

### Conventional FR-4/Normal Tg

#### 特性 (Feature)

- 兼容紫外光阻挡及光学自动检查功能  
UV Blocking and AOI (automatic optical inspection) compatible
- 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

#### 应用 (Application)

- 计算机及外围设备  
Computer and peripheral
- 简单汽车电子  
Automotive electronics
- 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	138	
	CTE / Z-Axis Expansion Z-轴热膨胀系数	2.4.24	Alpha 1	ppm/°C	60	
			Alpha 2		300	
	T-260	2.4.24.1	50 - 260 °C TMA	% min	4.3 > 10	
	TD(5% weight loss)	2.4.24.6	TGA	°C	310	
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	6.0×10 <sup>7</sup>	
	Volume Resistivity 体积电阻率	2.5.17.1	C-96/35/90	MΩ-cm	5.5×10 <sup>8</sup>	
	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	—	0.016
				@ 1 GHz	—	0.018
CTI 相对漏电起痕指数	IEC60112	Etched/0.1% NH <sub>4</sub> CL	V	≥175		
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 <sup>2</sup>	600	
			Crosswise		500	
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 (#7628\*8)

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)