ON Semiconductor

FINAL PRODUCT/PROCESS CHANGE NOTIFICATION
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10-Mar-2009

SUBJECT: ON Semiconductor Final Product/Process Change Notification #16225

TITLE: Copper Wire in the S08 Flat Lead and Micro8 Packages for MOSFET Products

PROPOSED FIRST SHIP DATE: 08-Jun-2009

AFFECTED CHANGE CATEGORY(S): ON Semiconductor SO8 Flat Lead, Micro8 Assembly Areas – Wire Bond

AFFECTED PRODUCT DIVISION(S): PowerFET Business Unit

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:
Contact your local ON Semiconductor Sales Office or Sam Abdeh <sam.abdeh@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:

As previously announced in a General Announcement (GA#16200) by ON Semiconductor, many packages will be converting from Gold to Copper Wire. Consistent with that GA#16200, ON Semiconductor is issuing this PCN for a specific group of packages/products.

ON Semiconductor is notifying customers of its use of Copper Wire (in place of Gold Wire) for their S08 Flat Lead, Micro8 Flat Lead and Micro8 Packaged Products assembled with MOSFET Die. All MOSFET Product types built in these three packages are represented by this Process Change Notice.

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

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RELIABILITY DATA SUMMARY:

Reliability Test Results: NTMFS4833NR2G
Test: High Temperature Reverse Bias (HTRB)
Conditions: Ta=150'C, Vds= 80% BVdss Rating, Duration : 504-Hrs, 3-Lots
Results: 0/252

Test: High Temperature Gate Bias (HTGB)
Conditions: Ta=150'C, Vds= 100% Vgs Rating, Duration : 504-Hrs, 3-Lots
Results: 0/252

Test: High Temperature Storage Life (HTSL)
Conditions: Ta=175'C, Duration : 504-Hrs, 3-Lots
Results: 0/294

Test: High Temperature Storage Life (HTSL)
Conditions: Ta=150'C, Duration : 504-Hrs, 3-Lots
Results: 0/294

Test: Intermittent Operating Life (IOL-PC)
Conditions: Ta=25'C, delta Tj=100'C, 2-min on/off, 7.5K- cy, 3-Lots
Results: 0/252

Test: Temperature Cycling (TC-PC)
Conditions: Ta=-65'C/150'C, Air-to-Air, Dwell >=10-min, 500-cy, 3-Lots
Results: 0/273

Test: Autoclave Test (AC-PC)
Conditions: Ta=121'C, P=15psi, RH=100%, Duration: 96-Hrs, 3-Lots
Results: 0/252

Test: Highly Accelerated Stress Test (HAST)
Conditions: Ta=130'C, RH=85%, Duration: 96-Hrs, 3-Lots
Results: 0/252

Reliability Test Results: NTTD4401FR2H
Test: High Humidity, High Temperature Reverse Bias (H3TRB) Schottky only
Conditions: Ta=85'C, RH= 85%, Vds= 80% BVr Rating, Duration : 504-Hrs, 3-Lots
Results: 0/240

Test: High Temperature Storage Life (HTSL)
Conditions: Ta=150'C, Duration : 504-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, 3-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: Highly Accelerated Stress Test (HAST)
Conditions: Ta=130'C, RH=85%, Duration: 96-Hrs, 3-Lots
Results: 0/240

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ELECTRICAL CHARACTERISTIC SUMMARY:

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

CHANGED PART IDENTIFICATION:

The S08 Flat Lead, Micro8 Flat Lead, and Micro8 Products assembled with the Copper Wire from the ON Semiconductor facility in Seremban, Malaysia, will have a Finish Good Date Code representing Work Week 21, 2009 and newer.

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AFFECTED DEVICE LIST

NTMFS4108NT1G
NTMFS4108NT3G
NTMFS4119NT1G
NTMFS4119NT3G
NTMFS4120NT1G
NTMFS4120NT3G
NTMFS4121NT1G
NTMFS4121NT3G
NTMFS4122NT1G
NTMFS4122NT3G
NTMFS4701NT1G
NTMFS4701NT3G
NTMFS4707NT1G
NTMFS4707NT3G
NTMFS4708NT1G
NTMFS4708NT3G
NTMFS4709NT1G
NTMFS4709NT3G
NTMFS4741NT1G
NTMFS4744NT1G
NTMFS4744NT3G
NTMFS4747NT1G
NTMFS4821NT1G
NTMFS4821NT3G
NTMFS4823NT1G
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NTMFS4847NT3G
NTMFS4849NT1G
NTMFS4849NT3G
NTMFS4851NT1G
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NTMFS4921NT1G
NTMFS4921NT3G
NTMFS4946NT1G
NTMFS4946NT3G
NTMFS5835NT1G
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NTMFS4943NT1G
NTMFS4943NT3G
NTMFS4945NT1G
NTMFS4945NT3G
NTTD1P02R2
NTTD4401FR2G
NTTD4401FR2H
NTTD4401FR2
NTTS2P02R2G
NTTS2P02R2
NTTS2P03R2G
NTTS2P03R2
NTTFS4932NTAG
NTTFS4932NTWG
NTTFS4937NTAG
NTTFS4937NTWG
NTTFS4939NTAG
NTTFS4939NTWG
NTTFS4941NTAG
NTTFS4941NTWG
NTTFS4943NTAG
NTTFS4943NTWG
NTTFS4945NTAG
NTTFS4945NTWG
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