



| <b>Title of Change:</b>  | UNIFET FAB process optimized to improve HTRB Performance by adding Blanket IMP process.   |   |  |                    |                   |
|--|---|---|--|--------------------|-------------------|
| <b>Proposed first ship date:</b>   | 6 November 2018 or earlier upon customer approval   |   |  |                    |                   |
| <b>Contact information:</b>  | Contact your local ON Semiconductor Sales Office or <Sungdae.shin@onsemi.com>   |   |  |                    |                   |
| <b>Samples:</b>  | Contact your local ON Semiconductor Sales Office or <PCN.samples@onsemi.com><br>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.   |   |  |                    |                   |
| <b>Additional Reliability Data:</b>  | Contact your local ON Semiconductor Sales Office or <Byeongyeop.Lee@onsemi.com>   |   |  |                    |                   |
| <b>Type of notification:</b>   | This is a Final Product/Process Change Notification (FPCN) sent to customers. FPCNs are issued 90 days prior to implementation of the change.<br>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>  |   |  |                    |                   |
| <b>Change Part Identification:</b>   | Affected products will be identified with date code.  |   |  |                    |                   |
| <b>Change Category:</b>  | <input checked="" type="checkbox"/> Wafer Fab Change <input type="checkbox"/> Assembly Change <input type="checkbox"/> Test Change <input type="checkbox"/> Other _____   |   |  |                    |                   |
| <b>Change Sub-Category(s):</b>   | <input type="checkbox"/> Manufacturing Site Addition <input checked="" type="checkbox"/> Material Change <input type="checkbox"/> Datasheet/Product Doc change<br><input type="checkbox"/> Manufacturing Site Transfer <input type="checkbox"/> Product specific change <input type="checkbox"/> Shipping/Packaging/Marking<br><input checked="" type="checkbox"/> Manufacturing Process Change <input type="checkbox"/> Other: _____ |   |  |                    |                   |
| <b>Sites Affected:</b>   | ON Semiconductor Sites:<br>ON Suzhou, China   |   | External Foundry/Subcon Sites:<br>None |                    |                   |
| <b>Description and Purpose:</b>  |   |   |  |                    |                   |
| UNIFET FAB process optimized to improve HTRB Performance by adding Blanket IMP process.                            |   |   |  |                    |                   |
| There are no product material changes as a result of this change.  |   |   |  |                    |                   |
| There is no product marking change as a result of this change.   |   |   |  |                    |                   |
| <b>Reliability Data Summary:</b>   |   |   |  |                    |                   |
| <b>QV DEVICE NAME:</b> FSB50550US / FSB50550A<br><b>RMS:</b> K45104<br><b>PACKAGE:</b> SPM5 ver 1.5 / SPM5 ver 2.0 |   |   |  |                    |                   |
| Test   | Specification   | Condition                                       | Interval                               | Results<br>Ver 1.5 | Result<br>Ver 2.0 |
| HTRB   | JESD22-A108   | 150°C for 1008 hours, Vds=400V, Vcc=20V, Vin=0V | 1,008 hrs                              | 0/11               | 0/11              |
| TC   | JESD22-A104   | Ta= -40°C to +125°C                             | 1,000 cyc                              | 0/11               | 0/11              |
| HAST   | JESD22-A110   | 130°C, 85% RH, 18.8psig, bias                   | 96 hrs                                 | 0/11               | 0/11              |



**Electrical Characteristic Summary:**

Electrical characteristics are not impacted

**List of Affected Parts:**

| Part Number | Qualification Vehicle |
|-------------|-----------------------|
| NBC9620     | FSB50550A             |
| NBC9619     | FSB50550A             |
| NBC9616     | FSB50550US            |
| NBC9615     | FSB50550US            |
| FSB50550UTD | FSB50550US            |
| FSB50550US  | FSB50550US            |
| FSB50550TB2 | FSB50550US            |
| FSB50550AT  | FSB50550A             |
| FSB50550ASE | FSB50550A             |
| FSB50550AS  | FSB50550A             |
| FSB50550ADL | FSB50550A             |
| FSB50550AD  | FSB50550A             |
| FSB50550AB  | FSB50550A             |
| FSB50550A   | FSB50550A             |
| FSB50450US  | FSB50550US            |
| FSB50450UD  | FSB50550US            |
| FSB50450AT  | FSB50550A             |
| FSB50450AS  | FSB50550A             |
| FSB50450A   | FSB50550A             |
| FSB50350ATF | FSB50550A             |
| FSB50350ASF | FSB50550A             |
| FSB50250UTD | FSB50550US            |
| FSB50250US  | FSB50550US            |
| FSB50250UD  | FSB50550US            |
| FSB50250AT  | FSB50550A             |
| FSB50250AS  | FSB50550A             |
| FSB50250AP  | FSB50550A             |
| FSB50250AB  | FSB50550A             |
| FSB50250A   | FSB50550A             |



**Appendix A: Changed Products**

D

| Product     | Customer Part Number | Qualification Vehicle |
|-------------|----------------------|-----------------------|
| FSB50250A   |                      | FSB50550A             |
| FSB50250AB  |                      | FSB50550A             |
| FSB50250AS  |                      | FSB50550A             |
| FSB50250AT  |                      | FSB50550A             |
| FSB50250UD  |                      | FSB50550US            |
| FSB50250US  |                      | FSB50550US            |
| FSB50250UTD |                      | FSB50550US            |
| FSB50450A   |                      | FSB50550A             |
| FSB50450AS  |                      | FSB50550A             |
| FSB50450AT  |                      | FSB50550A             |
| FSB50450UD  |                      | FSB50550US            |
| FSB50450US  |                      | FSB50550US            |
| FSB50550A   |                      | FSB50550A             |
| FSB50550AB  |                      | FSB50550A             |
| FSB50550AS  |                      | FSB50550A             |
| FSB50550ASE |                      | FSB50550A             |
| FSB50550AT  |                      | FSB50550A             |
| FSB50550US  |                      | FSB50550US            |
| FSB50550UTD |                      | FSB50550US            |