



Final Product/Process Change Notification

Document #: FPCN22966XN

Issue Date: 06 Sep 2021

Title of Change:	Wafer Fab Capacity Expansion for FS3 Trench IGBT 12inch Technology at Global Foundries in New York, US. Additional new assembly process Chip Sorting for 12inch wafer at OSV.
Proposed First Ship date:	29 Dec 2021 or earlier if approved by customer
Contact Information:	Contact your local onsemi Sales Office or Noriaki.Sakamoto@onsemi.com
PCN Samples Contact:	Contact your local onsemi 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. 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 or ffxg4t@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. 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:	Material will be traceable with onsemi lot trace code & tracking
Change Category:	Wafer Fab Change
Change Sub-Category(s):	Manufacturing Site Addition

Sites Affected:

onsemi Sites	External Foundry/Subcon Sites
onsemi Aizu, Japan	Global Foundries East Fishkill, New York, United States
onsemi Bucheon, Korea	

Description and Purpose:

Qualify FS3 650V Trench IGBT wafer of Global Foundries East Fishkill (EFK);
The purpose of notification is increase wafer loading capacity.

Assembly process add die sorting (chip sorting) between wafersawing and die mounting.

	Before Change Description	After Change Description
Wafer Fab site	onsemi Aizu, Japan onsemi Bucheon, Korea	onsemi Aizu, Japan onsemi Bucheon, Korea Global Foundries East Fishkill, New York, United States
Die Attach	Sawing -> UV exposure -> Die mounting	Sawing -> UV exposure -> Die sorting -> Die mounting (only EFK 12inch wafer, other wafers no change)

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

There is no product marking change as a result of this change.



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Reliability Data Summary:

QV DEVICE NAME: FGH75T65SHD-F155, FGH60T65SHD-F155, FGY160T65SPD-F085

RMS: U78532, U78534, U78535, U78536, U76790, U74188, U74191, U72040

PACKAGE: TO247

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Ta=175°C, 100 % max rated V	504 hrs	0/240
HTGB	JESD22-A108	Ta=175°C, 100 % max Vge	1008 hrs	0/240
HTSL	JESD22-A103	Ta=175°C, No bias	504hrs	0/240
TC	JESD22-A104	Ta= -55°C to + 150 °C	1000 cyc	0/240
HAST	JESD22-A110	130°C, 85% RH, 18.8psia, bias	96 hrs	0/240
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96hrs	0/240
IOL	ML-STD-750	Ta=25°C, delta Tj=100°C On/Off = 5min	3000cyc	0/240

QV DEVICE NAME: STK544UC63K-E

RMS: V72713, V78992

MODULE: SIP1

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Tj = 150°C, 100% max rated V	1008 hrs	0/11
HTSL	JESD22-A103	Ta = 125°C, No bias	1008 hrs	0/11
LTSL	JESD22-A119	Ta = -40°C, No bias	1008 hrs	0/11
THU	JESD22-A101	Ta = 85°C, 85% RH, No bias	1008 hrs	0/11
H3TRB	JESD22-A101	Ta = 85°C, 85% RH, 80% max rated V	1008 hrs	0/11
TC	JESD22-A104	Ta = -40°C to +125°C	1000 cyc	0/11

QV DEVICE NAME: NFAQ1060L36T

RMS: V72715, V79006

MODULE: DIP-S6

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Tj = 150°C, 100% max rated V	1008 hrs	0/11
HTSL	JESD22-A103	Ta = 125°C, No bias	1008 hrs	0/11
LTSL	JESD22-A119	Ta = -40°C, No bias	1008 hrs	0/11
THU	JESD22-A101	Ta = 85°C, 85% RH, No bias	1008 hrs	0/11
H3TRB	JESD22-A101	Ta = 85°C, 85% RH, 80% max rated V	1008 hrs	0/11
TC	JESD22-A104	Ta = -40°C to +125°C	1000 cyc	0/11

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
STK544UC63K-E	FGY160T65SPD-F085, STK544UC63K-E
NFAQ0860L36T	FGY160T65SPD-F085, NFAQ1060L36T



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NFAQ0860L33T	FGY160T65SPD-F085, NFAQ1060L36T
NFAQ1060L36T	FGY160T65SPD-F085, NFAQ1060L36T
NFAQ1060L33T	FGY160T65SPD-F085, NFAQ1060L36T
NFCS1060L3TT	FGY160T65SPD-F085, STK544UC63K-E
NFAP0560L3TT	FGY160T65SPD-F085, STK544UC63K-E
NFAP1060L3TT	FGY160T65SPD-F085, STK544UC63K-E

Appendix A: Changed Products

PCN#: FPCN22966XN
Issue Date: Sep 05, 2021

Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
STK544UC63K-E		FGY160T65SPD-F085, STK544UC63K-E		
NFAQ0860L36T		FGY160T65SPD-F085, NFAQ1060L36T		
NFAQ1060L36T		FGY160T65SPD-F085, NFAQ1060L36T		
NFCS1060L3TT		FGY160T65SPD-F085, STK544UC63K-E		
NFAP1060L3TT		FGY160T65SPD-F085, STK544UC63K-E		
NFAQ0860L33T		FGY160T65SPD-F085, NFAQ1060L36T		