



| Title of Change: | Mold compound conversion from EME-G750N to EME-G770HCD.M for X2DFN devices assembled in ON Semiconductor, Leshan facility. | | | | | | | |
|---|---|--|-----------------------|---------------------------|--------------------------|---------------|-----------|---------------|
| Proposed First Ship date: | 1 March 2020 | | | | | | | |
| Contact Information: | Contact your local ON Semiconductor Sales Office or <Jim.Peng@onsemi.com> | | | | | | | |
| Samples: | Contact your local ON Semiconductor Sales Office or <PCN.Samples@onsemi.com> 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> | | | | | | | |
| Change Part Identification: | Products assembled with EME-G700HCD.M mold compound from ON Semiconductor Leshan facility will have a Finish Goods Date Code of Mar, 2020 or later. | | | | | | | |
| Change Category: | <input type="checkbox"/> Wafer Fab Change <input checked="" type="checkbox"/> Assembly Change <input type="checkbox"/> Test Change <input type="checkbox"/> Other _____ | | | | | | | |
| Change Sub-Category(s): | <input type="checkbox"/> Manufacturing Site Addition <input checked="" type="checkbox"/> Material Change <input type="checkbox"/> Datasheet/Product Doc change <input type="checkbox"/> Manufacturing Site Transfer <input type="checkbox"/> Product specific change <input type="checkbox"/> Shipping/Packaging/Marking <input type="checkbox"/> Manufacturing Process Change <input type="checkbox"/> Other: _____ | | | | | | | |
| Sites Affected: | ON Semiconductor Sites: ON Leshan, China | External Foundry/Subcon Sites: None | | | | | | |
| Description and Purpose: | | | | | | | | |
| Upon the expiration of this PCN, these devices will be built with new mold compound at the same site. Datasheet specifications and product electrical performance remain unchanged. Reliability qualification and full electrical characterization over temperature will be performed. The new mold compound is with better flow ability for manufacturability. | | | | | | | | |
| <table border="1" style="width: 100%; text-align: center;"> <thead> <tr style="background-color: #92d050;"> <th>Material to be change</th> <th>Before Change Description</th> <th>After Change Description</th> </tr> </thead> <tbody> <tr> <td>Mold Compound</td> <td>EME-G750N</td> <td>EME-G770HCD.M</td> </tr> </tbody> </table> | | | Material to be change | Before Change Description | After Change Description | Mold Compound | EME-G750N | EME-G770HCD.M |
| Material to be change | Before Change Description | After Change Description | | | | | | |
| Mold Compound | EME-G750N | EME-G770HCD.M | | | | | | |

**Qualification Plan:****Qual Vehicle Device: NSPU3051N2T5G****RMS: 53127****Package: X2DFN2**

| Test | Specification | Condition | Interval |
|-------|---------------|--|--|
| HTRB | JESD22-A108 | Tj= max, V=100% rated V | 1008 hrs |
| HTSL | JESD22- A103 | Temp.=150°C,no bias | 1008 hrs |
| PC | JESD22-A113 | MSL 1 @ 260 °C | Before H3TRB, TC, UHAST, HAST, AC, IOL |
| HAST | JESD22 A110 | 130C/85%RH, 80% rated V or 100V max | 192 hrs |
| TC | JESD22 A104 | Ta= - 65°C to +150°C | 1000 cyc |
| UHAST | JESD22 A118 | Ta=130C, 85% RH, no bias | 96 hrs |
| IOL | MIL-STD-750 | Ta=+25°C, delta Tj=100°C, On/off = 2 min | 15000 cycs |
| RSH | JESD22- B106 | Ta = 265C, 10 sec | - |

Qual Vehicle Device: SZESD7551MXWT5G**RMS: 55036****Package: X2DFN2**

| Test | Specification | Condition | Interval |
|-------|---------------|--|--|
| HTRB | JESD22-A108 | Tj= max, V=100% rated V | 1008 hrs |
| HTSL | JESD22- A103 | Temp.=150°C,no bias | 1008 hrs |
| PC | JESD22-A113 | MSL 1 @ 260 °C | Before H3TRB, TC, UHAST, HAST, AC, IOL |
| HAST | JESD22 A110 | 110C/85%RH, 80% rated V or 100V max | 528 hrs |
| TC | JESD22 A104 | Ta= - 65°C to +150°C | 1000 cyc |
| UHAST | JESD22 A118 | Ta=110C, 85% RH, no bias | 264 hrs |
| IOL | MIL-STD-750 | Ta=+25°C, delta Tj=100°C, On/off = 2 min | 15000 cycs |
| RSH | JESD22- B106 | Ta = 265C, 10 sec | - |

Qual Vehicle Device: NSR0240MXWT5G**RMS: 55037****Package: X2DFN2**

| Test | Specification | Condition | Interval |
|------|---------------|--------------------------------------|-------------|
| PC | JESD22-A113 | MSL 1 @ 260 °C | Before HAST |
| HAST | JESD22 A110 | 110C/85%RH, 80% rated V or 100V max. | 528 hrs |
| HTRB | JESD22-A108 | Tj= max, V=100% rated V, 1008 Hrs | 1008hrs |

Estimated date for qualification completion: 1 September 2019



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 |
|----------------|-----------------------|
| ESD5581N2T5G | NSPU3051N2T5G |
| ESD7410N2T5G | |
| ESDM3051N2T5G | |
| ESDM3551N2T5G | |
| ESDU3121MXT5G | |
| NSR0240MXT5G | NSR0240MXWT5G |
| NSR0240MXWT5G | |
| NSR05T304MXT5G | |
| NSR201MXT5G | |
| ESD7241N2T5G | SZESD7551MXWT5G |
| ESD7462N2T5G | |
| ESD7551N2T5G | |
| ESD7571N2T5G | |
| ESD8551N2T5G | |



Appendix A: Changed Products

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| Product | Customer Part Number | Qualification Vehicle |
|---------------|----------------------|-----------------------|
| ESD5581N2T5G | | NSPU3051N2T5G |
| ESD7241N2T5G | | SZESD7551MXWT5G |
| ESD7410N2T5G | | NSPU3051N2T5G |
| ESD7462N2T5G | | SZESD7551MXWT5G |
| ESD7551N2T5G | | SZESD7551MXWT5G |
| ESD7571N2T5G | | SZESD7551MXWT5G |
| ESDM3051N2T5G | | NSPU3051N2T5G |
| ESDM3551N2T5G | | NSPU3051N2T5G |
| NSR0240MXT5G | | NSR0240MXWT5G |
| NSR0240MXWT5G | | NSR0240MXWT5G |
| NSR201MXT5G | | NSR0240MXWT5G |