ON Semiconductor®

Final Product/Process Change Notification

Document # : FPCN22422X
Issue Date: 4 September 2018

Title of Change:	Qualification of FS3 Trench IGBT Technology in Aizu Fujitsu Semiconductor Manufacturing, Japan.
Proposed first ship date:	11 December 2018
Contact information:	Contact your local ON Semiconductor Sales Office or <Bokyun.Seo@onsemi.com>
Samples:	Contact your local ON Semiconductor Sales Office <Bokyun.Seo@onsemi.com>, <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 <Byeongyeop.Lee@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 WW50'18
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: Aizu Fujitsu, Japan

Description and Purpose:

This is a Final Change Notification (FPCN) to customers announcing the qualification of additional wafer fabrication facility for FS3 TIGBT technology in Aizu Fujitsu Semiconductor Manufacturing (AFSM) located in Aizu, Japan. Upon the expiration of this notification, all products listed here can be dual sourced from its current wafer fab facility in ON Semiconductor wafer fab in Bucheon, Korea and AFSM, Japan.

	Before Change Description	After Change Description
Wafer Fab Site	Bucheon, Korea	Bucheon, Korea and AFSM, Japan

Qualification tests are designed to show that the reliability of the affected devices will continue to meet or exceed ON Semiconductor standards, with no form, fit or functions alterations.

Reliability Data Summary:

QV DEVICE NAME : FGH75T65SHD-F155
RMS: K49570
PACKAGE: TO247

Test	Specification	Condition	Interval	FGH75T65SHD-F155 Qual Lot
HTRB	JESD22-A108	Tj=175°C, 100% max rated V	1,008 hrs	0/77
HTGB	JESD22-A108	Tj=175°C, 100% max rated Vges	1,008 hrs	0/77
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 5 min	6kcyc cyc	0/77
TC	JESD22-A104	Ta= -55°C to +150°C	1,000 cyc	0/77
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs	0/30
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/30
BPS	MIL-STD883 Method 2011	Per Ass'y Spec		0/30
BS	AEC-Q101-003	Per Ass'y Spec		0/30
DSS	MIL-STD883 Method 2019	Per Ass'y Spec		0/5
ESD	JS001 IEC61000-4	Human Body Model (HBM), Charge Device (CDM), Machine (MM)		Done

QV DEVICE NAME : FGA6560WDF
RMS: K49575
PACKAGE: TO3P

Test	Specification	Condition	Interval	FGA6560WDF Qual Lot
HTRB	JESD22-A108	Tj=175°C, 100% max rated V	1,008 hrs	0/77
HTGB	JESD22-A108	Tj=175°C, 100% max rated Vges	1,008 hrs	0/77
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 5 min	6kcyc cyc	0/77
TC	JESD22-A104	Ta= -55°C to +150°C	1,000 cyc	0/77
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs	0/30
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/30
BPS	MIL-STD883 Method 2011	Per Ass'y Spec		0/30
BS	AEC-Q101-003	Per Ass'y Spec		0/30
DSS	MIL-STD883 Method 2019	Per Ass'y Spec		0/5
ESD	JS001 IEC61000-4	Human Body Model (HBM), Charge Device (CDM), Machine (MM)		Done

QV DEVICE NAME : FGY160T65SPD-F085
RMS: K49830
PACKAGE: Power247

Test	Specification	Condition	Interval	FGY160T65SPD-F085 Qual Lot
HTRB	JESD22-A108	Tj=175°C, 100% max rated V	1,008 hrs	0/77
HTGB	JESD22-A108	Tj=175°C, 100% max rated Vges	1,008 hrs	0/77
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 5 min	6kcyc cyc	0/77
TC	JESD22-A104	Ta= -55°C to +150°C	1,000 cyc	0/77
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs	0/77
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/77
BPS	MIL-STD883 Method 2011	Per Ass'y Spec		0/30
BS	AEC-Q101-003	Per Ass'y Spec		0/30
DSS	MIL-STD883 Method 2019	Per Ass'y Spec		0/5
ESD	JS001 IEC61000-4	Human Body Model (HBM), Charge Device (CDM), Machine (MM)		Done

Electrical Characteristic Summary:

Electrical characteristics are not impacted

List of Affected Parts:

Part Number	Qualification Vehicle
FGA6560WDF	FGA6560WDF
FGA3060ADF	FGA6560WDF
FGA6530WDF	FGA6560WDF
FGA50T65SHD	FGA6560WDF
FGH40T65SHDF-F155	FGH75T65SHD-F155
FGH60T65SHD-F155	FGH75T65SHD-F155
FGH75T65SHD-F155	FGH75T65SHD-F155