ON Semiconductor

FINAL PRODUCT/PROCESS CHANGE NOTIFICATION #17001

Generic Copy

Issue Date: 21-Feb-2013

TITLE: MAX708 Device Family Qualification at Gresham Wafer Fab

PROPOSED FIRST SHIP DATE: 21-May-2013

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 qualification of the MAX708 family in ON Semiconductor's Gresham wafer fab facility on the ACMOS1 technology.

The MAX708 is currently produced at ON Semiconductor's Aizu wafer fab facility located in Aizu, Japan. Due to the announcement of the Aizu fab closure, this device family 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.

Performance of device electrical parameters is the same for Aizu and Gresham-sourced devices. The HBM ESD performance for the GSH device is updated to1000V. The latch up specification of +330mA/ -280mA applies to all pins of the GSH device but for the PFI input pin. A new datasheet revision will reflect the updated ESD and LU performance.

The MAX708 devices 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 MAX708 family has been qualified based on the following test results:

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 1000V (MAX708)
	Machine Model	Pass 250V (MAX708)
Latch Up	JEDEC JESD78	Pass 300mA Pos,
	All pins except PFI input	Pass 280mA Neg (MAX708)

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ELECTRICAL CHARACTERISTIC SUMMARY:

Electrical characterization test data has been obtained on Gresham MAX708 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 21 or later may be sourced from either wafer Gresham or Aizu fab.

List of affected General Parts:

MAX708CUA-TG
MAX708ESA-TG
MAX708RCUA-TG
MAX708RESA-TG
MAX708SCUA-TG
MAX708SESA-TG
MAX708TCUA-TG
MAX708TESA-TG