Final Product/Process Change Notification

Document #:FPCN21735ZB
Issue Date:29 Jun 2022

Title of Change:	Add V-notch lead frame to improve delamination on SOD323 at onsemi, Leshan, China factory
Proposed Changed Material First Ship Date:	01 Jan 2023 or earlier if approved by customer
Current Material Last Order Date:	N/A *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*.
Current Material Last Delivery Date:	N/A *The Current Material Last Delivery Date may be subject to change based on build and depletion of the current (unchanged) material inventory*
Product Category:	Active components – Discrete components
Contact information:	Contact your local onsemi Sales Office or Jim.Peng@onsemi.com
PCN Samples Contact:	Contact your local onsemi Sales Office to place sample order. Sample requests are to be submitted no later than 45 days after publication of this change notification. Samples delivery timing will be subject to request date, sample quantity and special customer packing/label requirements.
Sample Availability Date:	N/A
PPAP Availability Date:	N/A
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. The change will be implemented at 'Proposed Change Material First Ship Date' in compliance to J-STD-46 or ZVEI, or earlier upon customer approval, or per our signed agreements. onsemi 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.

Change Category

Category	Type of Change
Process - Assembly	Change of lead frame finishing material / area (internal)

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	To
Lead Frame	Non V-notch	With V-notch

Reason / Motivation for Change:	Quality improvement
Anticipated impact on fit, form, function, reliability, product safety or manufacturability:	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 onsemi in relation to the PCN, associated risks are verified and excluded. No anticipated impacts.

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Sites Affected:	
onsemi Sites	**External Foundry/Subcon Sites**
Leshan Phoenix Semiconductor, China	None

Marking of Parts/ Traceability of Change:	Assembly Date Code

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

NOTE: AEC-1pager is attached.
To view attachments:
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

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* ***PCN Customized Portal.***

Current Part Number	New Part Number	Qualification Vehicle
NSVR1020MW2T1G	NA	SD12T1G
NSVR0320MW2T1G	NA	SD12T1G