



FINAL PRODUCT/PROCESS CHANGE NOTIFICATION

Generic Copy

27-Jul-2009

SUBJECT: ON Semiconductor Final Product/Process Change Notification #16305

TITLE: Copper or Gold Wire for ChipFET MOSFET Products

PROPOSED FIRST SHIP DATE: 26-Oct-2009

AFFECTED CHANGE CATEGORY(S): ON Semiconductor ChipFET Assembly Areas – Wire Bond

AFFECTED PRODUCT DIVISION(S): Integrated Power Devices

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:

Contact your local ON Semiconductor Sales Office or Mike Davitt <mike.davitt@onsemi.com>

SAMPLES: Contact your local ON Semiconductor Sales Office or Jennie Shen <Jennie.Shen@onsemi.com>

ADDITIONAL RELIABILITY DATA: Available

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:

ON Semiconductor is notifying customers of its use of either Copper or Gold Wire for their ChipFET Packaged Products. The ChipFET Products built with MOSFET Die and/or Schottky Die are represented by this Process Change Notice.

Reliability Qualification and full electrical characterization over temperature has been performed.

**Final Product/Process Change Notification #16305****RELIABILITY DATA SUMMARY:**

Device Name: NTHS5441T1G

Test: High Temperature Reverse Bias (HTRB)

Conditions: Ta=150°C, Vds= 80% BVdss Rating, Duration : 1008-Hrs, 3-Lots

Results: 0/240

Test: High Temperature Gate Bias (HTGB)

Conditions: Ta=150°C, Vds= 100% Vgs Rating, Duration : 1008-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: High Temperature Storage Life (HTSL)

Conditions: Ta=175°C, Duration : 1008-Hrs, 3-Lots

Results: 0/240

Test: Autoclave Test (AC-PC)

Conditions: Ta=121°C, P=15psi, RH=100%, Duration: 96-Hrs, 3-Lots

Results: 0/240

Test: Highly Accelerated Stress Test (HAST)

Conditions: Ta=130°C, RH=85%, Duration: 96-Hrs, 3-Lots

Results: 0/240

Device Name: NTHD4P02FT1G

Test: High Temperature Reverse Bias (HTRB)

Conditions: Schottky only, Ta=150°C, Vds= 80% BVr Rating, Duration : 1008-Hrs, 3-Lots

Results: 0/240

Test: High Temperature Reverse, High Humidity Bias (H3TRB)

Conditions: Schottky only, Ta=85°C, RH=85%, Vds= 80% BVr Rating,
Duration : 1008-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: High Temperature Storage Life (HTSL)

Conditions: Ta=175°C, Duration : 1008-Hrs, 3-Lots

Results: 0/240

Test: Intermittent Operating Life (IOL-PC)

Conditions: Schottky only, Ta=25°C, delta Tj=100°C, 2-min on/off, 15K- cy, 1-Lot

Results: 0/80

Test: Temperature Cycling (TC-PC)

Conditions: Ta=-65°C/150°C, Air-to-Air, Dwell >=10-min, 500-cy, 1-Lot

Results: 0/80



Final Product/Process Change Notification #16305

Test: Autoclave Test (AC-PC)
Conditions: Ta=121°C, P=15psi, RH=100%, Duration: 96-Hrs, 3-Lots
Results: 0/240

Device Name: NTHS5404NT1G
Test: Temperature Cycling (TC-PC)
Conditions: Ta=-65°C/150°C, Air-to-Air, Dwell >=10-min, 500-cy, 1-Lot
Results: 0/80

Test: Intermittent Operating Life (IOL-PC)
Conditions: Ta=25°C, delta Tj=100°C, 2-min on/off, 15K- cy, 1-Lot
Results: 0/80

Device Name: NTHD5904NT1G
Test: Temperature Cycling (TC-PC)
Conditions: Ta=-65°C/150°C, Air-to-Air, Dwell >=10-min, 500-cy, 1-Lot
Results: 0/80

Test: Intermittent Operating Life (IOL-PC)
Conditions: Ta=25°C, delta Tj=100°C, 2-min on/off, 15K- cy, 1-Lot
Results: 0/80

Test: Autoclave Test (AC-PC)
Conditions: Ta=121°C, P=15psi, RH=100%, Duration: 96-Hrs, 1-Lot
Results: 0/80

Test: Highly Accelerated Stress Test (HAST)
Conditions: Ta=130°C, RH=85%, Duration: 96-Hrs, 1-Lot
Results: 0/80

ELECTRICAL CHARACTERISTIC SUMMARY:

There is no electrical parametric performance between products assembled with Copper or Gold Wire. Characterization data is available upon request.

CHANGED PART IDENTIFICATION:

Products (listed on this FPCN) assembled with either the Copper or Gold Wire from the ON Semiconductor facility in Seremban, Malaysia, will have a Finish Good Date Code representing Work Week 42, 2009 or newer.



Final Product/Process Change Notification #16305

AFFECTED DEVICE LIST

NTHC5513T1
NTHC5513T1G
NTHD2102PT1
NTHD2102PT1G
NTHD2102PT1H
NTHD2110TT1G
NTHD3100CT1
NTHD3100CT1G
NTHD3101FT1
NTHD3101FT1G
NTHD3102CT1G
NTHD3133PFT1G
NTHD3133PFT3G
NTHD4102PT1
NTHD4102PT1G
NTHD4102PT3G
NTHD4102PT1H
NTHD4401PT1G
NTHD4401PT3G
NTHD4502NT1
NTHD4502NT1G
NTHD4508NT1
NTHD4508NT1G
NTHD4N02FT1
NTHD4N02FT1G
NTHD4P02FT1
NTHD4P02FT1G
NTHD5903T1
NTHD5903T1G
NTHD5904NT1
NTHD5904NT1G
NTHD5905T1
NTHS2101PT1
NTHS2101PT1G
NTHS4101PT1
NTHS4101PT1G
NTHS4111PT1G
NTHS4166NT1G
NTHS4501NT1
NTHS4501NT1G
NTHS5404T1
NTHS5404T1G
NTHS5404T1H
NTHS5441T1
NTHS5441T1G
NTHS5441T1H
NTHS5441PT1G
NTHS5443T1
NTHS5443T1G
NTHS5443T1H
STHS4101PT1
STHS4101PT1G