



Middle Tg & High Thermal Reliability

EM-825 / EM-825B

- Excellent thermal reliability for lead free processing
- Lower Z-axis CTE
- Low moisture absorption
- For consumer electronic application

Basic Laminate Property

Item	IPC-TM-650	Test Condition	Unit	Typical Value	
Glass Transition Temp	2.4.25	DSC	°C	150	
CTE, X-, Y-axis	2.4.24	Pre-Tg, TMA	ppm/°C	12/15	
CTE, Z-axis	2.4.24	Alpha 1, TMA	ppm/°C	50	
		Alpha 2, TMA	ppm/°C	260	
Z-axis Expansion	2.4.24	50~260°C, TMA	%	3.2	
Decomposition Temp.	2.4.24.26	TGA	°C	340	
Thermal Stress 10sec 288°C	2.4.13.1	Clad	—	Pass Visual	
		Etched	—	Pass Visual	
Water absorption	2.6.2.1	E-1/105 + D-24/23	%	0.10	
Peel Strength	0.5oz	2.4.8	As Received	lb/in	6.5
		2.4.8	After Thermal Stress	lb/in	6.5
	1.0oz	2.4.8	As Received	lb/in	8.5
		2.4.8	After Thermal Stress	lb/in	8.5
Permittivity (RC 50%)	1MHz	2.5.5.9	C-24/23/50	—	4.9
	1GHz			—	4.3
Loss Tangent (RC 50%)	1MHz	2.5.5.9	C-24/23/50	—	0.015
	1GHz			—	0.016
Volume Resistivity	2.5.17.1	C-96/35/90	MΩ-cm	>10 ¹⁰	
Surface Resistivity	2.5.17.1	C-96/35/90	MΩ	>10 ⁹	
Flexural Strength	Warp	2.4.4	As Received	MPa	510~540
	Fill		As Received	MPa	410~460
Flame Resistance	UL-94	A&E-24/125	—	V-0	