



INITIAL PRODUCT/PROCESS CHANGE NOTIFICATION
Generic Copy

20-NOV-2003

SUBJECT: ON Semiconductor Initial Product/Process Change Notification #13211

TITLE: Qualification of Schottky Rectifier Wafer Production in LiON Microelectronics, LLC.

EFFECTIVE DATE: 20-Mar-2004

AFFECTED CHANGE CATEGORY: Subcontractor Fab Site

AFFECTED PRODUCT DIVISION: Bipolar Discretes Products Div

ADDITIONAL RELIABILITY DATA: Available

Contact your local ON Semiconductor Sales Office or Laura Rivers <S20636@onsemi.com>

SAMPLES: Contact your local ON Semiconductor Sales Office or
Dianne Von Borstel <RPDR20@onsemi.com>

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:

Contact Sales Office or Louis Tsai <FFNT6M@onsemi.com>

NOTIFICATION TYPE:

Initial Product/Process Change Notification (IPCEN)

First change notification sent to customers. IPCNs are issued at least 120 days prior to implementation of the change. An IPCN is advance notification about an upcoming change and contains general information regarding the change details and devices affected. It also contains the preliminary reliability qualification plan.

The completed qualification and characterization data will be included in the Final Product/Process Change Notification (FPCN).

This IPCN notification will be followed by a Final Product/Process Change Notification (FPCN) at least 60 days prior to implementation of the change.

DESCRIPTION AND PURPOSE:

In order to provide additional capacity to service our customers' increasing demand for our Schottky Rectifier products, On Semiconductor is qualifying a new wafer fabrication facility, LiON Microelectronics, located in Hangzhou, China.

LiON Microelectronics will be using an On Semiconductor supplied equipment set with the same process technology flow as the current wafer fab. Qualifications and ramp up of LiON Microelectronics is being managed by ON Semiconductor personnel.

There will be no change in electrical performance with products from the new wafer fab.



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QUALIFICATION PLAN:

Six different qualification vehicles have been carefully selected to address all critical variables and interactions of wafer design features, process considerations, mechanical construction, and electrical characteristics.

ON Part Number	Rated Voltage	Package
MBR0530T1	30V	SOD-123
MBRS130LT3	30V	SMB
MBR2545CT	45V	TO-220
MBR1100	100V	DO-41
MBR20200CT	200V	TO-220
MBRP400100CTL	100V	TO-218

Reliability Plan for all Devices:

Test	Conditions	Interval	SS(Lots x Units)
A/clave	Ta = 121 deg C, P = 15 psig, RH = 100%	96 hrs	3x80
H3TRB	85 deg C/85% RH, Bias 80% rated voltage	1008 hrs	3x80
HTB	Ta = Device specific.	1008 hrs	3x80
HTRB	Ta = device specific, Bias 80% rated voltage	1008 hrs	3x80
Temp Cycle	Ta = -65 to +150 deg C	1000 cyc	3x80
MSL1**	24 hr bake @125deg C + 168 hr 85/85 + 3 IR @ 260 deg C + 1x Flux immersion + Alcohol + DI rinse + Visual	Readout	3x252
IOL	Ta = 25 deg C, delta Tjmax 100 deg C	1008 hrs*	3x80

* - Cycles differ based on package size

** - Surface mount packages only

Electrical Characterization Plan:

Datasheet specifications and product electrical performance will remain unchanged.

Characterization on each device being transferred will be performed to the following requirements:

- 1) Three temperature electrical characterization on 30 units from 3 lots plus control
- 2) Surge testing on 5 units from all lots

AFFECTED DEVICE LIST (WITHOUT SPECIALS):

PART

- 1C5822WP
- 1N5817
- 1N5817RL
- 1N5818
- 1N5818RL
- 1N5819
- 1N5819RL
- 1N5819RLG
- 1N5820
- 1N5820RL
- 1N5821
- 1N5821RL
- 1N5822
- 1N5822RL
- 80SQ045N
- 80SQ045NRL



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MBR0520LT1
MBR0520LT1G
MBR0520LT3
MBR0520LT3G
MBR0530T1
MBR0530T1G
MBR0530T3
MBR0530T3G
MBR0540T1
MBR0540T1G
MBR0540T3
MBR10100
MBR1035
MBR1045
MBR1060
MBR1080
MBR1090
MBR1100
MBR1100RL
MBR120ESFT1
MBR120ESFT3
MBR120LSFT1
MBR120LSFT3
MBR120VLSFT1
MBR120VLSFT3
MBR130LSFT1
MBR130T1
MBR130T3
MBR140SFT1
MBR140SFT3
MBR150
MBR150RL
MBR1535CT
MBR1545CT
MBR1545CTG
MBR1545CTP
MBR160
MBR160RL
MBR16100CT
MBR1635
MBR1645
MBR20100CT
MBR20100CTG
MBR20100CTP
MBR20200CT
MBR20200CTP
MBR2030CTL
MBR2045CT
MBR2045CTG
MBR2045CTP
MBR2060CT
MBR2080CT
MBR2090CT
MBR2090CTLFAJ
MBR20H100CT
MBR2515L



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MBR2535CT
MBR2535CTL
MBR2545CT
MBR2545CTP
MBR3045PT
MBR3045WT
MBR3060
MBR3060RL
MBR3100
MBR3100RL
MBR340
MBR340RL
MBR350RL
MBR360
MBR360RL
MBR4015CTL
MBR4015LWT
MBR4045PT
MBR4045WT
MBR6045PT
MBR6045WT
MBR7030WT
MBR735
MBR745
MBR835
MBR835RL
MBR840
MBR840RL
MBR845
MBR845RL
MBRA120ET3
MBRA120LT3
MBRA130LT3
MBRA130LT3G
MBRA140T3
MBRA140T3G
MBRA160T3
MBRA210ET3
MBRA210LT3
MBRA340T3
MBRB1045
MBRB1045T4
MBRB1545CT
MBRB1545CTT4
MBRB20100CT
MBRB20100CTT4
MBRB20200CT
MBRB20200CTT4
MBRB2060CT
MBRB2060CTT4
MBRB2515L
MBRB2515LT4
MBRB2535CTL
MBRB2535CTLT4
MBRB2545CT
MBRB2545CTT4



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MBRB3030CT
MBRB3030CTL
MBRB3030CTT4
MBRB4030
MBRB4030T4
MBRC1045WP
MBRC1060WP
MBRC1645WP
MBRC20200CTWP
MBRC2535CTLWP
MBRC835L
MBRC835LWP
MBRD1035CTL
MBRD1035CTLT4
MBRD1035CTLT4G
MBRD320
MBRD320RL
MBRD320T4
MBRD330
MBRD330RL
MBRD330T4
MBRD340
MBRD340RL
MBRD340T4
MBRD350
MBRD350RL
MBRD350T4
MBRD360
MBRD360RL
MBRD360T4
MBRD620CTT4
MBRD630CTT4
MBRD640CT
MBRD640CTG
MBRD640CTT4
MBRD650CT
MBRD650CT1
MBRD650CTT4
MBRD660CT
MBRD660CTRL
MBRD660CTT4
MBRD660CTT4G
MBRD835L
MBRD835LT4
MBRF20100CT
MBRF20200CT
MBRF2060CT
MBRF2545CT
MBRF2545CTG
MBRM110ET1
MBRM110ET3
MBRM110LT1
MBRM110LT3
MBRM120ET1
MBRM120ET3
MBRM120LT1



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MBRM120LT1G
MBRM120LT3
MBRM120LT3G
MBRM130LT1
MBRM130LT3
MBRM140T1
MBRM140T3
MBRM140T3G
MBRP20030CTL
MBRP20045CT
MBRP20060CT
MBRP30045CT
MBRP30060CT
MBRP400100CTL
MBRP40030CTL
MBRP40045CTL
MBRP60035CTL
MBRS1100T3
MBRS1100T3G
MBRS120T3
MBRS130LT3
MBRS130LT3G
MBRS130T3
MBRS130T3G
MBRS140LT3
MBRS140T3
MBRS140T3G
MBRS1540T3
MBRS190T3
MBRS1H100T3
MBRS1H90T3
MBRS2040LT3
MBRS230LT3
MBRS240LT3
MBRS240LT3G
MBRS260T3
MBRS2H40LT3
MBRS3100T3
MBRS320T3
MBRS330T3
MBRS330T3G
MBRS340T3
MBRS340T3G
MBRS360T3
MBRS360T3G
MBRS3H20T3
MBRS3H30T3
MBRS3H40T3
MBRS410ET3
MBRS410LT3
MBRS540T3
MBRS540T3G
NRVB0540T1
NRVB0540T3
NRVB10100
NRVB2545CT



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NRVB5820RL
NRVB745
NRVBA140T3
NRVBM140T1
NRVBM140T3
NRVBS240LT3
SBR360RL
SBR5571-002
SBR80520LT1
SBR80520LT3
SBR81045
SBRB20100CT
SBRB20100CTT4
SBRB20200CTT4
SBRB2515LT4
SBRB2545CTT4
SBRB3030CTT4
SBRD81035CTLT4
SBRD8340T4
SBRD835LT4
SBRD8360T4
SBRD8835LT4
SBRS5652T3
SBRS81100T3
SBRS8120T3
SBRS8130LT3
SBRS8130T3
SBRS8140T3
SBRS8330T3
SBRS8340T3
SRB5084T3
SRB5084T3G
SS12T3
SS14T3
SS16T3
SS22T3
SS24T3
SS26T3
STPS1545CT
STPS20100CT
STPS2045CT
XBRD3100