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**FINAL PRODUCT/PROCESS CHANGE NOTIFICATION**

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**08-July-2004**

**SUBJECT: ON Semiconductor Final Product/Process Change Notification #13517**

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

**EFFECTIVE DATE: 08-SEP-2004**

**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 Sales Office (PATRICK ROUSSET , TTT252@onsemi.com)

**DISCLAIMER:**  
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 FPCN relates to the East Greenwich (EG) wafer fab cease of activity planned for the end of December 2004 and notifies customers of the qualification and transfer of the products listed below. A preliminary announcement was done with Initial PCN #13298.

FPCNs will be issued as qualification testing is completed on impacted devices.

This PCN is to announce the continued qualification and transfer of integrated circuits processed with the 14 Volt and 50 Volt bipolar technologies from the ON Semiconductor East Greenwich facility in Rhode Island (USA) to the Tesla wafer fab located in Roznov, Czech Republic. These technologies are already qualified at the Tesla wafer fab (refer to FPCN #12511 and FPCN #12512).

The integrated circuits design, electrical specifications, and mask sets remain identical.



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Full electrical characterization over the operating temperature range has been performed for each product to confirm device functionality and electrical specifications have not changed.

Qualification test results show the reliability of the 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	4 lots	0/3200
High Temp.Operating Life (HTOL)	Ta=+125 deg C, Bias	1008hrs	21 lots	0/1692
Temp. Cycle (TC)*	-65 to +150 deg C	500 cycles	15 lots	0/1155
Autoclave (AC)*	+121 deg C/ 15psig/100%RH	96hrs	6 lots	0/462
Temp. Humidity bias (THB)*	+85 deg C/85%RH	1008hrs	3 lots	0/231
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:**

**PART**

CS8126-1YDPSR7  
CS8126-1YT5  
CS8126-1YTHER5  
CS8122YTVA5  
CS8126-1YTHA5  
CS8126-1YTVA5  
CS8126-1YTHE5  
CS8122YT5  
CS8129YT5  
CS8129YTHA5  
CS8126-1YDPS7  
CS8126-1YDPSR7G  
CS8122YTHA5  
CS8129YDW16  
CS8129YDWR16  
CS8129YTVA5  
CS8182YDPSR5  
CS8182YDFR8  
CS8182YDF8  
CS8183YDWF20  
CS8183YDWFR20  
CS8182YDPS5  
NCP5425DBR2  
NCP5425DB  
NCP5422ADR2  
NCP5422ADR2G