



FINAL PRODUCT/PROCESS CHANGE NOTIFICATION
Generic Copy

14-DEC-2004

SUBJECT: ON Semiconductor Final Product/Process Change Notification #13851

TITLE: Wafer Fabrication Site Transfer for LVEL59 product series to the COM1 Facility

EFFECTIVE DATE: 14-Feb-2005

AFFECTED CHANGE CATEGORY:

ON Semiconductor Fab Site

AFFECTED PRODUCT DIVISION: ECL Products

ADDITIONAL RELIABILITY DATA: Available

Contact your local ON Semiconductor Sales Representative or
Matt Kas <FFT7YG@onsemi.com>

SAMPLES: Contact your local ON Semiconductor Sales Representative or
Tim Gurnett <R13617@onsemi.com>

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:

Contact Sales Representative or Tim Gurnett <R13617@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# 12874, located at www.onsemi.com, have been completed for the LVEL59 series parts listed below. ON Semiconductor is pleased to announce the continuation of the MOSAIC 35 FAB transfer process in their internal factory COM 1, located on the ON Semiconductor site in Phoenix, AZ, to manufacture MOSAIC 3 Bipolar Technology products. COM1 is an ISO9001 certified facility and currently manufactures the MOSAIC 5 product family. MOSAIC 3 products were previously fabricated in the Motorola Bipolar Manufacturing Center (BMC) in Mesa, Arizona. This is the Final PCN for the LVEL59 series parts. Additional notifications are being issued separately as other product families complete the qualification process. Device parameters will continue to meet all Data Book specifications. Reliability will continue to meet or exceed ON Semiconductor standards.

There were no changes to the actual design, electrical performance or function of the parts.


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RELIABILITY DATA SUMMARY:
Reliability Test Results:

Below is a summary of the interim reliability results for the MC10EL16D.

A more detailed reliability report is available upon request.

Test	Conditions	Results
High Temp Op Life (HTOL)	Tj =150DegC for 2016 hours	0/558
High Temp Bake (HTB)	150DegC for 1008 hours 175DegC for 504 hours	0/480 0/480
Preconditioning for MSL-1 (PC)	IR at 260DegC TC/HAST (SOIC8 PLCC28) IR at 260DegC AC (SOIC8) IR at 220DegC AC (PLCC28)	0/1120 0/240 0/320
PC-HAST	130DegC/85% RH/18.8 PSIG for 96 hours	0/556
PC-Autoclave (AC)	121DegC/100% RH/15 PSIG for 96 hours	0/560
PC-Temp Cycling (TC)	-65DegC to +150DegC; for 1000 cycles -65DegC to +150DegC; for 500 cycles	0/479 0/80
ESD per JEDEC Standard	Human Body Model(HBM) Machine Model (MM) Charge Device Model(CDM)	MATCHES CONTROL LOT
Destructive Physical Analysis (DPA)	Analysis done after PC-Temp Cycling	PASS
Intrinsic Reliability (IR)	Compare to BMC results for Stress migration, Electromigration & Hot Carrier Injection	MEETS OR EXCEEDS CRITERIA
Construction Analysis (CA)	Compare to BMC results	MEETS OR EXCEEDS CRITERIA
Parameter Verification	Electrical Characterization/distribution summary of Critical Parameters	AVAIL

Qualification Vehicle Justification

Technology	Qualification Device	Reason Chosen
MOSAIC3	MC10EL16D	Smallest array, high volume, 8ld SOIC
	MC100E195FN	Medium array, AC test critical, 28ld PLCC
	MC10E016FN	Complex medium array, highest current, 28ld PLCC

Reliability Test Conclusions:

Reliability test data is consistent with passing ON Semiconductor requirements.

ELECTRICAL CHARACTERISTIC SUMMARY: Characterization data available upon request.

**Final Product/Process Change Notification #13851****CHANGED PART IDENTIFICATION:**

Product marked after WW06, 2005 may contain COM1 die, but is dependent on the inventory usage of the current material. Customers are encouraged to contact ON Semiconductor to order samples.

After the PCN expiration date, customers may receive products manufactured with die from either the COM1 or BMC FAB.

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

MC100LVEL59DW

MC100LVEL59DWR2