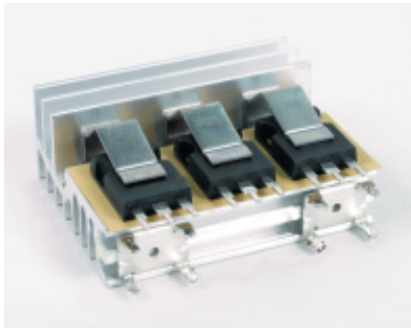


Features and Benefits

- Thermal impedance: 0.41 °C-in²/W (@50 psi)
- Tough dielectric barrier against cut-through
- High performance film
- Designed to replace ceramic insulators



Sil-Pad K-10 is a high performance insulator: It combines special film with a filled silicone rubber. The result is a product with good cut-through properties and excellent thermal performance.

Sil-Pad K-10 is designed to replace ceramic insulators such as Beryllium Oxide, Boron Nitride, and Alumina. Ceramic insulators are expensive and they break easily. Sil-Pad K-10 eliminates breakage and costs much less than ceramics.

| TYPICAL PROPERTIES OF SIL-PAD K-10 | | | | | | |
|---|---|------------------|-------------|------|------|------|
| PROPERTY | IMPERIAL VALUE | METRIC VALUE | TEST METHOD | | | |
| Color | Beige | Beige | Visual | | | |
| Reinforcement Carrier | Kapton | 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 (%45° to Warp and Fill) | 40 | 40 | ASTM D412 | | | |
| 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) | 3.7 | 3.7 | ASTM D150 | | | |
| Volume Resistivity (Ohm-meter) | 10 ¹² | 10 ¹² | ASTM D257 | | | |
| Flame Rating | VTM-O | VTM-O | U.L.94 | | | |
| THERMAL | | | | | | |
| Thermal Conductivity (W/m-K) | 1.3 | 1.3 | ASTM D5470 | | | |
| THERMAL PERFORMANCE vs PRESSURE | | | | | | |
| | Pressure (psi) | 10 | 25 | 50 | 100 | 200 |
| | TO-220 Thermal Performance (°C/W) | 2.35 | 2.19 | 2.01 | 1.87 | 1.76 |
| | Thermal Impedance (°C-in ² /W) (1) | 0.86 | 0.56 | 0.41 | 0.29 | 0.24 |
| 1) The ASTM D5470 (Bergquist modified) 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. | | | | | | |

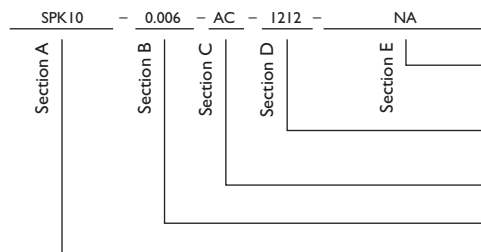
Typical Applications Include:

- Power supplies
- Power semiconductors
- FSCM Number 55285
- Military Specifications
 - MIL-M-38527/8A
 - MIL-I-49456
- Motor controls
- U.L. File Number E59150
- MIL-M-87111

Configurations Available:

- Sheet form, die-cut parts, and roll form
- With or without pressure sensitive adhesive

Building a Part Number



Standard Options

◀ example
 NA = Selected standard option. If not selecting a standard option, insert company name, drawing number, and revision level.
 ___ = Standard configuration dash number, 1212 = 12" x 12" sheets, 12/250 = 12" x 250' rolls, or 00 = custom configuration
 AC = Adhesive, one side
 00 = No adhesive
 Standard thicknesses available: 0.006"
 SPK10 = Sil-Pad K10 Material

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.



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