



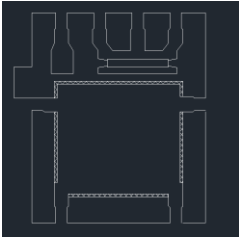
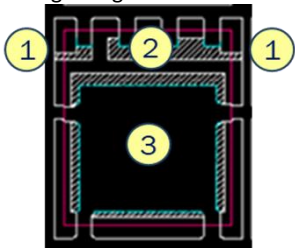
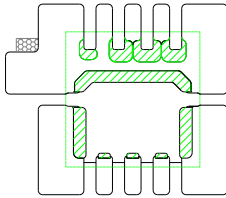
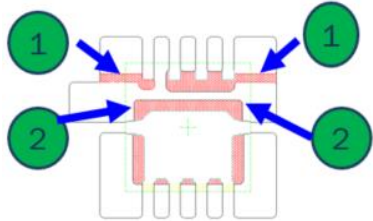
<b>Title of Change:</b>	S08FL and u8FL Wettable Flank with Dummy Tie Bar Approach & Removal of Dry Pack Process for Automotive MOSFET Devices
<b>Proposed Changed Material First Ship Date:</b>	19 Jan 2022 or earlier if approved by customer
<b>Current Material Last Order Date:</b>	24 Sep 2021 <i>Orders 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>
<b>Current Material Last Delivery Date:</b>	18 Jan 2022 <i>The Current Material Last Delivery Date may be subject to change based on build and depletion of the current (unchanged) material inventory</i>
<b>Product Category:</b>	Active components – Discrete components
<b>Contact information:</b>	Contact your local ON Semiconductor Sales Office or <a href="mailto:Ammar.Anuar@onsemi.com">Ammar.Anuar@onsemi.com</a>
<b>PCN Samples Contact:</b>	Contact your local ON Semiconductor Sales Office to place sample order or <a href="mailto:PCN.samples@onsemi.com">&lt;PCN.samples@onsemi.com&gt;</a> . 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.
<b>Sample Availability Date:</b>	08 Jul 2021
<b>PPAP Availability Date:</b>	08 Jul 2021
<b>Additional Reliability Data:</b>	Contact your local ON Semiconductor Sales Office or <a href="mailto:MohdHairwan.MdNor@onsemi.com">MohdHairwan.MdNor@onsemi.com</a>
<b>Type of Notification:</b>	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. ON Semiconductor 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 <a href="mailto:PCN.Support@onsemi.com">PCN.Support@onsemi.com</a> .
<b>Change Category</b>	
<b>Category</b>	<b>Type of Change</b>
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:**

This Product Change Notification is intended for internal documentation for the parts without order history, 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.

There is no change to the orderable part number.

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

	Before Change	After Change
Wettable Flank Plating Site	Metek, Malaysia (Sub-con)	ON Seremban, Malaysia
S08FL Lead Frame design	<ol style="list-style-type: none"> <li>1. No tie bar connect to the gate and source lead</li> <li>2. Upset lead design</li> <li>3. Standard flag size</li> </ol> 	<ol style="list-style-type: none"> <li>1. Additional tie bar connect to gate and source lead</li> <li>2. Flat lead design</li> <li>3. Larger flag size</li> </ol> 
S08FL Case Outline	488AA	507BA
S08FL Dimension "L1" in case outline	0.125mm	0.15mm
u8FL Lead Frame design	<ol style="list-style-type: none"> <li>1. No tie bar connect to the gate and source lead</li> <li>2. Chamfer flag.</li> </ol> 	<ol style="list-style-type: none"> <li>1. Additional tie bar connect to gate and source lead</li> <li>2. Removed chamfer</li> </ol> 
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:**

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 ON Semiconductor in relation to the PCN, associated risks are verified and excluded.

No anticipated impacts.



<b>Sites Affected:</b>	
<b>ON Semiconductor Sites</b>	<b>External Foundry/Subcon Sites</b>
ON Semiconductor Seremban, Malaysia	METEK, Malaysia
<b>Marking of Parts/ Traceability of Change:</b>	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
UHAIST	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

**QV DEVICE NAME: (S08FL PACKAGE QUAL) NVMFSS5830NL****RMS: 67654, 68461, 68052****PACKAGE: u8FL**

Test	Specification	Condition	Interval	Results
HTRB	MILSTD750-1	Tj= 175°C, V=100% rated V	1008 Hrs	0/231
HTGB	JESD22 A108	Tj= 175°C, Vgs=100%,	1008 Hrs	0/231
HTSL	JESD22 A103	Ta= 175°C	2016 Hrs	0/231
TC + PC	JESD22 A104	Ta = -55°C to +150°C	1000 cyc	0/231
UHAIST	JESD22 A118	Ta=130C, 85% RH, ~18.8 psig, no bias	96 hrs	0/231
HAST + PC	JESD22 A110	130C/85%RH, ~18.8 psig, 80% rated V	192 hours	0/231
IOL + PC	MIL-STD-750	Ta=25C DeltaTj=100C°, t(on)=t(off)= 2 min	30000 cyc	0/231
RSH	JESD22 B106	Ta = 265°C, 10 sec		0/90
SD	J-STD-002 , B102	Ta = 245°C, 10 sec		0/45



QV DEVICE NAME: (S08FL HEFET PACKAGE QUAL) NVMFS6H800NL

RMS: 67648, 68458, 68050PACKAGE: u8FL

Test	Specification	Condition	Interval	Results
HTRB	MILSTD750-1	Tj= 175°C, V=100% rated V	1008 Hrs	0/231
HTGB	JESD22 A108	Tj= 175°C, Vgs=100%,	1008 Hrs	0/231
HTSL	JESD22 A103	Ta= 175°C	2016 Hrs	0/231
TC + PC	JESD22 A104	Ta = -55°C to +150°C	1000 cyc	0/231
UHAST	JESD22 A118	Ta=130C, 85% RH, ~18.8 psig, no bias	96 hrs	0/231
HAST + PC	JESD22 A110	130C/85%RH, ~18.8 psig, 80% rated V	192 hours	0/231
IOL + PC	MIL-STD-750	Ta=25C DeltaTj=100C°, t(on)=t(off)= 2 min	30000 cyc	0/231
RSH	JESD22 B106	Ta = 265°C, 10 sec		0/90
SD	J-STD-002 , B102	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/s

**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
NVMFS5H600NLWFT1G	NA	NVMFS6H800NLWFT1G, NVMFS5830NLWFT1G
NVMFS5C673NWFT1G	NA	NVMFS6H800NLWFT1G, NVMFS5830NLWFT1G
NVMFS5C673NLWFT3G	NA	NVMFS6H800NLWFT1G, NVMFS5830NLWFT1G
NVMFS5C645NWFT1G	NA	NVMFS6H800NLWFT1G, NVMFS5830NLWFT1G
NVMFS5C645NLWFT3G	NA	NVMFS6H800NLWFT1G, NVMFS5830NLWFT1G
NVMFS5C645NLWFT1G	NA	NVMFS6H800NLWFT1G, NVMFS5830NLWFT1G
NVMFS4C308NWFT1G	NA	NVMFS6H800NLWFT1G, NVMFS5830NLWFT1G
NVTFWS008N04CTAG	NA	NVMFS6H800NLWFT1G, NVMFS5830NLWFT1G
NVTF54C08NWFTWG	NA	NVTF56H850NWFTAG
NVTF54C02NWFTAG-G	NA	NVTF56H850NWFTAG