td>For fixed-bias operation</td>
</tr>
<tr>
<td>1</td>
<td>For cathode—bias operation</td>
</tr>
</tbody>
</table>

**DIODE UNIT**

**Maximum Ratings, Design—Maximum Values:**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
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<tbody>
<tr>
<td>DC PLATE CURRENT</td>
<td>5 max. ma</td>
</tr>
</tbody>
</table>
PEAK HEATER-CATHODE VOLTAGE:
Heater negative with respect to cathode. 200 max. volts
Heater positive with respect to cathode. 200 max. volts

O Without external shield.
▲ The dc component must not exceed 100 volts.

AVERAGE PLATE CHARACTERISTIC
DIODE UNIT

E_p = 6.3 VOLTS
$E_p = 6.3$ VOLTS
GRID N°3 CONNECTED TO CATHODE AT SOCKET.
GRID-N°2 VOLTS = 150