

Halogen-Free/Mid Tg/Low CTE/High Reliability

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
- 高抗剥及柔韧性
Excellent peel and toughness

应用 (Application)

- 电脑及笔记本电脑
Computer and NB
- 仪器仪表
Instruments
- 消费电子
Consumer electronics
- 汽车电子
Automotive electronics
- 高密度互连电路板
High Density Interconnector

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	162	
		2.4.24.4	DMA		172	
	CTE / Z-Axis Expansion Z-轴热膨胀系数	2.4.24	Alpha 1	ppm/°C	41	
			Alpha 2		235	
			50 - 260 °C		2.6	
	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 (With copper)	2.4.24.1	TMA	min	>60		
TD(5% weight loss)	2.4.24.6	TGA	°C	373		
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	5.0×10 ⁸	
	Volume Resistivity 体积电阻率	2.5.17.1	C-96/35/90	MΩ-cm	4.2×10 ⁹	
	Dielectric Breakdown 击穿电压	2.5.6	D-48/50+D0.5/23	kV	≥45	
	Dielectric Constant/ Loss Tangent 介电常数/介质损耗	IEC61189-2-721	Etched (RC50%)	@ 1 GHz	—	4.6/0.011
				@ 10 GHz	—	4.4/0.013
			Etched (RC70%)	@ 1 GHz	—	4.2/0.014
			@ 10 GHz	—	4.0/0.017	
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	124		
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		1.60	
	Flexural Strength 弯曲强度	2.4.4	Lengthwise	N/mm ²	620	
			Crosswise		550	
Water Absorption 吸水率	2.6.2.1	D-24/23	%	0.10		

Remarks:

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

