

Final Product/Process Change Notification Document #:FPCN21735XC

Issue Date:29 Jun 2022

Title of Change:	Add V-notch lead frame to improve delamination on SOD323 at onsemi, Leshan, China factory		
Proposed First Ship date:	06 Oct 2022 or earlier if approved by customer		
Contact Information:	Contact your local onsemi Sales Office or Jim.Peng@onsemi.com		
PCN Samples Contact:	Contact your local onsemi Sales Office. Sample requests are to be submitted no later than 30 days from the date of first notification, Initial PCN or Final PCN, for this change. Samples delivery timing will be subject to request date, sample quantity and special customer packing/label requirements.		
Additional Reliability Data:	Contact your local onsemi Sales Office or c.l.yang@lps.com.cn		
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. onsemi 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		
Marking of Parts/ Traceability of Change:	Assembly Date Code		
Change Category:	Assembly Change		
Change Sub-Category(s):	Material Change		
Sites Affected:			
onsemi Sites		External Foundry/Subcon Sites	
Leshan Phoenix Semiconductor, China		None	

Description and Purpose:

onsemi is notifying customer of its use of V-notch Lead frame for SOD323 devices at onsemi, Leshan, China factory.

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. The change to V-notch lead frame is to improve the delamination performance.

	From	То
Lead Frame	Non V-notch	With V-notch

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Reliability Data Summary:

Qualification Vehicle device: SD12T1G

RMS: 79535 PACKAGE: SOD-323

Test	Specification	Condition	Interval	Results
HTRB	MILSTD750-1 (M1038A)	Ta=150°C, 100% rated V	1008 hrs	0/231
HTSL	JESD22 A103	Ta= 150 °C	2016 hrs	0/231
PC	JESD22 A113	MSL 1 @ 260°C	Before TC, AC, UHAST, HAST, IOL	0/924
HAST	JESD22 A110	130°C, 85% RH, 18.8psig, 80% rated V	192 hrs	0/231
UHAST	JESD22 A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/231
TC	JESD22 A104	-65°C to +150°C, dwell>15 min	1000 cycs	0/231
IOL	MIL-STD-750 (M1037)	Ta=25°C, delta Tj=100°C, on/off = 2 min	30000 cycs	0/231
RSH	JESD22 B106	Ta = 265°C, 10 sec		0/30

Electrical Characteristics Summary:

Electrical characteristics are not impacted.

List of Affected Parts:

Note: Only the standard (off the shelf) part numbers are listed in the parts list. Any custom parts affected by this PCN are shown in the customer specific PCN addendum in the PCN email notification, or on the <u>PCN Customized Portal</u>.

Part Number	Qualification Vehicle	
SD05T3G	SD12T1G	
SD05T1G	SD12T1G	
NSR1020MW2T3G	SD12T1G	
NSR1020MW2T1G	SD12T1G	

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Appendix A: Changed Products

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Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
SD05T3G		SD12T1G	NA	
NSR1020MW2T3G		SD12T1G	NA	
NSR1020MW2T1G		SD12T1G	NA	
SD05T1G		SD12T1G	NA	