VARIABLE MU PENTODE

Physical Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cathode</td>
<td>Coated unipotential</td>
</tr>
<tr>
<td>Base</td>
<td>Small button noval 9-pin</td>
</tr>
<tr>
<td>Bulb</td>
<td>T6½</td>
</tr>
<tr>
<td>Maximum overall length</td>
<td>2 5/8&quot;</td>
</tr>
<tr>
<td>Maximum seated height</td>
<td>2 3/8&quot;</td>
</tr>
<tr>
<td>Bulb length excluding tip</td>
<td>2±3/32&quot;</td>
</tr>
<tr>
<td>Maximum diameter</td>
<td>7/8&quot;</td>
</tr>
<tr>
<td>Mounting position</td>
<td>any</td>
</tr>
<tr>
<td>Basing connections -</td>
<td>JETEC basing designation</td>
</tr>
<tr>
<td></td>
<td>9AZ</td>
</tr>
</tbody>
</table>

Pin 1 - Grid No.2
Pin 2 - Grid No.1
Pin 3 - Cathode, grid No.3 and internal shield
Pin 4 - Heater
Pin 5 - Heater
Pin 6 - Plate
Pin 7 - Internal connection
Pin 8 - Internal connection
Pin 9 - Not connected

General Electrical Data

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heater voltage</td>
<td>6.3 volts</td>
</tr>
<tr>
<td>Heater current</td>
<td>0.2 amp</td>
</tr>
</tbody>
</table>

Direct Interelectrode Capacitances

<table>
<thead>
<tr>
<th>Capacitance</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grid No.1 to all other elements</td>
<td>4.9 μF</td>
</tr>
<tr>
<td>Plate to all other elements</td>
<td>5.5 μF</td>
</tr>
<tr>
<td>Plate to grid No.1</td>
<td>max. 0.002 μF</td>
</tr>
<tr>
<td>Grid No.1 to heater</td>
<td>max. 0.1 μF</td>
</tr>
</tbody>
</table>

3.3.1951
N.V.PHILIPS’GLOBILAMPENFABRIKEN, SINDHOVEN, HOLLAND.
Maximum ratings (design center values)

Plate voltage (without current) max. 550 volts
Plate voltage max. 300 volts
Plate dissipation max. 2 watts
Grid No.2 voltage (without current) max. 550 volts
Grid No.2 voltage (plate current less than 3 ma) max. 300 volts
Grid No.2 voltage (plate current = 6 ma) max. 125 volts
Grid No.2 dissipation max. 0.3 watt.
Cathode current max. 10 ma
Grid No.1 current starting point.
Grid No.1 voltage at grid No.1 current = + 0.3 μamp max. -1.3 volts
Grid No.1 circuit resistance max. 3 megohms
Heater-cathode voltage max. 100 volts
External heater-cathode resistance 20,000 ohms

Operating characteristics as R.F. or I.F. amplifier

Plate and supply voltage 250 volts
Grid No.2 series resistor 90,000 ohms
Cathode resistor 325 ohms
Grid No.1 voltage -2.5 -39 volts
Plate current 6.0 - ma
Grid No.2 current 1.7 - ma
Transconductance 2200 22 micromhos
Plate resistance 1.1 min. 10 megohms
Equivalent noise resistance 6500 - ohms
Amplification factor of grid No.2 with respect to grid No.1 18 -

3.3.1951
N.V.PHILIPS' GLOEILAMPENFABRIKEN, EINDHOVEN, HOLLAND.
Plate voltage = 250 volts

Supply voltage = 250 volts
Grid No. 2 series resistor = 90,000 ohms

Grid No. 1 voltage (volts)
Plate voltage = 250 volts

Supply voltage = 250 volts
Grid No.2 series resistor = 90,000 ohms
Plate and supply voltage = 250 volts
Grid No.2 series resistor = 90,000 ohms

Plate current
Grid No.2 current
Equivalent noise resistance
Equivalent noise resistance (thousands of ohms)
Transconductance
Plate resistance
Currents (micro-amperes); Plate resistance (megohms); Transconductance (micromhos)
Cross modulation = 1%
Hum modulation = 1%
Plate and supply voltage = 250 volts
Grid No. 2 series resistor = 90,000 ohms
Plate voltage = 250 volts

Grid No 2 dissipation = 0.3 watt

Grid No 2 series resistor = 90,000 ohms