ON Semiconductor ${ }^{\circledR}$

PCN\# : P691AAB Issue Date : Nov. 24, 2016

## DESIGN/PROCESS CHANGE NOTIFICATION

This is to inform you that a change is being made to the products listed below.
Unless otherwise indicated in the details of this notification, the identified change will have no impact on product quality, reliability, electrical, visual or mechanical performance and affected products will remain fully compliant to all published specifications. Products incorporating this change may be shipped interchangeably with existing unchanged products.

This change is planned to take effect in 90 calendar days from the date of this notification. Please work with your local ON Sales Representative to manage your inventory of unchanged product if your evaluation of this change will require more than 90 calendar days.

Please contact your local Customer Quality Engineer within 30 days of receipt of this notification if you require any additional data or samples.

## Implementation of change:

Expected First Shipment Date for Changed Product :Feb. 22, 2017
Expected First Date Code of Changed Product :1709
Description of Change (From) :
Wafer fabrication of 5.0/10.0 products at TowerJazz Israel
Description of Change (To) :
8 -inch wafer fabrication of 5.0/10.0 products at ON Semiconductor at Bucheon, South Korea and TowerJazz Israel
Reason for Change:
ON Semiconductor is increasing wafer fabrication capacity by qualifying 8 -inch wafer fabrication line at ON Semiconductor Bucheon Korea.
Quality and reliability remain at the highest standards already demonstrated within ON Semiconductor's existing products.
The reliability qualification results used to qualify the 8 -inch wafer fabrication line are summarized below. Design, die size and layout of the affected products will remain unchanged. There are no changes in the datasheet or electrical performance.

## Affected Product(s):

| FDC6301N_G | FDC6302P | FDC6320C |
| :--- | :--- | :--- |
| FDC6321C | FDC6323L | FDC6324L |
| FDC6325L | FDC6326L | FDG313N |
| FDG6303N_G | FDG6320C | FDG6324L |
| FDG6342L | FDG8842CZ | FDS9431A |
| FDT439N | FDT439N_F081 | FDT457N |
| FDT459N | FDV301N | FDV302P |
| NDB6030PL | NDP6020P | NDS351N |
| NDS352AP | NDS355AN_G | NDS356AP |
| NDS356AP_NB8L005A | NDS8434 | NDS9952A |
| NDS9952A_F011 | NDT451AN | NDT454P |
| NDT456P |  |  |

## A qualification plan for PCN

| Qualification Plan | Device | Package | Process | No. of Lots |
| :---: | :---: | :---: | :---: | :---: |
| Q20160056, Q20160501 <br> Q20160571 | FDC6303N | SSOT6 | 5.0 M N | 2 |


| Test Description: | Condition: | Standard: | Duration: | Results: |
| :--- | :--- | :--- | :--- | :--- |
| MSL1 Precondition | $260^{\circ} \mathrm{C}, 3 \mathrm{cycles}$ | JESD22-A113 |  | $0 / 640$ |
| Highly Accelerated <br> Stress Test | $130^{\circ} \mathrm{C}, 85 \% \mathrm{RH}, \mathrm{Vr}=$ <br> +20 V | JESD22-A110 | 96 hrs | $0 / 160$ |
| High Temperature <br> Gate Bias | $150^{\circ} \mathrm{C}, \mathrm{Vgs}=+8 \mathrm{~V}$ | JESD22-A108 | $1,000 \mathrm{hrs}$ | $0 / 160$ |
| High Temperature <br> Reverse Bias | $150^{\circ} \mathrm{C}, \mathrm{Vr}=+20 \mathrm{~V}$ | JESD22-A108 | $1,000 \mathrm{hrs}$ | $0 / 160$ |
| Power Cycle | Delta $100 \mathrm{CC}, 2.0 \mathrm{Min} \mathrm{cyc}$ | JESD22-A105 | 10,000 cycles | $0 / 160$ |
| High Temperature <br> Storage Life | $150^{\circ} \mathrm{C}$ | JESD22-A103 | 1,000 hrs | $0 / 160$ |
| Temperature Cycle | $-65^{\circ} \mathrm{C}, 150^{\circ} \mathrm{C}$ | JESD22-A104 | 500 cycles | $0 / 160$ |


| Qualification Plan | Device | Package | Process | No. of Lots |
| :---: | :---: | :---: | :---: | :---: |
| Q20160056 | FDS8433A | SO8-Single | 10.0 M P | 3 |


| Test Description: | Condition: | Standard : | Duration: | Results: |
| :--- | :--- | :---: | :--- | :--- |
| MSL1 Precondition | $260^{\circ} \mathrm{C}, 3$ cycles | JESD22-A113 |  | $0 / 720$ |
| Highly Accelerated <br> Stress Test | $130^{\circ} \mathrm{C}, 85 \% \mathrm{RH}, \mathrm{Vr}=-$ <br> 16 V | JESD22-A110 | 96 hrs | $0 / 240$ |
| High Temperature <br> Gate Bias | $150^{\circ} \mathrm{C}, \mathrm{Vgs}=-8 \mathrm{~V}$ | JESD22-A108 | $1,000 \mathrm{hrs}$ | $0 / 240$ |
| High Temperature <br> Reverse Bias | $150^{\circ} \mathrm{C}, \mathrm{Vr}=-16 \mathrm{~V}$ | JESD22-A108 | $1,000 \mathrm{hrs}$ | $0 / 240$ |
| Power Cycle | Delta $100 \mathrm{CC}, 2.0$ Min cyc | JESD22-A105 | 10,000 <br> cycles | $0 / 240$ |
| Temperature Cycle | $-65^{\circ} \mathrm{C}, 150^{\circ} \mathrm{C}$ | JESD22-A104 | 1,000 cycles | $0 / 240$ |


| Qualification Plan | Device | Package | Process | No. of Lots |
| :---: | :---: | :---: | :---: | :---: |
| Q20160056 | NDB6030PL | TO-263 | 05.0 P | 1 |


| Test Description: | Condition: | Standard : | Duration: | Results: |
| :--- | :--- | :---: | :--- | :--- |
| MSL1 Precondition | $260^{\circ} \mathrm{C}, 3$ cycles | JESD22-A113 |  | $0 / 240$ |
| Highly Accelerated <br> Stress Test | $130^{\circ} \mathrm{C}, 85 \% \mathrm{RH}, \mathrm{Vr}=$ <br> +20 V | JESD22-A110 | 96 hrs | $0 / 80$ |
| High Temperature <br> Gate Bias | $150^{\circ} \mathrm{C}, \mathrm{Vgs}=+8 \mathrm{~V}$ | JESD22-A108 | $1,000 \mathrm{hrs}$ | $0 / 80$ |
| High Temperature <br> Reverse Bias | $150^{\circ} \mathrm{C}, \mathrm{Vr}=+20 \mathrm{~V}$ | JESD22-A108 | $1,000 \mathrm{hrs}$ | $0 / 80$ |
| Power Cycle | Delta $100 \mathrm{CC}, 2.0$ Min Cyc | JESD22-A105 | 8,572 cycles | $0 / 80$ |
| Temperature Cycle | $-65^{\circ} \mathrm{C}, 150^{\circ} \mathrm{C}$ | JESD22-A104 | 500 cycles | $0 / 80$ |

