



Title of Change:	Qualification of Power Schottky Back Metal Thinning with Die Shrink for SOD 123.											
Proposed first ship date:	31 July 2017											
Contact information:	Contact your local ON Semiconductor Sales Office or <SitiNurhaza.MohdRamli@onsemi.com>											
Samples:	Contact your local ON Semiconductor Sales Office or <SitiNurhaza.MohdRamli@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. Clean date code will be advised as requested.											
Change category:	☒ Wafer Fab Change ☐ Assembly Change ☐ Test Change ☐ Other _____											
Change Sub-Category(s): ☐ Manufacturing Site Change/Addition ☒ Manufacturing Process Change ☐ Material Change ☒ Product specific change ☐ Datasheet/Product Doc change ☐ Shipping/Packaging/Marking ☐ Other: _____												
Sites Affected: ☒ All site(s) ☐ not applicable ☐ ON Semiconductor site(s) : ☐ External Foundry/Subcon site(s)												
Description and Purpose: This is the Final Product Change Notification (FPCN) of IPCN20930X, announcing that ON Semiconductor is qualifying Power Schottky Back Metal Thinning with Die Shrink on selected non-automotive qualified OPNS listed in this FPCN OPNs. The detail change as below: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #92d050;"> <th style="text-align: center;">Material to be changed</th> <th style="text-align: center;">Before Change Description</th> <th style="text-align: center;">After Change Description</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Back metal thickness</td> <td style="text-align: center;">12kA Au</td> <td style="text-align: center;">8kA Au</td> </tr> <tr> <td style="text-align: center;">Die Shrink- Guard Ring Width</td> <td style="text-align: center;">4mils</td> <td style="text-align: center;">2mils</td> </tr> </tbody> </table> No other changes imposed on the affected OPNs. Products had gone thru reliability testing as per industrial requirements and it's proven that device performances are not affected.				Material to be changed	Before Change Description	After Change Description	Back metal thickness	12kA Au	8kA Au	Die Shrink- Guard Ring Width	4mils	2mils
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**Reliability Data Summary:**

QV Device Name: NRVB0540T1G

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Ta=90°C, 100% max rated V	1000hrs	0/240
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 2min	15000cyc	0/240
TC	JESD22-A104	Ta = -65°C to +150°C	1000cyc	0/240
H3TRB	JESD22-A101	Ta = 85°C RH = 85% bias = 80% rated V or 100V max	1000hrs	0/240
AC	JESD22-A102	Ta = 121°C, P = 15 PSIG, RH = 100%, 96 Hours	192hrs	0/240
PC	J-STD-020 JESD-A113	MSL 1 @ 260°C		0/960
RSH	JESD22-B106	Ta = 265°C, 10 sec		0/60

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
MBR0520LT1G	NRVB0540T1G
MBR0520LT1H	
MBR0520LT3G	
MBR0530T1G	
MBR0530T1H	
MBR0530T3G	
MBR0540T1G	
MBR0540T1H	
MBR0540T3G	
MBR130T1G	
MBR130T1H	
MBR130T3G	