



Final Product/Process Change Notification

Document #:FPCN23597XF

Issue Date:05 Jan 2022

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| Title of Change: | Conversion of select onsemi, Czech Republic (Roznov) wafer fab technologies from 150mm to 200mm wafer diameter - LM2931 family. |
| Proposed First Ship date: | 12 Apr 2022 or earlier if approved by customer |
| Contact Information: | Contact your local onsemi Sales Office or Jan.Gryzbon@onsemi.com |
| PCN Samples Contact: | Contact your local onsemi Sales Office. 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. |
| Additional Reliability Data: | Contact your local onsemi Sales Office or Tomas.Vajter@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. 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 PCN.Support@onsemi.com |
| Marking of Parts/ Traceability of Change: | The affected products will be identified with date code |
| Change Category: | Wafer Fab Change |
| Change Sub-Category(s): | Manufacturing Process Change |

Sites Affected:

| onsemi Sites | External Foundry/Subcon Sites |
|-------------------------------|-------------------------------|
| onsemi Roznov, Czech Republic | None |

Description and Purpose:

Conversion of select onsemi, Czech Republic (Roznov) wafer fab technologies from 150mm to 200mm wafer diameter. The purpose is to increase the wafer fab productivity.

The 200mm wafer process is being created at Roznov in order to get 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 changed.

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

Qualification tests are designed to show that the reliability of transferred devices will continue to meet or exceed onsemi standards.

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: LM317BD2TG

RMS# 67729

PACKAGE: D2PAK

| Test | Specification | Condition | Interval | Results |
|---------|---------------------|--------------------------------|------------------------|---------|
| HTOL | JA108 | Ta= 125°C | 1008 hrs | 0/240 |
| PC | JA112 JA113 | SMD only, Test @ 0 & EP | | 0/372 |
| SAT | | Test pre- and post- PC | | pass |
| ELFR | JA018 | TA = 125°C for 48 hrs | 48hrs | 0/2400 |
| TC | JA104 | Test @ R | 500cyc | 0/276 |
| BS | AEC-Q100-001 | Cpk 1.33, 30 bonds from 5units | | pass |
| BPS | M883 Method 2011 | 3gm Pull Force Min After TC | | pass |
| ESD HBM | AEC-Q100-002 | c = 0, Test @ R | 2kV | 0/3 |
| ESD MM | AEC-Q100-003 | c = 0, Test @ R | 200V | 0/3 |
| ESD CDM | AEC-Q100-011 | c = 0, Test @ R | 1kV | 0/3 |
| ED | ON Data Sheet | Cpk > 1.67 Test @ R, H, C | Cpk>1.67 | pass |
| LU | AEC-Q100-004 | Test @ EP; Test & Stress @ R | LU+>100mA 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 |
|------------------|-----------------------|
| LM2931T-5.0G | LM317BD2TG |
| LM2931DT-5.0G | LM317BD2TG |
| LM2931D-5.0R2G | LM317BD2TG |
| LM2931D2T-5.0R4G | LM317BD2TG |
| LM2931CDR2G | LM317BD2TG |
| LM2931AT-5.0G | LM317BD2TG |
| LM2931ADT-5.0RKG | LM317BD2TG |
| LM2931AD-5.0R2G | LM317BD2TG |
| LM2931AD-5.0G | LM317BD2TG |
| LM2931AD2T-5R4G | LM317BD2TG |
| LM2931ACDR2G | LM317BD2TG |
| LM2931ACD2TR4G | LM317BD2TG |