



# COOLPOLY® THERMALLY CONDUCTIVE PLASTICS

## FOR 3-DIMENSIONAL DIELECTRIC HEAT PLATES FOR POWER CONVERTERS

DC/DC converters and other high power electronic devices require enclosures or lids that provide both excellent heat transfer and dielectric protection. CoolPoly® thermally conductive plastic bonded aluminum heat plates are designed with 3-dimensional features that conform to individual board layouts. The 3-dimensional molded design maximizes contact area with the heat generating surfaces and minimizes the tolerances that contribute to temperature rise. The thermally conductive plastic provides dielectric isolation and excellent heat transfer to the metal plate. The aluminum plate maximizes the lateral heat spreading and provides a flat surface for attachment of additional thermal management components.



The CoolPoly 3-dimensional dielectric heat plates utilize a proprietary process to bond thermally conductive plastic to metal. The process ensures excellent adhesion and minimizes the effects of thermal expansion differences. A minimal thickness of the molded plastic eliminates any concern over porosity or scratch resistance.

The outstanding dielectric properties of the thermally conductive plastic provide excellent isolation and breakdown characteristics. The material is RoHS compliant and meets UL V0 flammability rating.

3-Dimensional dielectric heat plates molded from CoolPoly thermally conductive plastics offer:

- HIGH DIELECTRIC STRENGTH
- EXCELLENT HEAT TRANSFER
- 3-DIMENSIONAL CONFORMANCE TO BOARD LAYOUT
- MINIMAL TOLERANCE BETWEEN COMPONENT AND LID
- ROHS COMPLIANT
- UL94 V0 FLAME RETARDANT
- HIGH DIELECTRIC BREAKDOWN AND DIELECTRIC STRENGTH

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