SYLVANIA ELECTRIC
RMA Registration Data

TYPE 5930
TRIODE

The Type 5930 is a triode power amplifier designed to operate in applications where severe conditions of vibration and shock are encountered.

MECHANICAL DATA

GENERAL
Cathode ........................................ coated filament
Bulb .............................................. T-12
Base ............................................. (see drawing, Page 2)
Outline ........................................... Large 4-Pin, low loss phenolic
(see drawing, Page 2)
Maximum Diameter ................................ 1.70 inches
Maximum Overall Length .......................... 4 1/2 inches
Maximum Seated Height ........................... 3 7/8 inches
Mounting Position:
Vertical ........................................... base up or down
Horizontal ....................... pins 1 and 4 in vertical plane
Basing ............................................ 4D
Pin Connections:
Pin 1 .. filament (+)      Pin 3 .. grid
Pin 2 .. plate             Pin 4 .. filament (-)

RATINGS
Maximum Impact Acceleration\(^{(1)}\) .................. 450 g
Maximum Vibrational Acceleration
for Extended Periods\(^{(2)}\) .................. 2.5 g

ELECTRICAL DATA

GENERAL
Filament Voltage (ac or dc) .................. 2.5 volts
Filament Current .............................. 2.5 amps

RATINGS -- Absolute System
Maximum Plate Voltage (dc) .................. 360 volts
Maximum Plate Dissipation .................. 15 watts
Maximum Grid-Circuit Resistance (fixed bias) .... 50,000 ohms

CHARACTERISTICS
Conditions:
Filament Voltage (ac or dc) .................. 2.5 volts
Plate Voltage (dc) ............................ 250 volts
Grid Voltage\(^{(3)}\) (dc) .................. -45 volts
Amplification Factor ........................... 4.2
Plate Resistance ................................ 800 ohms
Transconductance ....................... 5,250 micromhos
Plate Current (dc) .................. 60 milliamps

(See Page 2 for all notes.)
SYLVANIA ELECTRIC

TYPE 5930

TYPICAL OPERATION

**Class A\textsubscript{1} Amplifier**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filament Voltage (ac or dc)</td>
<td>2.5 volts</td>
</tr>
<tr>
<td>Plate Voltage (dc)</td>
<td>250 volts</td>
</tr>
<tr>
<td>Grid Voltage (3J) (dc)</td>
<td>-45 volts</td>
</tr>
<tr>
<td>Plate Load Resistance</td>
<td>2.500 ohms</td>
</tr>
<tr>
<td>Power Output</td>
<td>3.5 watts</td>
</tr>
<tr>
<td>Distortion (2nd harmonic)</td>
<td>5.0 per cent</td>
</tr>
</tbody>
</table>

**Push-Pull Class-AB\textsubscript{1} Amplifier (two tubes)**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filament Voltage (dc)</td>
<td>2.5 volts</td>
</tr>
<tr>
<td>Plate Voltage (dc)</td>
<td>300 volts</td>
</tr>
<tr>
<td>Grid Voltage (3J) (dc)</td>
<td>-62 volts</td>
</tr>
<tr>
<td>Zero-Signal Plate Current (each tube) (dc)</td>
<td>40 milliamps</td>
</tr>
<tr>
<td>Effective Load Resistance (plate to plate)</td>
<td>3,000 ohms</td>
</tr>
<tr>
<td>Power Output</td>
<td>15 watts</td>
</tr>
<tr>
<td>Total Harmonic Distortion</td>
<td>2.5 per cent</td>
</tr>
</tbody>
</table>

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**OUTLINE & BASE**

(1) Forces in any direction as applied by the Navy Type High Impact Shock Machine for Electronic Devices, or its equivalent.

(2) Vibrational forces in any direction at 25 cycles per second for a period not exceeding 96 hours.

(3) Grid voltage measured from mid-point of ac operated filament.