

■ 產品特性 / General Properties

表2. 產品特性表/ Table 2. General Properties

項目 Item	測試方法 Test Method	測試條件 Test Condition	產品名稱 (UL型號) Product Name (UL Type Name)								
			TCB-2L	TCB-2 (TCB-2AL)	TCB-4	TCB-8					
導熱率 [W/m-K] Thermal Conductivity [W/m-K]	ASTM D5470	C-96/25/65	2	3	4	8					
崩潰電壓 [AC KV] Typical Break Down Voltage [AC KV]	JIS C 2110	C-96/25/65	5.0	5.0	4.5	4.5					
		E-1000/150									
		Solder Floating, 260°C/30 min									
		150°C ~ -50°C/1000 cycles									
剝離強度 [N/cm] Typical Peeling Strength [N/cm]	JIS C 6481	C-96/25/65	18	18	18	18					
		E-1000/150									
		Solder Floating, 260°C/30 min									
		150°C ~ -50°C/1000 cycles									
C-1000/85/85	14	14	14	14							
					吸水率 [%] Water Absorption	IPC-TM-650 2.6.2.1	23°C/24hrs	<0.5	<0.5	<0.5	<0.5
						介電常數 Dielectric Constant	IPC-TM-650 2.5.5.1	C-96/25/65, 1MHz	4.6	4.8	4.9
					介電損失 Dielectric Loss Tangent		IPC-TM-650 2.5.5.1	C-96/25/65, 1MHz	0.021	0.021	0.022
電容 [µF/m2] Capacitance	IPC-TM-650 2.5.5.1	C-96/25/65, 1MHz	1.1	1.1		1.2	1.2				
	表面電阻 [Ω] Surface Resistance	IPC-TM-650 2.5.17.1	C-96/25/65, 1MHz	>10 ¹⁵	>10 ¹⁵	>10 ¹⁵	Under Evaluation				
體積電阻 [Ω · cm] Volume Resistance		IPC-TM-650 2.5.17.1	C-96/25/65, 1MHz	>10 ¹³	>10 ¹³	>10 ¹⁴	Under Evaluation				
	玻璃轉移溫度 (T _g) [°C] Glass Transition Temp.	IPC-TM-650 2.4.25	DSC	130	130	140	140				
耐熱性測試 [minutes] Thermal Resistance		JIS C 6481	Solder Floating, 260°C	>60	>60	>60	>60				
	IPC-TM-650 2.4.24.1	TMA	T260	>60	>60	>60	>60				
			T288	>30	>30	>30	>30				
裂解溫度 (T _d) [°C] Decomposition Temp.	IPC-TM-650 2.4.24.6	TGA	2%	350	350	350	350				
			5%	400	380	400	400				
熱膨脹係數 CTE [PPM/°C] Thermal Expansion	IPC-TM-650 2.4.24.5	TMA	>T _g	37	30	25	35				
			<T _g	24	20	16	28				
熱膨脹係數 CTE [%] Thermal Expansion	IPC-TM-650 2.4.24.5	TMA 50~260°C	0.68	0.54	0.52	0.58					
比較路徑指數 CTI [V] Comparative Tracking Index	UL 746E	C-40/25/50	600	600	600	600					
耐燃性 Flammability	UL 94	C-40/25/50	V-0	V-0	V-0	V-0					