



S7045GX

Halogen-free, Low CTE, Lower Mid-loss Multilayer PCB Laminate Material

FEATURES

- Low X/Y-axis CTE ($\leq 13\text{ppm}$)
- High Tg with good thermal reliability
- Excellent anti-CAF performance
- Halogen-free, compatible with lead-free process

APPLICATIONS

Server, Base station

GENERAL PROPERTIES

Test Items	Test Method	Test Condition	Unit	Typical Value
Tg	IPC-TM-650 2.4.25D	DSC	°C	190
Td	IPC-TM-650 2.4.24.6	TGA (5% wt. loss)	°C	450
T288	IPC-TM-650 2.4.24.1	TMA	min	≥ 60
T300	IPC-TM-650 2.4.24.1	TMA	min	≥ 60
Thermal Stress	IPC-TM-650 2.4.13.1	288°C, solder dipping	s	>300
CTE (Z-axis)	IPC-TM-650 2.4.24	Before Tg	ppm/°C	20
	IPC-TM-650 2.4.24	After Tg	ppm/°C	130
	IPC-TM-650 2.4.24	50-260°C	%	1.30
CTE (X/Y-axis)	IPC-TM-650 2.4.41	Before Tg	ppm/°C	12.5
Permittivity	IPC-TM-650 2.5.5.9	C-24/23/50, 1GHz	-	4.04
	IPC-TM-650 2.5.5.5	C-24/23/50, 10GHz	-	4.23
Loss Tangent	IPC-TM-650 2.5.5.9	C-24/23/50, 1GHz	-	0.0031
	IPC-TM-650 2.5.5.5	C-24/23/50, 10GHz	-	0.0063
Volume Resistivity	IPC-TM-650 2.5.17.1	C-96/35/90	MΩ-cm	2.6×10^8
Surface Resistivity	IPC-TM-650 2.5.17.1	C-96/35/90	MΩ	3.6×10^8
Arc Resistance	IPC-TM-650 2.5.1	D-48/50+D-0.5/23	s	185
Dielectric Breakdown	IPC-TM-650 2.5.6	D-48/50+D-0.5/23	kV	>45
Peel Strength (1oz RTF)	IPC-TM-650 2.4.8	288°C/10s	N/mm [lb/in]	0.70 [4.0]
Water Absorption	IPC-TM-650 2.6.2.1	D-24/23	%	0.09
Flammability	UL94	C-48/23/50	Rating	V-0

Remarks: 1. Dielectric Constant and Dissipation Factor typical value is based on the 0.508mm (4X2116) specimen. Other typical value is based on the 1.524mm (12X2116) specimen.

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.