# **ON Semiconductor®**



| Title of Change:                          | WDFN6L Seremban Dual Source Qualification Project.   |  |  |
|---|--|--|--|
| Proposed First Ship date:                 | 03 Mar 2021 or earlier if approved by customer   |  |  |
| Contact Information:                      | Contact your local ON  | Contact your local ON Semiconductor Sales Office or saziela.senin@onsemi.com   |  |
| PCN Samples Contact:                      | Contact your local ON Semiconductor Sales Office or < <u>PCN.samples@onsemi.com</u> >.<br>Sample requests are to be submitted no later than 30 days from the date of first notification,<br>Initial PCN or Final PCN, for this change.<br>Samples delivery timing will be subject to request date, sample quantity and special customer<br>packing/label requirements. |  |  |
| Additional Reliability Data:              | Contact your local ON  | Contact your local ON Semiconductor Sales Office or MohdAzizi.Azman@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.<br>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 <u>PCN.Support@onsemi.com</u>                                  |  |  |
| Marking of Parts/ Traceability of Change: | Different lot number a   | Different lot number and site codes between Cebu and Seremban.                 |  |
| Change Category:                          | Assembly Change, Tes   | Assembly Change, Test Change   |  |
| Change Sub-Category(s):                   | Manufacturing Site Ad  | Manufacturing Site Addition, Material Change                                   |  |
| Sites Affected:                           |  |  |  |
| ON Semiconductor Sites                    |  | External Foundry/Subcon Sites  |  |
| ON Semiconductor Seremban, Malaysia       |  | None   |  |

## Description and Purpose:

This Product Change Notification is to announce that ON Semiconductor is expanding Assembly and Test Operations of Cebu former Fairchild Semiconductor for WDFN6L package to ON Seremban, Malaysia.

- No change on existing OPN. There will be two separate BOMs for ON Cebu, Philippines and ON Seremban, Malaysia.
- These products will continue being Pb-free, Halide free and RoHS compliant. Qualification tests are designed to show that the reliability of the impacted devices will continue to meet or exceed ON Semiconductor standards.

|           | Before Change Description   | After Change Description  |  |
|-----------|---|---|--|
| LeadFrame | Cebu -ETCHED LEADFRAME, PQFN, 2.0X2.0<br>MM, 6LDS, FULL DRAIN.                            | Cebu -ETCHED LEADFRAME, PQFN, 2.0X2.0<br>MM, 6LDS, FULL DRAIN.<br>Seremban - WDFN 2.05 x 2.05 6L 0.65P WIDE<br>LEADFRAME  |  |
| Clip      | Cebu-ETCHED CLIPFRAME, PQFN, 2.0 X 2.0<br>MM POWERCLIP SINGLE.                            | Cebu-ETCHED CLIPFRAME, PQFN, 2.0 X 2.0<br>MM POWERCLIP SINGLE.<br>Seremban-Etch Clip wDFN6L 2.05x2.05 0.65P   |  |
| Solder    | Cebu-DA SLDR PASTE IND 92.5Pb5Sn2.5Ag<br>NC-SMQ75   | Cebu-DA SLDR PASTE IND 92.5Pb5Sn2.5Ag<br>NC-SMQ75<br>Seremban-DA Indium 9.72HF Type<br>4/89.5%ML (Die Attach Material)  |  |
| Solder    | Cebu- DA SLDR PASTE 92.5Pb5Sn2.5Ag NC-<br>SMQ75 -325+500 89%mtl (Clip Attach<br>Material) | Cebu- DA SLDR PASTE 92.5Pb5Sn2.5Ag NC-<br>SMQ75 -325+500 89%mtl (Clip Attach<br>Material)<br>Seremban-CB Indium 9.72HF Type<br>3/88.5%ML (Clip Attach Material) |  |

## **ON Semiconductor®**



| Mold Compound | Cebu - MC GREEN HI CEL9240HF10LS<br>14MMX6.6G | Cebu - MC GREEN HI CEL9240HF10LS<br>14MMX6.6G Seremban- SUMITOMO EME-<br>G770HM TYPE D |  |
|---------------|---|--|--|
| Assembly Site | ON Semiconductor Philippines - Cebu           | ON Semiconductor Philippines – Cebu<br>ON Semiconductor Malaysia – Seremban            |  |
| Test Site     | ON Semiconductor Philippines - Cebu           | ON Semiconductor Philippines – Cebu<br>ON Semiconductor Malaysia – Seremban            |  |

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

#### Reliability Data Summary:

#### QV DEVICE NAME : NTLJS5D0N03CTAG RMS: S65441 PACKAGE: WDFN6 2.05X2.05, 0.65P

| Test  | Specification                      | Condition                                  | Interval  | Results    |
|-------|------------------------------------|--|-----------|------------|
| HTRB  | JESD22-A108                        | Ta=150°C, 100% max rated V                 | 1008 hrs  | 0/231      |
| HTGB  | JESD22-A108                        | Ta=150°C, 100% max rated Vgss              | 1008 hrs  | 0/231      |
| HTSL  | JESD22-A103                        | Ta= 150°C                                  | 1008 hrs  | 0/231      |
| IOL   | MIL-STD-750<br>(M1037)<br>AEC-Q101 | Ta=+25°C, delta Tj=100°C<br>On/off = 2 min | 15000 cyc | 0/231      |
| TC    | JESD22-A104                        | Ta= -55°C to +150°C, mount on board        | 1000 сус  | 0/231      |
| H3TRB | JESD22-A101                        | 85°C, 85% RH, bias                         | 1008 hrs  | 0/231      |
| uHAST | JESD22-A118                        | 130°C, 85% RH, 18.8psig, unbiased          | 96 hrs    | 0/231      |
| РС    | J-STD-020 JESD-A113                | MSL 1 @ 260 °C                             |           | 0/924      |
| RSH   | JESD22- B106                       | Ta = 265C, 10 sec                          |           | In process |
| SD    | JSTD002                            | Ta = 245C, 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 |
|-----------------|-----------------------|
| NTLJS5D0N03CTAG | NTLJS5D0N03CTAG       |
| NTLJS3D9N03CTAG | NTLJS5D0N03CTAG       |