

Date Created : 2008/09/23
Date Issued On : 2008/10/03
PCN# : Q3083901

DESIGN/PROCESS CHANGE NOTIFICATION -- FINAL

This is to inform you that a design and/or process change will be made to the following product(s). This notification is for your information and concurrence.

If you require data or samples to qualify this change, please contact **Fairchild Semiconductor within 30 days of receipt of this notification.**

Updated process quality documentation, such as FMEAs and Control Plans, are available for viewing upon request.

If you have any questions concerning this change, please contact:

Technical Contact:

Name: Song, Heeyung
E-mail: SONGHY@fairchildsemi.co.kr
Phone: 82-32-680-1216

PCN Originator:

Name: Song, Heeyung
E-mail: SONGHY@fairchildsemi.co.kr
Phone: 82-32-680-1216

Implementation of change:

Expected 1st Device Shipment Date: 2009/01/01

Earliest Year/Work Week of Changed Product: 0901

Change Type Description: Mold Compound

Description of Change (From): SOT-23F-3lead packages assemble with KCC non-green mold compound, KTMC1050TM as shown in Table 1.

Description of Change (To): SOT-23F-3lead packages assemble with KCC green mold compound, KTMC1050GR as shown in Table 2.

Reason for Change : Green initiative by Fairchild Semiconductor. Fairchild Semiconductor is dedicated to being a good corporate citizen. All Fairchild Semiconductor products are 2nd level interconnect lead-free and RoHS compliance. The eferenced material changes have been made to provide a 'Full Green' (Halogen Free Flame Retardant) package. For additional details on the corporate wide green initiative please visit our Web site at:

<http://www.fairchildsemi.com/company/green/index.html> Manufacturing will occur at the same assembly facilities producing the current non-green products. Package outline drawings of the affected products remain un-changed. Green products will be fully compliant to all published data sheet specifications and will be interchangeable with current non-green product. Quality and reliability will remain at the highest standards already demonstrated with Fairchild's existing products.

Qual/REL Plan Numbers : Q20080302

Qualification :

All reliability tests outlined in Q20080302 qualification plan were successfully completed with no failure detected and meet the requirements for release. As

such, SOT-23F-3 lead packages are qualified to be assembled with green mold compound KTMC1050GR.

Change From

Bill of Materials (Table 1):

Location	AUK_KOREA
Package	SOT-23F
Pin count	3-Leads
Lead frame	Bare Cu(Ag plating)
Die attach	Eutectic
Wire	Gold
EMC	KTMC1050TM (Vendor:KCC)
Lead Finish	Matte Sn

Change To

Bill of Materials (Table 2):

Location	AUK_KOREA
Package	SOT-23F
Pin count	3-Leads
Lead frame	Bare Cu(Ag plating)
Die attach	Eutectic
Wire	Gold
EMC	KTMC1050GR (Vendor:KCC)
Lead Finish	Matte Sn

Results/Discussion for Qual Plan Number - Q20080302

Test: (Charged Device Model ESD) Conditions: 1000V Standard: JESD22-C101				
Lot	Device	Setpoint	Result	Failure Code
Q20080302AACDM	KA431SAMF2TF		0/3	
Q20080302ABCDM			0/3	
Q20080302ACCDM			0/3	
Test: (High Temperature Storage Life) Conditions: 150C Standard: JESD22-A103				

Lot	Device	Setpoint	Result	Failure Code
Q20080302AAHTSL	KA431SAMF2TF	168-HOURS	0/77	
		500-HOURS	0/77	
		1000-HOURS	0/77	
Q20080302ABHTSL		168-HOURS	0/77	
		500-HOURS	0/77	
		1000-HOURS	0/77	
Q20080302ACHTSL		168-HOURS	0/77	
		500-HOURS	0/77	
		1000-HOURS	0/77	
Test: (Precondition) Conditions: Standard: JESD22-A113				
Lot	Device	Setpoint	Result	Failure Code
Q20080302AAPCNL1A	KA431SAMF2TF		0/154	
Q20080302ABPCNL1A			0/154	
Q20080302ACPCNL1A			0/154	
Test: (Temperature Cycle) Conditions: -65C, 150C Standard: JESD22-A104				
Lot	Device	Setpoint	Result	Failure Code
Q20080302AATMCL1	KA431SAMF2TF	200-CYCLES	0/77	
		500-CYCLES	0/77	
Q20080302ABTMCL1		200-CYCLES	0/77	
		500-CYCLES	0/77	
Q20080302ACTMCL1		200-CYCLES	0/77	
		500-CYCLES	0/77	
Test: (Temperature Humidity Biased Test) Conditions: 85%RH, 85C, 36V Standard: JESD22-A101				
Lot	Device	Setpoint	Result	Failure Code
Q20080302AATHBT	KA431SAMF2TF	168-HOURS	0/77	
		500-HOURS	0/77	
		1000-HOURS	0/77	
Q20080302ABTHBT		168-HOURS	0/77	
		500-HOURS	0/77	
		1000-HOURS	0/77	
Q20080302ACTHBT		168-HOURS	0/77	
		500-HOURS	0/77	
		1000-HOURS	0/77	

Product Id Description : All devices packaged with SOT-23F.

Affected FSIDs :

KA431SAMF2TF	KA431SAMFTF	KA431SLMF2TF
KA431SLMFTF	KA431SMF2TF	KA431SMFTF
LM431SACMFX	LM431SBCMFX	LM431SCCMFX