ON Semiconductor

FINAL PRODUCT/PROCESS CHANGE NOTIFICATION

Issue Date March 5, 2009

SUBJECT: **ON Semiconductor Final Product/Process Change Notification #FPCN16230**

TITLE: **Dual Sourcing at Gresham; General Sales devices**

PROPOSED FIRST SHIP DATE: **June 5, 2009**

AFFECTED CHANGE CATEGORY(S): **Wafer Fab Process**

AFFECTED PRODUCT DIVISION(S): **CFPG**

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:
Contact your local ON Semiconductor Sales Office

SAMPLES: Contact your local ON Semiconductor Sales Office

ADDITIONAL RELIABILITY DATA: Available
Contact your local ON Semiconductor Sales Office

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 your local ON Semiconductor Sales Office.

DESCRIPTION AND PURPOSE:

This PCN continues the PCN notification first started Nov. 2008 to introduce dual sourcing of C5 products to the 8 inch ON Fab in Gresham, Oregon (USGR1).

Impact of Change: Electrical parameters match. Part marking may change.

Qualification Plan:	See Attachment 1
Qualification Criterion:	FAB USGR1 better or equal to On Semi Fab 10, Pocatello, Idaho

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RELIABILITY DATA SUMMARY: The qualification report of the technology will be available on August 31, 2009.

Preliminary expected date for samples delivery: October 4, 2009

Any change on this preliminary expected date will be communicated to the customer.

ELECTRICAL CHARACTERISTIC SUMMARY: Electrical parameters match

CHANGED PART IDENTIFICATION: C5 devices

AFFECTED DEVICE LIST

ON PART #

12197-502
12197-503
12197-504
12197-507
12197-508
12197-509

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Attachment 1

Qualification plan based on AEC-Q100 revision G

- Component Level Tests : to be performed on stand-alone structures from three lots
  - Electromigration
  - Time-Dependent-Dielectric-Breakdown
  - Hot Carrier Injection
  - Negative Bias Temperature Instability
  - Stress Migration

- Product Level Tests : to be performed on a representative Product Test Vehicle (PTV)
  - Early Life failure rate (ELFR) : 125°C, 48 hours on 3*800 devices
  - High Temperature Operating Lifetest (HTOL) : 125°C, 1000 hours on 3*77 devices
  - Biased HAST : 96 hours, 85%RH, 130°C on 3*77 devices
    (devices will be preconditioned by moisture soak, solder heat application and 100 thermal cycles -55/+125°C). An alternative to this test is Temperature Humidity Bias THB (1000 hours, 85%RH, 85°C on 3*77 devices with same preconditioning)
  - Autoclave (AC) : 96 hours, 100%RH, 121°C on 3*77 devices
    (devices will be preconditioned by moisture soak, solder heat application and 100 thermal cycles -55/+125°C). An alternative to this test is Unbiased HAST (UHST) (96 hours, 85%RH, 130°C on 3*77 devices with same preconditioning)
  - Temperature Cycling (TC) : 500 cycles –65/+150°C on 3*77 devices
    (devices will be preconditioned by moisture soak and solder heat application)
  - High Temperature Storage Life (HTSL) : 150°C, 1000 hours on 1*45 devices
  - ESD and Latch-up tests

- Electrical Verification

Internal product transfer according to standard product transfer procedure in document # 7500138 Global Device Transfer to Production Requirement.