



# Final Product/Process Change Notification

Document #:FPCN22966ZU

Issue Date: 31 Mar 2022

<b>Title of Change:</b>	Wafer Fab Transfer for MV7 MOSFET Technology to Global Foundries in New York, US.										
<b>Proposed Changed Material First Ship Date:</b>	07 Oct 2022 or earlier if approved by customer										
<b>Current Material Last Order Date:</b>	11 Jun 2022 <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>	06 Oct 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 onsemi Sales Office or <a href="mailto:Trung.Dang@onsemi.com">Trung.Dang@onsemi.com</a>										
<b>PCN Samples Contact:</b>	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.										
<b>Sample Availability Date:</b>	11 Mar 2022										
<b>PPAP Availability Date:</b>	30 Apr 2022										
<b>Additional Reliability Data:</b>	Contact your local onsemi Sales Office or <a href="mailto:Jacob.Saliba@onsemi.com">Jacob.Saliba@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. 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 <a href="mailto:PCN.Support@onsemi.com">PCN.Support@onsemi.com</a> .										
<b>Change Category</b>											
<b>Category</b>	<b>Type of Change</b>										
Test Flow	Move of all or part of electrical wafer test and/or final test to a different location/site/subcontractor										
Process - Wafer Production	Move of all or part of wafer fab to a different location/site/subcontractor, New wafer diameter										
<b>Description and Purpose:</b>											
<p>This Product Change Notification is intended to increase capacity for onsemi automotive MV7 MOSFET technology products by transferring wafer fabrication for these products to the Global Foundries Fab located in New York, US.</p> <p>The changes include transferring wafer fabrication, back grind and back metal, to Global Foundries, and utilizing 300mm instead of 200mm diameter wafers. And while the assembly location remains unchanged, wafer saw and die attach tooling are being updated to accommodate 300mm wafers.</p> <table border="1"> <thead> <tr> <th></th> <th>Before Change</th> <th>After Change</th> </tr> </thead> <tbody> <tr> <td><b>Wafer Fabrication, Back Grind, Back Metal, Probe Site</b></td> <td>onsemi Bucheon, Korea</td> <td>Global Foundries, US</td> </tr> <tr> <td><b>Wafer Diameter</b></td> <td>200mm (existing sites)</td> <td>300mm (Global Foundries)</td> </tr> </tbody> </table>				Before Change	After Change	<b>Wafer Fabrication, Back Grind, Back Metal, Probe Site</b>	onsemi Bucheon, Korea	Global Foundries, US	<b>Wafer Diameter</b>	200mm (existing sites)	300mm (Global Foundries)
	Before Change	After Change									
<b>Wafer Fabrication, Back Grind, Back Metal, Probe Site</b>	onsemi Bucheon, Korea	Global Foundries, US									
<b>Wafer Diameter</b>	200mm (existing sites)	300mm (Global Foundries)									
There is no change to the orderable part number.											
There is no product marking change as a result of this change.											



# Final Product/Process Change Notification

Document #:FPCN22966ZU

Issue Date: 31 Mar 2022

<b>Reason / Motivation for Change:</b>	Source/Supply/Capacity Changes Process/Materials Change			
<b>Anticipated impact on fit, form, function, reliability, product safety or manufacturability:</b>	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.			
<b>Sites Affected:</b>				
<b>onsemi Sites</b>		<b>External Foundry/Subcon Sites</b>		
None		Global Foundries East Fishkill, New York, United States		
<b>Marking of Parts/ Traceability of Change:</b>	Material will be traceable with onsemi's lot trace code & tracking			
<b>Reliability Data Summary:</b>				
<b>QV DEVICE NAME FDBL86361-F085</b>				
<b>RMS: 69063</b>				
<b>PACKAGE: TOLL</b>				
Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Ta=175°C, 100% max rated V	1008 hrs	0/231
HTGB	JESD22-A108	Ta=175°C, 100% max rated Vgss	1008 hrs	0/231
HTSL	JESD22-A103	Ta= 175°C	1008 hrs	0/231
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 2 min	15000 cyc	0/231
TC	JESD22-A104	Ta= -55°C to +150°C	1000 cyc	0/231
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs	0/231
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/231
PC	J-STD-020 JESD-A113	MSL 1 @ 260°C		
RSH	JESD22- B106	Ta = 265C, 10 sec		0/30
<b>QV DEVICE NAME FDWS86368-F085H</b>				
<b>RMS: 69061</b>				
<b>PACKAGE: PQFN</b>				
Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Ta=175°C, 100% max rated V	1008 hrs	0/231
HTGB	JESD22-A108	Ta=175°C, 100% max rated Vgss	1008 hrs	0/231
HTSL	JESD22-A103	Ta= 175°C	1008 hrs	0/231
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 2 min	15000 cyc	0/231
TC	JESD22-A104	Ta= -55°C to +150°C	1000 cyc	0/231
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs	0/231
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/231
PC	J-STD-020 JESD-A113	MSL 1 @ 260°C		
RSH	JESD22- B106	Ta = 265C, 10 sec		0/30



# Final Product/Process Change Notification

Document #:FPCN22966ZU

Issue Date: 31 Mar 2022

**QV DEVICE NAME FDB86360-F085**

**RMS: 68918**

**PACKAGE: D2PAK**

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Ta=175°C, 100% max rated V	1008 hrs	0/231
HTGB	JESD22-A108	Ta=175°C, 100% max rated Vgss	1008 hrs	0/231
HTSL	JESD22-A103	Ta= 175°C	1008 hrs	0/231
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 2 min	8572 cyc	0/231
TC	JESD22-A104	Ta= -55°C to +150°C	1000 cyc	0/231
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs	0/231
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/231
PC	J-STD-020 JESD-A113	MSL 1 @ 260°C		
RSH	JESD22- B106	Ta = 265C, 10 sec		0/30

**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
FDWS86368-F085	NA	FDWS86368-F085
FDWS86369-F085	NA	FDWS86368-F085
FDBL86361-F085	NA	FDBL86361-F085
FDB86363-F085	NA	FDB86360-F085
FDB86566-F085	NA	FDB86360-F085
FDBL86366-F085	NA	FDBL86361-F085
FDBL86363-F085	NA	FDBL86361-F085
FDB86360-F085	NA	FDB86360-F085
FDWS86380-F085	NA	FDWS86368-F085
FDBL86561-F085	NA	FDBL86361-F085

Appendix A: Changed Products

PCN#: FPCN22966ZU  
Issue Date: Mar 31, 2022

Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
FDWS86368-F085		FDWS86368-F085	NA	
FDWS86369-F085		FDWS86368-F085	NA	
FDBL86361-F085		FDBL86361-F085	NA	
FDB86363-F085		FDB86360-F085	NA	
FDBL86366-F085		FDBL86361-F085	NA	
FDBL86363-F085		FDBL86361-F085	NA	
FDB86360-F085		FDB86360-F085	NA	
FDBL86561-F085		FDBL86361-F085	NA	
FDB86566-F085		FDB86360-F085	NA	