ON Semiconductor

FINAL PRODUCT/PROCESS CHANGE NOTIFICATION
Generic Copy

29-SEP-2003

SUBJECT: ON Semiconductor Final Product/Process Change Notification #13137

TITLE: Final Notification for Transfer of Mosaic 1 & 1. 5 Devices to Tesla Fab

EFFECTIVE DATE: 29-Nov-2003

AFFECTED CHANGE CATEGORY: ON Semiconductor Fab Site

AFFECTED PRODUCT DIVISION: Logic Products Div

ADDITIONAL RELIABILITY DATA: Available
Contact your local ON Semiconductor Sales Representative or
Keith Stapley <RXNN90@onsemi.com>

SAMPLES: Contact your local ON Semiconductor Sales Representative
or Won Kang <FFP6RB@onsemi.com>

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:
Contact Sales Representative or Won Kang <FFP6RB@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 the Final PCN to notify customers that the changes described in Initial PCN# 12671, located at www.onsemi.com, have been completed for the MC10H605, MC10H162, and MC100H642 product families.

ON Semiconductor is pleased to announce the Qualification and Process Certification of MOSAIC 1.0/1.5 process in the ON semiconductor Tesla fab, located in Roznov, Czech Republic, to manufacture MOSAIC 1.0/1.5 Bipolar Technology products. Tesla Fab is an ISO/TS16949:1999 and ISO14001 certified facility and currently manufactures the Analog product family. MOSAIC 1.0/1.5 products were previously fabricated in the Motorola Bipolar Manufacturing Center (BMC)in Mesa, Arizona.

This is the Final PCN only for the MC10H605, MC10H162, and MC100H642 product families. Additional notifications will be issued separately for subsequent products when they have completed all qualification testing.

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Device parameters will continue to meet all Data Book specifications, and reliability will continue to meet or exceed ON Semiconductor standards. There were no changes to the actual design or function of the parts.

RELIABILITY DATA SUMMARY:
Reliability Test Results:
Below is a summary of the reliability results. A more detailed reliability report is available upon request.

Test	Conditions	Results
High Temp Op Life (HTOL)	Tj =150 C for 504 hours	0/239
High Temp Bake (HTB)	175 C for 1008 hours	0/240
Preconditioning for MSL-1 (PC)	IR at 260 C, TC, HAST, AC	0/720
PC-HAST	130 C/85 per.RH/18.8 PSIG for 96 hours	0/240
PC-Autoclave (AC)	121 C/100 per. RH/15 PSIG for 96 hours	0/240
PC-Temp Cycling (TC)	-65 to +150 C; or 500 cycles	0/240
Bond Pull Strength (BPS)	Per Factory Testing with CpK>= 1.33	PASS
Bond Shear Test (BS)	Per Factory Testing with CpK>= 1.33	PASS
ESD per JEDEC Standard	Human Body Model(HBM) Machine Model (MM) Charge Device Model(CDM)	MEETS CRITERIA
Destructive Physical Analysis (DPA)	Analysis done after PC-Temp Cycling	PASS
Construction Analysis (CA)	Compare to BMC results	MEETS OR EXCEEDS CRITERIA

Qualification Conclusions:
Reliability test data is consistent with passing ON Semiconductor requirements.

ELECTRICAL CHARACTERISTIC SUMMARY: Charaterization data available upon request.

CHANGED PART IDENTIFICATION:
Product after work week 40 will be from the Tesla wafer fab.

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AFFECTED DEVICE LIST (WITHOUT SPECIALS):

PART
MC100H642FN
MC100H642FNR2
MC10H162FN
MC10H162FNR2
MC10H162L
MC10H162M
MC10H162MEL
MC10H162P
MC10H605FN
MC10H605FNR2