SDI03K

(UL ANSI: FR-4.1) High Tg, Halogen Free & Low Dk Material for ultra-thin HDI PCB

FEATURES

- Lead-free compatible.
- High Tg Halogen-free, Tg 175℃ (TMA)
- UV Blocking/AOI compatible.
- Good dimensional stability.

APPLICATIONS

Smart phone, NB, Tablet, Instrumentation, VCR, TV, Electronic Game Machine, Communication Equipment, Automotive electronics, etc.

GENERAL PROPERTIES

Test Items	Test Method	Test Condition	Unit	Typical Value
Tg	IPC-TM-650 2.4.24	TMA	℃	175
	IPC-TM-650 2.4.24.2	DMA	℃	200
Td	IPC-TM-650 2.4.24.6	5% Wt. Loss	℃	390
T288	IPC-TM-650 2.4.24.1	TMA	min	＞60
T260	IPC-TM-650 2.4.24.1	TMA	min	＞60
Thermal Stress (Unetched/Etched)	IPC-TM-650 2.4.13.1	288℃, solder dipping	-	Pass/Pass
CTE (Z-axis)	IPC-TM-650 2.4.24	Before Tg /After Tg	ppm/℃	40/230
	IPC-TM-650 2.4.24	50-260℃	%	2.3
Dielectric Constant	IPC-TM-650 2.5.5.9	C-24/23/50, 1027RC71%,1GHz	--	3.47
Dissipation Factor	IPC-TM-650 2.5.5.9	C-24/23/50, 1027RC71%,1GHz	--	0.0083
Volume Resistivity	IPC-TM-650 2.5.17.1	After moisture resistance	MΩ/cm	4.76×10^{8}
	IPC-TM-650 2.5.17.1	E-24/125	MΩ/cm	5.00×10^{6}
Surface Resistivity	IPC-TM-650 2.5.17.1	After moisture resistance	MΩ	1.84×10^{7}
	IPC-TM-650 2.5.17.1	E-24/125	MΩ	5.00×10^{6}
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
Peel Strength	IPC-TM-650 2.4.8	288℃/10s, HOz Copper Foil	N/mm [lb/in]	1.0 [6.0]
	IPC-TM-650 2.4.8	125℃, HOz Copper Foil	N/mm [lb/in]	1.0 [6.0]
Flexural Strength (LW/CW)	IPC-TM-650 2.4.4	A	MPa	510/490
Water Absorption	IPC-TM-650 2.6.2.1	D-24/23	%	0.07
Flammability	UL94	C-48/23/50, E-24/125	Rating	V-0
	UL94	E-24/125+des	Rating	V-0

Remarks: 1. Specification sheet: IPC-4101/130, is for your reference only.

2. All the typical value is based on the 1.0mm (8x2116) specimen.

3. 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.

SDI03KB PREPREG

(UL ANSI: FR-4.1) High Tg Halogen Free & Low Dk Ultra-thin prepreg

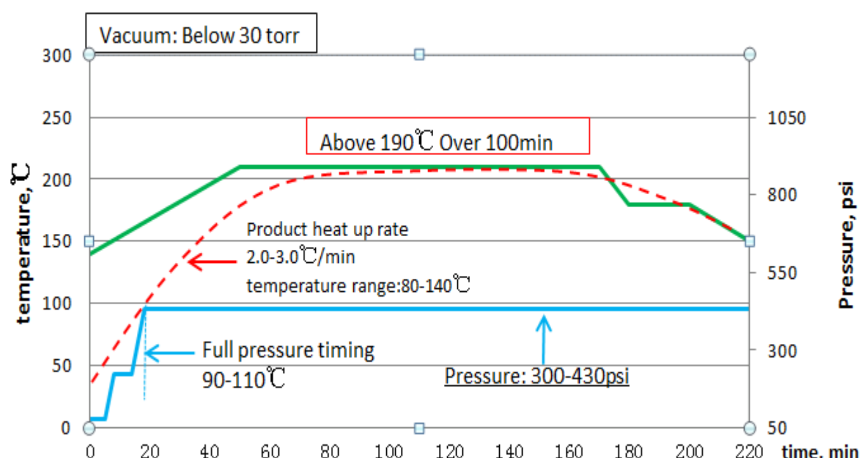
PREPREG PARAMETERS

Glass fabric type	Resin content (%)	Cured thickness (mm)	Dk (1GHz)	Df (1GHz)
1027	71%	0.040	3.47	0.0083
	73%	0.044	3.43	0.0083
1037	69%	0.043	3.52	0.0082
	73%	0.050	3.43	0.0083
1067	69%	0.056	3.52	0.0082
	73%	0.068	3.43	0.0083
1080	64%	0.078	3.62	0.0080
	68%	0.090	3.54	0.0082

Remark: Dk and Df are tested according to IPC TM-650 2.5.5.9.

Prepreg type/ resin content could be available upon request

HOT PRESSING CYCLE



- Heat up rate: 2.0-3.0℃/min (80-140℃).
- Curing time: >100min (190℃-200℃).
- Full pressure timing: product temperature 90-110℃.
- The hot pressing parameter is for your reference only, please turn to Shengyi Technology Co., Ltd for detailed information.

- 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. Were kept in normal condition, prepreg might absorb moisture and its bonding strength would be weakened.