S1151G

(UL ANSI: FR-4.1) Halogen-free, Mid-Tg, High CTI

FEATURES

- High CTI
- Lead-free compatible
- Not suitable for solder mask rework
- Halogen, antimony and red phosphorous free.

APPLICATIONS

Automotive electronics, such as OBC, charging unit, etc.
Suggested for multilayer ≤8L and ≤2oz with through hole construction.

GENERAL PROPERTIES

Test Items		Test Method	Test Condition	Unit	Typical Value
Tg		IPC-TM-650 2.4.25D	DSC	℃	155
Td		IPC-TM-650 2.4.24.6	TGA (5% Wt.loss)	℃	380
T288		IPC-TM-650 2.4.24.1	TMA	min	30
T260		IPC-TM-650 2.4.24.1	TMA	min	>60
Thermal Stress		IPC-TM-650 2.4.13.1	288℃, solder dip	s	>100
CTE (Z-axis)		IPC-TM-650 2.4.24	Before Tg	ppm/℃	36
		IPC-TM-650 2.4.24	After Tg	ppm/℃	220
		IPC-TM-650 2.4.24	50-260℃	%	2.8
Permittivity (1GHz)		IPC-TM-650 2.5.5.9	C-24/23/50	-	4.6
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	6.4×10^{7}
Surface Resistivity		IPC-TM-650 2.5.17.1	C-96/35/90	MΩ	4.8×10^{7}
Arc Resistance		IPC-TM-650 2.5.1	D-48/50+D-0.5/23	s	140
Dielectric Breakdown		IPC-TM-650 2.5.6	D-48/50+D-0.5/23	kV	>45
Peel Strength (1oz)		IPC-TM-650 2.4.8	288℃/10s	N/mm [lb/in]	1.4 [8.00]
Flexural Strength (LW/CW)		IPC-TM-650 2.4.4	A	Mpa	600/450
Water Absorption		IPC-TM-650 2.6.2.1	D-24/23	%	0.10
Flammability		UL94	C-48/23/50	Rating	V-0
CTI		IEC 60112	A	Rating	PLC 0 (≥600V)
Halogen Content	Br	EN 14582	A	ppm	≤900
	Cl				≤900
	Br+Cl				≤1500

Remarks:1. All the typical value is based on the 1.6mm (8*7628) 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.

S1151GB PREPREG

(UL ANSI: FR-4.1) Bonding Prepreg For S1151G

PREPREG PARAMETERS

Glass fabric type	Resin content (%)	Cured thickness (mm)	Standard size (Roll type)
2116	54	0.114	1.260m×250m
	57	0.127	
	60	0.134	
7628	46	0.190	1.260m×150m
	48	0.200	
	50	0.210	
	52	0.220	

Other type, resin content and size could be available upon request, and some other prepreg types such as 106, 1080, 2116 RC<54%, 7628 RC<45% may not satisfy CTI≥600V, please turn to Shengyi Technology Co., Ltd for detailed information.

HOT PRESSING CYCLE

- The heat-up rate depends on the inner copper or the structure of multilayer PCB.
- Curing time: >60min (180~190℃).
- If you need any more detail information, please turn to Shengyi Technology Co., Ltd.

STORAGE CONDITION

- 3 months when stored at < 23℃ and <50% RH.
- 6 months when stored at <5℃. Normalize in room temperature for at least 4h before using.
- Beware of moisture, always keep wrapped in damp-proof material. Keeping in normal condition, prepreg might absorb moisture and its bonding strength would be weakened.
- Avoid UV-rays and strong light.

PURCHASING INFORMATION

Thickness	Copper foil	Standard size
0.20mm to 3.2mm	12um to 105 um	1,020mm×1,220mm(40″×48″) 915mm×1,220mm(36″×48″) 1,070mm×1,220mm(42″×48″)

Remarks: Other sheet size and thickness could be available upon request.