



FINAL PRODUCT/PROCESS CHANGE NOTIFICATION

Generic Copy

08-November-2006

SUBJECT: ON Semiconductor Final Product/Process Change Notification #15670

TITLE: Trench MOSFET Expansion to Gresham Oregon

PROPOSED FIRST SHIP DATE: 08-Jan-2007

AFFECTED CHANGE CATEGORY(S): ON Semiconductor FAB Site

AFFECTED PRODUCT DIVISION(S): PowerFET Business Unit

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:

Contact your local ON Semiconductor Sales Office or Clara.Cheng@onsemi.com

SAMPLES: Contact your local ON Semiconductor Sales Office

ADDITIONAL RELIABILITY DATA: Available

Contact your local ON Semiconductor Sales Office or d.scheuch@onsemi.com

NOTIFICATION TYPE:

Final Product/Process Change Notification (FPCN)

Final change notification sent to customers. FPCNs are issued at least 60 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 Notification linked to IPCN #15631 located at www.onsemi.com Announcing ON Semiconductor is adding another wafer fabrication facility for their Trench MOSFET Die. The facility is an ON Semiconductor fab located in Gresham, Oregon and is fully certified. Device quality and reliability will continue to meet ON Semiconductors high standards. Product may begin to ship using Die fabricated in the Gresham factory at the expiration of this Final PCN.

**Final Product/Process Change Notification #15670****RELIABILITY DATA SUMMARY:****Reliability Test Results, NTD4804N Product with Gresham Die:**

Test: High Temperature Reverse Bias (HTRB)

Conditions: $V_{ds}=+24V$, $T_a=175^{\circ}C$, 504-Hrs

Results: 0/231

Test: High Temperature Gate Bias (HTGB)

Conditions: $V_{gs}=+20V$, $T_a=175^{\circ}C$, 504-Hrs.

Results: 0/231

Test: Precondition*(MSL-1).

Conditions: 3-IR @ $260^{\circ}C$

Test: Intermittent Operating Life (IOL-PC)

Conditions: $T_a=+25^{\circ}C$, $\Delta T_j=100^{\circ}C$, 2-min on/off, 7.5K-cycles

Results: 0/231

Test: Temperature Cycling (TC-PC)

Conditions: $T_a=-65^{\circ}C/+150^{\circ}C$, Air-to-Air, Dwell ≥ 10 -min, 500-cy

Results: 0/231

Test: Highly Accelerated Stress Test (HAST-PC)

Conditions: $T_a=130^{\circ}C$, RH=85%, $P=18.8$ psig, 96-Hrs

Results: 0/231

Test: Resistance to Solder Heat

Conditions: $T_a=260^{\circ}C$, Immersion

Results: 0/30

Test: Bond Pull Strength

Results: 0/90

Test: Bond Shear

Results: 0/90

Test: Die Shear Strength

Results: 0/90

ELECTRICAL CHARACTERISTIC SUMMARY:

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

CHANGED PART IDENTIFICATION:

Products having Date Codes of Work Week 02 of 2007 and later will represent Trench MOSFET Die that may be built from any of ON Semiconductor Wafer facilities located in Arizona, Oregon, or Japan. Standard fabrication site traceability will exist.



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AFFECTED DEVICE LIST

PART

NTD4804N-1G
NTD4804N-35G
NTD4804NA-1G
NTD4804NA-35G
NTD4804NT4G
NTD4805N-1G
NTD4805N-35G
NTD4805NT4G
NTD4806N-1G
NTD4806N-35G
NTD4806NA-1G
NTD4806NA-35G
NTD4806NT4G
NTD4808N-1G
NTD4808N-35G
NTD4808NT4G
NTD4809N-1G
NTD4809N-35G
NTD4809NA-1G
NTD4809NA-35G
NTD4809NT4G
NTD4810N-1G
NTD4810N-35G
NTD4810NH-1G
NTD4810NHT4G
NTD4810NT4G
NTD4813N-1G
NTD4813N-35G
NTD4813NT4G
NTD4815N-1G
NTD4815N-35G
NTD4815NT4G