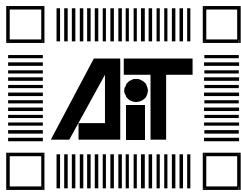

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CONDUCTIVE COOL-PAD

CP8503-HF

> 8.0 W/m-ºK
< 0.05ºC-cm²/W
Melt-Flow at 50ºC @ 10psi
"Phase-Change" Dry Pad

IDEAL FOR:

- **Thermal Gasket Replacement**
- **Thermal Grease Replacement**
- **Extra-thick Thermal Interface Layer**
- **Thermal-Electrical Ground Plane Interface**

DESCRIPTION:

CP8503-HF is a plated copper filled, thermally conductive, low bond strength electrically conductive pad. It provides both thermal interface as well as electrically grounding. It is high flow and can be die-cut into any shape or size for power transistors and components. The bond strength is minimal for easy device replacement and upgrade.

When a power device goes into operation and generates heat in excess of 50ºC, CP8503-HF will "melt/reflow" to form intimate interfaces between the contact surfaces. It dramatically reduces the thermal and electrical impedance and thus provides grounding and cooling for the heat generating devices.

AVAILABILITY:

CP8503-HF is available in sheet sizes or as custom preforms. Standard thicknesses are 0.003", 0.006", 0.012", 0.020 "and 0.040".Special thicknesses are available.

APPLICATION PROCEDURES:

(1) Cut or pre-cut to desired size and shape.
(2) Place conductive COOL-PAD between device and heat-sink.
(3) Clamp with suitable force of more than 3 psi.

(4) Device is now ready for service.

TYPICAL PROPERTIES*

Property	Value
Electrical Resistivity	<5x10 $^{-2}$ ohm-cm
(As is ºC/)	
Dielectric Strength (Volts/mil)	N/A
Glass Transition Temp.(ºC)	-55 ±10%
Lap-Shear Strength	<100 psi <0.69 N/mm²
Device Push-off Strength	<100 psi <0.69 N/mm²
Hardness (Type)	<40 (A)
Cured Density (gm/cc)	5.0 ±10%
Thermal Conductivity	>56 Btu-in/hr-ft²-ºF >8.0 W/m-ºC
Linear Thermal Expansion Coeff. (ppm/ºC)	110 ±15%
Maximum Continuous Operation Temp. (ºC)	<150

* Properties given are typical values and not intended for use in preparing specifications. The user is advised to evaluate the product in the manner the product is intended to be used in manufacturing and in the final product.

Melt/Flow:Conditions

Temperature	Time	Pressure
>50ºC	0.5 sec	>10 psi

SHELF LIFE:

Storage temperature	Shelf Life
25ºC	1 yr

CAUTION: This product may cause skin irritation. Avoid skin contact. If contact does occur, wash immediately with soap and water. Please refer SDS for more details.

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