TENTATIVE DATA

TUNGSOL

TRIODE

MINIATURE TYPE

COATED UNIPOTENTIAL CATHODE

HEATFP

6.3±10% VOLTS 0.2 AMP.

AC OR DC

ANY MOUNTING POSITION

BOTTOM VIEW

MINIATURE BUTTON

7 PIN BASE

7EG

THE 6BN4 AND 6BN4A ARE MINIATURE MEDIUM-MU TRIODES DESIGNED FOR USE AS RADIO-FREQUENCY AMPLIFIERS IN VHF TELEVISION TUNERS. EXCEPT FOR THE HIGHER TRANSCONDUCTANCE AND LOWER PLATE RESISTANCE OF THE 6BN4A, THE TUBES ARE IDENTICAL.

DIRECT INTERELECTRODE CAPACITANCES

WITH EXTERNAL SHIELD #526

GRID TO PLATE
INPUT
OUTPUT
HEATER TO CATHODE

1.2 µuf
3.2 µuf
1.4 µuf
2.8 µuf

RATINGS

INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM

HEATER VOLTAGE
MAXIMUM PLATE VOLTAGE
MAXIMUM DC GRID VOLTAGE
MAXIMUM PLATE DISSIPATION
MAXIMUM DC CATHODE CURRENT
MAXIMUM HEATER-CATHODE VOLTAGE
HEATER POSITIVE WITH RESPECT TO CATHODE
HEATER NEGATIVE WITH RESPECT TO CATHODE
MAXIMUM GRID CIRCUIT RESISTANCE
HEATER WARM-UP TIME*

6.3±10% VOLTS
2/3 VOLTS
0 VOLTS
2.2 WATTS
22 MA.

200 VOLTS
100 VOLTS
0.5 MEGOHMS
11 SECONDS

*HEATER WARM-UP TIME IS DEFINED AS THE TIME REQUIRED FOR THE VOLTAGE ACROSS THE HEATER TO REACH 80% OF ITS RATED VOLTAGE AFTER APPLYING 4 TIMES RATED HEATER VOLTAGE TO A CIRCUIT CONSISTING OF THE TUBE HEATER IN SERIES WITH A RESISTANCE OF VALUE 3 TIMES THE NOMINAL HEATER OPERATING RESISTANCE.

DESIGN-MAXIMUM RATINGS ARE THE LIMITING VALUES EXPRESSED WITH RESPECT TO BOCHE TUBES AT WHICH SATISFACTORY TUBE LIFE CAN BE EXPECTED TO OCCUR. TO OBTAIN SATISFACTORY CIRCUIT PERFORMANCE, THEREFORE, THE EQUIPMENT DESIGNER MUST ENSURE THAT THE CIRCUIT DESIGN SO THAT NO DESIGN-MAXIMUM VALUE IS EXCEEDED WITH A BOCE TUBE UNDER THE WORST PROBABLE OPERATING CONDITIONS WITH RESPECT TO SUPPLY-VOLTAGE VARIATION, EQUIPMENT COMPONENT VARIATION, EQUIPMENT CONTROL ADJUSTMENT, LOAD VARIATION, AND ENVIRONMENTAL CONDITIONS.

CONTINUED ON FOLLOWING PAGE
**TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS**

**CLASS A\textsubscript{2} AMPLIFIER**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heater Voltage</td>
<td>6.3±10% Volts</td>
</tr>
<tr>
<td>Heater Current</td>
<td>0.2 Amps</td>
</tr>
<tr>
<td>Plate Voltage</td>
<td>150 Volts</td>
</tr>
<tr>
<td>Cathode-Bias Resistor</td>
<td>220 Ohms</td>
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<tr>
<td>Amplification Factor</td>
<td>43</td>
</tr>
<tr>
<td>Plate Resistance (Approx.) for 6BN4</td>
<td>6,300 Ohms</td>
</tr>
<tr>
<td>Plate Resistance (Approx.) for 6BN4A</td>
<td>5,400 Ohms</td>
</tr>
<tr>
<td>Transconductance (For 6BN4)</td>
<td>6,800 (\mu)Mhos</td>
</tr>
<tr>
<td>Transconductance (For 6BN4A)</td>
<td>7,700 (\mu)Mhos</td>
</tr>
<tr>
<td>Plate Current</td>
<td>9.0 Ma.</td>
</tr>
<tr>
<td>Grid Voltage (Approx.)</td>
<td>-6 Volts</td>
</tr>
</tbody>
</table>

\(I_b = 100 \mu\)Amps.

→ INDICATES A CHANGE.