BEAM PENTODE
COMPACTRON

COATED UNIPOTENTIAL CATHODE
FOR HORIZONTAL-DEFLECTION AMPLIFIER APPLICATIONS IN
T.V. RECEIVERS
ANY MOUNTING POSITION

GLASS BULB

BOTTOM VIEW
BASELINE DIAGRAM
JEDEC 129J

THE 6GE5 IS A BEAM-POWER PENTODE UTILIZING A T-12 ENVELOPE AND A 12 PIN BASE. IT IS DESIGNED PRIMARILY FOR USE AS THE HORIZONTAL DEFLECTION AMPLIFIER IN TELEVISION RECEIVERS.

DIRECT INTERELECTRODE CAPACITANCES - APPROX.
WITHOUT EXTERNAL SHIELD

GRID #1 TO PLATE: (G1 TO P) 0.34 pf
INPUT: G2 TO (H*K+G2+B.P.) 16 pf
OUTPUT: P TO (H*K+G2+B.P.) 7.0 pf

HEATER CHARACTERISTICS AND RATINGS
DESIGN MAXIMUM VALUES - SEE EIA STANDARD No. 219

AVERAGE CHARACTERISTICS 6.3 VOLTS 1200 MA.

HEATER SUPPLY LIMITS:
VOLTAGE OPERATION 6.3±0.6 VOLTS
MAXIMUM HEATER-CATHODE VOLTAGE
HEATER POSITIVE WITH RESPECT TO CATHODE
DC COMPONENT 100 VOLTS
TOTAL DC AND PEAK 200 VOLTS
HEATER NEGATIVE WITH RESPECT TO CATHODE
TOTAL DC AND PEAK 200 VOLTS

CONTINUED ON FOLLOWING PAGE
CONTINUED FROM PREVIOUS PAGE

MAXIMUM RATINGS

DESIGN MAXIMUM VALUES - SEE EIA STANDARD RS-239

HORIZONTAL-DEFLECTION AMPLIFIER SERVICE

DC PLATE-SUPPLY VOLTAGE (BOOST +DC POWER SUPPLY)) 770 VOLTS
PEAK POSITIVE PULSE PLATE VOLTAGE 6900 VOLTS
PEAK NEGATIVE PULSE PLATE VOLTAGE 1900 VOLTS
GRID #2 VOLTAGE 220 VOLTS
NEGATIVE DC GRID #1 VOLTAGE 55 VOLTS
PEAK NEGATIVE GRID #1 VOLTAGE 230 VOLTS
PLATE DISSIPATIONA 17.5 WATTS
GRID #2 DISSIPATION 3.5 WATTS
DC CATHODE CURRENT 175 MA.
PEAK CATHODE CURRENT 550 MA.
GRID #1 CIRCUIT RESISTANCE 1.0 MEGOHMS
BULB TEMPERATURE AT HOTTEST POINT 220°C

TYPICAL OPERATING CHARACTERISTICS

AVERAGE CHARACTERISTICS

<table>
<thead>
<tr>
<th></th>
<th>5000</th>
<th>60</th>
<th>250</th>
<th>VOLTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLATE VOLTAGE</td>
<td>150</td>
<td>150</td>
<td>150</td>
<td>VOLTS</td>
</tr>
<tr>
<td>GRID #2 VOLTAGE</td>
<td>0B</td>
<td>-22.5</td>
<td></td>
<td>VOLTS</td>
</tr>
<tr>
<td>GRID #1 VOLTAGE</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PLATE RESISTANCE, APPROX.</td>
<td>18,000</td>
<td>OHMS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TRANSCONDUCTANCE</td>
<td>7,300</td>
<td></td>
<td></td>
<td>AMHOILS</td>
</tr>
<tr>
<td>PLATE CURRENT</td>
<td>345</td>
<td>65</td>
<td>1.8</td>
<td>MA.</td>
</tr>
<tr>
<td>GRID #2 CURRENT</td>
<td>27</td>
<td></td>
<td></td>
<td>MA.</td>
</tr>
<tr>
<td>GRID #1 VOLTAGE, APPROX.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ib = 1.0 MA.</td>
<td></td>
<td>-100</td>
<td>-42</td>
<td>VOLTS</td>
</tr>
<tr>
<td>TRIODE AMPLIFICATION FACTOR</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G2 TIED TO PLATE, E_b = E_c2 = 150 V.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E_c = 22.5 V.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A FOR OPERATION IN A 525-LINE 30-FRAME SYSTEM AS DESCRIBED IN "STANDARDS OF GOOD ENGINEERING PRACTICE FOR TELEVISION BROADCAST STATIONS: FEDERAL COMMUNICATIONS COMMISSION", THE DUTY CYCLE OF THE VOLTAGE PULSE MUST NOT EXCEED 15% OF ONE SCANNING CYCLE.

B IN STAGES OPERATING WITH GRID LEAK BIAS, AN ADEQUATE CATHODE BIAS RESISTOR ON OTHER SUITABLE MEANS IS REQUIRED TO PROTECT THE TUBE IN THE ABSENCE OF EXCITATION.

C APPLIED FOR SHORT INTERVAL (TWO SECONDS MAXIMUM) SO AS NOT TO DAMAGE TUBE.

---INDICATES A CHANGE.

*INDICATES AN ADDITION.