ON Semiconductor

FINAL PRODUCT/PROCESS CHANGE NOTIFICATION #16735

Generic Copy

Issue Date: 09-Oct-2011

TITLE: Additional Assembly Site for WDFN8 2x2 Package in UTAC, Thailand

PROPOSED FIRST SHIP DATE: 10-Jan-2012

AFFECTED CHANGE CATEGORY(S): ON Semiconductor Assembly Site

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:
Contact your local ON Semiconductor Sales Office or David Short< David.Short@onsemi.com >

SAMPLES: Contact your local ON Semiconductor Sales Office

ADDITIONAL RELIABILITY DATA: Available
Contact your local ON Semiconductor Sales Office or Nicky Siu < nicky.siu@onsemi.com >

NOTIFICATION TYPE:

Final Product/Process Change Notification (FPCN)

Final change notification sent to customers. FPCNs are issued at least 90 days prior to implementation of the change.

ON Semiconductor will consider this change approved unless specific conditions of acceptance are provided in writing within 30 days of receipt of this notice. To do so, contact <quality@onsemi.com>.

DESCRIPTION AND PURPOSE:

This is a Final Process Change Notice notifying customers of the capacity expansion for WDFN8 2x2 package at UTAC, Thailand.

The affected devices listed on this FPCN are assembled at the ON Semiconductor assembly facility located in Malaysia. At the expiration of this Final PCN, these devices may be processed at either location.

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RELIABILITY DATA SUMMARY:

Based on Reliability test results, the WDFN8 2x2 package at UTAC, Thailand is qualified and rated at MSL-1@260 degree Celsius. NCT1008 was selected as qualification vehicle.

Reliability tests on 3 assembly lots sample, in addition of related assembly test are required for each of the qualification vehicle.

Reliability Test Results:

2x2x0.75mm WDFN-8, 0.5P COL – UTL

#	Test	Name	Test Conditions	End Point Req's	Test Results	Lot A (rej/ ss)	Lot B (rej/ ss)	Lot C (rej/ ss)	Remark
1	Prep	Sample preparation and initial part testing	various	---	Initial Electrical	Done	Done	Done	
2	SAT	Scanning Acoustic Tomography	Compare for Delamination before and after PC - MSL 1 @260°C	Per 12MSB17722C	Results	0/5	0/5	0/5	
3	PC	Moisture Preconditioning	MSL 1 @ 260°C	c = 0, Room	After PC	0/160	0/160	0/160	
4	AC-PC	Precond. Autoclave	TA = 121°C, RH = 100%, PSIG = 15	c = 0, Room	96 hrs	0/80	0/80	0/80	
5	TC-PC	Precond. Temp Cycle	-65/+150°C air to air	c = 0, Room	250 cycs	0/80	0/80	0/80	
					500 cycs	0/80	0/80	0/80	
6	RSH	Resistance to Solder Heat	JESD22 – B106 260°C Immersion	c = 0, Room	Results	0/30	0/30	0/30	
7	BPS	Bond Pull Strength	M883 Method 2011 Cond C	30 bonds from 5 units Cpk ≥ 1.67	Results	0/30	0/30	0/30	
8	BS	Bond Shear Test	AEC-Q100-001	30 bonds from 5 units Cpk ≥ 1.67	Results	0/30	0/30	0/30	
9	PD	Physical Dimension	JB100	Per case outline	Result	Pass	Pass	Pass	

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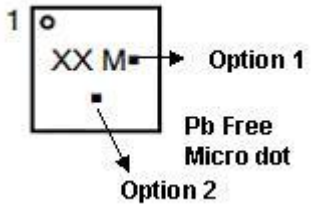
ELECTRICAL CHARACTERISTIC SUMMARY:

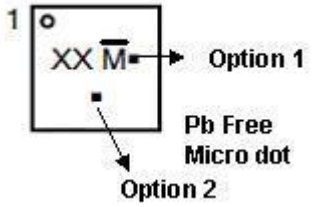
Electrical characteristic exceeds the device specification.

CHANGED PART IDENTIFICATION:

Seremban Assembly Site marking:



UTAC Assembly Site marking:



Note the cross bar on the date code differentiates the assembly locations.

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List of affected General Parts:

NCT1008CMT3R2G
NCT1008DMT3R2G
NCT72CMTR2G
NCT72DMTR2G

List of affected Customer Specific Parts:

SCT1008CMT3R2G