



Initial Product/Process Change Notification

Document #: IPCN24516XA

Issue Date: 12 Apr 2022

Title of Change:	Qualification of Shantou Huashan (SHEDCL) China as dual source for TO247 discrete Diode.
Proposed First Ship date:	03 Oct 2022 or earlier if approved by customer
Contact Information:	Contact your local onsemi Sales Office or Jeanie.Wang@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 and lot code.
Change Category:	Assembly Change, Test Change
Change Sub-Category(s):	Manufacturing Site Addition

Sites Affected:

onsemi Sites	External Foundry/Subcon Sites
None	SHANTOU HUASHAN Electronic Devices Co., Ltd., China

Description and Purpose:

This IPCN is to inform that onsemi will qualify Shantou Huashan (SHEDCL), China as an additional assembly and test sites for selected TO247 products. The addition of Shantou Huashan (SHEDCL), China will enable a more competitive business supports to the affected customers.

There are no changes in product electrical performances and specifications.

	Before Change Description	After Change Description	
Assembly Site	onsemi Suzhou (ONSZ)	onsemi Suzhou (ONSZ)	Shantou Huashan (SHEDCL)
Test Site	onsemi Suzhou (ONSZ)	onsemi Suzhou (ONSZ)	Shantou Huashan (SHEDCL)
Die Attach (for all devices of the list)	Use Pb base solder, DA SLDR WIRE PB92.5SN5AG2.5	Use Pb base solder, DA SLDR WIRE PB92.5SN5AG2.5	Change to Pb-free solder, DA SLDR WIRE SN80AG20
Mold Compound (Only for FCH76N60NF)	SU EME 6600CS 48MMX88G	SU EME 6600CS 48MMX88G/ KCC KTMC-1050GFA 48MM*86G	KCC KTMC-1050GFA 48MM*86G

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



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Qualification Plan:

QV DEVICE NAME: FCH060N80-F155

PACKAGE: TO247

Test	Specification	Condition	Interval
HTRB	JESD22-A108	Ta = 150°C, 100% max rated V	1008 hrs
HTGB	JESD22-A108	TA = 150°C temperature , 100% rated Vgs	1008 hrs
HTSL	JESD22-A103	Ta = 150°C	1008 hrs
IOL	MIL-STD-750	Ta=+25°C, delta Tj=100°C	6000 cyc
	(M1037)	on/off = 5.0 min	
	AEC-Q101		
TC	JESD22-A104	Ta= -55°C to +150°C	1000 cyc
H3TRB	JESD22-A101	Ta = 85°C, RH=85%, bias = 80% of rated V or 100V max	1008 hrs
uHAST	JESD22-A118	Ta = 130°C, 85% RH, 18.8psig, unbiased	96 hrs
RSH	JESD22- B106	Ta = 265C, 10 sec	
SD	JSTD002	Ta = 245C, 5 sec	
PD	JESD22-B100B"	Case Outline	0 hr
LI	JESD22-B105D / MIL-STD-750, Method 2036	Lead Fatigue Test	0 hr

QV DEVICE NAME: FDH055N15A

PACKAGE: TO247

Test	Specification	Condition	Interval
HTRB	JESD22-A108	Ta = 175°C, 100% max rated V	1008 hrs
HTGB	JESD22-A108	TA = 175°C temperature , 100% rated Vgs	1008 hrs
HTSL	JESD22-A103	Ta = 175°C	1008 hrs
IOL	MIL-STD-750	Ta=+25°C, delta Tj=100°C	6000 cyc
	(M1037)	on/off = 5.0 min	
	AEC-Q101		
TC	JESD22-A104	Ta= -55°C to +175°C	1000 cyc
H3TRB	JESD22-A101	Ta = 85°C, RH=85%, bias = 80% of rated V or 100V max	1008 hrs
uHAST	JESD22-A118	Ta = 130°C, 85% RH, 18.8psig, unbiased	96 hrs
RSH	JESD22- B106	Ta = 265C, 10 sec	
SD	JSTD002	Ta = 245C, 5 sec	
PD	JESD22-B100B"	Case Outline	0 hr
LI	JESD22-B105D / MIL-STD-750, Method 2036	Lead Fatigue Test	0 hr

Estimated date for qualification completion: 3 June 2022



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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
HUF75652G3	FDH055N15A
FDH055N15A	FDH055N15A
FCH165N60E	FCH060N80-F155
FCH150N65F-F155	FCH060N80-F155
FCH125N60E	FCH060N80-F155
FCH099N60E	FCH060N80-F155
FCH104N60F	FCH060N80-F155
FCH077N65F-F155	FCH060N80-F155
FCH072N60F	FCH060N80-F155
FCH041N65EF-F155	FCH060N80-F155
FCH070N60E	FCH060N80-F155
FCH76N60NF	FCH060N80-F155
FCH060N80-F155	FCH060N80-F155

Appendix A: Changed Products

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Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
HUF75652G3		FDH055N15A		
FCH165N60E		FCH060N80-F155		
FCH150N65F-F155		FCH060N80-F155		
FCH104N60F		FCH060N80-F155		
FCH077N65F-F155		FCH060N80-F155		
FCH072N60F		FCH060N80-F155		
FCH041N65EF-F155		FCH060N80-F155		
FCH070N60E		FCH060N80-F155		
FCH76N60NF		FCH060N80-F155		
FCH060N80-F155		FCH060N80-F155		
FDH055N15A		FDH055N15A		