6AB4
TRIODE

DESCRIPTION AND RATING

The 6AB4 is a miniature triode designed for use as a grounded-grid radio-frequency amplifier, frequency converter, or oscillator at frequencies below approximately 300 megacycles.

GENERAL

ELECTRICAL
Cathode—Coated Unipotential
Heater Voltage, AC or DC ................. 6.3 Volts
Heater Current .......................... 0.15 Amperes
Direct Interelectrode Capacitances

MECHANICAL
Mounting Position—Any
Envelope—T-5 1/2, Glass
Base—E7-1, Miniature Button 7-Pin

<table>
<thead>
<tr>
<th>With Shield*</th>
<th>Without Shield</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grid to Plate: (g to p)</td>
<td>1.5</td>
</tr>
<tr>
<td>Input: g to (h+k)</td>
<td>2.2</td>
</tr>
<tr>
<td>Output: p to (h+k)</td>
<td>1.4</td>
</tr>
<tr>
<td>Heater to Cathode: (h to k)</td>
<td>2.9</td>
</tr>
<tr>
<td>Plate to Cathode: (p to k)</td>
<td>0.20</td>
</tr>
<tr>
<td>Grounded-Grid Input: k to (h+g)</td>
<td>5.2</td>
</tr>
<tr>
<td>Grounded-Grid Output: p to (h+g)</td>
<td>2.6</td>
</tr>
</tbody>
</table>

MAXIMUM RATINGS

DESIGN-CENTER VALUES
Plate Voltage .......................... 300 Volts
Negative DC Grid Voltage ............... 50 Volts
Plate Dissipation ...................... 2.5 Watts

Heater-Cathode Voltage
Heater Positive with Respect to Cathode .... 90 Volts
Heater Negative with Respect to Cathode .... 90 Volts

PHYSICAL DIMENSIONS

TERMINAL CONNECTIONS
Pin 1—Plate
Pin 2—No Connection
Pin 3—Heater
Pin 4—Heater
Pin 5—No Connection
Pin 6—Grid
Pin 7—Cathode

BASE DIAGRAM

EIA 5-2
CHARACTERISTICS AND TYPICAL OPERATION

CLASS A1 AMPLIFIER

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value 1</th>
<th>Value 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plate Voltage</td>
<td>100</td>
<td>250</td>
</tr>
<tr>
<td>Cathode-Bias Resistor</td>
<td>270</td>
<td>200</td>
</tr>
<tr>
<td>Amplification Factor</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>Plate Resistance, approximate</td>
<td>15000</td>
<td>10900</td>
</tr>
<tr>
<td>Transconductance</td>
<td>4000</td>
<td>5500</td>
</tr>
<tr>
<td>Plate Current</td>
<td>3.7</td>
<td>10</td>
</tr>
<tr>
<td>Grid Voltage, approximate</td>
<td>-5</td>
<td>-12</td>
</tr>
<tr>
<td>$I_b = 10$ Microamperes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* With external shield (EIA 316) connected to pin 7.

Design-Center ratings are limiting values of operating and environmental conditions applicable to a hogey 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 hogey tube under normal operating conditions at the stated normal supply voltage.

The tube 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

$E_f = \text{RATED VALUE}$
AVERAGE CHARACTERISTICS

$E_P = \text{RATED VALUE}$

$E_B = 250 \text{ VOLTS}$

$G_m$,

$R_P$,

$\mu$,

$G_m$ IN MICROHMS

TRANS CONDUCTANCE

PLATE CURRENT IN MILLIAMPERES

PLATE RESISTANCE $R_P$ IN OHMS

AMPLIFICATION FACTOR $\mu$

0 10000 20000 30000 40000 50000 100

0 20000 40000 60000 80000 100000

ELECTRIC

RECEIVING TUBE DEPARTMENT

GENERAL ELECTRIC

Owensboro, Kentucky