



DC - 13GHz Surface Mount RF Termination
6 Watts CW, 50Ω

Description:

The C6N50Z4B is a high performance Aluminum Nitride (AlN) surface mount termination intended as a cost effective alternative to traditional termination resistors. The termination is well suited to all cellular frequency bands such as 5G, LTE, ISM, & MIL-AERO Bands. The high CW power handling and Peak to Average rating of 12dB makes the part ideal for terminating high power Xinger 90 degree couplers and directional couplers and for use in microstrip circuits. The termination is also RoHS compliant!

Features:

- DC - 13GHz
- Power 6W (CW)
- Peak to AVG 12dB
- Low VSWR
- RoHS Compliant
- 100% Tested
- AlN Ceramic
- 5G, LTE, ISM, & MIL-AERO Bands
- Non-Nichrome Resistive Element

General Specifications:

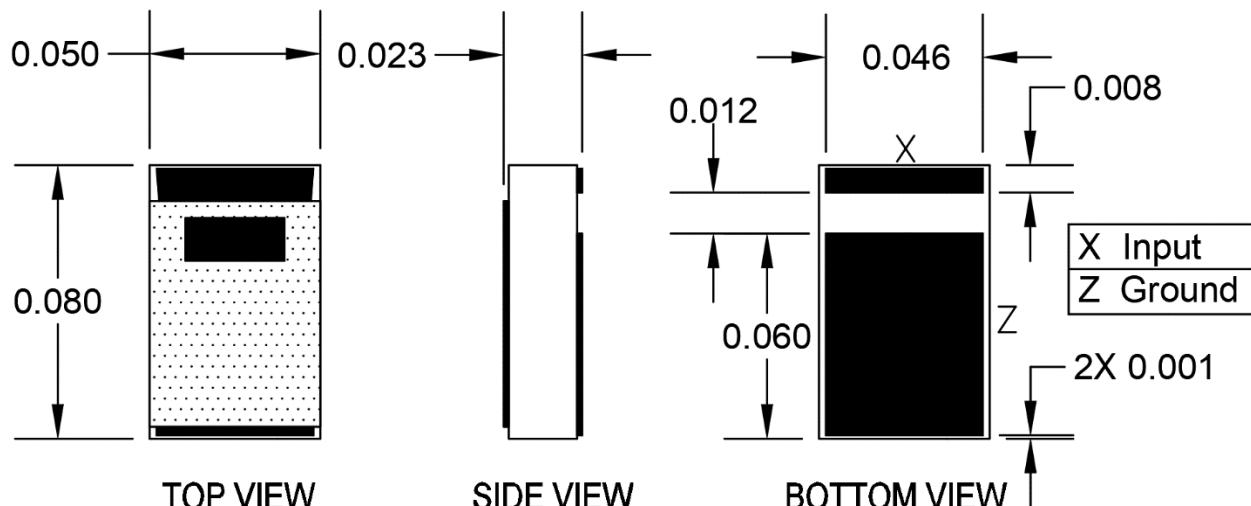
| | |
|-----------------------|-------------------------------------|
| Resistive Element | Thick film |
| Substrate | AlN Ceramic |
| Terminal Finish | Matte Tin over Nickel Barrier |
| Operating Temperature | -55 to +150°C (see de-rating chart) |

Electrical Specifications:

| | |
|----------------|--|
| Power: | 6 Watts (Avg Watts @ 100°C) |
| Max Frequency: | DC - 13 GHz |
| Return Loss: | >20 dB DC - 6.0 GHz >11 dB 6.0 - 13.0 GHz |

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

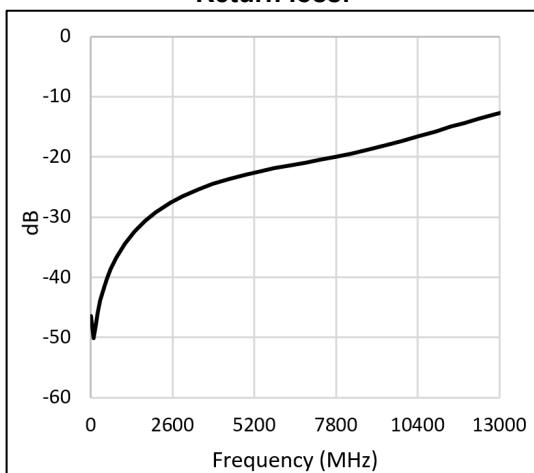
Mechanical Outline:



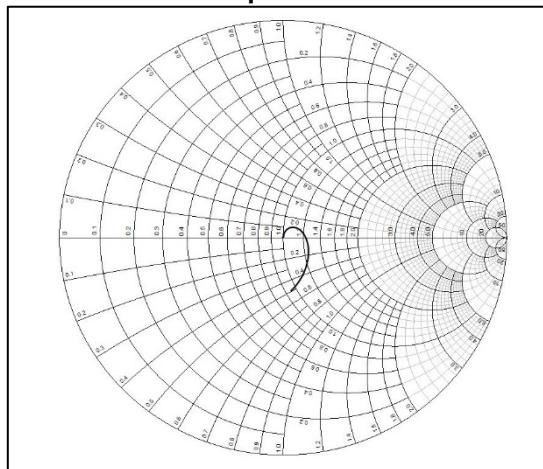
Tolerance is $\pm 0.005"$, unless otherwise specified. All dimensions in inches.

Typical Performance:

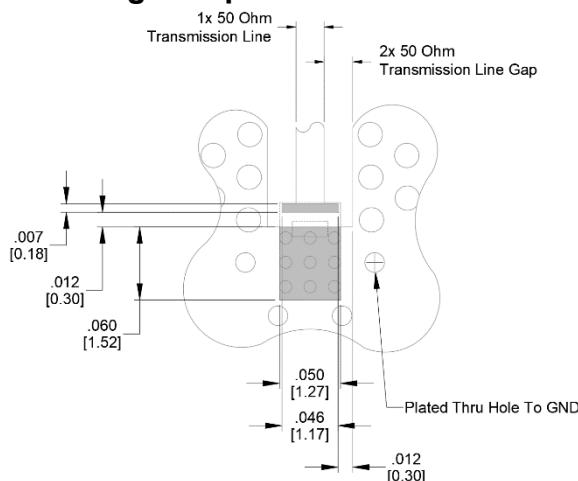
Return loss:



Impedance:



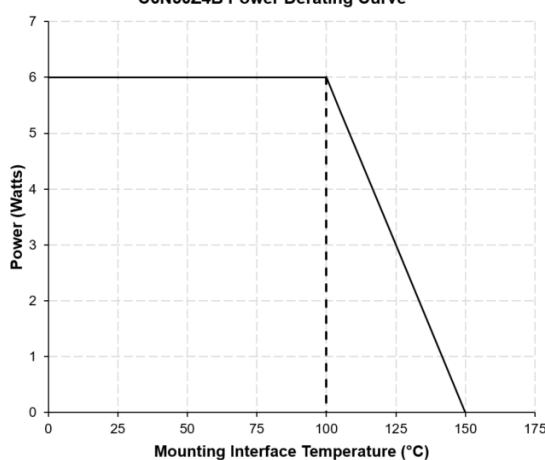
Mounting Footprint:



1. The component has been designed and qualified with this mounting footprint with a 0.020" test board with Dk value of approximately 3.5 comprised of commonly used board substrate materials such as RO4350 and Isola I-tera MT40. Deviations from the recommended mounting footprint may reduce RF and power handling performance. It is the customer's responsibility to qualify the component in the end application.
2. 1x 50 ohm transmission line is for reference only and can be oriented in any direction. Customer to determine transmission line and gap dimensions to achieve 50 ohm impedance for end application.
3. To ensure proper electrical and thermal performance there must be a ground plane with 100% solder connection underneath the part orientated as shown with part marking facing up.
4. PTH connecting pads to ground are representative.
5. Ground vias under part should be filled to prevent solder wicking.
6. Solder mask and solder stencil dimensions may vary due to different manufacturer capabilities and process variations. Layers may be modified to account for manufacturer capabilities.
7. Dimensions are in inches [millimeters].

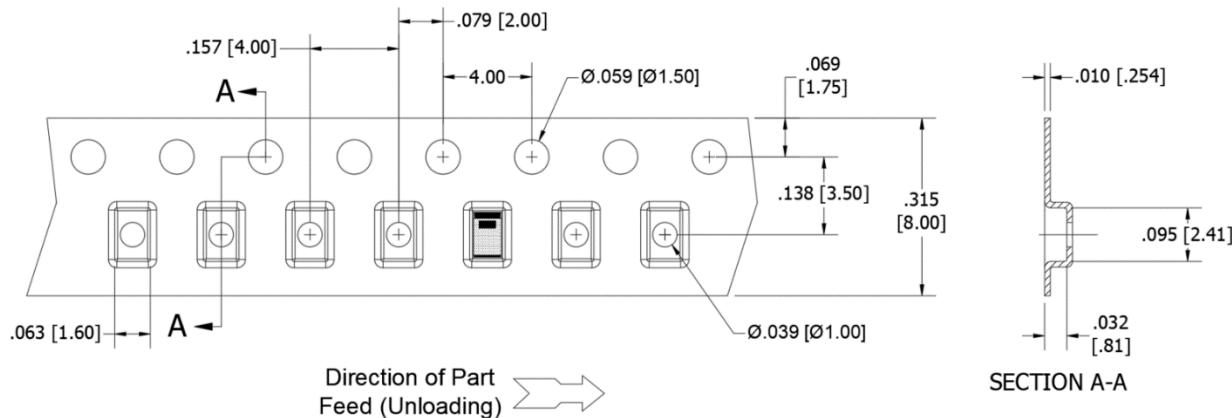
Power Derating:

C6N50Z4B Power Derating Curve



Packaging and Ordering Information:

Parts are available in reel and are packaged per EIA 481. Parts are oriented in tape and reel as shown below.



Dimensions are in Inches [Millimeters]

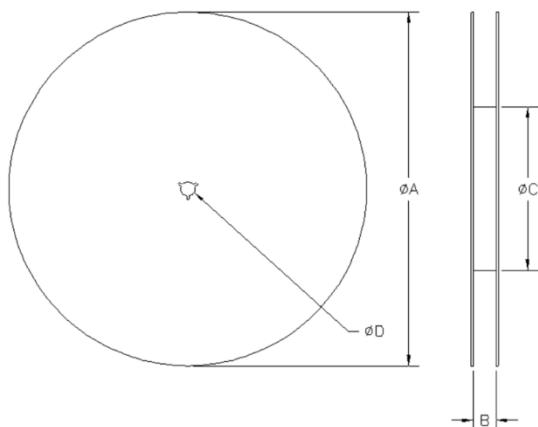


TABLE 1
REEL DIMENSIONS: inches [mm]

| | |
|----|---------------|
| ØA | 7.0 [177.80] |
| B | 0.315 [8.00] |
| ØC | 2.00 [50.80] |
| ØD | 0.512 [13.00] |

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