The 6AV11 is a compactron containing three medium-mu triodes suitable for general-purpose amplifier, phase inverter, or oscillator applications.

### GENERAL

#### ELECTRICAL

- **Cathode**—Coated Unipotential
- **Heater Characteristics and Ratings**
  - **Heater Voltage, AC or DC†** 6.3 ± 0.6 Volts
  - **Heater Current†** 0.6 Amperes
- **Direct Interelectrode Capacitances‡**
  
<table>
<thead>
<tr>
<th>Section 1</th>
<th>Section 2</th>
<th>Section 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grid to Plate (g to p)</td>
<td>1.2</td>
<td>1.2</td>
</tr>
<tr>
<td>Input: g to (h + k + i.s.)</td>
<td>1.9</td>
<td>1.9</td>
</tr>
<tr>
<td>Output: p to (h + k + i.s.)</td>
<td>1.8</td>
<td>0.7</td>
</tr>
</tbody>
</table>

#### MECHANICAL

- **Mounting Position**—Any
- **Envelope**—T-9, Glass
- **Base**—E12-70, Button 12-Pin
- **Outline Drawing**—EIA 9-56
  - **Maximum Diameter** 1.188 Inches
  - **Maximum Over-all Length** 1.875 Inches
  - **Maximum Seated Height** 1.500 Inches

### MAXIMUM RATINGS

**Design-Maximum Values, Each Section**

- **Plate Voltage** 330 Volts
- **Plate Dissipation** 2.75 Watts
- **Total Plate Dissipation, All Plates** 6.0 Watts
- **DC Cathode Current** 20 Milliamperes
- **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
  - **Grid Circuit Resistance**
    - **With Fixed Bias** 0.25 Megohms
    - **With Cathode Bias** 1.0 Megohms

### PHYSICAL DIMENSIONS

![Physical Dimensions Diagram](EIA-9-56)

### TERMINAL CONNECTIONS

- Pin 1—Heater
- Pin 2—Plate (Section 3)
- Pin 3—Cathode (Section 3)
- Pin 4—Cathode (Section 1)
- Pin 5—Plate (Section 2)
- Pin 6—Cathode (Section 2)
- Pin 7—Grid (Section 2)
- Pin 8—Internal Shield
- Pin 9—Grid (Section 1)
- Pin 10—Plate (Section 1)
- Pin 11—Grid (Section 3)
- Pin 12—Heater

### BASING DIAGRAM

![Basing Diagram](EIA-12BY)
MAXIMUM RATINGS (Cont'd)

Design-Maximum 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 the worst probable conditions.
The tube manufacturer chooses these values to provide acceptable serviceability of the tube, making allowance for the effects of changes in operating conditions due to variations in the characteristics of the tube under consideration.

The equipment manufacturer should design so that initially and throughout life no design-maximum value for the intended service is exceeded with a bogey tube under the worst probable operating conditions with respect to supply-voltage variation, equipment component variation, equipment control adjustment, load variation, signal variation, environmental conditions, and variations in the characteristics of all other electron devices in the equipment.

CHARACTERISTICS AND TYPICAL OPERATION

Average Characteristics, Each Section

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plate Voltage</td>
<td>100</td>
</tr>
<tr>
<td>Grid Voltage</td>
<td>0</td>
</tr>
<tr>
<td>Amplification Factor</td>
<td>20</td>
</tr>
<tr>
<td>Plate Resistance, approximate</td>
<td>6500</td>
</tr>
<tr>
<td>Transconductance</td>
<td>3100</td>
</tr>
<tr>
<td>Plate Current</td>
<td>11.8</td>
</tr>
<tr>
<td>Grid Voltage, approximate</td>
<td>10.5</td>
</tr>
<tr>
<td></td>
<td>-24</td>
</tr>
</tbody>
</table>

† 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 tube at $E_f = 6.3$ volts.

§ Without external shield.

The tubes and arrangements disclosed herein may be covered by patents of General Electric Company or others. Neither the disclosure of any information herein nor the sale of tubes by General Electric Company conveys any license under patent claims covering combinations of tubes with other devices or elements. In the absence of an express written agreement to the contrary, General Electric Company assumes no liability for patent infringement arising out of any use of the tubes with other devices or elements by any purchaser of tubes or others.

AVERAGE PLATE CHARACTERISTICS

\[ E_f = \text{RATED VALUE} \]

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Plate Voltage in Volts

0  50  100  150  200  250

Plate Current (mA) or Grid Current (mA)
AVERAGE PLATE CHARACTERISTICS

PLATE CURRENT IN MILLIAMPERES

PLATE VOLTAGE IN VOLTS

$E_f = \text{RATED VALUE}$

AVERAGE TRANSFER CHARACTERISTICS

PLATE CURRENT IN MILLIAMPERES

GRID VOLTAGE IN VOLTS

$E_f = \text{RATED VALUE}$