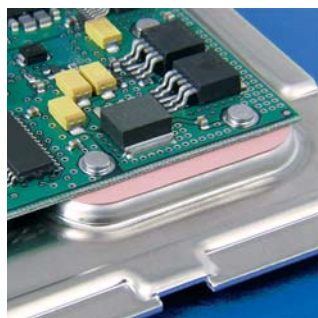


Sil-Pad® Thermally Conductive

| | Sil-Pad 400 .007 in. | Sil-Pad 400 .009 in. | Sil-Pad 800 | Sil-Pad 900S | Sil-Pad 980 | Sil-Pad 1100ST | Sil-Pad 1200 | Sil-Pad A1500 |
|--|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Color | Gray | Gray | Gold | Pink | Mauve | Yellow | Black | Green |
| Thickness (in/mm) | .007 ± .001 (.18 ± .025) | .009 ± .001 (.23 ± .025) | .005 ± .001 (.13 ± .025) | .009 ± .001 (.23 ± .025) | .009 ± .001 (.23 ± .025) | .012 ± .001 (.30 ± .025) | .009 ± .001 (.23 ± .025) | .010 ± .001 (.25 ± .025) |
| Thermal Performance TO-220 Test @ 50 psi °C/W | 5.14 | 6.61 | 2.45 | 2.50 | 4.52 | 2.68 | 2.41 | 2.21 |
| Thermal Impedance (°C- in ² /W) | 1.13 | 1.45 | 0.53 | 0.61 | 1.07 | 0.81 | 0.53 | 0.42 |
| Thermal Conductivity (W/m-K nominal) | 0.9 | 0.9 | 1.6 | 1.6 | 1.2 | 1.1 | 1.8 | 2.0 |
| Voltage Breakdown (Vac) | 3500 | 4500 | 2000 | 4500 | 4000 | 3000 | 6000 | 4000 |
| Continuous Use Temperature (°C) | -60 to 180 | -60 to 180 | -60 to 180 | -60 to 180 | -40 to 150 | -60 to 180 | -60 to 180 | -60 to 180 |
| Construction | Silicone/ Fiberglass | Silicone/ Fiberglass | Silicone/ Fiberglass | Silicone/ Fiberglass | Silicone/ Fiberglass | Silicone/ Fiberglass | Silicone/ Fiberglass | Silicone/ Fiberglass |

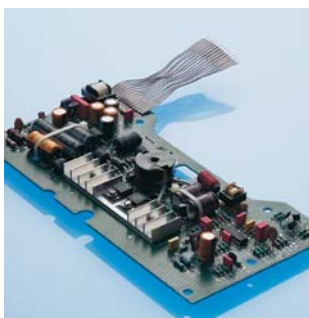
Sil-Pad Applications



Here, Sil-Pad 900S enhances the thermal transfer from this FR-4 circuit board with thermal vias to the metal base plate.



Sil-Pad is available in over 100 standard configurations for common JEDEC package outlines.



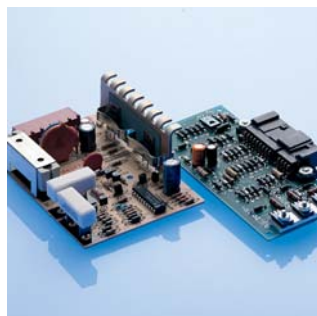
The circuit board above shows punched parts interfacing screw-mounted transistors to a finned heat sink.



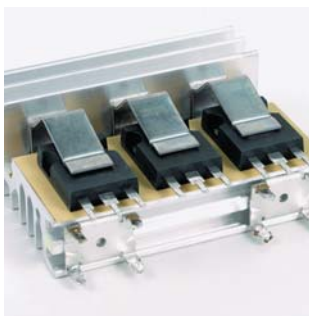
This application uses Sil-Pad to isolate the mounting brackets from the assembly frame.



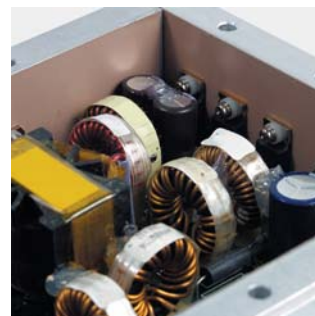
A common Sil-Pad application includes TO-220 transistors mounted in a row on a heat rail.



These Sil-Pad applications show clip mounting of transistors on the left and screw mounting to an aluminum bracket on the right.



Choose a Sil-Pad that optimizes thermal performance for your mounting method — screw, clip, spring, bar, etc.



Sil-Pad 980 is used extensively in industrial applications having excellent cut-through and abrasion resistance.

Insulator Selection Table

| Sil-Pad 1500ST | Sil-Pad 2000 | Sil-Pad A2000 | Sil-Pad K-4 | Sil-Pad K-6 | Sil-Pad K-10 | Poly-Pad 1000 | Poly-Pad K-4 | Poly-Pad K-10 | Test Method |
|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-------------|
| Blue | White | White | Gray | Bluegreen | Beige | Yellow | Tan | Yellow | Visual |
| .008 ± .001 (.20 ± .025) | .010 ± .001 (.25 ± .025) | .015 ± .001 (.38 ± .025) | .006 ± .001 (.15 ± .025) | .006 ± .001 (.15 ± .025) | .006 ± .001 (.15 ± .025) | .009 ± .001 (.23 ± .025) | .006 ± .001 (.15 ± .025) | .006 ± .001 (.15 ± .025) | ASTM D374 |
| 1.51 | 2.02 | 1.86 | 3.13 | 2.76 | 2.01 | 3.74 | 4.34 | 2.75 | ASTM D5470 |
| 0.23 | 0.33 | 0.32 | 0.62 | 0.64 | 0.41 | 0.82 | 0.95 | 0.60 | ASTM D5470 |
| 1.8 | 3.5 | 3.0 | 0.9 | 1.1 | 1.3 | 1.2 | 0.9 | 1.3 | ASTM D5470 |
| 3000 | 4000 | 4000 | 6000 | 6000 | 6000 | 1300 | 5500 | 6000 | ASTM D149 |
| -60 to 180 | -60 to 200 | -60 to 200 | -60 to 180 | -60 to 180 | -60 to 180 | -20 to 150 | -20 to 150 | -20 to 150 | — |
| Silicone/ Fiberglass | Silicone/ Fiberglass | Silicone/ Fiberglass | Silicone/ Film | Silicone/ Film | Silicone/ Film | Polyester/ Fiberglass | Polyester/ Film | Polyester/ Film | — |

Sil-Pad Comparison Made Simple!

| Property | Test Method | Bond-Ply 100 | Bond-Ply 150 | Bond-Ply 180 |
|-------------------------------------|-------------|--------------|--------------|--------------|
| Color | Visual | White | White | White |
| Reinforcement Carrier | — | Fiberglass | Fiberglass | Fiberglass |
| Thickness, Inch | ASTM D374 | 0.005 | 0.005 | 0.011 |
| Adherent Surface Temp, 1 or 2 added | — | — | — | — |
| Hot Storage, Both Sides, (Hours @) | ASTM D2240 | 0 | 0 | 0 |
| Continuous Use Temp., (°F) | — | -22 to 248 | -22 to 248 | -22 to 248 |
| Phase Change Temp., (°F) | DSC | 0 | 0 | 0 |
| Electrical | Test Method | Value | Value | Value |
| Dielectric Breakdown Voltage, (VAC) | ASTM D149 | 0 | 0 | 0 |
| Dielectric Constant, (5000 Hz) | ASTM D150 | 0 | 0 | 0 |
| Volumetric Resistivity, (ohm-cm) | ASTM D257 | 0 | 0 | 0 |
| Humidity Rating | UL 94 | 0 | 0 | 0 |
| Thermal | Test Method | Value | Value | Value |
| Thermal Conductivity, (W/m-K) | ASTM D5470 | 0.8 | 0.8 | 0.8 |

Comparing thermally conductive interface materials has never been easier.

Simply go to the "Thermal Materials" section of the Bergquist website (www.bergquistcompany.com) and select "Compare Material Properties." Then select up to three separate products and this handy comparison tool will automatically chart thermal resistance values and display a material properties table of the selected materials.

The materials comparison tool can be used for most Bergquist thermal materials, including Sil-Pad, Hi-Flow, Gap Pad, Q-Pad, Bond-Ply and Liqui-Bond products.