

# Initial Product/Process Change Notification Document #:IPCN22948X

Issue Date:31 Oct 2019

| Title of Change:                          | Assembly and Test Transfer of NB3U23CMNTAG from SPEL to SBN with mold compound change.   |                               |  |
|---|--|-------------------------------|--|
| Proposed First Ship date:                 | 01 May 2020 or earlier if approved by customer   |                               |  |
| Contact Information:                      | Contact your local ON Semiconductor Sales Office or Eric.Rupnow@onsemi.com   |                               |  |
| PCN Samples Contact:                      | 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.</pcn.samples@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 90 days prior to implementation of the change. In case of questions, contact < PCN. Support@onsemi.com> |                               |  |
| Marking of Parts/ Traceability of Change: | Affected products will be identified with date code code from new plant.   |                               |  |
| Change Category:                          | Assembly Change, Test Change   |                               |  |
| Change Sub-Category(s):                   | Manufacturing Site Change  |                               |  |
| Sites Affected:                           |  |                               |  |
| ON Semiconductor Sites                    |  | External Foundry/Subcon Sites |  |
| ON Semiconductor Seremban, Malaysia       |  | SPEL Semiconductor Limited    |  |
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## **Description and Purpose:**

Transfer assembly and test from SPEL to SBN which includes change in Leadframe design and mold material.

|               | Before Change Description | After Change Description  |
|---------------|---------------------------|---------------------------|
| LeadFrame     | LF PPF Frame (COL design) | LF PPF Frame (COL design) |
| Die Attach    | 8006NS                    | 8006NS                    |
| Mold Compound | CEL9220ZHF10L             | G760                      |
| Assembly Site | SPEL                      | SBN                       |
| Test Site     | SPEL                      | SBN                       |

No package dimension change and no product performance change.

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### **Qualification Plan:**

QV DEVICE NAME: NB3U23CMNTAG

RMS: S59248 PACKAGE: UDFN-6

| Test  | Specification       | Condition                         | Interval |
|-------|---------------------|-----------------------------------|----------|
| HTOL  | JESD22-A108         | Ta= 125°C, 120% nominal Vcc       | 504 hrs  |
| TC    | JESD22-A104         | Ta= -65°C to + 150°C              | 500 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                     |          |
| SD    | JSTD002B            | Ta = 245C, 10 sec                 |          |

Estimated date for qualification completion: 6 January 2020

#### **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>.

| Part Number  | Qualification Vehicle |
|--------------|-----------------------|
| NB3U23CMNTAG | NB3U23CMNTAG          |

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