ON Semiconductor

FINAL PRODUCT/PROCESS CHANGE NOTIFICATION
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14 Jan 2010

SUBJECT: ON Semiconductor Final Product/Process Change Notification # 16383

TITLE: Fab Transfer of Trench Technology to ON Semiconductor, Aizu, Japan

PROPOSED FIRST SHIP DATE: 14 Apr 2010

AFFECTED CHANGE CATEGORY(S): On Semiconductor Wafer Fab Site

AFFECTED PRODUCT DIVISION(S): Standard Products Group

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:
Contact your local ON Semiconductor Sales Office or Angela Tam <Angela.Tam@onsemi.com>

SAMPLES: Contact your local ON Semiconductor Sales Office

ADDITIONAL RELIABILITY DATA: Available
Contact your local ON Semiconductor Sales Office or Matt Kas<Matt.Kas@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 your local ON Semiconductor Sales Office.

DESCRIPTION AND PURPOSE:

This is the Final Process Change Notification to Initial Process Change Notice #16249. The IPCN can be found at www.onsemi.com.

On Semiconductor is pleased to announce that the Trench MOSFET technology has successfully completed the qualification at ON Semiconductor, Aizu, Japan facility.

Upon the expiration of this FPCN, the affected devices can have die sourced from the newly qualified fab (On Semiconductor, Aizu) and the existing qualified wafer foundry. All devices will continue to meet datasheet performance and in compliance to the ON Semiconductor's quality standards.

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RELIABILITY DATA SUMMARY:

Products assembled with Trench Die from Aizu Wafer Fab:

NTMS4107NR2G, N-Ch, 30Vds, 20Vgs, SO8 Package
Test: High Temperature Reverse Bias (HTRB)
Conditions: Vds= 24V, Ta=150'C, Duration= 1008Hrs
Results: 0/231
Test: High Temperature Gate Bias (HTGB)
Conditions: Vgs= 20V, Ta=150'C, Duration= 504Hrs
Results: 0/231
Test: Highly Accelerated Stress Test (HAST)
Conditions: Ta=130'C, P= 18.8psi, RH= 85%, Duration= 96Hrs
Results: 0/231
Test: Intermittent Operating Life (IOL-PC)
Conditions: Ta=25'C, delta Tj=100'C, 2-min on/off, 15K-cycles
Results: 0/231
Test: Temperature Cycling (TC-PC)
Conditions: Ta=-65'C/150'C, Air-to-Air, Dwell >=10-min, 500-cy
Results: 0/231
Test: Autoclave Test (AC-PC)
Conditions: Ta=121'C, P=15psi, RH=100%, 96-Hrs
Results: 0/231
Test: Resistance to Solder Heat
Conditions: Ta=260'C, Dwell Time=10-Seconds,
Results: 0/135

NTZD3154NT1G, N-Ch, 20Vds, 6Vgs, SOT563 Package
Test: High Temperature Reverse Bias (HTRB)
Conditions: Vgs= 12V, Ta=150'C, Duration= 1008Hrs, 3-Lots
Results: 0/231
Test: High Temperature Gate Bias (HTGB)
Conditions: Vgs= 6V, Ta=150'C, Duration= 1008Hrs, 3-Lots
Results: 0/231

P-Ch, 30Vds, 8Vgs, ChipFET Package
Test: High Temperature Reverse Bias (HTRB)
Conditions: Vds= 24V, Ta=150'C, Duration= 504Hrs, 3-Lots
Results: 0/231
Test: High Temperature Gate Bias (HTGB)
Conditions: Vgs= 8V, Ta=150'C, Duration= 504Hrs, 3-Lots
Results: 0/231

NTJD4152PT1G, P-Ch, 20Vds, 12Vgs, SC88 Package
Test: High Temperature Gate Bias (HTGB)
Conditions: Vgs= 12V, Ta=150'C, Duration= 1008Hrs, 2-Lots
Results: 0/154

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ELECTRICAL CHARACTERISTIC SUMMARY:

There is no significant change in electrical parametric performance. Electrical data is available upon request.

CHANGED PART IDENTIFICATION:

The parts listed under the affected parts list with date code WW12 2010 or later can have die sourced from On Semiconductor, Aizu or the existing wafer foundry.

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AFFECTED DEVICE LIST:
NUS1204MNT1G