ON Semiconductor

FINAL PRODUCT/PROCESS CHANGE NOTIFICATION #16950A

Generic Copy

Issue Date: 20-Feb-2013

TITLE: MAX/ NCP 803, 809, 810 Devices Automotive Qualification at Gresham Wafer Fab

PROPOSED FIRST SHIP DATE: 14-Feb-2014

AFFECTED CHANGE CATEGORY(S): Wafer Fab Location

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:
Contact your local ON Semiconductor Sales Office or Todd.Manes@onsemi.com.

SAMPLES: Contact your local ON Semiconductor Sales Office or Shilpa.Rao@onsemi.com

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 the automotive qualification of the MAX/ NCP 803, 309 & 810 families in ON Semiconductor's Gresham wafer fab facility on the ONC25 technology.

These device families are currently produced at ON Semiconductor's Aizu wafer fab facility located in Aizu, Japan. Due to the announcement of the Aizu fab closure, these device families have been redesigned using the ON Semiconductor ONC25 process and will be produced from 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 MAX/ NCP 80x families currently run on the Aizu ACMOS2 process. These families have now been successfully qualified at the Gresham wafer fab on the ONC25 technology. Device performance is the same for Aizu and Gresham-sourced devices.

The MAX/ NCP 80x 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.

Since the SCV80x devices have been temporary parts sourced only from the old fab, they cannot be supplied by the new fab. For those customers using an SCV80x device, ON Semiconductor requests they transition to the available NCP/ NCV version of the device.

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RELIABILITY DATA SUMMARY:

Reliability Test Results:

The Gresham-sourced MAX/ NCP 80x families have been qualified based on the following test results:

Test	Conditions	Results
ELFR	Ta=+125C; 48hrs	0/800 1 lot
High Temp Op Life	Ta= +125C; 504hrs, 1008hrs	0/80 3 lots
High Temp Storage	Ta=150C; 504hrs, 1008hrs	0/80 3 lots
Preconditioning + Temperature Cycling	MSL1 @ 260C; -65C/ +150C; Air to Air; 500cy, 100Cy	0/80 3 lots
Preconditioning + Highly Accelerated Stress Test	MSL @ 260C, 131C/ 85% RH/ bias 96hrs	0/80 3 lots
Preconditioning + Unbiased Highly Accelerated Stress Test	MSL @ 260C, 131C/ 85% RH/ no bias 96hrs	0/80 3 lots
ESD	HBM MM	2000V Pass 200V Pass
LU	JEDEC JESD78	+/- 200mA Pass

ELECTRICAL CHARACTERISTIC SUMMARY:

Electrical characterization test data has been obtained on Gresham MAX/ NCP 80x 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 2013 work week 25 or later may be sourced from either wafer Gresham or Aizu fab.

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List of affected General Parts:

NCV803SQ308T1G
NCV809MTRG
NCV809LTRG
NCV809SN293D2T1G
NCV809RTRG
NCV809STRG
SCV809LTRG
SCV809MTRG
SCV809RTRG
SCV809STRG
SCV810STRG