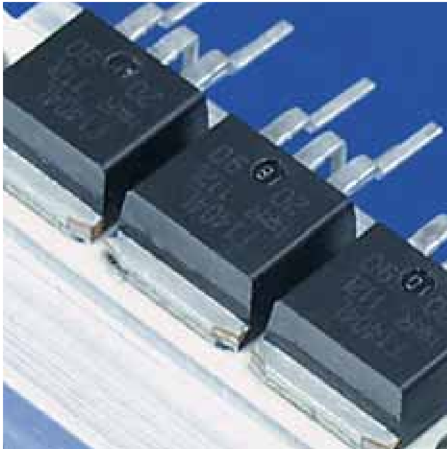
Solutions For Surface-Mount Applications



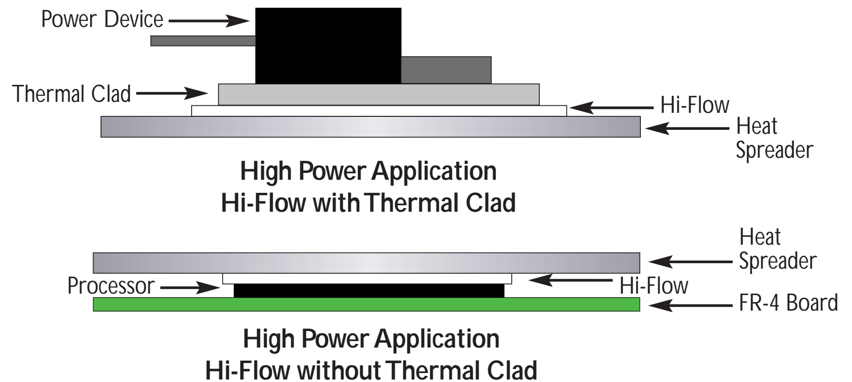
Hi-Flow®

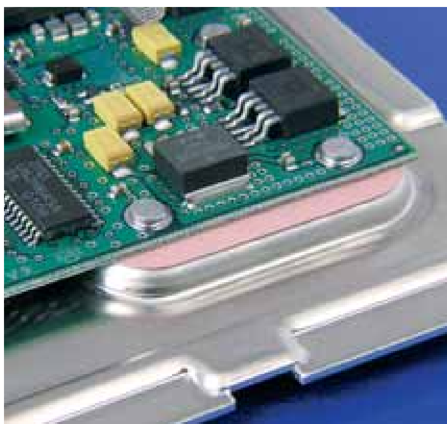
The Hi-Flow family of phase change materials offers an easy-to-apply thermal interface for many surface mount packages. At the phase change temperature, Hi-Flow materials change from a solid and flow with minimal applied pressure. This characteristic optimizes heat transfer by maximizing wet-out of the interface. Hi-Flow is commonly used to replace messy thermal grease.

Bergquist phase change materials are specially compounded to prevent pump-out of the interface area, which is often associated with thermal grease. Typical applications for Hi-Flow materials include:

- Intel Core™ Series, Pentium®, Phenom™, Athlon®, and other high performance CPUs
- DC/DC converters
- Power modules

Hi-Flow materials are manufactured with or without film or foil carriers.
Custom shapes and sizes for non-standard applications are also available.

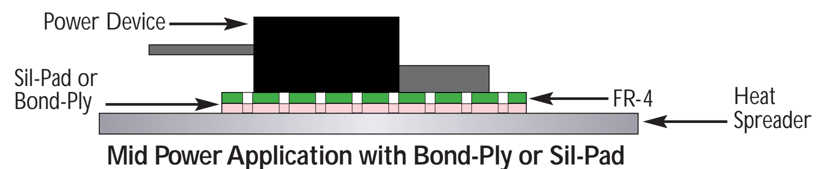




Sil-Pad®

Sil-Pad is the benchmark in thermal interface materials. The Sil-Pad family of materials are thermally conductive and electrically insulating. Available in custom shapes, sheets, and rolls, Sil-Pad materials come in a variety of thicknesses and are frequently used in SMT applications such as:

- Interface between thermal vias in a PCB, and a heat sink or casting
- Heat sink interface to many surface mount packages



Intel Core™ and Pentium® are registered trademarks of Intel Corporation.
Phenom™ and Athlon® are registered trademarks of Advanced Micro Devices, Inc.

Where Thermal Solutions Come Together

Bond-Ply® and Liqui-Bond®

The Bond-Ply family of materials are thermally conductive and electrically isolating. Bond-Ply is available in a pressure sensitive adhesive or laminating format. Bond-Ply provides for the mechanical decoupling of bonded materials with mismatched thermal coefficients of expansion. Liqui-Bond is a high thermal performance liquid silicone adhesive that cures to a solid bonding elastomer. Typical applications include:

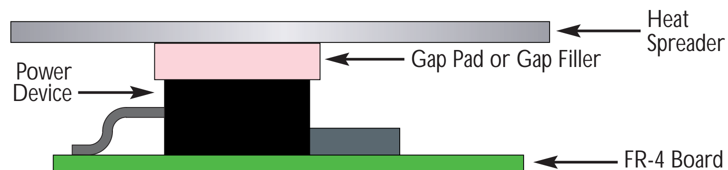
- Bonding bus bars in a variety of electronic modules and sub assemblies
- Attaching a metal-based component to a heat sink
- Bonding a heat sink to a variety of ASIC, graphic chip, and CPU packages
- Bonding flexible circuits to a rigid heat spreader or thermal plane
- Assembly tapes for BGA heat spreader
- Attaching PCB assemblies to housings

Gap Pad® and Gap Filler

The Gap Pad product family offers a line of thermally conductive materials, in pad or liquid dispensable format, which are highly conformable. Varying degrees of thermal conductivity and compression deflection characteristics are available. Typical applications include:

- On top of a semiconductor package such as a QFP or BGA. Often times, several packages with varying heights can use a common heat sink when utilizing Gap Pad.
- Between a PCB or substrate and a chassis, frame, or other heat spreader
- Areas where heat needs to be transferred to any type of heat spreader
- For interfacing pressure sensitive devices
- Filling various gaps between heat-generating devices and heat sinks or housings

Gap Pads are available in thickness of 0.010" (0.254mm) to 0.250" (6.35mm), and in custom shapes, with or without adhesive. Gap Fillers are available in cartridge or kit form.



Lower Power Application with Gap Pad

Top Efficiency In Thermal Materials For Today's Changing Technology.

Contact Bergquist for additional information regarding our Thermal Solutions. We are constantly innovating to offer you the greatest selection of options and flexibility to meet today's changing technology.