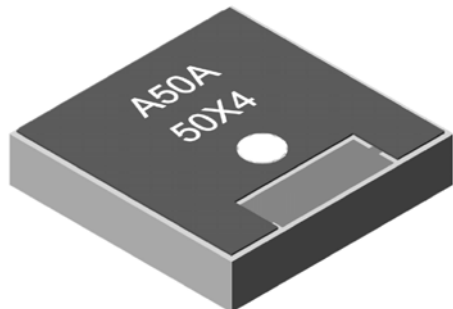


#### Description



The A50A50X4 is high performance Alumina ( $\text{Al}_2\text{O}_3$ ) chip termination intended as a low cost alternative to Beryllium Oxide (BeO) and Aluminum Nitride (AlN). The termination is well suited to all cellular frequency bands such as; AMPS, GSM, DCS, PCS, PHS and UMTS. The high power handling makes the part ideal for terminating circulators and for use in power combiners. The termination is also RoHS compliant!

#### General Specifications

<b>Resistive Element</b>	Thick film
<b>Substrate</b>	$\text{Al}_2\text{O}_3$ Ceramic
<b>Terminal Finish</b>	Matte Tin over Nickel Barrier
<b>Operating Temperature</b>	-55 to +150°C (see de rating chart)

Tolerance is  $\pm 0.010$ ", unless otherwise specified. Designed to meet or exceed applicable portions of MIL-E-5400. **All dimensions in inches.**

#### Electrical Specifications

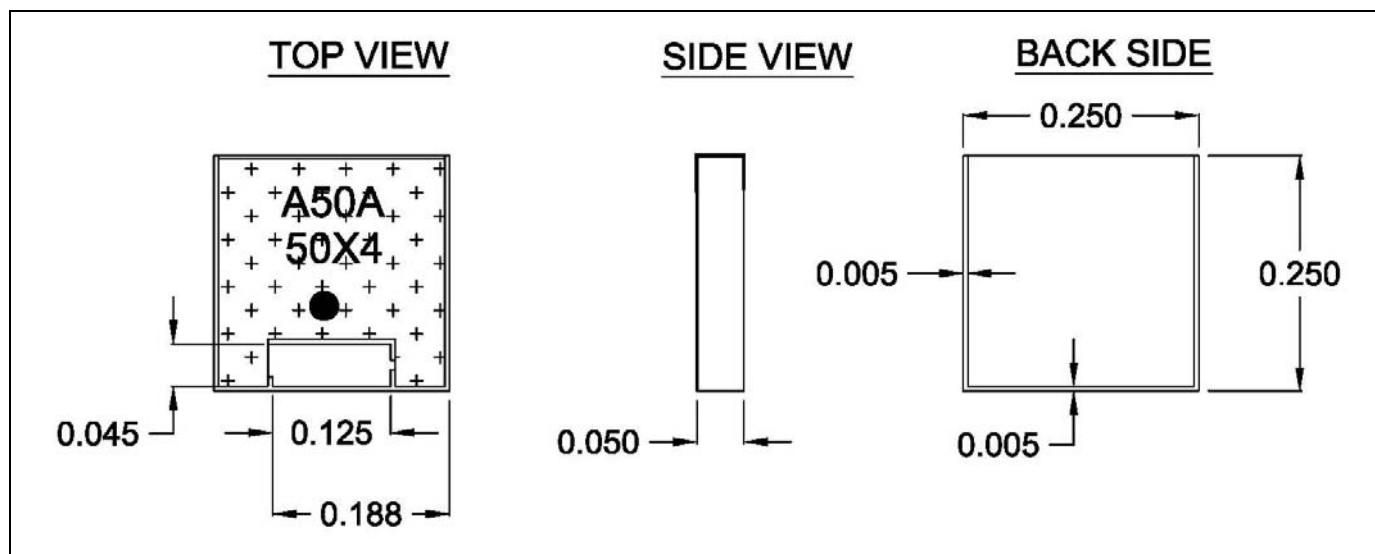
<b>Resistance Value:</b>	50 Ohms $\pm 2\%$
<b>Power:</b>	50 Watts
<b>Frequency Range:</b>	DC – 3.5GHz
<b>Return Loss</b>	>26 dB DC - 2.7 GHz >20 dB DC - 3.5 GHz

Specification based on unit properly installed using suggested mounting instructions and a 50 ohm nominal impedance. **Specifications subject to change.**

#### Features:

- RoHS Compliant
- 50 Watts
- DC – 4.0GHz
- $\text{Al}_2\text{O}_3$  Ceramic
- Non-Nichrome Resistive Element
- Low VSWR
- 100% Tested
- Small Size

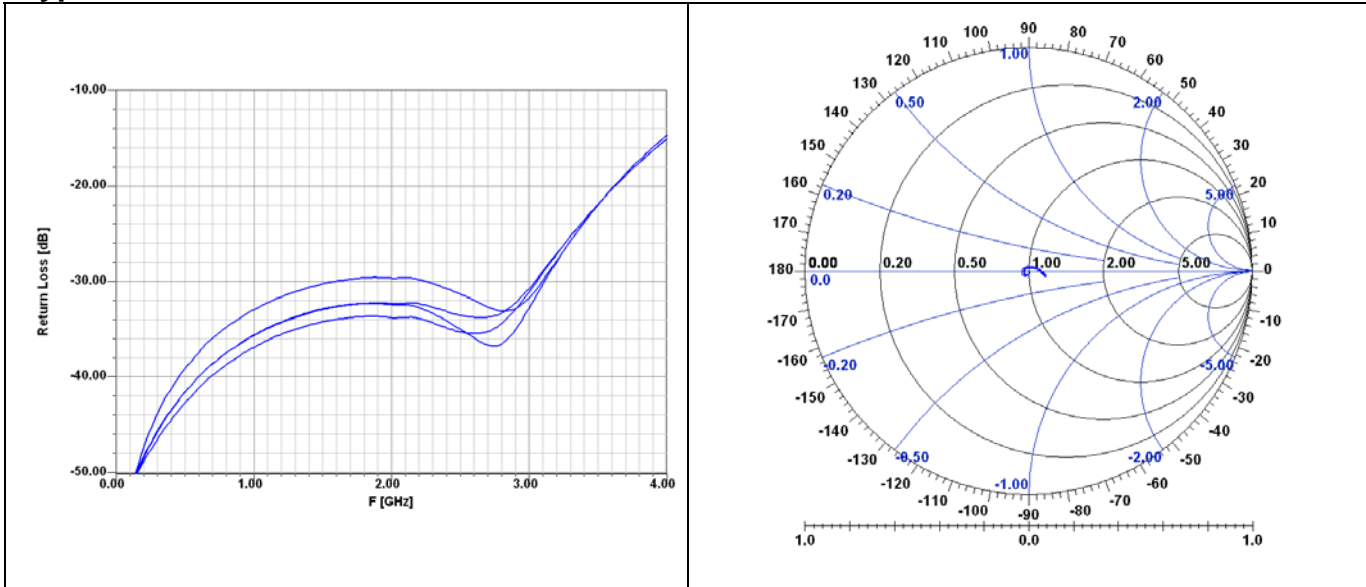
#### Outline Drawing



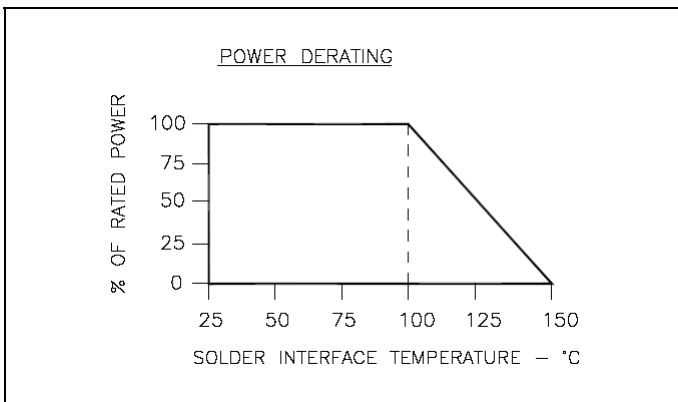
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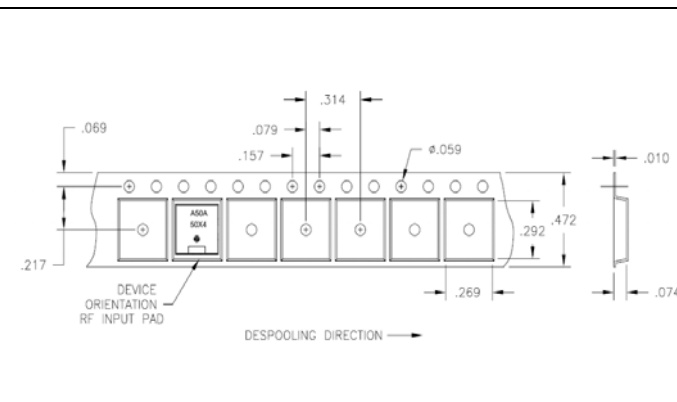
### Typical Performance:



### Power De-rating:



### Tape & Reel:



### Mounting Footprint and Procedure:

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**SUGGESTED STRESS RELIEF METHODS**  
SCALE: NONE

**NOT RECOMMENDED APPLICATION**  
SCALE: NONE

- MAKE SURE THAT THE DEVICES ARE MOUNTED ON FLAT SURFACES (.001" UNDER THE DEVICE) TO OPTIMIZE THE HEAT TRANSFER.
- POSITION DEVICE ON MOUNTING SURFACE AND SOLDER IN PLACE USING A LEAD FREE TYPE OR SN96 TYPE SOLDER.
- SOLDER LEADS IN PLACE USING AN SN96 TYPE SOLDER WITH A CONTROLLED TEMPERATURE IRON (250°C).

**Correct Lead Orientation**

**Alternate Lead Orientation**  
(May Require External Matching)

