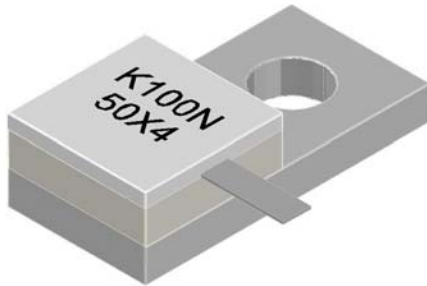




### Half Flange Termination 100 Watts, 50Ω



#### Description

The K100N50X4 is high performance Aluminum Nitride (AlN) half flange 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!

#### General Specifications

<b>Resistive Element</b>	Thick Film
<b>Substrate</b>	AlN Ceramic
<b>Cover</b>	Alumina Ceramic
<b>Mounting Flange</b>	Copper, nickel plated per QC-N-290
<b>Leads</b>	99% pure silver (.006" thick)

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

#### Features:

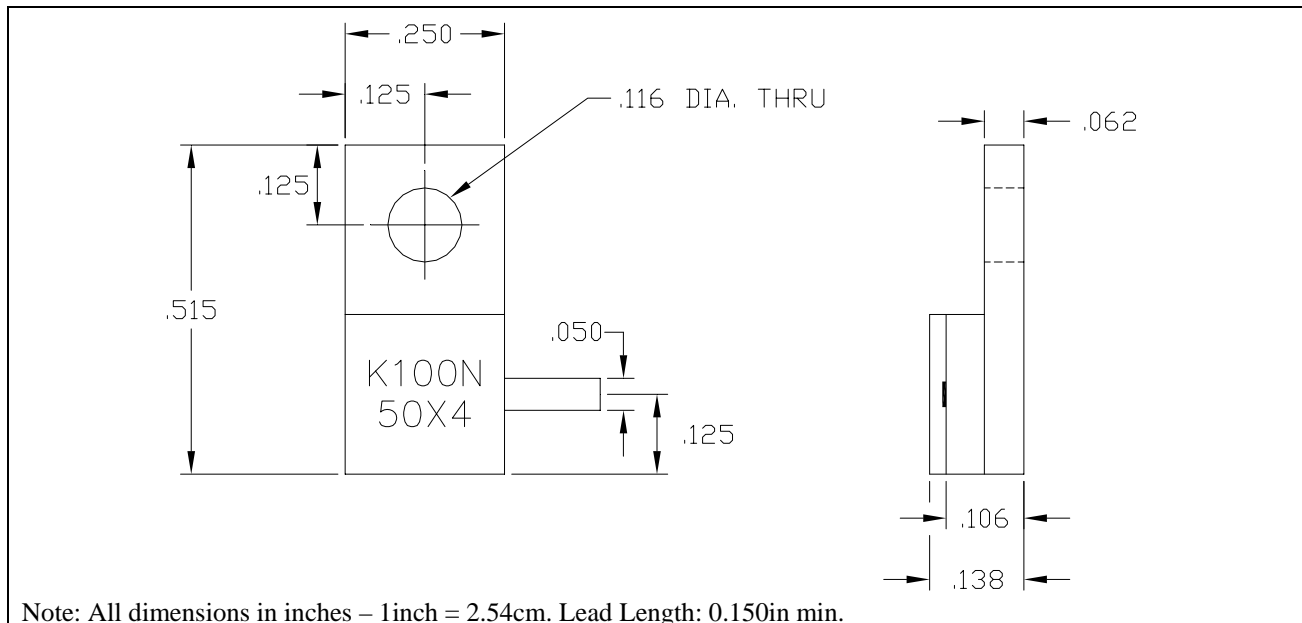
- RoHS Compliant
- 100 Watts
- DC – 3.0 GHz
- AlN Ceramic
- Non-Nichrome Resistive Element
- Low VSWR
- 100% Tested

#### Electrical Specifications

<b>Resistance Value:</b>	50 Ohms, $\pm 2\%$
<b>Power:</b>	100 Watts
<b>Frequency Range:</b>	DC – 3.0GHz
<b>V.S.W.R.</b>	1.25 : 1

Specification based on unit properly installed using suggested mounting instructions and a 50 ohm nominal impedance. Storage temperature is  $-20^{\circ}\text{C}$  to  $85^{\circ}\text{C}$ . Operating temperature is  $-55^{\circ}\text{C}$  to  $125^{\circ}\text{C}$  (see chart for derating temperatures). **Specifications subject to change with out notice.**

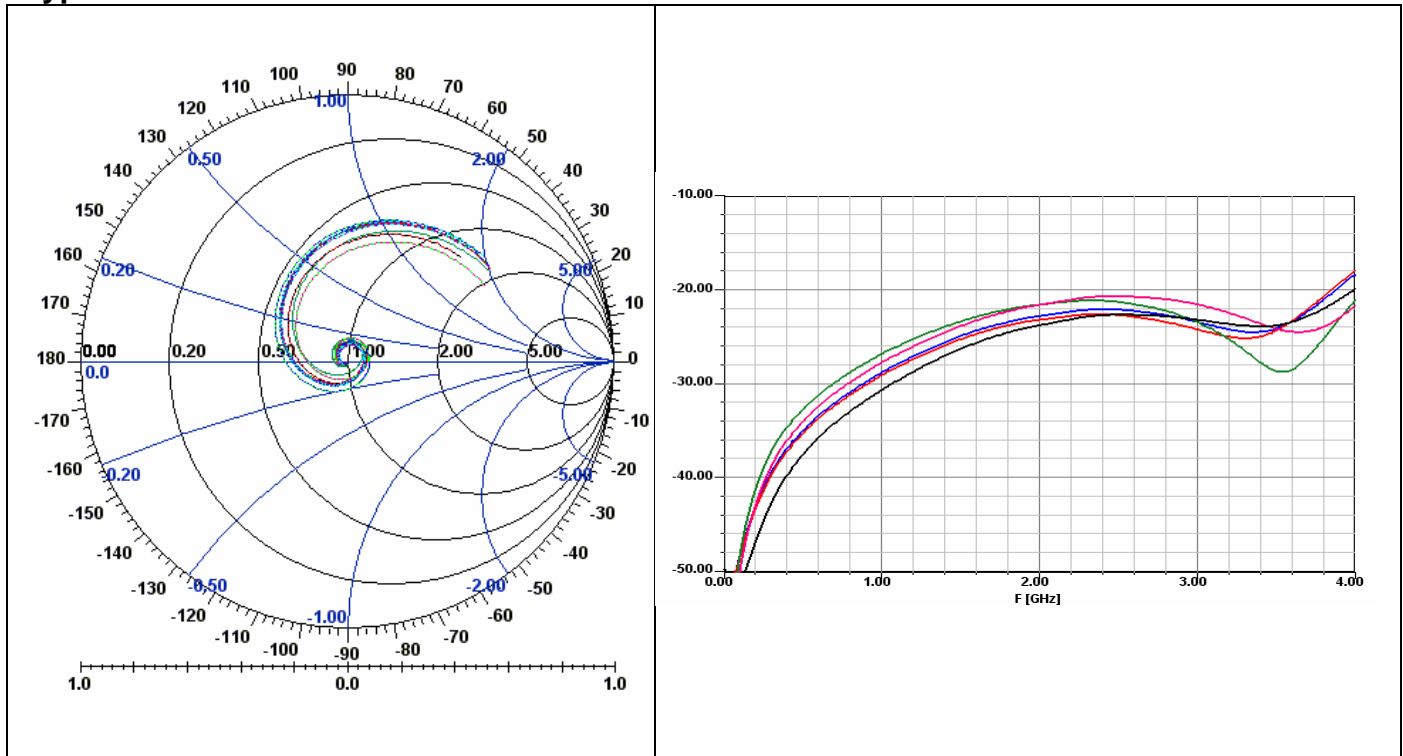
#### Outline Drawing



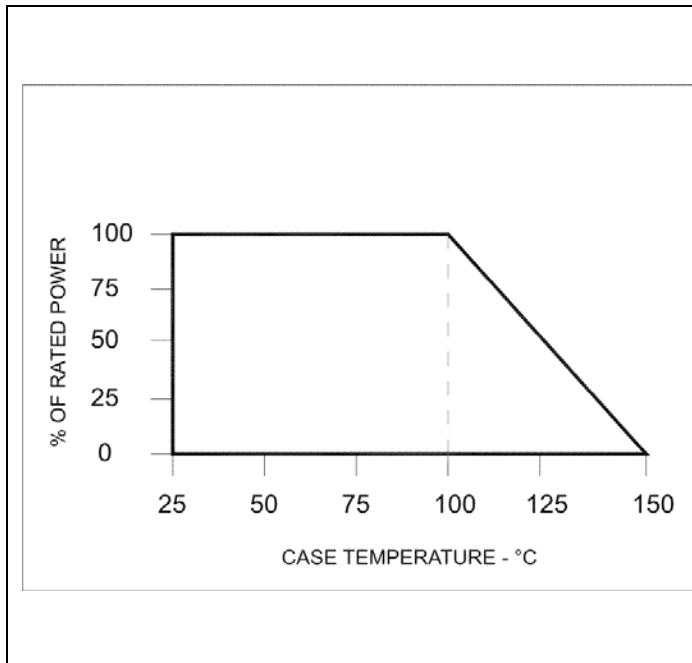
Note: All dimensions in inches – 1inch = 2.54cm. Lead Length: 0.150in min.

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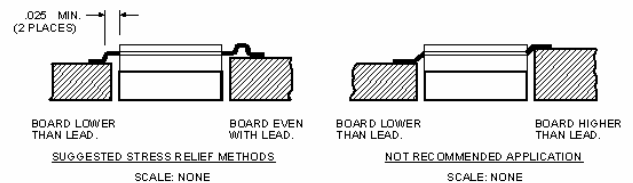
### Typical Performance:



### Power De-rating:



### Mounting Footprint and Procedure:



#### SUGGESTED MOUNTING PROCEDURES:

1. MAKE SURE THAT THE DEVICES ARE MOUNTED ON FLAT SURFACES (.001" UNDER THE DEVICE) TO OPTIMIZE THE HEAT TRANSFER.
2. DRILL & TAP THE HEATSINK FOR THE APPROPRIATE THREAD SIZE TO BE USED.
3. COAT HEATSINK WITH A MINIMUM AMOUNT OF HIGH QUALITY SILICONE GREASE (.001" MAX. THICKNESS).
4. POSITION DEVICE ON MOUNTING SURFACE & SECURE USING SOCKET HEAD SCREWS, FLAT & SPLIT WASHER. TORQUE SCREWS TO THE APPROPRIATE VALUE. **MAKE SURE THAT THE DEVICE IS FLAT AGAINST THE HEATSINK (CARE SHOULD BE TAKEN TO AVOID UPWARD PRESSURE OF THE LEADS TOWARDS THE LID).**
5. SOLDER LEADS IN PLACE USING LEAD FREE TYPE SOLDER WITH A CONTROLLED TEMPERATURE IRON

\*\* FOR MORE DETAILS CONTACT FACTORY \*\*

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