

VT-4B Series

UL Approval: E214381 Version: Rev. B5.1

技术资料表

铝基板/背胶铜箔/背胶薄膜

概述

腾辉提供2种型号的无玻璃布增强的绝缘散热材料，具体如下

- VT-4B3 Laminate / VT-4B3 RCC&RCF: Thermal conductivity -- 3.0W/mK
- VT-4B5 Laminate / VT-4B5 RCF: Thermal conductivity -- 4.2W/mK
- 陶瓷填充
- 无卤素
- 阻燃
- UL MOT 130°C

应用

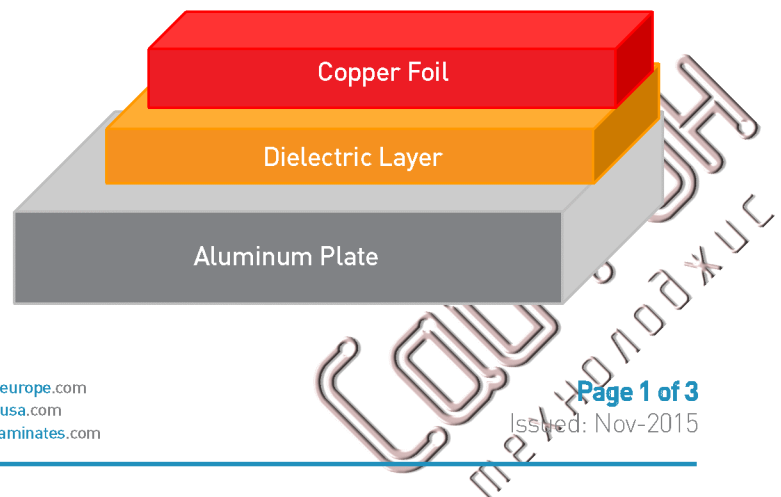
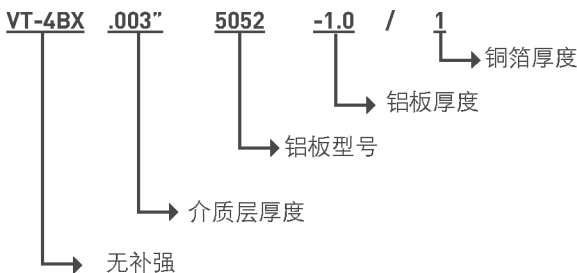
- 超亮LED
- 电源转换器
- 液晶面板、背光源、稳压器
- 监视器驱动器
- 整流器、电源

存储条件&保存期限

		RCC&RCF		Laminate
Storage Condition	Temperature	Below 23°C (73°F)	Below 5°C (41°F)	Room
	Relative Humidity	Below 55% RH	/	/
Shelf Life		2 Months	4 Months	24 Months (airproof)

过期的背胶铜箔和背胶薄膜在使用前需要复测以确认特性。

料号编码



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基板特性

Item	Test Method (IPC TM-650)	Units	VT-4B3					VT-4B5				
			75um	100um	125um	150um	180um	50um	75um	100um	150um	
Thermal Conductivity	ISO22007-2	W/m*K	3.0					4.2				
Thermal Impedance	ISO22007-2	°C *in ² /W	0.040	0.053	0.067	0.080	0.095	0.020	0.029	0.038	0.058	
Tg	DSC	2.4.25	130					120				
Td	TGA	ASTM D3850	380					380				
Thermal Stress	288°C solder dip	2.4.13.1	≥5					≥5				
Hi-pot Withstand	DC	2.5.7	Volt	3500	4000	5000	6000	8000	2000	3000	3500	5000
Dielectric Strength	AC	2.5.6.2	V/mil	1000					1000			
Dk (1MHz)	C-24 / 23 / 50	2.5.5.3	-	4.8					4.8			
Df (1MHz)	C-24 / 23 / 50	2.5.5.3	-	0.016					0.016			
Volume Resistance	After Moisture	2.5.17.1	MΩ-cm	5.0×10 ⁸					5.0×10 ⁸			
	E-24/125			3.0×10 ⁷					3.0×10 ⁷			
Surface Resistance	After Moisture	2.5.17.1	MΩ	2.0×10 ⁷					2.0×10 ⁷			
	E-24/125			5.0×10 ⁶					5.0×10 ⁶			
Peel Strength (1oz)	As received	2.4.8	Lb/in	11					7			
CTI	As received	ASTM D3638	Volt	600					600			
Flammability	As received	UL 94	Rating	V0					V0			
RTI	Electrical	UL 94	°C	130					130			
	Mechanical	UL 94	°C	130					130			

所有提供的测试数据均为典型值，非特定规范。

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产品规格

Laminate

Item	VT-4B3	VT-4B5
Dielectric	.003"(75um) .004"(100um) .005"(125um) .006"(125um) .007"(180um)	.002"(50um) .003"(75um) .004"(100um) .006"(150um)
Standard Size	16"*24"(406mm*610mm) 32"*24"(812mm*610mm) 18"*24"(457mm*610mm) 36"*24"(914mm*610mm) 20"*24"(508mm*610mm) 40"*24"(1016mm*610mm) 21"*24"(533mm*610mm) 42"*24"(1067mm*610mm)	
Copper	1/3oz Hoz 1oz 2oz 3oz 4oz 6oz	
Aluminum	0.6mm 0.8mm 1.0mm 1.2mm 1.5mm 2.0mm 3.0mm	
Aluminum Alloy	1100 5052 or as required	

RCC

Item	VT-4B3
Dielectric	.003"(75um)
Standard Size	Width: 24.57"(624mm) Length: Max 24.57"(624mm)
Copper	1oz 2oz

RCF

Item	VT-4B3	VT-4B5
Dielectric	.003"(75um) .004"(100um)	.002"(50um)
Flow-in	70~250mil	10~50mil
Standard Size	Width: 24.57"(624mm) Length: Max 49.02"(1245mm) or as required	
PET film	75um	

Protective Film for Aluminum Plate

Type	Material	Operation Temperature
Standard Type	PET	170°C
High Temperature Type	Polyimide	270°C