



### Surface Mount Attenuator 10 Watts



#### Description

The D10AAXXZ1 is high performance Alumina (Al<sub>2</sub>O<sub>3</sub>) 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.

#### General Specifications

<b>Resistive Element</b>	Thick film
<b>Substrate</b>	Alumina Ceramic
<b>Terminal Finish</b>	Thick film Silver
<b>Operating Temperature</b>	-55 to +125°C (see chart)

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

#### Features:

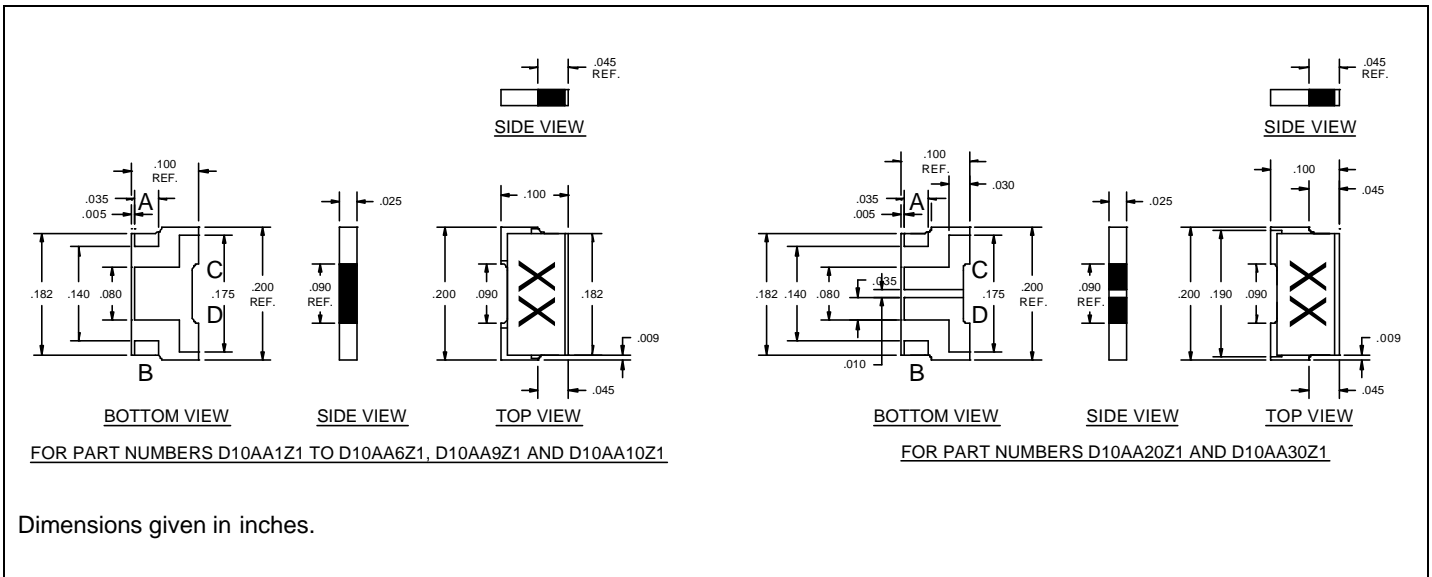
- 10 Watts
- Lowest Cost
- True Surface Mount
- Alumina Ceramic
- Non-Nichrome Resistive Element
- Low VSWR
- 100% Tested

#### Electrical Specifications

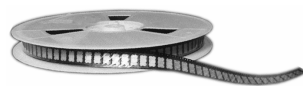
<b>Attenuation Value:</b>	1 – 6, 9, 10, 20 & 30dB
<b>Power:</b>	10 Watts
<b>Frequency Range:</b>	DC – 3.0 GHz
<b>V.S.W.R.:</b>	<1.25:1

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

#### Outline Drawing



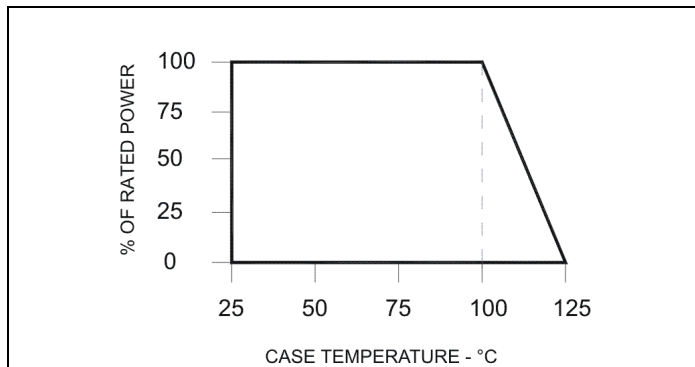
Rev. 11/07/03



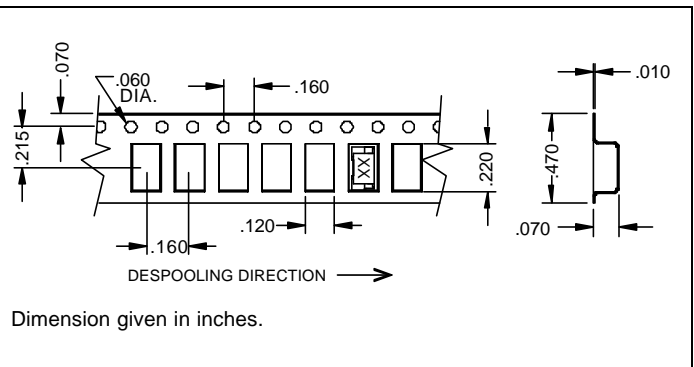
### Specifications:

PART NUMBER	ATTENUATION(dB)	TOL. ( $\pm$ dB)	POWER (WATTS)	VSWR	FREQ (GHZ)
D10AA1Z1	1	0.30	10	1.25:1	3.0
D10AA2Z1	2	0.30	10	1.25:1	3.0
D10AA3Z1	3	0.30	10	1.25:1	3.0
D10AA4Z1	4	0.30	10	1.25:1	3.0
D10AA5Z1	5	0.30	10	1.25:1	3.0
D10AA6Z1	6	0.30	10	1.25:1	3.0
D10AA9Z1	9	0.25	10	1.25:1	3.0
D10AA10Z1	10	0.25	10	1.25:1	3.0
D10AA20Z1	20	0.50	10	1.25:1	2.5
D10AA30Z1	30	1.00	10	1.25:1	2.0

### Power De-rating:



### Tape & Reel:



### Mounting Footprint and Procedure:

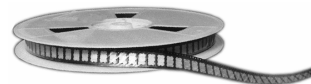
Dimension given in inches.  
For best thermal performance the PCB should be placed with thermal joint compound to the heat sink.

MOUNTING PROCEDURE

1. Drill thermal vias through PCB and fill with solder, such as SN63 type.
2. Solder part in place using SN63 type solder with controlled temperature iron (700°F).
3. To ensure good thermal connectivity to heat sink, drill and tap heatsink and mount PCB board to heat sink using screws.

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Available on Tape and Reel For Pick and Place Manufacturing.



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