ON Semiconductor

FINAL PRODUCT/PROCESS CHANGE NOTIFICATION
Generic Copy

19-NOV-2004

SUBJECT: ON Semiconductor Final Product/Process Change Notification #13823

TITLE: Transfer of Analog Bipolar Wafer Fab from East Greenwich (USA) to Roznov (Czech Republic)

EFFECTIVE DATE: 19-Jan-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. (BOB MARQUIS, FC88FC @onsemi.com)

SAMPLES: Contact Below
Contact your local ON Semiconductor Sales Office. (PATRICK ROUSSET , TTT252@onsemi.com)

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:
Contact your local ON Semiconductor Sales Office.

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 Final PCN for Initial PCN #13298, in addition to FCPN 13517 released in July 2004. Subsequent FPCNs will be released as additional devices impacted by the transfer are qualified. This notice is to announce the qualification and transfer of integrated circuits processed with the 50Volt, 40Volt, 30Volt, 17Volt and 14Volt technologies from the ON Semiconductor East Greenwich facility in Rhode Island (USA) to the Tesla wafer fab located in Roznov, Czech Republic.

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.

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RELIABILITY DATA SUMMARY

Test	Conditions	Duration	Lots	Results
Early Life (ELFR)	Ta=+125 deg C, Bias	48hrs	7 lots	0/8000
High Temp.Operating Life (HTOL)	Ta=+125 deg C, Bias	1008hrs	40 lots	0/3155
Temp. Cycle (TC)*	-65 to +150 deg C	500 cycles	18 lots	0/1386
Autoclave (AC)*	+121 deg C/ 15psig/100%RH	96hrs	9 lots	0/693
Temp. Humidity bias (THB)*	+85 deg C/85%RH	1008hrs	6 lots	0/462
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.

AFFECTED DEVICE LIST:

PART
CS2841BEBN8
CS2841BED14
CS2841BEDR14
CS4121EDWF20
CS4121EDWFR20
CS4121ENF16
CS8156YT5
CS8156YTHA5
CS8156YTVA5
CS8190EDWF20
CS8190EDWFR20

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CS8190ENF16
CS8371ET7
CS8371ETVA7
NCP5331FTR2
NCV8141D2T
NCV8141D2TG
NCV8141D2TR4