



Final Product/Process Change Notification

Document #:FPCN26234X

Issue Date:13 Jun 2024

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|---|--|---------------------------------|
| Title of Change: | Qualification of alternate mold compound GR710F at onsemi Suzhou, China to avoid supply disruption of Sumitomo EME 6600CS. | |
| Proposed First Ship date: | 20 Sep 2024 or earlier if approved by customer | |
| Contact Information: | Contact your local onsemi Sales Office or Yun.Cui@onsemi.com , HuaBin.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. | |
| Additional Reliability Data: | Contact your local onsemi Sales Office or Jutta.Xu@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: | 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 FPCN is to inform customers that onsemi is qualifying new green mold compound GR710F from China local supplier Hysol, as alternative source on selected Discrete products in onsemi Suzhou, China, to avoid supply disruption risk of Sumitomo non-green mold compound EME 6600CS. | | |
| | Before Change Description | After Change Description |
| Mold Compound | EME 6600CS | EME 6600CS GR710F |
| All other aspects of the impacted products (form, fit, function) will remain unchanged. | | |
| There is no product marking change because of this change. | | |
| There are no changes in product electrical specifications. | | |



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Reliability Data Summary:

QV DEVICE NAME: FDB2552-SB82178

PACKAGE: D2PAK

RMS: U86662

| Test | Specification | Condition | Interval | Results |
|-----------------|------------------------|---|-----------|---------|
| HTRB | JESD22-A108 | Tj=175°C, 80% max rated V | 1008hrs | 0/231 |
| HTGB | JESD22-A108 | Tj=175°C, 100% max rated Vgss | 1008hrs | 0/231 |
| HTSL | JESD22-A103 | Ta= 175°C | 1008hrs | 0/231 |
| Preconditioning | J-STD-020 JESD-A113 | MSL 1 @ 245 °C, Pre IOL, TC, uHAST, HAST for surface mount pkgs only | | 0/924 |
| TC+PC | JESD22-A104 | Ta= -55°C to +150°C | 1000cycls | 0/231 |
| HAST+PC | JESD22-A110 | 130°C, 85% RH, 18.8psig, bias | 96hrs | 0/231 |
| UHAST+PC | JESD22-A118 | 130°C, 85% RH, 18.8psig, unbiased | 96hrs | 0/231 |
| IOL+PC | MIL STD750, M 1037 | Ta=+25°C, delta Tj=100°C max, Ton=Toff=3.5min | 8572cycls | 0/231 |
| SD | JSTD002 | Ta = 245°C, 5 sec | | 0/45 |

QV DEVICE NAME: HGT1S10N120BNST

PACKAGE: D2PAK

RMS: U86613/U91801

| Test | Specification | Condition | Interval | Results |
|-----------------|------------------------|---|-----------|---------|
| HTRB | JESD22-A108 | Tj=150°C, 80% max rated V | 1008hrs | 0/77 |
| HTGB | JESD22-A108 | Tj=150°C, 100% max rated Vge | 1008hrs | 0/77 |
| HTSL | JESD22-A103 | Ta= 150°C | 1008hrs | 0/77 |
| Preconditioning | J-STD-020 JESD-A113 | MSL 1 @ 245 °C, Pre IOL, TC, uHAST, HAST for surface mount pkgs only | | 0/271 |
| TC+PC | JESD22-A104 | Ta= -55°C to +150°C | 1000cycls | 0/77 |
| HAST+PC | JESD22-A110 | 130°C, 85% RH, 18.8psig, bias | 96hrs | 0/77 |
| UHAST+PC | JESD22-A118 | 130°C, 85% RH, 18.8psig, unbiased | 96hrs | 0/77 |
| IOL+PC | MIL STD750, M 1037 | Ta=+25°C, delta Tj=100°C max, Ton=Toff=3.5min | 8572cycls | 0/40 |
| SD | JSTD002 | Ta = 245°C, 5 sec | | 0/15 |

QV DEVICE NAME: RFD16N05SM9A

PACKAGE: DPAK

RMS: U87209/U91931

| Test | Specification | Condition | Interval | Results |
|-----------------|------------------------|---|------------|---------|
| HTRB | JESD22-A108 | Tj=175°C, 80% max rated V | 1008hrs | 0/77 |
| HTGB | JESD22-A108 | Tj=175°C, 100% max rated Vgss | 1008hrs | 0/77 |
| HTSL | JESD22-A103 | Ta= 175°C | 1008hrs | 0/77 |
| Preconditioning | J-STD-020 JESD-A113 | MSL 1 @ 260 °C, Pre IOL, TC, uHAST, HAST for surface mount pkgs only | | 0/271 |
| TC+PC | JESD22-A104 | Ta= -55°C to +150°C | 1000cycls | 0/77 |
| HAST+PC | JESD22-A110 | 130°C, 85% RH, 18.8psig, bias | 96hrs | 0/77 |
| UHAST+PC | JESD22-A118 | 130°C, 85% RH, 18.8psig, unbiased | 96hrs | 0/77 |
| IOL+PC | MIL STD750, M 1037 | Ta=+25°C, delta Tj=100°C max, Ton=Toff=2 min | 15000cycls | 0/40 |
| SD | JSTD002 | Ta = 245°C, 5 sec | | 0/15 |



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QV DEVICE NAME: FQD6N40CTM-NBEA002

PACKAGE: DPAK

RMS: U87358

| Test | Specification | Condition | Interval | Results |
|-----------------|------------------------|---|-----------|---------|
| HTRB | JESD22-A108 | Tj=150°C, 80% max rated V | 1008hrs | 0/231 |
| HTGB | JESD22-A108 | Tj=150°C, 100% max rated Vgss | 1008hrs | 0/231 |
| HTSL | JESD22-A103 | Ta= 150°C | 1008hrs | 0/231 |
| Preconditioning | J-STD-020 JESD-A113 | MSL 1 @ 260 °C, Pre IOL, TC, uHAST, HAST for surface mount pkgs only | | 0/924 |
| TC+PC | JESD22-A104 | Ta= -55°C to +150°C | 1000cycs | 0/231 |
| HAST+PC | JESD22-A110 | 130°C, 85% RH, 18.8psig, bias | 96hrs | 0/231 |
| UHAST+PC | JESD22-A118 | 130°C, 85% RH, 18.8psig, unbiased | 96hrs | 0/231 |
| IOL+PC | MIL STD750, M 1037 | Ta=+25°C, delta Tj=100°C max, Ton=Toff=2min | 15000cycs | 0/231 |
| SD | JSTD002 | Ta = 245°C, 5 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 |
|-------------|-----------------------|
| FDB28N30TM | FDB2552-SB82178 |
| FDB33N25TM | FDB2552-SB82178 |
| FDB44N25TM | FDB2552-SB82178 |
| FDB52N20TM | FDB2552-SB82178 |
| FDB088N08 | FDB2552-SB82178 |
| FDB120N10 | FDB2552-SB82178 |
| FDB150N10 | FDB2552-SB82178 |
| FQB19N20TM | FDB2552-SB82178 |
| FQB22P10TM | FDB2552-SB82178 |
| FQB27P06TM | FDB2552-SB82178 |
| FQB34N20LTM | FDB2552-SB82178 |
| FQB44N10TM | FDB2552-SB82178 |



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| FQB47P06TM-AM002 | FDB2552-SB82178 |
| FQD2P40TM | FQD6N40CTM-NBEA002 |
| FQD5P20TM | FQD6N40CTM-NBEA002 |
| FQD6N40CTM | FQD6N40CTM-NBEA002 |
| FQD7N20LTM | FQD6N40CTM-NBEA002 |
| FQD8P10TM | FQD6N40CTM-NBEA002 |
| FQD11P06TM | FQD6N40CTM-NBEA002 |
| FQD13N06LTM | FQD6N40CTM-NBEA002 |
| FQD13N10LTM | FQD6N40CTM-NBEA002 |
| FQD13N10TM | FQD6N40CTM-NBEA002 |
| FQD17P06TM | FQD6N40CTM-NBEA002 |
| FQD18N20V2TM | FQD6N40CTM-NBEA002 |
| RFD3055LESM9A | RFD16N05SM9A |
| RFD16N05LSM9A | RFD16N05SM9A |
| HUFA75645S3S | FDB2552-SB82178 |
| HUF76407D3ST | RFD16N05SM9A |
| HUF75545S3ST | FDB2552-SB82178 |
| HGT1S10N120BNST | HGT1S10N120BNST |
| FQD30N06TM | FQD6N40CTM-NBEA002 |
| FQD19N10LTM | FQD6N40CTM-NBEA002 |