



FINAL PRODUCT/PROCESS CHANGE NOTIFICATION
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31 Mar 2009

SUBJECT: ON Semiconductor Final Product/Process Change Notification #16206

TITLE: Final Notification of ISMF Wafer Fab Qualification for Schottky Rectifier Products

PROPOSED FIRST SHIP DATE: 30 Jun 2009

AFFECTED CHANGE CATEGORY(S): ON Semiconductor Fab Site

AFFECTED PRODUCT DIVISION(S): Automotive & Power Regulation Group

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:

Contact your local ON Semiconductor Sales Office or Mark Thomas <Mark.Thomas@onsemi.com>

SAMPLES: Contact your local ON Semiconductor Sales Office

ADDITIONAL RELIABILITY DATA: Available

Contact your local ON Semiconductor Sales Office or Laura Rivers<laura.rivers@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:

This is the final product notifications of IPCN 16006, that announced ON Semiconductor is adding wafer fabrication capacity for the Schottky Rectifier products listed herein at the ISMF wafer fab in Seremban, Malaysia. The ISMF facility is an ON Semiconductor owned wafer fab that has been producing products for ON Semiconductor since 1998. Several existing technologies within ON Semiconductor's product families are currently sourced from ISMF, including Zener diodes, Small Signal transistors and diodes, and USB array filter products.

ELECTRICAL CHARACTERISTIC SUMMARY:

There are no changes in electrical characteristics and other product performance meets data sheet specifications.

CHANGED PART IDENTIFICATION:

Devices from ON Semiconductor with date code 0926 and greater may be sourced from the ISMF Fab in Seremban (Malaysia).



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RELIABILITY DATA SUMMARY :

MBRS130LT3G

Test	Conditions	Interval	Sample Size	Results
HTRB	Ta=90C, 80% rated V	1008 hrs	84 x 3	0/252
Precondition	MSL1, 3X IR at 260 C,		756 x 3	0 fails
Autoclave	Ta=121C/100% RH/15 psig	96 hrs	84 x 3	0/252
H3TRB-PC	Ta=85C/85% RH/80% Rated Voltage 100V Max	1008 hrs	84 x 3	0/252
IOL-PC	Ta=25C, Delta TJ = 100 C Ton/off = 2 min.	15000 cyc	84 x 3	0/252
TC-PC	Ta= -65 C to 150 C	1000 cyc	84 x 3	0/252
HTSL	Ta=150C	1008 hrs	84 x 3	0/252
DPA	Per AECQ101, after TC and H3TRB		4 x 3	0 fails
RSH Resistance to Solder Heat -	Ta= 260 C		30 x 1	0/30

AFFECTED DEVICES:

1C5822WP
 1N5817
 1N5817G
 1N5817RL
 1N5817RLG
 1N5820
 1N5820G
 1N5820RL
 1N5820RLG
 1N5821
 1N5821G
 1N5821RL
 1N5821RLG
 1N5822
 1N5822G
 1N5822RL
 1N5822RLG
 MBR0520LT1
 MBR0520LT1G
 MBR0520LT1H
 MBR0520LT3
 MBR0520LT3G
 MBR120LSFT1
 MBR120LSFT1G
 MBR120LSFT1H
 MBR120LSFT3
 MBR120LSFT3G
 MBR120VLSFT1
 MBR120VLSFT1G
 MBR120VLSFT1H
 MBR120VLSFT3
 MBR120VLSFT3G
 MBR130LSFT1
 MBR130LSFT1G
 MBR130LSFT1H
 MBR230LSFT1G
 MBR230LSFT1H
 MBR2515LG
 MBR4015CTLG

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MBR4015LWTG
MBRA130LT3
MBRA130LT3G
MBRA210LT3G
MBRA210LT3H
MBRB2515LG
MBRB2515LT4
MBRB2515LT4G
MBRB2515LT4H
MBRM110LT1G
MBRM110LT3G
MBRM120LT1
MBRM120LT1G
MBRM120LT3
MBRM120LT3G
MBRM120LT3H
MBRM130LT1G
MBRM130LT1H
MBRM130LT3
MBRM130LT3G
MBRS130LT3
MBRS130LT3G
MBRS130LT3H
MBRS230LT3G
MBRS410LT3
MBRS410LT3G
NRVB120LSFT1G
NRVB1N5817
NRVB1N5817G
NRVB1N5817RL
NRVB1N5817RLG
NRVB1N5820
NRVB1N5820G
NRVB1N5820RL
NRVB1N5820RLG
NRVB1N5821
NRVB1N5821G
NRVB1N5821RL
NRVB1N5821RLG
NRVB1N5822
NRVB1N5822G
NRVB1N5822RL
NRVB1N5822RLG
NRVBA130LT3
NRVBA130LT3G
NRVBM110LT1G
NRVBM110LT3G
NRVBM120LT1G
NRVBM120LT3G
NRVBM130LT1G
NRVBM130LT3G
NTGD3147FT1G
NTHD3133PFT1G
NTHD3133PFT3G
NTHD4N02FT1
NTHD4N02FT1
NTHD4N02FT1G
NTLGF3402PT1G
NTLGF3402PT2G
NTLGF3501NT1G
NTLGF3501NT2G
NTLJF3118NTAG
NTLJF3118NTBG



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NTMD4884NFR2G
 SBR5319RLC
 SBR5319RLCG
 SBR5442RLC
 SBR5442RLCG
 SBR80520LT1
 SBR80520LT1G
 SBR80520LT3G
 SBR82515LG
 SBRS5654T3
 SBRS5654T3G
 SBRS8130LT3
 SBRS8130LT3G

RELIABILITY DATA SUMMARY :

MBR30H150CTG

Test	Conditions	Interval	Sample Size	Results
HTRB	Ta=90C, 80% rated V	1008 hrs	80 x 3	0/240
Autoclave	Ta=121C/100% RH/15 psig	96 hrs	80 x 3	0/240
H3TRB	Ta=85C/85% RH/80% Rated Voltage 100V Max	1008 hrs	80 x 3	0/240
IOL	Ta=25C, Delta TJ = 100 C Ton/off = 3.5 min.	8572 cyc	80 x 3	0/240
TC	Ta= -65 C to 150 C	1000 cyc	80 x 3	0/240
HTSL	Ta=150C	1008 hrs	80 x 3	0/240
DPA	Per AECQ101, after TC and H3TRB		4 x 3	0 fails

AFFECTED DEVICES:

MBR10L60CTG
 MBR20H150CTG
 MBR20L60CTG
 MBR20L80CTG
 MBR30H150CTG
 MBR30L60CTG
 MBR40L60CTG
 MBRA160T3
 MBRA160T3G
 MBRF10H150CTG
 MBRF10L60CTG
 MBRF20H150CTG
 MBRF20L60CTG
 MBRF20L80CTG
 MBRF30H150CTG
 MBRF30L60CTG
 MBRS260T3G
 MBRS260T3H
 SS26T3
 SS26T3G
 SS26T3H



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RELIABILITY DATA SUMMARY:

MBR10100G

HTRB	Ta=90C, 80% rated V	1008 hrs	80 x 3	0/240
Autoclave	Ta=121C/100% RH/15 psig	96 hrs	80 x 3	0/240
H3TRB	Ta=85C/85% RH/80% Rated Voltage 100V Max	1008 hrs	80 x 3	0/240
IOL	Ta=25C, Delta TJ = 100 C Ton/off = 3.5 min.	8572 cyc	80 x 3	0/240
TC	Ta= -65 C to 150 C	1000 cyc	80 x 3	0/240
HTSL	Ta=150C	1008 hrs	80 x 3	0/240
DPA	Per AECQ101, after TC and H3TRB		4 x 3	0 fails

AFFECTED DEVICES:

MBR10100
 MBR10100G
 MBR1080G
 MBR1090G
 MBR1100
 MBR1100G
 MBR1100RL
 MBR1100RLG
 MBR3100
 MBR3100G
 MBR3100RL
 MBR3100RLG
 MBRS1100T3
 MBRS1100T3G
 MBRS1100T3H
 MBRS190T3
 MBRS190T3G
 MBRS190T3H
 MBRS3100T3G
 MBRS3100T3H
 NRVB10100
 NRVB10100G
 NRVB3100G
 NRVB3100RLG
 NRVBS3100T3G
 SBR820100CT
 SBR820100CTG
 SBRB20100CTT4
 SBRB20100CTT4G
 SBRS5631T3
 SBRS5631T3G
 SBRS81100T3
 SBRS81100T3G
 SBRS8190T3
 SBRS8190T3G



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RELIABILITY DATA SUMMARY:

MBRM120ET3G

MSL1 @ 260C		0/924
MSL performed before TC, H3TRB, AC and IOL		
HTRB Ta=90C, Vr=16V	1008 hours	0/231
HTSL Ta=150C	1008 hours	0/231
Temp Cycle		
Ta= -65/150C	1000 cycles	0/231
Autoclave		
Ta = 121C, RH=100% psig ~14.7	96 hours	0/231
H3TRB Ta=85C, RH=85% Vr=16V	504 hours	0/231
IOL Ta=25C, Tjmax=100		
Ton=Toff=2 minutes	15000 cycles	0/231

AFFECTED DEVICES:

MBR120ESFT1
 MBR120ESFT3
 MBRA210ET3H
 MBRM120ET1G
 MBRM120ET1H
 NRVB120ESFT1
 NRVB120ESFT1G
 NRVB120ESFT3
 NRVB120ESFT3G
 NRVBM110ET1G
 NRVBM120ET1G
 NRVBM120ET3G
 NTHD3101FT1
 NTHD3101FT1G
 NTHD4P02FT1
 NTHD4P02FT1G
 SBRC175-1645WP
 SBRC175-2545CTWP
 SBRC175-5822WP

RELIABILITY DATA SUMMARY:

MBRB20100CTT4G

HTRB Ta=90C, Vr=80V	504 hours	0/231
HTSL Ta=150C	504 hours	0/231
Temp Cycle		
Ta= -65/150C	1000 cycles	0/231
Autoclave		
Ta = 121C, RH=100% psig ~14.7	96 hours	0/231
H3TRB Ta=85C, RH=85% Vr=80V	504 hours	0/231
IOL Ta=25C, Tjmax=100		
Ton=Toff=3.5 minutes	4286 cycles	0/231

AFFECTED DEVICES:

MBR1045H
 MBR1060G
 MBR150
 MBR150G
 MBR150RL
 MBR150RLG
 MBR1545CTH
 MBR160
 MBR160G

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MBR160RL
MBR160RLG
MBR16100CTH
MBR1645H
MBR2045CTH
MBR2060CTG
MBR20H100CTH
MBR2545CTH
MBR3045STH
MBR30H100CTH
MBR30H60CTH
MBR30H80CTG
MBR340
MBR340RL
MBR350RL
MBR350RLG
MBR360
MBR360G
MBR360RL
MBR360RLG
MBR41H100CTH
MBRB2060CTG
MBRB2060CTT4
MBRB2060CTT4G
MBRB30H60CT-1H
MBRB30H60CTT4G
MBRB30H80CT-1G
MBRD320G
MBRD320RLG
MBRD320RLH
MBRD320T4
MBRD320T4G
MBRD320T4H
MBRD330G
MBRD330RLG
MBRD330T4G
MBRD340G
MBRD340RLG
MBRD340T4
MBRD340T4G
MBRD350G
MBRD350RLG
MBRD350T4
MBRD350T4G
MBRD360G
MBRD360RLG
MBRD360T4
MBRD360T4G
MBRD620CTT4G
MBRD630CTT4G
MBRD640CT
MBRD640CTG
MBRD640CTT4
MBRD640CTT4G
MBRD640CTT4H
MBRD650CTG
MBRD650CTT4G
MBRD660CTG
MBRD660CTRLG
MBRD660CTT4
MBRD660CTT4G
MBRD660CTT4H
MBRF2045CTG

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MBRF30H100CTG
MBRS360BT3G
MBRS360T3
MBRS360T3G
MBRS360T3H
NBRB8H100T4G
NBRD5H100T4G
NBRS2H100T3G
NRVB0540T1G
NRVB0540T3
NRVB0540T3G
NRVB1035G
NRVB1045G
NRVB1060G
NRVB10H100CTG
NRVB150G
NRVB1535CTG
NRVB1545CTG
NRVB16100CTG
NRVB2045CTG
NRVB2060CTG
NRVB2080CTG
NRVB2090CTG
NRVB20H100CTG
NRVB2535CTG
NRVB2545CTG
NRVB3045STG
NRVB30H100CTG
NRVB30H60CTG
NRVB360
NRVB360G
NRVB360RL
NRVB360RLG
NRVB40H100WTG
NRVBB1060T4G
NRVBB20100CTT4G
NRVBB2060CTT4G
NRVBB30H60CTT4G
NRVBD640CTG
NRVBD640CTT4G
NRVBD660CTG
NRVBD660CTT4
NRVBD660CTT4G
NRVBS360T3G
SBR181G
SBR182CT-1G
SBR194G
SBR204T3
SBR204T3G
SBR350T4G
SBR640CTT4G
SBR660CTT4G
SBRB1045G
SBRB1045T4
SBRB1045T4G
SBRB108T4
SBRB108T4G
SBRB1545CTG
SBRB1545CTT4
SBRB1545CTT4G
SBRB2545CTG
SBRB2545CTT4
SBRB2545CTT4G



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SBRD110T4
 SBRD110T4G
 SBRD111T4G
 SBRD113RL
 SBRD113RLG
 SBRD114CTT4G
 SBRD116CTT4
 SBRD81045T4G
 SBRD8320G
 SBRD8320T4G
 SBRD8330G
 SBRD8330T4G
 SBRD8340G
 SBRD8340T4G
 SBRD8350G
 SBRD8350RLG
 SBRD8350T4G
 SBRD8360G
 SBRD8360RLG
 SBRD8360T4
 SBRD8360T4G
 SS16T3G

RELIABILITY DATA SUMMARY:

MBRS260T3G

MSL1 @ 260C		0/960
MSL performed before TC, H3TRB, AC and IOL		
HTRB Ta=90C, Vr=48V	1008 hours	0/240
HTSL Ta=150C	1008 hours	0/240
Temp Cycle		
Ta= -65/150C	1000 cycles	0/240
Autoclave		
Ta = 121C, RH=100% psig ~14.7	96 hours	0/240
H3TRB Ta=85C, RH=85% Vr=16V	1008 hours	0/240
IOL Ta=25C, Tjmax=100		
Ton=Toff=2minutes	15000 cycles	0/240

AFFECTED DEVICES:

1N5818
 1N5818RL
 1N5819
 1N5819RL
 1N5819RLG
 80SQ045N
 80SQ045NRL
 80SQ045NRLG
 MBR0530T1H
 MBR140SFT1
 MBR140SFT1H
 MBR140SFT3
 MBR2535CTLG
 MBR30L45CTH
 MBR40L45CTH
 MBR60L45CTH
 MBRA320T3G
 MBRA340T3H
 MBRC1035CTLWP
 MBRD1035CTLT4
 MBRD1035CTLT4G

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MBRD835LT4H
MBRM140T1H
MBRM140T3H
MBRS120T3H
MBRS130T3H
MBRS140T3H
MBRS2040LT3H
MBRS240LT3H
MBRS340T3H
NRVB0530T1
NRVB0530T1G
NRVB0530T3G
NRVB130T1G
NRVB140SFT1
NRVB140SFT1G
NRVB140SFT3
NRVB140SFT3G
NRVB1N5818
NRVB1N5818G
NRVB1N5818RL
NRVB1N5818RLG
NRVB1N5819
NRVB1N5819G
NRVB1N5819RL
NRVB1N5819RLG
NRVB60L45CTG
NRVBA140T3
NRVBA140T3G
NRVBA160T3
NRVBA160T3G
NRVBA340T3G
NRVBB2535CTLG
NRVBB2535CTLT4G
NRVBB3030CTLG
NRVBB3030CTLT4G
NRVBB30H30CT-1G
NRVBM140T1
NRVBM140T1G
NRVBM140T3
NRVBM140T3G
NRVBS2040LT3G
NRVBS240LT3G
NRVBS260T3G
NRVBS330T3G
NRVBS540T3G
NTGD4169FT1G
NTLJD3182FZTAG
NTLJD3182FZTBG
NTLJF3117PT1G
NTLJF3117PTAG
NTLJF4156NT1G
NTLJF4156NTAG
NTMD4184PFR2G
NTMS4873NFR2G
NTMSD2P102LR2G
NTMSD2P102R2
NTMSD2P102R2SG
NTMSD3P102R2
NTMSD3P102R2G
NTMSD3P102R2SG
NTMSD3P303R2
NTMSD3P303R2G
NTMSD6N303R2



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NTMSD6N303R2G
 NTMSD6N303R2SG
 NTTD4401FR2
 NTTD4401FR2G
 NTTD4401FR2H
 NVMSD6N303R2
 NVMSD6N303R2G
 SBR835LT4G
 SBRA401T3
 SBRA401T3G
 SBRD335L-1
 SBRD335LT4
 SBRD81035CTLT4
 SBRD81035CTLT4G
 SBRD835LT4G
 SBRD8835LG
 SBRD8835LT4
 SBRD8835LT4G
 SBR5597T3
 SBR5597T3G
 SBR5598T3
 SBR5598T3G
 SBR5632T3G
 SBR5641T3
 SBR5641T3G
 SBR5648T3
 SBR5648T3G
 SBR8120T3G
 SBR8140T3
 SBR8140T3G
 SBR8320T3G
 SBR8340T3
 SBR8340T3G
 SS24T3H
 XTDD4401FR2G

RELIABILITY DATA SUMMARY:

MBRB20200CTT4G

HTRB Ta=90C, Vr=80V	1008 hours	0/240
HTSL Ta=150C	1008 hours	0/240
Temp Cycle Ta= -65/150C	1000 cycles	0/240
Autoclave Ta = 121C, RH=100% psig ~14.7	96 hours	0/240
H3TRB Ta=85C, RH=85% Vr=80V	1008 hours	0/240
IOL Ta=25C, Tjmax=100 Ton=Toff=3.5minutes	8572 cycles	0/240

AFFECTED DEVICES:

NRVB20200CTG
 NRVBS3200T3G
 NRVBS3201T3G
 NRVBS4201T3G
 SBR205G
 SBRB20200CTT4
 SBRB20200CTT4G
 SBRC3200PF