



## Final Product/Process Change Notification

Document #: FPCN24993XA

Issue Date: 15 Aug 2023

<b>Title of Change:</b>	Qualification of Shantou Huashan (SHEDCL) China as dual source for TO247 FS Tech discrete IGBT	
<b>Proposed First Ship date:</b>	22 Nov 2023 or earlier if approved by customer	
<b>Contact Information:</b>	Contact your local onsemi Sales Office or <a href="mailto:Charles.Jiang@onsemi.com">Charles.Jiang@onsemi.com</a>	
<b>PCN Samples Contact:</b>	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.	
<b>Additional Reliability Data:</b>	Contact your local onsemi Sales Office or <a href="mailto:Lalan.Ortega@onsemi.com">Lalan.Ortega@onsemi.com</a>	
<b>Type of Notification:</b>	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 <a href="mailto:PCN.Support@onsemi.com">PCN.Support@onsemi.com</a>	
<b>Marking of Parts/ Traceability of Change:</b>	The traceability of marking will be maintained by assembly plant code, lot code and date code	
<b>Change Category:</b>	Assembly Change, Test Change	
<b>Change Sub-Category(s):</b>	Manufacturing Site Addition, Material Change	
<b>Sites Affected:</b>		
<b>onsemi Sites</b>	<b>External Foundry/Subcon Sites</b>	
None	SHANTOU HUASHAN Electronic Devices Co., Ltd., China	
<b>Description and Purpose:</b>		
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 site onsemi Suzhou.		
	<b>Before Change Description</b>	<b>After Change Description</b>
<b>Die Attach</b>	PB92.5SN5AG2.5 (onsemi Suzhou)	PB93.5SN5AG1.5 (Shantou Huashan (SHEDCL),China), PB92.5SN5AG2.5 (onsemi Suzhou)
<b>Assembly &amp; Final Test Sites</b>	onsemi Suzhou (onsemi Suzhou)	onsemi Suzhou (onsemi Suzhou) Shantou Huashan (SHEDCL), China
<b>Mold Compound</b>	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: FGH40T120SMD-SN00363

RMS: U88339, U89105

PACKAGE: TO-247

Test	Specification	Condition	Interval	Results
High Temperature Reverse Bias	JESD22-A108	Ta = 175°C, 80% max rated V	1008 hrs	0 / 231
High Temperature Gate Bias	JESD22-A108	Ta = 175°C, 100% max rated Vass	1008 hrs	0 / 231
High Temperature Storage Life	JESD22-A103	Ta = 175°C	1008 hrs	0 / 231
Intermittent Operating Life	MIL-STD-750	Ta = +25°C, delta Tj = 100°C	6000 Cyc	0 / 120
	(M1037)	On/off = 5 min		
	AEC-Q101			
Temperature Cycling	JESD22-A104	Ta = -55°C to +150°C	1000 Cyc	0 / 231
Highly Accelerated Stress Test	JESD22-A110	110°C, 85% RH, 18.8psig, bias	264 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		

### 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
FGH60N60SMD	FGH40T120SMD-SN00363
FGH60T65SHD-F155	FGH40T120SMD-SN00363
FGH75T65SHDT-F155	FGH40T120SMD-SN00363
FGH75T65SHD-F155	FGH40T120SMD-SN00363
FGH75T65UPD	FGH40T120SMD-SN00363
FGH75T65UPD-F155	FGH40T120SMD-SN00363
FGH40T65SHDF-F155	FGH40T120SMD-SN00363