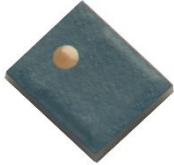


Surface Mount Termination

20 Watts, 50Ω

Description



The C20N50Z4B is high performance Aluminum Nitride (AlN) surface mount termination. The termination is designed particularly for LTE and 5G frequency bands and is well suited for all other cellular frequency bands such as; AMPS, GSM, DCS, PCS, PHS and UMTS. The high power handling makes the part ideal for terminating high power 90 degree couplers and for use in microstrip circuits. The termination is also RoHS compliant!

General Specifications

Features:

- RoHS Compliant
- 20 Watts
- DC – 6.0 GHz
- AlN Ceramic
- Non-Nichrome Resistive Element
- Low VSWR
- 100% Tested
- Small Size

Resistive Element	Thick film
Substrate	AlN Ceramic
Terminal Finish	Matte Tin over Nickel Barrier
Operating Temperature	-50 to +150°C (see de rating chart)

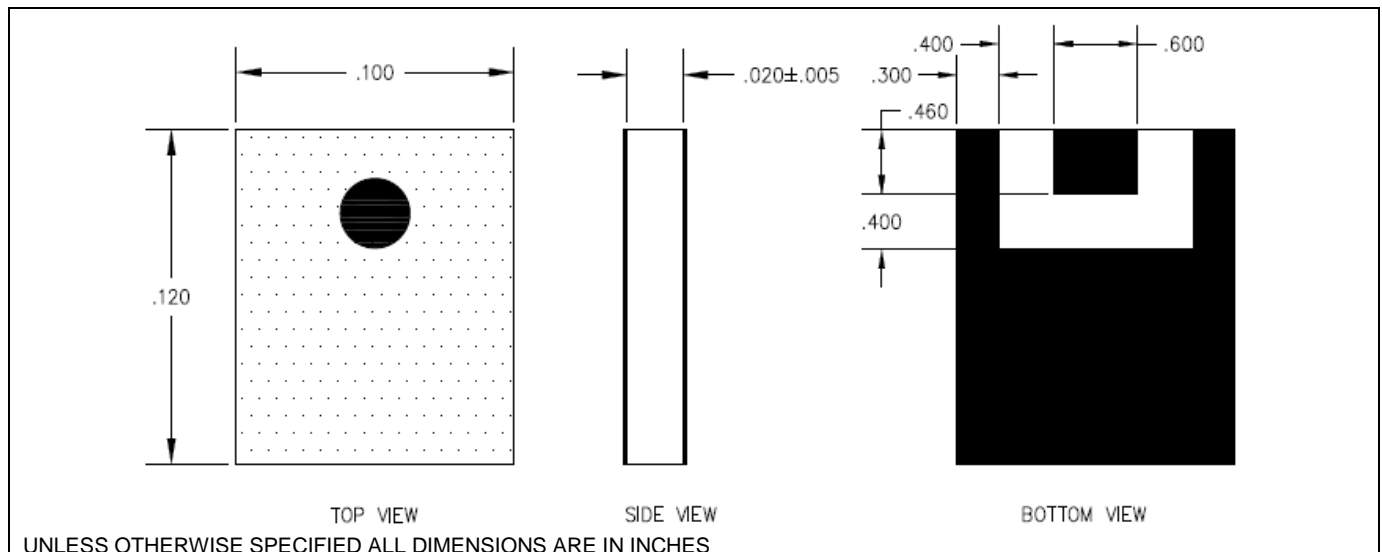
Tolerance is $\pm 0.010"$, unless otherwise specified. Designed to meet or exceed applicable portions of MIL-E-5400. **All dimensions in inches.**

Electrical Specifications

Power:	20 Watts
Frequency Range:	DC – 6.0 GHz
Return Loss	>20 dB to GHz

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

Outline Drawing

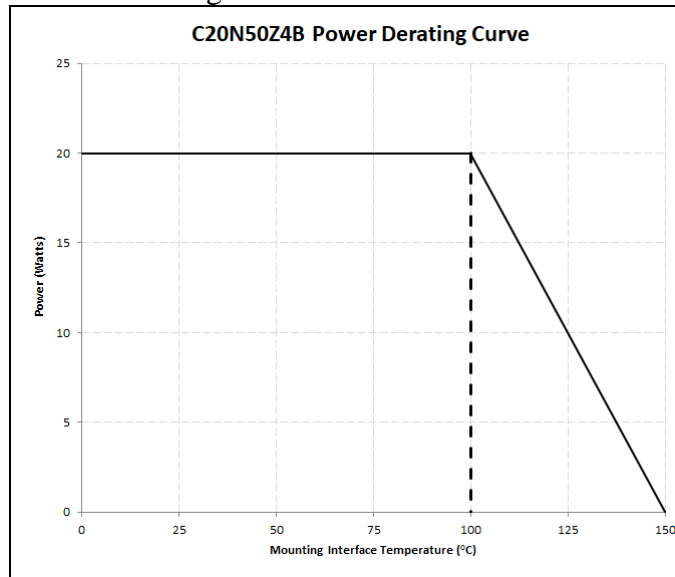


1 of 2



The left plot is a graph of Return Loss (dB) versus Frequency (MHz) for the C20N50Z4B component. The frequency range is from 10 MHz to 6010 MHz, and the return loss range is from -70 dB to -10 dB. The curve shows a minimum return loss of approximately -58 dB at 12 MHz, rising to about -30 dB at 3610 MHz, and peaking at approximately -25 dB around 4810 MHz before slightly decreasing.

The right plot is a Smith Chart for the same component. The chart shows the impedance response across the frequency range. The horizontal axis (resistance) is marked from 40 to 70, and the vertical axis (reactance) is marked from 10 to 20. The curve starts at approximately 40 + j10 at 10 MHz, moves towards the center, and then curves upwards and to the right, reaching approximately 60 + j20 at 6010 MHz.



SEE TOP VIEW OF TAPE

RF PAD LOCATION

.069

.079

.157

.157

.059

.109

.130

.472

.217

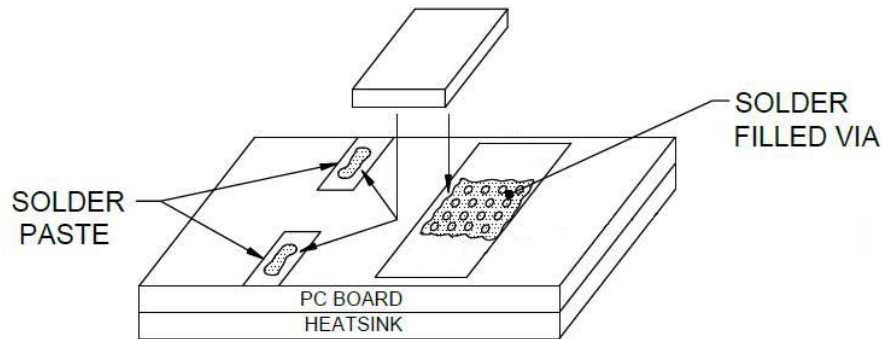
.010

.028

DESPOOLING DIRECTION

TAPE DETAIL & RF PAD ORIENTATION

Mounting Procedure:



1. DRILL THERMAL VIAS THROUGH PCB AND FILL WITH SOLDER, SUCH AS Sn96.
2. SOLDER PART IN PLACE USING Sn96 TYPE SOLDER WITH A CONTROLLED TEMPERATURE IRON (360°C)
3. TO ENSURE GOOD THERMAL CONNECTIVITY TO HEAT SINK, DRILL AND TAP HEATSINK AND MOUNT PCB BOARD TO HEATSINK USING SCREWS WITHIN 1.5" OF PART

