



<b>Title of Change:</b>	Add V-notch Lead frame to Improve Delamination on SOD323 at ON Semiconductor, Leshan, China factory							
<b>Proposed Changed Material First Ship Date:</b>	06 Jun 2018							
<b>Current Material Last Order Date:</b>	29 September 2017 Orders received after the Current Material Last Order Date expiration are to be considered as orders for new changed material as described in this PCN. Orders for current (unchanged) material after this date will be per mutual agreement and current material inventory availability.							
<b>Current Material Last Delivery Date:</b>	30 March 2018 The Current Material Last Delivery Date may be subject to change based on build and depletion of the current (unchanged) material inventory.							
<b>Product Category:</b>	Active components – Discrete components							
<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 to place sample order. Sample requests are to be submitted no later than 45 days after publication of this change notification.							
<b>Sample Availability Date:</b>	23 June 2017							
<b>PPAP Availability Date:</b>	23 June 2017							
<b>Additional Reliability Data</b>	Contact your local ON Semiconductor Sales Office or <Coleen.Long @onsemi.com>.							
<b>Type of Notification</b>	This is a Final Product/Process Change Notification (FPCN) sent to customers. FPCNs are issued 12 months prior to implementation of the change or earlier upon customer approval. ON Semiconductor will consider this proposed change and it's conditions acceptable, unless an inquiry is made in writing within 45 days of delivery of this notice. To do so, contact <PCN.Support@onsemi.com>.							
<b>Change Category</b>	<b>Type of Change</b>							
Process – Assembly	Change in leadframe design							
<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 have been performed.</p>								
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #92d050;"> <th style="width: 33%;">Material to be changed</th> <th style="width: 33%;">Before Change Description</th> <th style="width: 33%;">After Change Description</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Leadframe</td> <td style="text-align: center;">Non V-notch</td> <td style="text-align: center;">With V-notch</td> </tr> </tbody> </table>			Material to be changed	Before Change Description	After Change Description	Leadframe	Non V-notch	With V-notch
Material to be changed	Before Change Description	After Change Description						
Leadframe	Non V-notch	With V-notch						
<b>Reason / Motivation for Change:</b>	<ul style="list-style-type: none"> <li>- Quality improvement : Yes. Delamination performance improvement.</li> <li>- Change benefits for customer: V-notch Lead frame has better performance of delamination.</li> <li>- Risk for late release for customer: longer lead time due to limited flexibility in terms of manufacturing and capacity planning.</li> </ul>							
<b>Anticipated impact on fit, form, function, reliability, product safety or manufacturability</b>	<p>The device has been qualified and validated based on the same Product Specification. The device has successfully passed the qualification tests. Potential impacts can be identified, but due to testing performed by ON Semiconductor in relation to the PCN, associated risks are verified and excluded.</p> <p>No anticipated impacts.</p>							



<b>Sites Affected:</b>				
<input type="checkbox"/> All site(s) <input type="checkbox"/> not applicable <input checked="" type="checkbox"/> ON Semiconductor site(s) : <i>ON Leshan, China</i> <input type="checkbox"/> External Foundry/Subcon site(s)				
<b>Marking of Parts/ Traceability of Change:</b>		Affected products will be identified with date code.		
<b>Reliability Data Summary:</b>				
<b>Qualification Vehicle device:</b> SZMM3Z18VST1G, BAS16HT1G <b>RMS: L36029/L36032</b> <b>PACKAGE:</b> SOD323 3 <sup>rd</sup> Qualification Vehicle device: BCX19LT1G <b>RMS: L29666</b>				
Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Ta=150°C, 100% max rated V	1008 hrs	0/240
HTSL	JESD2z2-A103	Ta= <u>  150  </u> °C	1008 hrs	0/240
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = <u>  2  </u> min	30000 cyc	0/240
TC	JESD22-A104	Ta= - <u>  65  </u> °C to + <u>  150  </u> °C	2000 cyc	0/240
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	192 hrs	0/240
AC	JESD22-A102	Ta = 121°C, P= 15 PSIG, RH = 100%, 192 Hours	192 hrs	0/240
PC	J-STD-020 JESD-A113	MSL 1 @ 260°C	Before TC, AC, HAST, IOL	0/960
RSH	JESD22- B106	Ta = 265°C	10 sec	0/90
<b>Note:</b>				
<ul style="list-style-type: none"> <li>Above data come from L29666 (BCX19LT1G) which assembled with similar V-notch Lead Frame on SOT23 as generic data.</li> <li>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.</li> </ul>				
<b>AEC-1pager is attached.</b>				
To access file attachments on pdf copy of PCN, please be guided by the steps below: 1. Download pdf copy of the PCN to your computer 2. Open the downloaded pdf copy of the PCN 3. Click on the paper clip icon available on the menu provided in the left/bottom portion of the screen to reveal the Attachment field 4. Then click on the attached file/s				
<b>Electrical Characteristic Summary:</b>				
Electrical characteristics are not impacted.				



List of Affected Standard Parts:	
Part Number	Qualification Vehicle
NSVBAS21AHT1G	
NSVBAS21HT1G	
NSVBAS21HT3G	
NSVBAT54HT1G	
NSVD350HT1G	
NSVR0170HT1G	
NSVR02100HT1G	
NSVR0240HT1G	
NSVR0340HT1G	
NSVRB751V40T1G	
SBAS16HT1G	
SBAS16HT3G	
SBAS20HT1G	
SGNSVD350HT1G	
SMMDL6050T1G	
SMMDL914T1G	
SZESD7351HT1G	
SZESD7361HT1G	
SZESD7371HT1G	
SZESD8351HT1G	
SZHBL5006HT1G	
SZMM3Z10VST1G	
SZMM3Z10VT1G	
SZMM3Z11VT1G	
SZMM3Z12VST1G	
SZMM3Z12VT1G	
SZMM3Z13VST1G	
SZMM3Z13VT1G	
SZMM3Z15VT1G	
SZMM3Z16VST1G	
SZMM3Z16VT1G	
SZMM3Z16VT3G	
SZMM3Z18VST1G	
SZMM3Z18VT1G	

SZMM3Z18VST1G  
BAS16HT1G



SZMM3Z20VT1G	
SZMM3Z22VST1G	
SZMM3Z22VT1G	
SZMM3Z24VT1G	
SZMM3Z27VST1G	
SZMM3Z27VT1G	
SZMM3Z2V4T1G	
SZMM3Z2V7T1G	
SZMM3Z2V7T3G	
SZMM3Z33VT1G	
SZMM3Z36VST1G	
SZMM3Z36VT1G	
SZMM3Z3V0ST1G	
SZMM3Z3V0T1G	
SZMM3Z3V3ST1G	
SZMM3Z3V3ST3G	
SZMM3Z3V3T1G	
SZMM3Z3V6T1G	
SZMM3Z3V9ST1G	
SZMM3Z3V9T1G	
SZMM3Z43VT1G	
SZMM3Z47VT1G	
SZMM3Z4V3ST1G	
SZMM3Z4V3T1G	
SZMM3Z4V7ST1G	
SZMM3Z4V7T1G	
SZMM3Z51VT1G	
SZMM3Z56VT1G	
SZMM3Z5V1ST1G	
SZMM3Z5V1T1G	
SZMM3Z5V6ST1G	
SZMM3Z5V6T1G	
SZMM3Z62VT1G	
SZMM3Z68VT1G	
SZMM3Z6V2ST1G	
SZMM3Z6V2T1G	
SZMM3Z6V8ST1G	
SZMM3Z6V8T1G	
SZMM3Z75VT1G	
SZMM3Z7V5ST1G	
SZMM3Z7V5T1G	

SZMM3Z18VST1G  
BAS16HT1G



SZMM3Z8V2ST1G	SZMM3Z18VST1G BAS16HT1G
SZMM3Z8V2T1G	
SZMM3Z9V1ST1G	
SZMM3Z9V1T1G	
SZSD05T3G	
SZSD12T1G	

**List of Affected Customer Specific Parts:**

*NOTE: Please be informed that parts impacted by this PDN/PCN are Special/Customer specific parts, thus MPN & CPN info will be available to affected customers only by clicking the ["Custom PCN for Selected Company Button"](#) in the Document Analysis page of PCMS/PCN Alert.*