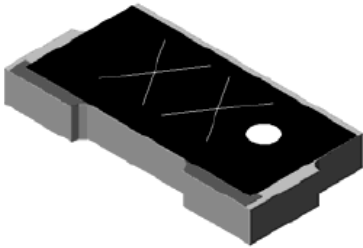


### Surface Mount Attenuator 10 Watts



The D10AAXXZ4 is high performance Alumina ( $Al_2O_3$ ) surface mount attenuator intended as a lower cost alternative to Aluminum Nitride (AlN) and Beryllium Oxide (BeO). The attenuator 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 inter-stage matching, directional couplers, and for use in isolators.

#### Features:

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

#### General Specifications

<b>Resistive Element</b>	Thick film
<b>Substrate</b>	Alumina Ceramic
<b>Terminal Finish</b>	Matte Tin over Sulfamate Nickel
<b>Operating Temperature</b>	-55 to +125°C (see de rating chart)

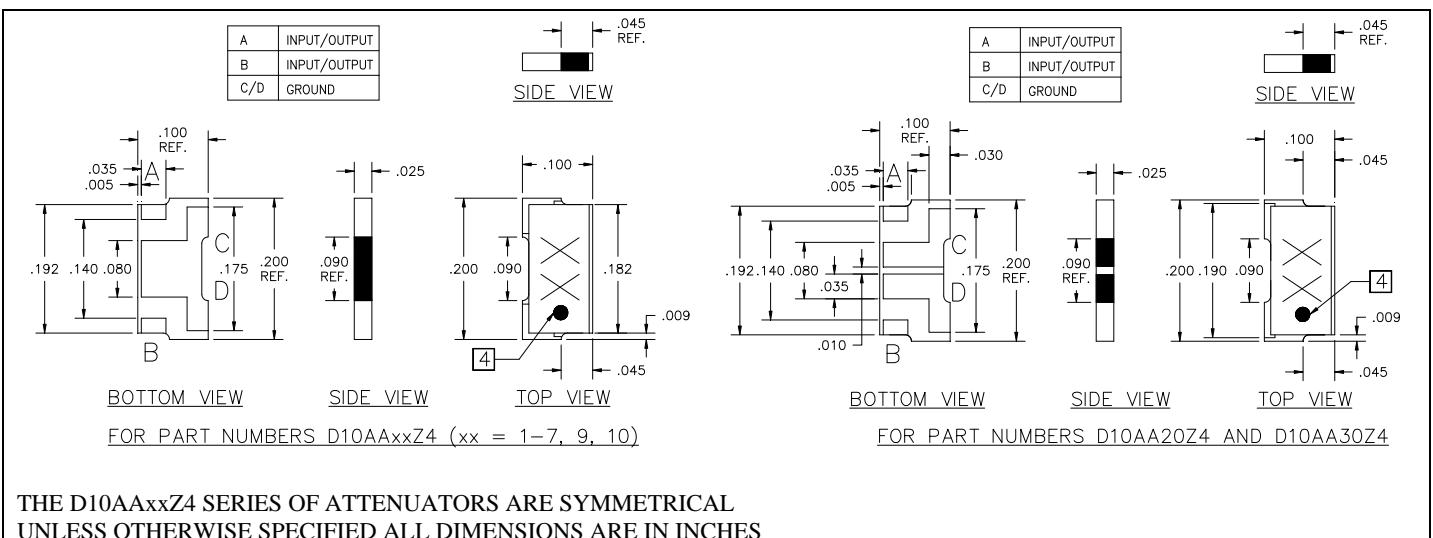
Tolerance is  $\pm 0.010"$ , unless otherwise specified. Designed to meet or exceed applicable portions of MIL-E-5400. **All dimensions in inches.**

#### Electrical Specifications

<b>Attenuation Value:</b>	1 – 7, 9, 10, 20 & 30dB
<b>Power:</b>	10 Watts
<b>Frequency Range:</b>	DC – 3.0GHz
<b>VSWR</b>	<1.25:1

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

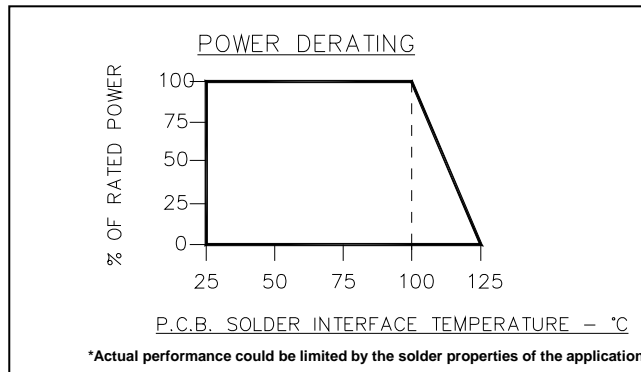
#### Outline Drawing



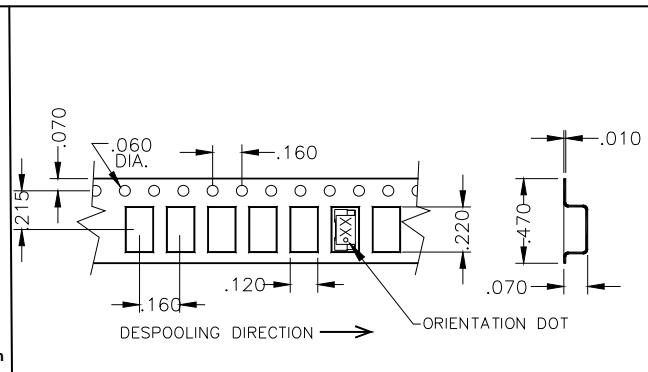
## Specifications

PART NUMBER	ATTENUATION (dB)	TOL. ( $\pm$ dB)	POWER (WATTS)	VSWR	FREQ (GHZ)
D10AA1Z4	1	0.30	10	1.25:1	3.0
D10AA2Z4	2	0.30	10	1.25:1	3.0
D10AA3Z4	3	0.30	10	1.25:1	3.0
D10AA4Z4	4	0.30	10	1.25:1	3.0
D10AA5Z4	5	0.30	10	1.25:1	3.0
D10AA6Z4	6	0.30	10	1.25:1	3.0
D10AA7Z4	7	0.30	10	1.25:1	3.0
D10AA9Z4	9	0.25	10	1.25:1	3.0
D10AA10Z4	10	0.25	10	1.25:1	3.0
D10AA20Z4	20	0.50	10	1.25:1	3.0
D10AA30Z4	30	1.50	10	1.25:1	3.0

## Power De-rating



## Tape and Reel



## Mounting Footprint and Procedure

Dimensions: .034 typ., .241, .131, .040, .066, .034, .101

Labels: 50 ohm line, Ground, 2x 2-56 Screw Hole

Labels: SOLDER PASTE, SOLDER PASTE, PCB BOARD, HEATSINK, MOUNTING PROCEDURE

Labels: 3 SCREEN (2 RES) SOLDER FILLED VIA

1. DRILL THERMAL VIAS THROUGH PCB AND FILL WITH SOLDER, SUCH AS Sn98.
2. SOLDER PART IN PLACE USING Sn98 TYPE SOLDER WITH A CONTROLLED TEMPERATURE IRON (230°C)
3. TO ENSURE GOOD THERMAL CONNECTIVITY TO HEAT SINK, DRILL AND TAP HEATSINK AND MOUNT PCB BOARD TO HEATSINK USING SCREWS.

Dimension given in inches.  
For best thermal performance the PCB should be placed with thermal joint compound to the heat sink.