

Final Product/Process Change Notification Document #:FPCN24561ZB Issue Date:05 Apr 2023

| Title of Change: | Qualification of FRD Rectifiers, and other discrete products at onsemi Roznov, Czech Republic. | | |
|---|--|--|--|
| | | | |
| Proposed Changed Material First Ship Date: | 05 Oct 2023 or earlier if approved by customer | | |
| Current Material Last Order Date: | N/A Orders received after the Current Material Last Order Date expiration are to be considered a 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 | | |
| Current Material Last Delivery Date: | N/A The Current Material Last Delivery Date may be subject to change based on build and depletion of the current (unchanged) material inventory | | |
| Product Category: | Active components – Discrete components | | |
| Contact information: | Contact your local onsemi Sales Office or Phuong.Hoang@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: | 30 Apr 2023 | | |
| PPAP Availability Date: | 30 Apr 2023 | | |
| Additional Reliability Data: | Contact your local onsemi Sales Office or Jayoung.Hong@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 | | |
| Equipment | Production from a new equipment/tool which uses the same basic technology (replacement equipment or extension of existing equipment pool) without change of process. | | |

Description and Purpose:

This notification is to inform the customers that onsemi qualified their FRD Rectifiers, and other discrete products at onsemi Roznov, Czech Republic.

| | Before Change Description | After Change Description | |
|------------|-----------------------------------|--|--|
| Wafer fab | onsemi Bucheon, Korea | onsemi Roznov, Czech Republic onsemi Bucheon, Korea | |
| Wafer size | 6 inch (150 mm) / 8 inch (200 mm) | 8 inch (200 mm) | |

There are no product material changes and no product marking changes as a result of this change.



| Reason / Motivation for Change: | Supply disruption | | |
|--|--|-------------------------------|--|
| 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: | Clean Date Code can be advised upon of request. | | |
| Reliability Data Summary: | | | |
| 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 |
| тс | JESD22-A104, AQG324 | Ta= -40°C to +125°C | 1000 сус | 0/39 |
| TS1 | AQG324 | Ta= -40°C to +125°C, transition <30sec | 1000 сус | 0/18 |
| TS2 | AQG324 | Ta= -40°C to +125°C, transition <30sec, with heat sink | 1000 сус | 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: \$85126

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 | , , , , , , , , , , , , , , , , , , , | |

Onsemi

Final Product/Process Change Notification Document #:FPCN24561ZB Issue Date:05 Apr 2023

QV DEVICE NAME: FGA60N65SMD (QV8-3) RMS: V85129 PACKAGE: TO-247 Condition Test Specification 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 MIL-STD-750 Ta=+25°C, delta Tj=100°C IOL (M1037) 6000cyc 0/231 On/off = 5minAEC-Q101 TC JESD22-A104 Ta= -65°C to +150°C 1000cyc 0/231 0/231 HAST JESD22-A110 130°C, 85% RH, 18.8psig, bias 96hrs 130°C, 85% RH, 18.8psig, unbiased 96hrs 0/231 uHAST JESD22-A118 Ta = 265°C, 10 sec RSH 0/30 JESD22- B106 Required for through hole devices only QV DEVICE NAME: RHRG75120 (QV4) RMS: 68323, 68388 PACKAGE: TO-247 **Specification** Condition Interval Results Test HTRB JESD22-A108 Tj = 175°C, 80% max rated V 1008hrs 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 nsig unbiased 96hrs 0/231 000cyc 0/231

| UTAST | JL3D22-A118 | 150 C, 85%KT, 18.8 psig, ulibiased | 90113 |
|-------|---------------------------------|---|----------|
| TC | JESD22-A104 | Ta = -55°C to +150°C | 1000cyc |
| HTSL | JESD22-A103 | Ta = 175°C | 1008hrs |
| IOL | MIL STD750 (M 1037) AEC Q101 | Ta=+25°C, delta Tj=100°C, on/off =5 min | 6000 cyc |
| RSH | JESD22- B106 | Ta=265°C, 10 sec | - |

NOTE: AEC-1pager is attached.

To view attachments:

1. Download pdf copy of the PCN to your computer

2. Open the downloaded pdf copy of the PCN

3. Click on the paper clip icon available on the menu provided in the left/bottom portion of the screen to reveal the Attachment field

4. Then click on the attached file/s

Electrical Characteristics Summary:

Electrical characteristics are not impacted.

0/231

0/231

0/90



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 |
|---------------------|-----------------|----------------------------|
| RURD620CCS9A-F085 | NA | NFVA35065L32, RHRG75120 |
| FFB20UP20DN-F085 | NA | NFVA35065L32, RHRG75120 |
| RURP1560-F085P | NA | NFVA35065L32, RHRG75120 |
| RURP15100-F085P | NA | NFVA35065L32, RHRG75120 |
| RURG5060-F085 | NA | NFVA35065L32, FGHL75T65MQD |
| RURG3060-F085 | NA | NFVA35065L32, FGHL75T65MQD |
| RURD4120S9A-F085 | NA | NFVA35065L32, FGA60N65SMD |
| FGD3N60LSDTM | NA | NFVA35065L32, FGA60N65SMD |

Appendix A: Changed Products

PCN#: FPCN24561ZB Issue Date: Apr 05, 2023

DIKG: DIGI-KEY

| Product | Customer Part Number | Qualification Vehicle | New Part Number | Replacement Supplier |
|-------------------|----------------------|-------------------------------|-----------------|----------------------|
| RURD620CCS9A-F085 | | NFVA35065L32, RHRG75120 | NA | |
| RURP1560-F085P | | NFVA35065L32, RHRG75120 | NA | |
| RURG5060-F085 | | NFVA35065L32, FGHL75T65MQD | NA | |
| RURG3060-F085 | | NFVA35065L32, FGHL75T65MQD | NA | |
| RURD4120S9A-F085 | | NFVA35065L32, FGA60N65SMD | NA | |
| FGD3N60LSDTM | | NFVA35065L32, FGA60N65SMD | NA | |
| FFB20UP20DN-F085 | | NFVA35065L32, RHRG75120 | NA | |