

Title of Change:	Schottky Metallization Change And Lead Frame Modification for SOD 123 FL Package
Proposed Changed Material First Ship Date:	02 Oct 2023 or earlier if approved by customer
Current Material Last Order Date:	N/A <i>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.</i>
Current Material Last Delivery Date:	N/A <i>The Current Material Last Delivery Date may be subject to change based on build and depletion of the current (unchanged) material inventory</i>
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.
Additional Reliability Data:	Contact your local onsemi Sales Office or MohdAzizi.Azman@onsemi.com
Type of Notification:	This is an Initial Product/Process Change Notification (IPCN) sent to customers. An IPCN is an advance notification about an upcoming change and contains general information regarding the change details and devices affected. It also contains the preliminary reliability qualification plan. The completed qualification and characterization data will be included in the Final Product/Process Change Notification (FPCN). This IPCN notification will be followed by a Final Product/Process Change Notification (FPCN) at least 6 months prior to implementation of the change. In case of questions, contact <PCN.Support@onsemi.com>.

Change Category

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

Description and Purpose:

This is the initial product change notification (IPCN) of IPCN24928Z, announcing that onsemi is qualifying Schottky Metallization Change and Leadframe modification on selected automotive qualified Orderable Part Numbers (OPNs) listed in this IPCN.

This change is already implemented to commercial SOD 123 FL. Detail changes as below.

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



Initial Product/Process Change Notification

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

Electrical Characteristics Summary:

Electrical characteristics are not impacted.



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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	N/A	NRVB2H100SFT3G
NRVB230LSFT1G	N/A	NRVB2H100SFT3G
NRVB1H100SFT3G	N/A	NRVB2H100SFT3G
NRVB140SFT3G	N/A	NRVB2H100SFT3G
NRVB140SFT1G	N/A	NRVB2H100SFT3G
NRVB140ESFT3G	N/A	NRVB2H100SFT3G
NRVB140ESFT1G	N/A	NRVB2H100SFT3G
NRVB130LSFT1G	N/A	NRVB2H100SFT3G
NRVB120VLSFT1G	N/A	NRVB2H100SFT3G

Appendix A: Changed Products

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DIKG: DIGI-KEY

Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
NRVB2H100SFT3G		NRVB2H100SFT3G		
NRVB1H100SFT3G		NRVB2H100SFT3G		
NRVB140SFT3G		NRVB2H100SFT3G		
NRVB140SFT1G		NRVB2H100SFT3G		
NRVB140ESFT3G		NRVB2H100SFT3G		
NRVB140ESFT1G		NRVB2H100SFT3G		
NRVB130LSFT1G		NRVB2H100SFT3G		
NRVB120VLSFT1G		NRVB2H100SFT3G		
NRVB230LSFT1G		NRVB2H100SFT3G		