

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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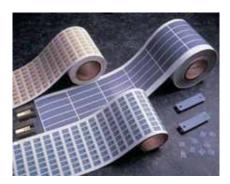




#### The Original Kapton®-Based Insulator

#### **Features and Benefits**

- Thermal impedance:
   0.48°C-in²/W (@50 psi)
- · W ithstands high voltages
- · High dielectric strength
- · Very durable



Sil-Pad K-4 uses a specially developed film which has high thermal conductivity, high dielectric strength and is very durable. Sil-Pad K-4 combines the thermal transfer properties of well-known Sil-Pad rubber with the physical properties of a film.

Sil-Pad K-4 is a durable insulator that withstands high voltages and requires no thermal grease to transfer heat. Sil-Pad K-4 is available in customized shapes and sizes.

PRO PERTY         IMPERIAL VALUE         METRIC VALUE         TEST METHOD           Color         Gray         Gray         Visual           Reinforcement Carrier         Kapton         —           Thickness (inch) / (mm)         0.006         0.152         ASTM D374           Hardness (Shore A)         90         90         ASTM D2240           Breaking Strength (lbs/inch) / (kN/m)         30         5         ASTM D1458           Elongation (%)         40         40         ASTM D412           Tensile Strength (psi) / (MPa)         5000         34         ASTM D412           Continuous Use Temp (°F) / (°C)         -76 to 356         -60 to 180         —           ELECT RIC AL         Dielectric Breakdown Voltage (Vac)         6000         6000         ASTM D149           Dielectric Breakdown Voltage (Vac)         5.0         5.0         ASTM D150           Volume Resistivity (O hm-meter)         1012         ASTM D257           Flame Rating         VTM-O         VTM-O         U.L.94           THERMAL         Thermal Conductivity (W/m-K)         0.9         0.9         ASTM D5470           THERMAL PERFO RMAN CE vs PRESSURE         Pressure (psi)         10         25         50         100         200	TYPICAL PROPERTIES OF SIL-PAD K-4							
Reinforcement Carrier   Kapton   Kapton   —	PRO PERTY	IMPERIAL VALUE		METRIC VALUE		TEST METHOD		
Thickness (inch) / (mm)	Color	Gray		Gray		Visual		
Hardness (Shore A)   90   90   ASTM D2240	Reinforcement Carrier	Kapton		Kapton		_		
Breaking Strength (lbs/inch) / (kN/m)   30   5   ASTM D1458	Thickness (inch) / (mm)	0.006		0.152		ASTM D374		
Elongation (%) 40 40 ASTM D412  Tensile Strength (psi) / (MPa) 5000 34 ASTM D412  Continuous Use Temp (°F) / (°C) -76 to 356 -60 to 180 —  ELECTRIC AL  Dielectric Breakdown Voltage (Vac) 6000 6000 ASTM D149  Dielectric Constant (1000 Hz) 5.0 5.0 ASTM D150  Volume Resistivity (Ohm-meter) 10 <sup>12</sup> 10 <sup>12</sup> ASTM D257  Flame Rating VTM-O VTM-O U.L.94  THERMAL  Thermal Conductivity (W/m-K) 0.9 0.9 ASTM D5470  THERMAL PERFO RMAN CE vs PRESSURE  Pressure (psi) 10 25 50 100 200	Hardness (Shore A)	90		90		ASTM D2240		
Tensile Strength (psi) / (MPa) 5000 34 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) 5.0 5.0 ASTM D150  Volume Resistivity (O hm-meter) 10 <sup>12</sup> 10 <sup>12</sup> ASTM D257  Flame Rating VTM-O VTM-O U.L.94  THERMAL  Thermal Conductivity (W /m-K) 0.9 0.9 ASTM D5470  THERMAL PERFO RMAN CE vs PRESSURE  Pressure (psi) 10 25 50 100 200	Breaking Strength (lbs/inch) / (kN/m)	30		5		ASTM D1458		
Continuous Use Temp (°F) / (°C)         -76 to 356         -60 to 180         —           ELECTRICAL         Dielectric Breakdown Voltage (Vac)         6000         6000         ASTM D149           Dielectric Constant (1000 Hz)         5.0         5.0         ASTM D150           Volume Resistivity (O hm-meter)         10¹²         10¹²         ASTM D257           Flame Rating         VTM-O         VTM-O         U.L.94           THERMAL           Thermal Conductivity (W /m-K)         0.9         0.9         ASTM D5470           THERMAL PERFO RMAN CE vs PRESSURE           Pressure (psi)         10         25         50         100         200	Elongation (%)	40		40		ASTM D412		
ELECTRIC AL           Dielectric Breakdown Voltage (Vac)         6000         6000         ASTM D149           Dielectric Constant (1000 Hz)         5.0         5.0         ASTM D150           Volume Resistivity (Ohm-meter)         10 <sup>12</sup> 10 <sup>12</sup> ASTM D257           Flame Rating         VTM-O         VTM-O         U.L.94           THERMAL           Thermal Conductivity (W/m-K)         0.9         0.9         ASTM D5470           THERMAL PERFO RMAN CE vs PRESSURE           Pressure (psi)         10         25         50         100         200	Tensile Strength (psi) / (MPa)	5000		34		ASTM D412		
Dielectric Breakdown Voltage (Vac)         6000         6000         ASTM D149           Dielectric Constant (1000 Hz)         5.0         5.0         ASTM D150           Volume Resistivity (Ohm-meter)         10 <sup>12</sup> 10 <sup>12</sup> ASTM D257           Flame Rating         VTM-O         VTM-O         U.L.94           THERMAL           Thermal Conductivity (W /m-K)         0.9         0.9         ASTM D5470           THERMAL PERFO RMAN CE vs PRESSURE           Pressure (psi)         10         25         50         100         200	Continuous Use Temp (°F) / (°C)	-76 to 356		-60 to 180		_		
Dielectric Constant (1000 Hz)         5.0         5.0         ASTM D150           Volume Resistivity (O hm-meter)         10¹²         10¹²         ASTM D257           Flame Rating         VTM-O         VTM-O         U.L.94           THERMAL         Thermal Conductivity (W /m-K)         0.9         0.9         ASTM D5470           THERMAL PERFO RMAN CE vs PRESSURE         Pressure (psi)         10         25         50         100         200	ELECTRICAL							
Volume Resistivity (O hm-meter)         1012         1012         ASTM D257           Flame Rating         VTM-O         VTM-O         U.L.94           THERMAL           Thermal Conductivity (W /m-K)         0.9         0.9         ASTM D5470           THERMAL PERFO RMAN CE vs PRESSURE           Pressure (psi)         10         25         50         100         200	Dielectric Breakdown Voltage (Vac)	6000		6000		ASTM D149		
Flame Rating         VTM-O         VTM-O         U.L.94           THERMAL           Thermal Conductivity (W /m-K)         0.9         0.9         ASTM D5470           THERMAL PERFO RMAN CE vs PRESSURE           Pressure (psi)         10         25         50         100         200	Dielectric Constant (1000 Hz)	5.0		5.0		ASTM D150		
THERMAL           Thermal Conductivity (W /m-K)         0.9         0.9         ASTM D5470           THERMAL PERFORMANCE vs PRESSURE           Pressure (psi)         10         25         50         100         200	Volume Resistivity (O hm-meter)	10 <sup>12</sup>		10 <sup>12</sup>		ASTM D257		
Thermal Conductivity (W /m-K)         0.9         0.9         ASTM D5470           THERMAL PERFORMANCE vs PRESSURE           Pressure (psi)         10         25         50         100         200	Flame Rating	VTM-O		VTM-O		U.L.94		
THERMAL PERFORMANCE vs PRESSURE  Pressure (psi) 10 25 50 100 200	THERMAL							
Pressure (psi) 10 25 50 100 200	Thermal Conductivity (W /m-K)	0.9		0.9		ASTM D5470		
	THERMAL PERFORMANCE vs PRESSURE							
TO -220 Thermal Performance (°C/W) 3.66 3.43 3.13 2.74 2.42	Pressure (psi)		10	25	50	100	200	
	TO -220 Thermal Performance (°C/W)		3.66	3.43	3.13	2.74	2.42	
Thermal Impedance (°C-in²/W ) (1) 1.07 0.68 0.48 0.42 0.38	Thermal Impedance (°C-in²/W) (1)		1.07	0.68	0.48	0.42	0.38	

<sup>1)</sup> 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:**

· Power supplies

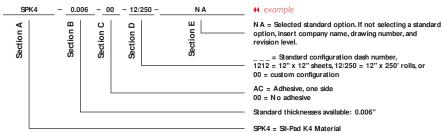
- Motor controls
- · Power semiconductors

### **Configurations Available:**

- · Sheet form, die-cut parts and roll form
- · W ith or without pressure sensitive adhesive

### **Building a Part Number**

## **Standard Options**



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

Sil-Pad®: U.S. Patents 4,574,879; 4,602,125; 4,602,678; 4,685,987; 4,842,911 and others. Kapton® is a registered trademark of DuPont.