

## KB-6164 (ANSI: FR-4)

## 覆铜箔环氧玻纤布层压板

## 特点

- Tg 140°C (DSC 测试)
- 兼容紫外光阻挡及光学自动检查功能, 可提高 PCB 生产效率与准确性
- 良好的耐热性
- 符合 IPC-4101C/27 的规范要求

## Features

- Tg 140°C (By DSC)
- UVB and AOI (automatic optical inspection) compatible, so as to increase productivity and accuracy
- Excellent heat resistance
  - IPC-4101C/27 specification is applicable

## General Properties 一般特性

Test Item 测试项目	Unit 单位	Test Method (IPC-TM-650) 测试方法	Test Condition 处理条件	Specification (IPC-4101C) 规格值	Typical Value 典型值				
Peel Strength (1 oz.) 铜箔剥离强度	N/mm	2.4.8	125°C	≥0.70	1.65				
			Float 288°C/ 10 Sec	≥1.05	1.60				
Flammability 燃烧性	Rating	UL94	E-24/23	UL94 V-0	V-0				
Thermal Stress 热应力	Sec	2.4.13.1	Float 288°C/unetched	≥10	180				
Glass Transition (Tg) 玻璃化转变温度	°C	2.4.25	E-2/105 DSC	≥140	143				
Surface Resistivity 表面电阻	MΩ	2.5.17.1	C-96/35/90	≥1.0×10 <sup>4</sup>	1.0×10 <sup>7</sup>				
Volume Resistivity 体积电阻	MΩ-cm	2.5.17.1	C-96/35/90	≥1.0×10 <sup>6</sup>	1.0×10 <sup>9</sup>				
Flexural Strength 抗弯强度	N/mm <sup>2</sup>	2.4.4	Warp	≥415	582				
			Fill	≥345	420				
Dielectric Breakdown 介质击穿	kV	2.5.6	D-48/50+D0.5/23	≥40	75				
Dielectric Strength 介质强度	kV/mm	2.5.6.2	D-48/50+D0.5/23	≥29	45				
Dielectric Constant 介电常数	—	2.5.5.2	Etched/@1 MHz	≤5.4	4.58				
Loss Tangent 介质损耗	—	2.5.5.2	Etched/@1 MHz	≤0.035	0.019				
Arc Resistance 耐电弧性	Sec	2.5.1	D-48/50+D-0.5/23	≥60	125				
Moisture Absorption 吸水率	%	2.6.2.1	D-24/23	≤0.35(min0.51)	0.15				
				≤0.80(max0.51)	0.25				
CTE/ Z-Axis Expansion Z-轴热膨胀系数	ppm/°C	2.4.24	E-2/105 TMA	—	54/286				
				T-260	min	2.4.24.1	TMA	—	15
				T-288	min	2.4.24.1	TMA	—	3
				TD	°C	2.4.24.6	TGA	—	305

Remarks: Typical values for reference only 注: 典型值只作参考 Specimen Thickness: 1.6 mm 样品厚度: 1.6 mm

A = Keep the specimen originally without any process 保持原样, 不作处理

C = Temperature and humidity conditioning 在恒温恒湿的空气中处理

D = Immersing in distilled water with temperature control. 浸在恒温的水中处理

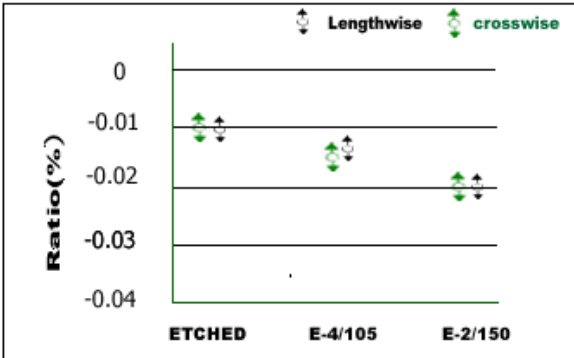
E = Temperature conditioning 在恒温的空气中处理

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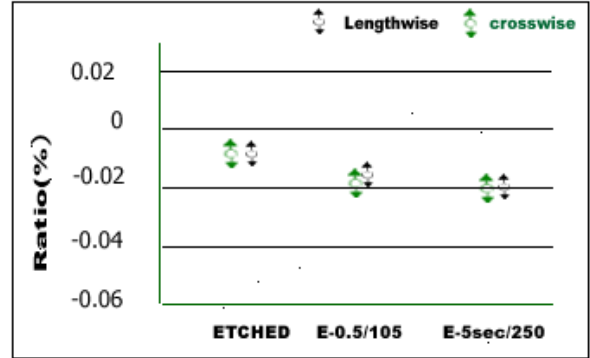
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#### Speciality Chart 板材特性图

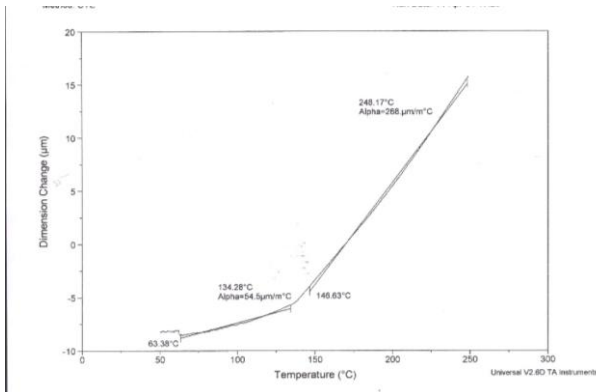
##### Dimensional stability 尺寸稳定性



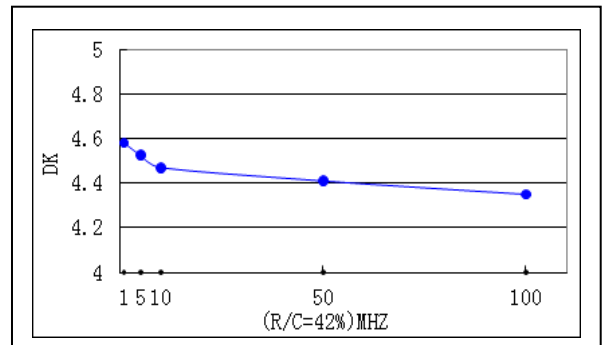
##### Dimensional stability-PCB process (size:360\*310mm)



##### Thermal expansion of Z-direction (test by TMA)



##### Dielectric constant 介电常数



#### Applications 应用领域

- Computer, Communication equipment, instrument, OA equipment, etc.  
计算机及外围设备、通讯设备、仪器仪表、办公自动设备等

#### Purchasing Information 采购信息

Base Color 基板颜色	Thickness 厚度	Copper Cladding 铜箔厚度	Regular Size 常规尺寸	CTI Value
Yellow 黄色	0.05mm ~ 3.5mm	12µm, 18µm 35µm, 70µm 105µm	915*1220mm (36"*48") 1042*1067mm (41"*42") 1020*1220mm (40"*48") 1067*1220mm (42"*48")	175V

- Note: 1) Other sheet size and thickness could be available upon request. 可根据客户要求提供其它尺寸和厚度;  
2) Speciality chart for reference only. 以上图表仅供参考;  
3) Version updates without notice. 版本更新恕不另行通知。