

Halogen-Free/High Tg/Low CTE

特性 (Feature)

- 无卤，无锑，无红磷
Halogen, antimony and red phosphorous free
- 优良的耐热性
Excellent thermal reliability
- 低的Z轴热膨胀系数
Low Z-CTE
- 良好的耐CAF性能
Anti-CAF capability

应用 (Application)

- 高端服务器和背板
High-end servers and Backpanel
- 无线通信设施
Wireless communication infrastructure
- 高复杂度多层板
High complexity multi-layers and HDI
- 汽车电子(具有高耐热和高压要求)
Automotive applications (requiring high heat resistance and high voltage)

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	≥240
	Glass Transition (Tg) 玻璃化转变温度	2.4.25	DSC		°C	180
		2.4.24.4	DMA			190
	CTE / Z-Axis Expansion Z-轴热膨胀系数	2.4.24	Alpha 1		ppm/°C	45
			Alpha 2			220
			50 - 260 °C			%
	X/Y CTE X/Y-轴热膨胀系数	2.4.24	40 °C - 125 °C		ppm/°C	12/15
	T-260	2.4.24.1	TMA		min	>60
	T-288	2.4.24.1	TMA		min	>60
TD(5% weight loss)	2.4.24.6	TGA		°C	385	
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	3.6×10 ⁸
	Volume Resistivity 体积电阻率	2.5.17.1	C-96/35/90		MΩ-cm	4.7×10 ⁹
	Dielectric Breakdown 击穿电压	2.5.6	D-48/50+D0.5/23		kV	≥45
	Dielectric Constant 介电常数	IEC61189-2-721	Etched (RC50%)	@ 1 GHz	—	4.6
				@ 10 GHz		4.4
	Loss Tangent 介质损耗	IEC61189-2-721	Etched (RC50%)	@ 1 GHz	—	0.011
				@ 10 GHz		0.013
	CTI 相对漏电起痕指数	IEC60112	Etched/0.1% NH ₄ CL		V	≥200
Arc Resistance 耐电弧性	2.5.1	D-48/50+D-0.5/23		Sec	123	
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			1.40
	Flexural Strength 弯曲强度	2.4.4	Lengthwise		N/mm ²	590
			Crosswise			510
Water Absorption 吸水率	2.6.2.1	D-24/23		%	0.11	

Remarks:
- Typical Values for reference only.
- Standard Values according to IPC-4101E/127/128/130
- 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/127/128/130
- 样品的厚度为 1.6mm (#7628*8)