AVX introduces its complete line of High Power Termination Products. All Products are designed and manufactured at our ISO 9001 Facilities.

**ELECTRICAL SPECIFICATIONS**
- **Resistance:** 50 Ω standard (10 Ω - 200 Ω available)
- **Resistance Tolerance:** ±5% standard (±2% available)
- **Power:** 2 Watts through 225 Watts
- **Operating Temperature Range:** -55°C to +150°C
- **Temperature Coefficient:** < 150 ppm/°C
- **Low VSWR**

**MECHANICAL SPECIFICATIONS**
- **Package:** Surface Mount Chips, Chips, Leaded Chips, Flange Mount
- **Substrate Material:** Aluminum Nitride
- **Process:** Thin Film
- **Resistive Material:** Tantalum
- **Terminals:** Silver
- **Cover:** Alumina
- **Mounting Flange:** 100% Cu, Ni or Ag Plated
- **Mechanical Tolerance:** ±0.13 (0.005)
- **RoHS Compliant**
- **SMT and Chip products, supplied on Tape and Reel**

**FLANGE MOUNT TERMINATIONS HOW TO ORDER**

```
RPA 0300  T  0050  J  N  BK
AVX Series  Case Size  Type  Value  Tolerance  Terminal  Packaging
T = Termination  0050 = 50Ω  J = ±5% (±2% available Consult Factory) N = Silver  BK = Plastic Carrier
```

Contact factory for custom ratings and sizes.

**POWER DERATING**

![Power Derating Graph]

Rated Safe Operating Range

**Heat Sink Temperature (°C)**

**Power Dissipation**

0 - 100%
CHIP TERMINATIONS – RP8 SERIES

GENERAL SPECIFICATIONS

- **Nominal Impedance:** 50 Ω
- **Resistive Tolerance:** ±5% standard, ±2% available
- **Operating Temp Range:** -55ºC to +150ºC
- **Temperature Coefficient:** ±150 ppm/ºC
- **Resistive Elements:** Tantalum, Thin Film Processed
- **Substrate Material:** Aluminum Nitride
- **Terminals:** Silver over Nickel
- **RoHS Compliant**
- **Tape and Reel Specifications:** See Page 38

### Resistive Area

<table>
<thead>
<tr>
<th>AVX Part Number</th>
<th>W (0.010)</th>
<th>L (0.010)</th>
<th>T (0.005)</th>
<th>A (0.010)</th>
<th>B (Typ.)</th>
<th>Frequency (GHz)</th>
<th>VSWR (Typ.)</th>
<th>Power Max** (Watts)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RP81020T0050JTTR</td>
<td>5.08 (0.200)</td>
<td>2.54 (0.100)</td>
<td>0.64 (0.025)</td>
<td>0.86 (0.034)</td>
<td>0.51 (0.020)</td>
<td>DC to 18.0</td>
<td>1.25:1</td>
<td>20W</td>
</tr>
<tr>
<td>RP82010T0050JTTR</td>
<td>2.54 (0.100)</td>
<td>5.08 (0.200)</td>
<td>1.02 (0.040)</td>
<td>1.27 (0.050)</td>
<td>1.52 (0.060)</td>
<td>DC to 4.0</td>
<td>1.20:1</td>
<td>30W</td>
</tr>
<tr>
<td>RP82525T0050JTTR</td>
<td>6.22 (0.245)</td>
<td>6.22 (0.245)</td>
<td>1.02 (0.040)</td>
<td>2.29 (0.090)</td>
<td>0.51 (0.020)</td>
<td>DC to 4.0</td>
<td>1.15:1</td>
<td>60W</td>
</tr>
<tr>
<td>RP82335T0050JTTR</td>
<td>8.89 (0.350)</td>
<td>8.84 (0.350)</td>
<td>1.02 (0.040)</td>
<td>2.54 (0.100)</td>
<td>0.76 (0.030)</td>
<td>DC to 4.0</td>
<td>1.15:1</td>
<td>100W</td>
</tr>
<tr>
<td>RP83725T0050JTTR</td>
<td>6.35 (0.250)</td>
<td>9.53 (0.375)</td>
<td>1.02 (0.040)</td>
<td>2.29 (0.090)</td>
<td>0.64 (0.025)</td>
<td>DC to 4.0</td>
<td>1.20:1</td>
<td>125W</td>
</tr>
<tr>
<td>RP83737T0050JTTR</td>
<td>9.40 (0.370)</td>
<td>9.40 (0.370)</td>
<td>1.02 (0.040)</td>
<td>3.05 (0.120)</td>
<td>0.64 (0.025)</td>
<td>DC to 2.0</td>
<td>1.25:1</td>
<td>150W</td>
</tr>
</tbody>
</table>

** Test Condition: Chip soldered to a via patch on a 30-mil-thick Rogers RO4350 board; Land surfaces at 100°C; maximum rated power applied.

### HOW TO ORDER

**AVX Series**

<table>
<thead>
<tr>
<th>RP8</th>
<th>2010</th>
<th>T</th>
<th>0050</th>
<th>J</th>
<th>T</th>
<th>TR</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVX</td>
<td>Case Size See chart above</td>
<td>Type Termination</td>
<td>Value 0050 = 50Ω</td>
<td>Tolerance J = ±5% G = ±2%</td>
<td>Terminal T = Silver over Nickel</td>
<td>Packaging TR = Tape &amp; Reel</td>
</tr>
</tbody>
</table>

Contact factory for custom ratings and sizes.

### POWER DERATING

![Power Dissipation Graph](image-url)

- **Rated Safe Operating Range**