Final Product/Process Change Notification

Document #: FPCN24928Z
Issue Date: 23 Jan 2023

Title of Change:	Schottky Metallization Change And Lead Frame Modification for SOD 123 FL Package.
Proposed Changed Material First Ship Date:	01 Feb 2024 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 SitiNurhaza.MohdRamli@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:	13 Feb 2023
PPAP Availability Date:	13 Feb 2023
Additional Reliability Data:	Contact your local onsemi Sales Office or MohdAzizi.Azman@onsemi.com
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

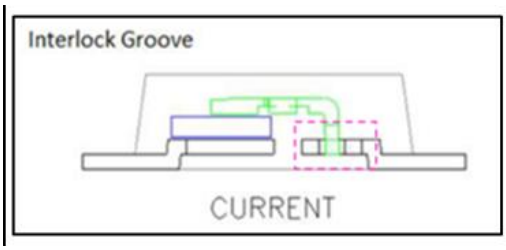
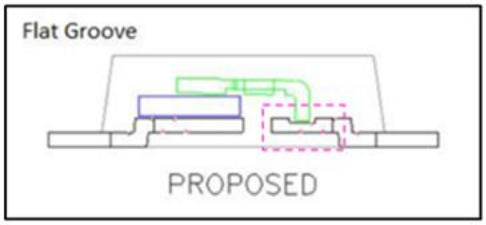
Category	**Type of Change**
Bare Die	New / change of frontside metallization, New / change of backside metallization
Process - Assembly	Change in leadframe dimensions

Description and Purpose:

This is the final product change notification (FPCN) of IPCN24928Z, announcing that onsemi is qualifying Schottky

Metallization Change and Leadframe modification on selected automotive qualified Orderable Part Numbers (OPNs) listed in this FPCN.

This changes already implement to commercial SOD 123 FL part number. Detail changes as below.

	From	To
Top metalization	TiW/NiV/Au	TiW/NiV/Ag
Back Metalization	Cr/Ni/Au	Ti/Ni/Ag
Leadframe		

Products had gone thru reliability testing as per automotive requirements and it's proven that device performances are not affected.

There is no product marking change as a result of this change.

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.

Sites Affected:

onsemi Sites	**External Foundry/Subcon Sites**
onsemi Seremban, Malaysia	None
onsemi, ISMF Malaysia	

Marking of Parts/ Traceability of Change:	By date code

Reliability Data Summary:

QV DEVICE NAME : NRVB2H100SFT3G
RMS: S72133
PACKAGE: SOD-123FL

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Ta=90°C, 100% max rated V	1008 hrs	0/231
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C, Pre IOL, TC, uHAST, H3TRB for surface mount pkgs only		0/924
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 2 min	30000 cyc	0/231
TC	JESD22-A104	Ta= -55°C to +150°C, mount on board	1000 cyc	0/231
H3TRB	JESD22-A110	85°C, 85% RH, bias	2016 hrs	0/231
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/231
RSH	JESD22- B106	Ta = 265°C, 10 sec Required for through hole devices only		0/90
SD	JSTD002	Ta = 245°C, 5 sec		0/45

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
NRVB2H100SFT3G	NA	NRVB2H100SFT3G
NRVB230LSFT1G	NA	NRVB2H100SFT3G
NRVB1H100SFT3G	NA	NRVB2H100SFT3G
NRVB140ESFT3G	NA	NRVB2H100SFT3G
NRVB140ESFT1G	NA	NRVB2H100SFT3G
NRVB130LSFT1G	NA	NRVB2H100SFT3G
NRVB120VLSFT1G	NA	NRVB2H100SFT3G