MECHANICAL DATA
Bulb .................................................... T-9
Base ..................................................... Intermediate Shell Octal
Basing ................................................... 6AM
Top Cap .................................................. Skirted Miniature
Cathode .................................................. Coated Unipotential
Mounting Position .................................... Any

ELECTRICAL DATA
HEATER CHARACTERISTICS
Heater Voltage ........................................ 6.3 Volts
Heater Current .......................................... 1.2 Amperes
Maximum Heater-Cathode Voltage
Heater Negative with Respect to Cathode
Total DC and Peak ...................................... 200 Volts
Heater Positive with Respect to Cathode
DC .......................................................... 100 Volts
Total DC and Peak ...................................... 200 Volts

DIRECT INTERELECTRODE CAPACITANCES (Approximate)
Grid to Plate ........................................... 0.6 µf
Input .................................................... 15 µf
Output .................................................. 7.3 µf

RATINGS (Design Center Values — Except as Noted)
Horizontal Deflection Amplifier
DC Plate Supply Voltage
(Boost + DC Power Supply) .......................... 550 Volts Max.
Peak Positive Plate Voltage (Abs. Max.) .............. 5500 Volts
Peak Negative Plate Voltage .......................... 1250 Volts Max.
Plate Dissipation1 ...................................... 11 Watts Max.
Peak Negative Grid #1 Voltage ....................... 300 Volts Max.
DC Grid #2 Voltage .................................... 175 Volts Max.
Grid #2 Dissipation ................................. 2.5 Watts Max.
Average Cathode Current .............................. 110 Ma Max.
Peak Cathode Current .................................. 400 Ma Max.
Grid #1 Circuit Resistance ......................... 0.47 Megohm Max.
Bulb Temperature (At Hottest Point) ................ 220° C Max.

AVERAGE CHARACTERISTICS
Pentode Operation: With $E_b=250$ V, $E_{c2}=150$ V and $E_{c1}=-22.5$ V
Plate Current .......................................... 55 Ma
Grid #2 Current ........................................ 2.1 Ma
Transconductance ..................................... 5500 µmhos
Plate Resistance ....................................... 20,000 Ohms

Zero Bias: With $E_b=60$ V and $E_{c2}=150$ V (Instantaneous Values)
Plate Current .......................................... 225 Ma
Grid #2 Current ........................................ 25 Ma

Cutoff: For $I_b=1$ mA with $E_b=250$ V and $E_{c2}=150$ V
Grid #1 Voltage (approx.) ........................... -46 Volts

Triode Amplification Factor: With
$E_b=E_{c2}=150$ V and $E_{c1}=-22.5$ V .............. 4.3

The Sylvania Type 6BQ6GT is a beam power amplifier designed for use as a driver tube in horizontal deflection amplifiers. It is identical to the type 6BQ6G except for bulb size.
TYPICAL OPERATION

Horizontal Deflection Amplifier, 70° Picture Tube

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plate Supply Voltage</td>
<td>310 Volts</td>
</tr>
<tr>
<td>Average Plate Voltage (Boost + Supply)</td>
<td>540 Volts</td>
</tr>
<tr>
<td>Peak Positive Plate Voltage</td>
<td></td>
</tr>
<tr>
<td>D.C. Component + Pulse</td>
<td>4600 Volts</td>
</tr>
<tr>
<td>Average Plate Current</td>
<td>79 Ma</td>
</tr>
<tr>
<td>Peak Plate Current</td>
<td>270 Ma</td>
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<tr>
<td>Plate Dissipation</td>
<td>7.0 Watts</td>
</tr>
<tr>
<td>Grid No. 2 Voltage</td>
<td>140 Volts</td>
</tr>
<tr>
<td>Grid No. 2 Current</td>
<td>11.2 Ma</td>
</tr>
<tr>
<td>Grid No. 2 Dissipation</td>
<td>1.57 Watts</td>
</tr>
<tr>
<td>Grid No. 1 Input Voltage</td>
<td></td>
</tr>
<tr>
<td>Peak to Peak</td>
<td>130 Volts</td>
</tr>
<tr>
<td>Sawtooth Component</td>
<td>65 Volts</td>
</tr>
<tr>
<td>Anode Voltage (Picture Tube)</td>
<td>15.7 Kv</td>
</tr>
<tr>
<td>Anode Current (Picture Tube)</td>
<td>100 μA</td>
</tr>
</tbody>
</table>

NOTES:

1. 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% of a scanning cycle.

2. 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.
AVERAGE PLATE CHARACTERISTICS

- E_r = 6.3 VOLTS
- E_G1 = 0 VOLTS

Current in Milliamperes vs Plate Voltage Graph
AVERAGE PLATE CHARACTERISTICS

CURRENT IN MILLIAMPERES

GRID NUMBER 1 VOLTAGE

E1 = 6.3 VOLTS
E6 = 250 VOLTS