



# SML02G

(UL ANSI:FR-15.1) Halogen Free, Mid Loss & Low CTE multilayer material

## FEATURES

- High Tg >170°C (DSC), Halogen Free
- Lower X/Y-axis CTE ( $\leq 13$ ppm), offering superior PTH reliability
- Lower insertion loss, Dk/Df@10GHz: 4.24/0.069
- Excellent Anti-CAF performance

## APPLICATIONS

Server, Switch, Base station

## GENERAL PROPERTIES

Test Items		Test Method	Test Condition	Unit	Typical Value
Tg		IPC-TM-650 2.4.24.2	DMA	°C	185
		IPC-TM-650 2.4.25D	DSC		175
Td		IPC-TM-650 2.4.24.6	5% Wt. loss	°C	420
T300		IPC-TM-650 2.4.24.1	TMA	min	>60
Thermal Stress		IPC-TM-650 2.4.13.1	288°C, solder dip	-	Pass
CTE	X/Y-axis	IPC-TM-650 2.4.41	50-125°C	ppm/°C	11-13
	Z-axis	IPC-TM-650 2.4.24	Before Tg	ppm/°C	25
			After Tg	ppm/°C	125
			50-260°C	%	1.2
Dielectric Constant		IPC-TM-650 2.5.5.9	1GHz	-	4.15
		IPC-TM-650 2.5.5.5	10GHz	-	4.24
Dissipation Factor		IPC-TM-650 2.5.5.9	1GHz	-	0.0053
		IPC-TM-650 2.5.5.5	10GHz	-	0.0069
Volume Resistivity		IPC-TM-650 2.5.17.1	After moisture resistance	MΩ-cm	3.76×10 <sup>7</sup>
Surface Resistivity		IPC-TM-650 2.5.17.1	After moisture resistance	MΩ	4.16×10 <sup>7</sup>
Arc Resistance		IPC-TM-650 2.5.1	D-48/50+D-0.5/23	s	180
Dielectric Breakdown		IPC-TM-650 2.5.6	D-48/50+D-0.5/23	kV	45+kV NB
Peel Strength(1oz HTE)		IPC-TM-650 2.4.8	288°C/10s	N/mm	1.00
Flexural Strength(LW/CW)		IPC-TM-650 2.4.4	A	Mpa	550/450
Water Absorption		IPC-TM-650 2.6.2.1	E-1/105+D-24/23	%	0.07
Flammability		IPC-TM-650 UL94	C-48/23/50	Rating	V-0

Remarks:

1. Meet IPC-4101/130 specification sheet.
2. The CTE typical value is based on the 1.52mm (12\*2116) specimen, while the other typical value is based on the 0.76mm (6\*2116) specimen, but not guarantee data.
3. All the typical values listed above are for your reference only and not intended for specification. Please contact Shengyi Technology Co., Ltd. for detailed information. All rights from this data sheet are reserved by Shengyi Technology Co., Ltd.

Explanation: C=Humidity conditioning, D=Immersion conditioning in distilled water, E=Temperature conditioning. The first digit following the letter indicates the duration of preconditioning in hours, the second digit the preconditioning temperature in °C and the third digit the relative humidity.