BERGQUIST

Technical Data Sheet

Gap Pad® 5000S35

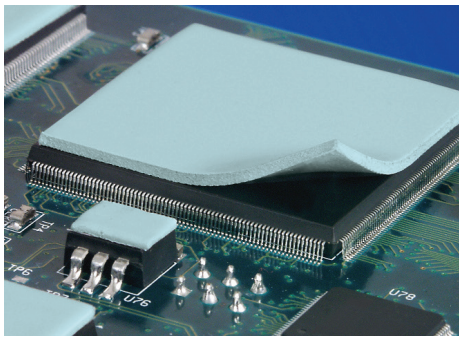
January 2015

PRODUCT DESCRIPTION

High thermal conductivity plus “S-Class” softness and conformability

FEATURES AND BENEFITS

- High thermal conductivity: 5.0 W/m-K
- Highly conformable, “S-Class” softness
- Natural inherent tack reduces interfacial thermal resistance
- Conforms to demanding contours and maintains structural integrity with little or no stress applied to fragile component leads
- Fiberglass reinforced for puncture, shear and tear resistance
- Excellent thermal performance at low pressures



Gap Pad® 5000S35 is a fiberglass-reinforced filler and polymer featuring a high thermal conductivity. The material yields extremely soft characteristics while maintaining elasticity and conformability. The fiberglass reinforcement provides easy handling and converting, added electrical isolation and tear resistance. The inherent natural tack on both sides assists in application and allows the product to effectively fill air gaps, enhancing the overall thermal performance. The top side has reduced tack for ease of handling. Gap Pad® 5000S35 is ideal for high-performance applications at low mounting pressures.

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

TYPICAL PROPERTIES OF GAP PAD 5000S35

PROPERTY	IMPERIAL VALUE	METRIC VALUE	TEST METHOD
Color	Light Green	Light Green	Visual
Reinforcement Carrier	Fiberglass	Fiberglass	—
Thickness (inch) / (mm)	0.020 to 0.125	0.508 to 3.175	ASTM D374
Inherent Surface Tack (1 side)	2	2	—
Density (Bulk Rubber) (g/cc)	3.6	3.6	ASTM D792
Heat Capacity (J/g-K)	1.0	1.0	ASTM E1269
Hardness (Bulk Rubber) (Shore 00) (1)	35	35	ASTM D2240
Young's Modulus (psi) / (kPa) (2)	17.5	121	ASTM D575
Continuous Use Temp (°F) / (°C)	-76 to 392	-60 to 200	—
ELECTRICAL			
Dielectric Breakdown Voltage (Vac)	>5000	>5000	ASTM D149
Dielectric Constant (1000 Hz)	7.5	7.5	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)	5.0	5.0	ASTM D5470

THERMAL PERFORMANCE vs. STRAIN			
Deflection (% strain)	10	20	30
Thermal Impedance (°C-in²/W) 0.040" (3)	0.41	0.34	0.30

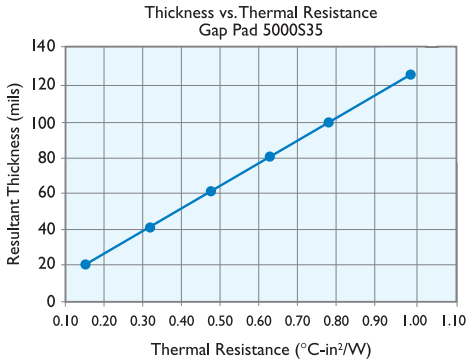
1) Thirty second delay value Shore 00 hardness scale. 2)Young's Modulus, calculated using 0.01 in/min. step rate of strain with a sample size of 0.79 inch². 3) The ASTM D5470 test fixture was used. The recorded value includes interfacial thermal resistance. These values are provided for reference only. Actual application performance is directly related to the surface roughness, flatness and pressure applied.

TYPICAL APPLICATIONS INCLUDE

- Voltage Regulator Modules (VRMs) and POLs
- CD ROM/DVD ROM
- PC Board to chassis
- ASICs and DSPs
- Memory packages/modules
- Thermally-enhanced BGAs

CONFIGURATIONS AVAILABLE

- Die-cut parts are available in any shape or size, separated or in sheet form



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