

## Tgard<sup>™</sup> 100 Thermally Conductive Insulator (Preliminary)



#### HIGH PERFORMANCE THERMAL INTERFACE PRODUCTS

Tgard<sup>™</sup> 100 is a high thermal performance insulator pad consisting of silicone/boron nitrate 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<sup>™</sup> 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<sup>2</sup>/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

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Smart Technology. Delivered.

# Tgard<sup>™</sup> 100 Thermally Conductive Insulator (Preliminary)

PROPERTIES	TEST METHOD	METRIC VALUES		IMPERIAL VALUES	
ELECTRICAL PROPERTIES					
Dielectric withstand voltage 50mm probe for 30 sec	ASTM D149	4,500 volts DC		4,500 volts DC	
Dielectric breakdown voltage 50mm probe	ASTM D149	Avg > 6,000 volts AC		Avg > 6,000 volts AC	
Volume resistivity	ASTM D257	10 <sup>12</sup> ohm-cm		10 <sup>12</sup> 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		-60°C to 180°C		-76 $^{\circ}\mathrm{F}$ to 356 $^{\circ}\mathrm{F}$	
Color		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 <i>-in</i> ²/watt	0.378	0.327	0.279	0.249

2.439

0.782

2.109

0.754

1.801

0.718

1.606

0.673

Standard thickness: 10 mils (0.254mm)

Modified ASTM D5470

T0-220

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

Single side, pressure sensitive adhesive on request

Standard options: Without adhesive (A0): 18.5" x 18.5" sheet , With adhesive (A1): 9" x 18" sheet

°C -*cm*²/watt

°C/watt

Standard die-cut parts: Standard part sizes for TO-220, TO-247, TO-3P, TO-3PL and TO-264

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

Ability to handle drawings in multiple file formats. (DXF and .DWG preferred)

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