



FINAL PRODUCT/PROCESS CHANGE NOTIFICATION # 16541Generic Copy

Issue Date: 12-Nov-2010**TITLE:** VHVIC 2nd Source Qualification to Gresham FAB – Phase 1 (Delta)**PROPOSED FIRST SHIP DATE:** 12-Feb-2011**AFFECTED CHANGE CATEGORY(S):** Wafer Fab location**FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:**Contact your local ON Semiconductor Sales Office or <Scott.Brow@onsemi.com>**SAMPLES:** Contact your local ON Semiconductor Sales Office**ADDITIONAL RELIABILITY DATA:** AvailableContact your local ON Semiconductor Sales Office or <Ken.Fergus@onsemi.com>**NOTIFICATION TYPE:**

Final Product/Process Change Notification (FPCN)

Final change notification sent to customers. FPCNs are issued at least 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 <quality@onsemi.com>.**DESCRIPTION AND PURPOSE:**

The purpose of this final PCN is to notify Delta Electronics of the qualification of a second source for our VHVIC wafer technology at ON Semiconductor's wafer fabrication facilities in Gresham, Oregon for the limited number of devices listed in this notification.

This qualification is being made to increase the capacity for this technology. This technology is currently produced out of ON Semiconductor's wafer fabrication facilities in Aizu, Japan.

The VHVIC process has been duplicated at the Gresham wafer FAB. No die design changes have occurred. No changes to the device performance, data sheets or packaging have been made.



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RELIABILITY DATA SUMMARY:

Reliability Test Results:

NCP1271D65R2G:

| # | Test | Test Conditions | Read Points | Sample Size | Results |
|---|----------|-----------------------------------|-------------------|-------------------|---------|
| 1 | HTBB | TA=125C, 450V Bias | Test @ 1008hrs | 3 lots x 80 units | 0/240 |
| 2 | HVTHB | TA=85C, 60%RH, 450V Bias | Test @ 168hrs | 3 lots x 80 units | 0/240 |
| 3 | HTOL | TA=125C, 100V Bias | Test @ 1008hrs | 3 lots x 80 units | 0/240 |
| 4 | HTSL | TA=150C | Test @ 1008hrs | 3 lots x 80 units | 0/240 |
| 5 | TC-PC | -65C to +150C | Test @ 500 Cycles | 3 lots x 80 units | 0/240 |
| 6 | AC-PC | TA=121C, RH=100%, PSI=15 | Test @ 96hrs | 3 lots x 80 units | 0/240 |
| 7 | UHAST-PC | TA=130C, RH=85%, PSI=18.8 no Bias | Test @ 1008hrs | 3 lots x 80 units | 0/240 |
| 8 | HAST-PC | TA=130C, RH=85%, PSI=18.8 Bias | Test @ 1008hrs | 3 lots x 80 units | 0/240 |
| 9 | SAT-PC | Post MSL3 260C | Pre and Post PC | 3 lot x 5 units | 0/15 |

DDA001A (SCY99076AR2G):

| # | Test | Test Conditions | Read Points | Sample Size | Results |
|---|----------|-----------------------------------|-------------------|-------------------|---------|
| 1 | HTBB | TA=125C, 450V Bias | Test @ 1008hrs | 3 lots x 80 units | 0/239* |
| 2 | HTOL | TA=125C, 100V Bias | Test @ 1008hrs | 3 lots x 80 units | 0/240 |
| 3 | HTSL | TA=150C | Test @ 1008hrs | 3 lots x 80 units | 0/240 |
| 4 | TC-PC | -65C to +150C | Test @ 500 Cycles | 3 lots x 80 units | 0/240 |
| 5 | AC-PC | TA=121C, RH=100%, PSI=15 | Test @ 96hrs | 3 lots x 80 units | 0/240 |
| 6 | UHAST-PC | TA=130C, RH=85%, PSI=18.8 no Bias | Test @ 1008hrs | 3 lots x 80 units | 0/240 |
| 7 | HAST-PC | TA=130C, RH=85%, PSI=18.8 Bias | Test @ 1008hrs | 3 lots x 80 units | 0/240 |
| 8 | SAT-PC | Post MSL3 260C | Pre and Post PC | 3 lot x 5 units | 0/15 |

* 1 EOS failure after 504hrs

DAP013F (SCY99088BDR2G):

| # | Test | Test Conditions | Read Points | Sample Size | Results |
|---|------|--------------------|----------------|------------------|---------|
| 1 | HTBB | TA=125C, 450V Bias | Test @ 1008hrs | 1 lot x 80 units | 0/80 |
| 2 | HTOL | TA=125C, 100V Bias | Test @ 1008hrs | 1 lot x 80 units | 0/80 |

ELECTRICAL CHARACTERISTIC SUMMARY:

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

CHANGED PART IDENTIFICATION:

Affected products with date code WW07-2011 and greater may be sourced from either Gresham or Aizu wafer Fabrication site.

As agreed with Delta, there will be no change in marking for general market products. However, for custom devices (SCYxxxxx), a mark will be placed on the 3rd line to designate the wafer Fabrication site where J = Aizu, Japan and G = Gresham.



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List of affected General Parts:

PART

NCP1271D65R2G

NCP1271D100R2G

NCP1396ADR2G

NCP1396BDR2G



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List of affected Customer Specific Parts:

PART

SCY99088ADR2G
SCY99088BDR2G
SCY99088CDR2G
SCY99088DDR2G
SCY99079ADR2G
SCY99079BDR2G
SCY99079CDR2G
SCY99079FDR2G
SCY99076AR2G
SCY99076BR2G