

Thermal Conductive Board – TCB-3-05

Product Description

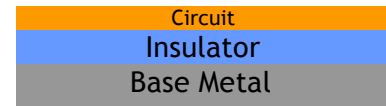
Thermal Conductive Board (TCB), or Insulated Metal Substrate (IMS), provides the advantages of high thermal conductivity, reliability, and thermal resistance. TCB is a sandwich structure, which includes layers of copper foil, insulator, and base metal. The insulator is made by a unique polymer composite that combine epoxy resin and high thermal conductivity filler, and the thermal conductivity is much higher than the traditional epoxy filled glass fiber system.

Features

- Excellent thermal conductivity
- Customized substrate structure available
- Excellent solder resistance
- Excellent reliability
- RoHS Complaint
- Excellent reliability
- Over 15 Patents

Specifications

Characteristics	TCB-3-05
Panel Size [mm]	500 x 600, or etc.
Base Metal [mm]	1.0, 1.5, 2.0, or etc.
Dielectric Layer thickness [μm]	50
Dielectric Layer thickness Tolerance [μm]	40~55
Circuit [oz]	1, 2, 3, or etc.



General Properties

Characteristics	TCB-3-05	Test Method
Thermal resistance [$^{\circ}\text{C}/\text{W}$, 50 μm]	<0.08	ASTM D5470
Flammability	V-0	UL 94
Hi-pot withstand [AC KV]	>2	IPC-TM-650 2.5.7
Peeling strength [Kg/cm]	>1.4	JIS C 6481
Solder heat resistance, 260 $^{\circ}\text{C}$ [mins]	>60	
Dielectric constant	5.1	IPC-TM-650 2.5.5.1
Surface resistance [Ω]	> 10^{15}	IPC-TM-650 2.5.17.1
Volume resistance [$\Omega \cdot \text{cm}$]	> 10^{13}	IPC-TM-650 2.5.17.1
Glass transition temperature [$^{\circ}\text{C}$]	140	IPC-TM-650 2.4.25