nexperia

Final Product Change Notification 201806001F01

Issue Date: 01-Oct-2018
Effective Date: 13-Jan-2019

Here's your personalized quality information concerning products Digi-Key purchased from Nexperia.
For detailed information we invite you to view this notification online

Change Category

[X] Wafer Fab Process	[X] Assembly Process	[ ] Product Marking	[ ] Test Location	[X] Design
[X] Wafer Fab Materials	[X] Assembly Materials	[ ] Mechanical Specification	[ ]Test Process	[ ] Errata
[ ] Wafer Fab Location	[ ] Assembly Location	[ ] Packing/Shipping/Labeling	[ ] Test Equipment	[X] Electrical spec./Test coverage

Release of 8 inch wafer diameter for TL431 product family in SOT23 package

Details of this Change

Release of production using 8 inch wafer diameter in SOT23 package.

The 8 inch conversion is combined with an introduction of copper wire, a mold compound change, and a design version update for TL431xxDBZR products.

(1) Release of production using 8 inch wafer diameter.
(2) The bond wire material will be changed from gold (Au) to copper (Cu). Wire Diameter will be changed from 23µm to 33µm.
(3) The mold compound material will be changed
(4) For TL431xxDBZR products the design version will be updated.

Old products:
- 6 inch wafer diameter
- Au wire, 23 µm diameter
- current mold compound

- TL431xxDBZR: old circuit design version
- delta Vref typical 14mV (-40°C - 125°C)

Changed products:
- 8 inch wafer diameter
- Cu wire, 33 µm diameter, increased bond pad size
- new mold compound
- TL431xxDBZR: new circuit design version
- delta Vref typical 17mV (-40°C - 125°C)

Production on 8 inch wafer diameter implies the use of the respective 8 inch wafer process technology.

Why do we Implement this Change

To increase flexibility and volume ramp-up.
Aligning with world technology standards, Nexperia continues to introduce copper wire for plastic SMD packages. Copper wire shows enhanced mechanical properties.

Identification of Affected Products

The 8 inch products can be identified by the bond pad size on the die surface.
Changed products can be identified by date code after implementation.

Product Availability

Sample Information

Samples are available upon request

Production

Planned first shipment 04-Feb-2019

Impact

no impact to the product's functionality anticipated.

Data Sheet Revision

A new datasheet will be issued

Disposition of Old Products

Existing inventory will be shipped until depleted

Timing and Logistics

Your acknowledgement of this change, conform JEDEC J-STD-046, is expected till 30-Oct-2018. Lack of acknowledgement of the PCN constitutes acceptance of the change.

Contact and Support

For all inquiries regarding the ePCN tool application or access issues, please contact Nexperia "Global Quality Support Team".

For all Quality Notification content inquiries, please contact your local Nexperia Sales Support team.

For specific questions on this notice or the products affected please contact our specialist directly:
e-mail address DiscrQA.Helpdesk.GA-Products@nexperia.com
At Nexperia B.V. we are constantly striving to improve our product and processes to ensure they reach the highest possible Quality Standards.

About Nexperia B.V.

We at Nexperia are the efficiency semiconductor company. We deliver over 70 billion products a year and as such service thousands of global customers, both directly and through our extensive network of channel partners. We are at the heart of billions of electronic devices in the Automotive, Mobile, Industrial, Consumer, Computing, and Communication Infrastructure segments.

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Changed Orderable Part#	Changed Part 12NC	Changed Part Number	Changed Part Description	Package Outline	Package Name	Status	Product Line
TL431BQDBZR,215	935288025215	TL431BQDBZR	General Purpose Shunt Regulator	SOT23	TO-236AB	RFS	Bipolar Discretes
TL431BFDT,215	935293276215	TL431BFDT	Voltage regulator	SOT23	TO-236AB	RFS	Bipolar Discretes
TL431AQDBZR,215	935288022215	TL431AQDBZR	General Purpose Shunt Regulator	SOT23	TO-236AB	RFS	Bipolar Discretes
TL431AMFDT,215	935293278215	TL431AMFDT	Voltage regulator	SOT23	TO-236AB	RFS	Bipolar Discretes
TL431FDT,215	935293274215	TL431FDT	Voltage regulator	SOT23	TO-236AB	RFS	Bipolar Discretes
TL431BIDBZR,215	935288024215	TL431BIDBZR	General Purpose Shunt Regulator	SOT23	TO-236AB	RFS	Bipolar Discretes
TL431QDBZR,215	935288018215	TL431QDBZR	General Purpose Shunt Regulator	SOT23	TO-236AB	RFS	Bipolar Discretes
TL431BMFDT,215	935293279215	TL431BMFDT	Voltage regulator	SOT23	TO-236AB	RFS	Bipolar Discretes
TL431ACDBZR,215	935288019215	TL431ACDBZR	General Purpose Shunt Regulator	SOT23	TO-236AB	RFS	Bipolar Discretes
TL431IDBZR,215	935288017215	TL431IDBZR	General Purpose Shunt Regulator	SOT23	TO-236AB	RFS	Bipolar Discretes
TL431AIDBZR,215	935288021215	TL431AIDBZR	General Purpose Shunt Regulator	SOT23	TO-236AB	RFS	Bipolar Discretes
TL431MFDT,215	935293277215	TL431MFDT	Voltage regulator	SOT23	TO-236AB	RFS	Bipolar Discretes
TL431CDBZR,215	935288016215	TL431CDBZR	General Purpose Shunt Regulator	SOT23	TO-236AB	RFS	Bipolar Discretes
TL431AFDT,215	935293275215	TL431AFDT	Voltage regulator	SOT23	TO-236AB	RFS	Bipolar Discretes
TL431BCDBZR,215	935288023215	TL431BCDBZR	General Purpose Shunt Regulator	SOT23	TO-236AB	RFS	Bipolar Discretes