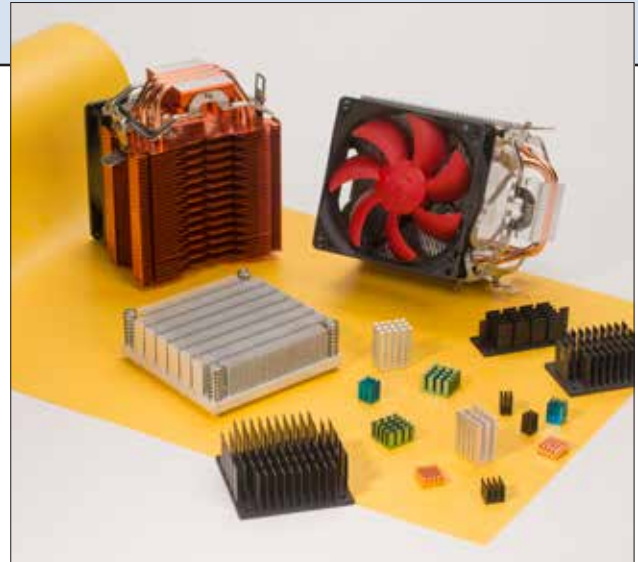


## Thermal Management

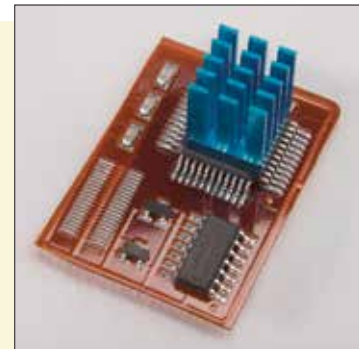
Polyonics thermal interface materials provide electronics designers and manufacturers with a unique blend of low impedance and high temperature resistance not typically found in other products. The materials offer no pump-out or delamination plus dimensional stability and conformability after long term exposure up to 250°C (tested to 1000hrs). The Polyonics thermal interface materials include double liners for ease of assembly and die cutting.

Polyonics thermal interface materials are silicone based, come in a variety of thicknesses and have a light tack at room temperature for ease of pre-assembly. The silicone includes proprietary thermal conductive fillers and produces thin, uniform bond lines. The thermal interface materials are available with a variety of carrier films to address specific application needs.



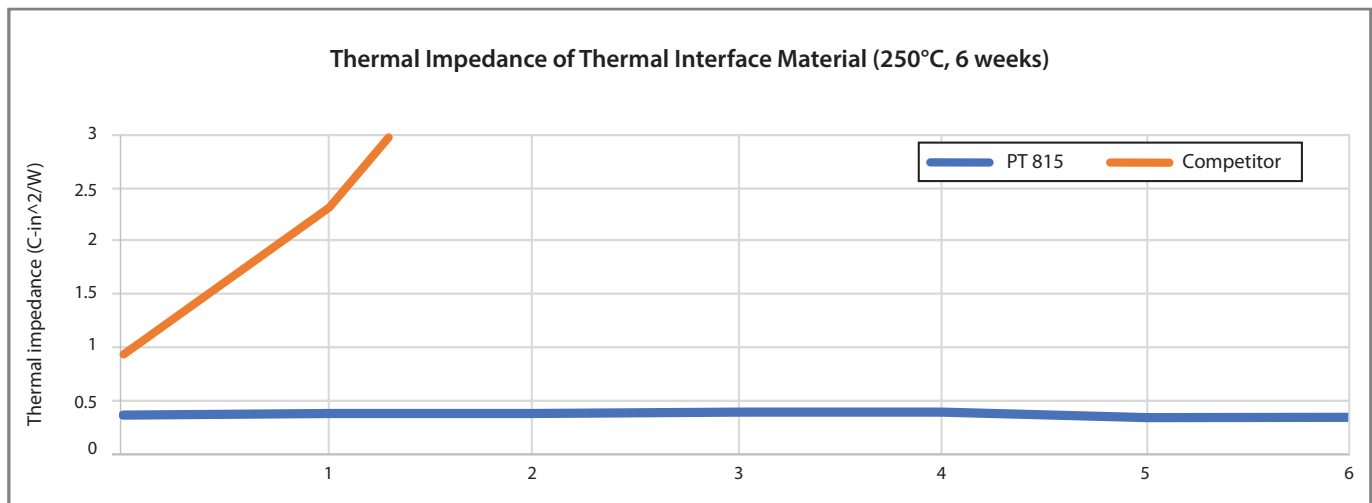
### Features and Benefits

- Maintains thermal properties at high temperatures (tested to 1000hrs)
- Flame retardant options
- Excellent wetting properties for void elimination
- Thin, uniform bond lines
- Mess-free application
- Light tack properties at room temperature
- Maintains flexibility even after exposures to high temperatures
- ESD-Safe™ (per (ANSI/ESD S20.20, IEC 61340 and JEDEC JESD 625B))



Heat sink bonded to processor via Polyonics thermal interface materials

## Thermal Impedance



## Product Description Chart

Product Number	Thermal Interface Material Thickness	Carrier	Thermal Interface Material Thickness	Max Temperature	Total Thickness (without liners)	Thermal Impedance (°C-in <sup>2</sup> /W)	Flame Retardant
PT-815	3mil	N/A	N/A	250°C	3mil	0.35	V-0
PT-814	1.5mil	N/A	N/A	250°C	1.5mil	0.30	V-0
PT-813	3.0mil	Kapton MT + Film	3.0mil	200°C	7.5mil	0.65	V-0
PT-812	1.5mil	Kapton MT + Film	1.5mil	200°C	4.5mil	0.55	V-0
PT-811	1.5mil	2.0mil Aluminum	1.5mil	175°C	5.0mil	0.5	V-0
PT-810	1.5mil	0.5mil Polyimide	1.5mil	200°C	3.5mil	0.35	V-0

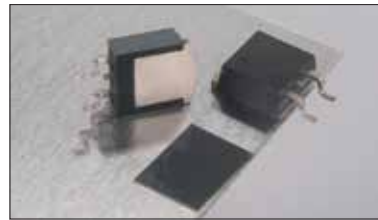
Liner options: Liners: PET FS 2mil and Glassine FS 2.5mil

## Applications

- **Telecommunications**
- **Consumer Electronics**
- **Automotive**

Polyonics thermal interface materials are designed specifically for thermal management applications that also involve exposures to high temperatures and where electrical isolation is not required. The materials remain dimensionally stable, maintain their thermal properties and are mess-free with exposures to 250°C. They offer a higher performance alternative to thermal greases, phase change materials, elastomeric pads and thermal bonding tapes. Mechanical fasteners are recommended for high temperature applications.

### MOSFETs



MOSFETs with Polyonics thermal interface materials bonded to aluminum substrate

### Heat Sinks



Polyonics thermal interface materials on back side of heat sink, shown with liner being removed

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