



Final Product/Process Change Notification

Document #:FPCN24561ZA

Issue Date:27 Sep 2022

Title of Change:	Qualification of FRD Rectifiers, UniFET's, and other discrete products at onsemi Roznov, Czech Republic.	
Proposed Changed Material First Ship Date:	27 Mar 2023 or earlier if approved by customer	
Current Material Last Order Date:	N/A <i>Orders received after the Current Material Last Order Date expiration are to be considered as orders for new changed material as described in this PCN. Orders for current (unchanged) material after this date will be per mutual agreement and current material inventory availability.</i>	
Current Material Last Delivery Date:	26 Mar 2023 <i>The Current Material Last Delivery Date may be subject to change based on build and depletion of the current (unchanged) material inventory</i>	
Product Category:	Active components – Discrete components	
Contact information:	Contact your local onsemi Sales Office or Joeri.Klutsch@onsemi.com	
PCN Samples Contact:	Contact your local onsemi Sales Office to place sample order. Sample requests are to be submitted no later than 45 days after publication of this change notification. Samples delivery timing will be subject to request date, sample quantity and special customer packing/label requirements.	
Sample Availability Date:	On request	
PPAP Availability Date:	26 Feb 2023	
Additional Reliability Data:	Contact your local onsemi Sales Office or songyong.sim@onsemi.com	
Type of Notification:	This is a Final Product/Process Change Notification (FPCN) sent to customers. The change will be implemented at 'Proposed Change Material First Ship Date' in compliance to J-STD-46 or ZVEI, or earlier upon customer approval, or per our signed agreements. onsemi will consider this proposed change and it's conditions acceptable, unless an inquiry is made in writing within 45 days of delivery of this notice. To do so, contact PCN.Support@onsemi.com.	
Change Category		
Category	Type of Change	
Process - Wafer Production	Move of all or part of wafer fab to a different location/site/subcontractor, New wafer diameter	
Description and Purpose:		
This notification is to inform the customers that onsemi qualified their FRD Rectifiers, UniFET's, and other discrete products at onsemi Roznov, Czech Republic. Some of the parts may also undergo a wafer probe alternate location, but there is no impact to the 100% final electrical test.		
	Before Change Description	After Change Description
Wafer fab	onsemi Bucheon, Korea	onsemi Roznov, Czech Republic onsemi Bucheon, Korea
There are no product material changes and no product marking changes as a result of this change.		



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Reason / Motivation for Change:	Capacity improvement			
Anticipated impact on fit, form, function, reliability, product safety or manufacturability:	The device has been qualified and validated based on the same Product Specification. The device has successfully passed the qualification tests. Potential impacts can be identified, but due to testing performed by onsemi in relation to the PCN, associated risks are verified and excluded. No anticipated impacts.			
Sites Affected:				
onsemi Sites			External Foundry/Subcon Sites	
onsemi Roznov, Czech Republic			None	
Marking of Parts/ Traceability of Change:	Date Code			
Reliability Data Summary:				
QV DEVICE NAME: FQA28N50 (QV2-1)				
RMS: K84460				
PACKAGE: TO3P				
Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Tj= 150°C, 80% max rated V	1008 hrs	In process
HTGB	JESD22-A108	Tj= 150°C, 100% max rated Vgss	1008 hrs	0/80
HTSL	JESD22-A103	Ta= 150°C	1008 hrs	0/80
TC	JESD22-A104	Ta= -55°C to +150°C	1000 cyc	0/40
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs	0/40
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/40
 QV DEVICE NAME: FQA70N15 (QV2-2)				
RMS: K87030				
PACKAGE: TO3P				
Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Tj= 175°C, 80% max rated V	1008 hrs	In process
HTGB	JESD22-A108	Tj= 175°C, 100% max rated Vgss	1008 hrs	In process
HTSL	JESD22-A103	Ta= 175°C	1008 hrs	In process
TC	JESD22-A104	Ta= -55°C to +150°C	1000 cyc	In process
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs	0/40
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	In process

QV DEVICE NAME: FQD2N100TM (QV2-3)

RMS: K87031

PACKAGE: DPAK

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Tj= 150°C, 80% max rated V	1008 hrs	In process
HTGB	JESD22-A108	Tj= 150°C, 100% max rated Vgss	1008 hrs	In process
HTSL	JESD22-A103	Ta= 150°C	1008 hrs	In process
PC	J-STD-020 / JESD-A113	MSL 1 @ 260°C, Pre TC, uHAST, HAST for surface mount pkgs only	-	-
TC	JESD22-A104	Ta= -55°C to +150°C	1000 cyc	In process
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs	In process
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	In process

QV DEVICE NAME: FGH75T65SQDTL4 (QV3-1)

RMS: V85658

PACKAGE: TO-247

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Tj=175°C, 80% rated V	1008hrs	In progress
HTGB	JESD22-A108	Ta=175°C, 100% max rated Vgss	1008 hrs	In progress
HTSL	JESD22-A103	Ta=175°C	1008hrs	In progress
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 5min	6000cyc	0/231
TC	JESD22-A104	Ta= -65°C to +150°C	1000cyc	0/231
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96hrs	In progress
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96hrs	0/231
RSH	JESD22- B106	Ta = 265°C, 10 sec Required for through hole devices only		0/30

QV DEVICE NAME: NFVA35065L32 (QV8-1)

RMS: 83762, 84035

PACKAGE: ASPM27

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108, AQG324	Tj=175°C, 100% max rated V	1008 hrs	0/78
TC	JESD22-A104, AQG324	Ta= -40°C to +125°C	1000 cyc	0/39
TS1	AQG324	Ta= -40°C to +125°C, transition <30sec	1000 cyc	0/18
TS2	AQG324	Ta= -40°C to +125°C, transition <30sec, with heat sink	1000 cyc	0/6
H3TRB	JESD22-A110	85°C, 85% RH, 18.8psig, bias 100V	1008 hrs	0/78
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/36

QV DEVICE NAME: FGHL75T65MQD (QV8-2)

RMS: S85126

PACKAGE: TO-247

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Tj=175°C, 80% rated V	1008hrs	0/231
HTGB	JESD22-A108	Ta=175°C, 100% max rated Vgss	1008 hrs	0/231
HTSL	JESD22-A103	Ta=175°C	1008hrs	0/231
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 5min	6000cyc	0/231
TC	JESD22-A104	Ta= -65°C to +150°C	1000cyc	0/231
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96hrs	0/231
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96hrs	0/231
RSH	JESD22- B106	Ta = 265°C, 10 sec Required for through hole devices only		0/30

QV DEVICE NAME: FGA60N65SMD (QV8-3)

RMS: V85129

PACKAGE: TO-247

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Tj=175°C, 80% rated V	1008hrs	0/231
HTGB	JESD22-A108	Ta=175°C, 100% max rated Vgss	1008 hrs	0/231
HTSL	JESD22-A103	Ta=175°C	1008hrs	0/231
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 5min	6000cyc	0/231
TC	JESD22-A104	Ta= -65°C to +150°C	1000cyc	0/231
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96hrs	0/231
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96hrs	0/231
RSH	JESD22- B106	Ta = 265°C, 10 sec Required for through hole devices only		0/30

QV DEVICE NAME: FGH75T65SHD-F155

RRF: 68330, 68385

PACKAGE: TO247

Test	Specification	Condition	Interval	Result
HTRB	JESD22-A108	Tj = 175°C , 100% max rated V	1008 hrs	0/77
HAST	JESD22-A110	130°C, 85%RH, 18.8 psig, bias	96hrs	0/77
UHAST	JESD22-A118	130°C, 85%RH, 18.8 psig, unbiased	96hrs	0/77
TC	JESD22-A104	Ta = -55°C to +150°C	1000 cyc	0/77
HTSL	JESD22-A103	Ta = 175°C	1008 Hrs	0/77
IOL	MIL STD750 (M 1037) AEC Q101	Ta=+25°C, delta Tj=100°C,on/off =5 min	6000 cyc	0/77
RSH	JESD22- B106	Ta=265°C, 10 sec		0/30

QV DEVICE NAME: RHRG75120

RRF: 68323, 68388

PACKAGE: TO247

Test	Specification	Condition	Interval	Result
HTRB	JESD22-A108	Tj = 175°C , 80% max rated V	1008 hrs	0/231
HAST	JESD22-A110	130°C, 85%RH, 18.8 psig, bias	96hrs	0/231
UHAST	JESD22-A118	130°C, 85%RH, 18.8 psig, unbiased	96hrs	0/231
TC	JESD22-A104	Ta = -55°C to +150°C	1000 cyc	0/231
HTSL	JESD22-A103	Ta = 175°C	1008 hrs	0/231
IOL	MIL STD750 (M 1037) AEC Q101	Ta=+25°C, delta Tj=100°C,on/off =5 min	6000 cyc	0/231
RSH	JESD22- B106	Ta=265°C, 10 sec		0/90

QV DEVICE NAME: FFH30S60STU

RRF: 68326, 68387

PACKAGE: TO247

Test	Specification	Condition	Interval	Result
HTRB	JESD22-A108	Tj = 175°C , 80% max rated V	1008 hrs	0/77
HTSL	JESD22-A103	Ta = 175°C	1008 hrs	0/77
IOL	MIL STD750 (M 1037) AEC-Q101	Ta=+25°C, delta Tj=100°C, On/off =5 min	6000 cyc	0/77
TC	JESD22-A104	Ta = -55°C to +150°C	1000 cyc	0/77
H3TRB	JESD22-A101	85°C, 85% RH, 18.8psig, bias	1008 hrs	0/77
UHAST	JESD22-A118	130°C, 85%RH, 18.8 psig, unbiased	96hrs	0/77
RSH	JESD22- B106	Ta=265°C, 10 sec		0/30

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**.*

Current Part Number	New Part Number	Qualification Vehicle
AFGHL40T120RLD	N/A	FGH75T65SHD-F155, FFH30S60STU, RHRG75120
AFGHL40T65SPD	N/A	FGH75T65SQDTL4
AFGHL40T65SQD	N/A	NFVA35065L32, FGHL75T65MQD, FGA60N65SMD
AFGHL50T65SQD	N/A	NFVA35065L32, FGHL75T65MQD, FGA60N65SMD
AFGHL75T65SQD	N/A	NFVA35065L32, FGHL75T65MQD, FGA60N65SMD
AFGHL75T65SQDT	N/A	NFVA35065L32, FGHL75T65MQD, FGA60N65SMD
FAM65CR51DZ2	N/A	FGH75T65SQDTL4



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FAM65CR51XZ2	N/A	FGH75T65SQDTL4
FFH50US60S-F085	N/A	FGH75T65SQDTL4
FGB20N60SFD-F085	N/A	FGH75T65SQDTL4
FGB40T65SPD-F085	N/A	FGH75T65SQDTL4
FGH40N60SMD-F085	N/A	RHRG75120
FGH75T65UPD-F085	N/A	FGH75T65SQDTL4
FQB34P10TM-F085	N/A	FQA28N50, FQA70N15, FQD2N100TM
FQB7P20TM-F085P	N/A	FQA28N50, FQA70N15, FQD2N100TM
FQD12P10TM-F085	N/A	FQA28N50, FQA70N15, FQD2N100TM
FQD8P10TM-F085	N/A	FQA28N50, FQA70N15, FQD2N100TM
ISL9R1560P2-F085	N/A	FGH75T65SQDTL4
ISL9R3060G2-F085	N/A	FGH75T65SQDTL4
NFVA22512NP2T	N/A	RHRG75120, FGH75T65SQDTL4
NFVA23512NP2T	N/A	RHRG75120
NFVA25012NP2T	N/A	RHRG75120
NFVA33065L32	N/A	FGH75T65SHD-F155, FFH30S60STU, RHRG75120
NFVA33065L42	N/A	FGH75T65SHD-F155, FFH30S60STU, RHRG75120
NFVA34065L32	N/A	NFVA35065L32, FGHL75T65MQD, FGA60N65SMD
NFVA35065L32	N/A	NFVA35065L32, FGHL75T65MQD, FGA60N65SMD
NFVA35065L42	N/A	NFVA35065L32, FGHL75T65MQD, FGA60N65SMD
NFVA36065L42	N/A	NFVA35065L32, FGHL75T65MQD, FGA60N65SMD
NVG450A120L5DSC	N/A	FGH75T65SHD-F155, FFH30S60STU, RHRG75120
NVG500A75L4DSC2	N/A	NFVA35065L32, FGHL75T65MQD, FGA60N65SMD
NVG500A75L4DSF2	N/A	NFVA35065L32, FGHL75T65MQD, FGA60N65SMD
NVG600A75L4DSB2	N/A	NFVA35065L32, FGHL75T65MQD, FGA60N65SMD
NVG600A75L4DSC2	N/A	NFVA35065L32, FGHL75T65MQD, FGA60N65SMD
NVG600A75L4DSE2	N/A	NFVA35065L32, FGHL75T65MQD, FGA60N65SMD
NVG800A75L4DSB	N/A	NFVA35065L32, FGHL75T65MQD, FGA60N65SMD
NVG800A75L4DSB2	N/A	FGH75T65SHD-F155, FFH30S60STU, RHRG75120
NVG800A75L4DSC	N/A	FGH75T65SHD-F155, FFH30S60STU, RHRG75120
NVG800A75L4DSC2	N/A	FGH75T65SHD-F155, FFH30S60STU, RHRG75120
NVH640S75L4SPB	N/A	NFVA35065L32, FGHL75T65MQD, FGA60N65SMD
SXV65CR51DZ2	N/A	FGH75T65SQDTL4
RHRG5060-F085	N/A	RHRG75120
RHRG3060-F085	N/A	RHRG75120



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PCRKA20075F8	N/A	NFVA35065L32, FGHL75T65MQD, FGA60N65SMD
NVH950S75L4SPC	N/A	NFVA35065L32, FGHL75T65MQD, FGA60N65SMD
NVH950S75L4SPB	N/A	NFVA35065L32, FGHL75T65MQD, FGA60N65SMD
NVH820S75L4SPD	N/A	NFVA35065L32, FGHL75T65MQD, FGA60N65SMD
NVH820S75L4SPC	N/A	NFVA35065L32, FGHL75T65MQD, FGA60N65SMD
NVH820S75L4SPB	N/A	NFVA35065L32, FGHL75T65MQD, FGA60N65SMD
NVH820S75L4SPA	N/A	NFVA35065L32, FGHL75T65MQD, FGA60N65SMD
NVH680S75L4SPC	N/A	NFVA35065L32, FGHL75T65MQD, FGA60N65SMD
NVH680S75L4SPB	N/A	NFVA35065L32, FGHL75T65MQD, FGA60N65SMD
NVH660S75L4SPFC	N/A	NFVA35065L32, FGHL75T65MQD, FGA60N65SMD
NVH660S75L4SPFB	N/A	NFVA35065L32, FGHL75T65MQD, FGA60N65SMD
NVH640S75L4SPC	N/A	NFVA35065L32, FGHL75T65MQD, FGA60N65SMD
NVG500A75L4DSB2	N/A	NFVA35065L32, FGHL75T65MQD, FGA60N65SMD
NFVA23512NP2T-Z014	N/A	RHRG75120
FAM65CR51XZ1	N/A	FGH75T65SQDTL4
FAM65CR51DZ1	N/A	FGH75T65SQDTL4

Appendix A: Changed Products

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DIKG: DIGI-KEY

Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
AFGHL40T65SPD		FGH75T65SQDTL4		
AFGHL50T65SQD		NFVA35065L32, FGHL75T65MQD, FGA60N65SMD		
AFGHL75T65SQD		NFVA35065L32, FGHL75T65MQD, FGA60N65SMD		
AFGHL75T65SQDT		NFVA35065L32, FGHL75T65MQD, FGA60N65SMD		
FFH50US60S-F085		FGH75T65SQDTL4		
FGB20N60SFD-F085		FGH75T65SQDTL4		
FGB40T65SPD-F085		FGH75T65SQDTL4		
FGH40N60SMD-F085		RHRG75120		
FGH75T65UPD-F085		FGH75T65SQDTL4		
FQB34P10TM-F085		FQA28N50, FQA70N15, FQD2N100TM		
FQD12P10TM-F085		FQA28N50, FQA70N15, FQD2N100TM		
FQD8P10TM-F085		FQA28N50, FQA70N15, FQD2N100TM		
ISL9R1560P2-F085		FGH75T65SQDTL4		
ISL9R3060G2-F085		FGH75T65SQDTL4		
NFVA22512NP2T		RHRG75120, FGH75T65SQDTL4		
NFVA23512NP2T		RHRG75120		
NFVA25012NP2T		RHRG75120		
NFVA33065L32		FGH75T65SHD-F155, FFH30S60STU, RHRG75120		
NFVA35065L32		NFVA35065L32, FGHL75T65MQD, FGA60N65SMD		
NVG800A75L4DSC		FGH75T65SHD-F155, FFH30S60STU, RHRG75120		
RHRG5060-F085		RHRG75120		
RHRG3060-F085		RHRG75120		
NVH820S75L4SPB		NFVA35065L32, FGHL75T65MQD, FGA60N65SMD		
AFGHL40T65SQD		NFVA35065L32, FGHL75T65MQD, FGA60N65SMD		