



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



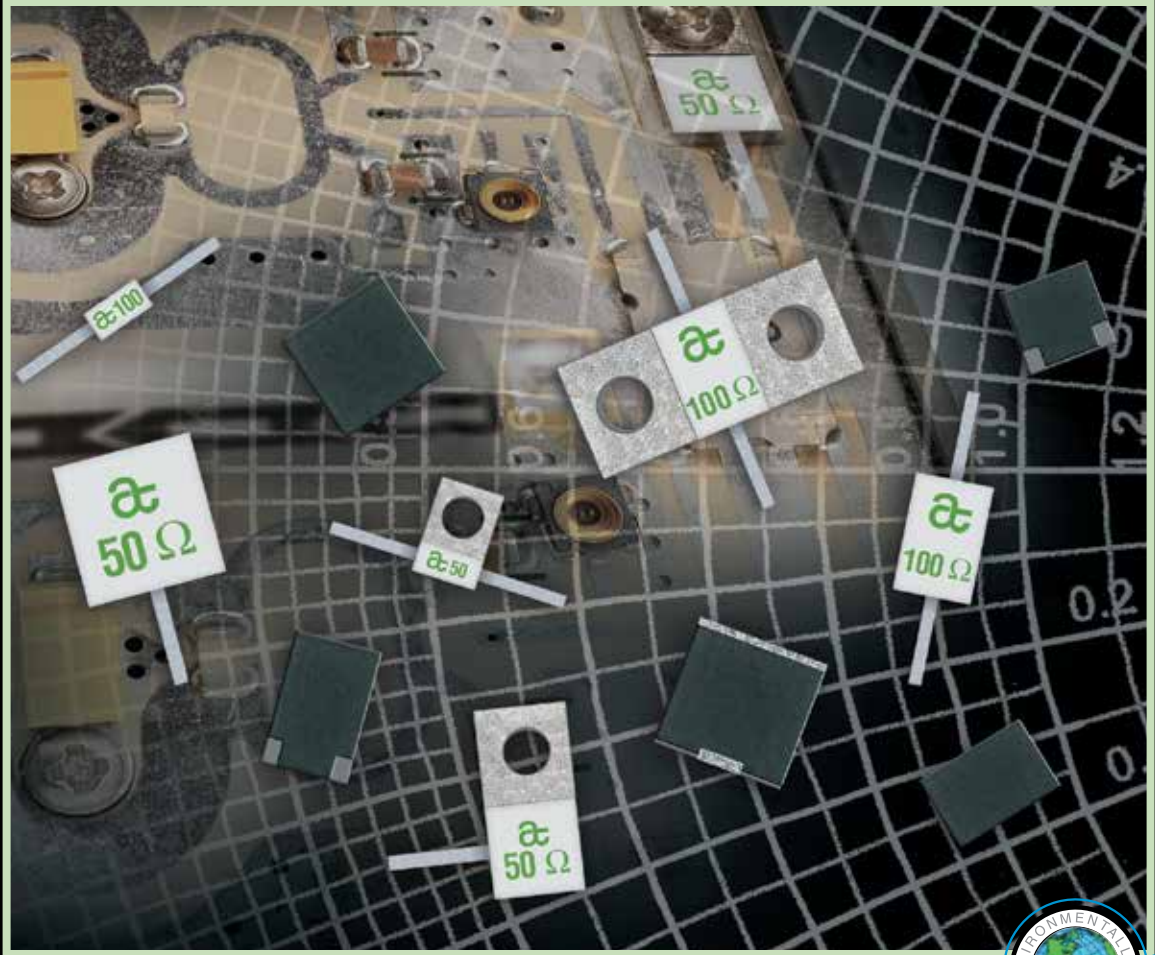
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AMERICAN
TECHNICAL
CERAMICS

HIGH POWER
RESISTIVE PRODUCTS



 THE
ENGINEERS'
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Corporate Profile

ATC designs, develops, manufactures and markets Multilayer Capacitors, Single Layer Capacitors, Resistive Products, Inductors and Custom Thin Film Products for RF, microwave and millimeter-wave applications. Our products are primarily focused on the wireless communications infrastructure, fiber optic, medical electronics, semiconductor manufacturing equipment, defense, aerospace, and satellite communications markets. For over fifty years, ATC's family of superior component and custom integrated packaging solutions has been represented by **THE ENGINEERS' CHOICE™** brand.

Customer interface is administered by our own personnel and independent sales representatives. American Technical Ceramics is headquartered in Huntington Station, New York and has an Advanced Technology Center in Jacksonville, Florida. This is the center of excellence for our traditional product lines and the development and manufacturing facilities for Thin Film and Resistive Products.

American Technical Ceramics' Sales and Customer Service Center, serving Europe, Africa and the Middle East, is located in the Czech Republic. ATC has Regional Sales Offices in Surrey, England and Hallbergmoos, Germany. The Company's wholly-owned subsidiary offering Sales and Technical Support for Asia is located in Shenzhen, P.R. China.

American Technical Ceramics is a wholly-owned subsidiary of AVX Corp. The common stock of AVX is listed on the New York Stock Exchange (symbol "AVX").

RLC Products

- Multilayer Ceramic Capacitors
- Capacitor Assemblies for Power Applications
- Single Layer Ceramic Capacitors
- Resistor Products
- Inductor Products

Process and Packaging

- Thin Film Custom Products: metalization and patterned substrates for a broad range of hybrid circuit requirements

Markets Served

- Wireless Communications Infrastructure
- Semiconductor Manufacturing Equipment
- Medical Diagnostic Equipment
- Sattelite Systems
- Public Safety Radio
- Avionic Systems
- Military and Aerospace
- Commerical Broadcast Transmitters
- Fiber Optic Communications
- Automotive Electronics

Facilities

- Huntington Station, New York – Sales, Applications Support, Manufacturing and Distribution Center
- Jacksonville, Florida – Advanced Technology Center, Manufacturing Facility



ATC's Jacksonville Facility occupies approximately 100,000 sq. ft.



ATC's New York Facility occupies approximately 90,000 sq. ft.

Download complete pdf data sheets at
www.atceramics.com

ATC's website includes a complete listing of technical articles in pdf format, as well as new product updates and design support software. As an added convenience, ATC Multilayer Capacitor Kits and Inductor Design Kits may be purchased online.



NOTE: Contact ATC's Applications Engineers for further technical information at +1-631-622-4700.

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Attenuators

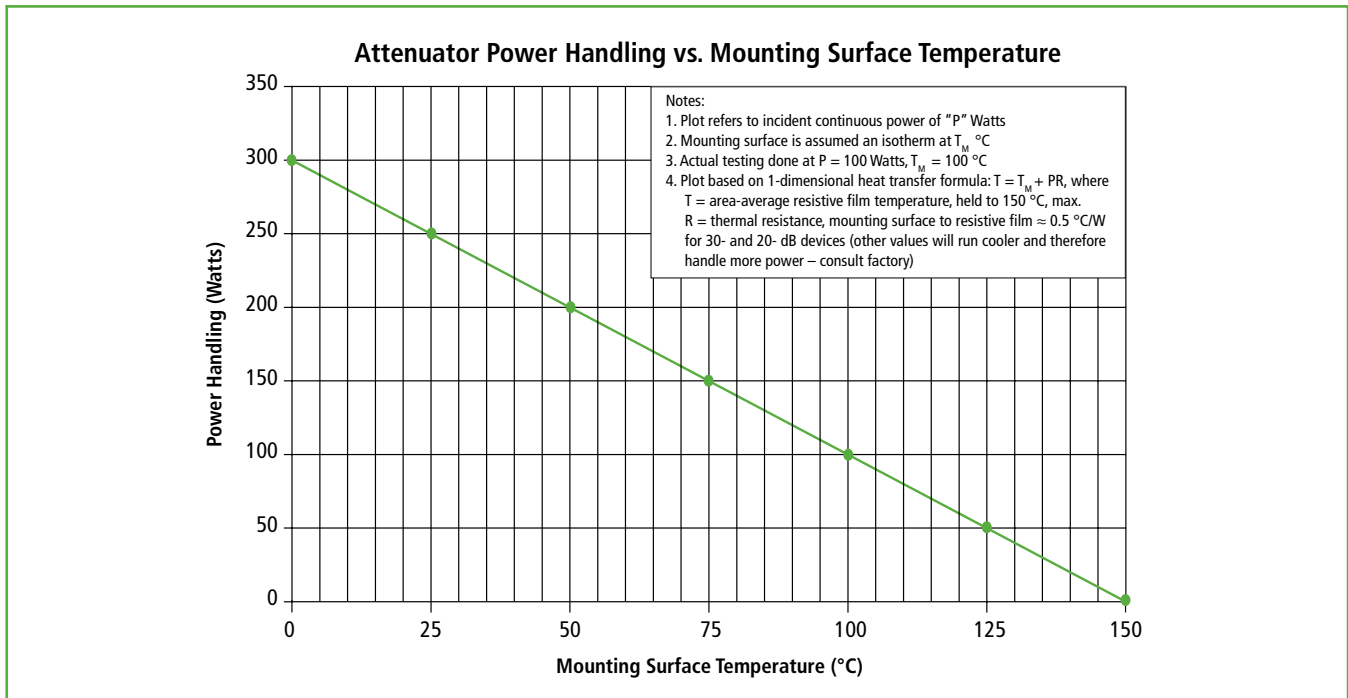
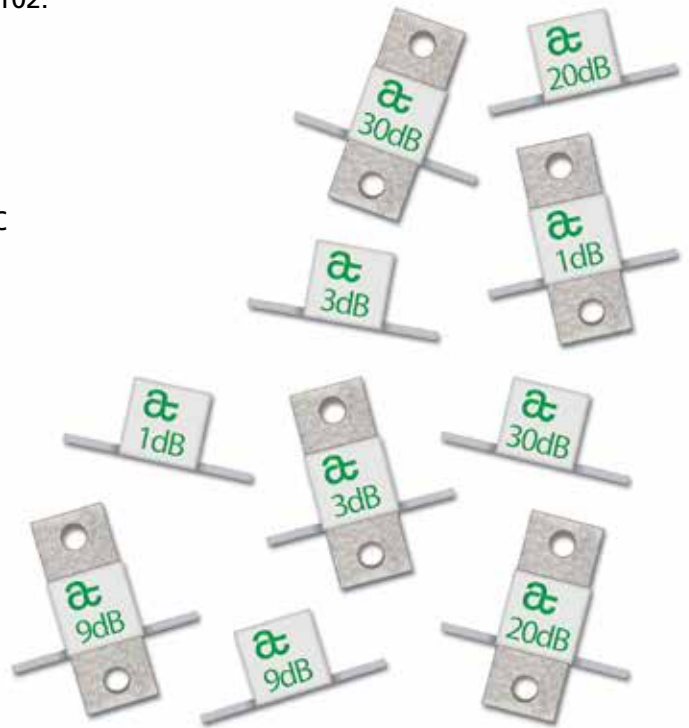
American Technical Ceramics introduces its line of High Power Attenuator Products. All Products are designed and manufactured at our ISO 9001 Facilities. All products are designed to meet MIL-PRF-55342 and ATC qualification procedure JP625-4102.

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
- **Terminals:** 100% Ag
- **Cover:** Alumina
- **Mounting Flange:** 100% Cu, Ni or Ag Plated
- **RoHS Compliant**



* 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 than 0.2 dB during and after a 100-hr. Burn-in per MIL-PRF-55342.

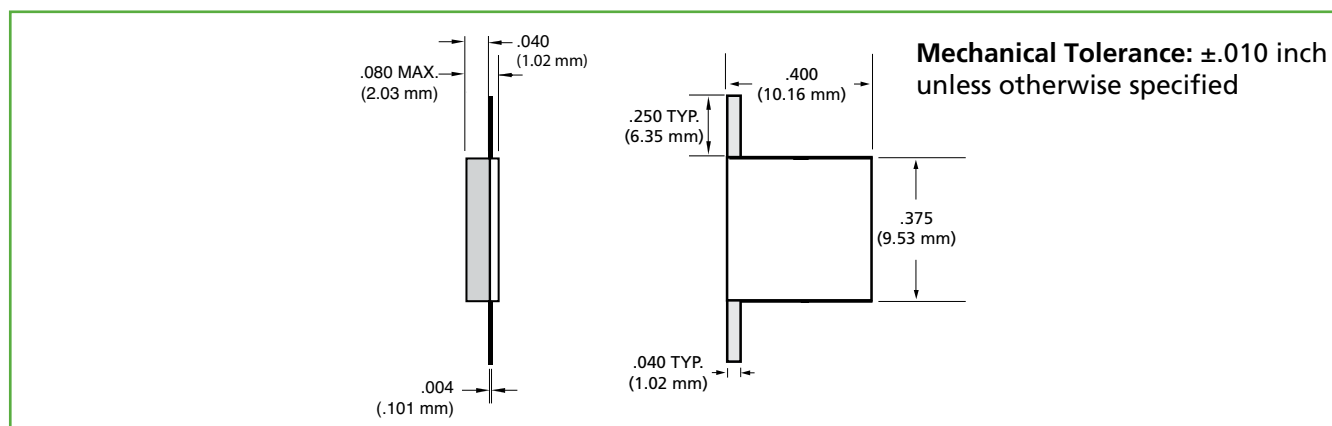
** Attenuation vs. frequency as a function of temperature, -55°C to +125°C

High Power Leaded Chip Attenuators

Style LA1

General Specifications

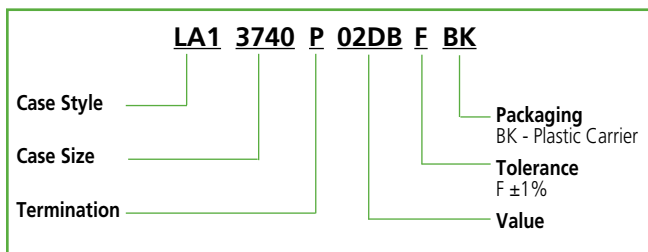
- Frequency Range: DC to 3 GHz
- Input Power*: 150 Watts
- Operating Temp Range: -55 to +150°C
- Attenuation Stability**: 0.0001 dB/dB/°C, Max.
- Resistive Elements: Tantalum Nitride
- Substrate Material: Aluminum Nitride
- Tabs: 99.99% Pure Silver, .004 inches thick, Cover: Alumina
- RoHS Compliant
- Reliability: MIL-PRF-55342



ATC Part Number	Nominal Attenuation (dB)	Frequency Sensitivity (dB, max.)	Maximum Deviation from Nominal (dB)	VSWR (max.)
LA13740P01DBFBK	1	± 0.20	+0.45 / -0.15	1.55
LA13740P02DBFBK	2	± 0.30	0.50 / -0.30	1.50
LA13740P03DBFBK	3	± 0.30	0.60 / -0.30	1.50
LA13740P06DBFBK	6	± 0.30	+0.60 / -0.20	1.30
LA13740P09DBFBK	9	± 0.30	+0.60 / -0.20	1.30
LA13740P10DBFBK	10	± 0.20	+0.40 / -0.30	1.25
LA13740P17DBFBK	17	± 1.00	+1.00 / -1.20	1.30
LA13740P20DBFBK	20	± 1.00	+1.00 / -1.20	1.25
LA13740P30DBFBK	30	± 1.05	+1.75 / -1.20	1.25

For Attenuator Power Handling vs. Mounting Surface Temperature, see page 6.

ATC Leaded Chip Attenuators Part Number Code

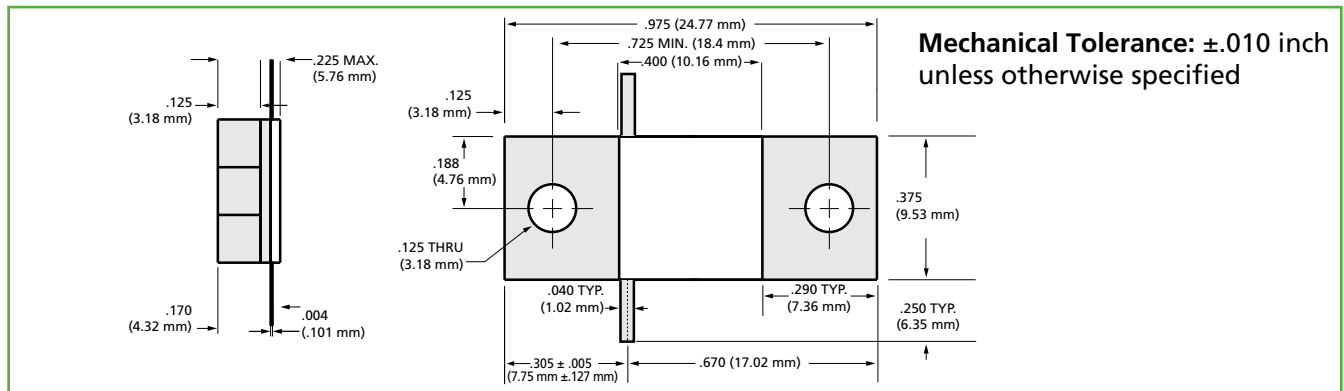
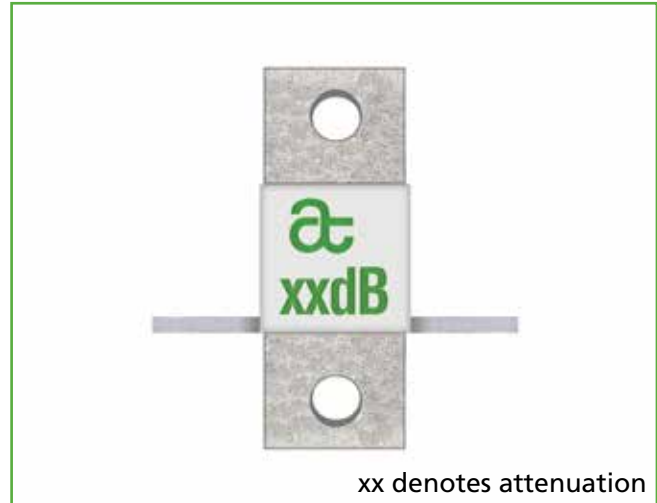


High Power Flange Mount Attenuators

Style FA1

General Specifications

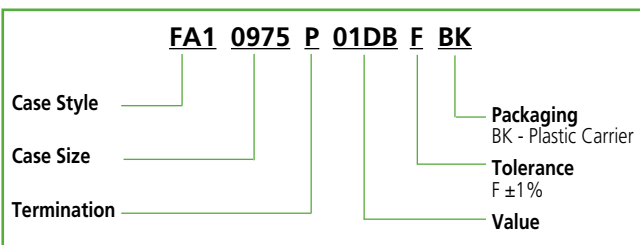
- **Frequency Range:** DC to 3 GHz
- **Input Power*:** 150 Watts
- **Operating Temp Range:** -55 to +150°C
- **Attenuation Stability**:** 0.0001 dB/dB/°C, Max.
- **Mounting Flange:** Copper, Pd over Ni; other platings available
- **Resistive Elements:** Tantalum Nitride
- **Substrate Material:** Aluminum Nitride
- **Tabs:** 99.99% Pure Silver, .004 inches thick, Cover: Alumina
- **RoHS Compliant**
- **Reliability:** MIL-PRF-55342



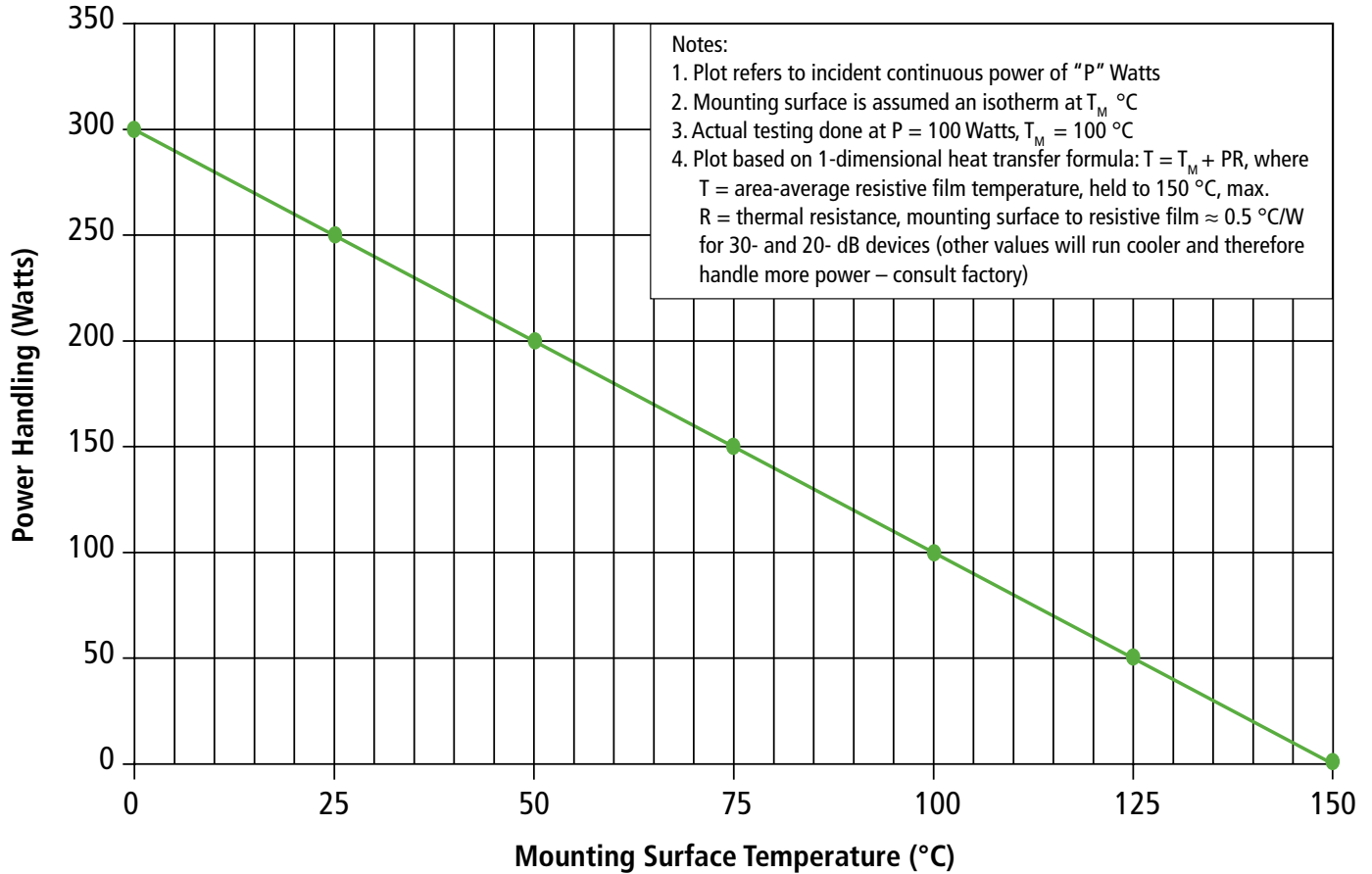
ATC Part Number	Nominal Attenuation (dB)	Frequency Sensitivity (dB, max.)	Maximum Deviation from Nominal (dB)	VSWR (max.)
FA10975P01DBFBK	1	± 0.25	+0.45 / -0.15	1.55:1
FA10975P02DBFBK	2	± 0.30	+0.50 / -0.30	1.50:1
FA10975P03DBFBK	3	± 0.30	+0.60 / -0.30	1.50:1
FA10975P06DBFBK	6	± 0.45	+0.80 / -0.20	1.40:1
FA10975P09DBFBK	9	± 0.35	+0.70 / -0.20	1.30:1
FA10975P10DBFBK	10	± 0.20	+0.40 / -0.30	1.40:1
FA10975P17DBFBK	17	± 1.00	+1.00 / -1.20	1.30:1
FA10975P20DBFBK	20	± 1.00	+1.00 / -1.20	1.30:1
FA10975P30DBFBK	30	± 1.05	+1.75 / -1.20	1.25:1

For Attenuator Power Handling vs. Mounting Surface Temperature, see page 6.

ATC Flange Mount Attenuators Part Number Code



Attenuator Power Handling vs. Mounting Surface Temperature



* 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

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Resistors

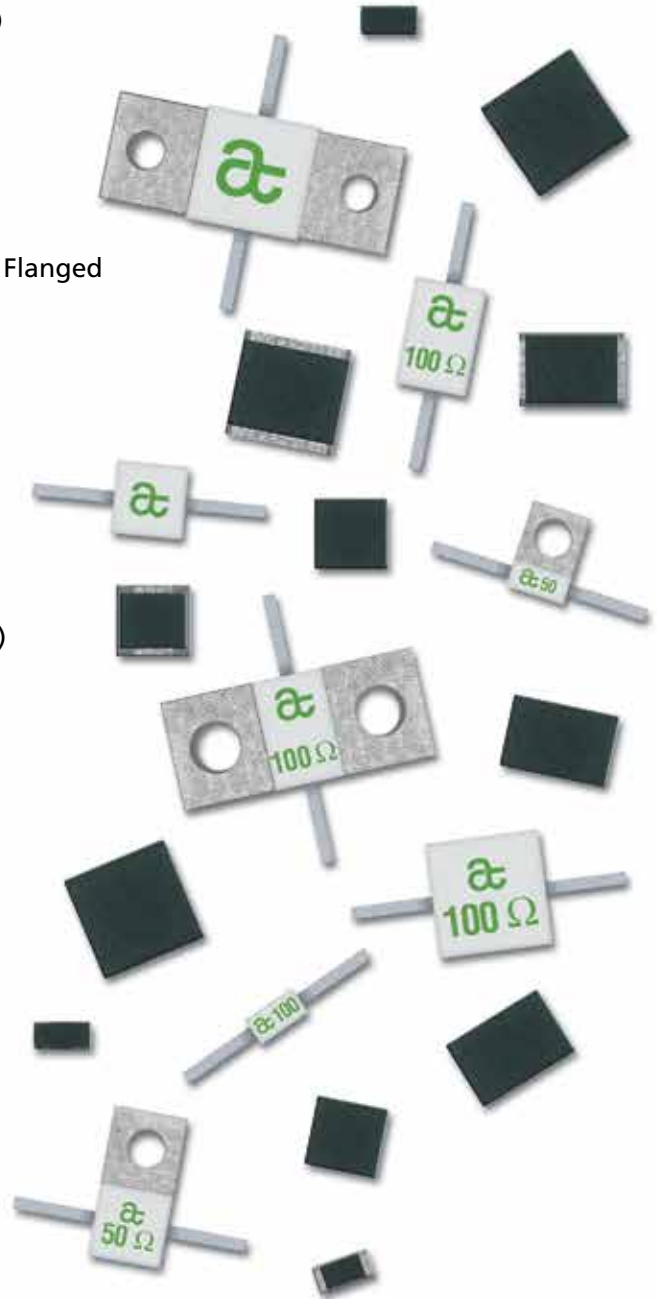
American Technical Ceramics introduces its complete line of High Power Resistive Products. All Products are designed and manufactured at our ISO 9001 Facilities. All products are designed to meet MIL-PRF-55342 and ATC qualification procedure JP625-4102.

Electrical Specifications

- **Resistance:** 50 and 100 Ω standard (10 Ω - 200 Ω available)
- **Resistance Tolerance:** $\pm 5\%$ standard ($\pm 2\%$ available)
- **Power:** 4 Watts through 250 Watts
- **Operating Temperature Range:** -55°C - $+150^{\circ}\text{C}$
- **Temperature Coefficient:** < 150 ppm/ $^{\circ}\text{C}$
- **Low Capacitance**

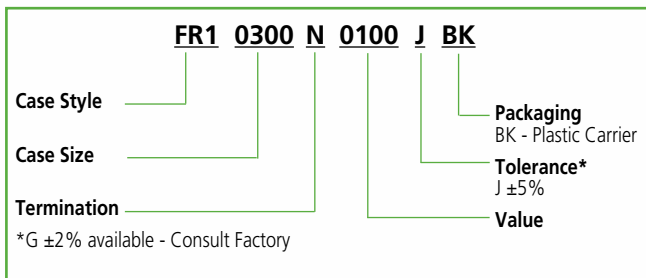
Mechanical Specifications

- **Package:** Surface Mount Chips, Chips, Leaded Chips, Flanged
- **Substrate Material:** Aluminum Nitride
- **Process:** Thin Film
- **Resistive Material:** Tantalum
- **Terminals:** Silver
- **Cover:** Alumina
- **Mounting Flange:** 100% Cu, Ni or Ag Plated
- **Mechanical Tolerance:** $\pm .005$
- **SMT and Chip products, supplied on Tape and Reel**
- **Non-Magnetic**
(exception CS and CW Style Surface Mount Resistors)
- **Lead-Free, RoHS Compliant**

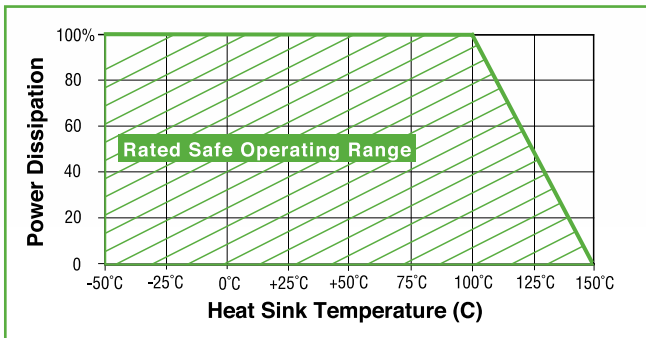


ATC Flange Mount Resistors

Part Number Code



Power Derating

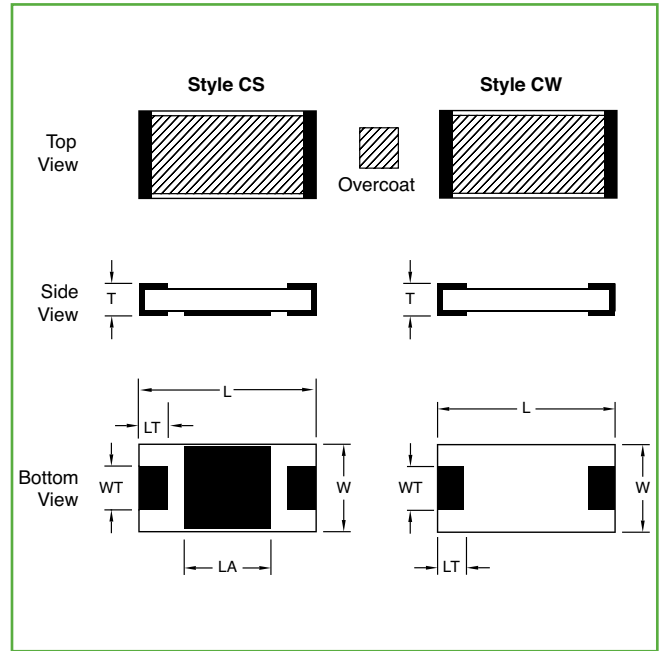


Surface Mount Chip Resistors

Style CS1 and Style CW1

General Specifications

- **Resistance:** 100 Ω standard, (other Ω values available)
- **Resistive Tolerance:** $\pm 2\%$ standard
- **Operating Temp Range:** -55 to +150°C
- **Temperature Coefficient:** <150 ppm/°C
- **Resistive Elements:** Proprietary Thin Film
- **Substrate Material:** Aluminum Nitride
- **Terminals:** Silver over Nickel
- **Lead-Free, RoHS Compliant**
- **Reliability:** MIL-PRF-55342
- **Tape and Reel Specifications:** See Page 39



ATC Part Number*	W $\pm .010$	L $\pm .010$	T $\pm .005$	WT $\pm .005$	LT $\pm .005$	LA $\pm .005$	Capacitance (pF)	Power Max** (Watts)
CS12010TxxxxG	.100	.200	.040	.090	.030	.095	.95 pF	10W
CS12525TxxxxG	.245	.245	.040	.120	.040	.110	1.85 pF	20W
CS13725TxxxxG	.250	.375	.040	.120	.050	.195	3.0 pF	30W
CS13737TxxxxG	.370	.370	.040	.360	.050	.195	3.5 pF	40W

ATC Part Number*	W $\pm .010$	L $\pm .010$	T $\pm .005$	WT $\pm .005$	LT $\pm .005$	Power Max** (Watts)
CW12010TxxxxG	.100	.200	.040	.090	.030	4W
CW12525TxxxxG	.245	.245	.040	.120	.040	6W
CW13725TxxxxG	.250	.375	.040	.120	.050	8W
CW13737TxxxxG	.370	.370	.040	.360	.050	10W

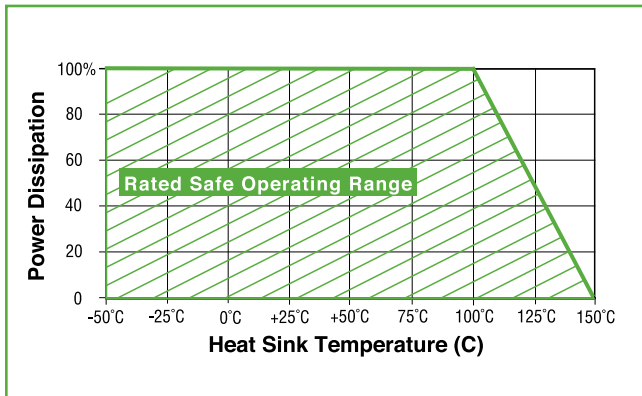
* xxxx denotes Ohm value.

** Test Condition: Chip soldered to a via patch on a 30-mil-thick Rogers RO4350 board;

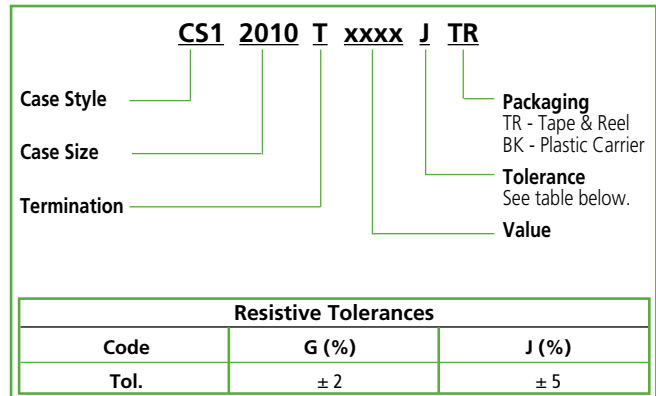
Land surfaces at 100° C; maximum rated power applied.

Specification: The resistance of the film shall change no more than 0.5% during and after a 1000-hr. Burn-in per Mil-PRF-55342.

Power Derating



ATC Part Number Code

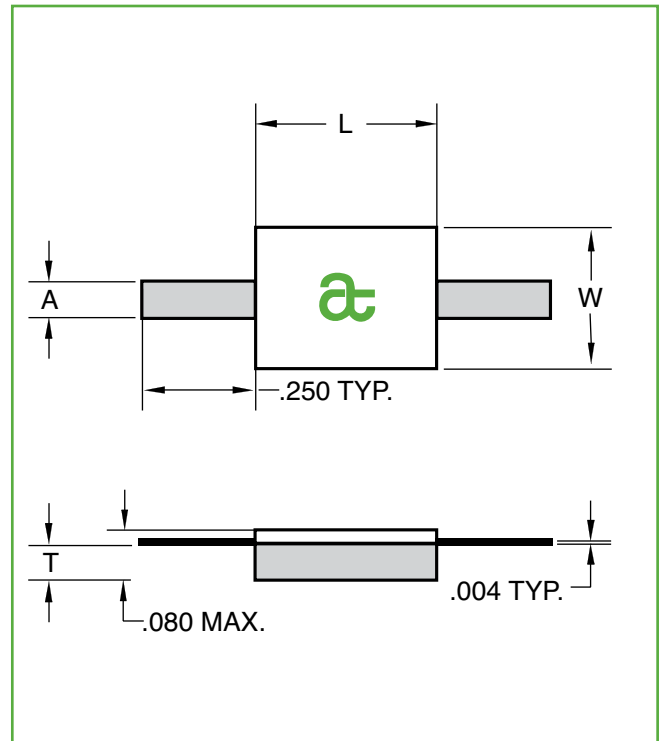


Leaded Chip Resistors

Style LR1

General Specifications

- **Resistance:** 100 Ω standard, (other Ω values available)
- **Resistive Tolerance:** $\pm 5\%$ standard (2% Available)
- **Operating Temp. Range:** -55°C to $+150^{\circ}\text{C}$
- **Temperature Coefficient:** <150 ppm/ $^{\circ}\text{C}$
- **Resistive Elements:** Proprietary Thin Film
- **Substrate Material:** Aluminum Nitride
- **Lead Terminals:** Silver
- **Cover:** Alumina
- **Lead-Free, RoHS Compliant**
- **Reliability:** MIL-PRF-55342
- **Non-Magnetic**



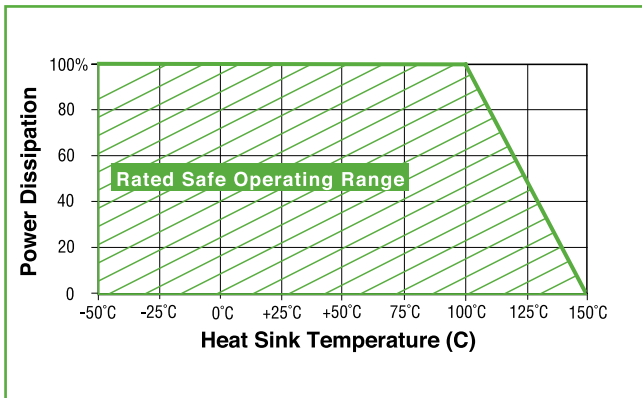
ATC Part Number*	W $\pm .010$	L $\pm .010$	T $\pm .005$	A	Capacitance (pF)	Power Max** (Watts)
LR12010TxxxxJ	.100	.200	.040	.040	1.0	30W
LR12335TxxxxJ	.350	.230	.040	.040	3.15	50W
LR12525TxxxxJ	.245	.245	.040	.040	2.0	60W
LR12335TxxxxJ01	.350	.230	.040	.040	3.15	100W
LR13725TxxxxJ	.250	.375	.040	.040	4.15	150W
LR13725TxxxxJ01	.250	.375	.040	.120	4.15	150W
LR13737TxxxxJ	.370	.370	.040	.040	6.0	250W
LR13737TxxxxJ01	.370	.370	.040	.12	06.0	250W

* xxxx denotes Ohm value.

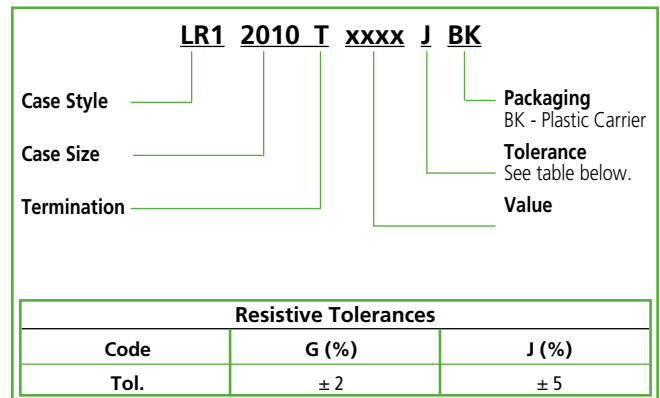
** Test Condition: Chip soldered to a large copper carrier whose surface is at 100°C ; maximum rated power applied.

Specification: The resistance of the film shall change no more than 0.5% during and after a 1000-hr. Burn-in per MIL-PRF-55342

Power Derating



ATC Part Number Code

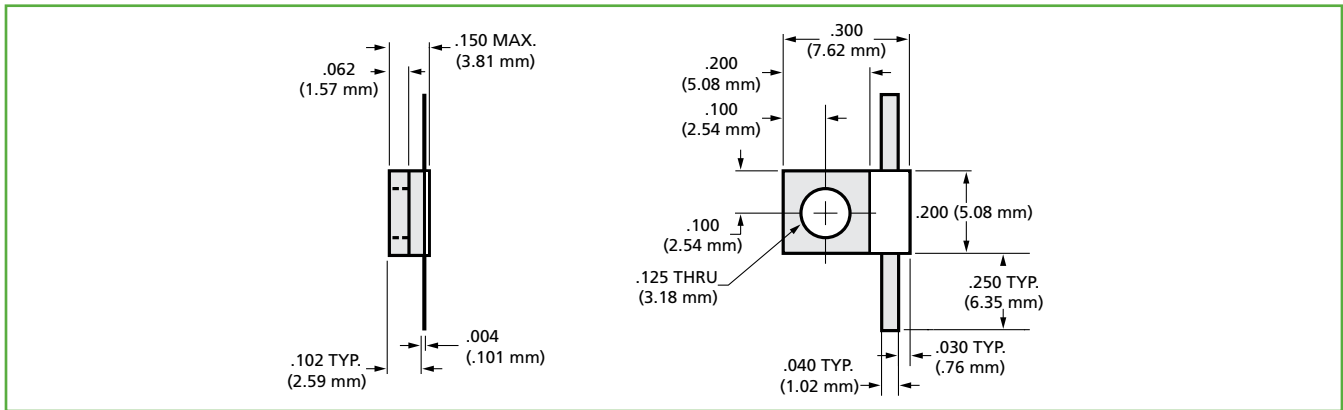


High Power, Flange Mount Resistor

P/N: FR10300NxxxxJ

General Specifications

- Resistance: 100 Ω standard (other Ω values available)
- Resistive Tolerance: $\pm 5\%$ standard ($\pm 2\%$ available)
- Power: 20 Watts • Capacitance: 1.0 pF
- Operating Temperature Range: -55°C to $+150^{\circ}\text{C}$
- Temperature Coefficient: <150 ppm/ $^{\circ}\text{C}$
- Tabs: Silver
- Lead-Free, RoHS Compliant
- Non-Magnetic available

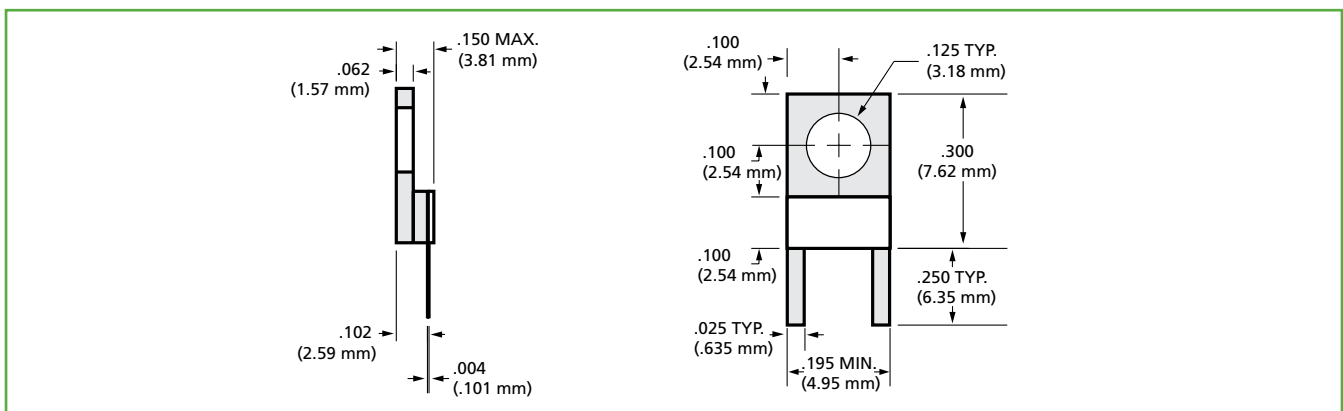


High Power, Flange Mount Resistor

P/N: FR10302NxxxxJ

General Specifications

- Resistance: 100 Ω standard (other Ω values available)
- Resistive Tolerance: $\pm 5\%$ standard ($\pm 2\%$ available)
- Power: 20 Watts • Capacitance: 1.0pF
- Operating Temperature Range: -55 to $+150^{\circ}\text{C}$
- Temperature Coefficient: <150 ppm/ $^{\circ}\text{C}$
- Tabs: Silver
- Lead-Free, RoHS Compliant
- Non-Magnetic available



For Part Number Code, see page 8.

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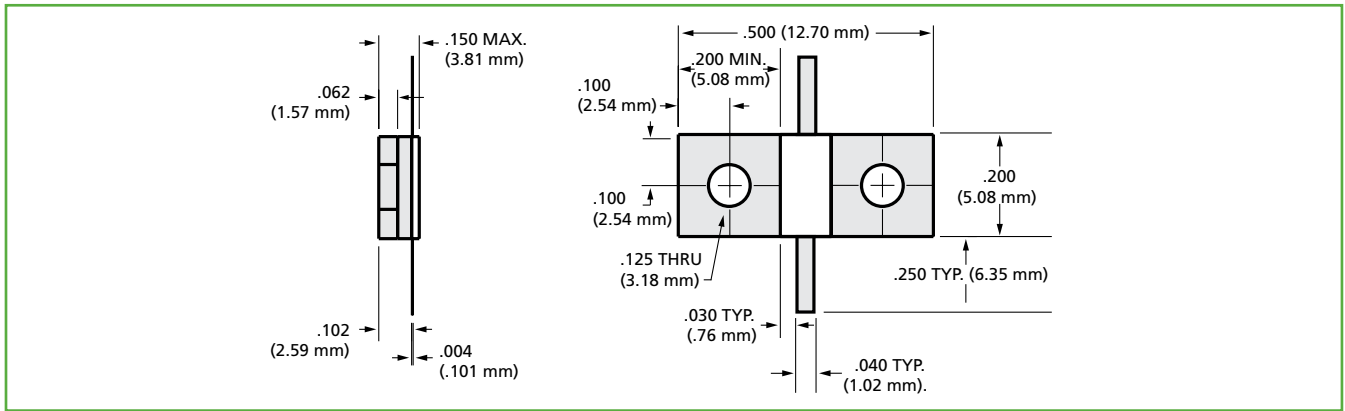
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High Power, Flange Mount Resistor

P/N: FR10500NxxxxJ

General Specifications

- Resistance: 100 Ω standard (other Ω values available)
- Resistive Tolerance: $\pm 5\%$ standard ($\pm 2\%$ available)
- Power: 25 Watts
- Capacitance: 1.0pF
- Operating Temperature Range: -55 to +150°C
- Temperature Coefficient: <150 ppm/°C
- Tabs: Silver
- Lead-Free, RoHS Compliant
- Non-Magnetic available

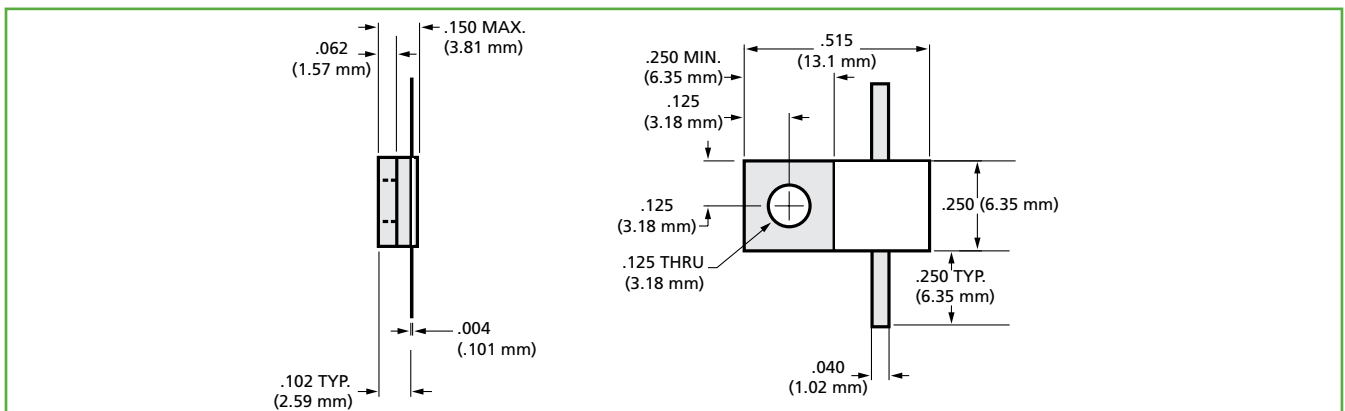


High Power, Flange Mount Resistor

P/N: FR10515NxxxxJ

General Specifications

- Resistance: 100 Ω standard (other Ω values available)
- Resistive Tolerance: $\pm 5\%$ standard ($\pm 2\%$ available)
- Power: 60 Watts
- Capacitance: 2.0 pF
- Operating Temperature Range: -55°C to +150°C
- Temperature Coefficient: <150 ppm/°C
- Tabs: Silver
- Lead-Free, RoHS Compliant
- Non-Magnetic available



For Part Number Code, see page 8.

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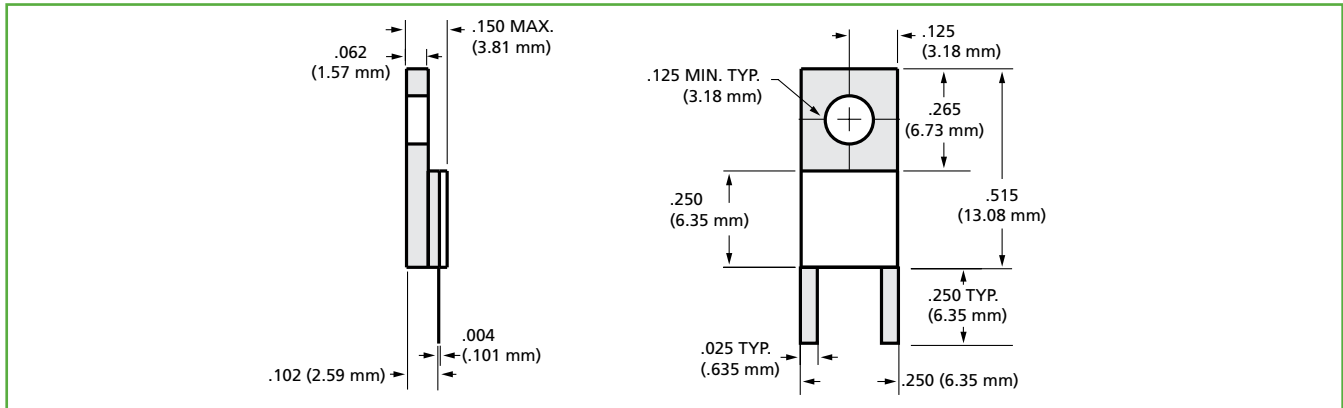
ATC Asia
sales@atceramics-asia.com

High Power, Flange Mount Resistor

P/N: FR10517NxxxxJ

General Specifications

- Resistance: 100 Ω standard (other Ω values available)
- Resistive Tolerance: ±5% standard (±2% available)
- Power: 60 Watts • Capacitance: 2.2 pF
- Operating Temperature Range: -55 to +150°C
- Temperature Coefficient: <150 ppm/°C
- Tabs: Silver
- Lead-Free, RoHS Compliant
- Non-Magnetic available

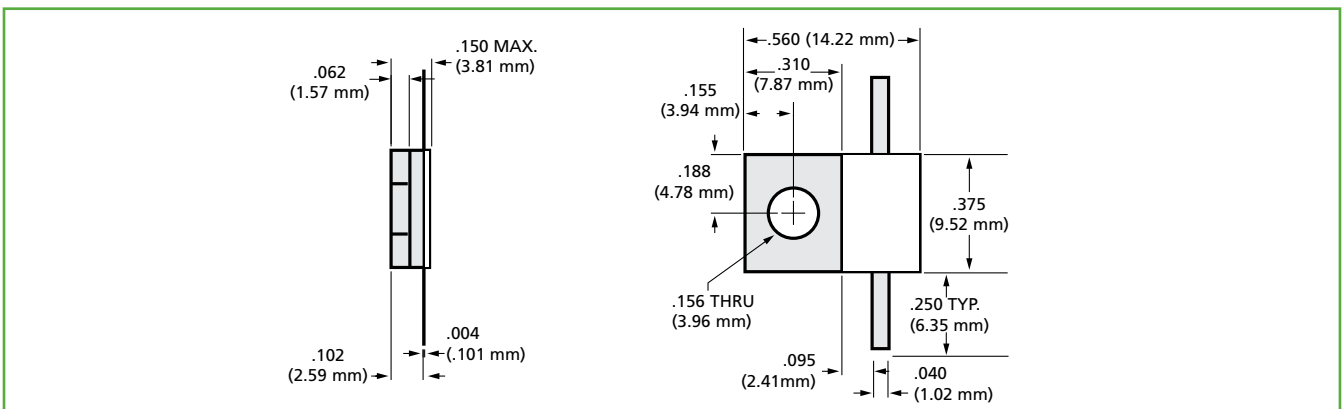
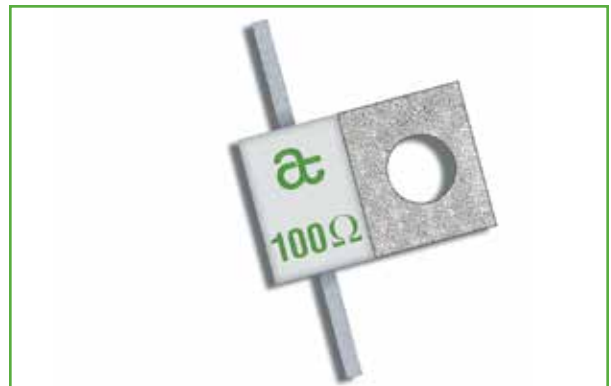


High Power, Flange Mount Resistor

P/N: FR10560NxxxxJ

General Specifications

- Resistance: 100 Ω standard (other Ω values available)
- Resistive Tolerance: ±5% standard (±2% available)
- Power: 75 Watts • Capacitance: 4.15 pF
- Operating Temperature Range: -55°C to +150°C
- Temperature Coefficient: <150 ppm/°C
- Tabs: Silver
- Lead-Free, RoHS Compliant
- Non-Magnetic available



For Part Number Code, see page 8.

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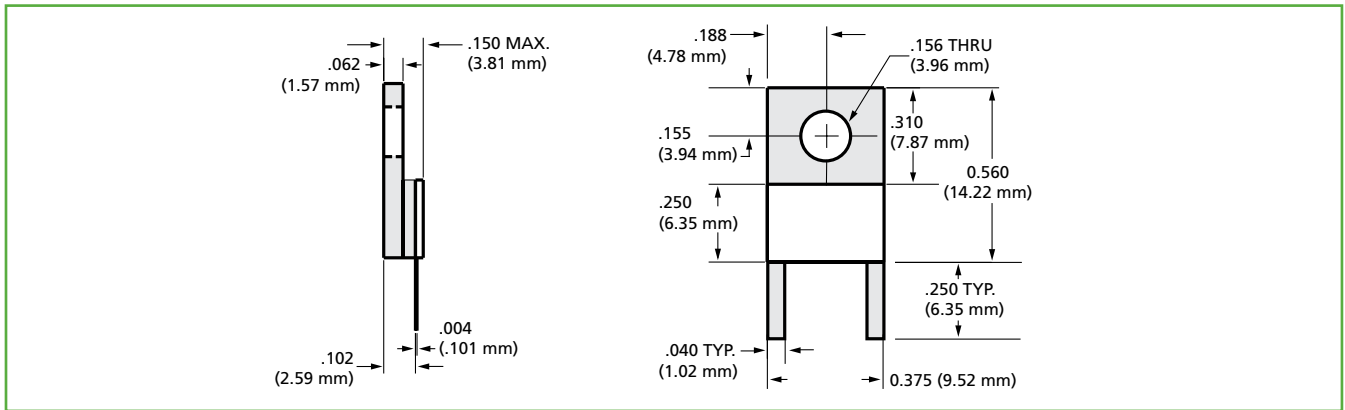
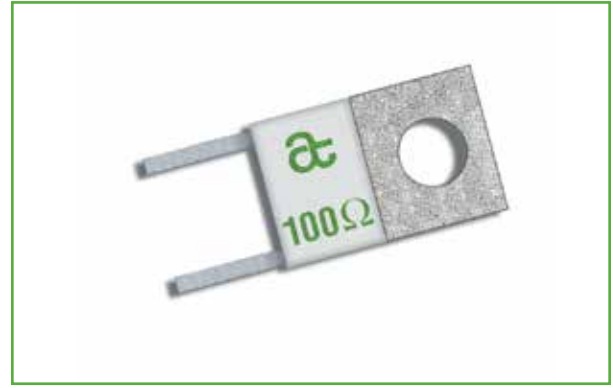
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High Power, Flange Mount Resistor

P/N: FR10562NxxxxJ

General Specifications

- Resistance: 100 Ω standard (other Ω values available)
- Resistive Tolerance: ±5% standard (±2% available)
- Power: 75 Watts • Capacitance: 4.15 pF
- Operating Temperature Range: -55 to +150°C
- Temperature Coefficient: <150 ppm/°C
- Tabs: Silver
- Lead-Free, RoHS Compliant
- Non-Magnetic available

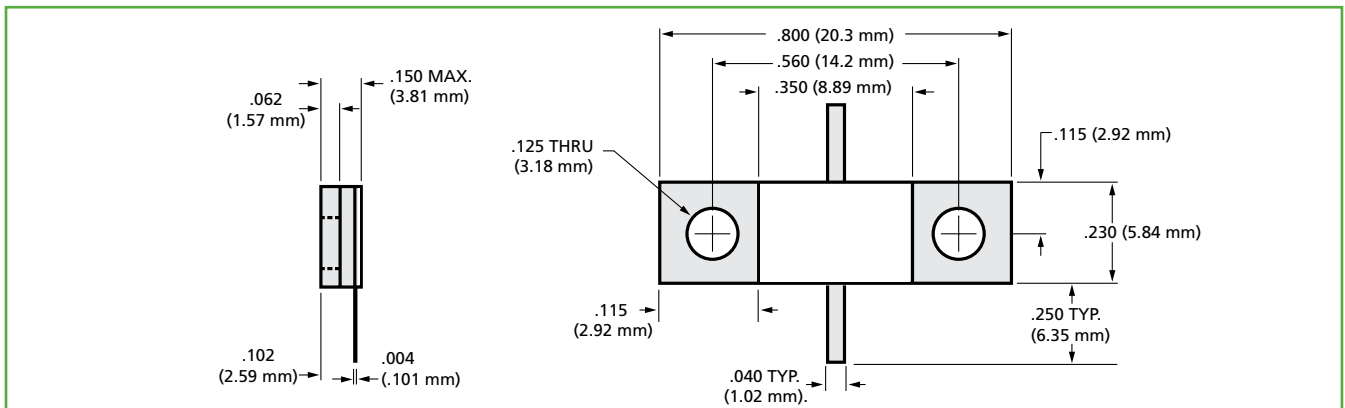


High Power, Flange Mount Resistor

P/N: FR10800NxxxxJ

General Specifications

- Resistance: 100 Ω standard (other Ω values available)
- Resistive Tolerance: ±5% standard (±2% available)
- Power: 100 Watts • Capacitance: 3.10 pF
- Operating Temperature Range: -55°C to +150°C
- Temperature Coefficient: <150 ppm/°C
- Tabs: Silver
- Lead-Free, RoHS Compliant
- Non-Magnetic available



For Part Number Code, see page 8.

A M E R I C A N T E C H N I C A L C E R A M I C S

ATC North America
sales@atceramics.com

ATC Europe
sales@atceramics.com

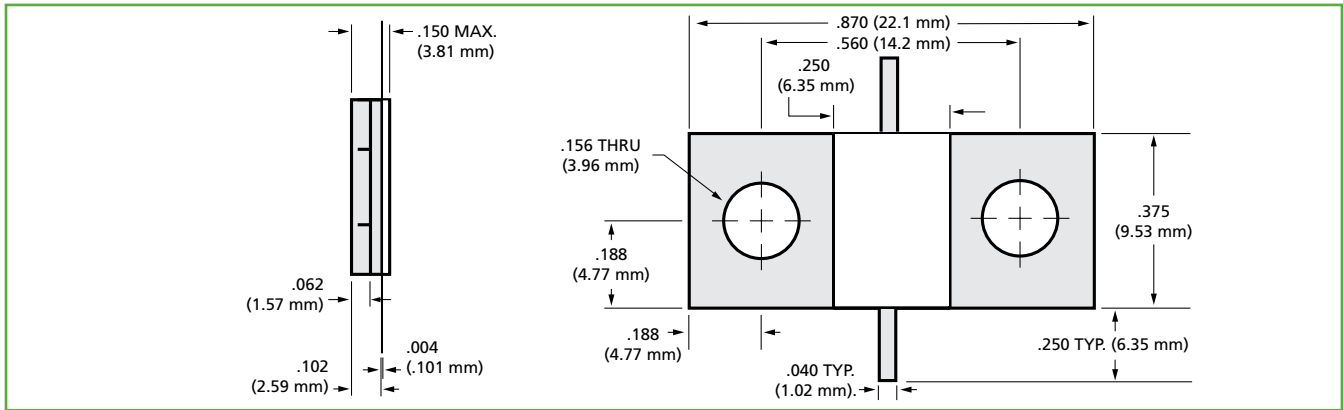
ATC Asia
sales@atceramics-asia.com

High Power, Flange Mount Resistor

P/N: FR10870NxxxxJ

General Specifications

- Resistance: 100 Ω standard (other Ω values available)
- Resistive Tolerance: ±5% standard (±2% available)
- Power: 150 Watts • Capacitance: 4.15 pF
- Operating Temperature Range: -55°C to +150°C
- Temperature Coefficient: <150 ppm/°C
- Tabs: Silver
- Lead-Free, RoHS Compliant
- Non-Magnetic available

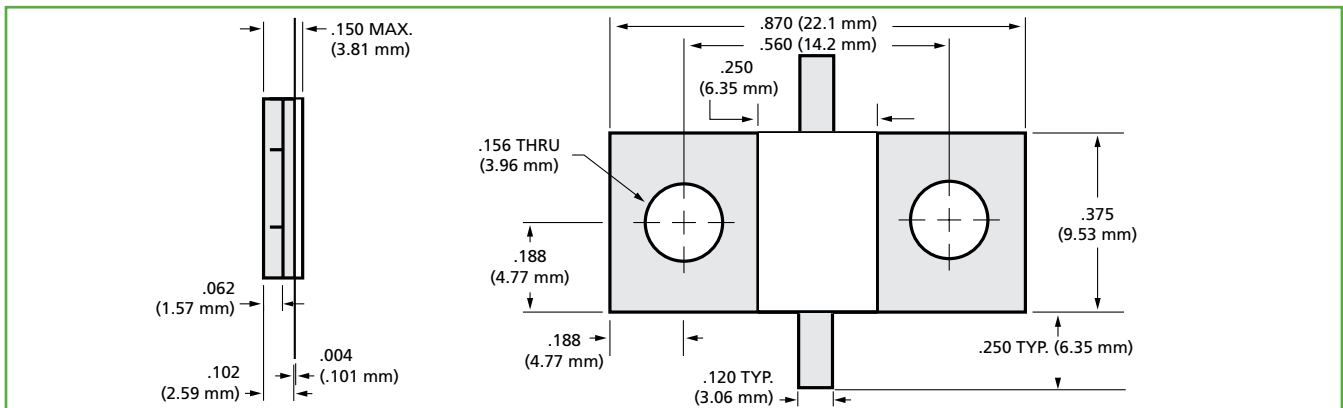
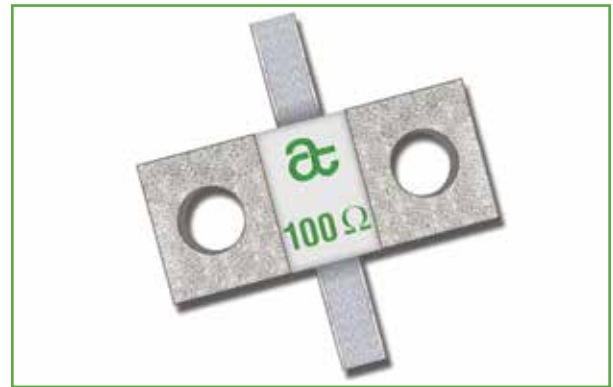


High Power, Flange Mount Resistor

P/N: FR10870NxxxxJ01

General Specifications

- Resistance: 100 Ω standard (other Ω values available)
- Resistive Tolerance: ±5% standard (±2% available)
- Power: 150 Watts • Capacitance: 4.15 pF
- Operating Temperature Range: -55°C to +150°C
- Temperature Coefficient: <150 ppm/°C
- Tabs: Silver
- Lead-Free, RoHS Compliant
- Non-Magnetic available



For Part Number Code, see page 8.

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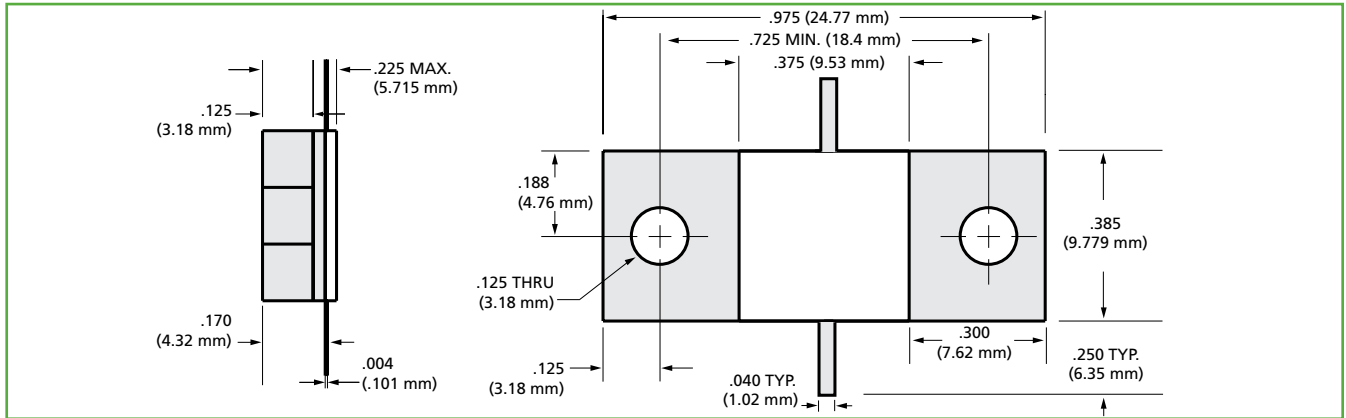
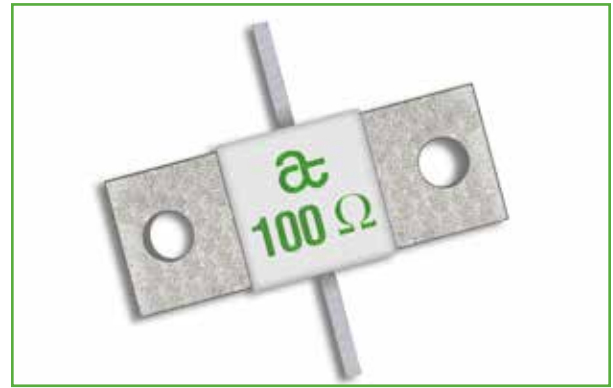
www.atceramics.com

High Power, Flange Mount Resistor

P/N: FR10975NxxxxJ

Electrical Specifications

- Resistance: 100 Ω standard (other Ω values available)
- Resistive Tolerance: ±5% standard (±2% available)
- Power: 250 Watts • Capacitance: 6.5 pF
- Operating Temperature Range: -55 to +150°C
- Temperature Coefficient: <150 ppm/°C
- Tabs: Silver
- Lead-Free, RoHS Compliant
- Non-Magnetic available

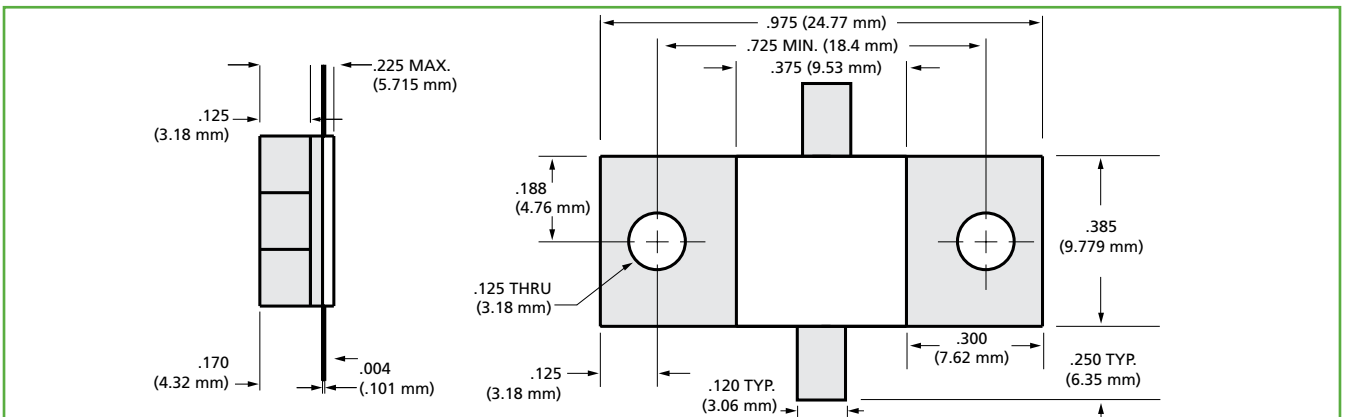


High Power, Flange Mount Resistor

P/N: FR10975N0100J01

Electrical Specifications

- Resistance: 100 Ω standard (other Ω values available)
- Resistive Tolerance: ±5% standard (±2% available)
- Power: 250 Watts • Capacitance: 6.5 pF
- Operating Temperature Range: -55 to +150°C
- Temperature Coefficient: <150 ppm/°C
- Tabs: Silver
- Lead-Free, RoHS Compliant
- Non-Magnetic available



For Part Number Code, see page 8.

A M E R I C A N T E C H N I C A L C E R A M I C S

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Terminations

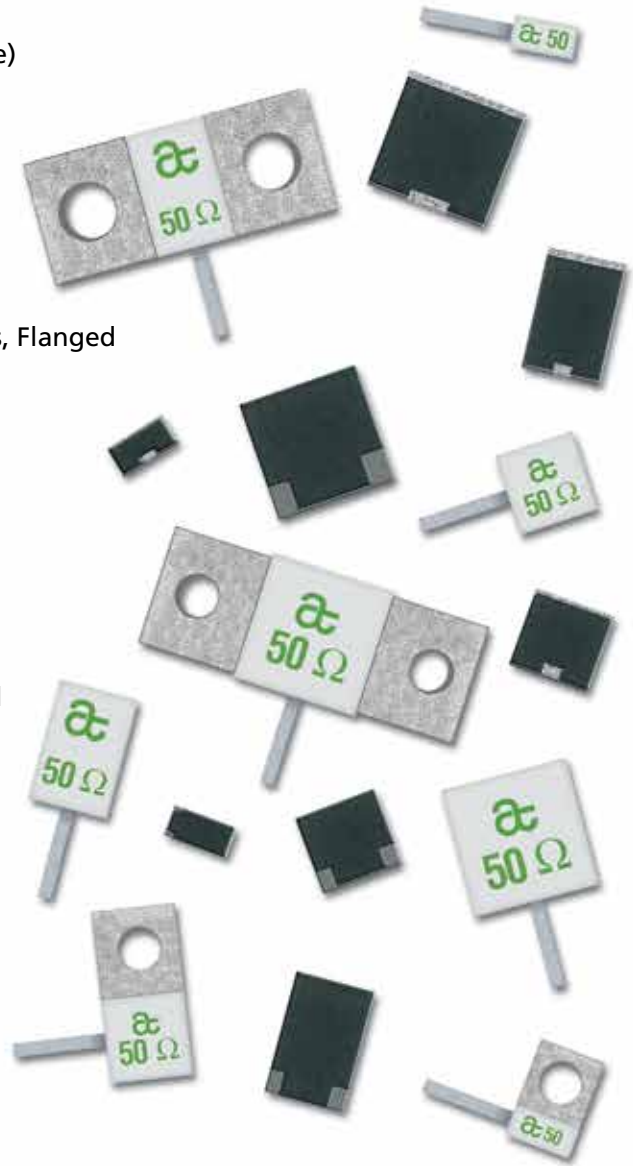
American Technical Ceramics introduces its complete line of High Power Termination Products. All Products are designed and manufactured at our ISO 9001 Facilities. All products are designed to meet MIL-PRF-55342 and ATC qualification procedure JP625-4102.

Electrical Specifications

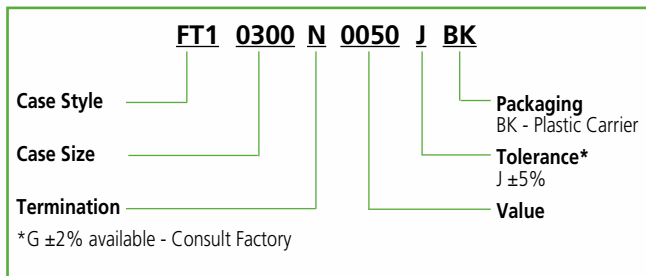
- **Resistance:** 50 Ω standard (10 Ω - 200 Ω available)
- **Resistance Tolerance:** $\pm 5\%$ standard ($\pm 2\%$ available)
- **Power:** 10 Watts through 250 Watts
- **Operating Temperature Range:** -55°C - $+150^{\circ}\text{C}$
- **Temperature Coefficient:** < 150 ppm/ $^{\circ}\text{C}$
- **Low VSWR**

Mechanical Specifications

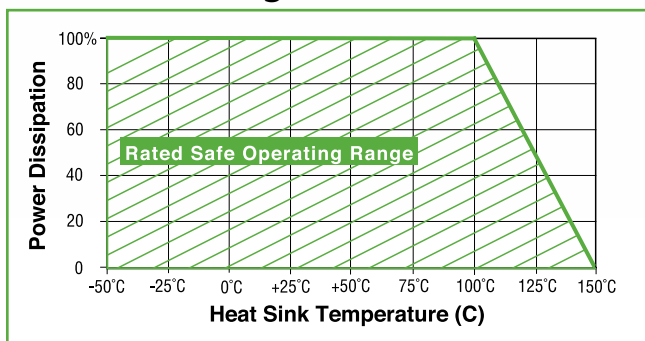
- **Package:** Surface Mount Chips, Chips, Leaded Chips, Flanged
- **Substrate Material:** Aluminum Nitride
- **Process:** Thin Film
- **Resistive Material:** Tantalum
- **Terminals:** Silver
- **Cover:** Alumina
- **Mounting Flange:** 100% Cu, Ni or Ag Plated
- **Mechanical Tolerance:** $\pm .005$
- **Lead-Free, RoHS Compliant**
- **SMT and Chip products, supplied on Tape and Reel**



ATC Flange Mount Terminations Part Number Code



Power Derating



A M E R I C A N T E C H N I C A L C E R A M I C S

ATC North America
sales@atceramics.com

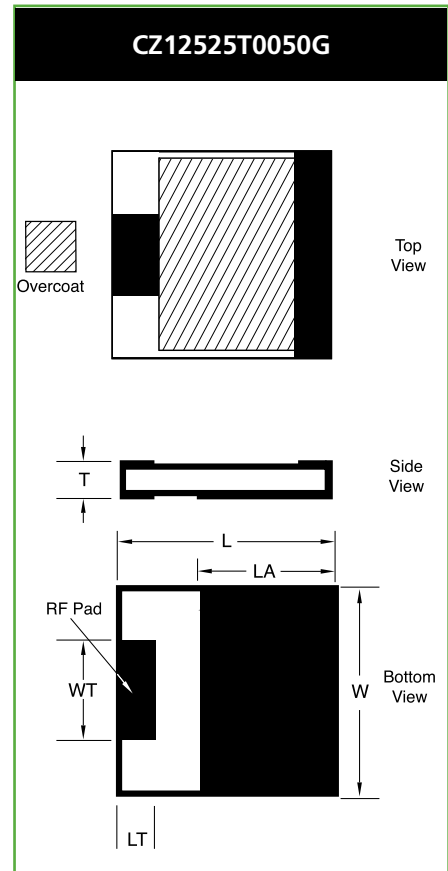
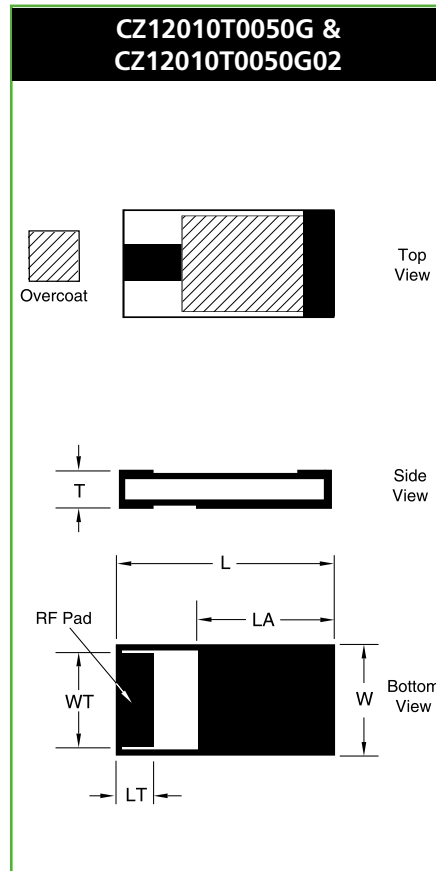
ATC Europe
saleseur@atceramics.com

ATC Asia
sales@atceramics-asia.com

Surface Mount Chip Terminations Style CZ1

General Specifications

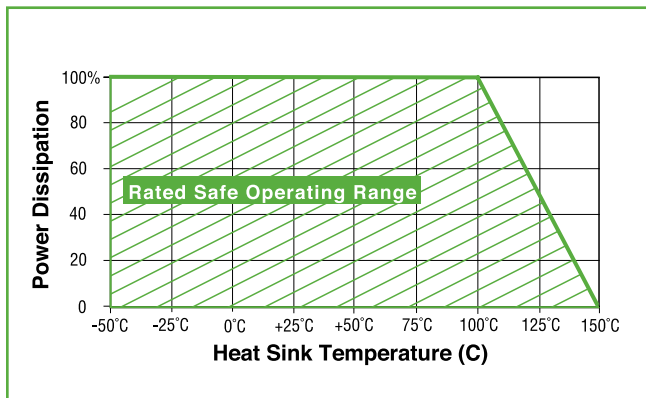
- **Nominal Impedance:** 50 Ω
- **Resistive Tolerance:** $\pm 2\%$ standard
- **Operating Temp Range:** -55 to +150°C
- **Temperature Coefficient:** ± 150 ppm/°C
- **Resistive Elements:** Tantalum, Thin Film Processed
- **Substrate Material:** Aluminum Nitride
- **Terminals:** Silver over Nickel
- **Lead-Free, RoHS Compliant**
- **Reliability:** MIL-PRF-55342
- **Tape and Reel Specifications:** See Page 39



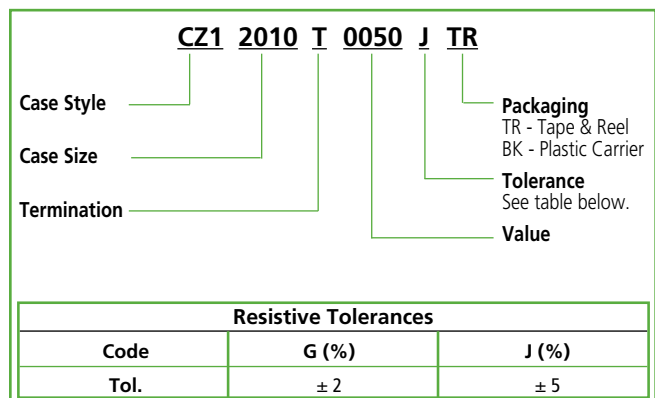
ATC Part Number	W .010	L $\pm .010$	T $\pm .005$	LT $\pm .005$	WT $\pm .005$	LA $\pm .005$	Frequency Range (GHz)	VSWR (Typ.)	Power Max* (Watts)
CZ12010T0050G	.100	.200	.040	.040	.090	.115	DC - 3.0	1.20:1	10W
CZ12010T0050G02	.100	.200	.040	.020	.090	.140	DC - 3.0	1.20:1	10W
CZ12525T0050G	.245	.245	.040	.030	.125	.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. Specification: The resistance of the film shall change no more than 0.5% during and after a 1000-hr. Burn-in per Mil-PRF-55342.

Power Derating



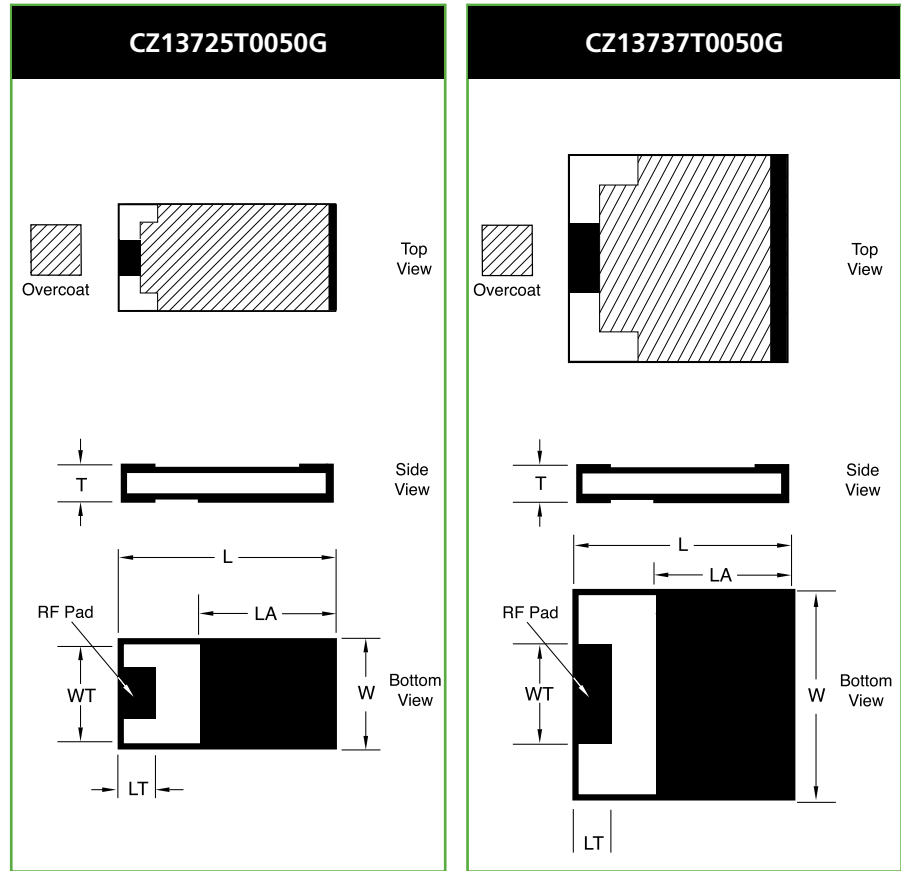
ATC Part Number Code



Surface Mount Chip Terminations Style CZ1

General Specifications

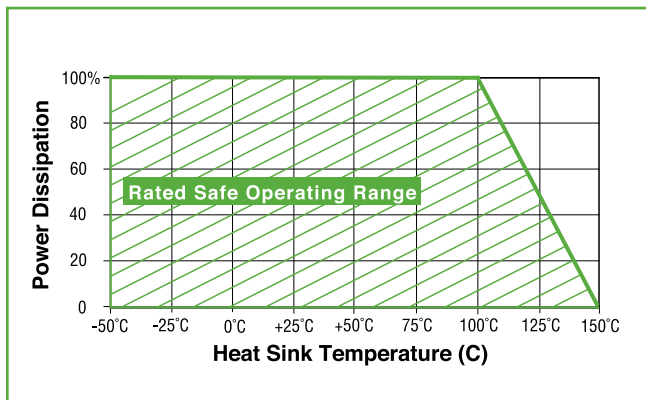
- **Nominal Impedance:** 50 Ω
- **Resistive Tolerance:** ±2% standard
- **Operating Temp Range:** -55 to +150°C
- **Temperature Coefficient:** ±150 ppm/°C
- **Resistive Elements:** Tantalum, Thin Film Processed
- **Substrate Material:** Aluminum Nitride
- **Terminals:** Silver over Nickel
- **Lead-Free, RoHS Compliant**
- **Reliability:** MIL-PRF-55342
- **Tape and Reel Specifications:** See Page 39



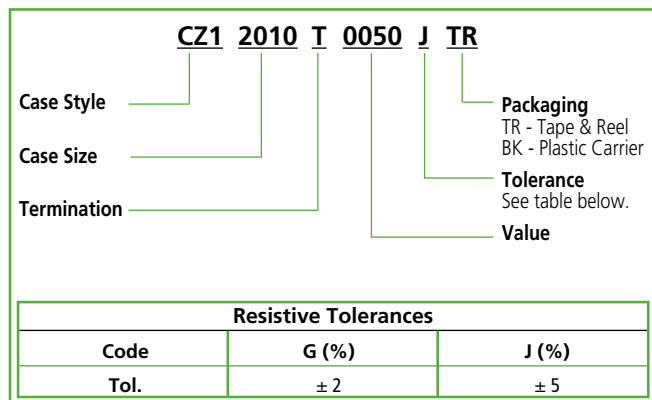
ATC Part Number	W ±.010	L ±.010	T ±.005	LT ±.005	WT ±.005	LA ±.005	Frequency Range (GHz)	VSWR (Typ.)	Power Max* (Watts)
CZ13725T0050G	.250	.375	.040	.050	.125	.260	DC - 2.2	1.20:1	30W
CZ13737T0050G	.370	.370	.040	.050	.125	.275	DC - 3.0	1.25:1	40W

* 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. Specification: The resistance of the film shall change no more than 0.5% during and after a 1000-hr. Burn-in per Mil-PRF-55342.

Power Derating



ATC Part Number Code

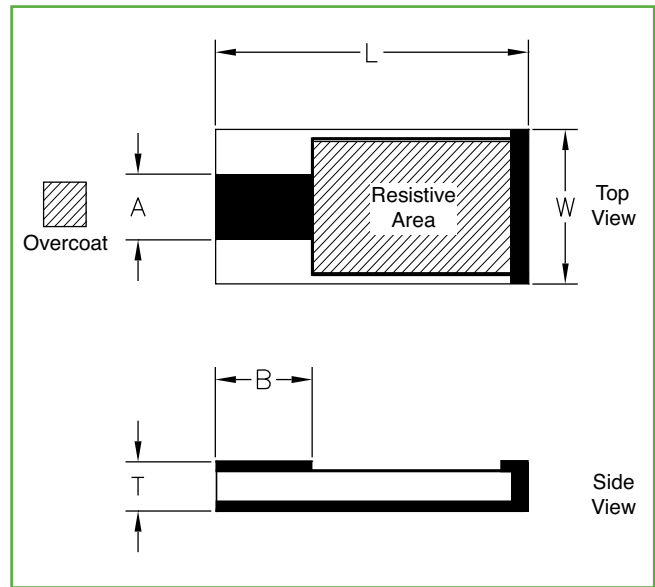


Chip Terminations

Style CT1

General Specifications

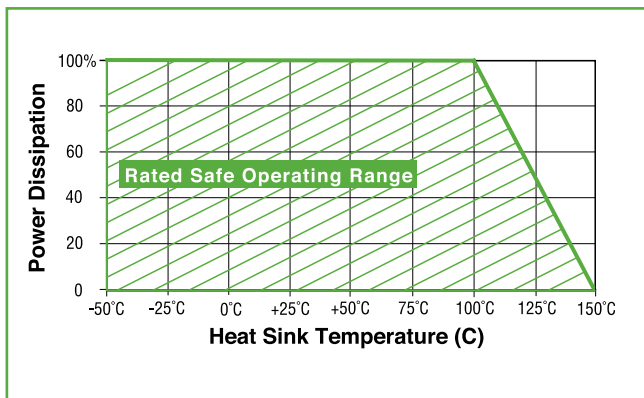
- **Nominal Impedance:** 50 Ω
- **Resistive Tolerance:** $\pm 5\%$ standard, $\pm 2\%$ available
- **Operating Temp Range:** -55 to +150°C
- **Temperature Coefficient:** ± 150 ppm/°C
- **Resistive Elements:** Tantalum, Thin Film Processed
- **Substrate Material:** Aluminum Nitride
- **Terminals:** Silver over Nickel
- **Lead-Free, RoHS Compliant**
- **Reliability:** MIL-PRF-55342
- **Tape and Reel Specifications:**
See Page 39



ATC Part Number	W $\pm .010$	L $\pm .010$	T $\pm .005$	A $\pm .010$	B (Typ.)	Frequency (GHz)	VSWR (Typ.)	Power Max* (Watts)
CT11020T0050J	.200	.100	.025	.034	.020	DC to 18.0	1.25:1	20W
CT12010T0050J	.100	.200	.040	.050	.060	DC to 4.0	1.20:1	30W
CT12525T0050J	.245	.245	.040	.090	.020	DC to 4.0	1.15:1	60W
CT12525T0050J01	.245	.245	.040	.050	.040	DC to 2.5	1.15:1	100W
CT12525T0050J02	.245	.245	.040	.090	.020	DC to 4.0	1.20:1	100W
CT12335T0050J	.350	.230	.040	.100	.030	DC to 4.0	1.15:1	100W
CT13725T0050J	.250	.375	.040	.090	.025	DC to 4.0	1.20:1	125W
CT13725T0050J01	.250	.375	.040	.050	.055	DC to 1.1	1.20:1	150W
CT13725T0050J02	.250	.375	.040	.090	.025	DC to 4.0	1.25:1	150W
CT13737T0050J	.370	.370	.040	.120	.025	DC to 2.0	1.25:1	150W
CT13737T0050J01	.370	.370	.040	.130	.065	DC to 1.0	1.20:1	250W

* Test Condition: Chip soldered to a large copper carrier whose surface is at 100° C; maximum rated power applied.
Specification: The resistance of the film shall change no more than <2% during and after a 1000-hr. Burn-in per Mil-PRF-55342.

Power Derating



ATC Part Number Code

CT1 2010 T 0050 J TR

Case Style ————
Case Size ————
Termination ————

Packaging
TR - Tape & Reel
BK - Plastic Carrier

Tolerance
See table below.

Value

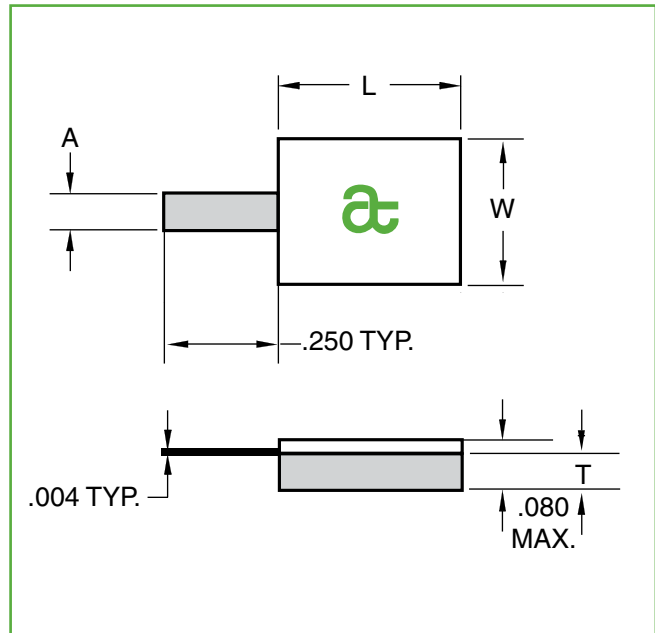
Resistive Tolerances		
Code	G (%)	J (%)
Tol.	± 2	± 5

Leaded Chip Terminations

Style LT1

General Specifications

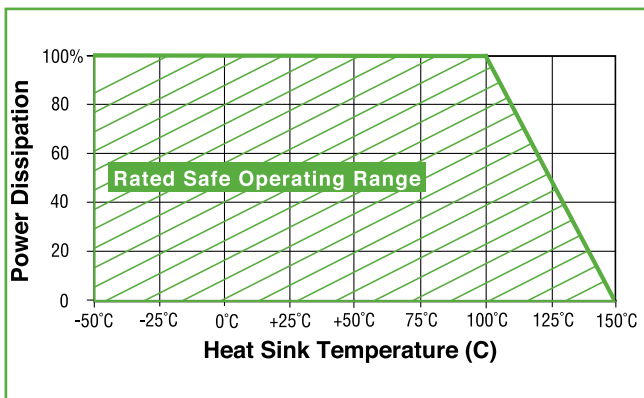
- Nominal Impedance: 50 Ω
- Resistive Tolerance: ±5% standard, ±2% available
- Operating Temp Range: -55 to +150°C
- Temperature Coefficient: ±150 ppm/°C
- Resistive Elements: Tantalum, Thin Film Processed
- Substrate Material: Aluminum Nitride
- Terminals: Silver over Nickel
- Lead-Free, RoHS Compliant
- Reliability: MIL-PRF-55342



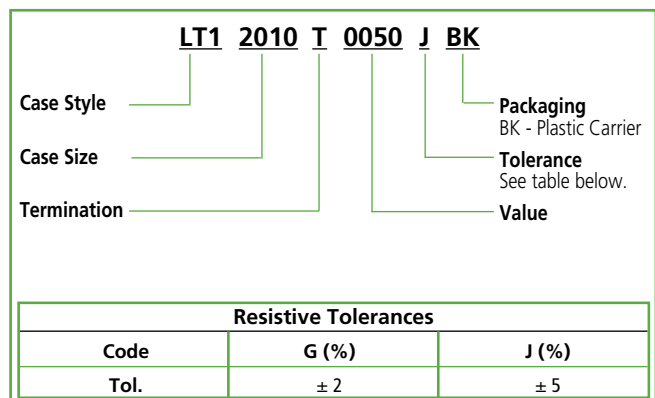
ATC Part Number.	W ±.010	L ±.010	T ±.005	A ±.005	Frequency (GHz)	VSWR (Typ.)	Power Max* (Watts)
LT11020T0050J	.200	.100	.025	.040	DC to 18.0	1.25:1	20W
LT12010T0050J	.100	.200	.040	.040	DC to 4.0	1.20:1	30W
LT12525T0050J	.245	.245	.040	.040	DC to 4.0	1.15:1	60W
LT12525T0050J01	.245	.245	.040	.040	DC to 2.5	1.15:1	100W
LT12525T0050J02	.245	.245	.040	.040	DC to 4.0	1.20:1	100W
LT12335T0050J	.350	.230	.040	.040	DC to 4.0	1.15:1	100W
LT13725T0050J	.250	.375	.040	.040	DC to 4.0	1.20:1	125W
LT13725T0050J01	.250	.375	.040	.040	DC to 1.1	1.20:1	150W
LT13725T0050J02	.250	.375	.040	.040	DC to 4.0	1.25:1	150W
LT13725T0050J03	.250	.375	.040	.120	DC to 4.0	1.25:1	150W
LT13737T0050J	.370	.370	.040	.040	DC to 2.0	1.25:1	200W
LT13737T0050J01	.370	.370	.040	.040	DC to 1.0	1.20:1	250W
LT13737T0050J03	.370	.370	.040	.120	DC to 1	01.25:1	250W

* Test Condition: Chip soldered to a large copper carrier whose surface is at 100°C; maximum rated power applied.
 Specification: The resistance of the film shall change no more than <2% during and after a 1000-hr. Burn-in per MIL-PRF-55342.

Power Derating



ATC Part Number Code

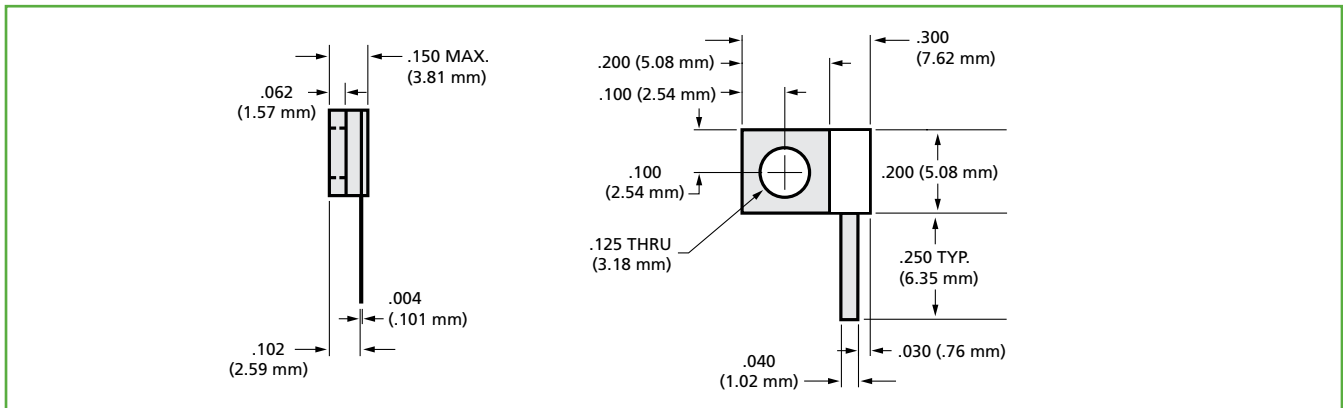


High Power, Flange Mount Termination

P/N: FT10300N0050J

Electrical Specifications

- **Nominal Impedance:** 50 Ω \pm 5% standard (other Ω values available)
- **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
- **Lead-Free, RoHS Compliant**

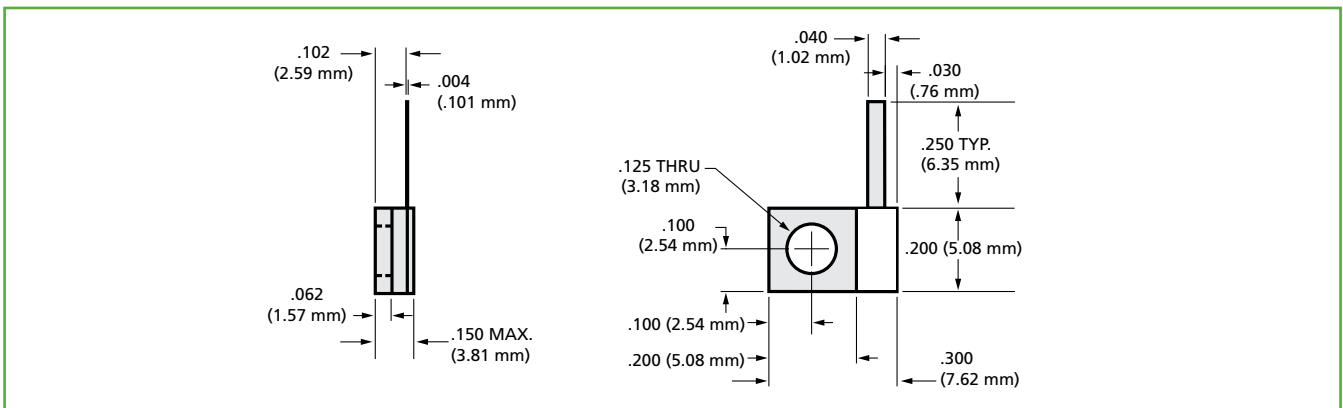


High Power, Flange Mount Termination

P/N: FT10301N0050J

Electrical Specifications

- **Nominal Impedance:** 50 Ω \pm 5% standard (other Ω values available)
- **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
- **Lead-Free, RoHS Compliant**



For Part Number Code, see page 18.

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