

VT-901

技术资料表

VT-901 基板 / 半固化片

UL Approval: E214381 Version: Rev. B3

POLYIMIDE

概述

- 高 Tg
- 高耐热性能 (Td 400°C)
- 韧性改良
- 低 Z 轴膨胀系数

应用

- 芯片制造
- 发动机、飞行控制器
- 电源、背板
- 军工和老化测试板

产品规格

- Core Thickness: .004" (0.1mm) to .125" (3mm), available in sheet or panel form
- Copper Foil: 1/4oz to 6oz
- Prepregs are available in roll or panel form
- E-Glass styles: 7628, 1506, 1500, 2113, 2313, 3313, 2116, 1080, 106 etc

注：双面处理的铜箔和反转铜箔不建议用于VT-901基板上，因为其剥离强度不如常规的材料。

存储条件&保存期限

		RCC&RCF		Laminate
Storage Condition	Temperature	< 23°C (73°F)	< 5°C (41°F)	Room
	Relative Humidity	< 55% RH	/	/
Shelf Life		3 Months	6 Months	24 Months (airproof)

过期半固化片在使用前需复测以确认特性。

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特性表 IPC-4101C Slash Sheet(s)/40, /41, /42

Properties	Test Method	Units	Specification	Typical Value	
Thermal Properties					
Glass Transition Temp. (Tg)	DSC	IPC-TM-650 2.4.25	°C	-	
	TMA	IPC-TM-650 2.4.24	°C	250	
Td	ASTM D3850	°C	-	400	
T260	IPC-TM-650 2.4.24.1	Minute	-	>60	
T288	IPC-TM-650 2.4.24.1	Minute	-	>60	
Thermal Stress @ 288°C	IPC-TM-650 2.4.13.1	Second	Pass 10s	>1200	
Z-axis CTE	Before Tg	IPC-TM-650 2.4.24	ppm/°C	50	
	After Tg	IPC-TM-650 2.4.24	ppm/°C	150	
	Total Expansion (50~260°C)	IPC-TM-650 2.4.24	%	1.4	
MOT	UL 94	°C	-	140	
Electrical Properties					
Dielectric Constant @ 1GHz RC 40%	IPC-TM-650 2.5.5.9	-	5.4 maximum	4.05	
Dissipation Factor @ 1GHz RC 40%	IPC-TM-650 2.5.5.9	-	0.035 maximum	0.012	
Volume Resistivity	After Moisture Resistance	IPC-TM-650 2.4.17.1	MΩ-cm	-	5*×10 ⁸
	E-24/125	IPC-TM-650 2.5.17.1	MΩ-cm	-	5*10 ⁶
Surface Resistivity	After Moisture Resistance	IPC-TM-650 2.5.17.1	MΩ	-	5*10 ⁷
	E-24/125	IPC-TM-650 2.5.17.1	MΩ	-	5*10 ⁶
Electrical Strength	IPC-TM-650 2.5.6.2	Volt/mil (KV/mm)	762 (30) minimum	1200~1400 (54)	
Dielectric Breakdown	IPC-TM-650 2.5.6	KV	40 minimum	60	
Comparative Tracking Index (CTI)	ASTM D3638	Rating (Volt)	-	Grade 4 (100~175)	
Arc Resistance	ASTM D495	Second	-	150	
Mechanical Properties					
Peel Strength (1oz)	As received	IPC-TM-650 2.4.8	lb/in (N/mm)	-	6~9 (1.05~1.58)
	After thermal stress	IPC-TM-650 2.4.8	lb/in (N/mm)	6 (1.05) minimum	6~9 (1.05~1.58)
Flexural Strength	Warp	IPC-TM-650 2.4.4	Kpsi (MPa)	60 (415) minimum	600 (87)
	Fill	IPC-TM-650 2.4.4	Kpsi (MPa)	47 (325) minimum	500 (72)
Physical Properties					
Moisture Absorption	IPC-TM-650 2.6.2.1	%	1.0 maximum	0.3	
Flammability	UL-94	Rating	HB minimum	V0	

所有提供的测试数据均为典型值，非特定规范。