



FINAL PRODUCT/PROCESS CHANGE NOTIFICATION #16826Generic Copy

Issue Date: 10-Apr-2012**TITLE:** NCP305 and NCP553 Device Families Qualification at Gresham Wafer Fab**PROPOSED FIRST SHIP DATE:** 10-Jul-2012**AFFECTED CHANGE CATEGORY(S):** ON Semi Fab Site**FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:**

Contact your local ON Semiconductor Sales Office or Todd.Manes@onsemi.com (NCP305) or Alan.Garlington@onsemi.com (NCP553).

SAMPLES: Contact your local ON Semiconductor Sales Office or Shilpa.Rao@onsemi.com (NCP305) or Bett.Lofts@onsemi.com (NCP553).

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>](mailto:quality@onsemi.com).

DESCRIPTION AND PURPOSE:

ON Semiconductor is pleased to announce a capacity expansion qualification for the NCP305 and NCP553 product families.

This device families are 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 NCP304 family currently runs on the Aizu AC MOS1 process. The same AC MOS1 process has been transferred to and successfully qualified at the Gresham wafer fab. No device design changes have been made. Device performance is the same for Aizu and Gresham-sourced devices. The NCP305 and NCP553 families 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:

Reliability Test Results:

The Gresham-sourced NCP305 and NCP553 families have been qualified based on the following test results:

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, NCP553) Pass 200V (NCP304, NCP553)
Latch Up	JEDEC JESD78	Pass 500mA Pos / 170mA Neg (NCP305)

**FINAL PRODUCT/PROCESS CHANGE NOTIFICATION #16826****ELECTRICAL CHARACTERISTIC SUMMARY:**

Electrical characterization test data has been obtained on Gresham NCP305 and NCP553 material. No significant changes in part performance as compared to the existing Aizu-sourced product were observed. Cpk's of all critical parameters are greater than 1.67. Data may be provided upon request.

CHANGED PART IDENTIFICATION:

Devices with date codes of 2012 work week 28 or later may be sourced from either wafer Gresham or Aizu fab.

List of affected General Parts:

NCP305LSQ09T1G	NCP305LSQ28T1G	NCP305LSQ45T1G
NCP305LSQ11T1G	NCP305LSQ29T1G	NCP305LSQ47T1G
NCP305LSQ15T1G	NCP305LSQ30T1G	NCP305LSQ49T1G
NCP305LSQ16T1G	NCP305LSQ30T3G	NCP553SQ15T1G
NCP305LSQ17T1G	NCP305LSQ31T1G	NCP553SQ18T1G
NCP305LSQ18T1G	NCP305LSQ32T1G	NCP553SQ25T1G
NCP305LSQ20T1G	NCP305LSQ33T1G	NCP553SQ27T1G
NCP305LSQ22T1G	NCP305LSQ34T1G	NCP553SQ28T1G
NCP305LSQ23T1G	NCP305LSQ35T1G	NCP553SQ30T1G
NCP305LSQ24T1G	NCP305LSQ36T1G	NCP553SQ33T1G
NCP305LSQ25T1G	NCP305LSQ37T1G	NCP553SQ50T1G
NCP305LSQ26T1G	NCP305LSQ40T1G	NCV553SQ15T1G
NCP305LSQ27T1G	NCP305LSQ44T1G	NCV553SQ50T1G