



FINAL PRODUCT/PROCESS CHANGE NOTIFICATION
Generic Copy

21-SEP-2004

SUBJECT: ON Semiconductor Final Product/Process Change Notification #13662

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

EFFECTIVE DATE: 21-Nov-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 WW46 may be manufactured in Tower.

AFFECTED DEVICE LIST (WITHOUT SPECIALS):

PART

MC74LCX139D
 MC74LCX139DR2
 MC74LCX139DR2G
 MC74LCX139DT
 MC74LCX139DTR2
 MC74LCX16245DT
 MC74LCX16245DTG
 MC74LCX16245DTRG
 MC74LCX573DT
 MC74LCX573DTR2
 MC74LVX02DR2
 MC74LVX02DTR2
 MC74LVX14DR2
 MC74LVX14DR2G
 MC74LVX14DTR2
 MC74VHC02DR2
 MC74VHC02DR2G
 MC74VHC02DTR2
 MC74VHC14D
 MC74VHC14DR2
 MC74VHC14DT
 MC74VHC14DTR2



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MC74VHCT02ADR2
MC74VHCT02ADTR2
MC74VHCT132ADR2
MC74VHCT132ADTR2
NL27WZ00US
NL27WZ00USG
NL27WZ02US
NL27WZ02USG
NL27WZ08US
NL27WZ08USG
NL27WZ32US
NL27WZ32USG
NLAS4599DFT2
NLAS4599DFT2G
NLAS4599DTT1
NLASB3157DFT2
NLASB3157DFT2G
NLVAS4599DFT2