

FINAL PRODUCT/PROCESS CHANGE NOTIFICATION #16944

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06-Dec-2012

<u>TITLE:</u> Final Notification for the SUS6160MNTWG Capacity Expansion

PROPOSED FIRST SHIP DATE: 11-Mar-2013

AFFECTED CHANGE CATEGORY(S): ON Semi Fab Site

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:

Contact your local ON Semiconductor Sales Office or Ed Pope <Ed.Pope@onsemi.com> or Debbie Kowal <ffv4bh@onsemi.com>

SAMPLES: Contact your local ON Semiconductor Sales Office or Ed Pope <Ed.Pope@onsemi.com>

<u>ADDITIONAL RELIABLITY DATA:</u> Available. Contact your local ON Semiconductor Sales Office or Francis Lualhati <frxcy@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 notifying Samsung that the SUS6160MNTWG product is now fabricated in ON Semiconductor's Gresham, USA wafer fabrication facility and Aizu wafer fabrication facility in Aizu, Japan and that the Trench-1 PMOSFET processes are now qualified at United Microelectronics (UMC) Fab, Hsinchu, Taiwan. Upon expiration of this Final PCN, devices may be supplied from any of the following: Gresham, Aizu, or UMC wafer fabs. No die design or process changes were occurred. No changes to product parameters or packaging occurred as a result of UMC wafer fab qualification.

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RELIABILITY DATA SUMMARY:

QUALIFICATION PLAN

A full qualification and reliability testing were performed on Trench-1, PMOSFET qualification vehicles: NTLJ3113PT1G (single die), NTHS4101PT1G (single die), and NTHD4102PTIG (dual die) to qualify the Trench-1 die; ref PCN16658.

Reliability Test Results of NTLJ3113PT1G, NTHS4101PT1G, & NTHD4102PTIG:

#	Test	Test Conditions	Read points	Sample Size	Results
1	AC-PC	Ta = 121°C/ 100% RH/ 15psig	Test @ 96hrs	3 lots x 80 units	0 / 240
2	HAST-PC	130°C/85% RH for 96 hrs	Test @ 96hrs	6 lots x 80 units	0 / 480
3	IOL-PC	TA = 25°C, Tj=100°C, 2 min o/o, 15k cy	Test @ 15K cycles	3 lots x 80 units	0 / 240
4	TC-PC	-55°C to +150°C for 1000 cycles	Test @ 1000 cycles	3 lots x 80 units	0 / 240
5	HTRB	TA = 125°C for 1008hrs	Test @ 1008 Hrs	3 lots x 80 units	0 / 240
6	HTGB	TA = 150°C, 100% Vgs for 1008hrs	Test @ 1008 Hrs	6 lots x 80 units	0 / 480
7	RSH	Tdwell=10 Sec @ 260C	Test > 10 Sec	3 lots x 45 units	0/135

ELECTRICAL CHARACTERISTIC SUMMARY:

Data are available upon request. Contact Ed Pope <Ed.Pope@onsemi.com>

CHANGED PART IDENTIFICATION:

Affected products from ON Semiconductor with date code marking starting WW11 (RYK) and greater may be sourced from any of Gresham, Aizu and/or UMC Wafer Fab in Hsinchu, Taiwan.

List of affected General Parts:

SUS6160MNTWG