

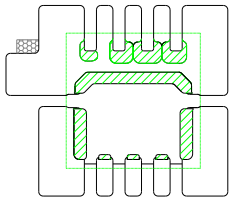
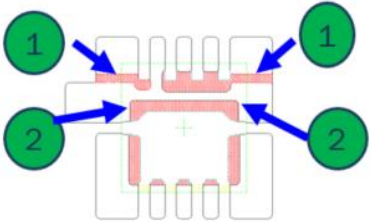


Final Product/Process Change Notification

Document #: FPCN23775ZG

Issue Date: 20 Sep 2022

Title of Change:	u8FL Wettable Flank with Dummy Tie Bar Approach & Removal of Dry Pack Process for Automotive MOSFET Devices
Proposed Changed Material First Ship Date:	27 Mar 2023 or earlier if approved by customer
Current Material Last Order Date:	18 Feb 2023 <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:	26 Mar 2023 <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 Ammar.Anuar@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:	06 Oct 2022
PPAP Availability Date:	06 Oct 2022
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
Packing/Shipping	Dry pack requirements change
Process - Assembly	Move of all or part of assembly to a different location/site/subcontractor., Change in leadframe dimensions, Change of specified assembly process sequence (deletion and/or additional process step)
Description and Purpose:	
<p>This Product Change Notification is intended to informed the customer that the Wettable Flank leadframe design and plating process are being enhanced, as tabulated below, in order to improve the sidewall plating and the elimination of Dry Pack.</p> <p>There is no change to the orderable part number.</p> <p>There is no product marking change as a result of this change.</p>	

	Before Change	After Change
Wettable Flank Plating Site	Metek, Malaysia (Sub-con)	ON Seremban, Malaysia
u8FL Lead Frame design	<ol style="list-style-type: none"> No tie bar connect to the gate and source lead Chamfer flag. 	<ol style="list-style-type: none"> Additional tie bar connect to gate and source lead Removed chamfer 
u8FL Case Outline	511AB	515AN
u8FL Dimension "L" in case outline	0.30mm – 0.56mm	0.30mm – 0.59mm
Sidewall Plating Method	Electroless SN plating	Electrolytic SN plating
Packing	Drypack (MSL 1)	No Drypack (MSL 1)
Reason / Motivation for Change:	Source/Supply/Capacity Changes Process/Materials Change	
Anticipated impact on fit, form, function, reliability, product safety or manufacturability:	<p>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.</p> <p>No anticipated impacts.</p>	
Sites Affected:		
onsemi Sites	External Foundry/Subcon Sites	
onsemi Seremban, Malaysia	Metek Seremban, Malaysia	
Marking of Parts/ Traceability of Change:	Material will be traceable with ONs lot trace code & tracking	

Reliability Data Summary:

QV DEVICE NAME (u8FL PACKAGE QUAL) NVTFS6H850N

RMS: 64634,65635,65199,64753,66669

PACKAGE: u8FL

Test	Specification	Condition	Interval	Results
HTSL	JESD22-A103	Ta = 175 °C	2016 hrs	0/231
HAST	JESD22 A110	130°C/85% RH ~18.8 psig, bias = 80% of rated V or up to maximum 100V	192 hrs	0/231
TC+PC	JESD22-A104	Ta = -55°C to +150°C	1000 cyc	0/231
UHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/231
IOL+PC	MIL STD750, M 1037 AEC Q101	Ta=+25°C, deltaTj=100°C max, Ton = Toff = 2min	30000 cyc	0/231
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C		0/924
RSH	JESD22-B106	Ta = 265°C, 10 sec		0/90
SD	JSTD002	Ta = 245°C, 10 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
NVTFS5C658NLWFTAG	NA	NVTFS6H850NWFTAG
NVTFS5C460NLWFTAG	NA	NVTFS6H850NWFTAG

Appendix A: Changed Products

PCN#: FPCN23775ZG
Issue Date: Sep 20, 2022

Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
NVTF55C658NLWFTAG		NVTF56H850NWFTAG	NA	