CS-1000 (Using in Car and Low Elasticity Rate)

Specification of Aluminum Based Copper-clad Laminate

Item	Unit		Specification	Test condition
Insulation thickness	μm		100	—
Solder resistance (288°C)	Sec.	Min	600	IPC-TM-650 2.4.13
Thermal shock	288°C*10"/cycle	Min	6 Times	IPC-TM-650 2.4.13.1
Peel strength (1oz / 2oz)	lb/in	Min	6 / 9	IPC-TM-650 2.4.8
Breakdown Voltage	V/mil		750	IPC-TM-650 2.5.6
Volume resistivity	Ω · cm		2.2×10^{8}	IPC-TM-650 2.5.17.1
Surface resistivity	Ω	—	3.4×10^{9}	IPC-TM-650 2.5.17.1
Dielectric constant 1 MHz Normal status 1 GHz Normal status	—		 4.6 4.0	IPC-TM-650 2.5.5.3 2.5.5.5 2.5.5.6
Dissipation Factor 1 MHz Normal status 1 GHz Normal status			 0.016 0.008	IPC-TM-650 2.5.5.3 2.5.5.5 2.5.5.9
Water absorption	%		0.5	IPC-TM-650 2.6.2.1
Thermal conductivity (measured on insulation layer only)	W/m°C		2.0	ASTM-E1461
Flammability	94V-0		Pass	IPC-TM-650 2.3.9
Tg	°C		65	IPC-TM-650 2.4.24
Td	°C		390	TBD (5wt% loss)
Storage Modulus (40 °C / 125 °C)	GPa		4/2	IPC-TM-650 2.4.24.4
Thermal Shock (PCBA)	Cycle	Min	1000	

The thickness and dimension of Aluminum Based Copper-clad Laminate

Product category	CS-1000 (The thickness of glue is 100μm)				
Dimension m/m	300~340×500~520 400~410×500~520 600~620×500~520 940×1245 /1040×1245 1090×1245 /1000×1200				
The thickness of Single-Sided PCB with Aluminum Substrate	2.0 1/0	1.5 1/0	1.0 1/0	0.8 1/0	0.6 1/0

» The above thicknesses excluded the thickness of resin, and the thickness of copper and aluminum can be combined arbitrarily.
The thickness of copper foil: Hoz~2.0 oz. The thickness of aluminum plate: 0.2oz~5.0mm.
Aluminum: 1050 1060 4045 5052 Anodized.

» Halogen-free material.

» Compliance with the RoHS and REACH.

The scope of application

» EPS : Electronic power steering.

» Electronic devices in automobile : igniting device, voltage regulator, auto safety control system, AC transformer.

» Power supply : Switch regulator, switch, DC-DC transformer, DC-AC transformer, MEGA power supply, solar power

» Electronic control : Relay, transistor base, switchboard, radiator, insulating heat conductive board in semiconductor, motor control device.

» Computer devices : Power supply device, soft disk driver, CPU.

» Communication electronic products : automobile telephone, high frequency booster of mobile telephone, filter circuit, transmitting circuit.