



Final Product/Process Change Notification

Document #:FPCN24832ZA

Issue Date:17 Nov 2023

Title of Change:	External Solderable Top Metal fab process qualification at onsemi Aizu fab location.	
Proposed Changed Material First Ship Date:	24 May 2024 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.	
Sample Availability Date:	13 Dec 2023	
PPAP Availability Date:	13 Dec 2023	
Additional Reliability Data:	Contact your local onsemi Sales Office or songyong.sim@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	
Process - Wafer Production	Move of all or part of wafer fab to a different location/site/subcontractor	
Equipment	Production from a new equipment/tool which uses the same basic technology (replacement equipment or extension of existing equipment pool) without change of process.	
Description and Purpose:		
This is the final product change notification (FPCN) of IPCN24832Z, announcing that onsemi is qualifying below changes on selected automotive qualified Orderable Part Numbers (OPNs) listed in this FPCN.		
Details changes as below:		
	From	To
Change site of Solderable Top Metal (all devices)	onsemi Gresham	onsemi Aizu
Ag metal layer thickness (all devices)	8.0kA	2.5kA
There is no product marking change as a result of this change.		



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Reason / Motivation for Change:	Capacity 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 Aizu, Japan			None	
Marking of Parts/ Traceability of Change:	There is no product marking change as a result of this change.			
Reliability Data Summary:				
QV DEVICE NAME: NRVTS1545EMFST1G RMS: S87154 + S87558 PACKAGE: DFN-5				
Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Tj= 175°C, 80% max rated V	1008hrs	0/84
HTSL	JESD22-A103	Ta= 175°C	1008hrs	0/82
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	15000cyccs	0/84
TC	JESD22-A104	Ta= -55°C to +150°C	1000 cyc	0/84
H3TRB	JESD22-A110	85°C, 85% RH, 18.8psig, bias	1008hrs	0/84
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/84
QV DEVICE NAME: NVTF55116PLTAG RMS: S85097 PACKAGE: WDFN-8				
Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Tj= 175°C, 80% max rated V	1008hrs	0/84
HTGB	JESD22-A108	Tj= 175°C, 100% max rated Vgss	1008hrs	0/84
HTSL	JESD22-A103	Ta= 175°C	-	0/84
PC	J-STD-020 JESD-A113	MSL 1 @ 260°C, Pre IOL, TC, uHAST, HAST for surface mount pkgs only	15000cyccs	-
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 2 min	1000 cyc	0/84
TC	JESD22-A104	Ta= -55°C to +150°C	1008hrs	0/84
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96hrs	0/84
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/84

QV DEVICE NAME: NRV TSA4100ET3G

RMS: S85112

PACKAGE: SMA-2

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Tj= 175°C, 80% max rated V	1008hrs	0/83
HTSL	JESD22-A103	Ta= 175°C	1008hrs	0/84
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	15000cyccs	0/84
TC	JESD22-A104	Ta= -55°C to +150°C	1000 cyc	0/84
H3TRB	JESD22-A110	85°C, 85% RH, 18.8psig, bias	1008hrs	0/84
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/84

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
NRV TSAF5100ET3G	NA	NRV TS1545EMFST1G + NVTF55116PLTWG + NRV TSA4100ET3G
NVTF55116PLWFTAG	NA	NRV TS1545EMFST1G + NVTF55116PLTWG + NRV TSA4100ET3G
NVMF55113PLWFT1G	NA	NRV TS1545EMFST1G + NVTF55116PLTWG + NRV TSA4100ET3G