

# High Power Resistive Products



## Attenuators

AVX introduces its line of High Power Attenuator Products. All products are designed and manufactured at our ISO 9001 Facilities. All products are tested in accordance with MIL-PRF-55342.

### ELECTRICAL SPECIFICATIONS

**Attenuation:** 1 dB through 30 dB

**Frequency Range:** DC to 3 GHz

**Input Power:** up to 150 Watts

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

### MECHANICAL SPECIFICATIONS

**Package:** Leaded and Flange Mounted

**Substrate Material:** Aluminum Nitride

**Process:** 100% Thin Film Processed

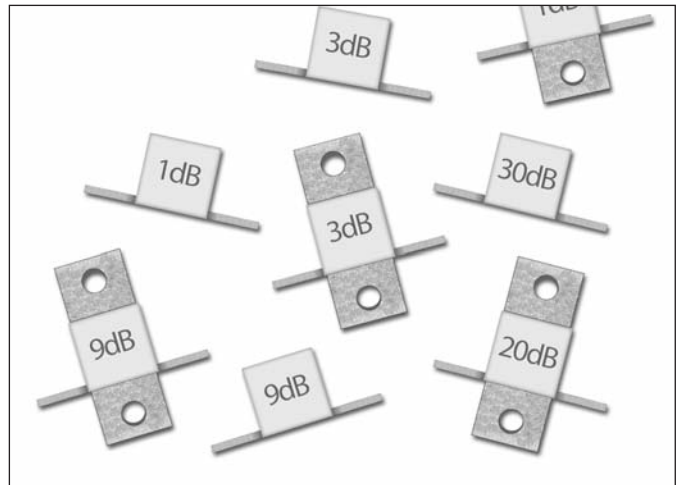
**Resistive Material:** Tantalum Nitride

**Terminals:** 100% Ag

**Cover:** Alumina

**Mounting Flange:** 100% Cu, Ni or Ag Plated

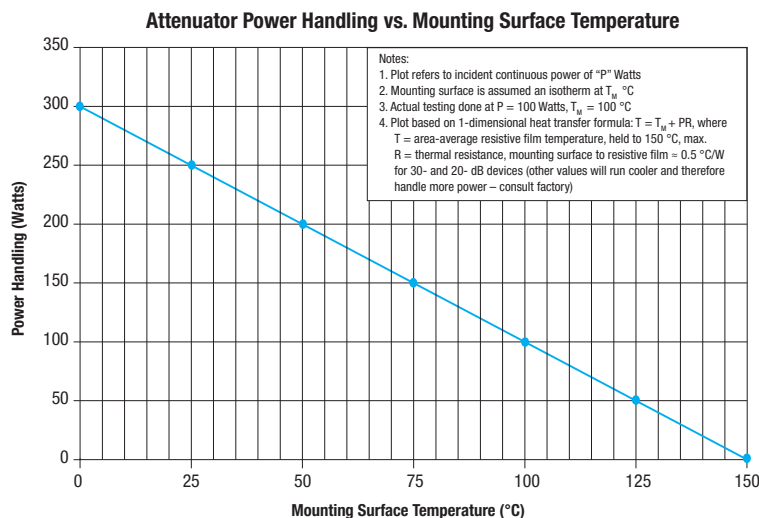
**RoHS Compliant**



### HOW TO ORDER

<b>RP2</b>	<b>3740</b>	<b>A</b>	<b>01DB</b>	<b>F</b>	<b>P</b>	<b>BK</b>
<b>AVX Series</b>	<b>Case Size</b>	<b>Type</b>	<b>Nominal Attenuation (dB)</b>	<b>Tolerance</b>	<b>Plating</b>	<b>Packaging</b>
RP1 RP2	3740 0975	A = Attenuator	See chart	F = 1%	P = Palladium	BK = Bulk

Contact factory for custom ratings and sizes.



\* Test Condition: With mounting surface temperature = 75°C, max. (see plot above). Actual test conditions are as follows: Flange attached to a large copper carrier whose surface, directly under the flange center, is held at 100°C; power applied = 100 Watts. Specification: The attenuation shall change no more that 0.2 dB during and after a 100-hr. Burn-in per MIL-PRF-55342.

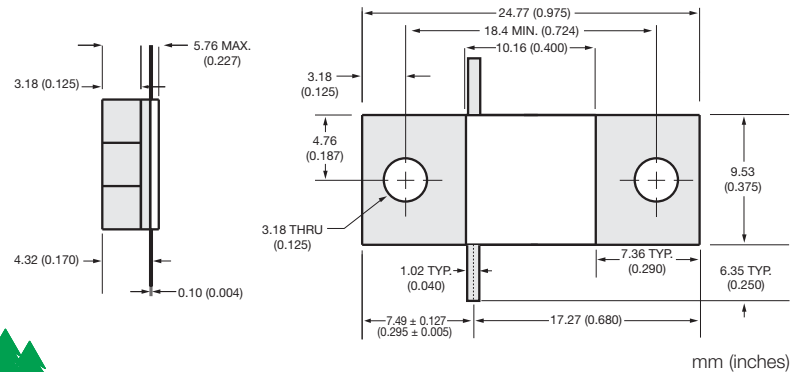
\*\* Attenuation vs. frequency as a function of temperature, -55°C to +125°C

## Attenuators

### FLANGE MOUNT ATTENUATORS – RP1 SERIES

#### GENERAL SPECIFICATIONS

- Frequency Range:** DC to 3 GHz
- Input Power\*:** 150 Watts
- Operating Temp Range:** -55 to +150°C
- Attenuation Stability\*\*:** 0.0001 dB/dB/°C, Max.
- Mounting Flange:** Copper, Pd over Ni; other platings available
- Resistive Elements:** Tantalum Nitride
- Substrate Material:** Aluminum Nitride
- Tabs:** 99.99% Pure Silver, 0.25 (0.004) thick
- Cover:** Alumina
- RoHS Compliant**
- Reliability:** In accordance with MIL-PRF-55342



**Mechanical Tolerance:** ±0.25 (0.010) unless otherwise specified

AVX Part Number	Nominal Attenuation (dB)	Frequency Sensitivity (dB, max.)	Maximum Deviation from Nominal (dB)	VSWR (max.)
RP10975A01DBFPBK	1	± 0.25	+0.45 / -0.15	1.55:1
RP10975A02DBFPBK	2	±0.30	+0.50 / -0.30	1.50:1
RP10975A03DBFPBK	3	± 0.30	+0.60 / -0.30	1.50:1
RP10975A06DBFPBK	6	± 0.45	+0.80 / -0.20	1.40:1
RP10975A09DBFPBK	9	± 0.35	+0.70 / -0.20	1.30:1
RP10975A10DBFPBK	10	± 0.20	+0.40 / -0.30	1.40:1
RP10975A17DBFPBK	17	± 1.00	+1.00 / -1.20	1.30:1
RP10975A20DBFPBK	20	± 1.00	+1.00 / -1.20	1.30:1
RP10975A30DBFPBK	30	± 1.05	+1.75 / -1.20	1.25:1

For Attenuator Power Handling vs. Mounting Surface Temperature, see page 2.

### LEADED CHIP ATTENUATORS – RP2 SERIES

#### GENERAL SPECIFICATIONS

- Frequency Range:** DC to 3 GHz
- Input Power\*:** 150 Watts
- Operating Temp Range:** -55°C to +150°C
- Attenuation Stability\*\*:** 0.0001 dB/dB/°C, Max.
- Resistive Elements:** Tantalum Nitride
- Substrate Material:** Aluminum Nitride
- Tabs:** 99.99% Pure Silver, 0.10 (0.004) thick
- Cover:** Alumina
- RoHS Compliant**
- Reliability:** In accordance with MIL-PRF-55342



**Mechanical Tolerance:** ±0.25 (0.010) unless otherwise specified

AVX Part Number	Nominal Attenuation (dB)	Frequency Sensitivity (dB, max.)	Maximum Deviation from Nominal (dB)	VSWR (max.)
RP23740A01DBFPBK	1	± 0.20	+0.45 / -0.15	1.55
RP23740A03DBFPBK	3	± 0.30	+0.60 / -0.30	1.50
RP23740A06DBFPBK	6	± 0.30	+0.60 / -0.20	1.30
RP23740A09DBFPBK	9	± 0.30	+0.60 / -0.20	1.30
RP23740A10DBFPBK	10	± 0.20	+0.40 / -0.30	1.25
RP23740A20DBFPBK	20	± 1.00	+1.00 / -1.20	1.25
RP23740A30DBFPBK	30	± 1.05	+1.75 / -1.20	1.25

For Attenuator Power Handling vs. Mounting Surface Temperature, see page 2.