



Title of Change:	Qualification of ON Semiconductor Niigata fab for 1200V FSII Trench IGBT.
Proposed first ship date:	16 May 2016
Contact information:	Contact your local ON Semiconductor Sales Office or <way-shan.yong@onsemi.com>
Samples:	Contact your local ON Semiconductor Sales Office
Additional Reliability Data:	Contact your local ON Semiconductor Sales Office or <ffxg4t@onsemi.com>, <xiaohu.zhang@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:	Effective NH17G product may be sourced from either from Niigata (JPF) and/or Czech Republic (CZ4).
Change category:	<input checked="" type="checkbox"/> Wafer Fab Change <input type="checkbox"/> Assembly Change <input type="checkbox"/> Test Change <input type="checkbox"/> Other _____
Change Sub-Category(s):	<input checked="" type="checkbox"/> Manufacturing Site Change/Addition <input type="checkbox"/> Material Change <input type="checkbox"/> Datasheet/Product Doc change <input type="checkbox"/> Manufacturing Process Change <input type="checkbox"/> Product specific change <input type="checkbox"/> Shipping/Packaging/Marking <input type="checkbox"/> Other:
Sites Affected:	<input type="checkbox"/> All site(s) <input type="checkbox"/> not applicable <input checked="" type="checkbox"/> ON Semiconductor site(s) : ON Niigata, Japan <input type="checkbox"/> External Foundry/Subcon site(s)
Description and Purpose:	<p>This FPCN announces the planned capacity expansion of ON Semiconductor’s TIGBT fab operation of 1200V IGBT for TO247 package.</p> <p>Wafer fabrication of the 1200V devices is sourced from ON Semiconductor in Czech Republic (CZ4) and ON Semiconductor Niigata, Japan is added as an additional fabrication site. Upon the expiration of this FPCN, 1200V FSII and 1200V FSII RC TIGBT devices will be produced in either of the two locations, ON Semiconductor at Czech Republic (CZ4) or On Semiconductor Niigata (JPF) These products have been qualified to industrial requirements.</p>

**Reliability Data Summary:**

QV DEVICE NAME:NGTB40N120IHRWG

PACKAGE: TO247

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Ta = 145°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 = 175°C	1008 hrs	0/240
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta = +25°C, delta Tj=100°C On/off = 5 min	6000 cyc	0/240
TC	JESD22-A104	Ta = -55°C to +150°C	1000 cyc	0/240
H3TRB	JESD22-A101	85°C, 85% RH, 18.8psig, bias	1008 hrs	0/240
uHAST	JESD22-A102	121°C, 100% RH, 15psig, unbiased	96 hrs	0/240
RSH	JESD22- B106	Ta = 265°C, 10 sec		0/90

QV DEVICE NAME: NGTB50N120FL2WG

PACKAGE: TO247

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Ta = 145°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 = 175°C	1008 hrs	0/240
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta = +25°C, delta Tj=100°C On/off = 5 min	6000 cyc	0/240
TC	JESD22-A104	Ta = -55°C to +150°C	1000 cyc	0/240
H3TRB	JESD22-A101	85°C, 85% RH, 18.8psig, bias	1008 hrs	0/240
uHAST	JESD22-A102	121°C, 100% RH, 15psig, unbiased	96 hrs	0/240
RSH	JESD22- B106	Ta = 265°C, 10 sec		0/90

Electrical Characteristic Summary:

Electrical characteristics are not impacted.



List of Affected Standard Parts:

Part Number	Qualification Vehicle
NGTB15N120IHRWG	W25N120R2CP18
NGTB15N120IHTG	W25N120R2CP18
NGTB15N120IHWG	W25N120R2CP18
NGTB20N120IHRWG	W25N120R2CP18
NGTB20N120IHTG	W25N120R2CP18
NGTB20N120IHWG	W25N120R2CP18
NGTB30N120IHRWG	W25N120R2CP18
NGTB40N120IHRWG	W25N120R2CP18
NGTB25N120FL2WG	W75N120F2CP22
NGTB25N120SWG	W75N120F2CP22
NGTB40N120FL2WG	W75N120F2CP22
NGTB40N120SWG	W75N120F2CP22
NGTB50N120FL2WG	W75N120F2CP22
NGTG25N120FL2WG	W75N120F2CP22
NGTG40N120FL2WG	W75N120F2CP22