**TUNG-SOL**

**BEAM PENTODE**

COATED UNIPOTENTIAL CATHODE

HEATER
6.3 VOLTS 1.2 AMP.
AC OR DC
ANY MOUNTING POSITION

BOTTOM VIEW
INTERMEDIATE SHELL
7 PIN OCTAL
6AM

GLASS BULB

THE 6BQ6GT IS A BEAM PENTODE DESIGNED SPECIFICALLY FOR USE AS A HORIZONTAL DEFLECTION AMPLIFIER IN TELEVISION RECEIVERS USING MAGNETIC DEFLECTION. THE PLATE IS BROUGHT OUT TO A TOP CAP FOR ISOLATION OF THE HIGH VOLTAGE AND CONVENIENCE IN CIRCUIT LAYOUT. ITS ELECTRICAL CHARACTERISTICS ARE SUCH AS TO PROVIDE GOOD PERFORMANCE WHERE THE SUPPLY VOLTAGES ARE LIMITED.

**DIRECT INTERELECTRODE CAPACITANCES**

| GRID #1 TO PLATE: (G1 TO P) | 0.6 µuf |
| INPUT: G1 TO (H+K+G2+BP) | 15 µuf |
| OUTPUT: P TO (H+K+G2+BP) | 7.5 µuf |

**RATINGS**

INTERPRETED ACCORDING TO RMA STANDARD WB-210

**HORIZONTAL DEFLECTION AMPLIFIER**

HEATER VOLTAGE

MAXIMUM HEATER-CATHODE VOLTAGE:
HEATER NEGATIVE WITH RESPECT TO CATHODE:
TOTAL DC AND PEAK
200 VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE:
TOTAL DC AND PEAK
100 VOLTS
200 VOLTS
MAXIMUM DC PLATE SUPPLY VOLTAGE (BOOST + POWER SUPPLY)
550 VOLTS
MAXIMUM PEAK POSITIVE PLATE VOLTAGE (ABSOLUTE MAXIMUM)
5 500 VOLTS
MAXIMUM PEAK NEGATIVE PLATE VOLTAGE
1 250 VOLTS
MAXIMUM PLATE DISSIPATION
11 WATTS
MAXIMUM PEAK NEGATIVE GRID #1 VOLTAGE
300 VOLTS
MAXIMUM DC GRID #2 VOLTAGE
175 VOLTS
MAXIMUM GRID #2 DISSIPATION
2.5 WATTS
MAXIMUM AVERAGE CATHODE CURRENT
110 MA.
MAXIMUM PEAK CATHODE CURRENT
400 MA.
MAXIMUM GRID #1 CIRCUIT RESISTANCE
0.47 MEGOHM
MAXIMUM BULB TEMPERATURE (AT HOTTEST POINT)
220° CENTIGRADE

A FOR OPERATION IN A 525-LINE, 30-FRAME SYSTEM AS DESCRIBED IN "STANDARDS OF GOOD ENGINEERING PRACTICE FOR TELEVISION BROADCASTING STATIONS; FEDERAL COMMUNICATIONS COMMISSION". THE DUTY CYCLE OF THE VOLTAGE PULSE NOT TO EXCEED 15 PERCENT OF A SCANNING CYCLE.

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

CONTINUED ON FOLLOWING PAGE

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PLATE 3142
FEB. 1 1953

FEBRUARY 1, 1953 TUNG-SOL ELECTRIC INC. ELECTRON TUBE DIVISION NEWARK, NEW JERSEY, U.S.A.
### TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

**CLASS A\textsubscript{1} AMPLIFIER**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEATER VOLTAGE</td>
<td>6.3 V</td>
</tr>
<tr>
<td>HEATER CURRENT</td>
<td>1.2 A</td>
</tr>
<tr>
<td>PENTODE CONNECTION:\textsuperscript{C}</td>
<td></td>
</tr>
<tr>
<td>PLATE CURRENT</td>
<td>55 MA</td>
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<tr>
<td>GRID #2 CURRENT</td>
<td>2.1 MA</td>
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<tr>
<td>TRANSCONDUCTANCE</td>
<td>5 500 \text{\mu}H</td>
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<tr>
<td>PLATE RESISTANCE</td>
<td>20 000 \text{OHMS}</td>
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<tr>
<td>ZERO-BIAS: \textsuperscript{D}</td>
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</tr>
<tr>
<td>PLATE CURRENT</td>
<td>225 MA</td>
</tr>
<tr>
<td>GRID #2 CURRENT</td>
<td>25 MA</td>
</tr>
<tr>
<td>CUT-OFF: \textsuperscript{E}</td>
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</tr>
<tr>
<td>GRID #1 VOLTAGE (APPROX.)</td>
<td>-46 V</td>
</tr>
<tr>
<td>TRIODE AMPLIFICATION FACTOR\textsuperscript{F}</td>
<td>4.3</td>
</tr>
</tbody>
</table>

\textsuperscript{C} With $E_b = 250 \text{ VOLTS}$, $E_{c2} = 150 \text{ VOLTS}$ and $E_{c1} = -22.5 \text{ VOLTS}$.

\textsuperscript{D} With $E_b = 60 \text{ VOLTS}$ and $E_{c2} = 150 \text{ VOLTS}$.

\textsuperscript{E} For $I_b = 1 \text{ MA}$, with $E_b = 250 \text{ VOLTS}$ and $E_{c2} = 150 \text{ VOLTS}$

\textsuperscript{F} With $E_b = E_{c2} = 150 \text{ VOLTS}$ and $E_{c1} = -22.5 \text{ VOLTS}$.

→ INDICATES A CHANGE OR ADDITION.