



Initial Product/Process Change Notification

Document #: IPCN25645X

Issue Date: 16 Aug 2023

Title of Change:	Qualification of Good-Ark, China as dual source for selected TO247 Field Stop IGBT and SuperFET MOSFET.
Proposed First Ship date:	08 Mar 2024 or earlier if approved by customer
Contact Information:	Contact your local onsemi Sales Office or Charles.Jiang@onsemi.com
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.
Type of Notification:	This is an Initial Product/Process Change Notification (IPCN) sent to customers. An IPCN is an advance notification about an upcoming change and contains general information regarding the change details and devices affected. It also contains the preliminary reliability qualification plan. The completed qualification and characterization data will be included in the Final Product/Process Change Notification (FPCN). This IPCN notification will be followed by a Final Product/Process Change Notification (FPCN) at least 90 days prior to implementation of the change. In case of questions, contact < PCN.Support@onsemi.com >
Marking of Parts/ Traceability of Change:	The traceability of marking will be maintained by assembly plant code, lot code and date code.
Change Category:	Test Change, Assembly Change
Change Sub-Category(s):	Manufacturing Site Addition

Sites Affected:

onsemi Sites	External Foundry/Subcon Sites
None	Good-Ark, China

Description and Purpose:

This IPCN is to inform onsemi will qualify Good-Ark, China as a dual source for the selected TO247 Field Stop IGBT and SuperFET MOSFET products, other than onsemi Suzhou.

The inclusion of Good-Ark, China will provide more competitive business support to the affected customers.

For assembly changes:

	From	To
Assembly & Final Test Sites	onsemi Suzhou	Good-Ark, China, onsemi Suzhou

The traceability of marking will be maintained by assembly plant code, lot code and date code.



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Qualification Plan:

QV1 DEVICE NAME: FGHL75T65LQDTL4

PACKAGE: TQ247

Test	Specification	Condition	Interval
High Temperature Reverse Bias	JESD22-A108	Ta=175°C, 100% max rated V	1008 hrs
High Temperature Gate Bias	JESD22-A108	Ta=175°C, 100% max rated Vgss	1008 hrs
High Temperature Storage Life	JESD22-A103	Ta=175°C	1008 hrs
Temperature Cycling	JESD22-A104	Ta= -55°C to +150°C	1000 cyc
Highly Accelerated Stress Test	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs
Unbiased Highly Accelerated Stress Test	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs
Resistance to Solder Heat	JESD22- B106	Ta = 268°C, 10 sec Required for through hole devices only	end points
Solderability	JSTD002	Ta = 245°C, 5 sec	end points

QV2 DEVICE NAME: FGH75T65SHD-F155-01

PACKAGE: TQ247

Test	Specification	Condition	Interval
High Temperature Reverse Bias	JESD22-A108	Ta=175°C, 100% max rated V	1008 hrs
High Temperature Gate Bias	JESD22-A108	Ta=175°C, 100% max rated Vgss	1008 hrs
High Temperature Storage Life	JESD22-A103	Ta=175°C	1008 hrs
Temperature Cycling	JESD22-A104	Ta= -55°C to +150°C	1000 cyc
Highly Accelerated Stress Test	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs
Unbiased Highly Accelerated Stress Test	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs
Resistance to Solder Heat	JESD22- B106	Ta = 268°C, 10 sec Required for through hole devices only	end points
Solderability	JSTD002	Ta = 245°C, 5 sec	end points

QV3 DEVICE NAME: FCH023N65S3-F155

PACKAGE: TQ247

Test	Specification	Condition	Interval
High Temperature Reverse Bias	JESD22-A108	Ta=150°C, 100% max rated V	1008 hrs
High Temperature Gate Bias	JESD22-A108	Ta=150°C, 100% max rated Vgss	1008 hrs
High Temperature Storage Life	JESD22-A103	Ta=150°C	1008 hrs
Temperature Cycling	JESD22-A104	Ta= -55°C to +150°C	1000 cyc
Highly Accelerated Stress Test	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs
Unbiased Highly Accelerated Stress Test	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs
Resistance to Solder Heat	JESD22- B106	Ta = 268°C, 10 sec Required for through hole devices only	end points
Solderability	JSTD002	Ta = 245°C, 5 sec	end points

Estimated date for qualification completion: 30 Nov 2023



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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
FCH023N65S3-F155	FCH023N65S3-F155
FCH023N65S3L4	FCH023N65S3-F155
FCH029N65S3-F155	FCH023N65S3-F155
FCH040N65S3-F155	FCH023N65S3-F155
FCH041N65EFL4	FCH023N65S3-F155
FCH067N65S3-F155	FCH023N65S3-F155
FCH085N80-F155	FCH023N65S3-F155
FCH099N65S3-F155	FCH023N65S3-F155
FCH110N65F-F155	FCH023N65S3-F155
FCH125N65S3R0-F155	FCH023N65S3-F155
FCH165N65S3R0-F155	FCH023N65S3-F155
FCH190N65F-F155	FCH023N65S3-F155
NTH4L027N65S3F	FCH023N65S3-F155
NTH4L040N65S3F	FCH023N65S3-F155
NTH4L067N65S3H	FCH023N65S3-F155
NTH027N65S3F-F155	FCH023N65S3-F155
NTHL019N65S3H	FCH023N65S3-F155
NTHL027N65S3HF	FCH023N65S3-F155
NTHL033N65S3HF	FCH023N65S3-F155
NTHL040N65S3F	FCH023N65S3-F155
NTHL040N65S3HF	FCH023N65S3-F155
NTHL050N65S3HF	FCH023N65S3-F155
NTHL065N65S3F	FCH023N65S3-F155
NTHL065N65S3HF	FCH023N65S3-F155
NTHL067N65S3H	FCH023N65S3-F155
NTHL082N65S3F	FCH023N65S3-F155
NTHL082N65S3HF	FCH023N65S3-F155
NTHL095N65S3H	FCH023N65S3-F155
NTHL095N65S3HF	FCH023N65S3-F155



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NTHL110N65S3F	FCH023N65S3-F155
NTHL125N65S3H	FCH023N65S3-F155
NTHL190N65S3HF	FCH023N65S3-F155
FGH4L40T120LQD	FGHL75T65LQDTL4
FGH4L50T65SQD	FGHL75T65LQDTL4
FGH40T120SQDNL4	FGHL75T65LQDTL4
FGH75T65SHDTL4	FGHL75T65LQDTL4
FGH75T65SHDTL4-01	FGHL75T65LQDTL4
FGH75T65SQDNL4	FGHL75T65LQDTL4
FGH75T65SQDTL4	FGHL75T65LQDTL4
FGHL50T65LQDTL4	FGHL75T65LQDTL4
FGHL50T65MQDTL4	FGHL75T65LQDTL4
FGHL75T65LQDTL4	FGHL75T65LQDTL4
FGHL75T65MQDTL4	FGHL75T65LQDTL4
FGHL50T65SQ	FGH75T65SHD-F155-01
FGH40T65SHD-F155	FGH75T65SHD-F155-01
FGH40T65SHD-F155-01	FGH75T65SHD-F155-01
FGH40T65SHDF-F155-01	FGH75T65SHD-F155-01
FGH40T65SQD-F155	FGH75T65SHD-F155-01
FGH40T120SMD-F155	FGH75T65SHD-F155-01
FGH60T65SHD-F155-01	FGH75T65SHD-F155-01
FGH75T65SHD-F155-01	FGH75T65SHD-F155-01
FGH75T65SHDT-F155-01	FGH75T65SHD-F155-01
FGHL40T65LQDT	FGH75T65SHD-F155-01
FGHL40T65MQD	FGH75T65SHD-F155-01
FGHL40T65MQDT	FGH75T65SHD-F155-01
FGHL50T65LQDT	FGH75T65SHD-F155-01
FGHL50T65MQD	FGH75T65SHD-F155-01
FGHL50T65MQDT	FGH75T65SHD-F155-01
FGHL75T65MQDT	FGH75T65SHD-F155-01
FGHL75T65MQD	FGH75T65SHD-F155-01
FGHL75T65LQDT	FGH75T65SHD-F155-01
FGHL50T65SQDT	FGH75T65SHD-F155-01