

Y-302HS & Y-302HSP

High Tg ,Low CTE Laminate&Prepreg for IC Packages

产品特点:

- 低膨胀、低收缩，有效降低 IC 封装基板翘曲
- 高模量(高弹性率)
- 优异的耐热性
- 无卤、高 Tg260°C
- 优异的厚度均匀性
- low Dk 和 Low Df 特性

应用领域:

SLP、SIP、AIP、CSP、FC-PKG 等封装用基板。

Key Features:

- Low CTE and low shrinkage, effective to reduce the warpage of substrate for IC PKG
- High modulus,
- Excellent heat resistance
- Halogen-free and Tg260°C
- Excellent uniformity of thickness
- low Dk and Low Df

Applications:

Substrates for SLP、SIP、AIP、CSP、FC-PKG etc.

General properties

Property	Item	IPC-TM-650	Test Condition	Units	Y-303HS Typical value	Y-303HSD Typical value
热性能 Thermal	玻璃化转变温度 Glass Transition Temperature	2.4.24.4	DMA	°C	240-260	
		2.4.24.5	TMA	°C	220-240	
	X,Y 轴方向膨胀系数 X,Y-CTE	2.4.24.5	< Tg	ppm/°C	8~10	7~9
			> Tg	ppm/°C	3	3
	288°C 分层时间 T288	2.4.24.1	Etched	min	>60	>60
	288°C 热冲击 Thermal stress	2.6.8	288°C , solder dip	S	>300	>300
热失重(weight loss 5%) Decomposition temperature	2.4.24.6	TGA	°C	405	410	
电性能 Electrical	体积电阻 Volume Resistivity	2.5.17.1	C-96/35/90	MΩ-cm	>10 ⁸	>10 ⁸
	表面电阻 Surface Resistivity	2.5.17.1	C-96/35/90	MΩ	>10 ⁸	>10 ⁸
	Dk (RC50%70%)	2.5.5.9	1GHz;C-24/23/50	-	4.0/3.6	3.5/3.3
			10GHz;C-24/23/50	-	3.8/3.5	3.4/3.2
	Df (RC50%70%)	2.5.5.9	1GHz;C-24/23/50	-	0.005/0.003	0.003/0.002
10GHz;C-24/23/50			-	0.006/0.004	0.004/0.003	



物理性能 Physical	弯曲强度 Flexural Strength	LW CW	2.4.4	A	MPa	520 480	520 480
	弯曲模量 Flexural modulus		JB/T 6544-1993	A	GPa	23~25	23~25
	杨氏模量 Young's Modulus		GB/T 2015-91	A	GPa	23	23
	剥离强度 Peel Strength (Hoz Copper Foil)		2.4.8	288°C/10s	lb/inch	5.0	5.0
	热导率 Thermal conductivity		ASTM-D5470	C-96/35/90	W/(m*k)	0.7	0.7
	吸水率 Moisture Absorption		2.6.2.1	D-24/23	%	0.18	0.18

Specimen thickness: 0.4mm or 0.8mm. Test Method is according to IPC TM-650 or National Standard Test Method.