



FINAL PRODUCT/PROCESS CHANGE NOTIFICATION

Generic Copy

02-MAR-2005

SUBJECT: ON Semiconductor Final Product/Process Change Notification #13939

TITLE: Transfer of Analog Bipolar Integrated Circuits Die Manufacturing from East Greenwich (USA) to Roznov (Czech Republic)

EFFECTIVE DATE: 02-May-2005

AFFECTED CHANGE CATEGORY(S): ON Semiconductor Fab Site

AFFECTED PRODUCT DIVISION(S): Analog Products

ADDITIONAL RELIABILITY DATA: Available
Contact your local ON Semiconductor Sales Office or Bob Marquis <FC88FC@onsemi.com>

SAMPLES: Contact your local ON Semiconductor Sales Office or Patrick Rousset <TTT252@onsemi.com>

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:
Contact your local ON Semiconductor Sales Office or Patrick Rousset <TTT252@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:

This is a fourth Final PCN for Initial PCN#13298, in addition to the FPCN#13517 from July 2004, FPCN#13823 from November 2004 and FPCN#13889 from January 2005. Subsequent FPCNs will be released as additional devices impacted by the shutdown are qualified.

This notice is to confirm the qualification and transfer of integrated circuits processed with the 50 Volt, 40Volt, 30Volt, 17 Volt and 14 Volt technologies from the ON Semiconductor East Greenwich facility in Rhode Island (USA) to the Tesla wafer fab located in Roznov, Czech Republic due to the shutdown of the EG facility as previously announced.



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The integrated circuits design, electrical specifications, and mask sets remain identical. A full electrical characterization over the operating temperature range has been performed for each product to check the device functionality and electrical specifications.

Qualification tests results show that the reliability of transferred devices will continue to meet or exceed ON Semiconductor standards. ON Semiconductor recommends that customers evaluate sample units in each associated application circuit to ensure there are no unexpected electrical incompatibilities.

RELIABILITY DATA SUMMARY:

Test	Conditions	Duration	Lots	Results
Early Life (ELFR)	Ta=+125 deg C, Bias	48hrs	13 lots	0/12800
High Temp. Operating Life (HTOL)	Ta=+125 deg C, Bias	1008hrs	46 lots	0/3617
Temp. Cycle (TC)*	-65 to +150 deg C	500 cycles	24 lots	0/1848
Autoclave (AC)*	+121 deg C/ 15psig/100%RH	96hrs	12 lots	0/924
Temp. Humidity bias (THB)*	+85 deg C/85%RH	1008hrs	9 lots	0/693
Power Temp Cycle (PTC)	-40 to +125 deg C	1000 cycles	1 lot	0/77
Wire Bond Pull Strength (BPS)*	After TC, 30 bonds /5 units	500 cycles	12 lots	0/60
Wire Bond Shear Strength (BS)	30 bonds/5 units	N/A	1 lot	0/5

*Note: These tests may be performed with preconditioned parts depending upon the device type used.

In addition to the above tests, each qualification vehicle was subjected to the following tests in comparison to units manufactured at EG:

Test	Conditions	Duration	Lots	Results
ESD testing	Human Body Model	N/A	1 lot/device	Equivalent
	Machine Model	N/A	1 lot/device	Equivalent
Dynamic Latch Up	6 units per lot	N/A	1 lot/device	Equivalent

The temperature electrical characterization for each device showed no issue.

ELECTRICAL CHARACTERISTIC SUMMARY:

Device parameters will continue to meet all datasheet specifications. Characterization data is available upon request.

CHANGED PART IDENTIFICATION:

There will be no changes to standard device markings. Normal assembly lots traceability codes will identify the wafer fab source. Products shipped after the expiration date of this notice may be sourced with die produced in the Roznov facility.



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AFFECTED DEVICE LIST (WITHOUT SPECIALS)

PART

- CS5112YDWF24
- CS5112YDWFR24
- CS51411ED8
- CS51411ED8G
- CS51411EDR8
- CS51411EDR8G
- CS51411GD8
- CS51411GDR8
- CS51411GDR8G
- CS51412ED8
- CS51412ED8G
- CS51412EDR8
- CS51412GD8
- CS51412GDR8
- CS51413ED8
- CS51413ED8G
- CS51413EDR8
- CS51413EDR8G
- CS51413GD8
- CS51413GD8G
- CS51413GDR8
- CS51413GDR8G
- CS51414ED8
- CS51414ED8G
- CS51414EDR8
- CS51414EDR8G
- CS51414GD8
- CS51414GD8G
- CS51414GDR8
- CS51414GDR8G
- CS5165AGDW16
- CS5165AGDWR16
- CS5165AGDWR16G
- CS5171ED8
- CS5171ED8G



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- CS5171EDR8
- CS5171EDR8G
- CS5171GD8
- CS5171GDR8
- CS5171GDR8G
- CS5172ED8
- CS5172EDR8
- CS5172GD8
- CS5172GDR8
- CS5173ED8
- CS5173EDR8
- CS5173EDR8G
- CS5173GD8
- CS5173GDR8
- CS5174ED8
- CS5174EDR8
- CS5174GD8
- CS5174GDR8
- NCP5173MN
- NCP5173MNR2
- NCP5424D
- NCP5424DR2
- NCP5424DR2G
- NCV4279BD1
- NCV4279BD1R2
- NCV4279BD2
- NCV4279BD2R2
- NCV4279BDW
- NCV4279BDWR2
- NCV51411DR2
- NCV51411PWR2
- NCV8184D
- NCV8184DG
- NCV8184DR2
- NCV8184DR2G
- NCV8184DT
- NCV8184DTRK
- NCV8501D100



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- NCV8501D100R2
- NCV8501D100R2G
- NCV8501D25
- NCV8501D25R2
- NCV8501D33
- NCV8501D33R2
- NCV8501D50
- NCV8501D50G
- NCV8501D50R2
- NCV8501D50R2G
- NCV8501D80
- NCV8501D80R2
- NCV8501D80R2G
- NCV8501DADJ
- NCV8501DADJR2
- NCV8501DADJR2G
- NCV8501PDW100
- NCV8501PDW100R2
- NCV8501PDW25
- NCV8501PDW25R2
- NCV8501PDW33
- NCV8501PDW33R2
- NCV8501PDW33R2G
- NCV8501PDW50
- NCV8501PDW50R2
- NCV8501PDW50R2G
- NCV8501PDW80
- NCV8501PDW80R2
- NCV8501PDWADJ
- NCV8501PDWADJR2
- NCV8502D100
- NCV8502D100R2
- NCV8502D25
- NCV8502D25R2
- NCV8502D33
- NCV8502D33R2
- NCV8502D50
- NCV8502D50R2



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NCV8502D80
NCV8502D80R2
NCV8502DADJ
NCV8502DADJR2
NCV8502PDW100
NCV8502PDW100R2
NCV8502PDW25
NCV8502PDW25R2
NCV8502PDW33
NCV8502PDW33R2
NCV8502PDW50
NCV8502PDW50R2
NCV8502PDW80
NCV8502PDW80R2
NCV8502PDWADJ
NCV8502PDWADJR2