



FINAL PRODUCT/PROCESS CHANGE NOTIFICATION
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14-FEB-2002

SUBJECT: ON Semiconductor Final Product/Process Change Notification #12313

TITLE: Addition of Tower Semiconductor as a Qualified Wafer Fabrication Site

EFFECTIVE DATE: 15-Apr-2002

AFFECTED CHANGE CATEGORY:

**Subcontractor Fab Site
Wafer Process**

AFFECTED PRODUCT DIVISION: Logic Products Div

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
or Dianne Von Borstel <RPDR20@onsemi.com>

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:

Contact Sales Office or Bob Forness <RYGY40@onsemi.com>

DISCLAIMER:

Final Product/Process Change Notification (FPCN) -Final Notification completing the notification process. Distributed at least 60 days from the effective date 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 the addition of Tower Semiconductor as a qualified supplier for the Minigate™ family of devices. Tower had been previously qualified for the silicon technology used to manufacture these devices in June of 2001. The Minigate™ family of devices was not in the original PCN10770 that was issued at that time, but has been added in order to support the rapidly growing demand for these products. This is consistent with ON Semiconductor's commitment to assured supply, on-time delivery and continuous improvement.

**Final Product/Process Change Notification #12313****RELIABILITY DATA SUMMARY:**

Full reliability testing was conducted previously on the MC74VHCT00AD device, which is representative of the process flow that the Minigate™ family will run on, with the results as follows:

High Temp Op Life TA=145 deg C, Vcc=5V 3 lots 1008 hrs, 0/240 pcs

High Temp Bake TA= 150 deg C 3 lots 1000 hrs, 0/240 pcs

MSL1 Preconditioning 168hr 85%85C + 3 IR at 235 deg C plus
Hast (TA=130 deg C, RH=85%, PSIG=18.8, Vcc=5V)3 lots 96 hrs, 0/240 pcs

MSL1 Preconditioning 168hr 85%85C + 3 IR at 235 deg C plus
Autoclave (TA=121 deg C, RH=100%, PSIG=15) 3 lots 96 hrs, 0/240 pcs

MSL1 Preconditioning 168hr 85%85C + 3 IR at 235 deg C plus
Temperature Cycling (-65/+150 deg C) 3 lots 96 hrs, 0/240 pcs

Hast (TA=130 deg C, RH=85%, PSIG=18.8, Vcc=5V) 3 lots 96 hrs, 0/240 pcs

Autoclave (TA=121 deg C, RH=100%, PSIG=15) 3 lots 96 hrs, 0/240 pcs

Temperature Cycling (-65/+150 deg C) 3 lots 96 hrs, 0/240 pcs

ELECTRICAL CHARACTERISTIC SUMMARY:

Datasheet specifications will remain unchanged. Electrical characterization will be completed on all devices and will be made available upon request.

This characterization will include:

- 1) ESD performance (HBM, MM)
- 2) Latch-up
- 3) Full electrical characterization of AC/DC performance
- 4) Ground bounce

CHANGED PART IDENTIFICATION:

Devices with datecodes 0217 and after (after April 29th, 2002) may contain die from the Tower Semiconductor wafer fab.

AFFECTED DEVICE LIST (WITHOUT SPECIALS):**PART**

M74VHC1GT125DF1G, M74VHC1GT125DF2G, M74VHC1GT126DF1G
M74VHC1GT126DF2G, MC74HC1G00DFT1, MC74HC1G00DFT1G
MC74HC1G00DFT2, MC74HC1G00DFT2G, MC74HC1G00DFT4
MC74HC1G00DFT1, MC74HC1G00DFT3, MC74HC1G02DFT1
MC74HC1G02DFT1G, MC74HC1G02DFT2, MC74HC1G02DFT2G
MC74HC1G02DFT4, MC74HC1G02DFT1, MC74HC1G02DFT3
MC74HC1G04DFT1, MC74HC1G04DFT1G, MC74HC1G04DFT2
MC74HC1G04DFT2G, MC74HC1G04DFT4, MC74HC1G04DFT1
MC74HC1G04DFT3, MC74HC1G08DFT1, MC74HC1G08DFT1G
MC74HC1G08DFT2, MC74HC1G08DFT2G, MC74HC1G08DFT4
MC74HC1G08DFT1, MC74HC1G08DFT3, MC74HC1G14DFT1
MC74HC1G14DFT1G, MC74HC1G14DFT2, MC74HC1G14DFT2G

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MC74HC1G14DFT4, MC74HC1G14DTT1, MC74HC1G14DTT3
MC74HC1G32DFT1, MC74HC1G32DFT1G, MC74HC1G32DFT2
MC74HC1G32DFT2G, MC74HC1G32DFT4, MC74HC1G32DTT1
MC74HC1G32DTT3, MC74HC1GU04DFT1, MC74HC1GU04DFT1G
MC74HC1GU04DFT2, MC74HC1GU04DFT2G, MC74HC1GU04DFT4
MC74HC1GU04DTT1, MC74HC1GU04DTT3, MC74VHC1G00DFT1
MC74VHC1G00DFT2, MC74VHC1G00DFT4, MC74VHC1G00DTT1
MC74VHC1G00DTT3, MC74VHC1G01DFT1, MC74VHC1G01DFT1G
MC74VHC1G01DFT2, MC74VHC1G01DFT2G, MC74VHC1G01DFT4
MC74VHC1G01DTT1, MC74VHC1G01DTT3, MC74VHC1G02DFT1
MC74VHC1G02DFT1G, MC74VHC1G02DFT2, MC74VHC1G02DFT2G
MC74VHC1G02DFT4, MC74VHC1G02DTT1, MC74VHC1G02DTT3
MC74VHC1G03DFT1, MC74VHC1G03DFT1G, MC74VHC1G03DFT2
MC74VHC1G03DFT2G, MC74VHC1G03DFT4, MC74VHC1G03DTT1
MC74VHC1G03DTT3, MC74VHC1G04DFT1, MC74VHC1G04DFT2
MC74VHC1G04DFT4, MC74VHC1G04DTT1, MC74VHC1G04DTT3
MC74VHC1G05DFT1, MC74VHC1G05DFT1G, MC74VHC1G05DFT2
MC74VHC1G05DFT2G, MC74VHC1G05DFT4, MC74VHC1G05DTT1
MC74VHC1G05DTT3, MC74VHC1G07DFT1, MC74VHC1G07DFT1G
MC74VHC1G07DFT2, MC74VHC1G07DFT2G, MC74VHC1G07DFT4
MC74VHC1G07DTT1, MC74VHC1G07DTT3, MC74VHC1G08DFT1
MC74VHC1G08DFT2, MC74VHC1G08DFT4, MC74VHC1G08DTT1
MC74VHC1G08DTT3, MC74VHC1G09DFT1, MC74VHC1G09DFT1G
MC74VHC1G09DFT2, MC74VHC1G09DFT2G, MC74VHC1G09DFT4
MC74VHC1G09DTT1, MC74VHC1G09DTT3, MC74VHC1G125DF1G
MC74VHC1G125DF2G, MC74VHC1G125DFT1, MC74VHC1G125DFT2
MC74VHC1G125DFT4, MC74VHC1G125DTT1, MC74VHC1G125DTT3
MC74VHC1G126DF1G, MC74VHC1G126DF2G, MC74VHC1G126DFT1
MC74VHC1G126DFT2, MC74VHC1G126DFT4, MC74VHC1G126DTT1
MC74VHC1G126DTT3, MC74VHC1G132DF1G, MC74VHC1G132DF2G
MC74VHC1G132DFT1, MC74VHC1G132DFT2, MC74VHC1G132DFT4
MC74VHC1G132DTT1, MC74VHC1G132DTT3, MC74VHC1G135DF1G
MC74VHC1G135DF2G, MC74VHC1G135DFT1, MC74VHC1G135DFT2
MC74VHC1G135DFT4, MC74VHC1G135DTT1, MC74VHC1G135DTT3
MC74VHC1G14DFT1, MC74VHC1G14DFT1G, MC74VHC1G14DFT2
MC74VHC1G14DFT2G, MC74VHC1G14DFT4, MC74VHC1G14DTT1
MC74VHC1G14DTT3, MC74VHC1G32DFT1, MC74VHC1G32DFT1G
MC74VHC1G32DFT2, MC74VHC1G32DFT2G, MC74VHC1G32DFT4
MC74VHC1G32DTT1, MC74VHC1G32DTT3, MC74VHC1G50DFT1
MC74VHC1G50DFT1G, MC74VHC1G50DFT2, MC74VHC1G50DFT2G
MC74VHC1G50DFT4, MC74VHC1G50DTT1, MC74VHC1G50DTT3
MC74VHC1G66DFT1, MC74VHC1G66DFT1G, MC74VHC1G66DFT2
MC74VHC1G66DFT2G, MC74VHC1G66DFT4, MC74VHC1G66DTT1
MC74VHC1G66DTT3, MC74VHC1G86DFT1, MC74VHC1G86DFT1G
MC74VHC1G86DFT2, MC74VHC1G86DFT2G, MC74VHC1G86DTT1
MC74VHC1G86DTT3, MC74VHC1GT00DF1G, MC74VHC1GT00DF2G
MC74VHC1GT00DFT1, MC74VHC1GT00DFT2, MC74VHC1GT00DFT4
MC74VHC1GT00DTT1, MC74VHC1GT00DTT3, MC74VHC1GT02DF1G
MC74VHC1GT02DF2G, MC74VHC1GT02DFT1, MC74VHC1GT02DFT2
MC74VHC1GT02DFT4, MC74VHC1GT02DTT1, MC74VHC1GT02DTT3
MC74VHC1GT04DF1G, MC74VHC1GT04DF2G, MC74VHC1GT04DFT1
MC74VHC1GT04DFT2, MC74VHC1GT04DFT4, MC74VHC1GT04DTT1
MC74VHC1GT04DTT3, MC74VHC1GT08DF1G, MC74VHC1GT08DF2G
MC74VHC1GT08DFT1, MC74VHC1GT08DFT2, MC74VHC1GT08DFT4
MC74VHC1GT08DTT1, MC74VHC1GT08DTT3, MC74VHC1GT125DF1
MC74VHC1GT125DF2, MC74VHC1GT125DF4, MC74VHC1GT125DT1

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MC74VHC1GT125DT3, MC74VHC1GT126DF1, MC74VHC1GT126DF2
MC74VHC1GT126DF4, MC74VHC1GT126DT1, MC74VHC1GT126DT3
MC74VHC1GT14DF1G, MC74VHC1GT14DF2G, MC74VHC1GT14DFT1
MC74VHC1GT14DFT2, MC74VHC1GT14DFT4, MC74VHC1GT14DTT1
MC74VHC1GT14DTT3, MC74VHC1GT32DF1G, MC74VHC1GT32DF2G
MC74VHC1GT32DFT1, MC74VHC1GT32DFT2, MC74VHC1GT32DFT4
MC74VHC1GT32DTT1, MC74VHC1GT32DTT3, MC74VHC1GT50DF1G
MC74VHC1GT50DF2G, MC74VHC1GT50DFT1, MC74VHC1GT50DFT2
MC74VHC1GT50DFT4, MC74VHC1GT50DTT1, MC74VHC1GT50DTT3
MC74VHC1GT66DF1G, MC74VHC1GT66DF2G, MC74VHC1GT66DFT1
MC74VHC1GT66DFT2, MC74VHC1GT66DTT1, MC74VHC1GT66DTT3
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MC74VHC1GT86DFT2, MC74VHC1GT86DTT1, MC74VHC1GT86DTT3
MC74VHC1GU04DF1G, MC74VHC1GU04DF2G, MC74VHC1GU04DFT1
MC74VHC1GU04DFT2, MC74VHC1GU04DFT4, MC74VHC1GU04DTT1
MC74VHC1GU04DTT3, NL17SZ00DFT2, NL17SZ02DFT2
NL17SZ04DFT2, NL17SZ06DFT2, NL17SZ07DFT2
NL17SZ08DFT2, NL17SZ14DFT2, NL17SZ16DFT2
NL17SZ17DFT2, NL17SZ32DFT2, NL17SZ86DFT2
NL17SZU04DFT2, NL17WZ74US, NL27WZ00US
NL27WZ02US, NL27WZ04DFT2, NL27WZ04DTT1
NL27WZ06DFT2, NL27WZ06DTT1, NL27WZ07DFT2
NL27WZ07DTT1, NL27WZ08US, NL27WZ125US
NL27WZ126US, NL27WZ14DFT2, NL27WZ14DTT1
NL27WZ16DFT2, NL27WZ16DTT1, NL27WZ32US
NL27WZ86US, NL27WZU04DFT2, NL27WZU04DTT1
NL37WZ04US, NL37WZ06US, NL37WZ07US
NL37WZ14US, NL37WZ16US, NL37WZ17US
NLAS1053US, NLAS323US, NLAS324US
NLAS325US, NLAS4501DFT2, NLAS4501DFT2G
NLAS4501DFT4, NLAS4501DTT1, NLAS4501DTT3
NLAS4599DFT2, NLAS4599DFT4, NLAS4599DTT1
NLAS4599DTT3, NLAST4501DFT2, NLAST4501DFT2G
NLAST4501DFT4, NLAST4501DTT1, NLAST4501DTT3
NLAST4599DFT2, NLAST4599DFT4, NLAST4599DTT1
NLAST4599DTT3