BERGQUIST

Technical Data Sheet

Sil-Pad® 1200

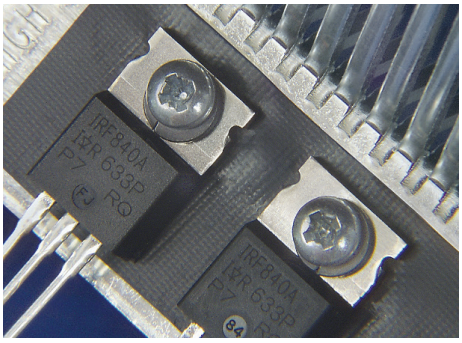
January 2015

PRODUCT DESCRIPTION

Exceptional Performance, Thermally Conductive Elastomeric Material

FEATURES AND BENEFITS

- Thermal Impedance: 0.53oC-in²/W (@ 50 psi)
- Exceptional thermal performance at lower application pressures
- Smooth and non-tacky on both sides for easy re-positioning, ease of use and assembly error reduction
- Superior breakdown voltage and surface “wet out” values
- Designed for applications where electrical isolation is critical
- Excellent cut-through resistance, designed for screw and clip mounted applications



Sil-Pad® 1200 is a silicone based, fiberglass-reinforced thermal interface material featuring a smooth, highly compliant surface. The material features a non-tacky surface for efficient re-positioning and ease of use, as well as an optional adhesive coating. Sil-Pad® 1200 exhibits exceptional thermal performance at low and high application pressures. The material is ideal for placement between electronic power devices and a heatsink for screw and clip mounted applications.

Note: To build a part number, visit our website at www.bergquistcompany.com.

TYPICAL PROPERTIES OF SIL-PAD 1200

PROPERTY	IMPERIAL VALUE	METRIC VALUE	TEST METHOD
Color	Black	Black	Visual
Reinforcement Carrier	Fiberglass	Fiberglass	—
Thickness (inch) / (mm)	0.009 to 0.016	0.229 to 0.406	ASTM D374
Hardness Bulk Rubber (Shore 00)	80	80	ASTM D2240
Elongation (% at 45° to warp and fill)	20	20	ASTM D412
Tensile Strength (psi) / (MPa)	1300	9	ASTM D412
Continuous Use Temp (°F) / (°C)	-76 to 356	-60 to 180	—
ELECTRICAL			
Dielectric Breakdown Voltage (Vac)	6000	6000	ASTM D149
Dielectric Constant (1000 Hz)	8.0	8.0	ASTM D150
Volume Resistivity (Ohm-meter)	10^9	10^9	ASTM D257
Flame Rating	V-O	V-O	U.L. 94
THERMAL			
Thermal Conductivity (W/m-K) (1)	1.8	1.8	ASTM D5470

THERMAL PERFORMANCE vs PRESSURE					
Pressure (psi)	10	25	50	100	200
TO-220 Thermal Performance (°C/W)	2.82	2.64	2.41	2.13	1.90
Thermal Impedance (°C-in²/W) (2)	0.71	0.62	0.53	0.47	0.41

1)This is the measured thermal conductivity of the Sil-Pad Compound.
2) The ASTM D5470 test fixture was used. The recorded value includes interfacial thermal resistance. These values are provided for reference only. Actual application performance is directly related to the surface roughness, flatness and pressure applied.

TYPICAL APPLICATIONS INCLUDE

- Automotive electronics control modules
- Power supplies
- Motor controls
- Audio amplifiers
- Discrete devices
- Telecommunications

CONFIGURATIONS AVAILABLE

- Sheet form, slit-to-width roll form
- Die-cut parts
- 9, 12 and 16 mil thicknesses
- Adhesive coating

We produce thousands of specials and customs.
Tooling charges vary depending on tolerances and complexity of the part.

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