



FINAL PRODUCT/PROCESS CHANGE NOTIFICATION
Generic Copy

19-OCT-2004

SUBJECT: ON Semiconductor Final Product/Process Change Notification #13706

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

EFFECTIVE DATE: 19-Dec-2004

AFFECTED CHANGE CATEGORY: Subcontractor Fab Site

AFFECTED PRODUCT DIVISION: Logic Products

ADDITIONAL RELIABILITY DATA: Available

Contact your local ON Semiconductor Sales Representative or Ken Fergus <RRST50@onsemi.com>

SAMPLES: Contact your local ON Semiconductor Sales Representative or Ilana Flyer <RVFK50@onsemi.com>

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:

Contact Sales Representative 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.

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.



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RELIABILITY DATA SUMMARY:

Tower 0.6 micron CMOS MiniGate(TM) reliability summary:

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

Test	Conditions	Results (#fail/total SS)
High Temp Op Life	TA=150C for 504hrs	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	Conditions	Results (#fail/total SS)
High Temp Bake	TA=150C, 1008 hrs	0/308
MSL1 precondition	3 IR at 260C	0/924
TC+MSL1	-65/+150C, 1000 cyc	0/308
HAST+MSL1	TA=+130C,RH=85%,PSIG=18.8,bias,192hrs	0/308
Autoclave+MSL1	TA=121C,RH=100%,PSIG=15,192hrs	0/308

ELECTRICAL CHARACTERISTIC SUMMARY:

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

CHANGED PART IDENTIFICATION:

Devices Shipped After WW50 may be manufactured in Tower.

AFFECTED DEVICE LIST (WITHOUT SPECIALS):

PART

- MC74HC1G00DFT1
- MC74HC1G00DFT1G
- MC74HC1G00DFT2
- MC74HC1G00DFT2G
- MC74HC1G00DTT1
- MC74HC1G00DTT1G
- MC74HC1G02DFT1
- MC74HC1G02DFT1G
- MC74HC1G02DFT2
- MC74HC1G02DFT2G
- MC74HC1G02DTT1
- MC74HC1G02DTT1G
- MC74HC1G08DFT1
- MC74HC1G08DFT1G
- MC74HC1G08DFT2
- MC74HC1G08DFT2G
- MC74HC1G08DTT1
- MC74HC1G08DTT1G
- MC74HC1G32DFT1
- MC74HC1G32DFT1G
- MC74HC1G32DFT2
- MC74HC1G32DFT2G
- MC74HC1G32DTT1



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MC74HC1G32DTT1G
MC74LCX16245DTR2
MC74LCX16373DTR2
MC74LCX245DT
MC74LCX245DTG
MC74LCX373DT
MC74LCX373DTR2
MC74LCX374DTR2
MC74LVX244DTR2
MC74LVX245DTR2
MC74LVX259D
MC74LVX259DR2
MC74LVX259DT
MC74LVX259DTR2
MC74LVX4051D
MC74LVX4051DG
MC74LVX4051DR2
MC74LVX4051DR2G
MC74LVX4051DT
MC74LVX4051DTR2
MC74LVX4052D
MC74LVX4052DR2
MC74LVX4052DT
MC74LVX4052DTR2
MC74LVX4053D
MC74LVX4053DR2
MC74LVX4053DT
MC74LVX4053DTR2
MC74LVX50DR2
MC74LVX50DTR2
MC74LVX573DTR2
MC74LVX8051DR2
MC74LVX8051DT
MC74LVX8051DTR2
MC74LVX8053DR2
MC74LVX8053DR2G
MC74LVX8053DTR2
MC74LVXT4051D
MC74LVXT4051DR2
MC74LVXT4051DT
MC74LVXT4051DTR2
MC74LVXT4052D
MC74LVXT4052DR2
MC74LVXT4052DT
MC74LVXT4052DTR2
MC74LVXT4053D
MC74LVXT4053DR2
MC74LVXT4053DT
MC74LVXT4053DTR2
MC74LVXT8051D
MC74LVXT8051DR2
MC74LVXT8051DTR2
MC74LVXT8053DR2
MC74LVXT8053DTR2
MC74LVXU04DR2
MC74LVXU04DTR2



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NL17SZ125DFT2
NL17SZ125DFT2G
NL17SZ74US
NL17SZ74USG
NL17SZU04DFT2
NLAS4051D
NLAS4051DR2
NLAS4051DT
NLAS4051DTR2
NLAS4052D
NLAS4052DR2
NLAS4052DT
NLAS4052DTR2
NLAS4053DR2
NLAS4053DR2G
NLAS4053DT
NLAS4053DTR2
NLAS44599DT
NLAS44599DTR2
NLAST4051D
NLAST4051DR2
NLAST4051DT
NLAST4051DTR2
NLAST4052D
NLAST4052DR2
NLAST4052DT
NLAST4052DTR2
NLAST4053D
NLAST4053DR2
NLAST4053DT
NLAST4053DTR2
NLAST4501DFT2
NLVHC1G08DFT1
NLVHC1G08DFT2
NLVHC1G32DFT1
NLVHC1G32DFT2
NLVVHC1G00DFT1
NLVVHC1G00DFT2
NLVVHC1G04DFT1
NLVVHC1GT14DFT1
NLVVHC1GT14DFT2
NLWHC1G08
NLWHC1G32
SL000VHCT374ADTR