



| Title of Change: | Hydrazine elimination in ON Semiconductor Niigata Co., Ltd., Japan (OSNC). | | | | | | | | | | | | | |
|---|---|---|--------------|---------------------------|--------------------------|------------|---------------------------------------|---|---------------|---|---------------------------------------|---------------------|---|---|
| Proposed first ship date: | 8 May 2019 | | | | | | | | | | | | | |
| Contact information: | Contact your local ON Semiconductor Sales Office or <Yukio.Kudo@onsemi.com> | | | | | | | | | | | | | |
| Samples: | Contact your local ON Semiconductor Sales Office or <PCN.samples@onsemi.com> 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. | | | | | | | | | | | | | |
| Additional Reliability Data: | Contact your local ON Semiconductor Sales Office or <Satoru.Fujinuma@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. ON Semiconductor 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> | | | | | | | | | | | | | |
| Change Part Identification: | Date Code | | | | | | | | | | | | | |
| Change Category: | <input checked="" type="checkbox"/> Wafer Fab Change <input type="checkbox"/> Assembly Change <input type="checkbox"/> Test Change <input type="checkbox"/> Other _____ | | | | | | | | | | | | | |
| Change Sub-Category(s): | <div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"><input type="checkbox"/> Manufacturing Site Addition</div> <div style="width: 33%;"><input type="checkbox"/> Material Change</div> <div style="width: 33%;"><input type="checkbox"/> Datasheet/Product Doc change</div> <div style="width: 33%;"><input type="checkbox"/> Manufacturing Site Transfer</div> <div style="width: 33%;"><input type="checkbox"/> Product specific change</div> <div style="width: 33%;"><input type="checkbox"/> Shipping/Packaging/Marking</div> <div style="width: 33%;"><input checked="" type="checkbox"/> Manufacturing Process Change</div> <div style="width: 33%;"><input type="checkbox"/> Other: _____</div> </div> | | | | | | | | | | | | | |
| Sites Affected: | ON Semiconductor Sites: ON Niigata, Japan | External Foundry/Subcon Sites: None | | | | | | | | | | | | |
| Description and Purpose: This Final notification announces the elimination of Hydrazine in ON Semiconductor Niigata Co., Ltd. Japan for parts listed in this P CN. Hydrazine was identified as a prohibited chemical in ON Semiconductor as it is considered as a carcinogenic substance and has high risk of fire and explosion. The related products are transferred to a process that does not use Hydrazine on the same site ON Semiconductor Niigata, Japan (OSNC). | | | | | | | | | | | | | | |
| <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #92d050;"> <th style="width: 20%;">Change Point</th><th style="width: 40%;">Before Change Description</th><th style="width: 40%;">After Change Description</th></tr> </thead> <tbody> <tr> <td>Fab (OSNC)</td><td>N1 Fab (Minimum rule=0.8um, Class=10)</td><td>N1 Fab (Minimum rule=0.8um, Class=10) AND N2 Fab (Minimum rule=0.25um, Class=1)</td></tr> <tr> <td>Wire material</td><td>Aluminum (without Anti-reflected Layer)</td><td>Aluminium (with Anti-reflected Layer)</td></tr> <tr> <td>Interlayer material</td><td>Silicon nitride and Polyimide or Polyimide</td><td>Silicon nitride and Silicon oxide or Oxide</td></tr> </tbody> </table> | | | Change Point | Before Change Description | After Change Description | Fab (OSNC) | N1 Fab (Minimum rule=0.8um, Class=10) | N1 Fab (Minimum rule=0.8um, Class=10) AND N2 Fab (Minimum rule=0.25um, Class=1) | Wire material | Aluminum (without Anti-reflected Layer) | Aluminium (with Anti-reflected Layer) | Interlayer material | Silicon nitride and Polyimide or Polyimide | Silicon nitride and Silicon oxide or Oxide |
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| Wire material | Aluminum (without Anti-reflected Layer) | Aluminium (with Anti-reflected Layer) | | | | | | | | | | | | |
| Interlayer material | Silicon nitride and Polyimide or Polyimide | Silicon nitride and Silicon oxide or Oxide | | | | | | | | | | | | |

**Reliability Data Summary:**

QV DEVICE NAME : LB11870-TRM-E

PACKAGE: HSSOP48(375mil)

| Test | Specification | Condition | Interval | Results |
|-------|---------------------|-------------------------------|----------|---------|
| HTOL | JESD22-A108 | Tj=150°C, 100 % max rated Vcc | 1008 hrs | 0/77 |
| HTSL | JESD22-A103 | Ta= 150°C | 1008 hrs | 0/77 |
| TC | JESD22-A104 | Ta= -65°C to +150°C | 500 cyc | 0/77 |
| THB | JESD22-A101 | 85°C, 85% RH, bias | 1008 hrs | 0/77 |
| uHAST | JESD22-A118 | 130°C, 85% RH, 18.8psig, | 96 hrs | 0/77 |
| PC | J-STD-020 JESD-A113 | MSL 3 @ 260 °C | - | PASS |
| HBM | JS001 | 100pF,1.5kohm,+/-1kV | - | 0/3 |
| CDM | JS002 | +/-500V | - | 0/3 |

Electrical Characteristic Summary:

There is no change in the electrical performance. Datasheet specifications remain unchanged.

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 |
|-----------------|-----------------------|
| LA6581DMR2G | LB11870-TRM-E |
| LB11961-TLM-H | |
| LB11961-TLM-E | |
| LB11970FV-TLM-H | |
| LA6583MC-AH | |
| LB11685AV-TLM-H | |