



FINAL PRODUCT/PROCESS CHANGE NOTIFICATION #16903

Generic Copy

Issue Date: 11-Sep-2012

TITLE: NCP1402 Qualification at Gresham Wafer Fab

PROPOSED FIRST SHIP DATE: 11-Dec-2012

AFFECTED CHANGE CATEGORY(S): Wafer Fab

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:

Contact your local ON Semiconductor Sales Office or <Mathew.Hilton@onsemi.com>

SAMPLES: Contact your local ON Semiconductor Sales Office

ADDITIONAL RELIABILITY DATA: Available

Contact your local ON Semiconductor Sales Office or <Edmond.Gallard@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:

ON Semiconductor is pleased to announce a wafer fab transfer qualification for the NCP1402 product family.

This device family is currently qualified at ON Semiconductor's Aizu wafer fab facility located in Aizu, Japan and is now qualified at ON Semiconductor's Gresham wafer fabrication facility located in Gresham, Oregon. Upon expiration (or approval) of this Final PCN, devices may be supplied by either wafer fab.

The Gresham wafer fab is compliant to ISO9001:2008, ISO/TS16949:2009, and ISO14001:2004. The NCP1402 family currently runs on the Aizu CMOS1 process. The same CMOS1 process has been transferred to and successfully qualified at the Gresham wafer fab. No device design changes have been made. The NCP1402 family will continue to be assembled and tested in existing qualified locations. No changes to packaging will occur as a result of this fab qualification.


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RELIABILITY DATA SUMMARY:
Platform Reliability Test Results:

The Gresham-sourced NCP1402 family has been qualified based on the successful platform qual of the ACMOS1 technology in Gresham with qual vehicles: NCP305, NCP551, NCP2860, and NCS2002.

Test	Conditions	Results
High Temp Op Life NCP304 NCP551 NCP2860 NCS2002	Ta=+125C, 1008 hours	0/80 (1 lot) 0/80 (1 lot) 0/80 (3 lots) 0/80 (1 lot)
Early Life Failure Rate NCP304 NCP551 NCS2002	Ta=+125C, 48 hours	0/800 (1 lot) 0/800 (1 lot) 0/800 (1 lot)
Highly Accelerated Stress NCP304 NCP551 NCS2002	Ta=131C/85% RH, 96 hours w/MSL1 pre-conditioning	0/80 (1 lot) 0/80 (1 lot) 0/80 (1 lot)
Unbiased Highly Accel Stress NCP304 NCP551 NCP2860 NCS2002	Ta=131C/85% RH, 96 hours w/MSL1 pre-conditioning	0/80 (1 lot) 0/80 (1 lot) 0/80 (3 lots) 0/80 (1 lot)
Temperature Cycle NCP304 NCP551 NCP2860 NCS2002	-65C to +150C, 500 cycles	0/80 (1 lot) 0/80 (1 lot) 0/80 (3 lots) 0/80 (1 lot)
Scan. Acoustical Tomography MSL1 NCP304 NCP551 NCP2860 NCS2002		0/5 (1 lot) 0/5 (1 lot) 0/5 (3 lots) 0/5 (1 lot)
ESD	Human Body Model Machine Model	Pass 2000V (NCP304) Pass 200V (NCP304)
Latch Up	JEDEC JESD78	Pass 500mA Pos / 170mA Neg (NCP305)

**FINAL PRODUCT/PROCESS CHANGE NOTIFICATION #16903****NCP1402 Reliability Test Results:**

The Gresham-sourced NCP1402 family has had the following reliability tests performed.

Test	Conditions	Results
Latch Up	JEDEC JESD78	Pass +-150mA
ESD	Human Body Model Machine Model	Pass 2000V Pass 150V

ELECTRICAL CHARACTERISTIC SUMMARY:

Electrical characterization has been completed on the Gresham NCP1402 material with no changes to the AC/DC specifications. The ESD device specification for machine model will change from 200V to 150V.

ON Semiconductor recommends samples, be obtained for application specific review. Data is available upon request.

CHANGED PART IDENTIFICATION:

Devices with date codes of 2012 work week 50 or later may be sourced from either wafer fab.

List of Affected Part Numbers:

NCP1402SN19T1G
NCP1402SN27T1G
NCP1402SN30T1G
NCP1402SN33T1G
NCP1402SN40T1G
NCP1402SN50T1G