Electronics Department

GENERAL ELECTRIC

Pliotron 5660--Preliminary Technical Information

The 5660 is a duplex-diode pentode similar to the 12C8 designed for reliable performance under conditions of severe vibration and intermittent operation.

TECHNICAL INFORMATION

GENERAL

Electrical Data

Cathode - Indirectly Heated

Heater Voltage (A-C or D-C) 12.6 Volts
Heater Current 0.150 Ampere

Mechanical Data

Envelope - 8T-8
Cap - Miniature
Base - Small Wafer Octal 8-Pin
Mounting Position - Any
Direct Interelectrode Capacitances*
  Grid to Plate 0.005 Maximum uuf
  Input 6 uuf
  Output 9 uuf

* Shell connected to cathode.

MAXIMUM RATINGS AND TYPICAL OPERATING CONDITIONS

Maximum Ratings, Design Center

Plate Voltage 300 Volts
Screen Supply Voltage 300 Volts
Screen Voltage 125 Volts
Plate Dissipation 2.25 Watts
Screen Dissipation 0.3 Watts
Minimum External Grid Bias Voltage 0 Volts
Maximum Diode Current per Plate for Continuous Operation 1.0 Milliamperes

Typical Operation

Pentode Section: Class A1 Amplifier

Heater Voltage 12.6 Volts
Plate Voltage 250 Volts
Screen Voltage 125 Volts
Grid Voltage -3 Volts
Plate Resistance, approximate 0.6 Megohm
Transconductance 1325 Micromhos
Typical Operation

Pentode Section: Class A1 Amplifier

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Plate Current</td>
<td>10 Milliamperes</td>
</tr>
<tr>
<td>Screen Current</td>
<td>2.3 Milliamperes</td>
</tr>
<tr>
<td>Grid Bias For Cathode Current Cut-Off, approximate</td>
<td>-21 Volts</td>
</tr>
<tr>
<td>Vibration Output, maximum**</td>
<td>25 Millivolts</td>
</tr>
</tbody>
</table>

Diode Sections:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
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<tbody>
<tr>
<td>Minimum Diode Current per Plate With 10 Volts D-C Applied</td>
<td>0.8 Milliamperes</td>
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</table>

** RMS voltage measured across a load resistor of 10,000 ohms when tube is vibrated with a total sinusoidal motion of .08 inches at 25 cycles per second. Average output is less than value shown.

**

TERMINAL CONNECTIONS

- Pin 1 - Shell
- Pin 2 - Heater
- Pin 3 - Pentode Plate
- Pin 4 - Diode Plate #2
- Pin 5 - Diode Plate #1
- Pin 6 - Grid #2
- Pin 7 - Heater
- Pin 8 - Cathode and Grid #3
- Cap - Grid #1
VIBRATION OUTPUT

DISTRIBUTION OF VIBRATION OUTPUT

Type 5660        Type 12C8

Vibration output is RMS Voltage measured across plate circuit load resistor of 10,000 ohms when tube is vibrated with a total sinusoidal motion of .08 inches at 25 cycles per second.