Electronics Department

GENERAL ELECTRIC

Pliotron 5661--Preliminary Technical Information

The 5661 is a voltage amplifier pentode similar to the 12SK7 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 - MT-8
Base - Small Wafer Octal 8-Pin
Mounting Position - Any
Direct Interelectrode Capacitances*
Grid to Plate .003 Maximum uuf
Input 6.0 uuf
Output 7.0 uuf

* Shall 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 4.0 Watts
Screen Dissipation 0.4 Watts
Minimum External Control Grid Bias Voltage 0 Volts

Typical Operation
Class A₁ Amplifier

Heater Voltage 12.6 12.6 Volts
Plate Voltage 100 250 Volts
Screen Voltage 100 100 Volts
Control Grid Voltage -1 -3 Volts
Suppressor - Connected to Cathode at Socket
Plate Resistance, approximate 0.12 0.8 Megohm
Transconductance 2350 2000 Micromhos
Control Grid Voltage for Transconductance = 10, approximate -35 -35 Volts
Typical Operation
Class A1 Amplifier (Cont'd)

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<tbody>
<tr>
<td>Plate Current</td>
<td>13</td>
<td>9.2 Milliamperes</td>
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<tr>
<td>Screen Current</td>
<td>4</td>
<td>2.6 Milliamperes</td>
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<tr>
<td>Vibration Output, maximum**</td>
<td>---</td>
<td>15 Millivolts</td>
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** RMS voltage measured across a load resistor of 2,000 ohms when tube is vibrated with a total sinusoidal motion of .06 inches at 25 cycles per second. Average output is less than value shown.

TERMINAL CONNECTIONS

Pin 1 - Shell and internal shield
Pin 2 - Heater
Pin 3 - Grid #3
Pin 4 - Grid #1
Pin 5 - Cathode
Pin 6 - Grid #2
Pin 7 - Heater
Pin 8 - Plate
VIBRATION OUTPUT

DISTRIBUTION OF VIBRATION OUTPUT

TYPE 5661  TYPE 12SK7

Vibration output is the RMS voltage measured across plate circuit load resistor of 2,000 ohms when the tube is vibrated with a total sinusoidal motion of 0.08 inches at 25 cycles per second.