THE 6G6Y6 IS A SHARP-CUTOFF PENTODE IN THE 7 PIN MINIATURE CONSTRUCTION. IT IS DESIGNED PRIMARILY FOR USE IN GATED AGC AMPLIFIER AND NOISE-INVERTER SERVICE. PLATE CURRENT IS CONTROLLED BY THE ACTIONS OF GRID 1 AND GRID 3.

DIRECT INTERELECTRODE CAPACITANCES
WITHOUT EXTERNAL SHIELD

<table>
<thead>
<tr>
<th>Capacitance Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRID 1 to PLATE</td>
<td>0.026 pf</td>
</tr>
<tr>
<td>GRID 1 to CATHODE &amp; I.S., GRID 3, GRID 2 &amp; HEATER</td>
<td>8 pf</td>
</tr>
<tr>
<td>GRID 1 to GRID 3</td>
<td>0.12 pf</td>
</tr>
<tr>
<td>GRID 3 to PLATE</td>
<td>1.6 pf</td>
</tr>
<tr>
<td>GRID 3 to CATHODE &amp; I.S., PLATE, GRID 2, GRID 1 &amp; HEATER</td>
<td>6.5 pf</td>
</tr>
</tbody>
</table>

HEATER CHARACTERISTICS AND RATINGS
DESIGN MAXIMUM VALUES - SEE EIA STANDARD RS-239

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVERAGE CHARACTERISTICS</td>
<td>6.3 VOLTS</td>
</tr>
<tr>
<td>HEATER WARM-UP TIME</td>
<td>11 SECONDS</td>
</tr>
<tr>
<td>LIMITS OF APPLIED VOLTAGE</td>
<td>6.3 ± 0.6 VOLTS</td>
</tr>
<tr>
<td>LIMITS OF SUPPLIED CURRENT</td>
<td>450 ± 30 MA</td>
</tr>
<tr>
<td>MAXIMUM PEAK HEATER-CATHODE VOLTAGE:</td>
<td></td>
</tr>
<tr>
<td>HEATER NEGATIVE WITH RESPECT TO CATHODE</td>
<td>200 VOLTS</td>
</tr>
<tr>
<td>HEATER POSITIVE WITH RESPECT TO CATHODE</td>
<td>200 VOLTS</td>
</tr>
<tr>
<td>DC COMPONENT</td>
<td>100 VOLTS</td>
</tr>
</tbody>
</table>

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MAXIMUM RATINGS

DESIGN MAXIMUM VALUES - SEE EIA STANDARD RS-239

GATED AGC AMPLIFIER AND NOISE-INVERTER SERVICE

PLATE VOLTAGE, DC
PEAK POSITIVE-PULSE PLATE VOLTAGE A
GRID 3 (CONTROL-GRID) VOLTAGE:
  POSITIVE VALUE
  NEGATIVE VALUE
GRID 2 (SCREEN-GRID) SUPPLY VOLTAGE
GRID 1 (CONTROL-GRID) VOLTAGE:
  POSITIVE VALUE
  NEGATIVE VALUE
PLATE DISSIPATION
GRID 2 INPUT:
  FOR GRID 2 VOLTAGES UP TO 150 VOLTS
  FOR GRID 2 VOLTAGES BETWEEN
    150 VOLTS AND 300 VOLTS

See Rating Chart

MAXIMUM CIRCUIT VALUES

GRID 3 CIRCUIT RESISTANCE
GRID 1 CIRCUIT RESISTANCE:
  FOR FIXED-BIAS OPERATION
  FOR CATHODE-BIAS OPERATION

CHARACTERISTICS

PLATE SUPPLY VOLTAGE
GRID 3 SUPPLY VOLTAGE
GRID 2 SUPPLY VOLTAGE
GRID 1 SUPPLY VOLTAGE
CATHODE BIAS RESISTOR
PLATE CURRENT
GRID 2 CURRENT
TRANSCONDUCTANCE, GRID 1 TO PLATE
TRANSCONDUCTANCE, GRID 3 TO PLATE
PLATE RESISTANCE (APPROX.)
GRID 1 SUPPLY VOLTAGE FOR Ib = 20 µA (APPROX.)
GRID 3 SUPPLY VOLTAGE FOR Ib = 20 µA (APPROX.)

A
THE DURATION OF THE VOLTAGE PULSE MUST NOT EXCEED 15% OF ONE HORIZONTAL SCANNING CYCLE. IN A 525-LINE, 30-FRAME SYSTEM, 15% OF ONE HORIZONTAL SCANNING CYCLE IS 10 MICROSECONDS.
AVERAGE CHARACTERISTICS

$E_b = 150$ VOLTS
$E_{C2} = 100$ VOLTS

GRID 1 VOLTS

PLATE MILLIAMPERES

GRID 2 MILLIAMPERES

GRID 1 VOLTS