MECHANICAL DATA

Bulb ............................................ T-5 1/2
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 μF Max.
Grid No. 3 to Plate ................................ 0.35 μF Max.
Grid No. 1 to Grid No. 3 ......................... 0.2 μF Max.
Grid No. 1 to All Other Electrodes
  and Heater ...................................... 5.4 μF
Grid No. 3 to All Other Electrodes
  and Heater ...................................... 6.9 μF
Plate to All Other Electrodes and Heater ........ 7.6 μF

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.
  DC Cathode Current ........................... 20 Ma Max.
  Peak Cathode Current .......................... 70 Ma Max.
  Grid No. 1 or Grid No. 3 Circuit Resistance
    Fixed Bias ................................... 0.5 Megohm Max.
    Cathode Bias .................................. 1.0 Megohm Max.
  Bulb Temperature (At Hottest Point) ........... 120° C Max.

SYLVANIA ELECTRIC
PRODUCTS INC.
RADIO TUBE DIVISION
EMPORIUM, PA.

Prepared and Released By The
TECHNICAL PUBLICATIONS SECTION
EMPORIUM, PENNSYLVANIA
APRIL, 1957
PAGE 1 OF 12
CHARACTERISTICS

Class A Amplifier

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Control</th>
<th>Bias</th>
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<tbody>
<tr>
<td>Plate Voltage</td>
<td>67.5</td>
<td>67.5</td>
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<tr>
<td>Grids No. 2 and No. 4 Voltage</td>
<td>67.5</td>
<td>67.5</td>
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<tr>
<td>Grid No. 3 Voltage</td>
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<td>-4</td>
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<tr>
<td>Grid No. 1 Voltage</td>
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<td>Grid No. 1 Transconductance</td>
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<td>μmhos</td>
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<td>Grid No. 3 Transconductance</td>
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<td>1700 μmhos</td>
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TYPICAL OPERATION

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<th>Parameter</th>
<th>Cutoff Condition</th>
<th>Zero Bias Condition</th>
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<td>Grid No. 1 Control</td>
<td>Grid No. 3 Control</td>
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<tr>
<td>Plate Supply Voltage</td>
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<td>Grid No. 3 Supply Voltage</td>
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<td>Grids No. 2 and No. 4 Supply Voltage</td>
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<td>75</td>
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<td>Grid No. 1 Supply Voltage</td>
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<td>Plate Circuit Resistance</td>
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<td>Grid No. 3 Circuit Resistance</td>
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<td>Grid No. 1 Circuit Resistance</td>
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<td>Plate Current</td>
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<tr>
<td>Grids No. 2 and No. 4 Current</td>
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<td>14</td>
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</tbody>
</table>
AVERAGE PLATE CHARACTERISTICS

\[ E_f = \text{RATED VALUE} \]
\[ E_{C2} \& 4 = 67.5 \text{ VOLTS} \]
\[ E_{C3} = 0 \text{ VOLTS} \]

CURRENTS IN MA

PLATE VOLTAGE
AVERAGE PLATE CHARACTERISTICS

\[ E_f = \text{RATED VALUE} \]
\[ E_{C1} = 0 \text{ VOLTS} \]
\[ E_{C3} = 0 \text{ VOLTS} \]
AVERAGE PLATE CHARACTERISTICS

\[ E_f = \text{RATED VALUE} \]
\[ E_{C2 \& 4} = 67.5 \text{ VOLTS} \]
\[ E_{C1} = 0 \text{ VOLTS} \]

CURRENT IN MA

PLATE VOLTAGE
AVERAGE SCREEN CHARACTERISTICS

\[ E_f = \text{RATED VALUE} \]
\[ E_{C2\&4} = 67.5 \text{ VOLTS} \]
\[ E_{C1} = 0 \text{ VOLTS} \]

CURRENT (I_{C3}) IN MA

PLATE VOLTAGE

CURRENT (I_{C2\&4}) IN MA

I_{C2 + 4}

E_{C3} = -8.0 VOLTS

-6.0
-5.0
-4.0
-3.0
-2.0
-1.0
0
2.0
10

E_{C3} = 10 VOLTS

4.0
2.0
AVERAGE TRANSFER CHARACTERISTICS

$E_f = \text{RATED VALUE}$
$E_b = 150 \text{ VOLTS}$
$E_{C3} = 0 \text{ VOLTS}$
AVERAGE TRANSFER CHARACTERISTICS

$E_f = \text{RATED VALUE}$
$E_b = 150 \text{ VOLTS}$
$E_{C3} = 0 \text{ VOLTS}$
RATING CHART

GRID NO. 2 DISSIPATION EXPRESSED AS PERCENT OF MAX GRID NO. 2 DISSIPATION RATING

GRID NO. 2 VOLTAGE EXPRESSED AS PER CENT OF MAX GRID NO. 2 SUPPLY VOLTAGE RATING