ON Semiconductor

FINAL PRODUCT/PROCESS CHANGE NOTIFICATION

Generic Copy

07-Sep-2005

SUBJECT: ON Semiconductor Final Product/Process Change Notification #15016

TITLE: Qualification of NCP500 DFN6 2x2.2 at NSEB site

EFFECTIVE DATE: 07-Nov-2005

AFFECTED CHANGE CATEGORY(S): Subcontractor Assembly Site

AFFECTED PRODUCT DIVISION(S): Analog Power Management

ADDITIONAL RELIABILITY DATA: Available
Contact your local ON Semiconductor Sales Office or Bob Marquis <fc88fc @onsemi.com>

SAMPLES: Contact your local ON Semiconductor Sales Office or Bett Loft <ffbgfx @onsemi.com>

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

NOTIFICATION TYPE:

Final Product/Process Change Notification (FPCN)

Final change notification sent to customers. FPCNs are issued at least 60 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 your local ON Semiconductor Sales Office.

DESCRIPTION AND PURPOSE:

This is a Product Change Notice to make customers aware that ON Semiconductor has qualified NSEB (NS Electronics Bangkok) facility in Thailand for the expansion of the NCP500 device in the DFN6 2x2.2 package. This package qualification was announced in IPCN 13270 available at www.onsemi.com.

Testing of these products will continue at ON Semiconductor in the Seremban, Malaysia facility. NSEB is certified to QS9000, ISO9002, ISO14001 and SAC Level 1.

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RELIABILITY DATA SUMMARY:

Reliability Test Results:

Test	**Conditions**	**Results**
High Temp Bake	Ta=+175°C, Bias 1008hrs, 3 lots	0/236
Preconditioning MSL 1-260	3 IR flow	Pass
Precond Temp. Cycle (TC-PC)	-65 to +150°C , Bias 1000 cycles, 3 lots	0/237
Precond HAST (HAST-PC)	+131°C, RH=85% psig =18.8, bias 96hrs 96hrs, 3 lots	0/240
Precond Autoclave (AC-PC)	+121°C/15psig/100%RH 96hrs, 3 lots	0/240
Resistance to Solder Heat (RSH)	260°C, Immersion Electrical Test, 1 lot	0/30
Scanning Acoustic Tomography (SAT)	Compare Delamination before and after PC Compare to existing data, 3 lots	0/15
Destructive Physical Analysis (DFA)	AEC100, after 1000 cycles, TC-PC Compare to AEC criteria, 3 lots	0/6
Solderability (SD)	SnCuAg solder, 1 lot	0/15
Solderability (SD)	PbSn solder, 1 lot	0/15

ELECTRICAL CHARACTERISTIC SUMMARY:

Samples and characterization data are available upon request.

CHANGED PART IDENTIFICATION:

Product marked with a date code of ww45 2005 and after may be manufactured at NSEB however, product will not ship until expiration of this FPCN.

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AFFECTED DEVICE LIST

PART

NCP500SQL18T1
NCP500SQL18T1G
NCP500SQL25T1
NCP500SQL25T1G
NCP500SQL27T1
NCP500SQL27T1G
NCP500SQL28T1G
NCP500SQL28T1
NCP500SQL30T1G
NCP500SQL30T1
NCP500SQL33T1G
NCP500SQL33T1
NCP500SQL50T1G
NCP500SQL50T1