

VT-4B7 SP

UL Approval: E214381 Version: B2

Aluminum Base Laminate

General Information

- > Thermal conductivity -- 7.0 W/mK
- > Ceramic Filled
- > Halogen Free
- > Flammability UL94 V-0
- > MOT 130°C
- > Selective Preference Dielectric for Ultra Low Thermal Resistance

Application

- > Matrix LED for Auto Bulb
- > High Power LED for Projector
- > Electric Power Steering

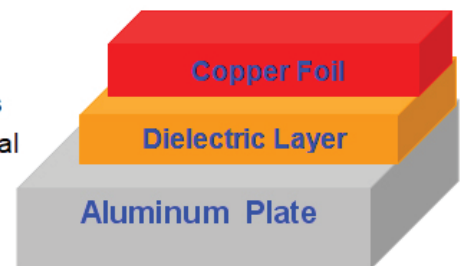
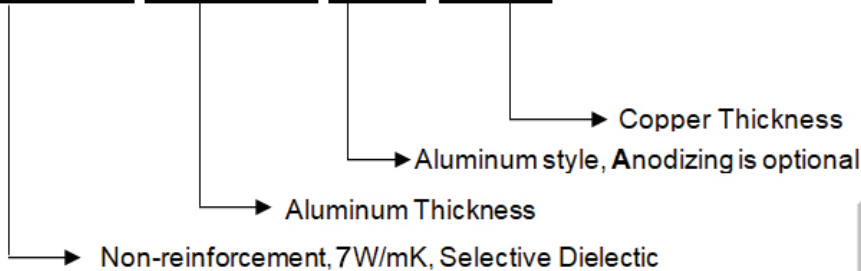
Storage Condition & Shelf Life

		Laminate
Storage Condition	Temperature	Room
	Relative humidity	/
Shelf Life		24 months

The RCF exceeding shelf life should be retested.

Designation of IMS Laminate

VT-4B7 SP 1.0mm Alu (5052) 1oz Cu



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Laminate Properties

Item		Test Method (IPC-TM-650)	Unit	VT-4B7 SP
Thermal Conductivity		ISO22007-2	W/m*K	7.0
Thermal Impedance		ISO22007-2	°C*in ² /W	0.009
Tg	DSC	2.4.25	°C	100
Td	TGA	ASTM D3850	°C	380
Thermal Stress	Solder Dip @ 288°C	2.4.13.1	Minute	≥5
Hi-Pot Withstand	DC	2.5.7.2	V	1000
Breakdown Voltage	AC	2.5.6.3	V	3000
Dk @ 1MHz	C-24 /23 / 50	2.5.5.3	—	4.8
Df @ 1MHz	C-24/ 23 / 50	2.5.5.3	—	0.016
Volume Resistance	After Moisture	2.5.17.1	MΩ-cm	5.0E+8
	E-24/125			3.0E+7
Surface Resistance	After Moisture	2.5.17.1	MΩ	2.0E+7
	E-24/125			5.0E+6
Peel strength (1oz)	As Received	2.4.8	Lb/in	4.5
CTI	As Received	ASTM D3638	V	600
Flammability	As Received	UL 94	Rating	V-0
RTI	Electric	UL 94	°C	130
	Mechanical	UL 94	°C	130

All test data provided are typical values and not intended to be specification values.

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Availability

Laminate

Item		Availability
Standard Size	Imperial	18.11*24.02, 20.08*24.02, 20.98*24.02, 18.11*48.03, 20.08*48.03, 20.98*48.03
	Metric	460*610, 510*610, 533*610, 460*1220, 510*1220, 533*1220
Copper Weight		1/3oz, Hoz, 1oz, 2oz, 3oz, 4oz, 6oz
Aluminum Thickness		0.6mm, 0.8mm, 1.0mm, 1.2mm, 1.5mm, 2.0mm, 3.0mm
Aluminum Alloy		1100, 5052, or as required

Protective Film for Aluminium Plate

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