



## Final Product/Process Change Notification

Document #:FPCN26435ZA

Issue Date:26 Sep 2025

<b>Title of Change:</b>	Qualification for Automotive D2PAK Package of SiC MOSFET M3S 1200V on 200mm wafers at onsemi Bucheon, Korea	
<b>Proposed Changed Material First Ship Date:</b>	02 Apr 2026 or earlier if approved by customer	
<b>Current Material Last Order Date:</b>	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>	
<b>Current Material Last Delivery Date:</b>	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>	
<b>Product Category:</b>	Active components – Discrete components	
<b>Contact information:</b>	Contact your local onsemi Sales Office	
<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>	15 Sep 2025	
<b>PPAP Availability Date:</b>	27 Oct 2025	
<b>Additional Reliability Data:</b>	Contact your local onsemi Sales Office	
<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>	
Process - Wafer Production	SEM-PW-02: New wafer diameter	
Equipment	SEM-EQ-02: Production from a new equipment/tool which uses the same basic technology (replacement equipment or extension of existing equipment pool) without change of process.	
<b>Description and Purpose:</b>		
onsemi wishes to inform customers it has qualified the SiC MOSFET M3S 1200V 200mm at onsemi Bucheon, Korea. This change enables expanded capacity for this technology and ensures business continuity.		
	<b>From</b>	<b>To</b>
<b>FAB Site</b>	onsemi Bucheon, Korea	onsemi Bucheon, Korea
<b>Wafer size</b>	150mm	150mm & 200mm
There is no product marking change as a result of this change		



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<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>		
onsemi Bucheon, Korea		None		
<b>Marking of Parts/ Traceability of Change:</b>	Change material can be identified by lot code			
<b>Reliability Data Summary:</b>				
<b>QV DEVICE NAME : NVBG022N120M3S</b>				
<b>RMS : 103671</b>				
<b>PACKAGE : D2PAK-7L</b>				
<b>Test</b>	<b>Specification</b>	<b>Condition</b>	<b>Interval</b>	<b>Results</b>
High Temperature Reverse Bias	JESD22-A108	Tj=175°C, 100% max rated V(1200V)	1008 hrs	0/240
High Temperature Gate Bias	JESD22-A108	Tj=175°C, 100% max rated Vgss(22V)	1008 hrs	0/240
High Temperature Gate Bias	JESD22-A108	Tj=175°C, 100% min rated Vgss(-10V)	1008 hrs	0/240
High Temperature Storage Life	JESD22-A103	Ta=175°C	1008 hrs	0/240
Preconditioning	J-STD-020 JESD-A113	MSL 1 @ 245 °C, Pre IOL, TC, uHAST, H3TRB for surface mount pkgs only	Post Precon	0/960
Intermittent Operating Life	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 2 min	15000 cyc	0/240
Temperature Cycling	JESD22-A104	Ta= -55°C to +150°C	2000 cyc	0/240
High Humidity High Temperature	JESD22-A101	85°C, 85% RH, 80% max rated V(960V)	1008 hrs	0/240
Unbiased Highly Accelerated Stress Test	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/240
Resistance to Solder Heat	JESD22- B106	Ta = 265°C, 10 sec Required for through hole devices only	N/A	N/A
Solderability	JSTD002	Ta = 245°C, 5 sec		0/45
Physical Dimensions	JESD22-B120			Pass
<b>NOTE: AEC-1pager is attached.</b> 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.				
<b>Electrical Characteristics Summary:</b>  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
NVBG070N120M3S-IE	#NONE	NVBG022N120M3S
NVBG040N120M3S-IE	#NONE	NVBG022N120M3S
NVBG030N120M3S-IE	#NONE	NVBG022N120M3S
NVBG022N120M3S-IE	#NONE	NVBG022N120M3S
NVBG070N120M3S	#NONE	NVBG022N120M3S
NVBG040N120M3S	#NONE	NVBG022N120M3S
NVBG030N120M3S	#NONE	NVBG022N120M3S
NVBG022N120M3S	#NONE	NVBG022N120M3S