TRIODE
MINIATURE TYPE

COATED UNIPOTENTIAL CATHODE
HEATER
6.3 VOLTS 0.6 AMP.
AC OR DC
ANY MOUNTING POSITION

BOTTOM VIEW
MINIATURE BUTTON
9 PIN BASE
9AC

GLASS BULB

THE 6S4 IS A HIGH PERVEANCE TRIODE USING THE SMALL BUTTON 9 PIN MINIATURE CONSTRUCTION. IT IS DESIGNED FOR USE AS A VERTICAL DEFLECTION AMPLIFIER IN TELEVISION RECEIVERS.

RATINGS
INTERPRETED ACCORDING TO EIA STANDARD NR-210
FOR OPERATION IN A 525-LINE, 30-FRAME SYSTEM

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEATER VOLTAGE</td>
<td>6.3 VOLTS</td>
</tr>
<tr>
<td>MAXIMUM HEATER-CATHODE VOLTAGE</td>
<td>200 VOLTS</td>
</tr>
<tr>
<td>MAXIMUM DC PLATE VOLTAGE</td>
<td>500 VOLTS</td>
</tr>
<tr>
<td>MAXIMUM DC PEAK POSITIVE-PULSE PLATE VOLTAGE</td>
<td>2000 VOLTS</td>
</tr>
<tr>
<td>MAXIMUM DC GRID VOLTAGE</td>
<td>-50 VOLTS</td>
</tr>
<tr>
<td>MAXIMUM PEAK NEGATIVE-PULSE GRID VOLTAGE</td>
<td>-200 VOLTS</td>
</tr>
<tr>
<td>MAXIMUM DC CATHODE CURRENT</td>
<td>30 MA.</td>
</tr>
<tr>
<td>MAXIMUM PLATE DISSIPATION</td>
<td>7.5 WATTS</td>
</tr>
<tr>
<td>MAXIMUM GRID CIRCUIT RESISTANCE</td>
<td>2.2 MEGOHMS</td>
</tr>
<tr>
<td>MINIMUM CATHODE BIAS RESISTANCE C</td>
<td>220 OHMS</td>
</tr>
</tbody>
</table>

A AS DESCRIBED IN "STANDARDS OF GOOD ENGINEERING PRACTICE FOR TELEVISION BROADCAST STATIONS," FEDERAL COMMUNICATIONS COMMISSION.

B THE DURATION OF THE VOLTAGE PULSE MUST NOT EXCEED 25 PERCENT OF ONE SCANNING CYCLE. IN A 525-LINE, 30-FRAME SYSTEM, 25 PERCENT OF ONE SCANNING CYCLE IS 2.5 MILLISECONDS.

C INDICATED MINIMUM VALUE OF THIS RESISTOR IS REQUIRED TO PROTECT THE TUBE IN THE EVENT OF TEMPORARY FAILURE OF EXCITATION AND RESULTANT LOSS IN DEVELOPED BIAS.

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

**VERTICAL DEFLECTION AMPLIFIER**

- **Heater Voltage**: 6.3 Volts
- **Heater Current**: 0.6 Amps
- **DC Plate Voltage**: 450 Volts
- **Cathode Bias Resistor**: 820 Ohms
- **Grid Input Voltage (Approx.)**: 50 Volts
  - Peak-to-Peak Sawtooth Component: 60 Volts
  - Negative Peaking Component: 46 Volts
- **DC Plate Current**: 18 Ma.
- **Plate Output Voltage (Approx.)**: 800 Volts
  - Peak Positive Pulse Component: 350 Volts

### CLASS A2 AMPLIFIER

- **Heater Voltage**: 6.3 Volts
- **Heater Current**: 0.6 Amps
- **Plate Voltage**: 250 Volts
- **Grid Voltage**: -8 Volts
- **Plate Current**: 26 Ma.
- **Plate Resistance (Approx.)**: 3600 Ohms
- **Transconductance**: 4500 Umhos
- **Amplification Factor**: 16

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![Graph](image-url)

**6S4**

\[ E_f = 6.3 \text{ Volts} \]