

Conventional FR-4/Normal Tg

特性(Feature)

- 优异的尺寸稳定性
Excellent dimensional stability
- 优良的耐热性能和机械性能
Excellent heat resistance and mechanical properties
- 符合IPC-4101E/21的规范要求
IPC-4101E/21 specification is applicable

应用(Application)

- 通讯设备
Communication equipment
- 仪器仪表
Instrument
- 办公自动设备等
OA equipment, etc.

板材性能(Laminate Properties)

Test Item 测试项目		Test Method (IPC-TM- 650) 测试方法	Test Condition 处理条件		Unit 单位	Typical Value 典型值
Thermal 热性能	Thermal Stress 热应力	2.4.13.1	Float 288 °C / Unetched		Sec	≥180
	Glass Transition (Tg) 玻璃化转变温度	2.4.25	DSC		°C	132
	CTE / Z-Axis Expansion Z-轴热膨胀系数	2.4.24	Alpha 1		ppm/°C	58
			Alpha 2			286
	TD(5% weight loss) 燃烧性	2.4.24.6	TGA		°C	305
	Flammability 燃烧性	UL94	E-24/125		Rating	V-0
Electrical 电性能	Surface Resistivity 表面电阻率	2.5.17.1	C-96/35/90		MΩ	1.0×10 ⁶
	Volume Resistivity 体积电阻率	2.5.17.1	C-96/35/90		MΩ-cm	1.0×10 ⁸
	Dielectric Breakdown 击穿电压	2.5.6	D-48/50+D-0.5/23		kV	≥45
	Dielectric Constant 介电常数	2.5.5.9	Etched (RC50%)	@ 1 MHz	—	4.6
				@ 1 GHz		4.4
	Loss Tangent 介质损耗	2.5.5.9	Etched (RC50%)	@ 1 MHz	—	0.017
				@ 1 GHz		0.018
	CTI 相对漏电起痕指数	IEC60112	Etched/0.1% NH ₄ CL		V	≥150
Arc Resistance 耐电弧性	2.5.1	D-48/50+D-0.5/23		Sec	125	
Mechanical 机械性能	Peel Strength (1 oz.) 铜箔剥离强度	2.4.8	A		N/mm	--
			Float 288 °C / 10 Sec			1.75
	Flexural Strength 弯曲强度	2.4.4	Lengthwise		N/mm ²	560
			Crosswise			440
	Water Absorption 吸水率	2.6.2.1	D-24/23		%	0.17

Remarks:
- Typical Values for reference only.
- Standard Values according to IPC-4101E/ 21
- Typical Value of Specimen thickness is 1.6mm (8*7628)

注:
- 典型值只供参考
- 规格值参照 IPC-4101E/ 21
- 样品的厚度为 1.6mm (#7628*8)

