

FR-4 (GF212)

特点

- 优良的尺寸稳定性。
- 优秀的耐热性。
- 优秀的机械性能和电性能。

FEATURES

- Excellent dimensional stability.
- Good thermal resistance performance.
- Excellent mechanical and electrical properties.

应用领域

电脑、仪器仪表、摄像机、通讯设备、
电子游戏机、汽车等。

APPLICATIONS

Computer, Communication equipment,
Instrumentation, VCR, Television,
Electronic game machine, etc

GENERAL PROPERTIES

Test Item	Treatment Condition	Unit	Property Date		
			SPEC	Typical Value	
Tg	DSC	°C	≥125	132	
Flammability	C-48/23/50	-	94V-0	94V-0	
	E-24/125+des				
Volume Resistivity	After moisture	MΩ-cm	≥ 10 ³	10 ⁶	
	E-24/125		≥ 10 ³	10 ⁵	
Surface Resistivity	After moisture	MΩ	≥ 10 ³	10 ⁶	
	E-24/125		≥ 10 ³	10 ⁵	
Arc Resistance	D-48/50+D-0.5/23	S	≥ 60	80	
Dielectric Breakdown	D-48/50+D-0.5/23	KV	≥ 40	55	
Dielectric Constant (1MHz)	C-24/23/50	-	≤ 5.4	4.5	
Dissipation Factor (1MHz)	C-24/23/50	-	≤ 0.035	0.021	
Thermal Stress	Unetched	288°C, solder dip	≥ 10s	≥ 10s	
	Etched		No delamination	No delamination	
Peel Strength	Hoz	288°C, 10s	≥ 6.0	7.8	
		125°C	≥ 4.0	5.5	
Flexural Strength	LW	A	≥ 415	550	
	CW		≥ 345	435	
Water Absorption	D-24/23	%	≤ 0.35	0.20	
CTE TMA Z-axis	Before Tg	TMA	μ m/m°C	-	70
	After Tg	TMA	μ m/m°C	-	280
CTI	IEC60112 Method	V	175-250 (III)	175	

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 °C and with the third digit the relative humidity.