

Thermal Conductive Board

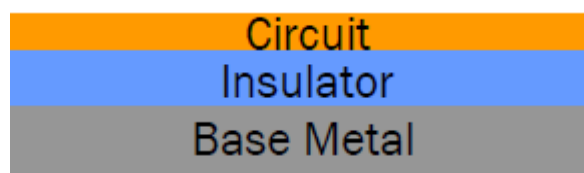
TCB4AL15-10A-7151

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 about 5 times higher than the traditional epoxy filled glass fiber system.

Features

- Excellent thermal conductivity
- Customized substrate structure available
- Excellent solder resistance
- Excellent reliability
- RoHS Complaint
- UL No: E312082
- Over 15 Patents



Specifications

| Characteristics | TCB-4 |
|---------------------------------------|-----------|
| Panel Size [mm] | 610 x 510 |
| Base Metal [mm] | 1,5 |
| Insulator thickness [μm] | 100 |
| Circuit [oz] | 1 |

*Under certification

Properties

| Characteristics | TCB-2 | Test Method |
|--|-----------------------|---------------------|
| Thermal conductivity [W/m-K] | 4,0 | ASTM D5470 |
| Flammability | V-0 | UL94 |
| Break down voltage [AC KV] | 4,5 | JIS C 2110 |
| Peeling strength [N/cm] | 18 | JIS C 6481 |
| Solder heat resistance, 260°C [mins] | >60 | |
| Thermal resistance, TMA, T260 [mins] | >60 | IPC-TM-650 2.4.24.1 |
| Dielectric constant | 4,5~5,0 | IPC-TM-650 2.5.5.1 |
| Surface resistance [Ω] | >1 x 10 ¹⁵ | IPC-TM-650 2.5.17.1 |
| Volume resistance [$\Omega \cdot \text{cm}$] | >1 x 10 ¹⁴ | IPC-TM-650 2.5.17.1 |
| Glass transition temperature [°C] | 140 | IPC-TM-650 2.4.25 |

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