MECHANICAL DATA

Bulb .................................. T-5½
Base .................................. E7-1, Miniature Button, 7-Pin
Outline .................................. 5-2
Basing .................................. 7CH
Cathode .................................. Coated Unipotential
Mounting Position .................. Any

ELECTRICAL DATA

HEATER CHARACTERISTICS

Heater Voltage .......................... 6.3 Volts
Heater Current .......................... 300 Ma
Peak Heater Cathode Voltage
Heater Positive ......................... 90 Volts Max.
Heater Negative ......................... 90 Volts Max.

DIRECT INTERELECTRODE CAPACITANCES (Unshielded)

Grid No. 1 to Plate .................. 0.08 \( \mu \text{F} \) Max.
Grid No. 3 to Plate .................. 0.35 \( \mu \text{F} \) Max.
Grid No. 1 to Grid No. 3 ............. 0.15 \( \mu \text{F} \) Max.
Grid No. 1 to All Other Electrodes
and Heater ........................... 5.4 \( \mu \text{F} \)
Grid No. 3 to All Other Electrodes
and Heater ........................... 6.9 \( \mu \text{F} \)
Plate to All Other Electrodes and Heater .... 7.6 \( \mu \text{F} \)

RATINGS (Absolute Values)

Gated Amplifier in Computer Service
and "On-Off" Control Service

Plate Voltage ......................... 250 Volts Max.
Grids No. 2 and No. 4 Voltage ........ See Rating Chart
Grids No. 2 and No. 4 Supply Voltage .... 250 Volts Max.
Grid No. 3 Supply Voltage
Negative Bias Value .................. 100 Volts Max.
Positive Bias Value .................. 0 Volts Max.
Peak Negative Value .................. 200 Volts Max.
Peak Positive Value .................. 90 Volts Max.
Grid No. 1 Supply Voltage
Negative Bias Value .................. 100 Volts Max.
Positive Bias Value .................. 0 Volts Max.
Peak Negative Value ................. 200 Volts Max.
Peak Positive Value .................. Limited in Any Application
by the Peak Cathode Current
and the Grid No. 1 Input

Plate Dissipation ..................... 1 Watt Max.
Grid No. 3 Input ...................... 0.5 Watt Max.
Grids No. 2 and No. 4 Input .......... 1 Watt Max.
Grid No. 1 Input ...................... 0.5 Watt Max.
D.C. Cathode Current ................ 20 Ma Max.
Peak Cathode Current ............... 70 Ma Max.
Bulb Temperature (at Hottest Point) ... 120°C Max.
Grid No. 1 or Grid No. 3 Circuit Resistance
Fixed Bias .......................... 0.5 Megohm Max.
Cathode Bias ......................... 1.0 Megohm Max.
CHARACTERISTICS

Class A Amplifier

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value 1</th>
<th>Value 2</th>
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<tbody>
<tr>
<td>Plate Voltage</td>
<td>67.5</td>
<td>67.5 Volts</td>
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<tr>
<td>Grids No. 2 and No. 4 Voltage</td>
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<td>67.5 Volts</td>
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<tr>
<td>Grid No. 3 Voltage</td>
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<tr>
<td>Grid No. 1 Voltage</td>
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<td>Grid No. 3 Transconductance</td>
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TYPICAL OPERATION

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<tr>
<th>Parameter</th>
<th>Cutoff Condition</th>
<th>Zero Bias Condition</th>
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<td>Plate Supply Voltage</td>
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<td>Grid No. 3 Supply Voltage</td>
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<td>Grid No. 3 Circuit Resistance</td>
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<td>Plate Current</td>
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<td>Grids No. 2 and No. 4 Current</td>
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</table>
AVERAGE CHARACTERISTICS

$E_f = \text{RATED VALUE}$

GRIDS NO. 2 & 4 SUPPLY VOLTS = 75
GRID NO. 1 SUPPLY VOLTS = 0
GRID NO. 3 CIRCUIT RESISTANCE = 47,000 OHMS
GRIDS NO. 2 & 4 SERIES RESISTOR = 470 OHMS
GRID NO. 1 CIRCUIT RESISTANCE = 47,000 OHMS