

|                                                  |                                                                                                                                                                                                                                                                                                                                                                  |
|--------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Title of Change:</b>                          | Q0 Case Design Change/Improvement                                                                                                                                                                                                                                                                                                                                |
| <b>Proposed First Ship date:</b>                 | 19 Feb 2023 or earlier if approved by customer                                                                                                                                                                                                                                                                                                                   |
| <b>Contact Information:</b>                      | Contact your local onsemi Sales Office or <a href="mailto:Way-Shan.Yong@onsemi.com">Way-Shan.Yong@onsemi.com</a>                                                                                                                                                                                                                                                 |
| <b>PCN Samples Contact:</b>                      | Contact your local onsemi Sales Office.<br>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.<br>Samples delivery timing will be subject to request date, sample quantity and special customer packing/label requirements.                                                |
| <b>Additional Reliability Data:</b>              | Contact your local onsemi Sales Office or <a href="mailto:Harper.Pan@onsemi.com">Harper.Pan@onsemi.com</a>                                                                                                                                                                                                                                                       |
| <b>Type of Notification:</b>                     | This is a Final Product/Process Change Notification (FPCN) sent to customers. FPCNs are issued 90 days prior to implementation of the change.<br>onsemi will consider this change accepted, unless an inquiry is made in writing within 30 days of delivery of this notice. To do so, contact <a href="mailto:PCN.Support@onsemi.com">PCN.Support@onsemi.com</a> |
| <b>Marking of Parts/ Traceability of Change:</b> | No change                                                                                                                                                                                                                                                                                                                                                        |
| <b>Change Category:</b>                          | Assembly Change                                                                                                                                                                                                                                                                                                                                                  |
| <b>Change Sub-Category(s):</b>                   | Material Change                                                                                                                                                                                                                                                                                                                                                  |

## Sites Affected:

### onsemi Sites

onsemi Shenzhen, China

### External Foundry/Subcon Sites

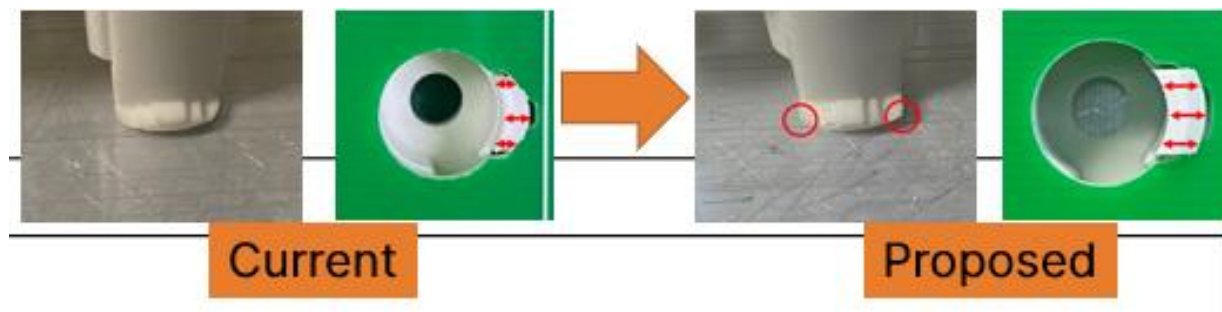
None

## Description and Purpose:

This FPCN announces the change of Q0 package plastic case design to improve plastic case robustness.

Upon the expiration of this PCN, modules will be produced with new plastic case materials. These products will be qualified to industrial requirements.

| Material to be changed | Before Change Description            | After Change Description                   |
|------------------------|--------------------------------------|--------------------------------------------|
| Module plastic case    | Current plastic case, supplier Nanya | New plastic case with clip width from BASF |



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



## Final Product/Process Change Notification

Document #:FPCN25089X

Issue Date:14 Nov 2022

### Reliability Data Summary:

**QV DEVICE NAME:** NXH40B120MNQ0SNG (Power Integrated Module)

**PACKAGE:** PIM

**RMS:** U87006

| Test | Specification | Condition            | Interval | Result |
|------|---------------|----------------------|----------|--------|
| HTSL | JESD22-A103   | Ta=125°C             | 504 hrs  | 0/18   |
| TC   | JESD22-A104   | Ta = -40°C to +125°C | 200 cyc  | 0/18   |

### 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 |
|---------------------|-----------------------|
| NXH100B120H3Q0SG-R  | NXH80B120MNQ0SNG      |
| NXH100B120H3Q0SG    | NXH80B120MNQ0SNG      |
| NXH100B120H3Q0STG-R | NXH80B120MNQ0SNG      |
| NXH100B120H3Q0STG   | NXH80B120MNQ0SNG      |
| NXH40B120MNQ0SNG    | NXH80B120MNQ0SNG      |
| NXH80B120H2Q0SG     | NXH80B120MNQ0SNG      |
| NXH80B120H2Q0SNG    | NXH80B120MNQ0SNG      |
| NXH80B120MNQ0SNG-R  | NXH80B120MNQ0SNG      |
| NXH80B120MNQ0SNG    | NXH80B120MNQ0SNG      |