



**NOTE:** For the period of 10/1/2019 through 1/10/2020, due to a data irregularity in the customer impact lists, some indirect sales customers may not have received product change, product discontinuance, or product bulletin notices as expected through email. Although these notifications were published on our public portal (<https://www.onsemi.com/PowerSolutions/pcnPub.do>), ON Semiconductor is taking the action to redistribute affected notices, with revised implementation dates conforming to external standards and ON Semiconductor's customer notification policies. This issue has been resolved. Questions related to this issue can be directed to [PCN.Support@onsemi.com](mailto:PCN.Support@onsemi.com)

|   |   |
|---|---|
| <b>Title of Change:</b>                           | Re-distribution of FPCN22729ZA - Assembly & Test site transfer of D2PAK products currently manufactured in ON Semiconductor Cebu Philippines facility to ON Semiconductor Suzhou, China facility.   |
| <b>Proposed Changed Material First Ship Date:</b> | 13 Mar 2021 or earlier if approved by customer  |
| <b>Current Material Last Order Date:</b>          | 21 Nov 2020<br><i>Orders received after the Current Material Last Order Date expiration are to be considered as 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.</i>   |
| <b>Current Material Last Delivery Date:</b>       | 12 Mar 2021<br><i>The Current Material Last Delivery Date may be subject to change based on build and depletion of the current (unchanged) material inventory</i>   |
| <b>Product Category:</b>                          | Active components – Discrete components   |
| <b>Contact information:</b>                       | Contact your local ON Semiconductor Sales Office or Peter.Lee@onsemi.com  |
| <b>PCN Samples Contact:</b>                       | Contact your local ON Semiconductor Sales Office to place sample order or <PCN.samples@onsemi.com>.<br>Sample requests are to be submitted no later than 45 days after publication of this change notification.<br>Samples delivery timing will be subject to request date, sample quantity and special customer packing/label requirements.  |
| <b>Sample Availability Date:</b>                  | N/A   |
| <b>PPAP Availability Date:</b>                    | N/A   |
| <b>Additional Reliability Data:</b>               | Contact your local ON Semiconductor Sales Office or Frank.Tuan@onsemi.com   |
| <b>Type of Notification:</b>                      | This is a Final Product/Process Change Notification (FPCN) sent to customers. FPCNs are issued 12 months prior to implementation of the change or earlier upon customer approval. ON Semiconductor 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. |
| <b>Change Category</b>                            |   |
| <b>Category</b>                                   | <b>Type of Change</b>   |
| Test Flow   | Move of all or part of electrical wafer test and/or final test to a different location/site/subcontractor   |
| 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.  |
| Process - Assembly                                | Move of all or part of assembly to a different location/site/subcontractor.,<br>Change of direct material supplier,<br>Change of specified assembly process sequence (deletion and/or additional process step),<br>Change of encapsulation/sealing material   |

**Description and Purpose:**

|  | Before Change Description | After Change Description |
|--|---------------------------|--------------------------|
| LeadFrame Supplier                         | Hitachi(Single row)       | TSP(Dual row)            |
| Mold Compound                              | MP195                     | KTMC5900GM               |
| Assembly Site                              | ON Cebu, Philippines      | ON Suzhou, China         |
| Test Site                                  | ON Cebu, Philippines      | ON Suzhou, China         |
| Process flow(Plasma cleaning + AP coating) | No                        | Yes                      |

D2PAK package case outline is exactly same between Cebu & Suzhou.

|                        | From   | To   |
|------------------------|--|--|
| Product marking change | ON Semiconductor format<br>Only assembly plant code change : D | ON Semiconductor format<br>Only assembly plant code change : 1 |

For marking, There is no change on the device marking for Suzhou. However Suzhou will use the different Date code which is ON Format.

Equipment in receiving site may different with sending site, however all equipments are existing and qualified in mass production.

|   |   |
|---|---|
| <b>Reason / Motivation for Change:</b>  | Capacity improvement  |
| <b>Anticipated impact on fit, form, function, reliability, product safety or manufacturability:</b> | 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 ON Semiconductor in relation to the PCN, associated risks are verified and excluded.<br><br>No anticipated impacts. |

**Sites Affected:**

| ON Semiconductor Sites             | External Foundry/Subcon Sites |
|------------------------------------|-------------------------------|
| ON Semiconductor Cebu, Philippines | None                          |
| ON Semiconductor Suzhou, China     |                               |

|  |  |
|--|--|
| <b>Marking of Parts/ Traceability of Change:</b> | Customer may receive the parts from ON Semiconductor Suzhou, China from month of June 2020 onwards once FPCN expire. Parts from ON Semiconductor Suzhou, China can be identified through product marking which follow ON Semiconductor marking format. |
|--|--|

**Reliability Data Summary:**

Device: FDB075N15A-F085

PKG: D2PAK

| Test      | Specification                          | Condition   | Interval | Result |
|-----------|--|---|----------|--------|
| HTRB      | JESD22-A108                            | Tj = 150C, Bias = 100% of rated BV  | 1000hr   | 0/231  |
| HTGB      | JESD22-A108                            | Tj = 150C, Bias = 100% of rated Vgs   | 1000hr   | 0/231  |
| PC        | J STD 020, JESD22-A113                 | MSL1, Reflow peak temp at 245C  |          | 0/231  |
| TC + PC   | JESD22-A104                            | Temp = -55°C to +150°C, t(dwel)>15 min)   | 1000cyc  | 0/231  |
| 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    | 0/231  |
| UHAST+ PC | JESD22-A118                            | 85%RH, 110C   | 264hr    | 0/231  |
| IOL       | MIL-STD-750 Method 1037                | Ta=25C DeltaTj=100C°, t(on)=t(off)= 3.5 min,  | 8572cyc  | 0/231  |
| 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   |



**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.

**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            |
|---------------------|-----------------|----------------------------------|
| FDB2552-F085        | NA              | FDB075N15A-F085                  |
| FDB3632-F085        | NA              | FDB075N15A-F085                  |
| FDB070AN06A0-F085   | NA              | FDB075N15A-F085                  |
| FDB14AN06LA0-F085   | NA              | FDB075N15A-F085                  |
| FDB2532-F085        | NA              | FDB075N15A-F085                  |
| FDB3652-F085        | NA              | FDB075N15A-F085                  |
| HUFA76645S3ST-F085  | NA              | HUF76633P3-F085; FDB075N15A-F085 |