The FU1184CA is a high power ceramic-metal triode. It has thoriated tungsten cathode and hypervapotron cooling of plate. The tube maximum plate dissipation is 80kW and maximum frequency operation is 30MHz. The tube designed for oscillator in the industry high frequency heating applications. The tube can replace BW1184J2 or YD1202 and ITK70-1.

**GENERAL CHARACTERISTICS**

**Electrical**
- Cathode: Thoriated Tungsten
- Filament Voltage: 12.2V
- Filament Current: 255A
- Transconductance: 166mA/V
- Amplification Factor: 33
- Interelectrode Capacitances:
  - Filament to Grid: 170pF
  - Filament to Plate: 3.0pF
  - Grid to Plate: 60pF

**Mechanical**
- Overall Length: 425mm
- Overall Diameter: φ190.5mm
- Net Weight: 12kg
- Mounting Position: Vertical, Plate Up or Down

**COOLING**
- Cooling: Hypervapotron & Forced Air

<table>
<thead>
<tr>
<th>Anode plus Grid Diss. kW</th>
<th>Inlet Temp. °C</th>
<th>Min. rate of Water Flow L/min</th>
<th>Inlet Pressure atm</th>
<th>Outlet Temp. °C</th>
</tr>
</thead>
<tbody>
<tr>
<td>80</td>
<td>20</td>
<td>40</td>
<td>0.36</td>
<td>50</td>
</tr>
<tr>
<td></td>
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<td>0.66</td>
<td>70</td>
</tr>
<tr>
<td>60</td>
<td>20</td>
<td>28</td>
<td>0.18</td>
<td>52</td>
</tr>
<tr>
<td></td>
<td>50</td>
<td>42</td>
<td>0.32</td>
<td>72</td>
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<tr>
<td>40</td>
<td>20</td>
<td>18</td>
<td>0.08</td>
<td>54</td>
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<tr>
<td></td>
<td>50</td>
<td>27</td>
<td>0.15</td>
<td>73</td>
</tr>
</tbody>
</table>

Air Flow of Core: ≥160m³/h
Maximum Envelope Temperature: 250 °C

**MAXIMUM RATINGS**

- Frequency: 30 MHz
- Filament Startup Current: 380 A
- Plate Voltage: 14.4 kV
- Plate Dissipation: 80 kW
- Grid Dissipation: 2 kW

**TYPICAL OPERATION**

- Anode Voltage: 10 12 kV
- Anode Current: 16 18 A
- Grid Current: 3.5 3 A
- Grid Resistor: 200 360 Ω
- Output Power: 124 171 kW
R.F. Power Triode
FU1184CA
Outline Drawing

### OUTLINE

- **Filament**
- **Grid**
- **Plate**
- **Plate Down**
- **Plate Up**

### Water connections

<table>
<thead>
<tr>
<th></th>
<th>Plate Down</th>
<th>Plate Up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inlet</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Outlet</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

1: Deep; 2: Shallow

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8 SLOTS 9 WIDE BY 18 LONG EQUISPA CED ON 170 PCD
TYPICAL CONSTANT CURRENT CHARACTERISTICS

NOTES:

1. When the tube is to be transported, pack it taking the original packing method. Any other method may damage the tube.
2. When the tube arrives at the destination, use mega-ohm meter to check the insulating property and whether the filament is damaged or not. It should inform the manufacturer if the abnormal situation happened.
3. The tube must be handled with care when carrying. When loading unloading the tube, must be very careful and avoids crashing and knocking to prevent the filament to break.
4. Confirm that the tube is mounted correctly. Check the operation of the safety devices such as the overload relay, water relay and air flow relay.
5. The user must connect the water jacket's water inlet with water outlet correctly, it may be burned down the plate if reversed.
6. The cooling system must be opened before connect to the filament power, which could be closed after cutting off the filament power in 20 minutes.
7. When the tube works, the limit parameters using is allowed had to be less than one, and the one can’t exceed the limit value.
8. When the tube is to be stored for a long time, pack it in the box and store the box in a location with less vibration.