



FINAL PRODUCT/PROCESS CHANGE NOTIFICATION

Generic Copy

15AUG-2005

SUBJECT: ON Semiconductor Final Product/Process Change Notification #15002

TITLE: Addition of Tower Semiconductor Fab for Minigate™, LCX, LVX, Analog Switch & VHC Logic Products

EFFECTIVE DATE: 15-Oct-2005

AFFECTED CHANGE CATEGORY(S): Subcontractor Fab Site

AFFECTED PRODUCT DIVISION(S): Analog Power Products

ADDITIONAL RELIABILITY DATA: Available

Contact your local ON Semiconductor Sales Office or Ken Fergus <rrst50@onsemi.com>

SAMPLES: Contact your local ON Semiconductor Sales Office

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:

Contact your local ON Semiconductor Sales Office or Lyle Stewart <rjj930@onsemi.com>

NOTIFICATION TYPE:

Final Product/Process Change Notification (FPCN)

Final change notification sent to customers. FPCNs are issued at least 60 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 your local ON Semiconductor Sales Office.

DESCRIPTION AND PURPOSE:

ON Semiconductor is pleased to announce continued expansion of wafer capacity for MiniGate™, LCX, LVX, Analog Switch and VHC Logic products utilizing Tower Semiconductor. ON Semiconductor is implementing this increase in capacity to support rapidly growing demand for these Logic products in an effort to assure our customers of ON Semiconductor's continued commitment to assured supply, on time delivery and continuous quality improvement

The products will be redesigned using Tower Semiconductor's 0.6um design rules for their double layer metal, single polysilicon gate standard CMOS process. No performance changes are expected for these products. All product performance will meet the current datasheet specifications.

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Tower Semiconductor is a high volume Silicon supplier for flash memory, image sensors, mixed signal and standard CMOS products. They are located in Migdal Haemek, Israel, and are an ISO9001/QS9000 certified facility.

RELIABILITY DATA SUMMARY:**Reliability Test Results:****Tower 0.6 micron CMOS MiniGate™ reliability summary:**

SC88A package, 1 lot ea. of 74VHC1GT00, 74VHC1G00, 74VHC1GT08:

| Test | Conditions | Results (#fail/total SS) |
|-------------------|------------------------------|--------------------------|
| High Temp Op Life | TA=150C for 504 hrs | 0/77, 0/77, 0/77 |
| High Temp Bake | 150C for 504 hrs | 0/77, 0/77, 0/77 |
| RSH | 260C, 10 seconds | 0/30, 0/30, 0/30 |
| PC-Temp Cycle | -65/+150C for 500 cyc | 0/77, 0/77, 0/77 |
| PC-Autoclave | 121C/100%RH/15psig for 96hrs | 0/77, 0/77, 0/77 |
| PC-HAST | 131C/80%RH for 96 hrs | 0/77, 0/77, 0/77 |
| PC | 168hrs 85C/85%, 3 IR at 260C | 0/231, 0/231, 0/231 |

Tower 0.6 micron CMOS Multigate reliability summary:

Two lots of the MC74VHC00D, 2 lots of the MC74VHCT00D, 77 pcs/lot per test:

| Test SS) | Conditions | Results (#fail/total |
|----------------------|--|----------------------|
| High Temp Bake | TA=150C, 1008 hrs | 0/308 |
| MSL1 preconditioning | 3 IR at 260C | 0/924 |
| TC+MSL1 | -65/+150C, 1000 cyc | 0/308 |
| HAST+MSL1 | TA= +130C, RH = 85%, PSIG= 18.8, bias, 192 hrs | 0/308 |
| Autoclave+MSL1 | TA = 121 C, RH = 100%, PSIG = 15, 192 hrs | 0/308 |

ELECTRICAL CHARACTERISTIC SUMMARY:

All product performance meets current datasheet specifications. Data is available upon request.

CHANGED PART IDENTIFICATION:

Devices shipped after WW40 may be from Tower Semiconductor Fab.



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AFFECTED DEVICE LIST

PART

74FST3253D
74FST3253DR2
74FST3253DT
74FST3253DTR2
74FST3257D
74FST3257DR2
74FST3257DT
74FST3257DTR2