



INITIAL PRODUCT/PROCESS CHANGE NOTIFICATION
Generic Copy

31-JAN-2003

SUBJECT: ON Semiconductor Initial Product/Process Change Notification #12687

TITLE: Schottky Die Shrinks

EFFECTIVE DATE: 31-May-2003

AFFECTED CHANGE CATEGORY: Die Shrink

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>

DISCLAIMER:

Initial Product/Process Change Notification (IPCN) - First Notification distributed to customers.
Distributed at least 120 days from the effective date of the change.

This is an 'early warning' about an upcoming change and contains general information regarding the change details and devices affected. It also contains at least a reliability qualification plan, but the actual qualification data will be identified in the Final Product/Process Change Notification (FPCN).

This notification will be followed by a Final Product/Process Change Notification (FPCN) at least 60 days from effective date of change.

DESCRIPTION AND PURPOSE:

On Semiconductor is qualifying a reduction in die size for these Schottky Rectifier devices. Datasheet specifications and critical product electrical performance will remain unchanged. This die size reduction will help ON Semiconductor meet the increasing demand for its Schottky Rectifier product.



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QUALIFICATION PLAN:

RELIABILITY Plan: Phase 1

Package: SOD123, Device = MBR0540

Test	Conditions	Interval	Sample Size (Lots x Units)
HTRB	150 deg C, 80% rated Voltage	504 and 1008 hrs	1x80
IOL	Delta Tj of 100 deg C max.	7500 and 15000 cycles	1x80
Temp Cycle	Ta = -65 to +150 deg C	500 and 1000 cycles	1x80

Package: Powermite, Device = MBRM120E

Test	Conditions	Interval	Sample Size (Lots x Units)
HTRB	150 deg C, 80% rated Voltage	504 and 1008 hrs	2x80
IOL	Delta Tj of 100 deg C max.	7500 and 15000 cycles	2x80
Temp Cycle	Ta = -65 to +150 deg C	500 and 1000 cycles	2x80

RELIABILITY Plan: Phase 2

Package: TO220, Device = MBR20100CT

Test	Conditions	Interval	Sample Size (Lots x Units)
HTRB	150 deg C, 80% rated Voltage	504 and 1008 hrs	2x80
IOL	Delta Tj of 100 deg C max.	4286 and 8572 cycles	2x80
Temp Cycle	Ta = -65 to +150 deg C	500 and 1000 cycles	2x80

Package: DPAK, Device = MBRD835L

Test	Conditions	Interval	Sample Size (Lots x Units)
HTRB	150 deg C, 80% rated Voltage	504 and 1008 hrs	1x80
IOL	Delta Tj of 100 deg C max.	7500 and 15000 cycles	1x80
Temp Cycle	Ta = -65 to +150 deg C	500 and 1000 cycles	1x80

Package: SMC, Device = MBRS340

Test	Conditions	Interval	Sample Size (Lots x Units)
HTRB	150 deg C, 80% rated Voltage	504 and 1008 hrs	1x80
IOL	Delta Tj of 100 deg C max.	4286 and 8572 cycles	1x80
Temp Cycle	Ta = -65 to +150 deg C	500 and 1000 cycles	1x80

Package: SMB, Device = MBRS140

Test	Conditions	Interval	Sample Size (Lots x Units)
HTRB	150 deg C, 80% rated Voltage	504 and 1008 hrs	1x80
IOL	Delta Tj of 100 deg C max.	7500 and 15000 cycles	1x80
Temp Cycle	Ta = -65 to +150 deg C	500 and 1000 cycles	1x80



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AFFECTED DEVICE LIST (WITHOUT SPECIALS):

PART

MBR0520LT1
MBR0520LT3
MBR0530T1
MBR0530T3
MBR0540T1
MBR0540T3
MBR130T1
MBR130T3
MBR16100CT
MBR20100CT
MBR2080CT
MBR2090CT
MBR2090CTLFAJ
MBRA120ET3
MBRA140T3
MBRB20100CT
MBRB20100CTT4
MBRD835L
MBRD835LT4
MBRF20100CT
MBRF2060CT
MBRM110ET1
MBRM110ET3
MBRM120ET1
MBRM120ET3
MBRM140T1
MBRM140T3
MBRS1100T3
MBRS120T3
MBRS130T3
MBRS140T3
MBRS190T3
MBRS240LT3
MBRS320T3
MBRS330T3
MBRS340T3