GENERAL

The 6F33 has a short cut-off Suppressor Grid characteristic which makes it particularly suitable for use in Modulator, Variable Reactance and Timing Circuits. A diode has been tied to the suppressor in order to prevent "blocking" when this grid is driven positive.

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) \( V_{g2}(\text{max}) \) 250
Mutual Conductance (mA/V) \( g_m \) * 4.35
Inner \( \mu \) \( \gamma_{g1}g_2 \) * 38
Maximum Anode Dissipation (watts) \( P_a(\text{max}) \) 2.5
Maximum Screen Dissipation (watts) \( P_{g2} \) 0.8
Maximum Potential Heater/Cathode (volts DC) \( V_{h-k}(\text{max}) \) 100

* Taken at \( V_a = 200v; \ V_{g2} = 100v; \ V_{g1} = -1.5v; \ V_{g3} = 0v. \)

\[ \mu \text{ i.e.} \frac{V_{g2}}{V_{g1}} \text{ with } I_a \text{ constant.} \]

INTER-ELECTRODE CAPACITANCES

<table>
<thead>
<tr>
<th>Electrode Pair</th>
<th>( \mu \text{F} )</th>
<th>( \mu \text{F} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anode/Earth</td>
<td>( c_{out} ) 4.5</td>
<td>( c_{out} ) 5.6</td>
</tr>
<tr>
<td>Anode/Control Grid</td>
<td>( c_{a-g1} ) 0.01</td>
<td>( c_{a-g1} ) 0.012</td>
</tr>
<tr>
<td>Control Grid/Earth</td>
<td>( c_{in} ) 7.3</td>
<td>( c_{in} ) 8.4</td>
</tr>
<tr>
<td>Suppressor Grid/Earth</td>
<td>( c_{g3-E} ) 10.0</td>
<td>( c_{g3-E} ) 11.1</td>
</tr>
</tbody>
</table>

\( \mu \text{ measured with Benjamin cylindrical screen type 75/832, but holder capacity balanced out.} \)

\$ \text{Including capacity of Benjamin B7G holder type 75/833 and screen type 75/832.} \)

DIMENSIONS

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Overall Length (mm)</td>
<td>54</td>
</tr>
<tr>
<td>Maximum Diameter (mm)</td>
<td>19</td>
</tr>
<tr>
<td>Maximum Seated Height (mm)</td>
<td>48.6</td>
</tr>
<tr>
<td>Approximate Net Weight (ozs)</td>
<td>4</td>
</tr>
<tr>
<td>Approximate Packed Weight (ozs)</td>
<td>4</td>
</tr>
</tbody>
</table>

MOUNTING POSITION - Unrestricted.
MAZDA
6F33
SCREENED R.F. PENTODE
Indirectly heated

BULB Clear
BASE B.7.G

Viewed from free end of pins

CONNECTIONS

<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>

January 1954

VALVE & CRT DIVISION

SIEMENS EDISON SWAN LIMITED
EDISWAN MAZDA
6F33
SCREENED R.F. PENTODE
Indirectly heated

CHARACTERISTIC CURVES OF AVERAGE
EDISWAN VALVE 6F33

Curves taken at $V_e=200$V.

Key

--- Anode Current

Screen Current

May 1948

VALVE & CRT DIVISION

Issue 1/6

SIEMENS EDISON SWAN LIMITED
EDISWAN
MAZDA
6F33
SCREENED R.F. PENTODE
Indirectly heated

CHARACTERISTIC CURVES OF AVERAGE

EDISWAN VALVE 6F33

Curves taken at $V_g = 200\text{V}$.

Key

- Anode Current
- Screen Current
CHARACTERISTIC CURVES OF AVERAGE

EDISWAN VALVE 6F33

Curves taken at \( V_0 = 200V \)

CONTROL GRID VOLTS \( V_{g1} \)

MUTUAL CONDUCTANCE IN \( \mu \)A/V
EDISWAN
MAZDA
6F33
SCREENED R.F. PENTODE
Indirectly heated

CHARACTERISTIC CURVES OF AVERAGE
EDISWAN VALVE 6F33

Curves taken at \( V_g = 200V \)

Suppressor Grid Volts \( V_{gs} \)

Mutual Conductance in \( \mu A/V \)

May 1956
VALVE & CRT DIVISION
Issue 1/6
SIEMENS EDISON SWAN LIMITED