



INITIAL PRODUCT/PROCESS CHANGE NOTIFICATION
Generic Copy

16-JUL-2004

SUBJECT: ON Semiconductor Initial Product/Process Change Notification #13535

TITLE: Qualification of the NCP30X Family and NCS2001 On AC MOS2

EFFECTIVE DATE: 16-Nov-2004

AFFECTED CHANGE CATEGORY:

ON Semiconductor Fab Site
Wafer Process
Die Shrink

AFFECTED PRODUCT DIVISION: Analog & ECL Products

ADDITIONAL RELIABILITY DATA: None

SAMPLES: No

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:

Contact Sales Office or Hector Corleto <R42198@onsemi.com >

NOTIFICATION TYPE:

Initial Product/Process Change Notification (IPC N) –

First change notification sent to customers. IPCNs are issued at least 120 days prior to implementation of the change. An IPCN is advance notification about an upcoming change and contains general information regarding the change details and devices affected. It also contains the preliminary reliability qualification plan.

The completed qualification and characterization data will be included in the Final Product/Process Change Notification (FPCN).

This IPCN notification will be followed by a Final Product/Process Change Notification (FPCN) at least 60 days prior to implementation of the change.

DESCRIPTION AND PURPOSE:

This is the Initial Product Change Notification announcing the qualification of the NCP30x family and NCS2001 family on the AC MOS2 Technology Platform for the benefit of increased capacity. Die fabrication will continue at the current wafer fab site, ON Semiconductor MOS7A, in Aizu, Japan. The NCP30x family and NCS2001 family are currently fabricated on the AC MOS1 Technology Platform. Device performance and reliability will continue to meet or exceed ON Semiconductor standards. Samples will be available Q4 2004.



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QUALIFICATION PLAN:

Reliability testing will be performed on 3 wafer lots of NCP30x:

TEST NAME	CONDITIONS	SS/#Lots
HTOL HighTemp Op Life	TJ =125DegC,1008 hours	80 x 3 lots
HTB High Temp Bake	150DegC,1008 hours	80 x 3 lots
PC MSL1 Precond	IR at 260DegC (TC/HAST/AC)	240 x 3 lots
PC-AC PC-Autoclave	121DegC/100%RH/,96hrs	80 x 3 lots
PC-HAST PC-HAST	130DegC/85%RH, 96 Hrs	80 x 3 lots
PC-TC PC-Temp Cycling	-65DegC to +150DegC;500 cyc	80 x 3 lots
BPS Bond Pull Strength	Ppk>1.66 or Cpk>1.33	5x1
BS Bond Shear	Ppk>1.66 or Cpk>1.33	5x1
ESD Electrostatic Discharge Sensitivity		18x1
LU Dynamic Latch-Up		6x1
SD Solderability		15x1

NCS2001 will be qualified by similarity to NCP1421, NCP1530 and NCP1404, as described in the qualification report 'ACMOS2 Thin Gate Qualification in MOS7A, Aizu.'

Electrical Temperature characterization will be completed on 3 lots for the NCP30x family and 1 lot for the NCS2001 family.

AFFECTED DEVICE LIST (WITHOUT SPECIALS):

PART

- NCP300HSN09T1
- NCP300HSN18T1
- NCP300HSN27T1
- NCP300HSN30T1
- NCP300HSN45T1
- NCP300HSN47T1
- NCP300LSN09T1
- NCP300LSN10T1
- NCP300LSN11T1
- NCP300LSN12T1
- NCP300LSN13T1
- NCP300LSN14T1
- NCP300LSN15T1
- NCP300LSN17T1
- NCP300LSN185T1
- NCP300LSN18T1
- NCP300LSN20T1
- NCP300LSN21T1
- NCP300LSN22T1
- NCP300LSN23T1
- NCP300LSN24T1
- NCP300LSN25T1
- NCP300LSN26T1
- NCP300LSN27T1
- NCP300LSN28T1
- NCP300LSN29T1
- NCP300LSN30T1
- NCP300LSN31T1
- NCP300LSN32T1
- NCP300LSN33T1
- NCP300LSN34T1
- NCP300LSN35T1
- NCP300LSN36T1



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NCP300LSN37T1
NCP300LSN38T1
NCP300LSN39T1
NCP300LSN40T1
NCP300LSN41T1
NCP300LSN42T1
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NCP303LSN47T1
NCP303LSN48T1
NCP303LSN49T1
NCS2001SN1T1
NCS2001SN1T1G
NCS2001SN2T1
NCS2001SQ1T1
NCS2001SQ1T1G
NCS2001SQ2T1