SHARP CUTOFF PENTODE
-MINIATURE TYPE

COATED UNIPOTENTIAL CATHODE

FOR IF CIRCUITS IN TV RECEIVERS

ANY MOUNTING POSITION

THE 6EJ7 IS A HIGH TRANSCONDUCTANCE SHARP-CUTOFF PENTODE IN THE 9 PIN MINIATURE CONSTRUCTION. IT IS DESIGNED FOR SERVICE AS AN IF AMPLIFIER IN TELEVISION RECEIVERS.

DIRECT INTERELECTRODE CAPACITANCES

WITHOUT EXTERNAL SHIELD

GRID #1 TO PLATE (MAX.) 0.005 pf
INPUT: G1 TO (H*K+G2+G3+I.S.) 10 pf
OUTPUT: P TO (H*K+G2+G3+I.S.) 3 pf

HEATER CHARACTERISTICS AND RATINGS

DESIGN CENTER VALUES - SEE EIA STANDARD RS-239

AVERAGE CHARACTERISTICS
6.3 VOLTS 300 MA.

HEATER SUPPLY LIMITS:
VOLTAGE OPERATION 6.3±0.6 VOLTS
MAXIMUM HEATER-CATHODE VOLTAGE:
HEATER NEGATIVE WITH RESPECT TO CATHODE
TOTAL DC AND PEAK 150 VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE
150 VOLTS

MAXIMUM RATINGS

DESIGN CENTER VALUES - SEE EIA STANDARD RS-239

PLATE VOLTAGE WITH I_B = 0 MA.
550 VOLTS
PLATE VOLTAGE
250 VOLTS
GRID #2 VOLTAGE WITH I_C2 = 0 MA
550 VOLTS
GRID #2 VOLTAGE
250 VOLTS
PLATE DISSIPATION
2.5 WATTS
GRID #2 DISSIPATION
0.9 WATTS
CATHODE CURRENT
25 MA.
GRID #1 CIRCUIT RESISTANCE
1.0 MEGOHM

CONTINUED ON FOLLOWING PAGE
### TYPICAL OPERATING CHARACTERISTICS

**CLASS A\_1 AMPLIFIER**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plate Voltage</td>
<td>200 Volts</td>
</tr>
<tr>
<td>Grid #3 Voltage</td>
<td>0 Volts</td>
</tr>
<tr>
<td>Grid #2 Voltage</td>
<td>200 Volts</td>
</tr>
<tr>
<td>Grid #1 Voltage</td>
<td>-2.5 Volts</td>
</tr>
<tr>
<td>Plate Current</td>
<td>10 mA.</td>
</tr>
<tr>
<td>Grid #2 Current</td>
<td>4.1 mA.</td>
</tr>
<tr>
<td>Transconductance</td>
<td>15000 (\mu)mhos</td>
</tr>
<tr>
<td>Amplification Factor (G2 TO G1)</td>
<td>60</td>
</tr>
<tr>
<td>Plate Resistance (APPROX)</td>
<td>0.35 MEGOHM</td>
</tr>
<tr>
<td>Grid #1 Impedance at 40MC</td>
<td>30000 OHMS</td>
</tr>
</tbody>
</table>

\(E^c\) For parallel operation of heaters, equipment should be designed that at normal supply voltage SOSEY TUBES WILL OPERATE AT THIS VALUE OF HEATER VOLTAGE.

\(C\) Input damping of tube and typical ceramic socket with both cathode leads tied directly to ground is about 10,000 OHMS.

### 6EJ7

**PENTODE CONNECTION**

- \(E_f = 6.3\) Volts
- \(E_{C3} = 0\) Volts

\(G_m = 22000\) \(\mu\)mhos

**Graph**

The graph shows the relationship between Grid \#1 Volts and Plate Milliamperes.
6EJ7
PENTODE CONNECTION
$E_f = 6.3$ Volts
$E_{C3} = 0$ Volt

GRID #1 (IC1) VOLTS

CATHODE CURRENT - MILLIAMPERES

GRID #2 (IC2) VOLTS

CURRENT - MILLIAMPERES

TUNG-SOL ELECTRIC INC., ELECTRON TUBE DIVISION, BLOOMFIELD, NEW JERSEY, U.S.A. AUGUST 1, 1951 PLATE #6240