

SURFACE MOUNT TERMINATION, ALUMINUM NITRIDE

DATASHEET PART SERIES: SMT2525ALN

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Doc# SMT2525ALN-1008635ECO-085683
Revision M

ORDERING INFORMATION

PART IDENTIFIER: SMT2525ALN

ASSEMBLY DWG: 1101544

SPECIFICATIONS

1. ELECTRICAL:

Impedance:	50 Ω Nominal.
Frequency:	DC - 2 GHz.
VSWR:	1.25:1 Max.
Input Power:	60 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:

None.

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 Ω \pm 5 %.

Data Requirements:

No test data required for customer.

Data retention – 24 months.

5. PACKAGING:

Standard pack per 755W002.

6. MECHANICAL:

Workmanship: PER MIL-PRF-55342

Thermal Impedance (R θ):0.833°C / Watt R θ From Resist Film to Mounting Surface Directly Under Center of Chip. Chip Soldered Directly to Mounting Surface.

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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:

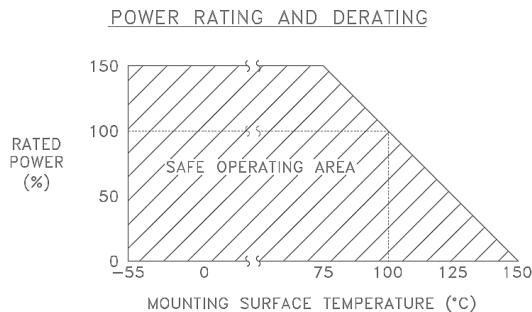
- T_S = Maximum Mounting Surface Temperature
- T_F = Maximum Film Temperature
- P_{MAX} = Maximum Applied Input Power
- R_θ = Chip Thermal Impedance.

Substrate: Material-Beryllia, ASTM F356.

Terminals: Thick Film, Nickel Barrier.

Solder Plated.

Resist: Material- Thick Film.

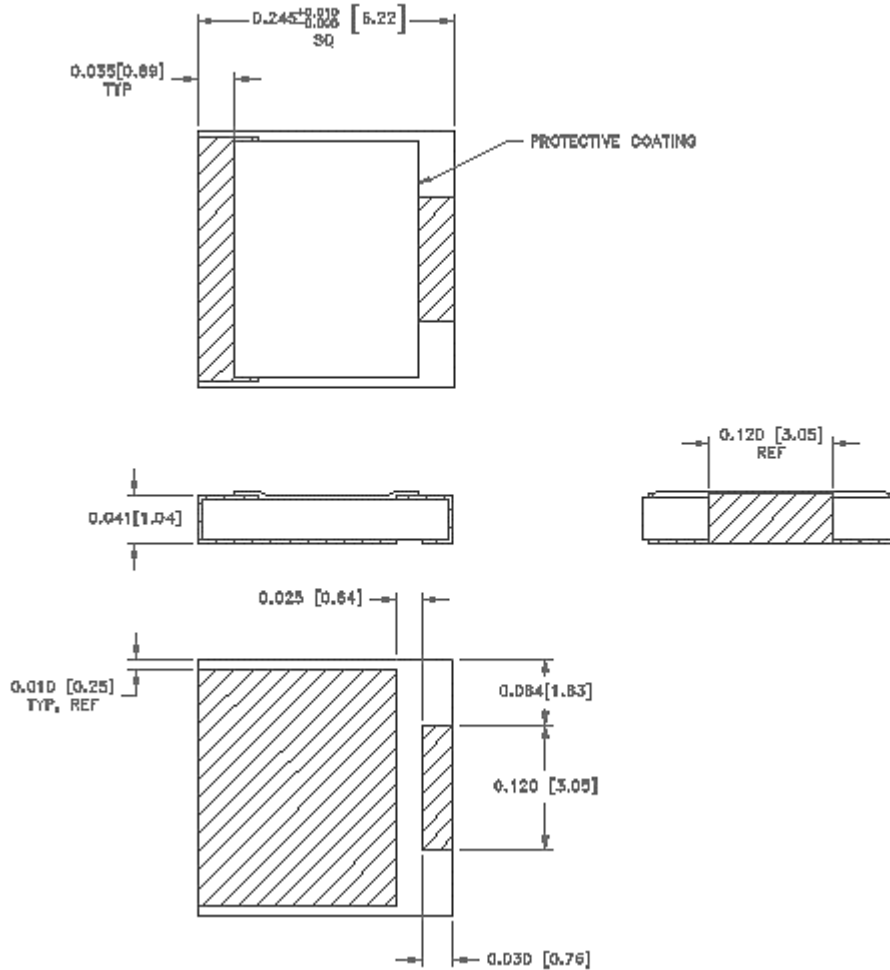


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Unless Otherwise Specified: TOLERANCE: X.XXX = ± 0.005.