



Advance Product Change Notification

201601003AU01

Issue Date: 20-Mar-2016

UPDATE

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



QUALITY

Management Summary

Update to insert the information about the change of top metallisation thickness in PBSS4350Z and PBSS4350Z/DG/B2. All other product types are not affected by this update.

Change Category

<input checked="" type="checkbox"/> Wafer Fab Process	<input type="checkbox"/> Assembly Process	<input type="checkbox"/> Product Marking	<input type="checkbox"/> Test Process	<input checked="" type="checkbox"/> Design
<input checked="" type="checkbox"/> Wafer Fab Materials	<input checked="" type="checkbox"/> Assembly Materials	<input type="checkbox"/> Mechanical Specification	<input type="checkbox"/> Test Equipment	<input type="checkbox"/> Errata
<input type="checkbox"/> Wafer Fab Location	<input type="checkbox"/> Assembly Location	<input type="checkbox"/> Packing/Shipping/Labeling	<input type="checkbox"/> Test Location	<input type="checkbox"/> Electrical spec./Test coverage

Release of copper bond wire, new mold compounds and 8 inch wafer diameter in SOT223

Details of this Planned Change

Scheduled changes affect product types in SOT223 package only.

- (1) The bond wire material will be changed from gold (Au) to copper (Cu). Gold wire remains qualified for supply security reasons only.
- (2) Second source mold compound suppliers will be introduced as new alternative sources for copper wire products.
- (3) The leadframe will be changed to a new design.
- (4) Release of production using 8 inch wafer diameter. In two product types the thickness of the top metallisation will be adapted from 2.1µm to 2.2µm.
- (5) Several product types will be changed to a smaller die pitch size (400µmx400µm instead of 500µmx500µm resp. 520µmx520µm).

Old product: production using 6 inch wafer diameter, wire material is Au (with currently used mold compound and leadframe design)

Changed product: production using 6 and 8 inch wafer diameter, wire material is Cu (with currently used

first and new second source mold compound, changed leadframe design) or Au (with currently used first and new second source mold compound, changed leadframe design), partly changed die pitch size (only in combination with 8 inch wafer diameter), partly changed top side metallisation (only in combination with 8 inch wafer diameter)

Reliability qualification and full electrical characterization over temperature will be performed. No change on thermal behavior or mechanical dimensions. Electrical parameters remain unchanged (in specification and with the same distribution).

Why do we Plan this Change

- (1) Aligning with world technology standards, NXP continues to introduce copper wire for plastic SMD packages. Copper wire shows enhanced mechanical properties.
- (2) Following NXP company policy and second source material availability, new second source mold compounds will be added to the BOM. The second sources are already well-established mold compound suppliers for NXP GA discrete semiconductor products.
- (3) Standardisation of leadframe design with similar package SOT89. Leadframes with grooves are in production for SOT89 types since 2006.
- (4) To increase flexibility and volume ramp-up.
- (5) Volume ramp-up, increase of wafer fab capacity and flexibility.

Identification of Affected Products

The 8 inch products can be identified by a marker on the die surface.
Changed products can be identified by date code after implementation.

Product Availability

Sample Information

Samples are available upon request

Samples can be ordered now and will be shipped latest with FPCN issue date.

Update Information

Update to insert the information about the change of top metallisation thickness in PBSS4350Z and PBSS4350Z/DG/B2. All other product types are not affected by this update.

Impact

No impact to the products' functionality anticipated.

Data Sheet Revision

No impact to existing datasheet

Disposition of Old Products

Existing inventory will be shipped until depleted

Supply using 6 inch wafer will be continued in parallel to 8 inch wafer production.

Timing and Logistics

The Self Qualification Report will be ready on 22-Apr-2016.

The Final PCN is planned to be issued on: 22-Apr-2016.

Your acknowledgement of this change, conform JEDEC JESD46 D, is expected till 19-Apr-2016.

Contact and Support

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

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

For specific questions on this notice or the products affected please contact our specialist directly:

Name GA Customer Support

e-mail address DiscrQA.Helpdesk.GA-Products@nxp.com

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