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**

<table>
<thead>
<tr>
<th>RPA</th>
<th>0300</th>
<th>T</th>
<th>0050</th>
<th>J</th>
<th>N</th>
<th>BK</th>
</tr>
</thead>
<tbody>
<tr>
<td>AVX Series</td>
<td>Case Size</td>
<td>Type</td>
<td>Value</td>
<td>Tolerance</td>
<td>Terminal</td>
<td>Packaging</td>
</tr>
<tr>
<td>T = Termination</td>
<td>0050 = 50Ω</td>
<td>J = ±5%</td>
<td>N = Silver</td>
<td>BK = Plastic Carrier</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Contact factory for custom ratings and sizes.

**POWER DERATING**

![Power Derating Graph](image)
FLANGE MOUNT TERMINATION – P/N: RPA0302T0050JNBK

ELECTRICAL SPECIFICATIONS

Nominal Impedance: 50 Ω ±5% standard (contact factory for custom values)

Power: 20 Watts

Frequency: DC to 18 GHz

VSWR: 1.15:1 @ 15 GHz, 1.25:1 @ 18 GHz

Operating Temperature Range: -55°C to +150°C

Temperature Coefficient: <150 ppm/°C

Tabs: Silver

RoHS Compliant

FLANGE MOUNT TERMINATION – P/N: RPA0500T0050JNBK

ELECTRICAL SPECIFICATIONS

Nominal Impedance: 50 Ω ±5% standard (contact factory for custom values)

Power: 25 Watts

Frequency: DC to 6.0 GHz

VSWR: 1.15:1 @ 4 GHz, 1.25:1 @ 6 GHz

Operating Temperature Range: -55°C to +150°C

Temperature Coefficient: <150 ppm/°C

Tabs: Silver

RoHS Compliant

For Part Number Code, see page 14.
High Power Resistive Products

Terminations

**FLANGE MOUNT TERMINATION – P/N: RPA0515T0050JNBK**

**ELECTRICAL SPECIFICATIONS**

Nominal Impedance: 50 Ω ±5% standard (contact factory for custom values)

Power: 60 Watts

Frequency: DC to 6.0 GHz

VSWR: 1.20:1 @ 4 GHz, 1.30:1 @ 6 GHz

Operating Temperature Range: -55°C to +150°C

Temperature Coefficient: <150 ppm/ºC

Tabs: Silver

RoHS Compliant

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**FLANGE MOUNT TERMINATION – P/N: RPA0516T0050JNBK**

**ELECTRICAL SPECIFICATIONS**

Nominal Impedance: 50 Ω ±5% standard (contact factory for custom values)

Power: 60 Watts

Frequency: DC to 6 GHz

VSWR: 1.20:1 @ 4 GHz, 1.30:1 @ 6 GHz

Operating Temperature Range: -55°C to +150°C

Temperature Coefficient: <150 ppm/ºC

Tabs: Silver

RoHS Compliant

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For Part Number Code, see page 14.
FLANGE MOUNT TERMINATION – P/N: RPA0517T0050JNBK

ELECTRICAL SPECIFICATIONS

Nominal Impedance: 50 Ω ±5% standard
(contact factory for custom values)
Power: 60 Watts
Frequency: DC to 6 GHz
VSWR: 1.20:1 @ 4 GHz, 1.30:1 @ 6 GHz
Operating Temperature Range: -55°C to +150°C
Temperature Coefficient: <150 ppm/ºC
Tabs: Silver
RoHS Compliant

FLANGE MOUNT TERMINATION – P/N: RPA0560T0050JNBK

ELECTRICAL SPECIFICATIONS

Nominal Impedance: 50 Ω ±5% standard
(contact factory for custom values)
Power: 75 Watts
Frequency: DC to 4 GHz
VSWR: 1.25:1
Typical Operating Temperature Range: -55°C to +150°C
Temperature Coefficient: <150 ppm/ºC
Tabs: Silver
RoHS Compliant

For Part Number Code, see page 14.
High Power Resistive Products

Terminations

FLANGE MOUNT TERMINATION – P/N: RPA0561T0050JNBK

ELECTRICAL SPECIFICATIONS

Nominal Impedance: 50 Ω ±5% standard (contact factory for custom values)
Power: 75 Watts
Frequency: DC to 4.0 GHz
VSWR: 1.25:1
Typical Operating Temperature Range: -55ºC to +150ºC
Temperature Coefficient: <150 ppm/ºC
Tabs: Silver
RoHS Compliant

For Part Number Code, see page 14.

FLANGE MOUNT TERMINATION – P/N: RPA0800T0050JNBK

ELECTRICAL SPECIFICATIONS

Nominal Impedance: 50 Ω ±5% standard (contact factory for custom values)
Power: 50 Watts
Frequency: DC to 6 GHz
VSWR: 1.10:1 @ 4.5 GHz, 1.18:1 @ 6.0GHz
Operating Temperature Range: -55ºC to +150ºC
Tabs: Silver
RoHS Compliant

For Part Number Code, see page 14.
FLANGE MOUNT TERMINATION – P/N: RPA0870T0050JNBK

ELECTRICAL SPECIFICATIONS

Nominal Impedance: 50 Ω ±5% standard (contact factory for custom values)

Power: 100 Watts

Frequency: DC to 4.0 GHz

VSWR: 1:20:1

Typical Operating Temperature Range: -55°C to +150°C

Temperature Coefficient: <150 ppm/°C

Tabs: Silver

RoHS Compliant

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FLANGE MOUNT TERMINATION – P/N: RPA0300T0050JNBK

ELECTRICAL SPECIFICATIONS

Nominal Impedance: 50 Ω ±5% standard (contact factory for custom values)

Power: 20 Watts

Frequency: DC to 6 GHz

VSWR: 1:15:1 @ 4 GHz, 1:25:1 @ 6 GHz,

Operating Temperature Range: -55°C to +150°C

Temperature Coefficient: <150 ppm/°C

Tabs: Silver

RoHS Compliant

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For Part Number Code, see page 14.
FLANGE MOUNT TERMINATION – P/N: RPA0301T0050JNBK

ELECTRICAL SPECIFICATIONS

Nominal Impedance: 50 Ω ±5% standard (contact factory for custom values)
Power: 20 Watts
Frequency: DC to 6 GHz
VSWR: 1.15:1 @ 4 GHz, 1.25:1 @ 6 GHz,
Operating Temperature Range: -55ºC to +150ºC
Temperature Coefficient: <150 ppm/ºC
Tabs: Silver
RoHS Compliant

For Part Number Code, see page 14.
High Power Resistive Products

Terminations

SURFACE MOUNT CHIP TERMINATIONS – RP9 SERIES

GENERAL SPECIFICATIONS

Nominal Impedance: 50 Ω
Resistive Tolerance: ±2% standard
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

<table>
<thead>
<tr>
<th>AVX Part Number</th>
<th>W ±0.25 (0.010)</th>
<th>L ±0.25 (0.010)</th>
<th>T ±0.13 (0.005)</th>
<th>LT ±0.13 (0.005)</th>
<th>WT ±0.13 (0.005)</th>
<th>LA ±0.13 (0.005)</th>
<th>Frequency Range (GHz)</th>
<th>VSWR (Typ.)</th>
<th>Power Max** (Watts)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RP92010T0050GTTR</td>
<td>2.54 (0.100)</td>
<td>5.08 (0.200)</td>
<td>1.02 (0.040)</td>
<td>1.02 (0.040)</td>
<td>2.29 (0.090)</td>
<td>2.92 (0.115)</td>
<td>DC - 3.0</td>
<td>1.20:1</td>
<td>10W</td>
</tr>
<tr>
<td>RP92525T0050GTTR</td>
<td>6.22 (0.245)</td>
<td>6.22 (0.245)</td>
<td>1.02 (0.040)</td>
<td>0.76 (0.030)</td>
<td>3.18 (0.125)</td>
<td>4.32 (0.170)</td>
<td>DC - 4.0</td>
<td>1.25:1</td>
<td>20W</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

RP9 2010 T 0050 G T TR

AVX Series Case Size Type Value Tolerance Terminal Packaging

See chart above T = Termination 0050 = 50Ω J = ±5% T = Silver over G = ±2% TR = Tape & Reel Nickel

Contact factory for custom ratings and sizes.

POWER DERATING

[Graph showing power derating vs. heat sink temperature]
SURFACE MOUNT CHIP TERMINATIONS – RP9 SERIES

GENERAL SPECIFICATIONS

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

<table>
<thead>
<tr>
<th>AVX Part Number</th>
<th>W ±0.25 (0.010)</th>
<th>L ±0.25 (0.010)</th>
<th>T ±0.13 (0.005)</th>
<th>LT ±0.13 (0.005)</th>
<th>WT ±0.13 (0.005)</th>
<th>LA ±0.13 (0.005)</th>
<th>Frequency Range (GHz) (Typ.)</th>
<th>VSWR (Typ.)</th>
<th>Power Max** (Watts)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RP93725T0050GTTR</td>
<td>6.35 (0.250)</td>
<td>9.53 (0.375)</td>
<td>1.02 (0.040)</td>
<td>1.27 (0.050)</td>
<td>3.18 (0.125)</td>
<td>6.60 (0.260)</td>
<td>DC - 2.2</td>
<td>1.20:1</td>
<td>30W</td>
</tr>
<tr>
<td>RP93737T0050GTTR</td>
<td>9.40 (0.370)</td>
<td>9.40 (0.370)</td>
<td>1.02 (0.040)</td>
<td>1.27 (0.050)</td>
<td>3.18 (0.125)</td>
<td>6.99 (0.275)</td>
<td>DC - 3.0</td>
<td>1.25:1</td>
<td>40W</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

RP9 2010 T 0050 G T TR

AVX Series Case Size Type Value Tolerance Terminal Packaging
Contact factory for custom ratings and sizes.

POWER DERATING

- Rated Safe Operating Range