Panasonic INDUSTRY

Delamination free*with high adhesion and low stress

Automotive quality AEC-Q100/grade 0

Also used for Clip-Bond Package of automotive application

Applications

IC Package/Automotive

Surface mounting PKG: SOP, QFP, LQFP, DPAK, LFPAK, TOLL

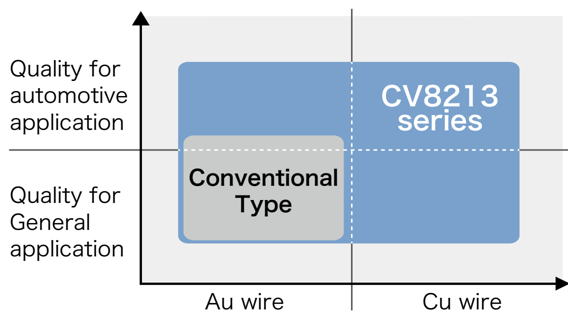
LEXCM CF

CV8213 series

Delamination free* surface mounting semiconductor encapsulation materials

Achieved delamination free* with high adhesion strength and low stress property.
High heat resistance for automotive application (AEC-Q100/ grade 0)

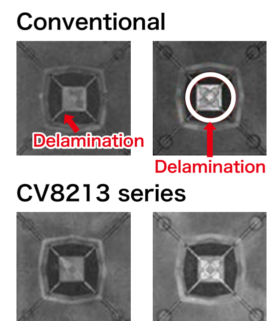
Concept



Delamination free* achieved by MRT(Moisture reflow test)

		Conventional	CV8213 series
MRT Delamination	Lead finger	3/6	0/6
	Die paddle	0/6	0/6
	Chip(front)	0/6	0/6
	Chip(back)	5/6	0/6

Condition	Level 2aa (85℃/65%RH/120h+IR(260)×3)
PKG	28□LQFP 256pin CuL/F die size 6×6×0.35mmt (SiN)
Molding condition	180℃/60scure, Injection pressure 9.8MPa, Injection time 7.5s (Out of cure time)



Delamination free* achieved at 1000 cycles of TCT (Thermal Cycle Test)

LF surface : Copper paddle, T post: Ni
MLS1 : Moisture Sensitivity Level Tesiting Level1
Die Attach : Solder paste
TCT : -65℃⇔175℃

	After MSL 1	500 cycles	1000 cycles
Conventional		Delamination	Delamination
CV8213 series			

General properties

Item	Unit	CV8213 series
Tg	℃	125
C.T.E. (α1/α2)	ppm/℃	10 / 46
Flexural modulus (260℃)	GPa	0.4
Moisture Absorption	%	0.13
pH	—	7.0

* 1. Based on Panasonic's internal evaluation samples. No separation observed between the lead frame and the semiconductor encapsulation material were detected using on measurements made using SAT (Scanning Acoustic Tomography) Equipment.
2. Panasonic does not guarantee that no delaminated parts will be detected under any evaluation conditions.
3. With respect to delamination, the company recommends that all users evaluate the stability of parts and make a decision with respect to adoption.

Please see our website for Notes before you use.

The above data are typical values and not guaranteed values.

industrial.panasonic.com/ww/electronic-materials

Panasonic Industry CV8213

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