

### Chip Termination 250 Watts, 50Ω



#### Description

The A250N50X4 is high performance Aluminum Nitride (AlN) chip termination intended as a cost competitive alternative to Beryllium Oxide (BeO). 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!

#### Features:

- RoHS Compliant
- 250 Watts
- DC - 2.2 GHz
- AlN Ceramic
- Non-Nichrome Resistive Element
- Low VSWR
- 100% Tested

#### General Specifications

<b>Resistive Element</b>	Thick film
<b>Substrate</b>	AlN Ceramic
<b>Terminal Finish</b>	Matte Tin over Nickel Barrier
<b>Operating Temperature</b>	-50 to +200°C (see de rating chart)

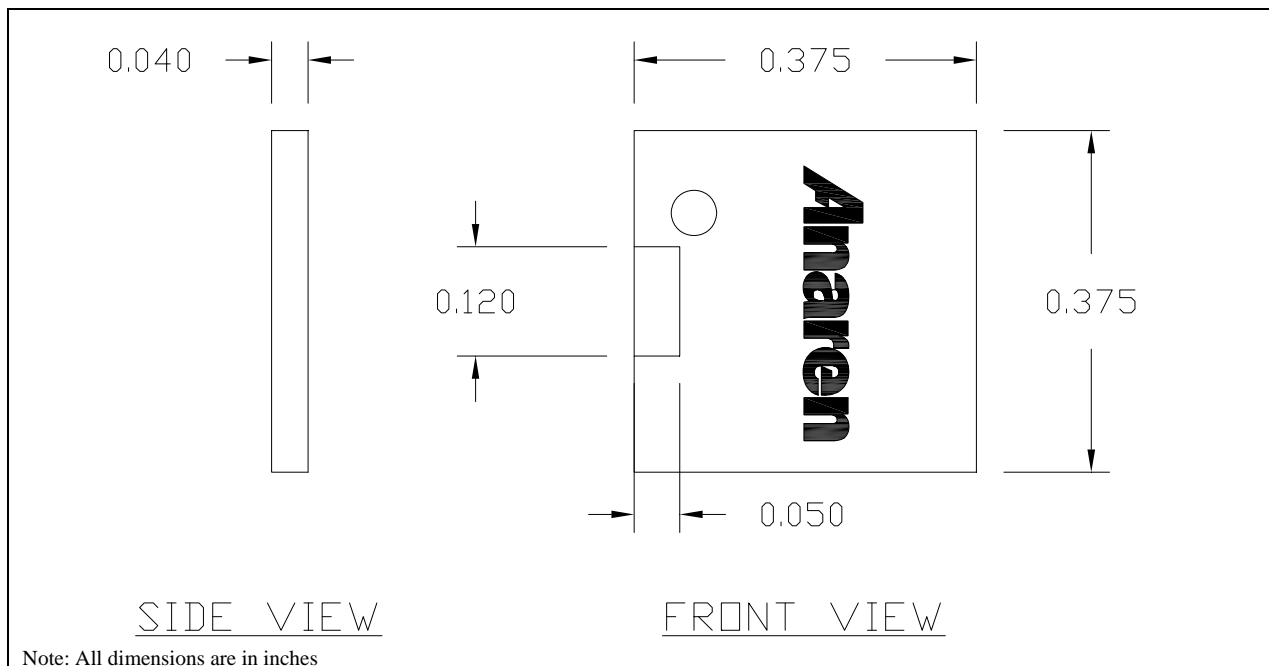
Tolerance is  $\pm 0.010"$ , unless otherwise specified. Designed to meet or exceed applicable portions of MIL-E-5400. All dimensions in inches.

#### Electrical Specifications

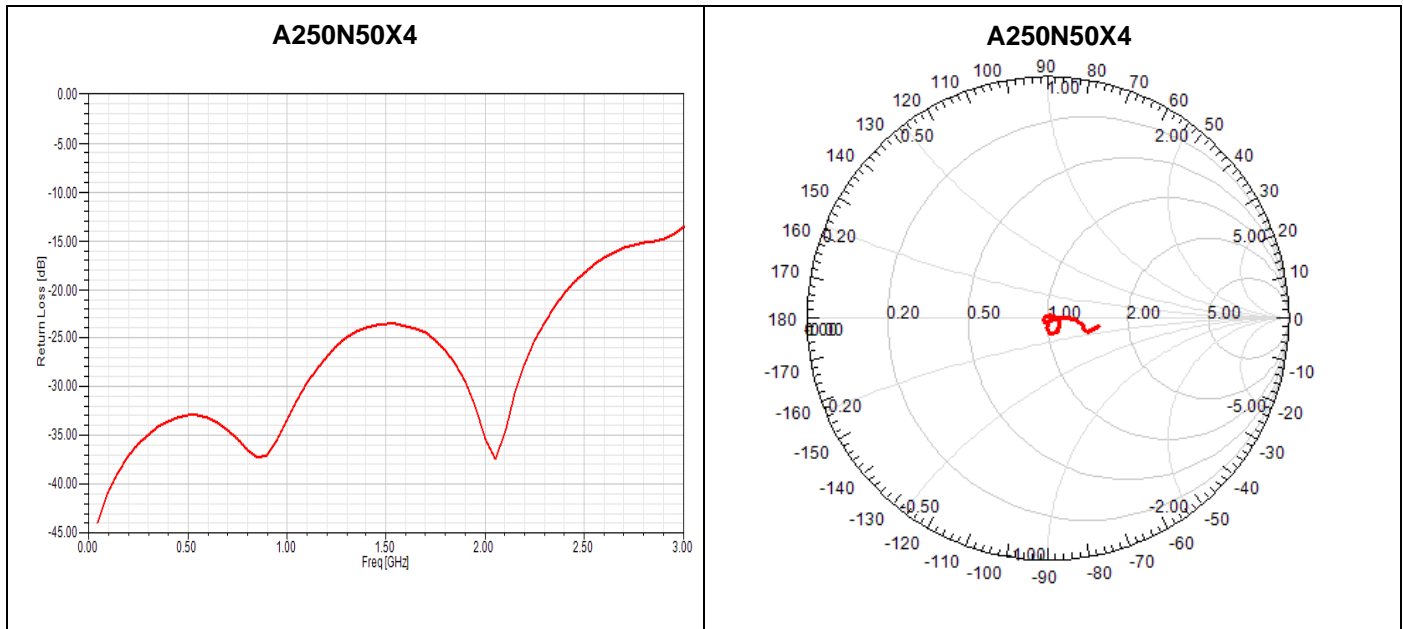
<b>Resistance Value:</b>	50 Ohms, $\pm 2\%$
<b>Power:</b>	250 Watts
<b>Frequency Range:</b>	DC – 2.2 GHz
<b>Return Loss</b>	> 20 dB DC – 2.2 GHz

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

#### Outline Drawing

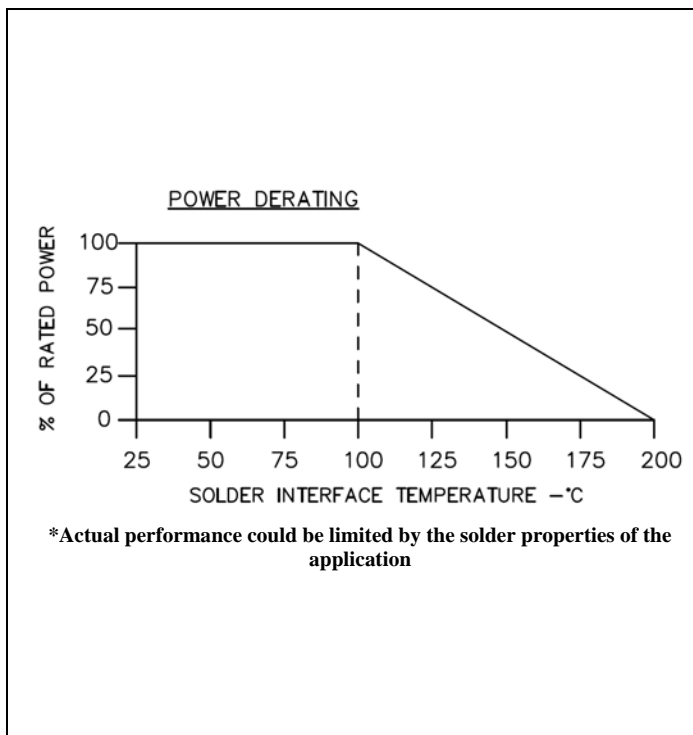


## Typical Performance:



## Power De-rating:

## Mounting Footprint and Procedure:



The diagrams show two cross-sectional views of a component on a PCB:

- SUGGESTED STRESS RELIEF METHODS:** Shows the component on a flat surface with a .005" minimum gap under the leads. Labels include "BOARD LOWER THAN LEAD" and "BOARD EVEN WITH LEAD".
- NOT RECOMMENDED APPLICATION:** Shows the component on a curved surface. Labels include "BOARD LOWER THAN LEAD" and "BOARD HIGHER THAN LEAD".

**SUGGESTED MOUNTING PROCEDURE**

1. MAKE SURE THAT THE DEVICES ARE MOUNTED ON FLAT SURFACES (.001" UNDER THE DEVICE) TO OPTIMIZE THE HEAT TRANSFER.
2. POSITION DEVICE ON MOUNTING SURFACE AND SOLDER IN PLACE USING AN APPROPRIATE SOLDER.
3. SOLDER LEADS IN PLACE USING AN APPROPRIATE SOLDER TYPE WITH A CONTROLLED TEMPERATURE IRON.