



FINAL PRODUCT/PROCESS CHANGE NOTIFICATION

26 May 2009

SUBJECT: ON Semiconductor Final Product/Process Change Notification #16257

TITLE: Copper Wire replacing Gold Wire in the SOT23 Package for MOSFET Products

PROPOSED FIRST SHIP DATE: 25 Aug 2009

AFFECTED CHANGE CATEGORY(S): ON Semiconductor SOT23 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 Kevin Ream <Kevin.Ream@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 Copper Wire (in place of Gold Wire) for their SOT23 Packaged Products assembled with MOSFET Die. SOT23 Products built with Planar and Trench MOSFET platforms are represented by this Process Change Notice.

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



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RELIABILITY DATA SUMMARY:

Package: SOT-23

Qual Vehicles: NTR4502PT1G
 2N7002LT1G
 NTR0202PLT1G
 NTR2101PT1G

NTR4502PT1G

Test:	Conditions:	Interval:	Results
HTRB	Ta=150C, Vds=80% Rated BVdss	1008 hrs	0/240
HTGB	Ta=150C, Vgs= 100% rated BVgss	1008 hrs	0/240
Precondition	MSL1 @ 260C , 3 X IR at 260 C/260 C		0/960
Autoclave+PC	Ta=121C RH=100% ~15 psig	96 hrs	0/240
HAST+PC	Ta=130C RH=85% p=~18.8psig bias=80% rated V or100V Max	96 hrs	0/240
IOL+PC	Ta=25C, Delta TJ = 100 C, Ton/off = 2 min.	15000 cyc	0/240
TC+PC	Ta= -65 C to 150 C air to air	1000 cyc	0/240
HTSL	Ta= 150C	1008 hrs	0/240
HTSL	Ta=175C	1008 hrs	0/240

2N7002LT1G

HTRB	Ta=150C, Vds=80% Rated BVdss	1008 hrs	0/240
HTGB	Ta=150C, Vgs= 100% rated BVgss	1008 hrs	0/240
Precondition	MSL1 @ 260C , 3 X IR at 260 C/260 C		0/960
Autoclave+PC	Ta=121C RH=100% ~15 psig	96 hrs	0/240
HAST+PC	Ta=130C RH=85% p=~18.8psig bias=80% rated V or100V Max	96 hrs	0/240
IOL+PC	Ta=25C, Delta TJ = 100 C, Ton/off = 2 min.	15000 cyc	0/240
TC+PC	Ta= -65 C to 150 C air to air	1000 cyc	0/240
HTSL	Ta= 150C	1008 hrs	0/240
HTSL	Ta=175C	1008 hrs	0/240

NTR0202PLT1G

TC+PC	Ta= -65 C to 150 C air to air	1000 cyc	0/240
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NTR2101PT1G

TC+PC	Ta= -65 C to 150 C air to air	1000 cyc	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:

SOT23 Products assembled with the Copper Wire from the ON Semiconductor facility in Leshan, China, will have a Finish Good Date Code representing Work Week 31, 2009 or newer.



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AFFECTED DEVICE LIST

2N7002ET1G
2N7002ET3G
2N7002KT1G
2N7002KT1H
2N7002KT3G
2N7002LT1G
2N7002LT1H
2N7002T1
2N7002LT3G
2N7002LT3H
2N7002LT3
BSS123LT1G
BSS123LT1
BSS123LT3G
BSS123LT3
BSS138LT1G
BSS138LT1H
B33138LT1
BSS138LT3G
BSS138LT3H
BSS138LT3
SBSS138LT1G
SBSS138LT1G
NTR0202PLT1G
NTR0202PLT1G
NTR0202PLT3G
NTR0202PLT3
NTR1P02LT1G
NTR1P02LT1H
NTR1P02LT1
NTR1P02LT3G
NTR1P02T1G
NTR1P02T1
NTR1P02T3G
NTR1P02T3
NTR2101PT1G
NTR2101PT1H
NTR2101PT1
NTR3161NT1G
NTR3161NT3G
NTR3162PT1G
NTR3162PT3G
NTR4101PT1G
NTR4101PT1H
NTR4101PT1
NTR4170NT1G
NTR4170NT3G
NTR4171PT3G
NTR4501NT1G
NTR4501NT1H
NTR4501NT1
NTR4501NT3G
NTR4501NT3H



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NTR4501NT3
NTR4502PT1G
NTR4502PT1
NTR4502PT3G
NTR4503NT1G
NTR4503NT1H
NTR4503NT1
NTR4503NT3G
MMBF0201NLT1G
MMBF0201NLT1
MMBF0202PLT1G
MMBF0202PLT1
MMBF170LT1G
MMBF170LT1
MMBF170LT3G
MMBF170LT3
MMBF2201NT1G
MMBF2201NT1
MMBF2202PT1G
MMBF2202PT1
MMBFV170LT1G
MMBFV170LT3G