

Final Product/Process Change Notification Document #: FPCN22779Z

Issue Date: 25 July 2019

| Title of Change: | Change black packing reel with better ESD properties for BSI devices in ASEM. | |
|---|---|--|
| Proposed Changed Material First Ship Date: | ial 25 July 2020 | |
| Current Material Last Order Date: | 29 February 2020 Orders received after the Current Material Last Order Date expiration are to be considered as orders for new changed material as described in this PCN. Orders for current (unchanged) material after this date will be per mutual agreement and current material inventory availability. | |
| Current Material Last Delivery Date: | Last Delivery 31 May 2020 The Current Material Last Delivery Date may be subject to change based on build and depletion of the current (unchanged) material inventory. | |
| Product Category: Active components – Integrated circuits | | |
| Contact information: | ontact information: Contact your local ON Semiconductor Sales Office or < <u>sophia.kuo@onsemi.com></u> | |
| Samples: | Contact your local ON Semiconductor Sales Office to place sample order or < <u>PCN.samples@onsemi.com</u> > Sample requests are to be submitted no later than 45 days after publication of this change notification. | |
| Sample Availability Date: | 30 June 2019 . Samples delivery timing will be subject to request date, sample quantity and special customer packing/label requirements. | |
| PPAP Availability Date: | 31 July 2019 | |
| Additional Reliability Data: | No applicable. Reliability performance is not impacted. | |
| Type of Notification: | This is a Final Product/Process Change Notification (FPCN) sent to customers. FPCNs are issued 12 months prior to implementation of the change or earlier upon customer approval. ON Semiconductor will consider this proposed change and it's conditions acceptable, unless an inquiry is made in writing within 45 days of delivery of this notice. To do so, contact PCN.Support@onsemi.com. | |
| Change Category | Type of Change | |
| Packing/Shipping | Change of carrier (tray, reel) | |

Description and Purpose:

| | Before Change Description | After Change Description | |
|---------------|---------------------------|--------------------------|--|
| Other Changes | White color packing reel | Black color pakcing reel | |

| Supplier | | ADVANTEK | |
|------------------------|--|-----------------------------------|---|
| Device Name | | RD3308RB(Current mass production) | RD33008DBK(Black) |
| How to ESD Performance | | Coating | Doping |
| ESD Level | Surface Resistivity(ohms/sq)_Specification | ≥10^5, ≤10^11 | ≥10^5,≤10^9 |
| ESD Level | Surface Resistivity(ohms/sq)_Real Measurement | | 1.93E+07 |
| Appearance | | | 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 |

Note: change pakcing reel with dispassive ESD properties for better protection from external charging impact

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| Reason / Motivation for Change: | Change benefits for customer: better and robust ESD property Risk for late release for customer: ESD performance might be erase if customer cleans packing reel with chemical solvent. Quality improvement [(Yes/No)? Yes, to have robust ESD protection from external charging. | | |
|---|---|---|--|
| Anticipated impact on fit, form, function, reliability, product safety or manufacturability | The device has been qualified and validated based on the same Product Specification. The device has successfully passed the qualification tests. Potential impacts can be identified, but due to testing performed by ON Semiconductor in relation to the PCN, associated risks are verified and excluded. No anticipated impacts. | | |
| Sites Affected: | ON Semiconductor Sites: None | External Foundry/Subcon Sites: ASE Maylaysia | |
| Marking of Parts/ Traceability of Change: | Affetected products will be identified with date code 3520 | | |

Reliability Data Summary:

No applicable. Reliability performance is not impacted.

Electrical Characteristic Summary:

Electrical characteristics are not impacted.

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.

| Current Part Number | Qualification Vehicle |
|---------------------------|------------------------|
| AR0231AT7B00XUEA0-TPBR | |
| AR0231AT7C00XUEA0-TPBR | AR0143ATSC00XUEA0-TPBR |
| AR0143ATSC00XUEA0-TPBR | |
| AR0143ATSC00XUEA0-TRBR | |
| AR0143ATSC00XUEA0-VL-TPBR | |

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Appendix A: Changed Products

| Product | Customer Part Number | New Part Number | Qualification Vehicle |
|------------------------|----------------------|-----------------|-----------------------|
| AR0143ATSC00XUEA0-TPBR | | NA | NA |
| AR0143ATSC00XUEA0-TRBR | | NA | NA |
| AR0231AT7C00XUEA0-TPBR | | NA | NA |