



S1190G

(UL ANSI: FR-15.1) High Tg, Low Z-axis CTE, Halogen Free Material

FEATURES

- Excellent anti-CAF performance and high voltage resistance capability
- High Tg 200°C (DMA)
- Lower Z-axis CTE
- Excellent heat resistance
- Halogen, antimony and red phosphorous free

APPLICATIONS

- Heavy copper foil power supply
- Integrated power modulus
- High voltage required products
- Industrial and medical electronics

GENERAL PROPERTIES

Test Items	Test Method	Test Condition	Unit	Typical Value
Tg	IPC-TM-650 2.4.25D	DSC	°C	190
	IPC-TM-650 2.4.24	TMA	°C	180
	IPC-TM-650 2.4.24.4	DMA	°C	200
Td	IPC-TM-650 2.4.24.6	TGA (5% Wt. loss)	°C	408
T288(With Cu)	IPC-TM-650 2.4.24.1	TMA	min	> 60
T260(With Cu)	IPC-TM-650 2.4.24.1	TMA	min	> 60
Thermal Stress	IPC-TM-650 2.4.13.1	288°C/10s/6cycle, solder dip	-	Pass
CTE (Z-axis)	IPC-TM-650 2.4.24	Before Tg	ppm/°C	35
	IPC-TM-650 2.4.24	After Tg	ppm/°C	180
	IPC-TM-650 2.4.24	50-260°C	%	1.8
CTE (X/Y-axis)	IPC-TM-650 2.4.24.5	Before Tg	ppm/°C	11/13
Permittivity (1GHz)	IPC-TM-650 2.5.5.9	C-24/23/50	-	4.3
Loss Tangent (1GHz)	IPC-TM-650 2.5.5.9	C-24/23/50	-	0.011
Volume Resistivity	IPC-TM-650 2.5.17.1	C-96/35/90	MΩ-cm	6.0×10 ⁸
Surface Resistivity	IPC-TM-650 2.5.17.1	C-96/35/90	MΩ	8.0×10 ⁷
Arc Resistance	IPC-TM-650 2.5.1	D-48/50+D-0.5/23	s	181
Dielectric Breakdown	IPC-TM-650 2.5.6	D-48/50+D-0.5/23	kV	45+KV NB
Peel Strength (1oz)	IPC-TM-650 2.4.8	288°C/10s	N/mm	1.3
Flexural Strength (LW/CW)	IPC-TM-650 2.4.4	A	Mpa	560/450
Water Absorption	IPC-TM-650 2.6.2.1	D-24/23	%	0.11
Flammability	UL94	C-48/23/50	Rating	V-0

Remark:

1. All the typical value is based on the 1.6mm (8*7628) specimen. The Dk and Df value is based on 50% RC.
2. All the typical value listed above is for your reference only, please turn to Shengyi Technology Co., Ltd for detailed information, and all rights from this data sheet are reserved by Shengyi Technology Co., Ltd.