

# TIM-PAD 1003

## Thermally Conductive Silicone Pad

### DESCRIPTIONS

**TIM-PAD 1003** is thermally conductive and electrically insulating silicone pads. They are clean, production friendly and efficient alternative to mica, ceramics or grease and will provide superb protection against damage due to deformation, shock or vibration. Cost-effective, maximize heat transfer from electronic components to heat sink or heat spreaders. Excellent mechanical and physical characteristics with efficient heat dissipation. Flame retardant with excellent cut-through resistance

### KEY FUTURES AND BENEFITS

- **Thermal Conductivity (3.0 W/m-k)**
- Cost-Effective Solution
- Clean and easy to apply
- Reinforcements to resist cut-through
- **Resistance to electrical shorting**

### APPLICATIONS

- Interface for discrete semiconductors requiring low pressure or spring clamp mounting
- Isolate power sources from heat sink
- High power control electronics
- Power conversion

### AVAILABILITY

Available Thickness (mm): 0.20, 0.30, 0.45, 0.85  
Available Configurations: Rolls, sheets and custom cut parts. Available with adhesive

Property	Test Method	Value
Type		Silicone
Reinforcement		Fiberglass
Adhesive Coating		Available
Color	Visual	White
Specific Gravity, @ 25°C	ASTM D792	1.7
Hardness (Shore A)	ASTM D2240	90
Elongation %	ASTM D412	>3
Tensile Strength. PSI	ASTM D412	6091
Flammability (Equivalent)	UL 94	V-0
Operating Temperature Range.		-40°C to 150°C
<b>THERMAL</b>		
Thermal Conductivity (W/m-K)	ASTM D5470	<b>3.0</b>
Thermal Resistance (°C.in <sup>2</sup> /w) (0.20mm Th)	ASTM D5470	0.31
<b>ELECTRICAL</b>		
Breakdown Voltage (KV/mm)	ASTM D149	11
Dielectric Constant (1KHz)	ASTM D150	3.0
Dissipation Factor (1KHz)	ASTM D150	0.0005
Volume Resistivity (Ohm-m)	ASTM D257	1 x 10 <sup>13</sup>

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