



Product Change Notification

CN-202302017F

Issue date: 19 Dec 2023

Effective date: 15 Apr 2024

Here's your personalized quality information concerning products our customers and partners purchased from Nexperia.

For more details please contact your respective Nexperia CSR/AM.



Release of Cu-wire for ESD protection devices in SOD323 (BSOB)

Change Category

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

Details of this change

- The bond wire material will be changed from gold (Au) to copper (Cu).
- use of 200mm wafer materials. These wafer materials have been announced in CN-202001003F01
- related to use of these 200mm wafer materials, some other changes are introduced for affected products (die thickness, different back metal stack, change of die size and active area size)
- Introduction of EMCs (epoxy mold compounds) GR646CHN and EME-E500HK.

Current products:

- Au-wire
- 6 inch wafer diameter
- die thickness: 200um
- full field lithography
- die size: 380x380µm
- active area: 220x220µm, 280x280µm
- back side metallization: NATAg2
- EMC: CV4112, GR646, 3400FPG and EME-E500HK (for PESD5V0L1BA only)

Changed products:

- 8 inch wafer diameter
- die thickness: 145um
- stepper lithography
- die size: 320x320µm or 340x340µm (for affected products)
- active area: 228x228µm, 280x280µm
- back side metallization: NATAg
- Cu-wire
- EMC: GR646CHN and EME-E500HK

CN-202302017F_FORM-Rev_5_0_2.xlsm:

https://qcm.nexperia.com/Document/DOC-566060/CN-202302017F_FORM-Rev_5_0_2.xlsm

CN-202302017F_SelfQualificationReport.pdf:

https://qcm.nexperia.com/Document/DOC-565541/CN-202302017F_SelfQualificationReport.pdf

CN-202302017F_BG563_PCN-Delta-Qualification-Matrix-ZVEI-5_0_14.xlsm:

https://qcm.nexperia.com/Document/DOC-563655/CN-202302017F_BG563_PCN-Delta-Qualification-Matrix-ZVEI-5_0_14.xlsm

Why do we implement this change?

- Improved supply situation by capacity expansion in the wafer fab.
- Continue to introduce copper wire for SMD packages to enhance mechanical properties and maintain latest wire bonding technology.
- improved volume ramp-up

Identification of affected products

Changed products can be identified by date code after implementation.
The 200mm products can be identified by a marker on the die surface.

Product availability

Production

Planned first shipment: 29 Mar 2024

Existing inventory will be shipped until depleted

Sample information

Samples are available upon request

Impact

No impact to the product's functionality anticipated

Data sheet revision

No impact to existing datasheet

Feedback

Your acknowledgement of this change, conform JEDEC J-STD-046, is expected till 01 Feb 2024. Lack of acknowledgement of the PCN constitutes acceptance of the change.

Additional information

[View Change Notification Online](#)

Contact and support

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: pcn@nexperia.com

In case of distribution, please contact your distribution partner.

About Nexperia B.V.

We at Nexperia are the efficiency semiconductor company. We deliver over 90 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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SalesItem_name	SalesItem_orderablePartNumber	SalesOrder_customerPartNumber	ProductType_name	BasicType_description	PackageOutlineVersion_description	PackageType_description	SalesItem_state	SalesItem_customerSpecificIndicator	BusinessLine_description
934061131115	BZB100A,115	BZB100A,115	BZB100A	Bidirectional Zener diode	SOD323	SOD2	RFS	No	Bipolar Discretes
934058422115	PESD12VL1BA,115	PESD12VL1BA,115	PESD12VL1BA	Low capacitance bidirectic	SOD323	SOD2	RFS	No	Bipolar Discretes
934664697135	PESD12VL1BA-QF		PESD12VL1BA-Q	Low capacitance bidirectic	SOD323	SOD2	RFS	No	Bipolar Discretes
934664697115	PESD12VL1BA-QX		PESD12VL1BA-Q	Low capacitance bidirectic	SOD323	SOD2	RFS	No	Bipolar Discretes
934058422135	PESD12VL1BAF	PESD12VL1BAF	PESD12VL1BA	Low capacitance bidirectic	SOD323	SOD2	RFS	No	Bipolar Discretes
934058423115	PESD15VL1BA,115	PESD15VL1BA,115	PESD15VL1BA	Low capacitance bidirectic	SOD323	SOD2	RFS	No	Bipolar Discretes
934664700115	PESD15VL1BA-QX		PESD15VL1BA-Q	Low capacitance bidirectic	SOD323	SOD2	RFS	No	Bipolar Discretes
934058423135	PESD15VL1BAF		PESD15VL1BA	Low capacitance bidirectic	SOD323	SOD2	RFS	No	Bipolar Discretes
934058423145	PESD15VL1BAZ		PESD15VL1BA	Low capacitance bidirectic	SOD323	SOD2	RFS	No	Bipolar Discretes
934058897115	PESD11UN,115	PESD11UN,115	PESD11UN	IIN-bus ESD protection dic	SOD323	SOD2	RFS	No	Bipolar Discretes
934058897135	PESD11UN,135	PESD11UN,135	PESD11UN	IIN-bus ESD protection dic	SOD323	SOD2	RFS	No	Bipolar Discretes
934058897145	PESD11UNZ	PESD11UNZ	PESD11UNZ	IIN-bus ESD protection dic	SOD323	SOD2	RFS	No	Bipolar Discretes
934058424115	PESD24VL1BA,115	PESD24VL1BA,115	PESD24VL1BA	Low capacitance bidirectic	SOD323	SOD2	RFS	No	Bipolar Discretes
934663868135	PESD24VL1BA-QF		PESD24VL1BA-Q	Low capacitance bidirectic	SOD323	SOD2	RFS	No	Bipolar Discretes
934663868115	PESD24VL1BA-QX		PESD24VL1BA-Q	Low capacitance bidirectic	SOD323	SOD2	RFS	No	Bipolar Discretes
934058424135	PESD24VL1BAF		PESD24VL1BA	Low capacitance bidirectic	SOD323	SOD2	RFS	No	Bipolar Discretes
934058424145	PESD24VL1BAZ		PESD24VL1BA	Low capacitance bidirectic	SOD323	SOD2	RFS	No	Bipolar Discretes
934058419115	PESD3V3L1BA,115	PESD3V3L1BA,115	PESD3V3L1BA	Low capacitance bidirectic	SOD323	SOD2	RFS	No	Bipolar Discretes
934664958135	PESD3V3L1BA-QF		PESD3V3L1BA-Q	Low capacitance bidirectic	SOD323	SOD2	RFS	No	Bipolar Discretes
934664958115	PESD3V3L1BA-QX		PESD3V3L1BA-Q	Low capacitance bidirectic	SOD323	SOD2	RFS	No	Bipolar Discretes
934058419135	PESD3V3L1BAF	PESD3V3L1BAF	PESD3V3L1BA	Low capacitance bidirectic	SOD323	SOD2	RFS	No	Bipolar Discretes
934058419145	PESD3V3L1BAZ		PESD3V3L1BA	Low capacitance bidirectic	SOD323	SOD2	RFS	No	Bipolar Discretes
934058421115	PESD5VOL1BA,115	PESD5VOL1BA,115	PESD5VOL1BA	Low capacitance bidirectic	SOD323	SOD2	RFS	No	Bipolar Discretes
934058421135	PESD5VOL1BA,135	PESD5VOL1BA,135	PESD5VOL1BA	Low capacitance bidirectic	SOD323	SOD2	RFS	No	Bipolar Discretes
934664695135	PESD5VOL1BA-QF		PESD5VOL1BA-Q	Low capacitance bidirectic	SOD323	SOD2	RFS	No	Bipolar Discretes
934664695115	PESD5VOL1BA-QX		PESD5VOL1BA-Q	Low capacitance bidirectic	SOD323	SOD2	RFS	No	Bipolar Discretes
934058421145	PESD5VOL1BAZ		PESD5VOL1BA	Low capacitance bidirectic	SOD323	SOD2	RFS	No	Bipolar Discretes