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FINAL PRODUCT/PROCESS CHANGE NOTIFICATION #16890

Generic Copy

Issue Date: 31-Jul-2012

TITLE: MAX1720, NCP1729, NCP562, NCP563, NCP662, NCP663, NCP698, NCS2002 Device Families Qualification at Gresham Wafer Fab

PROPOSED FIRST SHIP DATE: 31-Oct-2012

AFFECTED CHANGE CATEGORY(S): Wafer Fab Location

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:
Contact your local ON Semiconductor Sales Office or Alan.Garlington@onsemi.com, Shannon.Riggs@onsemi.com (NCS2002), Todd.Manes@onsemi.com (MAX1720, NCP1729).

SAMPLES: Contact your local ON Semiconductor Sales Office or Bett.Lofts@onsemi.com, Shilpa.Rao@onsemi.com(MAX1720, NCP1729), Shirley.Chang@onsemi.com (NCS2002)

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 capacity expansion qualification for the MAX1720, NCP1729, NCP562, NCP563, NCP662, NCP663, NCP698 and NCS2002 device families.

These device families are currently qualified at ON Semiconductor's Aizu wafer fab facility located in Aizu, Japan and are 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.
All devices affected by this PCN are currently run on the Aizu ACMOS1 process. The same ACMOS1 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.

These device 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 MAX1720, NCP1729, NCP562, NCP563, NCP662, NCP663, NCP698 and NCS2002 devices have 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	Ta=+125C, 1008 hours	
NCP304		0/80 (1 lot)
NCP551		0/80 (1 lot)
NCP2860		0/80 (3 lots)
NCS2002		0/80 (1 lot)
Early Life Failure Rate	Ta=+125C, 48 hours	
NCP304		0/800 (1 lot)
NCP551		0/800 (1 lot)
NCS2002		0/800 (1 lot)
Highly Accelerated Stress	Ta=131C/85% RH, 96 hours	
NCP304	w/MSL1 pre-conditioning	0/80 (1 lot)
NCP551		0/80 (1 lot)
NCS2002		0/80 (1 lot)
Unbiased Highly Accel. Stress	Ta=131C/85% RH, 96 hours	
NCP304	w/MSL1 pre-conditioning	0/80 (1 lot)
NCP551		0/80 (1 lot)
NCP2860		0/80 (3 lots)
NCS2002		0/80 (1 lot)
Temperature Cycle	-65C to +150C, 500 cycles	
NCP304		0/80 (1 lot)
NCP551		0/80 (1 lot)
NCP2860		0/80 (3 lots)
NCS2002		0/80 (1 lot)
Scan. Acoustical Tomography MSL1		
NCP304		0/5 (1 lot)
NCP551		0/5 (1 lot)
NCP2860		0/5 (3 lots)
NCS2002		0/5 (1 lot)
ESD	Human Body Model	Pass 2000V (NCP304, NCP1729)
	Machine Model	Pass 200V (NCP304, NCP1729)
ESD	Human Body Model	Pass 1500V (NCS2002)
	Machine Model	Pass 400V (NCS2002)

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ELECTRICAL CHARACTERISTIC SUMMARY:

Electrical characterization has been completed with no changes to the AC/DC specifications. ON Semiconductor recommends samples be obtained for application specific review. Data is available upon request.

Further analysis of ESD capability resulted in some device specifications changing as listed below:

NCS2002 and NCV2002 – HBM from 2kV to 1.5kV

No changes to any other devices.

CHANGED PART IDENTIFICATION:

Devices with date codes of 2012 work week 44 or later may be sourced from either wafer Gresham or Aizu fab.

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List of affected General Parts:

MAX1720EUTG
NCP1729SN35T1G

NCP562SQ15T1G
NCP562SQ18T1G
NCP562SQ21T1G
NCP562SQ25T1G
NCP562SQ27T1G
NCP562SQ28T1G
NCP562SQ30T1G
NCP562SQ33T1G
NCP562SQ35T1G
NCP562SQ50T1G
NCP563SQ15T1G
NCP563SQ18T1G
NCP563SQ25T1G
NCP563SQ27T1G
NCP563SQ28T1G
NCP563SQ30T1G
NCP563SQ33T1G
NCP563SQ50T1G
NCP698SQ13T1G
NCP698SQ15T1G
NCP698SQ18T1G
NCP698SQ25T1G
NCP698SQ28T1G

NCS2002SN1T1G
NCS2002SN2T1G
NCV2002SN1T1G
NCV2002SN2T1G

NCP698SQ30T1G
NCP698SQ33T1G
NCP698SQ35T1G
NCP698SQ50T1G
NCV662SQ15T1G
NCV662SQ18T1G
NCV662SQ25T1G
NCV662SQ27T1G
NCV662SQ28T1G
NCV662SQ30T1G
NCV662SQ33T1G
NCV662SQ50T1G
NCV663SQ15T1G
NCV663SQ18T1G
NCV663SQ25T1G
NCV663SQ27T1G
NCV663SQ28T1G
NCV663SQ30T1G
NCV663SQ33T1G
NCV663SQ50T1G