ON Semiconductor®

Final Product/Process Change Notification

Document # : FPCN22631X
Issue Date: 15 February 2019

Title of Change:	Qualification of Wafer Probe and Backside Process (BGBM) at ON Bucheon, Korea for Trench 2 and Trench 3 MOSFET Technology.
Proposed first ship date:	1 June 2019
Contact information:	Contact your local ON Semiconductor Sales Office or <MohdHezri.AbuBakar@onsemi.com>
Samples:	Contact your local ON Semiconductor Sales Office or <PCN.samples@onsemi.com> 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.
Additional Reliability Data:	Contact your local ON Semiconductor Sales Office or <MohdAzizi.Azman@onsemi.com>
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. ON Semiconductor 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>
Change Part Identification:	Affected parts will be identified with a date code of WW23'19 or later
Change Category:	☑ Wafer Fab Change ☐ Assembly Change ☐ Test Change ☐ Other ____________

Change Sub-Category(s):

☑ Manufacturing Site Addition
☐ Manufacturing Site Transfer
☐ Manufacturing Process Change
☐ Material Change
☐ Product specific change
☐ Datasheet/Product Doc change
☐ Shipping/Packaging/Marking
☐ Other: ______________________

Sites Affected:	ON Semiconductor Sites: ON Bucheon, Korea	External Foundry/Subcon Sites: None

Description and Purpose:

This final change notification is to inform customers of ON Semiconductor's capacity expansion by qualifying an additional site of wafer probe and backside process (BGBM) for Trench (T2 & T3) MOSFET technology at ON Bucheon, Korea. Current site of wafer probe and BGBM for T2 & T3 MOSFET technology are located at ON Seremban and ON ISMF, Malaysia.

Upon the expiration of this notification, all products listed here will have dual sites for wafer probe and BGBM.

There are no product material change and no product marking change as a result of this change.

	Before Change Description	After Change Description
Wafer probe	ON Seremban, Malaysia	ON Seremban, Malaysia & ON Bucheon, Korea
BGBM	ON ISMF, Malaysia	ON ISMF, Malaysia & ON Bucheon, Korea

Reliability Data Summary:

QV DEVICE NAME: NTMFS5832NLT1G
RMS: P47062
PACKAGE: SO8FL

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Ta=150°C, 80% max rated V	1008 hrs	0/240
HTGB	JESD22-A108	Ta=150°C, 100% max rated Vgss	1008 hrs	0/240
HTSL	JESD22-A103	Ta= 150°C	2016 hrs	0/255
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 2 min	15000 cyc	0/240
TC	JESD22-A104	Ta= -55°C to +150°C	1000 cyc	0/330
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	192 hrs	0/240
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/240
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C		0/1050

QV DEVICE NAME: NTMFS4931NT1G
RMS: S49203/S50996
PACKAGE: SO8FL

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Ta=150°C, 80% max rated V	1008 hrs	0/251
HTGB	JESD22-A108	Ta=150°C, 100% max rated Vgss	1008 hrs	0/248
HTSL	JESD22-A103	Ta= 150°C	2016 hrs	0/247
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 2 min	15000 cyc	0/252
TC	JESD22-A104	Ta= -55°C to +150°C	1000 cyc	0/238
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	192 hrs	0/252
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/252
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C		0/994
RSH	JESD22- B106	Ta = 265C, 10 sec		0/90

Electrical Characteristic 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
NTMFS4823NT1G	NTMFS5832NLT1G
NTMFS4823NT1G-IRH1	NTMFS5832NLT1G
NTMFS5832NLT1G	NTMFS5832NLT1G
NTMFS5844NLT1G	NTMFS5832NLT1G
NTTFS5811NLTAG	NTMFS5832NLT1G
NTTFS5820NLTAG	NTMFS5832NLT1G
NTTFS5826NLTAG	NTMFS5832NLT1G

Table of Sites: *This table is necessary for the proper functioning of the Change Category selection button. The whole table should be removed once the document has been prepared*

ON Semiconductor Sites	External Foundry/Subcon Sites
None All Sites ON Oudenaarde, Belgium ON ISMF, Malaysia ON Burlington, Canada ON Roznov, Czech Republic ON Mechlen, Belgium ON Seremban, Malaysia ON Pocatello, Idaho ON Santa Clara, CA ON Leshan, China ON Carmona, Philippines ON Nampa, Idaho ON Shenzhen, China ON Suzhou, China ON Tarlac City, Philippines ON Cebu, Philippines ON Bucheon, Korea ON Rochester, New York ON S. Portland, Maine ON Mountain Top, PA ON Gunma, Japan ON Dong Nai Province, Vietnam ON Gresham, Oregon ON Niigata, Japan ON Binh Duong Province, Vietnam ON Bangkok, Thailand	None All Sites Ardentec Advanced Interconnections Corp Aizu Fujitsu, Japan ASMC LFoundry Unisem Amkor Phil 1 Amkor Korea Amkor Malaysia ASE Korea ASE Chungli ASE Shanghai ASE Kunshan UTAC LiteOn Korea