



Initial Product/Process Change Notification

Document #: IPCN24765X

Issue Date: 23 Jun 2022

Title of Change:	Qualification of alternate mold compound GR710 for D2PAK
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:	Keep same marking. 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:

This IPCN is to inform customers that onsemi is qualifying new green mold compound GR710 from China local supplier Hysol, as alternative source on selected D2PAK Discrete products in onsemi Suzhou, China. This will help improve supply chain flexibility.

There are no changes in product electrical specifications.

	Before Change Description	After Change Description
Mold Compound	CEL8240HF10 CEL8240HF10FC KTMC5900GM F01 EME 6600CS	CEL8240HF10 CEL8240HF10FC KTMC5900GM F01 EME 6600CS GR710

There is no product marking change as a result of this change.



Initial Product/Process Change Notification

Document #: IPCN24765X

Issue Date: 23 Jun 2022

Qualification Plan:

QV DEVICE NAME: HGT1S10N120BNST

PACKAGE: D2PAK

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+PC	JESD22-A104	Ta= -_55_°C to +_150_°C	_1000_ cyc
HAST+PC	JESD22-A110	Temp = 130C, 85% RH, ~ 18.8 psig, bias = 80% of rated V or 100V max	96hrs
UHAST+PC	JESD22-A118	Temp = 130C, RH=85%, ~ 18.8 psig	96hrs
IOL+PC	MIL STD750, M 1037	Ta=+25°C, deltaTj=100°C max, 3.5 min= Ton=Toff	_8572_ cyc
SD	JSTD002	Ta = 245C, 5 sec	

QV DEVICE NAME: SMJB5603T4G

PACKAGE: D2PAK

Test	Specification	Condition	Interval
HTRB	JESD22-A108	Tj= _150_°C, _80_% max rated V	_1008_ hrs
HTSL	JESD22-A103	Ta= _150_°C	_1008_ hrs
TC+PC	JESD22-A104	Ta= -_55_°C to +_150_°C	_1000_ cyc
HAST+PC	JESD22-A110	Temp = 130C, 85% RH, ~ 18.8 psig, bias = 80% of rated V or 100V max	96hrs
UHAST+PC	JESD22-A118	Temp = 130C, RH=85%, ~ 18.8 psig	96hrs
IOL+PC	MIL STD750, M 1037	Ta=+25°C, deltaTj=100°C max, 3.5 min= Ton=Toff	_8572_ cyc
SD	JSTD002	Ta = 245C, 5 sec	

QV DEVICE NAME: ISL9R18120S3ST

PACKAGE: D2PAK

Test	Specification	Condition	Interval
HTRB	JESD22-A108	Tj= _175_°C, _80_% max rated V	_1008_ hrs
HTSL	JESD22-A103	Ta= _175_°C	_1008_ hrs
TC+PC	JESD22-A104	Ta= -_55_°C to +_150_°C	_1000_ cyc
HAST+PC	JESD22-A110	Temp = 130C, 85% RH, ~ 18.8 psig, bias = 80% of rated V or 100V max	96hrs
UHAST+PC	JESD22-A118	Temp = 130C, RH=85%, ~ 18.8 psig	96hrs
IOL+PC	MIL STD750, M 1037	Ta=+25°C, deltaTj=100°C max, 3.5 min= Ton=Toff	_8572_ cyc
SD	JSTD002	Ta = 245C, 5 sec	



Initial Product/Process Change Notification

Document #: IPCN24765X

Issue Date: 23 Jun 2022

QV DEVICE NAME: FDB2552-SB82178

PACKAGE: D2PAK

Test	Specification	Condition	Interval
HTRB	JESD22-A108	Tj= <u>175</u> °C, <u>80</u> % max rated V	<u>1008</u> hrs
HTGB	JESD22-A108	Tj= <u>175</u> °C, 100% max rated Vgss	<u>1008</u> hrs
HTSL	JESD22-A103	Ta= <u>175</u> °C	<u>1008</u> hrs
TC+PC	JESD22-A104	Ta= - <u>55</u> °C to + <u>150</u> °C	<u>1000</u> cyc
HAST+PC	JESD22-A110	Temp = 130C, 85% RH, ~ 18.8 psig, bias = 42V max	96hrs
UHAST+PC	JESD22-A118	Temp = 130C, RH=85%, ~ 18.8 psig	96hrs
IOL+PC	MIL STD750, M 1037	Ta=+25°C, deltaTj=100°C max, 3.5 min= Ton=Toff	<u>8572</u> cyc
SD	JSTD002	Ta = 245C, 5 sec	

QV DEVICE NAME: FFB20UP20DN-SB82216

PACKAGE: D2PAK

Test	Specification	Condition	Interval
HTRB	JESD22-A108	Tj= <u>175</u> °C, <u>80</u> % max rated V	<u>1008</u> hrs
HTSL	JESD22-A103	Ta= <u>175</u> °C	<u>1008</u> hrs
TC+PC	JESD22-A104	Ta= - <u>55</u> °C to + <u>150</u> °C	<u>1000</u> cyc
HAST+PC	JESD22-A110	Temp = 130C, 85% RH, ~ 18.8 psig, bias = 80% of rated V or 100V max	96hrs
UHAST+PC	JESD22-A118	Temp = 130C, RH=85%, ~ 18.8 psig	96hrs
IOL+PC	MIL STD750, M 1037	Ta=+25°C, deltaTj=100°C max, 3.5 min= Ton=Toff	<u>8572</u> cyc
SD	JSTD002	Ta = 245C, 5 sec	

QV DEVICE NAME: FFSB1065B

PACKAGE: D2PAK

Test	Specification	Condition	Interval
HTRB	JESD22-A108	Tj= <u>175</u> °C, <u>100</u> % max rated V	<u>1008</u> hrs
HTSL	JESD22-A103	Ta= <u>175</u> °C	<u>1008</u> hrs
TC+PC	JESD22-A104	Ta= - <u>55</u> °C to + <u>150</u> °C	<u>1000</u> cyc
HAST+PC	JESD22-A110	Temp = 130C, 85% RH, ~ 18.8 psig, bias = 80% of rated BV	96hrs
UHAST+PC	JESD22-A118	Temp = 130C, RH=85%, ~ 18.8 psig	96hrs
IOL+PC	MIL STD750, M 1037	Ta=+25°C, deltaTj=100°C max, 2 min= Ton=Toff	<u>15000</u> cyc
SD	JSTD002	Ta = 245C, 5 sec	



Initial Product/Process Change Notification

Document #: IPCN24765X

Issue Date: 23 Jun 2022

QV DEVICE NAME: NVB082N65S3F

PACKAGE: D2PAK

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+PC	JESD22-A104	Ta= -_55_ °C to +_150_ °C	_1000_ cyc
HAST+PC	JESD22-A110	Temp = 130C, 85% RH, ~ 18.8 psig, bias = 42V max	96hrs
UHAST+PC	JESD22-A118	Temp = 130C, RH=85%, ~ 18.8 psig	96hrs
IOL+PC	MIL STD750, M 1037	Ta=+25°C, deltaTj=100°C max, 3.5 min= Ton=Toff	_8572_ cyc
SD	JSTD002	Ta = 245C, 5 sec	

QV DEVICE NAME: NVBGS4D1N15MC

PACKAGE: D2PAK

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+PC	JESD22-A104	Ta= -_55_ °C to +_150_ °C	_1000_ cyc
HAST+PC	JESD22-A110	Temp = 130C, 85% RH, ~ 18.8 psig, bias = 80% of rated V or 100V max	96hrs
UHAST+PC	JESD22-A118	Temp = 130C, RH=85%, ~ 18.8 psig	96hrs
IOL+PC	MIL STD750, M 1037	Ta=+25°C, deltaTj=100°C max, 2 min= Ton=Toff	_15000_ cyc
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
NTB082N65S3F	NVB082N65S3F
NTB095N65S3HF	NVB082N65S3F
NTB110N65S3HF	NVB082N65S3F
NTB150N65S3HF	NVB082N65S3F
NTB190N65S3HF	NVB082N65S3F
NTB5D0N15MC	NVBGS4D1N15MC



Initial Product/Process Change Notification

Document #: IPCN24765X

Issue Date: 23 Jun 2022

NTB7D3N15MC	NVBGS4D1N15MC
NTBGS004N10G	FDB2552-SB82178
NTBGS4D1N15MC	NVBGS4D1N15MC
NTBGS6D5N15MC	NVBGS4D1N15MC
NTBS2D7N06M7	FDB2552-SB82178
NTBS9D0N10MC	NVBGS4D1N15MC
FCB070N65S3	NVB082N65S3F
FCB099N65S3	NVB082N65S3F
FCB110N65F	NVB082N65S3F
FCB11N60TM	NVB082N65S3F
FCB125N65S3	NVB082N65S3F
FCB199N65S3	NVB082N65S3F
FCB20N60FTM	NVB082N65S3F
FCB20N60TM	NVB082N65S3F
FCB260N65S3	NVB082N65S3F
FCB290N80	NVB082N65S3F
FDB0105N407L	FDB2552-SB82178
FDB0165N807L	FDB2552-SB82178
FDB0170N607L	FDB2552-SB82178
FDB0190N807L	FDB2552-SB82178
FDB024N06	FDB2552-SB82178
FDB024N08BL7	FDB2552-SB82178
FDB0250N807L	FDB2552-SB82178
FDB0260N1007L	FDB2552-SB82178
FDB029N06	FDB2552-SB82178
FDB0300N1007L	FDB2552-SB82178
FDB031N08	FDB2552-SB82178
FDB035AN06A0	FDB2552-SB82178
FDB047N10	FDB2552-SB82178
FDB050AN06A0	FDB2552-SB82178
FDB060AN08A0	FDB2552-SB82178
FDB0630N1507L	FDB2552-SB82178
FDB0690N1507L	FDB2552-SB82178
FDB070AN06A0	FDB2552-SB82178



Initial Product/Process Change Notification

Document #: IPCN24765X

Issue Date: 23 Jun 2022

FDB075N15A	FDB2552-SB82178
FDB082N15A	FDB2552-SB82178
FDB088N08	FDB2552-SB82178
FDB110N15A	FDB2552-SB82178
FDB120N10	FDB2552-SB82178
FDB12N50TM	FDB2552-SB82178
FDB13AN06A0	FDB2552-SB82178
FDB14N30TM	FDB2552-SB82178
FDB150N10	FDB2552-SB82178
FDB15N50	FDB2552-SB82178
FDB16AN08A0	FDB2552-SB82178
FDB1D7N10CL7	NVBGS4D1N15MC
FDB20N50F	FDB2552-SB82178
FDB2532	FDB2552-SB82178
FDB2552	FDB2552-SB82178
FDB2572	FDB2552-SB82178
FDB2614	FDB2552-SB82178
FDB2710	FDB2552-SB82178
FDB28N30TM	FDB2552-SB82178
FDB33N25TM	FDB2552-SB82178
FDB3502	FDB2552-SB82178
FDB3632	FDB2552-SB82178
FDB3652	FDB2552-SB82178
FDB3682	FDB2552-SB82178
FDB38N30U	FDB2552-SB82178
FDB390N15A	FDB2552-SB82178
FDB44N25TM	FDB2552-SB82178
FDB52N20TM	FDB2552-SB82178
FDB5800	FDB2552-SB82178
FDB8441	FDB2552-SB82178
FDB86102LZ	FDB2552-SB82178
FDB86135	FDB2552-SB82178
FFB20UP20STM	FFB20UP20DN-SB82216
FFB20UP30DNTM	FFB20UP20DN-SB82216



Initial Product/Process Change Notification

Document #: IPCN24765X

Issue Date: 23 Jun 2022

FFSB0465A	FFSB1065B
FFSB0665A	FFSB1065B
FFSB0665B	FFSB1065B
FFSB0865A	FFSB1065B
FFSB0865B	FFSB1065B
FFSB10120A	FFSB1065B
FFSB1065A	FFSB1065B
FFSB1065B	FFSB1065B
FFSB1265A	FFSB1065B
FFSB20120A	FFSB1065B
FFSB2065B	FFSB1065B
FFSB3065B	FFSB1065B
FJB102TM	SMJB5603T4G
FJB5555TM	SMJB5603T4G
FQB11N40CTM	FDB2552-SB82178
FQB12P20TM	FDB2552-SB82178
FQB19N20CTM	FDB2552-SB82178
FQB19N20LTM	FDB2552-SB82178
FQB19N20TM	FDB2552-SB82178
FQB1P50TM	FDB2552-SB82178
FQB22P10TM	FDB2552-SB82178
FQB27P06TM	FDB2552-SB82178
FQB30N06LTM	FDB2552-SB82178
FQB33N10LTM	FDB2552-SB82178
FQB34N20LTM	FDB2552-SB82178
FQB34N20TM-AM002	FDB2552-SB82178
FQB34P10TM	FDB2552-SB82178
FQB44N10TM	FDB2552-SB82178
FQB47P06TM-AM002	FDB2552-SB82178
FQB4N80TM	FDB2552-SB82178
FQB50N06LTM	FDB2552-SB82178
FQB55N10TM	FDB2552-SB82178
FQB5N50CTM	FDB2552-SB82178
FQB5N90TM	FDB2552-SB82178



Initial Product/Process Change Notification

Document #: IPCN24765X

Issue Date: 23 Jun 2022

FQB7P20TM	FDB2552-SB82178
FQB8N60CTM	FDB2552-SB82178
FQB8P10TM	FDB2552-SB82178
FQB9P25TM	FDB2552-SB82178
HGT1S10N120BNS	HGT1S10N120BNST
HGT1S10N120BNST	HGT1S10N120BNST
HUF75345S3ST	FDB2552-SB82178
HUF75545S3ST	FDB2552-SB82178
HUF75631S3ST	FDB2552-SB82178
HUF75639S3ST	FDB2552-SB82178
HUF75645S3ST	FDB2552-SB82178
HUF76429S3ST	FDB2552-SB82178
HUF76439S3ST	FDB2552-SB82178
HUF76639S3ST	FDB2552-SB82178
HUFA75645S3S	FDB2552-SB82178
IRFW630BTM-FP001	FDB2552-SB82178
NTB011N15MC	NVBGS4D1N15MC
NTB004N10G	FDB2552-SB82178
NDB5060L	FDB2552-SB82178
KSB834WYTM	SMJB5603T4G
ISL9R18120S3ST	ISL9R18120S3ST
FDB045AN08A0	FDB2552-SB82178
FDB035N10A	FDB2552-SB82178

Appendix A: Changed Products

Issue Date: Jun 23, 2022

Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
NTB082N65S3F		NVB082N65S3F	NA	
NTB110N65S3HF		NVB082N65S3F	NA	
NTB150N65S3HF		NVB082N65S3F	NA	
NTB5D0N15MC		NVBGS4D1N15MC	NA	
NTB7D3N15MC		NVBGS4D1N15MC	NA	
NTBGS004N10G		FDB2552-SB82178	NA	
NTBGS4D1N15MC		NVBGS4D1N15MC	NA	
NTBGS6D5N15MC		NVBGS4D1N15MC	NA	
NTBS2D7N06M7		FDB2552-SB82178	NA	
NTBS9D0N10MC		NVBGS4D1N15MC	NA	
FCB070N65S3		NVB082N65S3F	NA	
FCB110N65F		NVB082N65S3F	NA	
FCB11N60TM		NVB082N65S3F	NA	
FCB125N65S3		NVB082N65S3F	NA	
FCB199N65S3		NVB082N65S3F	NA	
FCB20N60FTM		NVB082N65S3F	NA	
FCB20N60TM		NVB082N65S3F	NA	
FCB260N65S3		NVB082N65S3F	NA	
FCB290N80		NVB082N65S3F	NA	
FDB0105N407L		FDB2552-SB82178	NA	
FDB0165N807L		FDB2552-SB82178	NA	
FDB0190N807L		FDB2552-SB82178	NA	
FDB024N06		FDB2552-SB82178	NA	
FDB024N08BL7		FDB2552-SB82178	NA	
FDB029N06		FDB2552-SB82178	NA	
FDB0300N1007L		FDB2552-SB82178	NA	
FDB031N08		FDB2552-SB82178	NA	
FDB035AN06A0		FDB2552-SB82178	NA	
FDB047N10		FDB2552-SB82178	NA	
FDB050AN06A0		FDB2552-SB82178	NA	
FDB060AN08A0		FDB2552-SB82178	NA	
FDB0630N1507L		FDB2552-SB82178	NA	
FDB070AN06A0		FDB2552-SB82178	NA	
FDB075N15A		FDB2552-SB82178	NA	
FDB082N15A		FDB2552-SB82178	NA	
FDB088N08		FDB2552-SB82178	NA	
FDB110N15A		FDB2552-SB82178	NA	
FDB120N10		FDB2552-SB82178	NA	
FDB12N50TM		FDB2552-SB82178	NA	
FDB13AN06A0		FDB2552-SB82178	NA	
FDB14N30TM		FDB2552-SB82178	NA	
FDB150N10		FDB2552-SB82178	NA	
FDB15N50		FDB2552-SB82178	NA	
FDB20N50F		FDB2552-SB82178	NA	
FDB2532		FDB2552-SB82178	NA	
NTB095N65S3HF		NVB082N65S3F	NA	
FDB2614		FDB2552-SB82178	NA	
FDB2552		FDB2552-SB82178	NA	
FDB28N30TM		FDB2552-SB82178	NA	
FDB2710		FDB2552-SB82178	NA	
FDB3502		FDB2552-SB82178	NA	
FDB33N25TM		FDB2552-SB82178	NA	
FDB3682		FDB2552-SB82178	NA	
FDB3632		FDB2552-SB82178	NA	
FDB390N15A		FDB2552-SB82178	NA	
FDB38N30U		FDB2552-SB82178	NA	
FDB52N20TM		FDB2552-SB82178	NA	
FDB44N25TM		FDB2552-SB82178	NA	
FDB8441		FDB2552-SB82178	NA	
FDB5800		FDB2552-SB82178	NA	

Appendix A: Changed Products

PCN#: IPCN24765X
Issue Date: Jun 23, 2022

DIKG: DIGI-KEY (page 2 of 2)

Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
FDB86135		FDB2552-SB82178	NA	
FDB86102LZ		FDB2552-SB82178	NA	
FFB20UP30DNTM		FFB20UP20DN-SB82216	NA	
FFB20UP20STM		FFB20UP20DN-SB82216	NA	
FFSB0865B		FFSB1065B	NA	
FFSB0665B		FFSB1065B	NA	
FFSB2065B		FFSB1065B	NA	
FFSB1065B		FFSB1065B	NA	
FFSB3065B		FFSB1065B	NA	
FJB102TM		SMJB5603T4G	NA	
FQB12P20TM		FDB2552-SB82178	NA	
FQB11N40CTM		FDB2552-SB82178	NA	
FQB19N20LTM		FDB2552-SB82178	NA	
FQB19N20CTM		FDB2552-SB82178	NA	
FQB1P50TM		FDB2552-SB82178	NA	
FQB19N20TM		FDB2552-SB82178	NA	
FQB27P06TM		FDB2552-SB82178	NA	
FQB22P10TM		FDB2552-SB82178	NA	
FQB33N10LTM		FDB2552-SB82178	NA	
FQB30N06LTM		FDB2552-SB82178	NA	
FQB34P10TM		FDB2552-SB82178	NA	
FQB34N20LTM		FDB2552-SB82178	NA	
FQB47P06TM-AM002		FDB2552-SB82178	NA	
FQB44N10TM		FDB2552-SB82178	NA	
FQB50N06LTM		FDB2552-SB82178	NA	
FQB4N80TM		FDB2552-SB82178	NA	
FQB5N50CTM		FDB2552-SB82178	NA	
FQB55N10TM		FDB2552-SB82178	NA	
FQB7P20TM		FDB2552-SB82178	NA	
FQB5N90TM		FDB2552-SB82178	NA	
FQB8P10TM		FDB2552-SB82178	NA	
FQB8N60CTM		FDB2552-SB82178	NA	
HUF75345S3ST		FDB2552-SB82178	NA	
HGT1S10N120BNST		HGT1S10N120BNST	NA	
HUF75639S3ST		FDB2552-SB82178	NA	
HUF75545S3ST		FDB2552-SB82178	NA	
HUF76439S3ST		FDB2552-SB82178	NA	
HUF75645S3ST		FDB2552-SB82178	NA	
NTB011N15MC		NVBS4D1N15MC	NA	
NTB004N10G		FDB2552-SB82178	NA	
HUF76639S3ST		FDB2552-SB82178	NA	
KSB834WYTM		SMJB5603T4G	NA	
ISL9R18120S3ST		ISL9R18120S3ST	NA	
NDB5060L		FDB2552-SB82178	NA	
FDB035N10A		FDB2552-SB82178	NA	
FDB045AN08A0		FDB2552-SB82178	NA	