



Title of Change:	Qualification of Flat Bottom Dimple Clip for Schottky Rectifier of SMA and SMB packages.												
Proposed first ship date:	19 September 2018												
Contact information:	Contact your local ON Semiconductor Sales Office or <MohdNazirul.MohdRadzuan@onsemi.com>												
Samples:	Contact your local ON Semiconductor Sales Office or <MohdNazirul.MohdRadzuan@onsemi.com>												
Additional Reliability Data:	Contact your local ON Semiconductor Sales Office or <MohdAzizi.Azman@onsemi.com>.												
Type of notification:	This is a Final Product/Process Change Notification (FPCN) sent to customers. FPCNs are issued 90 days prior to implementation of the change. ON Semiconductor will consider this change accepted, unless an inquiry is made in writing within 30 days of delivery of this notice. To do so, contact <PCN.Support@onsemi.com>.												
Change Part Identification:	There will be no change in the device marking scheme. Affected products will be identified with date code. Clean date code will be advised as requested.												
Change category:	<input type="checkbox"/> Wafer Fab Change <input checked="" type="checkbox"/> Assembly Change <input type="checkbox"/> Test Change <input type="checkbox"/> Other _____												
Change Sub-Category(s):	<input type="checkbox"/> Manufacturing Site Change/Addition <input type="checkbox"/> Material Change <input type="checkbox"/> Datasheet/Product Doc change <input type="checkbox"/> Manufacturing Process Change <input type="checkbox"/> Product specific change <input type="checkbox"/> Shipping/Packaging/Marking <input checked="" type="checkbox"/> Other: <u>Change in Leadframe dimensions</u>												
Sites Affected:	ON Semiconductor Sites: ON Seremban, Malaysia ON Dong Nai Province, Vietnam	External Foundry/Subcon Sites: None											
Description and Purpose:													
As part of ON Semiconductor’s high commitments towards continuous quality improvement, this Final Product Change Notification (FPCN) is announcing that ON Semiconductor is qualifying Flat Bottom Dimple Clip industrial-qualified OPNs of Schottky Rectifiers in SMA and SMB packages. These OPNs can be continuously dual-source, either from ON Semiconductor Seremban or ON Semiconductor Vietnam. The orderable part number will remain the same. Upon the expiration of this FPCN, customer will receive parts with new clip design as per below details:													
<table border="1"> <thead> <tr> <th colspan="2">Materials to be Changed</th> <th>Before Change Description</th> <th>After Change Description</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Clip Design</td> <td>Clip Thickness</td> <td>12mil</td> <td>8mil</td> </tr> <tr> <td>Clip Bottom Dimple Shape</td> <td>Round bottom dimple shape</td> <td>Flat bottom dimple shape</td> </tr> </tbody> </table>			Materials to be Changed		Before Change Description	After Change Description	Clip Design	Clip Thickness	12mil	8mil	Clip Bottom Dimple Shape	Round bottom dimple shape	Flat bottom dimple shape
Materials to be Changed		Before Change Description	After Change Description										
Clip Design	Clip Thickness	12mil	8mil										
	Clip Bottom Dimple Shape	Round bottom dimple shape	Flat bottom dimple shape										
The change enhances the products’ robustness that does not alter the product performances. All qualifications data are meeting the existing product specifications.													



Reliability Data Summary:

• **NRVBA130LT3G**

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Ta=85°C, 100% max rated V	1008 hrs	0/252
TC	JESD22-A104	Ta= -55°C to +150°C	1000 cyc	0/252
AC	JESD22-A102	121°C, 100% RH, 15psig, unbiased	96 hrs	0/252
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C		0/504
RSH	JESD22- B106	Ta = 265C, 10 sec		0/90
SD	JSTD002	Ta = 245C, 10 sec		0/45

• **NRVBS260T3G**

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Ta=Tj max°C, 100% max rated V	1008 hrs	0/231
HTSL	JESD22-A103	Ta= 150°C	1008 hrs	0/231
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 2 min	15000 cyc	0/231
TC	JESD22-A104	Ta= -65°C to +150°C	1000 cyc	0/231
H3TRB	JESD22-A101	85°C, 85% RH, 80% rated bias	1008 hrs	0/231
AC	JESD22-A102	121°C, 100% RH, 15psig, unbiased	96 hrs	0/231
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C		0/924
RSH	JESD22- B106	Ta = 265C, 10 sec		0/90
SD	JSTD002	Ta = 245C, 10 sec		0/45

• **NRVBS3200T3G**

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Ta=Tj max °C, 100% max rated V	1008 hrs	0/231
HTSL	JESD22-A103	Ta= 150 °C	1008 hrs	0/231
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 2 min	15000 cyc	0/231
TC	JESD22-A104	Ta= -65°C to +150°C	1000 cyc	0/231
H3TRB	JESD22-A101	85°C, 85% RH, , 80% rated bias	1008 hrs	0/231
AC	JESD22-A102	121°C, 100% RH, 15psig, unbiased	96 hrs	0/231
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C		0/924
RSH	JESD22- B106	Ta = 265C, 10 sec		0/90
SD	JSTD002	Ta = 245C, 10 sec		0/45



Electrical Characteristic Summary:

There are no changes in electrical characteristic; product performance meets data sheet specifications. Characterization data is available upon request.

List of Affected Standard Parts:

Part Number	Qualification Vehicle
MBRA120ET3G	NRVBA130LT3G
MBRA130LT3G	
MBRA140T3G	
MBRA160T3G	
MBRA1H100T3G	
MBRA320T3G	
SS16T3G	
MBRS140T3H	NRVBS260T3G
MBRS1540T3G	
MBRS230LT3G	
MBRS240LT3G	
MBRS360BT3G	
MBRS120T3G	
MBRS120T3H	
MBRS130LT3G	
MBRS130LT3H	
MBRS130T3G	
MBRS130T3H	
MBRS140T3G	
MBRS2040LT3G	
MBRS2040LT3H	
MBRS240LT3H	
MBRS260T3G	
MBRS260T3H	
SS22T3G	
SS24T3G	
SS24T3H	
SS26T3G	
SS26T3H	



MBRS1100T3G	NRVBS3200T3G
MBRS1100T3H	
MBRS190T3G	
MBRS190T3H	
MBRS2H100T3G	
MBRS3200T3G	



Appendix A: Changed Products

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Product	Customer Part Number	Qualification Vehicle
MBRA120ET3G		NRVBA130LT3G
MBRA130LT3G		NRVBA130LT3G
MBRA140T3G		NRVBA130LT3G
MBRA160T3G		NRVBA130LT3G
MBRA1H100T3G		NRVBA130LT3G
MBRA320T3G		NRVBA130LT3G
MBRS1100T3G		NRVBS3200T3G
MBRS120T3G		NRVBS260T3G
MBRS130LT3G		NRVBS260T3G
MBRS130T3G		NRVBS260T3G
MBRS140T3G		NRVBS260T3G
MBRS1540T3G		NRVBS260T3G
MBRS190T3G		NRVBS3200T3G
MBRS2040LT3G		NRVBS260T3G
MBRS230LT3G		NRVBS260T3G
MBRS240LT3G		NRVBS260T3G
MBRS260T3G		NRVBS260T3G
MBRS2H100T3G		NRVBS3200T3G
MBRS3200T3G		NRVBS3200T3G
MBRS360BT3G		NRVBS260T3G
SS16T3G		NRVBA130LT3G
SS22T3G		NRVBS260T3G
SS24T3G		NRVBS260T3G
SS26T3G		NRVBS260T3G