SYLVANIA ELECTRIC
RTMA Registration Data

TYPE 6BA5
PENTODE VOLTAGE AMPLIFIER

MECHANICAL DATA

Style.................................................. subminiature
Cathode.............................................. coated, unipotential
Bulb.................................................... T-3
Base................................. K8-1(1), Subminiature Button--Flexible Leads
Outline.............................................. 3-1
Maximum Bulb Diameter..................... 0.400 inch
Maximum Overall Bulb Length................ 1.375 inches
Minimum Lead Length......................... 1.500 inches
Mounting position: any
Basing.................................................. 8DY

Lead Connections:
Lead 1 .. grid #1
Lead 2 .. no connection
Lead 3 .. heater
Lead 4 .. no connection
Lead 5 .. plate
Lead 6 .. heater
Lead 7 .. grid #2
Lead 8 .. cathode and grid #3

ELECTRICAL DATA

GENERAL

Direct Interelectrode Capacitances:

<table>
<thead>
<tr>
<th></th>
<th>Shielded(2)</th>
<th>Not Shielded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grid #1 to Plate</td>
<td>.065</td>
<td>0.1 μF</td>
</tr>
<tr>
<td>Input</td>
<td>3.4</td>
<td>3.2 μF</td>
</tr>
<tr>
<td>Output</td>
<td>3.6</td>
<td>1.6 μF</td>
</tr>
</tbody>
</table>

Heater Voltage......................... 6.3 volts
Heater Current......................... 150 milliamps

RATINGS -- Design Center Valves

Heater Voltage (ac or dc).............. 6.3 (±10%) volts
Maximum Plate Voltage................... 150 volts
Maximum Grid #2 Voltage.................. 140 volts
Maximum Plate Dissipation............... 0.7 watt
Maximum Grid #2 Dissipation............. 0.3 watt
Maximum Heater to Cathode Voltage..... 90 volts
Maximum Grid #1 Circuit Resistance (self bias). 1 megohm

(1) With 1.500 inches minimum lead length as specified above.
(2) External shield of 0.405 inch diameter connected to cathode.
## TYPE 6BA5

**CHARACTERISTICS**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heater Voltage</td>
<td>6.3 volts</td>
</tr>
<tr>
<td>Plate Voltage (dc)</td>
<td>100 volts</td>
</tr>
<tr>
<td>Grid #2 Voltage (dc)</td>
<td>100 volts</td>
</tr>
<tr>
<td>Cathode Resistor</td>
<td>270 ohms</td>
</tr>
<tr>
<td>Plate Current</td>
<td>5.5 milliamps</td>
</tr>
<tr>
<td>Grid #2 Current</td>
<td>2.0 milliamps</td>
</tr>
<tr>
<td>Transconductance</td>
<td>2,150 µmhos</td>
</tr>
<tr>
<td>Plate Resistance</td>
<td>175,000 ohms</td>
</tr>
</tbody>
</table>

Grid #1 Bias for 10 µamps Plate Current... -13.5 volts