Date Created : **2011/04/11**
Date Issued On : **2011/04/25**
PCN# : **P144A**

DESIGN/PROCESS CHANGE NOTIFICATION -- FINAL

This PCN is to correct the FSIDs in the descirpition of change ('To') of PCN P132A.

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:

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PCN Originator:
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Implementation of change:
Expected 1st Device Shipment Date: 2011/07/17

Earliest Year/Work Week of Changed Product: 1130

Change Type Description: Data Book Specifications

Description of Change (From): FDMS0308S Rds(on) at 10V 3 mO maximum. FDMS0310S Rds(on) at 10V 4 mO maximum. FDMS0312S Rds(on) at 10V 4.4 mO maximum.

Description of Change (To): FDMS0308S Rds(on) at 10V 3.3 mO maximum. FDMS0310S Rds(on) at 10V 4.4 mO maximum. FDMS0312S Rds(on) at 10V 4.9 mO maximum.

Reason for Change : The specified description of change will better align the datasheet specification to production performance allowing improved customer support with a Cpk minimum of 1.33 for this specific Rds(on) @ 10V parameter. Other than this parameter, the change will have no impact on product quality, reliability, visual or mechanical performance and affected products will remain fully compliant to all published specifications. The 10v Rds(on) is not critical for most applications as validated with applications testing. Products incorporating this change may be shipped interchangeably with existing unchanged products. This change is planned to take effect in 90 calendar days from the date of this notification. Please work with your local Fairchild sales representative to place orders for sufficient quantities of unchanged product to support your manufacturing needs if your evaluation of this change will require more than 90 calendar days.

Qual/REL Plan Number(s): Q20110111

Qualification :

Please refer to the qualification plan summary for the reliability results.

Results/Discussion for Qual Plan Number(s): Q20110111

Test: (High Temperature Gate Bias) | Conditions: 150C, 20V | Standard: JESD22-A108

Lot	Device	500-HOURS	1000-HOURS	Failure Code
Q20110111AAHTGB	FDMS0300S	0/77		
Q20110111AAHTGB	FDMS0300S		0/77	
Q20110111ABHTGB	FDMS0300S	0/77		
Q20110111ABHTGB	FDMS0300S		0/77	
Q20110111ACHTGB	FDMS0300S	0/77		
Q20110111ACHTGB	FDMS0300S		0/77	

Test: (High Temperature Reverse Bias) | Conditions: 125C, 24V | Standard: JESD22-A108

Lot	Device	168-HOURS	500-HOURS	1000-HOURS	Failure Code
Q20110111AAHTRB		0/77			
			0/77		
				0/77	
Q20110111ABHTRB		0/77			
			0/77		
				0/77	
Q20110111ACHTRB			0/77		
				0/77	

Test: (High Temperature Storage Life) | Conditions: 150C | Standard: JESD22-A103

Lot	Device	168-HOURS	500-HOURS	1000-HOURS	Failure Code
Q20110111AAHTSL		0/77			
			0/77		
				0/77	
Q20110111ABHTSL		0/77			
			0/77		
				0/77	
Q20110111ACHTSL		0/77			
			0/77		
				0/77	

Test: (Highly Accelerated Stress Test) | Conditions: 85%RH, 130C, 24V | Standard: JESD22-A110

Lot	Device	96-HOURS	Failure Code
Q20110111AAHAST1	FDMS0300S	0/77	
Q20110111ABHAST1	FDMS0300S	0/77	
Q20110111ACHAST1	FDMS0300S	0/77	

Test: (Power Cycle) | Conditions: Delta 100CC, 2 min ON/OFF | Standard: MIL-STD-750-1036

Lot	Device	5000-CYCLES	10000-CYCLES	Failure Code
Q20110111AAPRCL	FDMS0300S	0/77		
Q20110111AAPRCL	FDMS0300S		0/77	
Q20110111ABPRCL	FDMS0300S	0/77		
Q20110111ABPRCL	FDMS0300S		0/77	
Q20110111ACPRCL	FDMS0300S	0/77		
Q20110111ACPRCL	FDMS0300S		0/77	

Test: (Precondition) | Conditions: | Standard: JESD22-A113

Lot	Device	Results	Failure Code
Q20110111AAPCNL1A	FDMS0300S	0/154	
Q20110111ABPCNL1A	FDMS0300S	0/154	
Q20110111ACPCNL1A	FDMS0300S	0/154	

Test: (Resistance to Solder Heat) | Conditions: | Standard: JESD22-B106

Lot	Device	Results	Failure Code
Q20110111AARSDH	FDMS0300S	0/22	
Q20110111ABRSDH	FDMS0300S	0/22	
Q20110111ACRSDH	FDMS0300S	0/22	

Test: (Temperature Cycle) | Conditions: -65C, 150C | Standard: JESD22-A104

Lot	Device	1000-CYCLES	Failure Code
Q20110111AATMCL1	FDMS0300S	0/77	
Q20110111ABTMCL1	FDMS0300S	0/77	
Q20110111ACTMCL1	FDMS0300S	0/77	

Product Id Description : Fairchild Semiconductor's selected PowerTrench SyncFET devices in the Power56 packaging. For complete listing of affected devices, please refer to the Affected FSID section of this PCN.

Affected FSIDs :

FDMS0308S	FDMS0310S	FDMS0312S