

Description

The A16A50X4 is high performance Alumina (Al_2O_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 medium power handling makes the part ideal for terminating circulators and for use in power combiners. The termination is also RoHS compliant!



Features:

- RoHS Compliant
- 16 Watts
- DC – 4.0 GHz
- Al_2O_3 Ceramic
- Non-Nichrome Resistive Element
- Low VSWR
- 100% Tested
- Small Size

General Specifications

Resistive Element	Thick film
Substrate	Al_2O_3 Ceramic
Terminal Finish	Matte Tin over Nickel Barrier
Operating Temperature	-55 to +150°C (see de-rating chart)

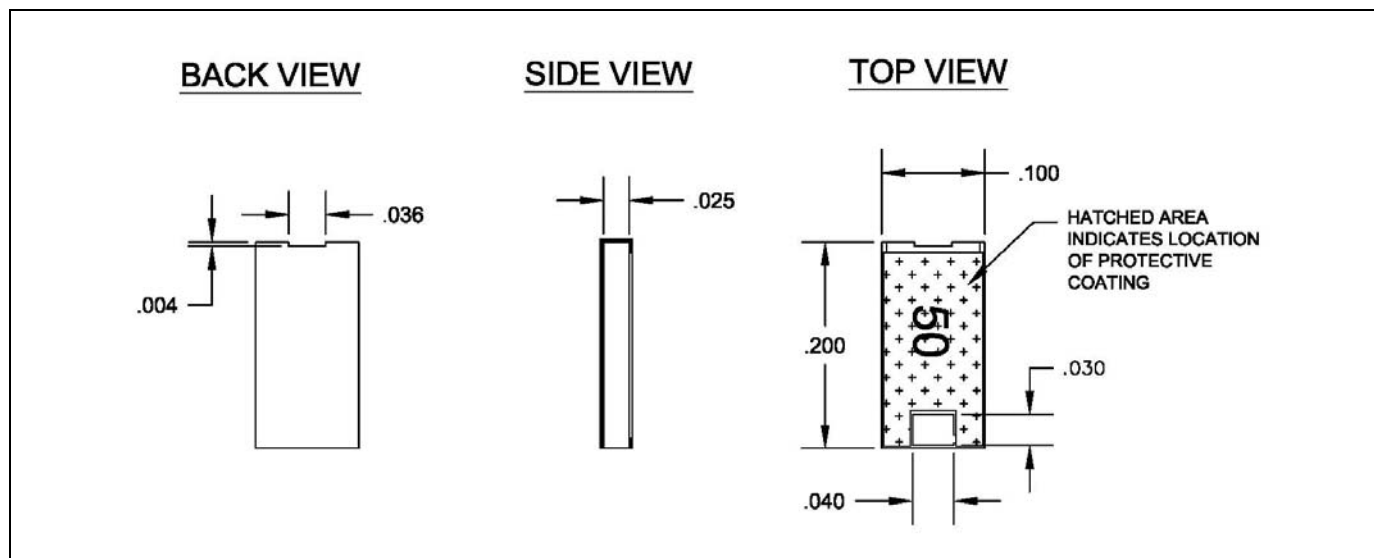
Tolerance is ± 0.010 ", unless otherwise specified. Designed to meet or exceed applicable portions of MIL-E-5400. **All dimensions in inches.**

Electrical Specifications

Resistance Value:	50 Ohms, $\pm 2\%$
Power:	16 Watts
Frequency Range:	DC – 4.0 GHz
Return Loss	> 28 dB to 2.2 GHz > 25 dB to 2.7 GHz > 20 dB to 4.0 GHz

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

Outline Drawing

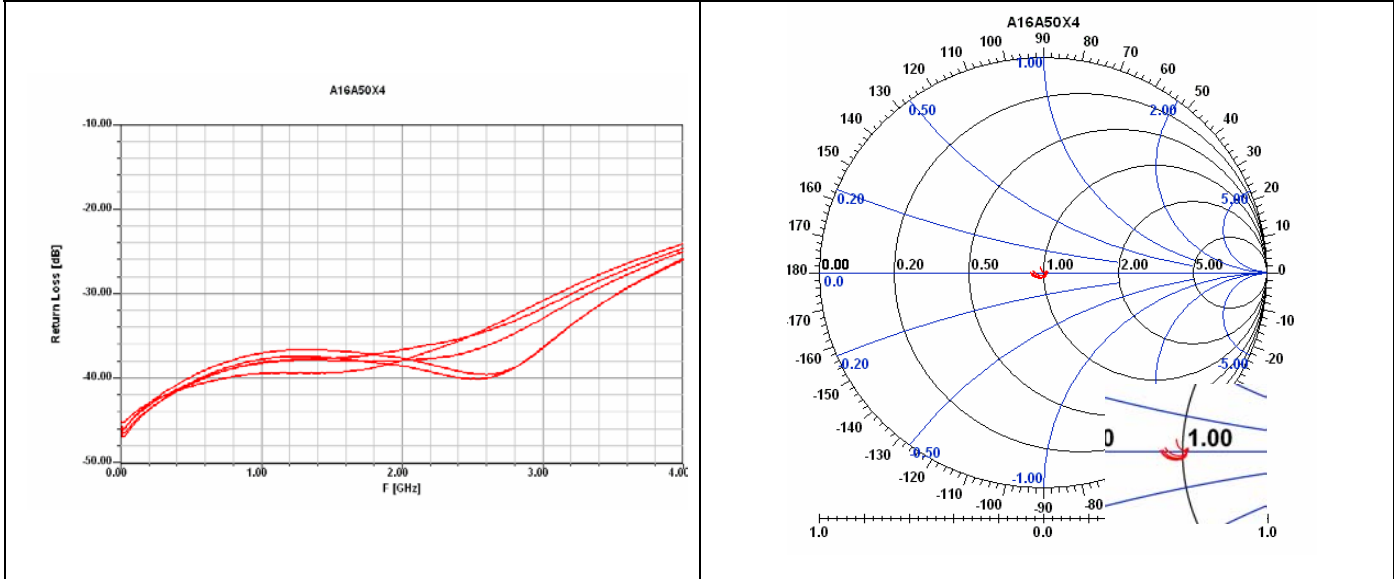


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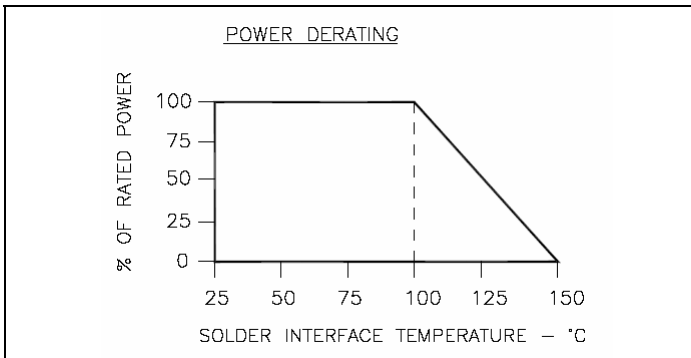


Typical Performance:



Power De-rating:

Tape & Reel:



Available upon request.

Mounting Footprint and Procedure:

The diagrams show cross-sections of the device on a PCB. The left side shows 'BOARD LOWER THAN LEAD' and 'BOARD EVEN WITH LEAD' with a note 'SUGGESTED STRESS RELIEF METHODS SCALE: NONE'. The right side shows 'BOARD LOWER THAN LEAD' and 'BOARD HIGHER THAN LEAD' with a note 'NOT RECOMMENDED APPLICATION SCALE: NONE'. A dimension of 0.25 MIN. (2 PLACES) is indicated for the lead thickness.

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 A LEAD FREE TYPE OR SN96 TYPE SOLDER.
3. SOLDER LEADS IN PLACE USING AN SN96 TYPE SOLDER WITH A CONTROLLED TEMPERATURE IRON (250°C).

Two 3D perspective views of the component are shown. One is labeled 'Correct Lead Orientation' and the other is labeled 'Alternative Lead Orientation (May Require External Matching)'.

