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| Title of Change: | Transfer Cebu D2PAK Jedec & TO220 Jedec to ON Semiconductor Suzhou, China. | |
| Proposed first ship date: | 19 October 2019 | |
| Contact information: | Contact your local ON Semiconductor Sales Office or < Jinman.Song@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. | |
| Additional Reliability Data: | Contact your local ON Semiconductor Sales Office or < Lake.Wang@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. ON Semiconductor 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 > | |
| Change Part Identification: | Customer may receive the parts from Suzhou site from month of October 2019 onwards once FPCN expire. Parts from ON Semiconductor Suzhou, China can be identified through product marking which follow ON Semiconductor marking format. | |
| 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 type="checkbox"/> Material Change <input type="checkbox"/> Datasheet/Product Doc change <input checked="" 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 Cebu, Philippines ON Suzhou, China | External Foundry/Subcon Sites: None |
| Description and Purpose: ON Semiconductor (ON Suzhou) is transferring Cebu D2PAK Jedec & TO220 Jedec to Suzhou site in order to improve the capacity flexibility, changes includes site change, BOM change, process flow change, equipment change, but no changes on the POD. It is ON Semiconductor's policy to utilize and follow the established standards in the industry to ensure our products conform to these standards for the purpose of supply chain interchangeability. | | |
| | Before Change Description | After Change Description |
| Lead Frame | D2PAK:TO263-JSS,TO220JSS (dimple) | D2PAK:TO263 IDF, TO220JSS |
| Mold Compound | MP195 EME6600CS KTMC5900GM CEL8240HF10 | KTMC5900GM |
| Package Substrate | ON Cebu, Philippines | ON Suzhou, China |
| Assembly Site | ON Cebu, Philippines | ON Suzhou, China |
| Process flow(Plasma cleaning + AP coating) | For some device using CEL8240HF10 | All devices |
| There is no product marking change as a result of this change. | | |

**Reliability Data Summary:****QV DEVICE NAME** : FDB075N15A-F085**RMS** : Q20160534**PACKAGE** : D2PAK

| Test | Specification | Condition | Interval | Result |
|-----------|--|---|----------|--------|
| HTRB | JESD22-A108 | Tj = 150C, Bias = 100% of rated BV | 1000hr | 0/234 |
| HTGB | JESD22-A108 | Tj = 150C, Bias = 100% of rated Vgs | 1000hr | 0/234 |
| PC | J STD 020 , JESD22-A113 | MSL1, Reflow peak temp at 245C | | 0/234 |
| TC + PC | JESD22-A104 | Temp = -55°C to +150°C, t(dwell)>15 min) | 1000cyc | 0/234 |
| TCDT | JESD22 A104; Q101 appendix 6 J STD 035 | 100% C-SAM inspection after TC, followed by decap, inspection or wire pull on all wires from 5 parts for 5 highest delaminated parts. | | 0/66 |
| HAST + PC | JESD22-A110 | 85%RH, 110C, 42V | 264hr | 0/234 |
| UHAST+ PC | JESD22-A118 | 85%RH, 110C | 264hr | 0/234 |
| IOL | MIL-STD-750 Method 1037 | Ta=25C DeltaTj=100C°, t(on)=t(off)= 3.5 min, | 8572cyc | 0/234 |
| DPA | AEC Q101-004 Section 4 | Post H3TRB or HAST and TC | | 0/6 |
| PD | JESD22 B100 | Verify physical dimensions to specifications | | 0/30 |
| RSH | JESD22-B106 | Ta=265C 10 sec dwell | | 0/30 |
| SD | JSTD002 | Ta=245C 10 sec dwell | | 0/10 |

QV DEVICE NAME: HUF76633P3-F085**RMS** : Q20160582**PACKAGE** : TO220

| Test | Specification | Condition | Interval | Result |
|-------|--|---|----------|--------|
| HTRB | JESD22-A108 | Tj = 150C, Bias = 100% of rated BV | 1000hr | 0/234 |
| HTGB | JESD22-A108 | Tj = 150C, Bias = 100% of rated Vgs | 1000hr | 0/234 |
| TC | JESD22-A104 | Temp = -55°C to +150°C, t(dwell)>15 min) | 1000cyc | 0/234 |
| TCDT | JESD22 A104; Q101 appendix 6 J STD 035 | 100% C-SAM inspection after TC, followed by decap, inspection or wire pull on all wires from 5 parts for 5 highest delaminated parts. | | 0/66 |
| HAST | JESD22-A110 | 85%RH, 110C, 42V | 264hr | 0/234 |
| UHAST | JESD22-A118 | 85%RH, 110C | 264hr | 0/234 |
| IOL | MIL-STD-750 Method 1037 | Ta=25C DeltaTj=100C°, t(on)=t(off)= 3.5 min, | 8572cyc | 0/234 |
| DPA | AEC Q101-004 Section 4 | Post H3TRB or HAST and TC | | 0/6 |
| PD | JESD22 B100 | Verify physical dimensions to specifications | | 0/30 |
| TS | MIL-STD-750 Method 2036 | Evaluate lead integrity on leaded parts only | | 0/30 |
| RSH | JESD22-B106 | Ta=265C 10 sec dwell | | 0/30 |
| SD | JSTD002 | Ta=245C 10 sec dwell | | 0/10 |

Electrical Characteristic 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 |
|--------------|-----------------------|
| NTBS2D7N06M7 | FDB075N15A-F085 |
| FDB8441 | |
| FDB5800 | |
| FDB8443 | |
| FDB8445 | |
| FDP8441 | |
| NDB5060L | HUF76633P3-F085 |
| NDB6060L | |