DOUBLE TRIODE

COATED UNIPOTENTIAL CATHODES

HEATER
6.3 VOLTS 1.5 AMP.
AC OR DC
ANY MOUNTING POSITION

BOTTOM-VIEW
SHORT INTERMEDIATE SHELL 8 PIN OCTAL
800

GLASS BULB

THE 6BX7GT IS A HIGH PERCEANCE DOUBLE TRIODE DESIGNED FOR USE AS A VERTICAL DEFLECTION AMPLIFIER AND OSCILLATOR IN TELEVISION RECEIVERS.

DIRECT INTERELECTRODE CAPACITANCES — APPROX.

<table>
<thead>
<tr>
<th>SECTION I</th>
<th>WITHOUT SHIELD</th>
<th>WITH SHIELD</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRID TO PLATE: (G TO P)</td>
<td>4.2 μμf</td>
<td>4.2 μμf</td>
</tr>
<tr>
<td>INPUT: G TO (H+K)</td>
<td>4.4 μμf</td>
<td>5 μμf</td>
</tr>
<tr>
<td>OUTPUT: P TO (H+K)</td>
<td>1.1</td>
<td>3.4 μμf</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SECTION II</th>
<th>WITHOUT SHIELD</th>
<th>WITH SHIELD</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRID TO PLATE: (G TO P)</td>
<td>4 μμf</td>
<td>4 μμf</td>
</tr>
<tr>
<td>INPUT: G TO (H+K)</td>
<td>4.8 μμf</td>
<td>5 μμf</td>
</tr>
<tr>
<td>OUTPUT: P TO (H+K)</td>
<td>1.2</td>
<td>3.2 μμf</td>
</tr>
<tr>
<td>GRID TO GRID: (G TO G)</td>
<td>0.11 μμf</td>
<td>0.1 μμf</td>
</tr>
<tr>
<td>PLATE TO PLATE: (P TO P)</td>
<td>1.5</td>
<td>1.2 μμf</td>
</tr>
</tbody>
</table>

^EXTERNAL SHIELD #308 CONNECTED TO CATHODE OF SECTION UNDER TEST.

CONTINUED ON FOLLOWING PAGE

ـــ INDICATES A CHANGE OR ADDITION.
### RATING

**INTERRUPTED ACCORDING TO DESIGN CENTER SYSTEM**

**VERTICAL DEFLECTION AMPLIFIER AND OSCILLATOR**

<table>
<thead>
<tr>
<th>OSCILLATOR</th>
<th>AMPLIFIER</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HEATER VOLTAGE</strong></td>
<td>6.3 VOLTS</td>
</tr>
<tr>
<td><strong>MAXIMUM HEATER-CATHODE VOLTAGE:</strong></td>
<td></td>
</tr>
<tr>
<td>HEATER NEGATIVE WITH RESPECT TO CATHODE:</td>
<td></td>
</tr>
<tr>
<td>DC</td>
<td>200 VOLTS</td>
</tr>
<tr>
<td><strong>TOTAL DC AND PEAK</strong></td>
<td>200 VOLTS</td>
</tr>
<tr>
<td>HEATER POSITIVE WITH RESPECT TO CATHODE:</td>
<td></td>
</tr>
<tr>
<td>DC</td>
<td>100 VOLTS</td>
</tr>
<tr>
<td><strong>TOTAL DC AND PEAK</strong></td>
<td>200 VOLTS</td>
</tr>
<tr>
<td><strong>MAXIMUM DC PLATE VOLTAGE</strong></td>
<td>500 VOLTS</td>
</tr>
<tr>
<td><strong>MAXIMUM PEAK POSITIVE PULSE PLATE VOLTAGE</strong></td>
<td>2000 VOLTS</td>
</tr>
<tr>
<td><strong>MAXIMUM PEAK NEGATIVE PULSE GRID VOLTAGE</strong></td>
<td>400 VOLTS</td>
</tr>
<tr>
<td><strong>MAXIMUM DC POSITIVE GRID VOLTAGE</strong></td>
<td>0 VDC</td>
</tr>
<tr>
<td><strong>MAXIMUM PLATE DISSIPATION</strong></td>
<td>10 WATTS</td>
</tr>
<tr>
<td><strong>MAXIMUM TOTAL PLATE DISSIPATION</strong></td>
<td>12 WATTS</td>
</tr>
<tr>
<td><strong>MAXIMUM AVERAGE CATHODE CURRENT</strong></td>
<td>60 MA</td>
</tr>
<tr>
<td><strong>MAXIMUM PEAK CATHODE CURRENT</strong></td>
<td>180 MA</td>
</tr>
<tr>
<td><strong>MAXIMUM GRID CIRCUIT RESISTANCE (SELF BIAS)</strong></td>
<td>2.2 MEGOHMS</td>
</tr>
</tbody>
</table>

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**B** FOR OPERATION IN A 525-LINE, 30-FRAME SYSTEM AS DESCRIBED IN "STANDARDS OF GOOD ENGINEERING PRACTICE IN TELEVISION BROADCASTING STATIONS, FEDERAL COMMUNICATIONS COMMISSION". THE DURATION OF THE VOLTAGE PULSE IS NOT TO EXCEED 15% OF ONE SCANNING CYCLE.

**C** WHEN ONE SECTION IS OPERATED AS AN OSCILLATOR IT IS RECOMMENDED THAT SECTION #1 (PINS 4, 5 AND 6) BE USED.

**D** IN STAGES OPERATING WITH GRID LEAK BIAS, AN ADEQUATE BIAS RESISTOR OR OTHER SUITABLE MEANS IS REQUIRED TO PROTECT THE TUBE IN THE ABSENCE OF EXCITATION.

### TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

| HEATER VOLTAGE | 6.3 VOLTS |
| HEATER CURRENT | 1.5 AMP |
| PLATE VOLTAGE  | 250 VOLTS |
| GRID #1 VOLTAGE| 0 VOLTS |
| CATHODE RESISTOR| 390 OHMS |
| PLATE CURRENT  | 42 MA |
| TRANSCONDUCTANCE| 7600 μMhos |
| AMPLIFICATION FACTOR| 10 |
| PLATE RESISTANCE (APPROX.)| 1300 OHMS |
| GRID VOLTAGE FOR IB = 50 μA| -40 VOLTS |

→ INDICATES A CHANGE.