



Initial Product/Process Change Notification

Document #: IPCN24763X

Issue Date: 29 Jun 2022

Title of Change:	Qualification of alternate mold compound GR30 for TO247	
Proposed First Ship date:	31 Mar 2023 or earlier if approved by customer	
Contact Information:	Contact your local onsemi Sales Office or Yun.Cui@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:	Changed material will be identified by lot code	
Change Category:	Assembly Change	
Change Sub-Category(s):	Material Change	
Sites Affected:		
onsemi Sites	External Foundry/Subcon Sites	
onsemi Suzhou, China	None	
Description and Purpose:		
<p>This IPCN is to inform customers that onsemi is qualifying new green mold compound GR30 from China local supplier Hysol, as alternative source on selected TO247 Discrete products in onsemi Suzhou, China. This will help improve supply chain flexibility.</p> <p>There are no changes in product electrical specifications.</p>		
	Before Change Description	After Change Description
Mold Compound	EME 6600CS CEL8240HF10FC	EME 6600CS CEL8240HF10FC GR30
There is no product marking change as a result of this change.		



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Qualification Plan:

QV DEVICE NAME: HGTG11N120CND

PACKAGE: TO-247

Test	Specification	Condition	Interval
HTRB	JESD22-A108	Tj= _150_°C, _80_% max rated V	1008_ hrs
HTGB	JESD22-A108	Tj= _150_°C, 100% max rated Vgss	1008_ hrs
HTSL	JESD22-A103	Ta= _150_°C	1008_ hrs
TC	JESD22-A104	Ta= -_55_°C to +_150_°C	1000_ cyc
HAST	JESD22-A110	Temp = 130C, 85% RH, ~ 18.8 psig, bias = 80% of rated V or 100V max	96hrs
UHASt	JESD22-A118	Temp = 130C, RH=85%, ~ 18.8 psig	96hrs
IOL	MIL STD750, M 1037	Ta=+25°C, deltaTj=100°C max, 5 min= Ton=Toff	6000_ cyc
RSH	JESD22-B106	Ta=265C, 10 sec	
SD	JSTD002	Ta = 245C, 5 sec	

QV DEVICE NAME: FCH47N60F-F133

PACKAGE: TO-247

Test	Specification	Condition	Interval
HTRB	JESD22-A108	Tj= _150_°C, _80_% max rated V	1008_ hrs
HTGB	JESD22-A108	Tj= _150_°C, 100% max rated Vgss	1008_ hrs
HTSL	JESD22-A103	Ta= _150_°C	1008_ hrs
TC	JESD22-A104	Ta= -_55_°C to +_150_°C	1000_ cyc
HAST	JESD22-A110	Temp = 130C, 85% RH, ~ 18.8 psig, bias = 80% of rated V or 100V max	96hrs
UHASt	JESD22-A118	Temp = 130C, RH=85%, ~ 18.8 psig	96hrs
IOL	MIL STD750, M 1037	Ta=+25°C, deltaTj=100°C max, 5 min= Ton=Toff	6000_ cyc
RSH	JESD22-B106	Ta=265C, 10 sec	
SD	JSTD002	Ta = 245C, 5 sec	

QV DEVICE NAME: NDSH25170A

PACKAGE: TO-247

Test	Specification	Condition	Interval
HTRB	JESD22-A108	Tj= _175_°C, _100_% max rated V	1008_ hrs
HTSL	JESD22-A103	Ta= _175_°C	1008_ hrs
TC	JESD22-A104	Ta= -_55_°C to +_150_°C	1000_ cyc
HAST	JESD22-A110	Temp = 130C, 85% RH, ~ 18.8 psig, bias = 80% of rated V	96hrs
UHASt	JESD22-A118	Temp = 130C, RH=85%, ~ 18.8 psig	96hrs
IOL	MIL STD750, M 1037	Ta=+25°C, deltaTj=100°C max, 5 min= Ton=Toff	6000_ cyc
RSH	JESD22-B106	Ta=265C, 10 sec	
SD	JSTD002	Ta = 245C, 5 sec	



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QV DEVICE NAME: AFGHL75T65SQDT
PACKAGE: TO-247

Test	Specification	Condition	Interval
HTRB	JESD22-A108	Tj= _175_°C, _100_% max rated V	1008_hrs
HTGB	JESD22-A108	Tj= _175_°C, 100% max rated Vgss	1008_hrs
HTSL	JESD22-A103	Ta= _175_°C	1008_hrs
TC	JESD22-A104	Ta= -_55_°C to +_150_°C	1000_cyc
HAST	JESD22-A110	Temp = 130C, 85% RH, ~ 18.8 psig, bias = 80% of rated V or 100V max	96hrs
UHASt	JESD22-A118	Temp = 130C, RH=85%, ~ 18.8 psig	96hrs
IOL	MIL STD750, M 1037	Ta=+25°C, deltaTj=100°C max, 5 min= Ton=Toff	6000_cyc
RSH	JESD22-B106	Ta=265C, 10 sec	
SD	JSTD002	Ta = 245C, 5 sec	

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
NDSH25170A	NDSH25170A
NDSH10170A	NDSH25170A
SHGTG40N60A4	HGTG11N120CND
SFGH50N3	HGTG11N120CND
HGTG11N120CND	HGTG11N120CND
HGTG5N120BND	HGTG11N120CND
HGTG10N120BND	HGTG11N120CND
HGTG40N60A4	HGTG11N120CND
FGH50N3	HGTG11N120CND
FCH47N60F-F133	FCH47N60F-F133
FCH47N60-F133	FCH47N60F-F133
FGH50T65UPD	AFGHL75T65SQDT
FGH75T65UPD	AFGHL75T65SQDT

Appendix A: Changed Products

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Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
NDSH25170A		NDSH25170A	NA	
HGTG11N120CND		HGTG11N120CND	NA	
HGTG5N120BND		HGTG11N120CND	NA	
HGTG10N120BND		HGTG11N120CND	NA	
HGTG40N60A4		HGTG11N120CND	NA	
FCH47N60F-F133		FCH47N60F-F133	NA	
FCH47N60-F133		FCH47N60F-F133	NA	
FGH50T65UPD		AFGHL75T65SQDT	NA	