BEAM-POWER PENTODE

COATED UNIPOTENTIAL CATHODE
HEATER
6.3±10% VOLTS 0.8 AMP.
AC OR DC
ANY MOUNTING POSITION

GLASS BULB
INTERMEDIATE SHELL
6 PIN OCTAL 85-81
OUTLINE DRAWING
JEDEC 9-35

THE 6E25 IS A BEAM-POWER PENTODE DESIGNED FOR USE AS THE VERTICAL-DEFLECTION AMPLIFIER IN TELEVISION RECEIVERS THAT EMPLOY 110-DEGREE DEFLECTION PICTURE TUBES. FEATURES OF THE TUBE INCLUDE HIGH PERVEANCE AND HIGH PLATE DISSIPATION.

DIRECT INTERELECTRODE CAPACITANCES - APPROX.
WITHOUT EXTERNAL SHIELD

GRID #1 TO PLATE 0.6 µµF
INPUT 9.0 µµF
OUTPUT 7.0 µµF

RATINGS
INTERPRETED ACCORDING TO DESIGN MAXIMUM SYSTEM
VERTICAL-DEFLECTION-AMPLIFIER SERVICE 4

MAXIMUM DC PLATE VOLTAGE 350 VOLTS
MAXIMUM PEAK PULSE PLATE VOLTAGE 2500 VOLTS
MAXIMUM PEAK NEGATIVE-PULSE GRID #1 VOLTAGE * 250 VOLTS
MAXIMUM SCREEN VOLTAGE 300 VOLTS
MAXIMUM PLATE DISSIPATION 8 12 WATTS
MAXIMUM SCREEN DISSIPATION 5 2.75 WATTS
MAXIMUM DC CATHODE CURRENT 75 MA.
MAXIMUM PEAK CATHODE CURRENT 260 MA.
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
MAXIMUM GRID #1 CIRCUIT RESISTANCE:
WITH CATHODE BIAS 2.2 MEGOHMS
WITH FIXED BIAS 1.0 MEGOHMS
BULB TEMPERATURE AT HOTTEST POINT 200°C

*INDICATES AN ADDITION. CONTINUED ON FOLLOWING PAGE
TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

AVERAGE CHARACTERISTICS

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Value 1</th>
<th>Value 2</th>
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</thead>
<tbody>
<tr>
<td>Heater Voltage</td>
<td>6.3±10%</td>
<td>6.3±10%</td>
</tr>
<tr>
<td>Heater Current</td>
<td>0.8</td>
<td>0.4</td>
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<tr>
<td>Plate Voltage</td>
<td>60</td>
<td>250</td>
</tr>
<tr>
<td>Screen Voltage</td>
<td>250</td>
<td>250</td>
</tr>
<tr>
<td>Grid #1 Voltage</td>
<td>0°</td>
<td>-20</td>
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<tr>
<td>Plate Resistance (Approx.)</td>
<td>---</td>
<td>50,000</td>
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<tr>
<td>Transconductance</td>
<td>---</td>
<td>4,100</td>
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<tr>
<td>Plate Current</td>
<td>180</td>
<td>43</td>
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<tr>
<td>Screen Current</td>
<td>26</td>
<td>3.5</td>
</tr>
<tr>
<td>Grid #4 Voltage (Approx.)</td>
<td>---</td>
<td>-90</td>
</tr>
</tbody>
</table>

For I₀ = 100 μAmps.

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 10% of one scanning cycle.

B. In stages operating with grid leak bias, an adequate cathode bias resistor or 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.

Design-Maximum ratings are limiting values of operating and environmental conditions applicable to a Bogey electron device of a specified type as defined by its published data, and should not be exceeded under the worst probable conditions. The device manufacturer chooses these values to provide acceptable serviceability of the device, taking responsibility for the effects of changes in operating conditions due to variations in device characteristics. The equipment manufacturer should design so that initially and throughout life, no design-maximum value for the intended service is exceeded with a bogey device under the worst probable operating conditions with respect to supply-voltage variation, equipment component variation, equipment control adjustment, load variation, signal variation, and environmental conditions.