

# High Power Resistive Products

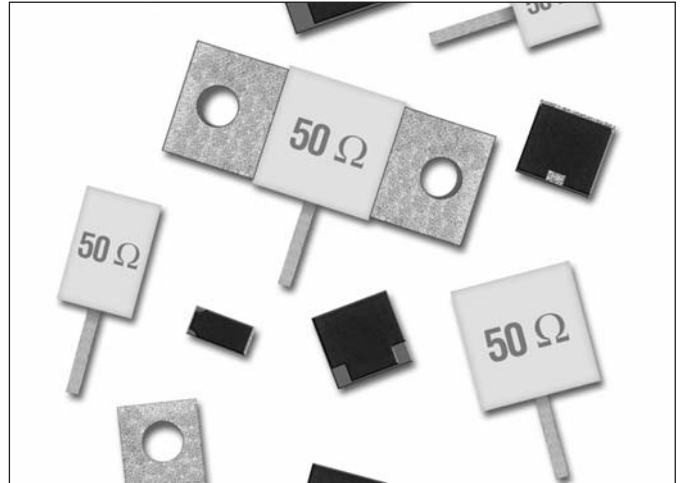


## Terminations

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  $\Omega$  standard (10  $\Omega$  - 200  $\Omega$  available)
- Resistance Tolerance:**  $\pm 5\%$  standard ( $\pm 2\%$  available)
- Power:** 2 Watts through 225 Watts
- Operating Temperature Range:**  $-55^{\circ}\text{C}$  to  $+150^{\circ}\text{C}$
- Temperature Coefficient:**  $< 150$  ppm/ $^{\circ}\text{C}$
- Low VSWR**

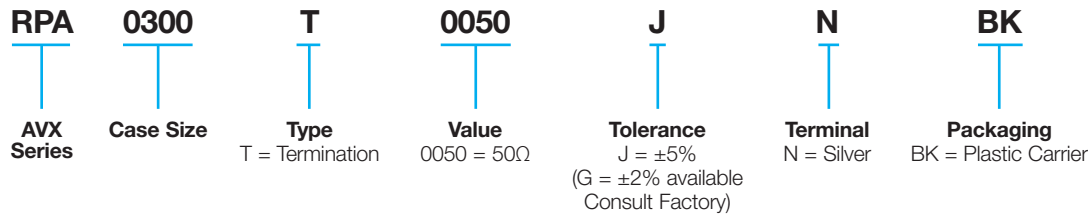


### MECHANICAL SPECIFICATIONS

- 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:**  $\pm 0.13$  (0.005)
- RoHS Compliant**
- SMT and Chip products, supplied on Tape and Reel**

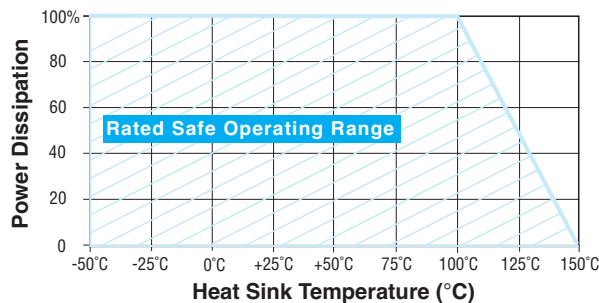


### FLANGE MOUNT TERMINATIONS HOW TO ORDER



Contact factory for custom ratings and sizes.

### POWER DERATING



## Terminations

### 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

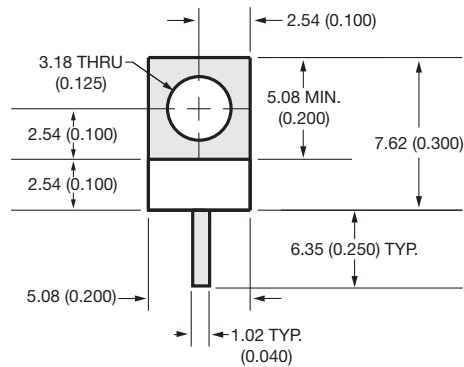
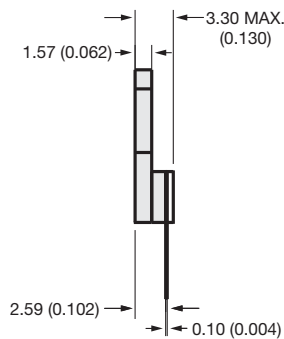
**VSWR:** 1.15:1 @ 15 GHz, 1.25:1 @ 18 GHz

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

**Temperature Coefficient:** <150 ppm/°C

**Tabs:** Silver

**RoHS Compliant**



mm (inches)

### 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

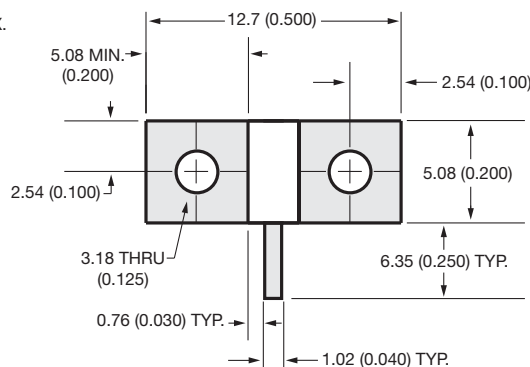
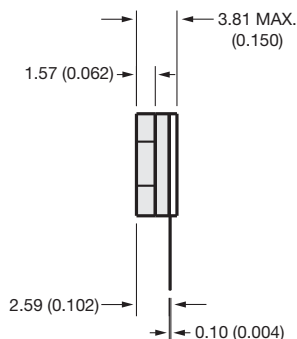
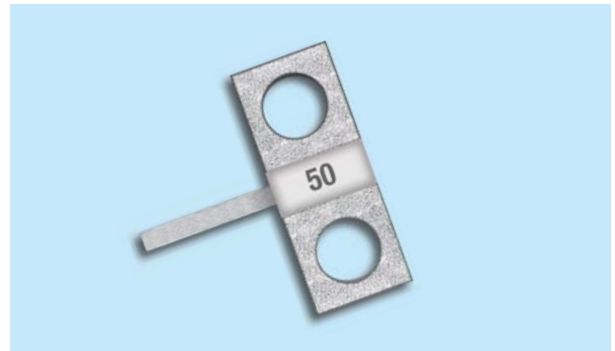
**VSWR:** 1.15:1 @ 4 GHz, 1.25:1 @ 6 GHz

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

**Temperature Coefficient:** <150 ppm/°C

**Tabs:** Silver

**RoHS Compliant**



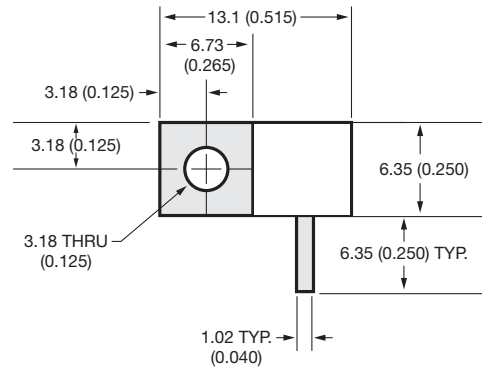
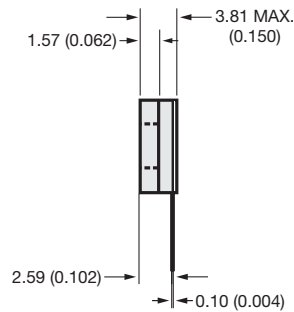
mm (inches)

For Part Number Code, see page 14.

## Terminations

### FLANGE MOUNT TERMINATION – P/N: RPA0515T0050JNBK ELECTRICAL SPECIFICATIONS

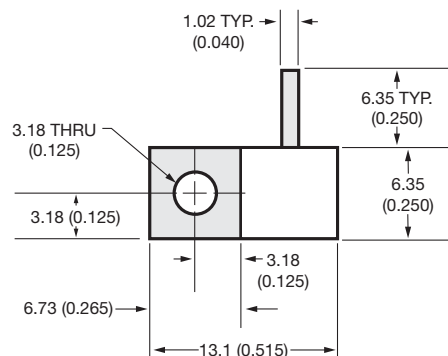
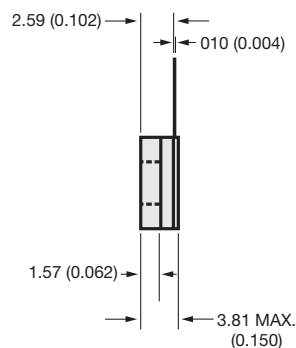
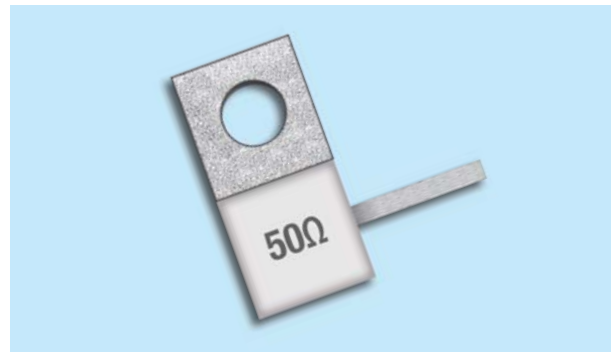
- Nominal Impedance:** 50 Ω ±5% standard  
(contact factory for custom values)
- Power:** 60 Watts
- Frequency:** DC to 6.0 GHz
- VSWR:** 1.20:1 @ 4 GHz, 1.30:1 @ 6 GHz
- Operating Temperature Range:** -55°C to +150°C
- Temperature Coefficient:** <150 ppm/°C
- Tabs:** Silver
- LRoHS Compliant**



mm (inches)

### 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/°C
- Tabs:** Silver
- RoHS Compliant**



mm (inches)

For Part Number Code, see page 14.

## Terminations

### 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

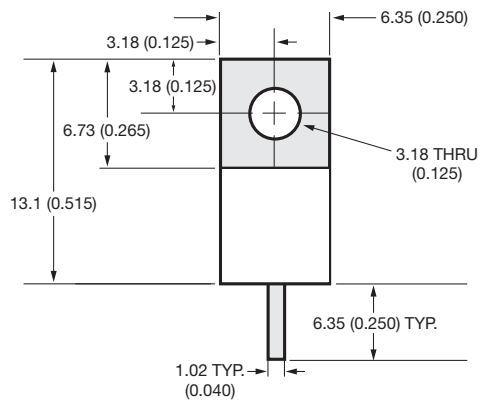
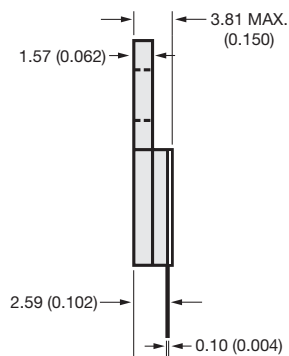
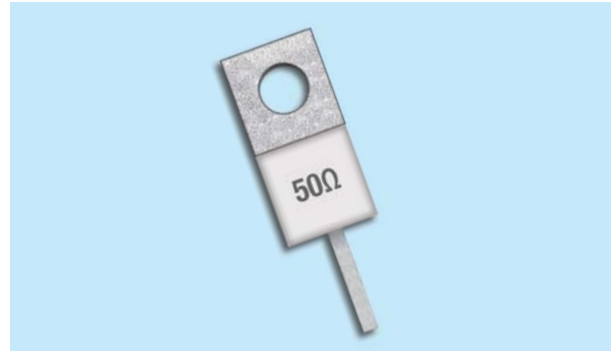
**VSWR:** 1.20:1 @ 4 GHz, 1.30:1 @ 6 GHz

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

**Temperature Coefficient:** <150 ppm/°C

**Tabs:** Silver

**RoHS Compliant**



mm (inches)

### 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

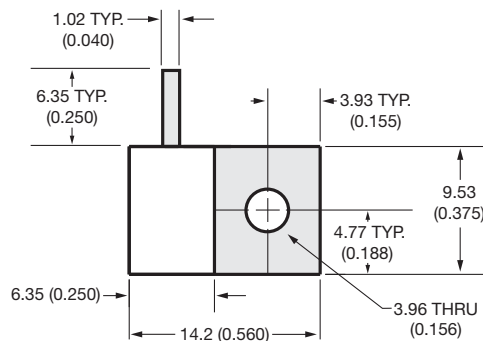
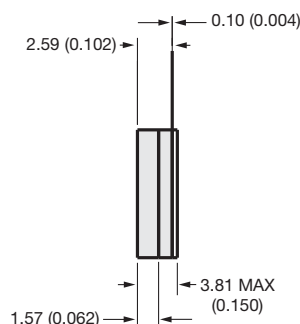
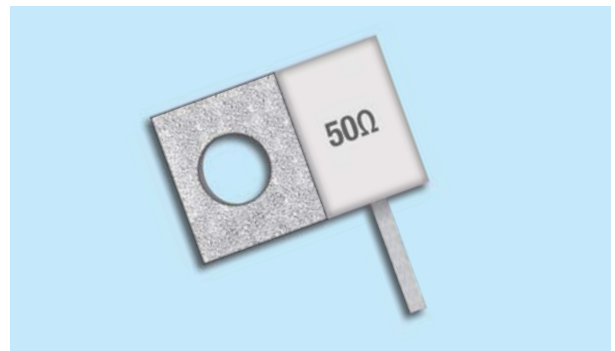
**VSWR:** 1.25:1

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

**Temperature Coefficient:** <150 ppm/°C

**Tabs:** Silver

**RoHS Compliant**



mm (inches)

For Part Number Code, see page 14.

## 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

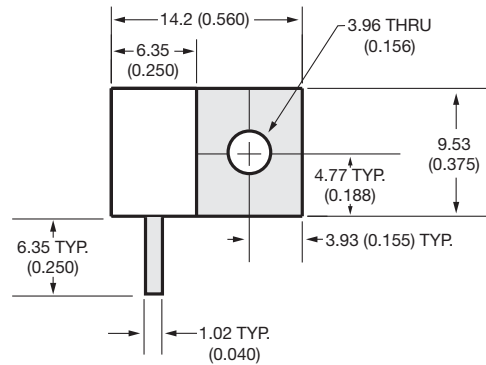
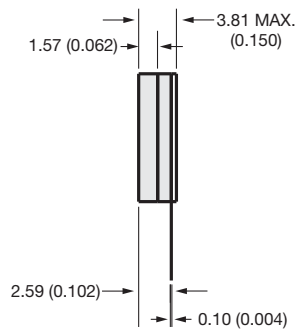
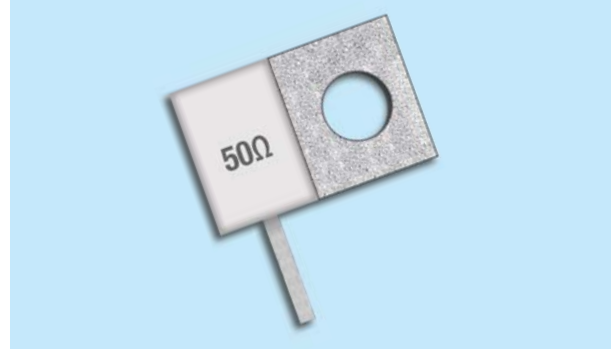
**VSWR:** 1.25:1

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

**Temperature Coefficient:** <150 ppm/°C

**Tabs:** Silver

**RoHS Compliant**



mm (inches)

### FLANGE MOUNT TERMINATION – P/N: RPA0800T0050JNBK

#### ELECTRICAL SPECIFICATIONS

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

**Power:** 50 Watts

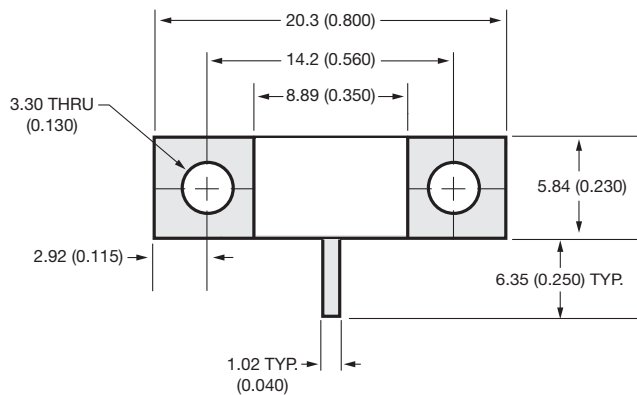
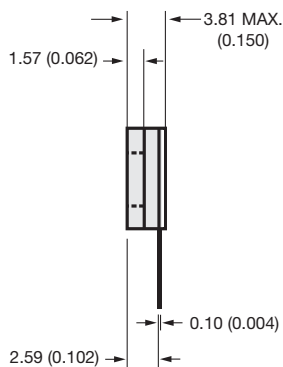
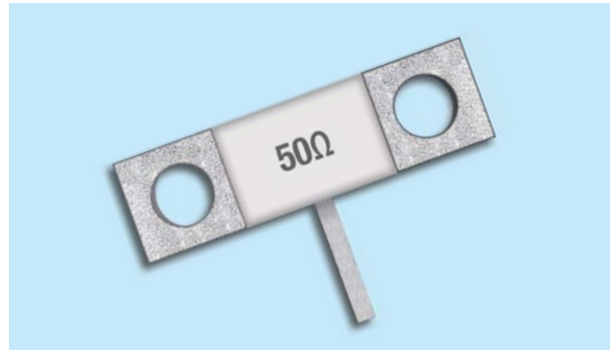
**Frequency:** DC to 6 GHz

**VSWR:** 1.10:1 @ 4.5 GHz, 1.18:1 @ 6.0GHz

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

**Tabs:** Silver

**RoHS Compliant**



mm (inches)

For Part Number Code, see page 14.

## Terminations

### 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

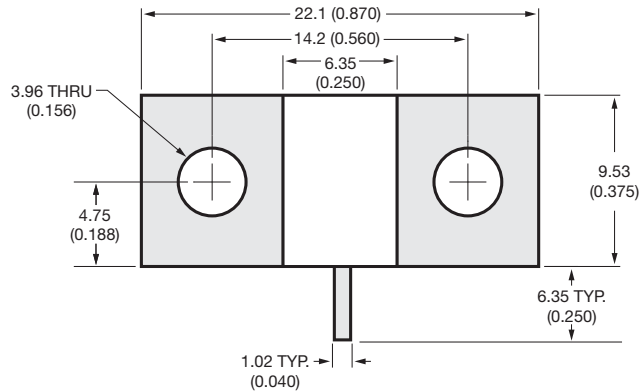
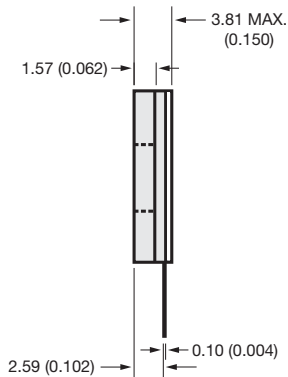
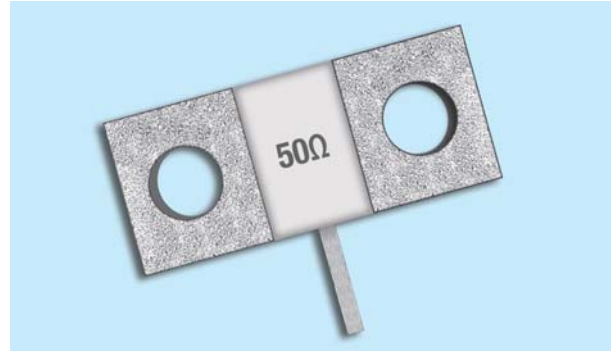
**VSWR:** 1.20:1

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

**Temperature Coefficient:** <150 ppm/°C

**Tabs:** Silver

**RoHS Compliant**



mm (inches)

### 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

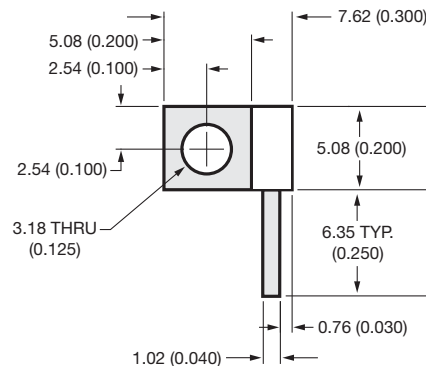
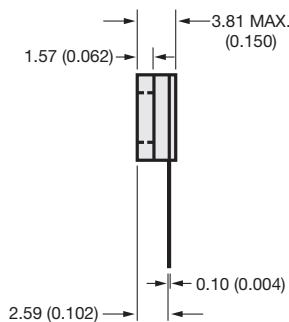
**VSWR:** 1.15:1 @ 4 GHz, 1.25:1 @ 6 GHz,

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

**Temperature Coefficient:** <150 ppm/°C

**Tabs:** Silver

**RoHS Compliant**



mm (inches)

For Part Number Code, see page 14.

## Terminations

### FLANGE MOUNT TERMINATION – P/N: RPA0301T0050JNBK

#### ELECTRICAL SPECIFICATIONS

**Nominal Impedance:** 50  $\Omega$   $\pm$ 5% standard  
(contact factory for custom values)

**Power:** 20 Watts

**Frequency:** DC to 6 GHz

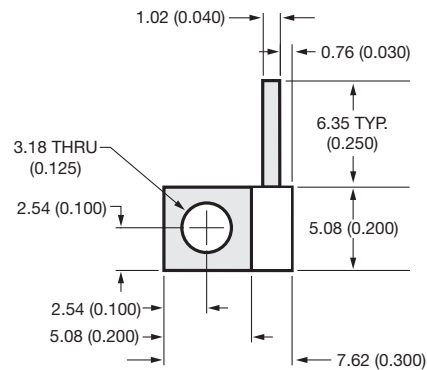
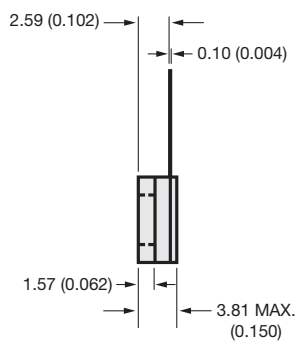
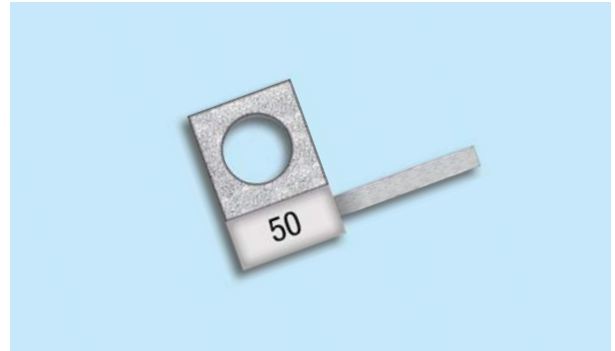
**VSWR:** 1.15:1 @ 4 GHz, 1.25:1 @ 6 GHz,

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

**Temperature Coefficient:** <150 ppm/°C

**Tabs:** Silver

**RoHS Compliant**



mm (inches)

# High Power Resistive Products

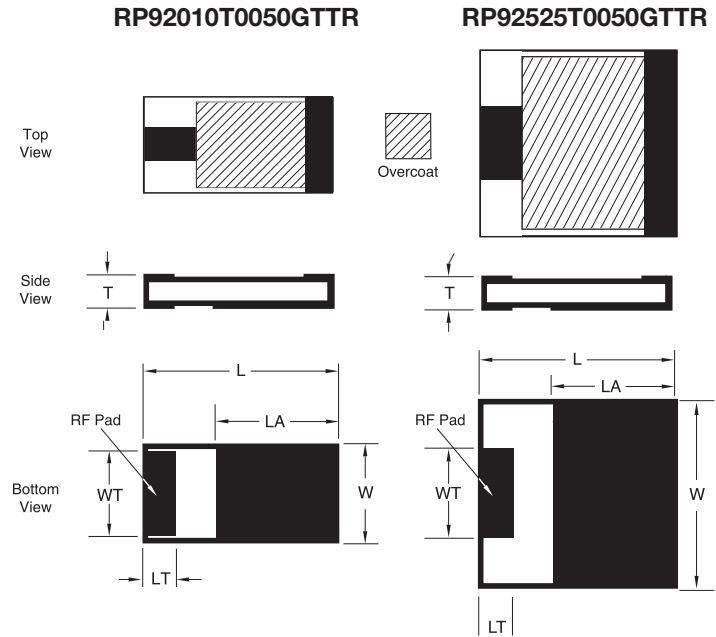


## Terminations

### 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



mm (inches)

| AVX Part Number  | W<br>±0.25 (0.010) | L<br>±0.25 (0.010) | T<br>±0.13 (0.005) | LT<br>±0.13 (0.005) | WT<br>±0.13 (0.005) | LA<br>±0.13 (0.005) | Frequency Range (GHz) | VSWR (Typ.) | Power Max** (Watts) |
|------------------|--------------------|--------------------|--------------------|---------------------|---------------------|---------------------|-----------------------|-------------|---------------------|
| RP92010T0050GTRR | 2.54 (0.100)       | 5.08 (0.200)       | 1.02 (0.040)       | 1.02 (0.040)        | 2.29 (0.090)        | 2.92 (0.115)        | DC - 3.0              | 1.20:1      | 10W                 |
| RP92525T0050GTRR | 6.22 (0.245)       | 6.22 (0.245)       | 1.02 (0.040)       | 0.76 (0.030)        | 3.18 (0.125)        | 4.32 (0.170)        | DC - 4.0              | 1.25:1      | 20W                 |

\*\* 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.

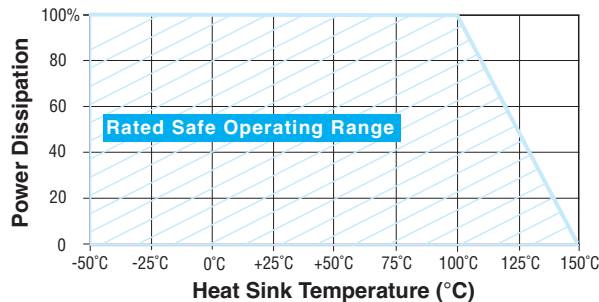
#### HOW TO ORDER

- RP9** AVX Series
- 2010** Case Size  
See chart above
- T** Type  
T = Termination
- 0050** Value  
0050 = 50Ω
- G** Tolerance  
J = ±5%  
G = ±2%
- T** Terminal  
T = Silver over Nickel
- TR** Packaging  
TR = Tape & Reel



Contact factory for custom ratings and sizes.

#### POWER DERATING





# High Power Resistive Products

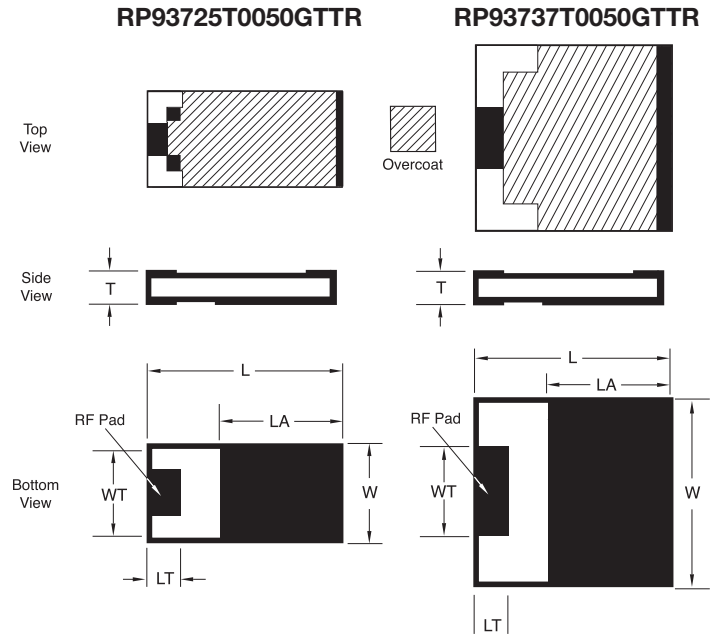


## Terminations

### 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



mm (inches)

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

\*\* 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

|                   |                                     |                                |                            |  |   |                                      |  |
|-------------------|-------------------------------------|--------------------------------|----------------------------|--|---|--------------------------------------|--|
| <b>RP9</b>        | <b>2010</b>                         | <b>T</b>                       | <b>0050</b>                | <b>G</b>                               | <b>T</b>                                  | <b>TR</b>                            |  |
| <b>AVX Series</b> | <b>Case Size</b><br>See chart above | <b>Type</b><br>T = Termination | <b>Value</b><br>0050 = 50Ω | <b>Tolerance</b><br>J = ±5%<br>G = ±2% | <b>Terminal</b><br>T = Silver over Nickel | <b>Packaging</b><br>TR = Tape & Reel |  |

Contact factory for custom ratings and sizes.

#### POWER DERATING

