

**ROHS  
Compliant**

### Half Flange Termination 100 Watts, 50Ω



#### Description

The J100N50X4 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)
<b>Cover</b>	Alumina Ceramic

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

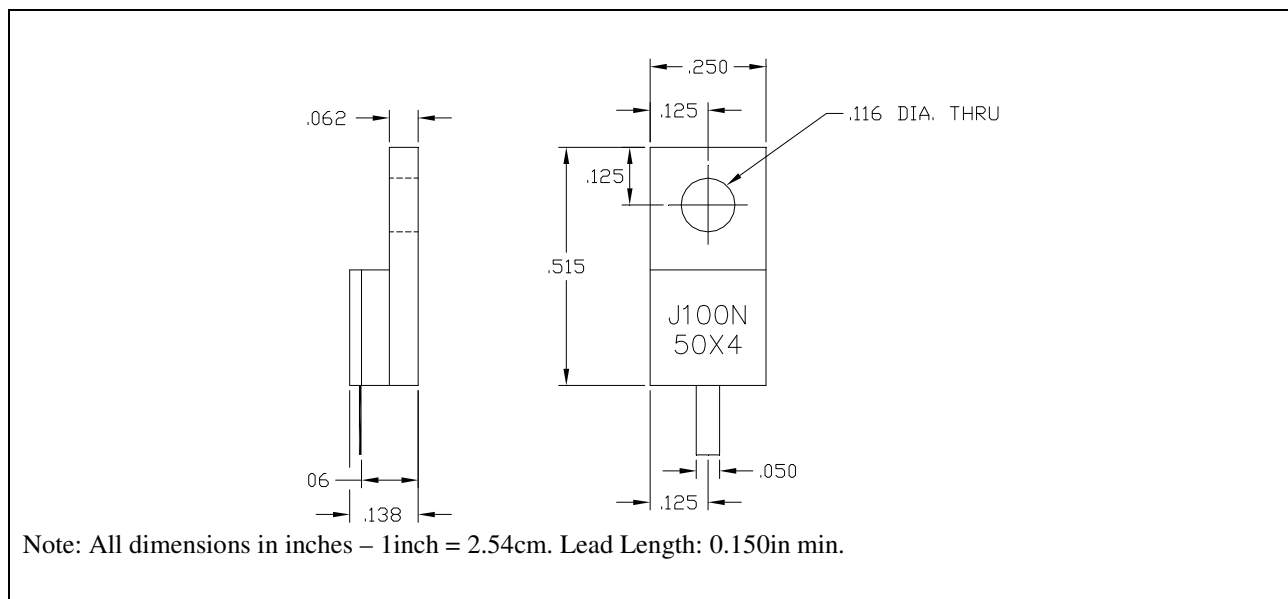
<b>Resistance Value:</b>	50 Ohms, $\pm 2\%$
<b>Power:</b>	100 Watts
<b>Frequency Range:</b>	DC – 3.0GHz
<b>V.S.W.R.</b>	1.25 : 1

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.**

#### Features:

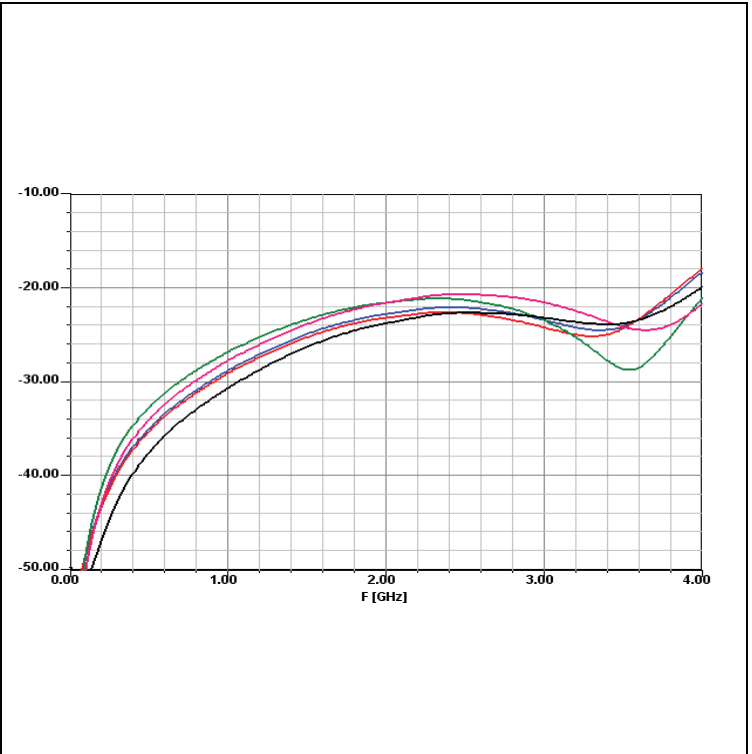
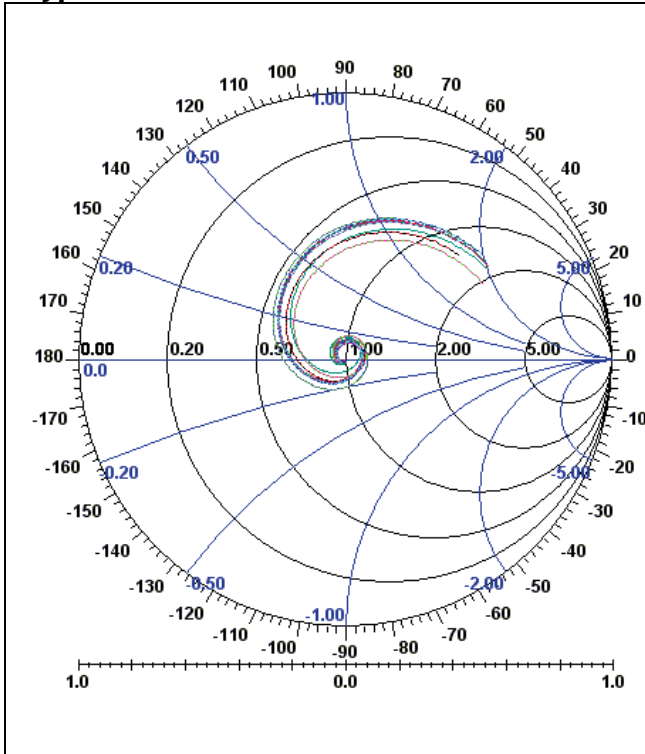
- RoHS Compliant
- 100 Watts
- DC – 3.0 GHz
- AlN Ceramic
- Non-Nichrome Resistive Element
- Low VSWR
- 100% Tested

#### Outline Drawing

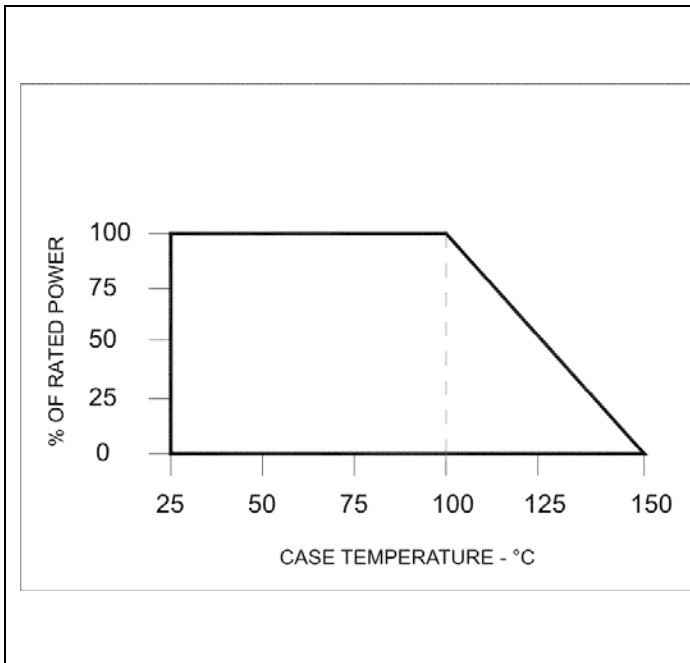


J100N50X4 (097) Rev D.

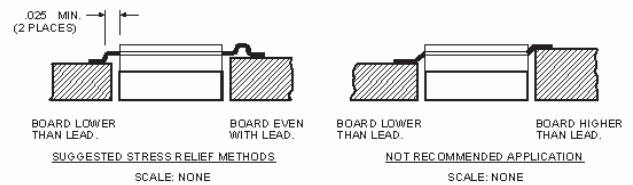
Typical Performance:



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 \*\*