

## Initial Product/Process Change Notification

Document #:IPCN24693Z Issue Date:29 Jun 2022

| Title of Change:  | Qualification of Wafer Fab Transfer for RP3/PT3 MOSFET Technology to onsemi Bucheon, Korea facility.   |  |
|---|--|--|
| Proposed Changed Material First Ship Date:  | 03 Oct 2023 or earlier if approved by customer   |  |
| Current Material Last Order Date:   | 21 Jan 2022 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.  |  |
| Current Material Last Delivery Date:  O2 Oct 2023  The Current Material Last Delivery Date may be subject to change based on build an of the current (unchanged) material inventory |  |  |
| Product Category:   | Active components – Discrete components  |  |
| Contact information: Contact your local onsemi Sales Office or <u>Daryl.Cruz@onsemi.com</u>   |  |  |
| PCN Samples Contact:  | Contact your local onsemi Sales Office to place sample order.  Sample requests are to be submitted no later than 45 days after publication of this change notification.  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 songyong.sim@onsemi.com  |  |
| 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 6 months prior to implementation of the change. In case of questions, contact < <a href="mailto:PCN.Support@onsemi.com">PCN.Support@onsemi.com</a> >. |  |
| Change Category   |  |  |
| Category  | Type of Change   |  |
| Process - Wafer Production  | New / change of wafer substrate material   |  |
| 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.   |  |

### **Description and Purpose:**

This Product Change Notification is intended to increase capacity for Automotive RP3, PT3 MOSFET technology products by transferring wafer fabrication to onsemi Bucheon Korea.

The changes include transferring wafer fabrication and the orderable part number only. Other probe/ATO site are remaining as it is.

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

|                                 |                              |          | From  | 10                   |  |
|---------------------------------|------------------------------|----------|---|----------------------|--|
|                                 | Fab Site                     |          | TowerJazz Israel  | onsemi Bucheon Korea |  |
| Reason / Motivation for Change: |                              | Capacity | y improvement   |                      |  |
|                                 | tunction reliability product |          | vice will be qualified and validated based on the same Product Specification. icipated impacts. |                      |  |

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| Sites Affected:                           |           |                               |  |
|---|-----------|-------------------------------|--|
| onsemi Sites                              |           | External Foundry/Subcon Sites |  |
| onsemi Bucheon, Korea                     |           | None                          |  |
| Marking of Parts/ Traceability of Change: | No change |                               |  |

#### **Reliability Data Summary:**

**QV DEVICE NAME: FDD4141-F085** 

RMS: TBD PACKAGE: DPAK

| Test                                   | Specification       | Condition                                  | Interval  |
|--|---------------------|--|-----------|
| HTRB                                   | JESD22-A108         | Tj=150°C, 100% max rated BV                | 1008 hrs  |
| HTGB                                   | JESD22-A108         | Tj=150°C, 100% max rated Vgss              | 1008 hrs  |
| HTSL                                   | JESD22-A103         | Ta=150°C                                   | 1008 hrs  |
| MIL-STD-750<br>IOL (M1037)<br>AEC-Q101 |                     | Ta=+25°C, delta Tj=100°C<br>On/off = 2 min | 15000 cyc |
| TC                                     | JESD22-A104         | Ta= -55°C to +150°C                        | 1000 cyc  |
| HAST                                   | JESD22-A110         | 130°C, 85% RH, 18.8psig, bias              | 96 hrs    |
| uHAST                                  | JESD22-A118         | 130°C, 85% RH, 18.8psig, unbiased          | 96 hrs    |
| PC                                     | J-STD-020 JESD-A113 | MSL 1 @ 260°C                              | -         |

### **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 <u>PCN Customized Portal</u>.

| Current Part Number | New Part Number | Qualification Vehicle |  |
|---------------------|-----------------|-----------------------|--|
| FDD4141-F085        | FDD4141-F085BK  | FDD4141-F085          |  |

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# **Appendix A: Changed Products**

PCN#: IPCN24693Z

Issue Date: Jun 29, 2022

| Product      | Customer Part Number | Qualification Vehicle | New Part Number | Replacement Supplier |
|--------------|----------------------|-----------------------|-----------------|----------------------|
| FDD4141-F085 |                      | FDD4141-F085          | FDD4141-F085BK  |                      |