ON Semiconductor



Final Product/Process Change Notification Document # : FPCN20832

Issue Date: 17 March 2015

| Title of Change: | Trench 6 Technology Capacity Expansion by Qualification of ON Semiconductor's wafer fab in Pocatello, ID | | | |
|---|--|---|--|--|
| Proposed first ship date: | 24 June 2015 | | | |
| Contact information: | Contact your local ON Semiconductor Sales Office or Jason Jeong <jason.jeong@onsemi.com></jason.jeong@onsemi.com> | | | |
| Samples: | Contact your local ON Semiconductor Sales Office or Michael Mooney <fg6h9j@onsemi.com></fg6h9j@onsemi.com> | | | |
| Additional Reliability Data: | Contact your local ON Semiconductor Sales Office or Donna Scheuch <d.scheuch@onsemi.com>.</d.scheuch@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 approved unless specific conditions of acceptance are provided in writing within 30 days of receipt of this notice. To do so, contact <pcn.support@onsemi.com>.</pcn.support@onsemi.com> | | | |
| Change Part Identification: | The affected products listed here with date code 1523 and later will dual sourced out of ON Semiconductor's Wafer fab in Gresham and Pocatello. | | | |
| Change category(s): Wafer Fab Change Assembly Change Test Change | Manufacturing Site Change/Addition Manufacturing Process Change Material Change | Product specific change Datasheet/Product Doc change Shipping/Packaging/Marking Other: | | |
| Sites Affected: All site(s) not applicable ON Semiconductor site(s) : External Foundry/Subcon site | ON Pocatello, Idaho | <u>Site 2</u> | | |
| | | | | |

Description and Purpose:

This final change notification is to inform customers of ON Semiconductor's plan to qualify and add capacity in FAB10 for the 30V Trench (T6) MOSFET technology. FAB10 is an internal wafer fab within ON Semiconductor located in Pocatello, ID. At the expiration of this notification, all products listed here will be dual sourced from its current ON Semiconductor wafer fab in Gresham and FAB10.

Reliability Qualification and full electrical characterization over temperature have been performed, and available upon request.

Reliability Data Summary:

NTMFS4C05NT1G

Package: SO8FL

| Test | Specification | Conditions | Interval | Sample Size | Results |
|-------|-------------------------------------|--|----------|-------------|---------|
| HTRB | JESD22-A108 | Ta=150°C, 80% max rated Vdss | 504 hrs | 84pc/3 lots | 0/252 |
| HTGB | JESD22-A108 | Ta=150°C, 100% max rated Vgss | 504 hrs | 84pc/3 lots | 0/252 |
| HTSL | JESD22-A103 | Ta=150°C | 504 hrs | 84pc/3 lots | 0/252 |
| IOL | MIL-STD-750 (M 1037) AEC-Q101 | Ta=+25°C, delta Tj=100°C On/off = 2 min | 7500 cyc | 84pc/3 lots | 0/252 |
| TC | JESD22-A104 | Ta=-65°C to +150°C | 500 cyc | 84pc/3 lots | 0/252 |
| HAST | JESD22-A110 | 131°C/85% RH, 85% max rated Vdss | 96 hrs | 84pc/3 lots | 0/252 |
| uHAST | JESD22-A118 | 131°C/85% RH, 85% max rated Vdss | 96 hrs | 84pc/3 lots | 0/252 |



NTTFS4C05NTAG

Package: u8FL Test **Specification** Conditions Interval Sample Size Results HTRB JESD22-A108 Ta=150°C, 80% max rated Vdss 504 hrs 84pc/1 lots 0/84 Ta=150°C, 100% max rated Vgss 0/84 HTGB JESD22-A108 504 hrs 84pc/1 lots HTSL JESD22-A103 Ta=150°C 504 hrs 84pc/1 lots 0/84 MIL-STD-750 Ta=+25°C, delta Tj=100°C IOL (M 1037) 7500 cyc 84pc/1 lots 0/84 On/off = 2 min AEC-Q101 тс JESD22-A104 Ta=-65°C to +150°C 500 cyc 84pc/1 lots 0/84 504 hrs H3TRB JESD22-A101 85°C, 85% max rated Vdss 84pc/1 lots 0/84 131°C, 85% max rated Vdss 96 hrs 84pc/1 lots 0/84 uHAST JESD22-A118

Electrical Characteristic Summary:

There is no change in electrical parametric performance. Characterization data is available upon request.

List of Affected Standard Parts:

| NTMFS4C05NT1G | NTTFS4C10NTAG | NTTFS4C10NTWG |
|---------------|---------------|---------------|
| NTMFS4C05NT3G | NTMFS4C08NT1G | NTMFS4C13NT1G |
| NTTFS4C05NTAG | NTMFS4C08NT3G | NTMFS4C13NT3G |
| NTTFS4C05NTWG | NTTFS4C08NTAG | NTTFS4C13NTAG |
| NTMFS4C06NT1G | NTMFS4C09NT1G | NTTFS4C13NTWG |
| NTTFS4C06NTAG | NTMFS4C09NT3G | |
| NTTFS4C06NTWG | NTMFS4C10NT1G | |

NOTE: Please be informed that parts impacted by this PDN/PCN are Special/Customer specific parts, thus MPN & CPN info will be available to affected customers only by clicking the "Custom PCN for Selected Company Button" in the Document Analysis page of PCMS/PCN Alert.