



Final Product/Process Change Notification

Document #:FPCN26435XB

Issue Date:24 Sep 2025

Title of Change:	Qualification of SiC MOSFET M3S 1200V on 200mm Wafers for TO247 Package at onsemi Bucheon, Korea	
Proposed First Ship date:	31 Dec 2025 or earlier if approved by customer	
Contact Information:	Contact your local onsemi Sales Office	
PCN Samples Contact:	Contact your local onsemi Sales Office. Sample requests are to be submitted no later than 30 days from the date of first notification, Initial PCN or Final PCN, for this change. Samples delivery timing will be subject to request date, sample quantity and special customer packing/label requirements.	
Additional Reliability Data:	Contact your local onsemi Sales Office	
Type of Notification:	This is a Final Product/Process Change Notification (FPCN) sent to customers. FPCNs are issued 90 days prior to implementation of the change. onsemi will consider this change accepted, unless an inquiry is made in writing within 30 days of delivery of this notice. To do so, contact PCN.Support@onsemi.com	
Marking of Parts/ Traceability of Change:	Change material can be identified by lot code	
Change Category:	Wafer Fab Change	
Change Sub-Category(s):	Manufacturing Process Change	
Sites Affected:		
onsemi Sites	External Foundry/Subcon Sites	
onsemi Bucheon, Korea	None	
Description and Purpose:		
onsemi wishes to inform customers it has qualified the SiC MOSFET M3S 1200V technology on 200mm wafers at Bucheon, Korea wafer fab site. This change supports expanded capacity and ensures business continuity for the TO247 package product family.		
The following table summarizes the change:		
	From	To
FAB Site	onsemi Bucheon, Korea	onsemi Bucheon, Korea
Wafer size	150mm	150mm & 200mm
There is no product marking change as a result of this change		



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Reliability Data Summary:

QV DEVICE NAME : NTH4L022N120M3S

RMS : 100019

PACKAGE : TO247-4L

Test	Specification	Condition	Interval	Results
High Temperature Reverse Bias	JESD22-A108	Tj=175°C, 100% max rated V(1200V)	1008hrs	0/240
High Temperature Gate Bias+	JESD22-A108	Tj=175°C, 100% max rated Vgss(22V)	1008hrs	0/240
High Temperature Gate Bias-	JESD22-A108	Tj=175°C, 100% min rated Vgss(-10V)	1008hrs	0/240
High Temperature Storage Life	JESD22-A103	Ta= 175°C	1008hrs	0/240
Intermittent Operating Life	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 5 min	6000 cyc	0/240
Temperature Cycling	JESD22-A104	Ta= -55°C to +175°C	1000cyc	0/240
High Humidity High Temperature Reverse Bias	JESD22-A101	85°C, 85% RH, 80% rated V(960V)	1008hrs	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		0/30
Solderability	JSTD002	Ta = 245°C, 5 sec		0/ 15
Physical Dimensions	JESD22-B120			

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](#).

Part Number	Qualification Vehicle
NTH4L070N120M3S	NTH4L022N120M3S
NTHL040N120M3S	NTH4L022N120M3S
NTH4L040N120M3S	NTH4L022N120M3S
NTHL070N120M3S	NTH4L022N120M3S
NTH4L030N120M3S	NTH4L022N120M3S
NTHL030N120M3S	NTH4L022N120M3S