

KB-6164 Tg140 FR-4

覆銅箔環氧玻纖布層壓板

特點

- Tg 140°C (DSC 測試)
- 相容紫外光阻擋及光學自動檢查功能，可提高 PCB 生產效率與準確性
- 良好的耐熱性
- 符合 IPC-4101A 的規範要求

Features

- Tg 140°C (DSC Testing)
- UV Blocking and AOI (automatic optical inspection) compatible, so as to increase productivity and accuracy
- Excellent heat resistance
- IPC-4101A specification is applicable .

General Properties 一般特性

| Test Item 測試項目 | Unit 單位 | Test Method (IPC-TM-650) 測試方法 | Test Condition 處理條件 | Spec (IPC-4101A) 規格值 | Typical Value 典型值 |
|----------------------------------|------------|-------------------------------------|------------------------|-------------------------|----------------------|
| Peel Strength (10Z) 銅箔剝離強度 | kgf/cm | 2.4.8 | A | ≥1.43 | 1.65 |
| | | | Float 288°C/ 10Sec | ≥1.40 | 1.60 |
| Thermal stress 熱應力 | Sec | 2.4.13.1 | Float288°C/unetched | ≥60 | 180 |
| Flammability 燃燒性 | Rating | UL94 | UL94 | UL94 V-0 | V-0 |
| Glass Transition (Tg) 玻璃化转变温度 | °C | 2.4.25 | E-2/105 DSC | ≥140 | 143 |
| Surface Resistance 表面電阻 | MΩ | 2.5.17.1 | C-96/35/90 | ≥1.0×10 ⁴ | 1.0×10 ⁴ |
| Volume Resistance 體積電阻 | MΩ-cm | 2.5.17.1 | C-96/35/90 | ≥1.0×10 ⁹ | 1.0×10 ⁹ |
| Dielectric Constant 介電常數 | — | 2.5.5.2 | Etched/@1 MHZ | ≤5.4 | 4.5 |
| Loss Tangent 介質損耗 | — | 2.5.5.2 | Etched/@1 MHZ | ≤0.035 | 0.019 |
| Arc Resistance 耐電弧性 | 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(≥0.51) | 0.15 |
| | | | | ≤0.80(<0.51) | 0.25 |
| Z-Axis Expansion Z-轴热膨胀系数 | ppm/°C | 2.4.24 | E-2/105 TMA | — | 60/285 |
| TD 熱分解溫度 | °C | ASTM D3850 (5%wt loss) | TGA | — | 305 |

Remarks: Specimen Thickness: 1.6 mm 樣品厚度：1.6 mm

A=Maintain original shape,do not make handling 保持原樣,不作處理

C= Temperature and humidity conditioning 在恒溫恒濕的空氣中處理

E=Temperature conditioning 在恒溫的空氣中處理

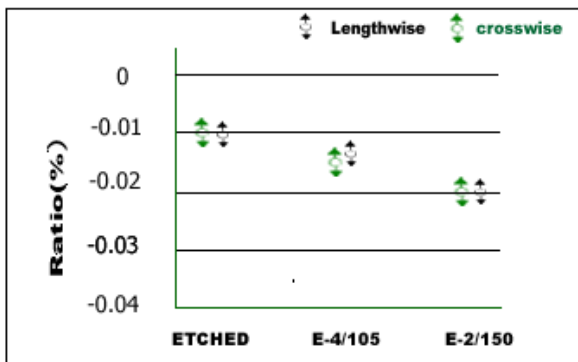
D= Temperature conditioning immersion in distilled water. 浸在恒溫的水中處理

KB-6164 Tg140 FR-4

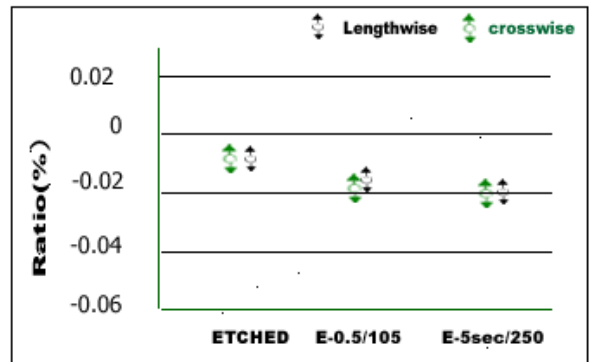
覆銅箔環氧玻纖布層壓板

Speciality Chart 板材特性圖

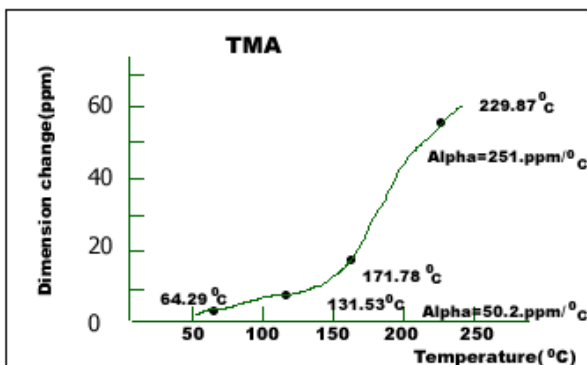
Dimensional stability 尺寸穩定性



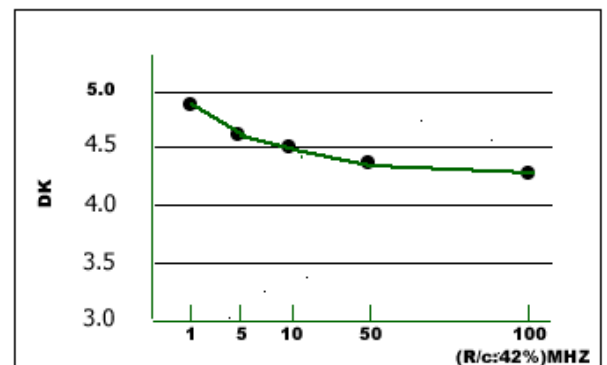
Dimensional stability-PCB process (size:360*310mm)



Thermal expansion of Z-direction (test by TMA)



Dielectric constant 介電常數



應用領域/Applications

- 電腦及週邊設備、通訊設備、儀器儀錶、辦公自動設備等
- Computer, communication equipment instrumentation, OA equipment, etc.

Purchasing Information / 採購資訊

| Base colour 基板顏色 | Thickness 厚度 | Copper Cladding 銅箔厚度 | Regular Size 常規尺寸 | CTI Value CTI 值 |
|---------------------|-----------------|--------------------------|---|--------------------|
| 黃色 yellow | 0.05mm ~ 3.5mm | 18 μm 35 μm 70 μm. | 1020*1220mm (40"*48") 1067*1220mm (42"*48") 915*1220mm (36"*48") 1041*1245mm (41"*49") | 175V |

Note: Other sheet size and thickness could be available upon request.

可根據客戶要求提供其他尺寸和厚度。