



Initial Product/Process Change Notification

Document #: IPCN24856X

Issue Date: 29 Sep 2022

Title of Change:	Qualification of alternate mold compound GR710 for DPAK & IPAK.	
Proposed First Ship date:	30 Apr 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:		
<p>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 DPAK & IPAK Discrete products in onsemi Suzhou, China.</p> <p>This will help improve supply chain flexibility.</p> <p>And SUMITOMO will discontinue non-green mold compound EME 6600CS, GR710 will be the replacement.</p> <p>There are no changes in product electrical specifications.</p>		
	Before Change Description	After Change Description
Mold Compound for DPAK	KTMC5400SM CEL8240HF10FC KTMC5900GM EME 6600CS	KTMC5400SM CEL8240HF10FC KTMC5900GM GR710
Mold Compound for IPAK	CEL8240HF10FC	CEL8240HF10FC GR710
There is no product marking change as a result of this change.		



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Qualification Plan:

QV DEVICE NAME: FGD5T120SH

PACKAGE: DPAK

Test	Specification	Condition	Interval
HTRB	JESD22-A108	Tj= _150_°C, 100_% 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	500_ cyc
HAST+PC	JESD22-A110	Temp = 130C, 85% RH, ~ 18.8 psig, bias = 80% of rated V	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
RSH	JESD22-B106	Ta=265C, 10 sec	
SD	JSTD002	Ta = 245C, 5 sec	

QV DEVICE NAME: HGTD1N120BNS9A

PACKAGE: DPAK

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, 2 min= Ton=Toff	15000_ cyc
RSH	JESD22-B106	Ta=265C, 10 sec	
SD	JSTD002	Ta = 245C, 5 sec	

QV DEVICE NAME: RFD16N05SM9A

PACKAGE: DPAK

Test	Specification	Condition	Interval
HTRB	JESD22-A108	Tj= _175_°C, 80_% 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
RSH	JESD22-B106	Ta=265C, 10 sec	
SD	JSTD002	Ta = 245C, 5 sec	



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QV DEVICE NAME: NTD600N80S3Z

PACKAGE: DPAK

Test	Specification	Condition	Interval
HTRB	JESD22-A108	Tj= _150_°C, 100_% 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	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
RSH	JESD22-B106	Ta=265C, 10 sec	
SD	JSTD002	Ta = 245C, 5 sec	

QV DEVICE NAME: KSC5502DTM

PACKAGE: DPAK

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	500_ 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
RSH	JESD22-B106	Ta=265C, 10 sec	
SD	JSTD002	Ta = 245C, 5 sec	

QV DEVICE NAME: RURD4120S9A-F085

PACKAGE: DPAK

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	96hrs
UHAST+PC	JESD22-A118	Temp = 130C, RH=85%, ~ 18.8 psig	96hrs
IOL+PC	MIL STD750, M 1037	Ta=+25°C, delta, Tj=100°C max, 2 min= Ton=Toff	15000_ cyc
RSH	JESD22-B106	Ta=265C, 10 sec	
SD	JSTD002	Ta = 245C, 5 sec	



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QV DEVICE NAME: FQD6N40CTM-NBEA002

PACKAGE: DPAK

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	500_ 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
RSH	JESD22-B106	Ta=265C, 10 sec	
SD	JSTD002	Ta = 245C, 5 sec	

QV DEVICE NAME: FFSD1065B-F085

PACKAGE: DPAK

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+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	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
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
FFSD08120A	FFSD1065B-F085
KSC5402DTF	KSC5502DTM
FCU360N65S3R0	NTD600N80S3Z
FFSD2065B	FFSD1065B-F085
NTD600N80S3Z	NTD600N80S3Z
RURD420S9A	RURD4120S9A-F085



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FCU600N65S3R0	NTD600N80S3Z
FFSD0465A	FFSD1065B-F085
NTD250N65S3H	NTD600N80S3Z
HUF76609D3ST	RFD16N05SM9A
FFSD1065B	FFSD1065B-F085
FDD2670	FQD6N40CTM-NBEA002
FFSD10120A	FFSD1065B-F085
FFD10UP20S	RURD4120S9A-F085
NTD360N65S3H	NTD600N80S3Z
FDD5680	FQD6N40CTM-NBEA002
FFSD0865A	FFSD1065B-F085
FFSD0665A	FFSD1065B-F085
FDD3670	FQD6N40CTM-NBEA002
FJD3305H1TM	KSC5502DTM
FDD86113LZ	FQD6N40CTM-NBEA002
MJD50TF	KSC5502DTM
FFSD0665B	FFSD1065B-F085
FDD3690	FQD6N40CTM-NBEA002
FCD900N60Z	NTD600N80S3Z
FCU900N60Z	NTD600N80S3Z
FDD6690A	FQD6N40CTM-NBEA002
FDD2572	FQD6N40CTM-NBEA002
HUF76629D3ST	RFD16N05SM9A
FCD7N60TM-WS	NTD600N80S3Z
RFD12N06RLESM9A	RFD16N05SM9A
FDD3860	FQD6N40CTM-NBEA002
FJD5304DTF	KSC5502DTM
HUF75329D3ST	RFD16N05SM9A
FCD620N60ZF	NTD600N80S3Z
FDD8870	FQD6N40CTM-NBEA002
FDD86326	FQD6N40CTM-NBEA002
FDD6630A	FQD6N40CTM-NBEA002
FDD8647L	FQD6N40CTM-NBEA002
FQD3P50TM	FQD6N40CTM-NBEA002



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RFD14N05LSM	RFD16N05SM9A
RFD16N06LESM9A	RFD16N05SM9A
FDD3N40TM	FQD6N40CTM-NBEA002
FCD5N60TM-WS	NTD600N80S3Z
FFSD0865B	FFSD1065B-F085
FFSD1065A	FFSD1065B-F085
FDD850N10L	FQD6N40CTM-NBEA002
FDD5N60NZTM	FQD6N40CTM-NBEA002
FQD4P40TM	FQD6N40CTM-NBEA002
FCD7N60TM	NTD600N80S3Z
FQD30N06TM	FQD6N40CTM-NBEA002
FCD4N60TM	NTD600N80S3Z
FQD2N90TM	FQD6N40CTM-NBEA002
FDD5N50NZTM	FQD6N40CTM-NBEA002
FQD6N40CTM	FQD6N40CTM-NBEA002
FCD380N60E	NTD600N80S3Z
FDD7N20TM	FQD6N40CTM-NBEA002
FDD18N20LZ	FQD6N40CTM-NBEA002
RFD16N05LSM9A	RFD16N05SM9A
FCD5N60TM	NTD600N80S3Z
FDD8453LZ	FQD6N40CTM-NBEA002
FCD2250N80Z	NTD600N80S3Z
FDD8444	FQD6N40CTM-NBEA002
FDD86540	FQD6N40CTM-NBEA002
FGD5T120SH	FGD5T120SH
FDD10AN06A0	FQD6N40CTM-NBEA002
FDD2582	FQD6N40CTM-NBEA002
FQD16N25CTM	FQD6N40CTM-NBEA002
FQD5N60CTM	FQD6N40CTM-NBEA002
FDD8451	FQD6N40CTM-NBEA002
RFD3055LESM9A	RFD16N05SM9A
FDD6670A	FQD6N40CTM-NBEA002
FQD13N10TM	FQD6N40CTM-NBEA002
FDD1600N10ALZ	FQD6N40CTM-NBEA002



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FQD13N10LTM	FQD6N40CTM-NBEA002
FQD7N20LTM	FQD6N40CTM-NBEA002
FDD5353	FQD6N40CTM-NBEA002
FDD6685	FQD6N40CTM-NBEA002
FCD3400N80Z	NTD600N80S3Z
FDD16AN08A0	FQD6N40CTM-NBEA002
FDD8447L	FQD6N40CTM-NBEA002
RFD14N05SM9A	RFD16N05SM9A
FJD5553TM	KSC5502DTM
FGD4536TM	HGTD1N120BNS9A
FDD8880	FQD6N40CTM-NBEA002
FDD8876	FQD6N40CTM-NBEA002
FDD120AN15A0	FQD6N40CTM-NBEA002
FDD3672	FQD6N40CTM-NBEA002
FQD2P40TM	FQD6N40CTM-NBEA002
FJD5555TM	KSC5502DTM
FCD600N60Z	NTD600N80S3Z
FQD13N06LTM	FQD6N40CTM-NBEA002
FQD7P20TM	FQD6N40CTM-NBEA002
RFD14N05LSM9A	RFD16N05SM9A
FQD12N20LTM	FQD6N40CTM-NBEA002
FDD86110	FQD6N40CTM-NBEA002
FCD1300N80Z	NTD600N80S3Z
FDD390N15A	FQD6N40CTM-NBEA002
FQD5P20TM	FQD6N40CTM-NBEA002
HUF76407D3ST	RFD16N05SM9A
FDD4685	FQD6N40CTM-NBEA002
FDD7N25LZTM	FQD6N40CTM-NBEA002
FQD18N20V2TM	FQD6N40CTM-NBEA002
FDD306P	FQD6N40CTM-NBEA002
FQD11P06TM	FQD6N40CTM-NBEA002
FDD86250	FQD6N40CTM-NBEA002
KSC5502DTM	KSC5502DTM
FQD19N10LTM	FQD6N40CTM-NBEA002



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FDD3682	FQD6N40CTM-NBEA002
FQD8P10TM	FQD6N40CTM-NBEA002
FDD6637	FQD6N40CTM-NBEA002
FDD86252	FQD6N40CTM-NBEA002
FCD850N80Z	NTD600N80S3Z
FQD17P06TM	FQD6N40CTM-NBEA002
FDD390N15ALZ	FQD6N40CTM-NBEA002
FDD8896	FQD6N40CTM-NBEA002
FGD3N60UNDF	HGTD1N120BNS9A
HUF75321D3ST	RFD16N05SM9A
FDD86102	FQD6N40CTM-NBEA002
FCD360N65S3R0	NTD600N80S3Z
FDD13AN06A0	FQD6N40CTM-NBEA002
FDD86102LZ	FQD6N40CTM-NBEA002
FCD600N65S3R0	NTD600N80S3Z
FDD4243	FQD6N40CTM-NBEA002
NTD360N80S3Z	NTD600N80S3Z
HGTD1N120BNS9A	HGTD1N120BNS9A
RFD16N05SM9A	RFD16N05SM9A
FDD8424H	FQD6N40CTM-NBEA002
FCD260N65S3	NTD600N80S3Z
FDD86369	FQD6N40CTM-NBEA002
FDD86367	FQD6N40CTM-NBEA002
FDD8880-G	FQD6N40CTM-NBEA002