MAZDA
6.F.33
SCREENED R.F. PENTODE:
Indirectly heated

GENERAL
The 6.F.33 has a short cut-off Suppressor Grid characteristic which makes it particularly suitable for use in Modulator, Variable Reactance and Timing Circuits. In order that the Suppressor Grid may be driven positive, a diode has been tied to this grid.

RATING

Heater Voltage (volts) \( V_h \) 6.3
Heater Current (amps) \( I_h \) 0.35
Maximum Anode Voltage (volts) \( V_a(\text{max}) \) 250
Maximum Screen Voltage (volts) \( V_{gs}(\text{max}) \) 250
Mutual Conductance (mA/V) \( g_m \) 4.35

Inner M 6
Maximum Anode Dissipation (watts) \( P_a(\text{max}) \) 2.5
Maximum Screen Dissipation (watts) \( P_{gs} \) 0.8
Maximum Potential Heater/Cathode (volts DC) \( V_{h-k}(\text{max}) \) 100

* Taken at \( V_a = 200 \text{ v} \); \( V_{gs} = 100 \text{ v} \);
\( V_{gl} = -1.5 \text{ v} \); \( V_{g3} = 0 \text{ v} \).

\[ \delta V_{g2} \text{ with } I_a \text{ constant} \]

\[ \delta V_{gl} \]

INTER-ELECTRODE CAPACITANCES

Anode/Earth (\( \mu \text{F} \)) \( C_{out} \) 4.5 5.7
Anode/Control Grid (\( \mu \text{F} \)) \( C_{a-gl} \) 0.01 0.012
Control Grid/Earth (\( \mu \text{F} \)) \( C_{in} \) 7.3 8.5

† Measured with Benjamin cylindrical screen type 75/632, but holder capacity balanced out.

† Including capacity of Benjamin E70 holder type 75/633 and screen type 75/632.

DIMENSIONS

Maximum Overall Length (mm) 54
Maximum Diameter (mm) 19
Maximum Seated Height (mm) 48.6
Approximate Nett Weight (ozs) 
Approximate Packed Weight (ozs)

MOUNTING POSITION - Unrestricted
**MAZDA**

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**BULB** Clear

**BASE** B.7.G.

![Diagram of the pentode with pin numbers](image)

Viewed from free end of pins.

**CONNEXIONS**

<table>
<thead>
<tr>
<th>Pin</th>
<th>Description</th>
<th>Symbol</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Control Grid</td>
<td>g1</td>
</tr>
<tr>
<td>2</td>
<td>Cathode</td>
<td>k</td>
</tr>
<tr>
<td>3</td>
<td>Heater</td>
<td>h</td>
</tr>
<tr>
<td>4</td>
<td>Heater</td>
<td>h</td>
</tr>
<tr>
<td>5</td>
<td>Anode</td>
<td>a</td>
</tr>
<tr>
<td>6</td>
<td>Suppressor Grid</td>
<td>g3</td>
</tr>
<tr>
<td>7</td>
<td>Screen Grid</td>
<td>g2</td>
</tr>
</tbody>
</table>
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CHARACTERISTIC CURVES OF AVERAGE
MAZDA VALVE 6F33
Curves taken at $V_a = 200V$.

Key

- Anode Current
- Screen Current

May 1948
RADIO DIVISION
THE EDISON SWAN ELECTRIC COMPANY LTD.
MAZDA
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CHARACTERISTIC CURVES OF AVERAGE
MAZDA VALVE 6F33
Curves taken at $V_g = 200V$.

Key

- Anode Current
- Screen Current

May 1948
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CHARACTERISTIC CURVES OF AVERAGE
MAZDA VALVE 6F33
Curves taken at $V_R = 200V$.

May 1948
RADIO DIVISION
THE EDISON SWAN ELECTRIC COMPANY LTD.
CHARACTERISTIC CURVES OF AVERAGE
MAZDA VALVE 6F33
Curves taken at $V_g = 200\,V$

May 1948
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