

## ORDERING INFORMATION

PART IDENTIFIER: SMT2010ALN

ASSEMBLY DWG: 1101474

## SPECIFICATIONS

**1. ELECTRICAL:**

Impedance:	50 $\Omega$ Nominal.
Frequency:	DC - 2 GHz.
VSWR:	1.25:1 MAX.
Input Power:	20 watts. Chip soldered to mounting surface. Mounting surface temperature maintained at 100°C maximum. Apply linear de-rating of input power to 0 watts at 150°C.

**2. ENVIRONMENTAL:**

Non-Operating:	-55°C To +150°C.
Operating:	-55°C To +150°C.

**3. MARKING:**

Unit Marking:	None.
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**4. QUALITY ASSURANCE:**

Sample inspect per ANSI/ASQC z1.4 general inspection, level II, AQL = 1.0.

Visual and mechanical per 824W154.

Dc Resistance: 50  $\Omega$   $\pm$  5 %.

Data Requirements:

No test data required for customer.

Data retention – 24 months.

**5. PACKAGING:**

Standard Packaging:	Standard pack per 755W002.
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**6. MECHANICAL:**

Workmanship: PER MIL-PRF-55342

Thermal Impedance (R $\theta$ ):

2.500°C / WATT R $\theta$  from resist film to mounting surface directly under center of chip. Chip soldered directly to mounting surface.

## Film Temperature (TF):

200°C Absolute maximum film temperature. de-rate to 150°C maximum film temperature for all military/high-reliability applications.

## Thermal:

Determine maximum mounting surface temperature by applying the following formula:

$$T_S = T_F - (P_{MAX} \times R_{\theta})$$

## Where:

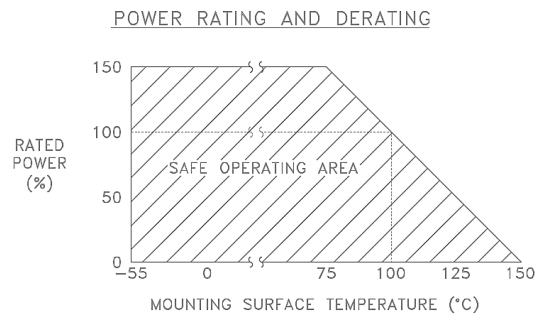
$T_S$  = Maximum Mounting Surface Temperature

$T_F$  = Maximum Film Temperature

$P_{MAX}$  = Maximum Applied Input Power

$R_{\theta}$  = Chip Thermal Impedance.

Substrate:	Aluminum Nitride, MIL-I-10
Terminals:	Thick Film, Nickel Barrier, Solder Plated.
Resist:	Thick Film



POWER STRIPLINE RESISTOR, ALUMINUM NITRIDE (THICK FILM)

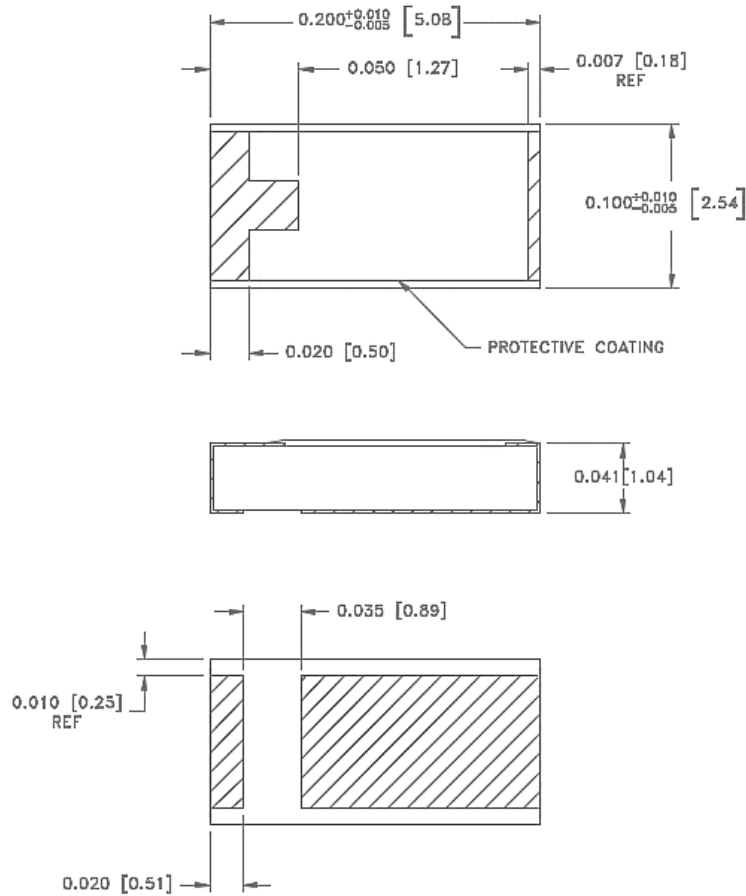
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Revision T



Unless Otherwise Specified: TOLERANCE: X.XXX = ± 0.010.

Metric equivalents given in [mm] are for reference information only.