

Final Product/Process Change Notification Document #:FPCN23681X

Document #:FPCN23681X Issue Date:14 Dec 2022

| Title of Change: | Qualification of G700HFC mold compound for Non-Auto Rectifier DPAK package | | |
|---|---|--|--|
| Proposed First Ship date: | 21 Mar 2023 or earlier if approved by customer | | |
| Contact Information: | Contact your local onse | Contact your local onsemi Sales Office or Danh.Trinh@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. | | |
| Additional Reliability Data: | Contact your local onsemi Sales Office or ffxg4t@onsemi.com | | |
| Type of Notification: | This is a Final Product/Process Change Notification (FPCN) sent to customers. FPCNs are issued 90 days prior to implementation of the change. onsemi will consider this change accepted, unless an inquiry is made in writing within 30 days of delivery of this notice. To do so, contact PCN.Support@onsemi.com | | |
| Marking of Parts/ Traceability of Change: | Clean date code will be advised upon of request. | | |
| Change Category: | Assembly Change | | |
| Change Sub-Category(s): | Material Change | | |
| Sites Affected: | | | |
| onsemi Sites | | External Foundry/Subcon Sites | |
| None | | Tongfu microelectronics | |
| | | | |

Description and Purpose:

This is the Final Product Change Notification to announce the qualification of G700HFC mold compound on selected Rectifier devices in DPAK package. This change is to improve quality robustness.

Once the expiration of the FPCN, all products listed here will be changed with new Bill of Material.

| | Before Change Description | After Change Description |
|---------------|---------------------------|--------------------------|
| Mold compound | CEL8240HF10NF-2 | G700HFC |

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

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Issue Date:14 Dec 2022

Reliability Data Summary:

QV DEVICE NAME: MBRD5H100T4G

RMS: V84396, V85142 PACKAGE: DPAK

| Test | Specification | Condition | Interval | Result |
|-------|------------------------------------|---|-----------|--------|
| HTSL | JESD22-A103 | Ta = 175 °C | 1008 hrs | 0/231 |
| IOL | MIL-STD-750 (M1037) AEC-Q101 | Ta = +25°C, deltaTj = 100°C max, Ton = Toff = 2min | 15000 cyc | 0/231 |
| TC | JESD22-A104 | Ta = -65°C to +150°C | 1000 cyc | 0/231 |
| UHAST | JESD22-A102 | 130°C, 100% RH, 18.8psig, unbiased | 96 hrs | 0/231 |
| H3TRB | JESD22-A101 | 85°C, 85% RH, bias = 100V max | 1008 hrs | 0/231 |
| PC | J-STD-020 JESD-A113 | MSL 1 @ 260 °C | | 0/924 |
| RSH | JESD22- B106 | Ta = 265°C, 10 sec | | 0/90 |
| SD | JSTD002 | Ta = 245°C, 10 sec | | 0/45 |

QV DEVICE NAME: MURHD560T4G

RMS: V84397 PACKAGE: DPAK

| Test | Specification | Condition | Interval | Result |
|-------|------------------------------------|---|-----------|--------|
| HTSL | JESD22-A103 | Ta = 175 °C | 1008 hrs | 0/231 |
| IOL | MIL-STD-750 (M1037) AEC-Q101 | Ta = +25°C, deltaTj = 100°C max, Ton = Toff = 2min | 15000 cyc | 0/231 |
| TC | JESD22-A104 | Ta = -65°C to +150°C | 1000 cyc | 0/231 |
| UHAST | JESD22-A102 | 130°C, 100% RH, 18.8psig, unbiased | 96 hrs | 0/231 |
| H3TRB | JESD22-A101 | 85°C, 85% RH, bias = 100V max | 1008 hrs | 0/231 |
| PC | J-STD-020 JESD-A113 | MSL 1 @ 260 °C | | 0/924 |
| RSH | JESD22- B106 | Ta = 265°C, 10 sec | | 0/90 |
| SD | JSTD002 | Ta = 245°C, 10 sec | | 0/45 |

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**.

| Part Number | Qualification Vehicle |
|----------------|-----------------------|
| MBRD1035CTLT4G | MBRD5H100T4G |
| MBRD360T4G | MBRD5H100T4G |

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| MURD320T4G | MURHD560T4G |
|---------------|--------------|
| MBRD340T4G | MBRD5H100T4G |
| MBRD5H100T4G | MBRD5H100T4G |
| MURHD560T4G | MURHD560T4G |
| MBRD640CTT4G | MBRD5H100T4G |
| MURD340T4G | MURHD560T4G |
| MURD550PFT4G | MURHD560T4G |
| MURD530T4G | MURHD560T4G |
| MBRD650CTT4G | MBRD5H100T4G |
| MBRD350T4G | MBRD5H100T4G |
| MBRD1045T4G | MBRD5H100T4G |
| MBRD835LT4G | MBRD5H100T4G |
| MBRD660CTT4G | MBRD5H100T4G |
| MURHD560W1T4G | MURHD560T4G |
| MBRD620CTT4G | MBRD5H100T4G |
| | |

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