ON Semiconductor

FINAL PRODUCT/PROCESS CHANGE NOTIFICATION
Generic Copy

08-Oct-2008

SUBJECT: ON Semiconductor Final Product/Process Change Notification #16163

TITLE: Copper Wire in the TSOP6 Package for MOSFET Products

PROPOSED FIRST SHIP DATE: 08-Jan-2009

AFFECTED CHANGE CATEGORY(S): Assembly

AFFECTED PRODUCT DIVISION(S): PowerFET Business Unit

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

SAMPLES:
Contact your local ON Semiconductor Sales Office or Sam Abdeh <sam.abdeh@onsemi.com >

ADDITIONAL RELIABILITY DATA:
Contact your local ON Semiconductor Sales Office or Donna Scheuch <d.scheuch@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:

In connection to ON Semiconductor's Initial Product Change Notification, number 16091:

ON Semiconductor is notifying customers of its use of Copper Wire (in place of Gold Wire) on their MOSFET Products in the TSOP6 Package. Products assembled with High Cell Density (HD3e Silicon Platform) MOSFET Die will be affected.

The mold compound, die attach, and lead frame materials used for the TSOP6 Package will not be changed. Reliability Qualification and full electrical characterization over temperature have been performed showing no difference between the product builds.

ON Semiconductor

Final Product/Process Change Notification #16163

RELIABILITY DATA SUMMARY:

Reliability Test Results:
TSOP6 Device: NTGS3433T1G

Test: High Temperature Reverse Bias (HTRB)
Conditions: Ta=150'C, Vds= 80% BVdss Rating, Duration : 504-Hrs, 3-Lots
Results: 0/240

Test: High Temperature Gate Bias (HTGB)
Conditions: Ta=150'C, Vds= 100% Vgs Rating, Duration : 504-Hrs, 3-Lots
Results: 0/240

Test: High Temperature Storage Life (HTSL)
Conditions: Ta=150'C, Duration : 1008-Hrs, 3-Lots
Results: 0/240

Test: Intermittent Operating Life (IOL-PC)
Conditions: Ta=25'C, delta Tj=100'C, 2-min on/off, 7.5K- cy, 2-Lots
Results: 0/240

Test: Temperature Cycling (TC-PC)
Conditions: Ta=-65'C/150'C, Air-to-Air, Dwell >=10-min, 500-cy, 3-Lots
Results: 0/240

Test: Autoclave Test (AC-PC)
Conditions: Ta=121'C, P=15psi, RH=100%, Duration: 240-Hrs, 3-Lots
Results: 0/240

Test: Highly Accelerated Stress Test (HAST)
Conditions: Ta=130'C, RH=85%, Duration: 240-Hrs, 3-Lots
Results: 0/240

ELECTRICAL CHARACTERISTIC SUMMARY:
There is no change in electrical parametric performance. Characterization data is available upon request.

CHANGED PART IDENTIFICATION:
TSOP6 Products assembled with the Copper Wire from the ON Semiconductor facility in Seremban, Malaysia, will have a Finish Good Date Code representing Work Week 01, 2009 or newer.

ON Semiconductor

Final Product/Process Change Notification #16163

AFFECTED DEVICE LIST

NTGS3433T1G
NTGS3433T1
NTGS3441PT1G
NTGS3441T1G
NTGS3441T1H
NTGS3441T1
NTGS3443T1G
NTGS3443T1H
NTGS3443T1
NTGS3443T2G
NTGS3443T2H
NTGS3446T1G
NTGS3446T1
NTGS3455T1G
NTGS3455T1H
NTGS3455T1