



## Final Product/Process Change Notification

Document #:FPCN25064X

Issue Date:09 Aug 2023

|                                                  |                                                                                                                                                                                                                                                                                                                                                                  |
|--------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Title of Change:</b>                          | TO 3P_Assembly and Test Qualification to Suzhou Goodark Co.Ltd., China for Capacity Expansion                                                                                                                                                                                                                                                                    |
| <b>Proposed First Ship date:</b>                 | 14 Nov 2023 or earlier if approved by customer                                                                                                                                                                                                                                                                                                                   |
| <b>Contact Information:</b>                      | Contact your local onsemi Sales Office or <a href="mailto:Jeanie.Wang@onsemi.com">Jeanie.Wang@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> | The traceability of marking will be maintained by assembly plant code , date code and lot code.                                                                                                                                                                                                                                                                  |
| <b>Change Category:</b>                          | Assembly Change, Test Change                                                                                                                                                                                                                                                                                                                                     |
| <b>Change Sub-Category(s):</b>                   | Manufacturing Site Transfer                                                                                                                                                                                                                                                                                                                                      |

### Sites Affected:

| onsemi Sites | External Foundry/Subcon Sites |
|--------------|-------------------------------|
| None         | Good-Ark, China               |

### Description and Purpose:

This Product Change Notification is to announce qualification of TO3P assembly and test sites at Good-Ark, China.  
There are no changes in product electrical performances and specifications.

|               | Before Change Description | After Change Description |
|---------------|---------------------------|--------------------------|
| Assembly Site | onsemi Suzhou (ONSZ)      | Suzhou Goodark           |
| Test Site     | onsemi Suzhou (ONSZ)      | Suzhou Goodark           |
| Die attach    | PB93.5SN5AG1.5            | PB92.5SN5AG2.5           |

|                        | From                                                                         | To                                                                                                  |
|------------------------|------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| Product marking change | Existing<br>Line 1: Internal traceability<br>Line 2 & Line 3: device marking | Corporate marking style<br>Line 1& Line 2: device marking<br>Line 3: Internal traceability (AYWWZZ) |

The traceability of marking will be maintained by assembly plant code, date code and lot code.



## Final Product/Process Change Notification

Document #:FPCN25064X

Issue Date:09 Aug 2023

### Reliability Data Summary:

QV DEVICE NAME: FCA47N60

RMS: U86585

PACKAGE: TO3P

| Test                                          | Specification | Condition                                                                                                      | Interval   | Result |
|-----------------------------------------------|---------------|----------------------------------------------------------------------------------------------------------------|------------|--------|
| High Temperature Reverse Bias                 | JESD22-A108   | Ta=150°C, 80% max rated V                                                                                      | 1008 hrs   | 0/77   |
| High Temperature Gate Bias                    | JESD22-A108   | Ta=150°C, 100% max rated Vgss                                                                                  | 1008 hrs   | 0/77   |
| High Temperature Storage Life                 | JESD22-A103   | Ta=150°C                                                                                                       | 1008 hrs   | 0/77   |
| Temperature Cycling                           | JESD22-A104   | Ta= -55°C to +150°C                                                                                            | 500 cyc    | 0/77   |
| Highly Humidity High Temperature Reverse Bias | JESD22-A110   | 85°C, 85% RH, 18.8psig, bias                                                                                   | 1008 hrs   | 0/77   |
| Unbiased Highly Accelerated Stress Test       | JESD22-A118   | 130°C, 85% RH, 18.8psig, unbiased                                                                              | 96 hrs     | 0/77   |
| Resistance to Solder Heat                     | JESD22- B106  | Ta = 265°C, 10 sec<br>Required for through hole devices only                                                   | end points | 0/30   |
| Solderability                                 | JSTD002       | Ta = 245°C, 5 sec                                                                                              | end points | 0/15   |
| Lead integrity                                | JESD22-B105   | Lead Tension test for 10pcs units.<br>Lead Bending test for 10pcs units.<br>Lead Fatigue test for 10pcs units. | end points | 0/30   |

### 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 |
|---------------|-----------------------|
| FCA47N60F     | FCA47N60              |
| FCA47N60-F109 | FCA47N60              |
| FCA47N60      | FCA47N60              |
| FCA20N60F     | FCA47N60              |
| FCA20N60-F109 | FCA47N60              |
| FCA20N60      | FCA47N60              |
| FQA140N10     | FCA47N60              |
| FQA70N10      | FCA47N60              |
| FQA8N100C     | FCA47N60              |



## Final Product/Process Change Notification

Document #:FPCN25064X

Issue Date:09 Aug 2023

|               |          |
|---------------|----------|
| FDA69N25      | FCA47N60 |
| FDA59N25      | FCA47N60 |
| FDA38N30      | FCA47N60 |
| FDA24N50F     | FCA47N60 |
| FDA24N40F     | FCA47N60 |
| FDA16N50-F109 | FCA47N60 |
| FDA032N08     | FCA47N60 |