



## Final Product/Process Change Notification

Document #:FPCN23597XJ

Issue Date:18 May 2023

|                                                  |                                                                                                                                                                                                                                                                                                                                                                  |
|--------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Title of Change:</b>                          | Conversion of select onsemi, Czech Republic (Roznov) wafer fab technologies from 150mm to 200mm wafer diameter for UCX84X family devices.                                                                                                                                                                                                                        |
| <b>Proposed First Ship date:</b>                 | 25 Aug 2023 or earlier if approved by customer                                                                                                                                                                                                                                                                                                                   |
| <b>Contact Information:</b>                      | Contact your local onsemi Sales Office or <a href="mailto:Jiri.Konarik@onsemi.com">Jiri.Konarik@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:Tomas.Vajter@onsemi.com">Tomas.Vajter@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 affected products will be identified with date code                                                                                                                                                                                                                                                                                                          |
| <b>Change Category:</b>                          | Wafer Fab Change                                                                                                                                                                                                                                                                                                                                                 |
| <b>Change Sub-Category(s):</b>                   | Manufacturing Process Change                                                                                                                                                                                                                                                                                                                                     |

|                               |                                      |
|-------------------------------|--------------------------------------|
| <b>Sites Affected:</b>        |                                      |
| <b>onsemi Sites</b>           | <b>External Foundry/Subcon Sites</b> |
| onsemi Roznov, Czech Republic | None                                 |

### Description and Purpose:

This FPCN is to notify our customers of onsemi conversion of the products listed running at our onsemi, Roznov Czech Republic wafer fab technologies from 150mm to 200mm wafer diameter. The purpose is to increase the wafer FAB productivity and output capacity.

The 200mm wafer process has been developed and characterized to provide the same electrical and reliability performances as the 150mm process. This is a change in wafer diameter only; there will be no changes to assembly or test locations as a result of this change.

|                       | Before Change Description | After Change Description |
|-----------------------|---------------------------|--------------------------|
| <b>Wafer Diameter</b> | 150mm (6")                | 200mm (8")               |

A full electrical characterization over the temperature range has been performed for each product to check the device functionality and electrical specifications.

onsemi recommends that customers evaluate sample units in each associated application circuit to ensure there are no unexpected electrical incompatibilities.



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### Reliability Data Summary:

QV DEVICE NAME: UC3843BNG

RMS# 080801

PACKAGE: PDIP8

| Test    | Specification       | Condition                                            | Interval               | Results |
|---------|---------------------|------------------------------------------------------|------------------------|---------|
| HTOL    | JA108               | TA = 125°C, Test at R/C/H, Vcc = 28V                 | 2016 hrs               | 0/240   |
| ELFR    | JA018               | TA = 125°C for 48 hrs, Test at R/H, Vcc = 28V        | 48hrs                  | 0/2400  |
| TC      | JA104               | Test at R/H                                          | 1000cyc                | 0/237   |
| BS      | AEC-Q100-001        | Cpk 1.67, 30 bonds from 5units, after TC500 & TC1000 |                        | pass    |
| BPS     | M883<br>Method 2011 | 3gm Pull Force Min After TC500 & TC1000              |                        | pass    |
| ESD HBM | AEC-Q100-002        | c = 0, Test at R/H                                   | 4kV                    | 0/3     |
| ESD MM  | AEC-Q100-003        | c = 0, Test at R                                     | 200V                   | 0/3     |
| ED      | ON Data Sheet       | Cpk > 1.67<br>Test at R, H, C                        | Cpk>1.67               | pass    |
| LU      | AEC-Q100-004        | Test @ EP; Test & Stress at R                        | LU+>100mA<br>LU->100mA | 0/6     |

QV DEVICE NAME: NCV317LBDR2G

RMS# 067728

PACKAGE: SOIC8 CU SNGL HPBF (OSPI)

| Test    | Specification       | Condition                                            | Interval               | Results |
|---------|---------------------|------------------------------------------------------|------------------------|---------|
| HTOL    | JA108               | TA = 115°C, Test at R/C/H, Vcc = 40V                 | 2016 hrs               | 0/240   |
| ELFR    | JA018               | TA = 115°C for 48 hrs, Test at R/H, Vcc = 40V        | 48hrs                  | 0/2400  |
| TC      | JA104               | Test at R/H                                          | 1000cyc                | 0/237   |
| BS      | AEC-Q100-001        | Cpk 1.67, 30 bonds from 5units, after TC500 & TC1000 |                        | pass    |
| BPS     | M883<br>Method 2011 | 3gm Pull Force Min After TC500 & TC1000              |                        | pass    |
| ESD HBM | AEC-Q100-002        | c = 0, Test at R/H                                   | 2kV                    | 0/3     |
| ESD CDM |                     | c = 0, Test at R/H                                   | 1kV                    | 0/3     |
| ESD MM  | AEC-Q100-003        | c = 0, Test at R/H                                   | 200V                   | 0/3     |
| ED      | ON Data Sheet       | Cpk > 1.67<br>Test at R, H, C                        | Cpk>1.67               | pass    |
| LU      | AEC-Q100-004        | Test @ EP; Test & Stress at R                        | LU+>100mA<br>LU->100mA | 0/6     |

QV DEVICE NAME: LM317LBDR2G

RMS# 076727

PACKAGE: SOIC8 CU SNGL HPBF (ASE)

| Test | Specification       | Condition                                            | Interval | Results |
|------|---------------------|------------------------------------------------------|----------|---------|
| HTOL | JA108               | TA = 115°C, Test at R, Vcc = 40V                     | 1008 hrs | 0/80    |
| TC   | JA104               | Test at R                                            | 500cyc   | 0/100   |
| BS   | AEC-Q100-001        | Cpk 1.67, 30 bonds from 5units, after TC500 & TC1000 |          | pass    |
| BPS  | M883<br>Method 2011 | 3gm Pull Force Min After TC500 & TC1000              |          | pass    |
| ED   | ON Data Sheet       | Cpk > 1.67<br>Test at R, H, C                        | Cpk>1.67 | pass    |



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QV DEVICE NAME: NCV33074ADR2G

RMS# 069241

PACKAGE: SOIC 14 COPPER PB FREE H

| Test    | Specification       | Condition                                            | Interval               | Results |
|---------|---------------------|------------------------------------------------------|------------------------|---------|
| HTOL    | JA108               | TA = 85°C, Test at R/C/H, Vcc = 40V                  | 2016 hrs               | 0/240   |
| ELFR    | JA018               | TA = 85°C for 48 hrs, Test at R/H, Vcc = 40V         | 48hrs                  | 0/2400  |
| TC      | JA104               | Test at R/H                                          | 1000cyc                | 0/237   |
| BS      | AEC-Q100-001        | Cpk 1.67, 30 bonds from 5units, after TC500 & TC1000 |                        | pass    |
| BPS     | M883<br>Method 2011 | 3gm Pull Force Min After TC500 & TC1000              |                        | pass    |
| ESD HBM | AEC-Q100-002        | c = 0, Test at R/H                                   | 2.2kV                  | 0/3     |
| ESD CDM |                     | c = 0, Test at R/H                                   | 1kV                    | 0/3     |
| ED      | ON Data Sheet       | Cpk > 1.67<br>Test at R, H, C                        | Cpk>1.67               | pass    |
| LU      | AEC-Q100-004        | Test @ EP; Test & Stress at R &H                     | LU->100mA<br>LU->100mA | 0/6     |

### Electrical Characteristics Summary:

Electrical characteristics are not impacted. All Data Sheet specifications remain the same.

### 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 |
|---------------|-----------------------|
| UC2842BD1R2G  | UC3843BNG             |
| UC2842BDR2G   | UC3843BNG             |
| UC2842BNG     | UC3843BNG             |
| UC2843BD1R2G  | UC3843BNG             |
| UC2843BDR2G   | UC3843BNG             |
| UC2843BNG     | UC3843BNG             |
| UC2844BD1R2G  | UC3843BNG             |
| UC2844BDR2G   | UC3843BNG             |
| UC2844BNG     | UC3843BNG             |
| UC2845BD1R2G  | UC3843BNG             |
| UC2845BDR2G   | UC3843BNG             |
| UC2845BNG     | UC3843BNG             |
| UC3845BVDR2G  | UC3843BNG             |
| UC3845BVD1R2G | UC3843BNG             |
| UC3845BNG     | UC3843BNG             |
| UC3845BDR2G   | UC3843BNG             |



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|               |           |
|---------------|-----------|
| UC3845BD1R2G  | UC3843BNG |
| UC3845BD1G    | UC3843BNG |
| UC3844BVDR2G  | UC3843BNG |
| UC3842BD1R2G  | UC3843BNG |
| UC3842BDR2G   | UC3843BNG |
| UC3842BNG     | UC3843BNG |
| UC3842BVD1R2G | UC3843BNG |
| UC3843BD1G    | UC3843BNG |
| UC3843BD1R2G  | UC3843BNG |
| UC3843BDR2G   | UC3843BNG |
| UC3843BNG     | UC3843BNG |
| UC3843BVD1R2G | UC3843BNG |
| UC3843BVDR2G  | UC3843BNG |
| UC3844BD1R2G  | UC3843BNG |
| UC3844BDR2G   | UC3843BNG |
| UC3844BNG     | UC3843BNG |
| UC3844BVD1R2G | UC3843BNG |