The ACT28A is a triode with an indirectly heated oxide coated cathode intended for use as an oscillator at frequencies up to 600Mc/s under pulsed or c.w. conditions. A pulse output of about 300kW per valve is attainable at 220Mc/s.

**HEATER**

\[
\begin{align*}
V_h & = 16 \\
I_h & = 7.3 \text{ (approx)} \\
& \text{The heater must be on for four minutes before anode voltage is applied.}
\end{align*}
\]

**MAXIMUM RATINGS (Absolute)**

\[
\begin{align*}
V_a (\text{pulse}) & = 13 \\
P_a & = 1.5 \text{ kW} \\
I_{a(\text{av})} (\text{during pulse}) & = 50 \text{ A} \\
t_p & = 10 \text{ } \mu\text{s}
\end{align*}
\]

**CAPACITANCES**

\[
\begin{align*}
c_{a-g} & : 28\text{pF;} \\
c_{g-k} & : 30\text{pF;} \\
c_{a-k} & : 0.5\text{pF}
\end{align*}
\]

**CHARACTERISTICS**

\[
\begin{align*}
V_a & = 1.5 \text{ kV} \\
I_a & = 0.8 \text{ A} \\
8_m & = 50 \text{ mA/V} \\
\mu & = 45
\end{align*}
\]

**CIRCUIT DIMENSIONS**

The following information is given as a guide to suitable coaxial cavities:

- Anode line i.d.: 4-75in.
- Grid line o.d.: 4in.
- Characteristic impedance: 10.5Ω

<table>
<thead>
<tr>
<th>Frequency</th>
<th>200</th>
<th>400</th>
<th>400</th>
<th>600</th>
<th>Mc/s</th>
</tr>
</thead>
<tbody>
<tr>
<td>Line Length</td>
<td>34</td>
<td>14</td>
<td>46</td>
<td>37.5</td>
<td>cm</td>
</tr>
<tr>
<td>Mode</td>
<td>λ/4</td>
<td>λ/4</td>
<td>3λ/4</td>
<td>3λ/4</td>
<td>—</td>
</tr>
</tbody>
</table>

**INSTALLATION**

The valve must be mounted vertically and rigid connection made to one electrode only. The holes in the grid ring are provided for cooling; fixing bolts must not be placed in them.

**COOLING**

Before applying any voltages to the valve, all cooling supplies must be in operation. They should preferably continue for at least two minutes after removal of all voltages.

- Air flow to anode: 150cu.ft./min. at 3in. water gauge
- Air flow to grid seal: 20cu.ft./min.
Dimensions in inches.