Tgard™ 100

Thermally Conductive Insulator

HIGH PERFORMANCE THERMAL INTERFACE PRODUCTS

Tgard™ 100 is a high thermal performance insulator pad consisting of silicone/boron nitride composite. It is specially designed to maximize high thermal and electrical isolation performance for wide variety of applications.

The unique formulation offers an excellent smooth and compliant surface which minimizes interfacial thermal resistance at low mounting forces. Tgard™ 100 is ideal for applications that require low component mounting forces include discrete semiconductors mounted with clips.

FEATURES AND BENEFITS

- High thermal conductivity of 3.5W/mK
- High breakdown voltage of 6,000 volts
- Thermal resistance of 0.279°C-in^2/W @ 50psi
- Unique formulation minimizes thermal resistance at low mounting forces

MARKETS

- Switch mode power supplies for:
  - Communications
  - Consumer Electronics
  - Industrial
  - Instrumentation
  - Medical
- Motor controllers
- Power conversion equipment
- Power Semiconductors

USA: +1.423.308.1690
Europe: +42.0.4885.7511.1
Asia: +86.022 66298160

THR-DS-Tgard 100 1215

Laird
Smart Technology. Delivered.

Tgard™ 100
Thermally Conductive Insulator

PROPERTIES	TEST METHOD	METRIC VALUES	IMPERIAL VALUES
ELECTRICAL PROPERTIES			
Dielectric breakdown voltage 50mm probe	ASTM D149	Avg > 6,000 volts AC	Avg > 6,000 volts AC
Volume resistivity	ASTM D257	10^{12} ohm-cm	10^{12} ohm-in
Dielectric constant @ 1MHz	ASTM D257	5.0	5.0
MECHANICAL PROPERTIES			
Thickness		0.254 mm	10 mils
Hardness	ASTM D2240	90 Shore A	90 Shore A
Operating temperature range	N/A	-60°C to 180°C	-76°F to 356°F
Color	N/A	White	White
UL flammability rating	UL 94	V-0	V-0

PRESSURE	UNITS	10 (69)	25 (172)	50 (345)	100 (689)
Modified ASTM D5470	°C-^{2}/watt	0.378	0.327	0.279	0.249
Modified ASTM D5470	°C-^{2}/watt	2.439	2.109	1.801	1.606
T0-220	°C/watt	0.782	0.754	0.718	0.673

Standard thickness: 10 mils (0.254mm)

Configurations available: Sheet form, roll form and die-cut parts

Single side, pressure sensitive adhesive on request

Standard options: Without adhesive (A0): 9″ x 18″ sheet , With adhesive (A1): 9″ x 18″ sheet

Custom die-cut parts: Custom configurations available with standard tolerance of 0.5mm (0.020″)

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