



<b>Title of Change:</b>	Add V-notch Lead frame to Improve Delamination on SOD323 at ON Semiconductor, Leshan, China factory	
<b>Proposed first ship date:</b>	29 June 2018 or earlier after customer approval	
<b>Contact information:</b>	Contact your local ON Semiconductor Sales Office or <Coleen.Long@onsemi.com>	
<b>Samples:</b>	Contact your local ON Semiconductor Sales Office	
<b>Additional Reliability Data:</b>	Contact your local ON Semiconductor Sales Office or <Rui.Zhang@onsemi.com>	
<b>Type of notification:</b>	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>.	
<b>Change Part Identification:</b>	At the expiration of this FPCN devices will be produced with V-notch Lead frame at ON Semiconductor's existing Leshan facility. New products will have a Date Code of WW30, 2018 or greater.	
<b>Change category:</b>	<input type="checkbox"/> Wafer Fab Change <input checked="" type="checkbox"/> Assembly Change <input type="checkbox"/> Test Change <input checked="" type="checkbox"/> Other <u>Lead Frame Design Change</u>	
<b>Change Sub-Category(s):</b>	<input type="checkbox"/> Manufacturing Site Change/Addition <input checked="" 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 type="checkbox"/> Other: <u>Add V-notch</u>	
<b>Sites Affected:</b>	ON Semiconductor Sites: ON Leshan, China	External Foundry/Subcon Sites: None
<b>Description and Purpose:</b>		
<p>ON Semiconductor is notifying customer of its use of V-notch Lead frame for SOD323 devices at ON Semiconductor's Leshan, China factory.</p> <p>Upon the expiration of this PCN, devices will be built with V-notch Lead frame at the same site. Datasheet specifications and product electrical performance remain unchanged. Reliability Qualification has been performed.</p>		
<b>Material to be changed</b>	<b>Before Change Description</b>	<b>After Change Description</b>
Lead Frame	Non V-notch	With V-notch



**Reliability Data Summary:**

QV DEVICE NAME SZMM3Z18VST1G/BAS16HT1G  
 PACKAGE: SOD323

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Ta= <u>150</u> °C, <u>100</u> % max rated V	<u>1008 hrs</u>	0/ <u>240</u>
HTSL	JESD2z2-A103	Ta= <u>150</u> °C	<u>1008 hrs</u>	0/ <u>240</u>
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta= <u>+25</u> °C, delta Tj= <u>100</u> °C On/off = <u>2</u> min	<u>30000 cyc</u>	0/ <u>240</u>
TC	JESD22-A104	Ta= - <u>65</u> °C to + <u>150</u> °C	<u>2000 cyc</u>	0/ <u>240</u>
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	<u>192 hrs</u>	0/ <u>240</u>
AC	JESD22-A102	Ta = 121°C, P= 15 PSIG, RH = 100%, 192 Hours	<u>192 hrs</u>	0/ <u>240</u>
PC	J-STD-020 JESD-A113	MSL <u>1</u> @ <u>260</u> °C	Before TC, AC, HAST, IOL	0/ <u>960</u>
RSH	JESD22- B106	Ta = 265°C, 10 sec		0/ <u>90</u>

**Note:**

- Above data from L29666 (BCX19LT1G) which assembled with similar V-notch Lead Frame on SOT23 as generic data.
- SZMM3Z18VST1G, BAS16HT1G only PC+SAT was performed for this change, result shows it has better delamination performance to V-notch Lead Frame than non V-notch Lead Frame.

**Electrical Characteristic Summary:**

Electrical characteristics are not impacted

**List of Affected Standard Parts:**

Part Number	Qualification Vehicle
NSR0320MW2T1G	SZMM3Z18VST1G BAS16HT1G
NSR0320MW2T3G	
NSRLV20MW2T1G	
SD12CT1G	

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## Appendix A: Changed Products

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Product	Customer Part Number	Qualification Vehicle
NSR0320MW2T1G		SZMM3Z18VST1G
NSR0320MW2T3G		BAS16HT1G
NSRLV20MW2T1G		
SD12CT1G		