



S1180

(ANSI:FR-4) High Reliability / High Tg

特点

- 无铅兼容FR-4板材。
- 高Tg180℃ (DSC), UV Blocking和AOI兼容。
- 高耐热性。
- 低Z-CTE。
- 优异的通孔可靠性。
- 优异的anti-CAF性能。

FEATURES

- Lead-free compatible FR-4 laminate.
- High Tg 180℃ (DSC), UV Blocking/AOI compatible.
- Excellent thermal resistance.
- Low Z-axis CTE.
- Excellent T/H reliability.
- Excellent anti-CAF performance.

应用领域

适合于Tg180℃要求、耐热性要求更高的高多层印制线路板,广泛应用于计算机与通讯设备,工业控制用高档仪器仪表、路由器等。

APPLICATIONS

Suitable for Tg 180℃, and higher thermal resistance requirement high-count layer PCB. Widely used in computer, communication equipment, precise apparatus and instrument, router, and etc.

GENERAL PROPERTIES

Test Item	Treatment Condition	Unit	Property Data		
			SPEC	Typical Value	
Tg	DSC	℃	≥170	185	
Flammability	C-48/23/50	-	V-0	V-0	
	E-24/125+des				
Volume Resistivity	After moisture resistance	MΩ-cm	≥ 10 ⁶	4.7×10 ⁸	
	E-24/125		≥ 10 ³	3.1×10 ⁷	
Surface Resistivity	After moisture resistance	MΩ	≥ 10 ⁴	6.5×10 ⁶	
	E-24/125		≥ 10 ³	1.2×10 ⁶	
Arc Resistance	D-48/50+D-0.5/23	S	≥60	125	
Dielectric Breakdown	D-48/50+D-0.5/23	KV	≥ 40	64	
Dielectric Constant (1MHz)	C-24/23/50	-	≤ 5.4	4.6	
Dissipation Factor (1MHz)	C-24/23/50	-	≤ 0.035	0.014	
Thermal Stress	Unetched	288℃, solder dip	> 10s	100s	
	Etched		No delamination	No delamination	
Peel Strength	1oz	288℃, 10s	≥ 1.05	1.6	
	Cu. Foil	125℃	≥ 0.70	1.4	
Flexural Strength	LW	A	≥ 415	587	
	CW		≥ 345	531	
Water Absorption	D-24/23	%	≤ 0.35	0.10	
CTE Z-axis	Before Tg	TMA	PPM/℃	≤60	56
	After Tg	TMA	PPM/℃	≤300	250
	50~260℃	TMA	%	≤3.0	2.9
Td	10℃/min, N ₂ , 5%Wt Loss	℃	≥340	345	
T260	TMA	min	≥30	60	
T288	TMA	min	≥15	20	
T300	TMA	min	≥2	11	
CTI	IEC60112 Method	V	175~250 (grade3)	200	

Remarks: All the data listed above can meet IPC-4101/129 requirement.
Specimen Thickness:1.6mm

Explanations: C = Humidity conditioning;
D = Immersion conditioning in distilled water;
E = Temperature conditioning.

The figures following the letter symbols indicate with the first digit the duration of the preconditioning in hours, with the second digit the preconditioning temperature in ℃ and with the third digit the relative humidity.