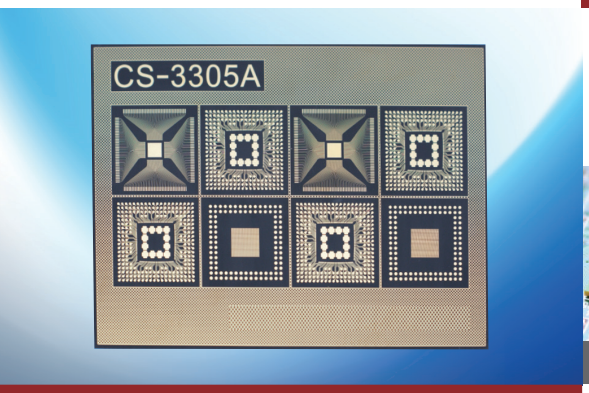
RISHO

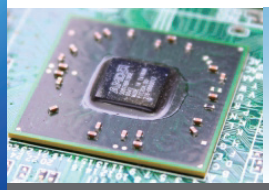
"TO THE ONLY ONE"

with Leading-Edge PCB Material Technology

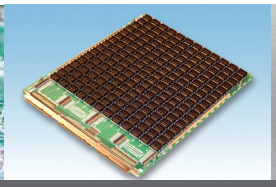


CS-3305K / ES-3310K

High Heat Resistant Material



IC Package



Burn-In Board

Power IC

Automotive

Features and Benefits:

- High Thermal Resistance: Tg > 300ºC
- Excellent Embedding Capability
- Low Water Absorption
- Eco-Friendly (Halogen Free)
- Long Term Heat Resistant

Test Item / Test Method			Unit	Condition	Typical Value
Tg	DMA		ºC	A	300
	TMA		ºC	A	240
CTE	X	α_1	ppm/ºC	A	11 - 13
	Y	α_1	ppm/ºC	A	12 - 14
	Z	α_1	ppm/ºC	A	50 - 60
Water Absorption			%	E-24/50 +D-24/23	0.1
Boiling Water Absorption (2 hr)			%	E-24/50 +D-2/100	0.20
Flexural Strength	25ºC	X	MPa	A	510
		Y	MPa	A	450
	200ºC	X	MPa	200ºC	310
		Y	MPa	200ºC	280
Flexural Modulus	25ºC	X	GPa	A	25
		Y	GPa	A	24
	200ºC	X	GPa	200ºC	15
		Y	GPa	200ºC	13
Barcol Hardness			-	A	65
Dielectric Constant (Dk)	@1MHz		-	C-96/20/65	4.1
Loss Tangent (Df)	@1MHz		-	C-96/20/65	0.009
Insulation Resistance	Normal Condition		MΩ	C-96/20/65	5×10^9
	After Treatment		MΩ	C-96/20/65 +D-2/100	3×10^8
Volume Resistance	Normal Condition		MΩm	C-96/20/65	6×10^9
	After Treatment		MΩm	C-96/20/65 +C-96/40/90	7×10^9
Surface Resistance	Normal Condition		MΩ	C-96/20/65	1×10^8
	After Treatment		MΩ	C-96/20/65 +C-96/40/90	1×10^8
Solder Heat Resistance	300ºC		sec	A	> 300
T-288	IPC test		min	A	> 60
Peel Strength	18μm		KN/m	A	1.1
	35μm		KN/m	A	1.6
Flammability			-	UL 94	V-0 equiv.

Product	Cu (um)	Dielectric (mm)
CCL (CS-3305K)	12 / 18 / 35	0.1 / 0.15 / 0.2 / 0.3 / 0.4 / 0.6 / 0.8 / 1.0 / 1.2 / 1.4 / 1.6
Prepreg (ES-3310K)	-	0.06 / 0.1 / 0.18

www.risho.co.jp/english/

TechDream

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