The 6JW8 is a triode-pentode intended primarily for horizontal-oscillator and AFC service in the horizontal-deflection systems of television receivers.

**GENERAL**

**ELECTRICAL**
- Cathode - Coated Unipotential
- Heater Characteristics and Ratings
  - Heater Voltage, AC or DC: 6.3 ± 0.6 Volts
  - Heater Current: 0.43 Amperes
- Direct Interelectrode Capacitances:
  - Pentode Section
    - Grid-Number 1 to Plate: maximum (Pg1 to Pp): 0.01 pf
    - Input: Pg1 to (h+Pk+Pg2+Pg3+i.s.): 5.5 pf
    - Output: Pp to (h+Pk+Pg2+Pg3+i.s.): 3.4 pf
  - Triode Section
    - Grid to Plate: (Tg to Tp): 1.8 pf
    - Input: Tg to (h+Tk+Pk+Pg3+i.s.): 3.2 pf
    - Output: Tp to (h+Tk+Pk+Pg3+i.s.): 1.9 pf

**MECHANICAL**
- Operating Position: Any
- Envelope: T-6½, Glass
- Base: E9-1, Small Button 9-Pin
- Outline Drawing: EIA 6-2
  - Maximum Diameter: 0.875 inches
  - Maximum Over-all Length: 2.187 inches
  - Maximum Seated Height: 1.937 inches

**MAXIMUM RATINGS**
- Design-Center Values
  - Plate Voltage
  - Screen Voltage
  - Plate Dissipation
  - Screen Dissipation
  - DC Cathode Current
  - Peak Cathode Current
  - Heater-Cathode Voltage
    - Heater Positive with Respect to Cathode
      - DC Component
      - Total DC and Peak
    - Heater Negative with Respect to Cathode
      - Total DC and Peak
  - Grid-Number 1 Circuit Resistance
    - With Fixed Bias
    - With Cathode Bias

**PHYSICAL DIMENSIONS**
- Physical Dimensions Diagram

**TERMINAL CONNECTIONS**
- Pin 1 - Triode Plate
- Pin 2 - Pentode Grid-Number 1
- Pin 3 - Pentode Grid-Number 2 (Screen)
- Pin 4 - Heater
- Pin 5 - Heater
- Pin 6 - Pentode Plate
- Pin 7 - Pentode Cathode, Grid-Number 3 and Internal Shield
- Pin 8 - Triode Cathode
- Pin 9 - Triode Grid

**BASING DIAGRAM**
- EIA 9DC
MAXIMUM RATINGS (Cont'd)

Design-Center ratings are limiting values of operating and environmental conditions applicable to a bogey electron tube of a specified type as defined by its published data and should not be exceeded under normal conditions.

The tube manufacturer chooses these values to provide acceptable serviceability of the tube in average applications, making allowance for normal changes in operating conditions due to rated supply-voltage variation, equipment component variation, equipment control adjustment, load variation, signal variation, environmental conditions, and variations in the characteristics of the tube under consideration and of all other electron devices in the equipment.

The equipment manufacturer should design so that initially no design-center value for the intended service is exceeded with a bogey tube under normal operating conditions at the stated normal supply voltage.

CHARACTERISTICS AND TYPICAL OPERATION

<table>
<thead>
<tr>
<th>AVERAGE CHARACTERISTICS</th>
<th>Pentode Section</th>
<th>Triode Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plate Voltage</td>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td>Screen Voltage</td>
<td>200</td>
<td>---</td>
</tr>
<tr>
<td>Grid-Number 1 Voltage</td>
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<td>-1.0</td>
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<tr>
<td>Amplification Factor</td>
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<td>70</td>
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<tr>
<td>Plate Resistance, approx.</td>
<td>400000</td>
<td>20000</td>
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<tr>
<td>Transconductance</td>
<td>5500</td>
<td>3500</td>
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<tr>
<td>Plate Current</td>
<td>12.5</td>
<td>6.0</td>
</tr>
<tr>
<td>Screen Current</td>
<td>3.5</td>
<td>1.7</td>
</tr>
<tr>
<td>Grid Voltage, approximate</td>
<td></td>
<td>-1.3</td>
</tr>
<tr>
<td>( Ic = +0.3 ) Microamperes</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Grid-Number 1 Voltage, approximate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>( Ic1 = +0.3 ) Microamperes</td>
<td>---</td>
<td>-1.3</td>
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<tr>
<td>Grid-Number 1 Voltage, approximate</td>
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<td></td>
</tr>
<tr>
<td>( Ib = 10 ) Microamperes</td>
<td>-16</td>
<td>---</td>
</tr>
</tbody>
</table>

NOTES

- The equipment designer should design the equipment so that heater voltage is centered at the specified bogey value, with heater supply variations restricted to maintain heater voltage within the specified tolerance.
- Heater current of a bogey at \( E_f = 6.3 \) volts.
- Without external shield.