

## Surface Mount Termination 8 Watts, 50Ω



### Features:

- DC – 6.0 GHz
- Power 8 W (AVG)
- Peak to average Ratio 12dB
- RoHS Compliant
- Al<sub>2</sub>O<sub>3</sub> Ceramic
- Non-Nichrome Resistive Element
- Low VSWR
- 100% Tested
- Small Size 1206

### Description:

The C8A50Z4B is high performance DC-6GHz, 8 Watts (AVG) Alumina (Al<sub>2</sub>O<sub>3</sub>) surface mount termination with a peak to average power rating of 12dB. The termination is intended as a cost competitive solution well suited to all frequency bands in Telecom, COTS Mil-Aero and Test and Measurement. The high power handling makes the part ideal for terminating high power 90 degree XINGER<sup>®</sup> couplers and for use in microstrip circuits. The termination is also RoHS compliant!

### General Specifications:

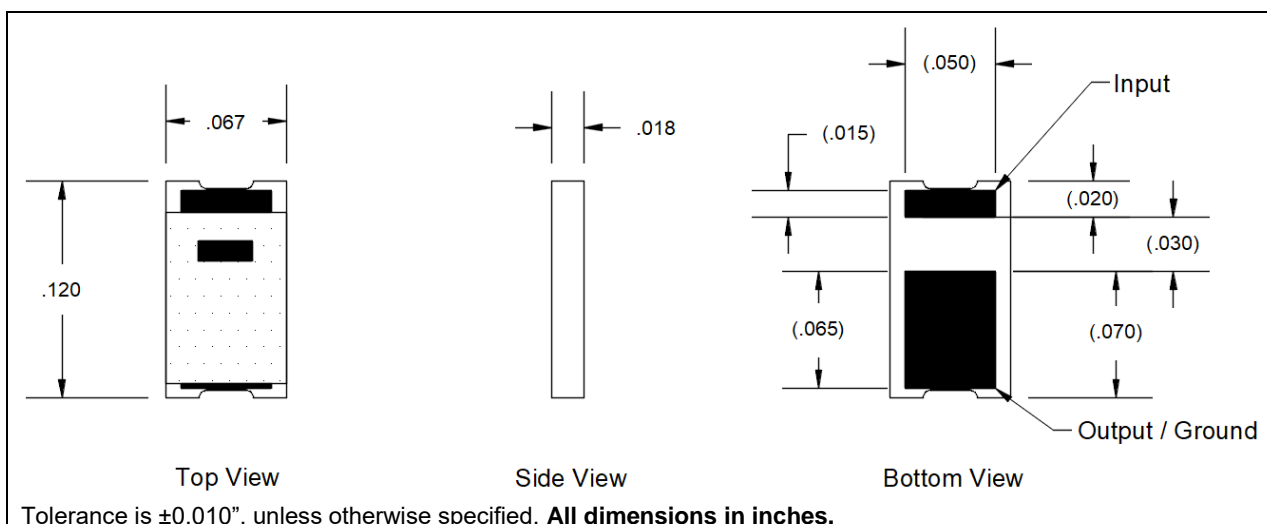
Resistive Element	Thick film
Substrate	Al <sub>2</sub> O <sub>3</sub> Ceramic
Terminal Finish	Matte Tin over Nickel Barrier
Operating Temperature	-50 to +150°C (see de rating chart)

### Electrical Specifications:

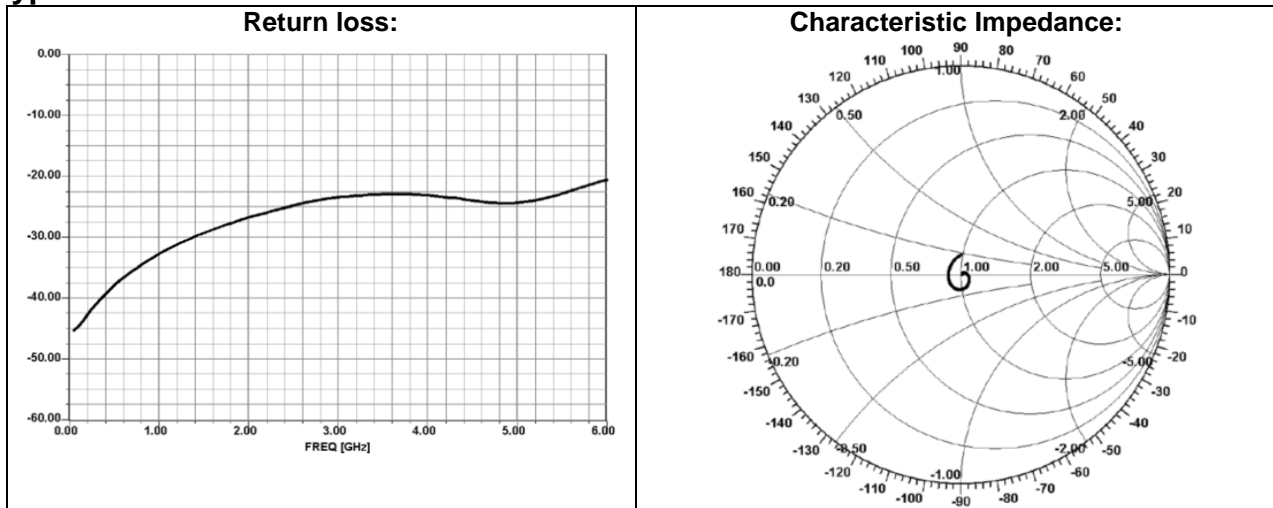
Resistance Value:	50 Ohms ± 2%
Power:	8 Watts (Avg Watts @ 100°C)
Frequency Range:	DC – 6.0 GHz
Return Loss	>19 dB

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

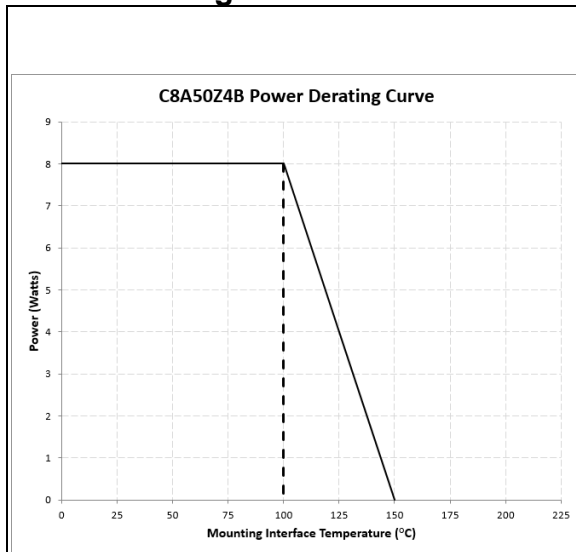
### Mechanical Outline:



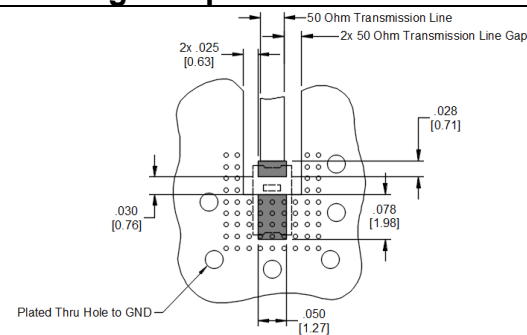
## Typical Performance:



## Power de-rating:



## 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. 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].

## Packaging and Ordering Information:

Parts are oriented in tape and reel as shown below.

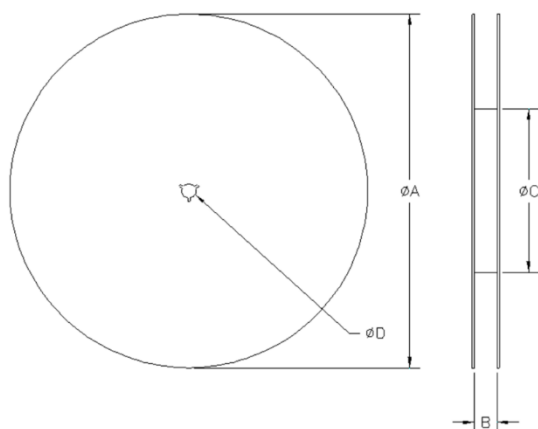
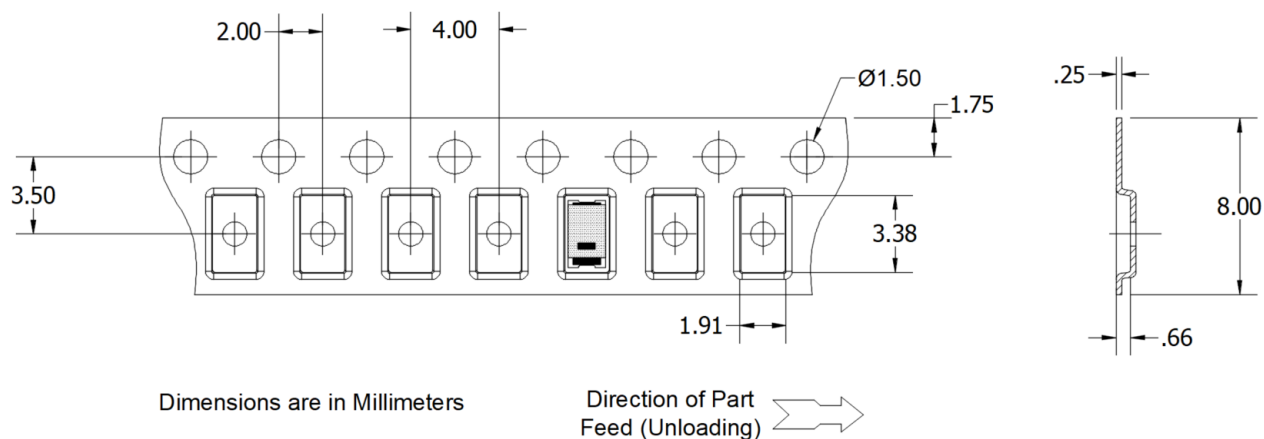


TABLE 1	
REEL DIMENSIONS (mm)	
$\varnothing A$	177.8
B	8.0
$\varnothing C$	50.8
$\varnothing D$	13.0

**Contact us:**  
[rf&s\\_support@ttm.com](mailto:rf&s_support@ttm.com)

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[TTM Technologies:](#)

[C8A50Z4B](#)