ADVANCE DATA

MECHANICAL DATA

Bulb: T-12
Base: B8-110, Short Medium Shell Octal 8-Pin
Outline: 12-14
Basing: 81P
Cathode: Coated Unipotential
Mounting Position: Any

ELECTRICAL DATA

HEATER CHARACTERISTICS

Heater Voltage (ac or dc): 6.3 Volts
Heater Current: 1.2 Amperes
Heater-Cathode Voltage (Design Maximum System)\(^1\)
Heater Positive with Respect to Cathode
Total DC and Peak: 200 Volts Max.
Heater Negative with Respect to Cathode
DC: 100 Volts Max.
Total DC and Peak: 200 Volts Max.

RATING (Design Maximum System)\(^1\) - Each Section

Plate Voltage: 400 Volts Max.
Grid No. 2 Voltage: 300 Volts Max.
Plate Dissipation: 15 Watts Max.
Grid No. 2 Dissipation: 2.0 Watts Max.
Grid No. 1 Circuit Resistance
Fixed Bias: 0.1 Megohm Max.
Self Bias: 0.47 Megohm Max.

AVERAGE CHARACTERISTICS - Each Section

Plate Voltage: 250 Volts
Grid No. 2 Voltage: 250 Volts
Grid No. 1 Voltage: -12.5 Volts
Plate Current: 50 Ma
Grid No. 2 Current: 3.0 Ma
Transconductance: 6000 Mhos
Plate Resistance (Approx.): 28,000 Ohms

CHARACTERISTICS AND TYPICAL OPERATION

Class AB1 Amplifier (two sections in push-pull)

Plate Voltage: 250 400 Volts
Grid No. 2 Voltage: 250 250 Volts
Grid No. 1 Voltage: -16 -20 Volts
Peak AF Grid to Grid Voltage: 32 40 Volts
Zero Signal Plate Current: 77 58 Ma
Maximum Signal Plate Current: 74 74 Ma
Zero Signal Grid No. 2 Current: 1.7 Ma

SYLVANIA ELECTRIC PRODUCTS INC.

RADIO TUBE DIVISION
EMPORIUM, PA.

Prepared and Released By The
TECHNICAL PUBLICATIONS SECTION
EMPORIUM, PENNSYLVANIA

October 8, 1958

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CHARACTERISTICS AND TYPICAL OPERATION (Cont'd)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value 1</th>
<th>Value 2</th>
<th>Unit</th>
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<tbody>
<tr>
<td>Maximum Signal Grid No. 2 Current</td>
<td>15.5</td>
<td>14.0</td>
<td>Ma</td>
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<tr>
<td>Load Resistance (Plate to Plate)</td>
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<td>14,000</td>
<td>Ohms</td>
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<tr>
<td>Maximum Signal Power Output</td>
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<td>20</td>
<td>Watts</td>
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<tr>
<td>Total Harmonic Distortion</td>
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<td>2.0</td>
<td>Percent</td>
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Class A1 Operating Conditions and Characteristics² (Single Section)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value 1</th>
<th>Unit</th>
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</thead>
<tbody>
<tr>
<td>Plate Voltage</td>
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<td>Volts</td>
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<tr>
<td>Grid No. 2 Voltage</td>
<td>250</td>
<td>Volts</td>
</tr>
<tr>
<td>Grid No. 1 Voltage</td>
<td>-12.5</td>
<td>Volts</td>
</tr>
<tr>
<td>Peak AF Signal Voltage</td>
<td>12.5</td>
<td>Volts</td>
</tr>
<tr>
<td>Zero Signal Plate Current</td>
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<tr>
<td>Maximum Signal Plate Current</td>
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<td>Ma</td>
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<tr>
<td>Zero Signal Grid No. 2 Current</td>
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<td>Ma</td>
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<tr>
<td>Maximum Signal Grid No. 2 Current</td>
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<td>Ma</td>
</tr>
<tr>
<td>Load Resistance</td>
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<td>Ohms</td>
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<tr>
<td>Maximum Signal Power Output</td>
<td>5.0</td>
<td>Watts</td>
</tr>
<tr>
<td>Total Harmonic Distortion</td>
<td>9.0</td>
<td>Percent</td>
</tr>
</tbody>
</table>

NOTES:

1. Design-Maximum Ratings are limiting values of operating and environmental conditions applicable to a bogey electron device of a specified type as defined by its published data, and should not be exceeded under the worst probable conditions.

The device manufacturer chooses these values to provide acceptable serviceability of the device taking responsibility for the effects of changes in operating conditions due to variations in device characteristics.

The equipment manufacturer should design so that initially and throughout life no design-maximum value for the intended service is exceeded with a bogey device under the worst probable operating conditions with respect to supply voltage variation, equipment component variation, equipment control adjustment, load variation, signal variation, and environmental conditions.

2. The effects of cross-coupling between sections, with both sections operating simultaneously as single channel Class A1 Amplifiers, is 50 db down.