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**FINAL PRODUCT/PROCESS CHANGE NOTIFICATION**

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**22-May-2007**

**SUBJECT: ON Semiconductor Final Product/Process Change Notification #16015**

**TITLE: Additional Trench Wafer Fabrication**

**PROPOSED FIRST SHIP DATE: 22-July-2007**

**AFFECTED CHANGE CATEGORY(S): ON Semiconductor Wafer Fab Site**

**AFFECTED PRODUCT DIVISION(S): Power MOSFET Business Unit**

**FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:**

Contact your local ON Semiconductor Sales Office or Jennie Shen <[Jennie.Shen@onsemi.com](mailto:Jennie.Shen@onsemi.com)>

**SAMPLES:**

Contact your local ON Semiconductor Sales Office or Sam Abdeh <[sam.abdeh@onsemi.com](mailto:sam.abdeh@onsemi.com)>

**ADDITIONAL RELIABILITY DATA:** Available

Contact your local ON Semiconductor Sales Office or Donna Scheuch <[d.scheuch@onsemi.com](mailto: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 a Final Process Change Notice to IPCN 15744 and extension to FPCN 15743 located [www.onsemi.com](http://www.onsemi.com).

ON Semiconductor is adding wafer fabrication capacity for their N-channel and P-channel Trench MOSFET technology platforms, with the qualification of their internal wafer fab site in Aizu, Japan. The facility is an already a qualified site for the N-channel Trench and High Cell Density Planar wafer technologies. Aizu, Japan is a TS-16949 certified factory.

**Final Product/Process Change Notification #16015****RELIABILITY DATA SUMMARY:***P-Channel, 30Vds, 8Vgs*

Test: High Temperature Reverse Bias (HTRB)  
Conditions: Vds= 24V, Ta=150°C, Duration= 504Hrs  
Results: 0/231

Test: High Temperature Gate Bias (HTGB)  
Conditions: Vgs= 8V, Ta=150°C, Duration= 504Hrs  
Results: 0/231

*N-Channel, 30Vds, 20Vgs*

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

**ELECTRICAL CHARACTERISTIC SUMMARY:**

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

**CHANGED PART IDENTIFICATION:**

Product with a Finished Good Date Code of '730' or newer may be sourced from the ON Semiconductor facility in Aizu, Japan. Standard traceability will apply.



**Final Product/Process Change Notification #16015**

**AFFECTED DEVICE LIST**

NTMFS4122NT1G  
NTMFS4122NT3G  
NTHD3100CT1G  
NTHD3100CT1  
NTHD3100CT3G  
NTHD3100CT3  
NTHD3101FT1G  
NTHD3101FT1  
NTHD3101FT3G  
NTHD3101FT3  
NTHD4102PT1G  
NTHD4102PT1  
NUS2045MNT1G  
NUS2045MNT1  
NTR2101PT1G  
NTR2101PT1  
NTZD3154NT1G  
NTZD3154NT2G  
NTZD3154NT5G  
NTZD3155CT1G  
NTZD3155CT2G  
NTZD3155CT5G  
NTJS3157NT1G  
NTJS3157NT1  
NTJS3157NT2G  
NTJS3157NT2  
NTJS3157NT4G  
NTJS3157NT4  
NTJD2152PT1G  
NTJD2152PT1  
NTJD2152PT2G  
NTJD2152PT2  
NTJD4105CT1G  
NTJD4105CT1  
NTJD4105CT2G  
NTJD4105CT2  
NTJD4105CT4G  
NTJD4105CT4  
NTJD2152PT1G  
NTJD2152PT1  
NTJD2152PT2G  
NTJD2152PT2  
NTJD4105CT1G  
NTJD4105CT1  
NTJD4105CT2G  
NTJD4105CT2  
NTJD4105CT4G  
NTJD4105CT4  
NTS2101PT1G  
NTS2101PT1  
NTA4151PT1G  
NTA4151PT1  
NTE4151PT1G  
NTE4151PT1



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NTZD3152PT1G  
NTZD3152PT2G  
NTZD3152PT5G  
NTZD3155CT1G  
NTZD3155CT2G  
NTZD3155CT5G  
NTR4101PT1G  
NTR4101PT1  
NTHD4102PT3G  
NTHS4101PT1G  
NTHS4101PT1  
STHS4101PT1G  
STHS4101PT1  
NTA4153NT1G  
NTA4153NT1  
NTE4153NT1G  
NTE4153NT1  
NTHD3102CT1G  
NTHS2101PT1G  
NTHS2101PT1  
NTK3142PT1G  
NTK3142PT5G  
NTJD1155LT1G  
NTJD1155LT1  
NTJD1155LT1G  
NTJD1155LT1  
NTJD4152PT1G  
NTJD4152PT1  
NTJD4158CT1G  
NTJD4158CT2G  
NTJD4152PT1G  
NTJD4152PT1  
NTMFS4121NT1G  
NTMFS4121NT3G  
NTS4101PT1G  
NTS4101PT1  
NTZS3151PT1G  
NTZS3151PT5G  
NTGD1100LT1G  
NTGD1100LT1  
NTJS3151PT1G  
NTJS3151PT1  
NTJS3151PT2G  
NTJS3151PT2  
NUS3116MTR2G  
NTHD2102PT1G  
NTHD2102PT1  
NTHD5904NT1G  
NTHD5904NT1  
NTHD5904NT3G  
NTHD5904NT3  
NTJS4151PT1G  
NTJS4151PT1  
NLTLS3107PR2G  
NTJS4160NT1G  
NTK3139PT1G



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NTK3139PT5G  
NTK3134NT1G  
NTK3134NT5G  
NTUD3127CT5G  
NTUD3128NT5G  
NTUD3129PT5G  
NTLJS3113PT1G