



Subject: Motorola PRODUCT AND PROCESS CHANGE NOTIFICATION 4492

TITLE: THE WHOLE SERIES OF MC33063A DIE FABRICATION AT ALLEGRO MICROSYSTEMS

EFFECTIVE DATE: 10-JUN-99

AFFECTED CHANGE CATEGORIES
Subcontractor Fab Site

AFFECTED PRODUCT DIVISIONS
GENERAL PURPOSE PRO

ADDITIONAL RELIABILITY DATA: Available Ref: RJJ930
Contact your local Motorola Sales Office.

SAMPLES: Contact Below Ref: R12646@email.sps.mot.com
Contact your local Motorola Sales Office.

For any questions concerning this notification:
REFERENCE: MOUAYED SALEH PHONE: 602-423-4946

DISCLAIMER:

MOTOROLA 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 MOTOROLA SALES
OFFICE.

GPCN FORMAT: CUSTOMER

DO NOT REPLY TO THIS MESSAGE.

PRODUCT AND PROCESS CHANGE NOTIFICATION

ISSUE DATE: 02-Mar-1999

NOTIFICATION #:4492

EFFECTIVE DATE: 10-Jun-1999

ISSUING DIVISION:PHX-GPPD

DESCRIPTION AND PURPOSE

Motorola Semiconductor Group (SCG) is pleased to announce the qualification of MC33063A series at Allegro Microsystems wafer fabrication located in Willow Grove, Pennsylvania, USA. The purpose of the qualification is wafer capacity expansion. The exact same masking layers of the mask set (B36E) are being used at the Allegro Microsystems as is presently used at the BPI wafer fab. The wafer process being used for the MC33063A series is standard linear, EPI 79 flow.

The Allegro wafer facility has been qualified and processing Motorola part types for several years. The MC34063A device qualification was performed by characterizing three wafer lots, and no significant change was found in the electrical characteristics.

QUALIFICATION PLAN

LRE #1176 - Allegro Qual

Device: SC77767

Package: 24 PDIP

Technology: 85 EPI

Die Size: 120x112

Assembly location: KLM

*Operating life TA= 150 Deg-C

504 HRS 1008 HRS

A3 0/77 0/77

B3 0/77 0/77

C3 0/77 0/77

*Temperature Cycle -65 Deg-C to +150 Deg-C

600 CYC 1000 CYC

A3 0/77 0/77

B3 0/77 0/77

C3 0/77 0/77

*Autoclave (PTH) 15 PSIG; 121 Deg-C; 100% R.H.

96 HRS 240 HRS

A6 0/45 0/45

B6 0/45 0/45

C6 0/45 0/45

*High Temp Storage TA=150 Deg-C

504 HRS 1008 HRS

A16 0/77 0/77

B16 0/77 0/77

C16 0/77 0/77

*Solder Heat 260 Deg-C, 10 SEC

ELECT

A15 0/15

B15 0/15

C15 0/15

RELIABILITY DATA SUMMARY

The reliability data is covered by LRE #1176, and it's available upon request. The reliability test results are from the EPI 85 process at Allegro. Both EPI 85 and EPI 79 are considered the same technology, because of no significant wafer processing differences. A construction analysis of wafers fabricated using the EPI 79 process is available upon request.

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ELECTRICAL CHARACTERISTIC SUMMARY

MC34063A @ 25 DEG-C

Test	Control-mean	Std Dev	Allegro-mean	Std Dev
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*Comp Threshold	1.248	0.003	1.248414	0.00219
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(VTH, V)

*Comp Line Reg	0.840	0.659	0.72	0.5433
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(VTH-Regline, mV)

*Charge Current	-33.262	0.761	-32.926	0.5138
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@ VCC=5v(ICHG1, uA)

*Discharge Current	218.020	4.557	214.958	2.1486
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@VCC=5V(IDSCG1, uA)

*Discharge/Charge	6.556	0.136	6.53	0.1028
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Ratio (IRATIO)

*VSAT Darlington	1.000	0.008	1.00761	0.00847
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(VSAT1, V)

*OSC Frequency	32.152	0.585	30.072	0.5962
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(F1 @VCC=5v, KHz)

CHANGED PART IDENTIFICATION

Parts will be identified with Date Code 9930 or later.

FILE FORMAT: ASCII TEXT

FONT - Courier

SIZE - 12 Point

LINE - 70 characters/line

PAGE - 55 lines/page

PAGEBREAK CHARACTER - ^L (Control L)

AFFECTED DEVICE LIST (WITHOUT SPECIALS)

FMC33063AD , FMC34063ADR2 , MC33063AD , MC33063ADR2

MC33063AP1 , MC33063AVD , MC33063AVDR2 , MC33063AVP