



Final Product/Process Change Notification

Document #: FPCN24993X

Issue Date: 19 Jun 2023

Title of Change:	Qualification of Shantou Huashan (SHEDCL) China as dual source for TO247 FS4 Tech discrete IGBT.	
Proposed First Ship date:	26 Sep 2023 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.	
Additional Reliability Data:	Contact your local onsemi Sales Office or Lalan.Ortega@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:	The traceability of marking will be maintained by assembly plant code, lot code and date code	
Change Category:	Assembly Change, Test Change	
Change Sub-Category(s):	Manufacturing Site Addition, Material Change	
Sites Affected:		
onsemi Sites	External Foundry/Subcon Sites	
None	SHANTOU HUASHAN Electronic Devices Co., Ltd., China	
Description and Purpose:		
This FPCN is to inform customers that onsemi has qualified Shantou Huashan (SHEDCL), China as an additional assembly and test site for selected TO247 Field Stop discrete IGBT products, in addition to the existing onsemi Suzhou site. The addition of Shantou Huashan (SHEDCL), China will enable a more competitive business supports to the affected customers.		
For assembly changes:		
	From	To
Die Attach	PB92.5SN5AG2.5 (onsemi Suzhou)	PB93.5SN5AG1.5 (Shantou Huashan (SHEDCL) China) PB92.5SN5AG2.5 (onsemi Suzhou)
Assembly & Final Test Sites	onsemi Suzhou (onsemi Suzhou)	Shantou Huashan (SHEDCL) China onsemi Suzhou (onsemi Suzhou)
Mold Compound	SU EME 6600CS/ SU EME G700HF/ KCC KTMC-1050GFA (onsemi Suzhou)	KTMC-1050GFA (Shantou Huashan (SHEDCL), China) SU EME 6600CS/ SU EME G700HF/ KCC KTMC-1050GFA (onsemi Suzhou) (onsemi Suzhou)
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Reliability Data Summary:

QV DEVICE NAME: FGHL75T65MQDT

RMS: U89842, S89976

PACKAGE: TO-247

Test	Specification	Condition	Interval	Results
High Temperature Reverse Bias	JESD22-A108	Ta=175°C, 100% max rated V	1008 hrs	0 / 231
High Temperature Gate Bias	JESD22-A108	Ta=175°C, 100% max rated Vgss	1008 hrs	0 / 231
High Temperature Storage Life	JESD22-A103	Ta=175°C	1008 hrs	0 / 231
Intermittent Operating Life	MIL-STD-750(M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C	6000 cyc	0 / 120
		On/off = 5.0 min		
Temperature Cycling	JESD22-A104	Ta= -55°C to +150°C	1000 cyc	0 / 231
High Humidity High Temp Rev Bias	JESD22-A101	Ta = 85°C, 85% RH, bias	1008 hrs	0 / 231
Unbiased Highly Accelerated Stress Test	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0 / 231
Resistance to Solder Heat	JESD22- B106	Ta = 268°C, 10 sec		0 / 90
		Required for through hole devices only		
Solderability	JSTD002	Ta = 245°C, 5 sec		0 / 45
Physical Dimensions	JESD22-B120			0 / 30

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
FGH75T65SQD-F155	FGHL75T65MQDT
FGHL40T65LQDT	FGHL75T65MQDT
FGHL40T65MQD	FGHL75T65MQDT
FGHL40T65MQDT	FGHL75T65MQDT
FGHL50T65LQDT	FGHL75T65MQDT
FGHL50T65MQD	FGHL75T65MQDT
FGHL50T65MQDT	FGHL75T65MQDT
FGHL75T65LQDT	FGHL75T65MQDT
FGHL75T65MQD	FGHL75T65MQDT
FGHL75T65MQDT	FGHL75T65MQDT
FGH75T65SQD-F155	FGHL75T65MQDT



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FGH50T65SQD-F155	FGHL75T65MQDT
FGH60T65SQD-F155	FGHL75T65MQDT
FGHL50T65SQ	FGHL75T65MQDT
FGHL50T65SQDT	FGHL75T65MQDT

Appendix A: Changed Products

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DIKG: DIGI-KEY

Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
FGH75T65SQD-F155		FGHL75T65MQDT		
FGHL50T65MQD		FGHL75T65MQDT		
FGHL50T65MQDT		FGHL75T65MQDT		
FGHL75T65LQDT		FGHL75T65MQDT		
FGHL75T65MQD		FGHL75T65MQDT		
FGHL75T65MQDT		FGHL75T65MQDT		
FGH75T65SQDT-F155		FGHL75T65MQDT		
FGH50T65SQD-F155		FGHL75T65MQDT		
FGH60T65SQD-F155		FGHL75T65MQDT		
FGHL50T65SQ		FGHL75T65MQDT		
FGHL50T65SQDT		FGHL75T65MQDT		
FGHL40T65MQD		FGHL75T65MQDT		
FGHL40T65MQDT		FGHL75T65MQDT		