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:

<u>Technical Contact:</u> Name: Abarquez, Eileen E-mail: eileen.abarquez@fairchildsemi.com Phone: 408-822-2110

PCN Originator: Name: Knapp, Paul E-mail: paul.knapp@fairchildsemi.com Phone: 408-822-2133

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 Tempera							
	ature	Gate Bias) Co	onditions:	150C,	20V Stan	dard: JESD22	-A108
Lot		Device		500-HOURS		1000-HOURS	Failure Code
Q20110111AAHTGB	F	FDMS0300S		0/77			
Q20110111AAHTGB	F	FDMS0300S				0/77	
Q20110111ABHTGB	F	FDMS0300S		0/77			
Q20110111ABHTGB	F	FDMS0300S				0/77	
Q20110111ACHTGB		FDMS0300S		0/77			
		DMS0300S		6,11		0/77	
Test: (High Tempera	ature	Reverse Bias)	Conditio	ons: 128	5C, 24V S	Standard: JESE	D22-A108
Lot	Devid	ce	168-HOI	URS	500-HOURS	1000-HOUR	S Failure Code
Q20110111AAHTRB			0/77				
					0/77		
						0/77	
Q20110111ABHTRB			0/77				
	-		0,11		0/77		
					0/11	0/77	
Q20110111ACHTRB	-				0/77	0/11	
					0/77	0/77	
					<u> </u>	0/77	
Test: (High Tempera	ature	Storage Life)	Condition	ns: 1500	C Standa	rd: JESD22-A1	03
Lot	Devid		168-HOL		500-HOURS		
Q20110111AAHTSL	2011		0/77				
ALL CHINE ALL CHINE			0///		0/77		
	+				0/11	0/77	
			0/77			0/77	
Q20110111ABHTSL	_		0/77				
	_				0/77		
						0/77	
Q20110111ACHTSL			0/77				
					0/77		
						0/77	
Test: (Highly Accele	ratad	Strass Tast)	Condition	s [.] 85%	RH 130C	24V Standar	
	lateu		Contaition	13. 00 /0	96-HOURS		•
Lot		Device					Failure Code
Q20110111AAHAST1		FDMS0300S			0/77		
Q20110111AAHAST1 Q20110111ABHAST1		FDMS0300S FDMS0300S			0/77 0/77		
Q20110111AAHAST1		FDMS0300S			0/77		
Q20110111AAHAST1 Q20110111ABHAST1 Q20110111ACHAST1	Cor	FDMS0300S FDMS0300S FDMS0300S	100CC. 2	min Ol	0/77 0/77 0/77	andard: MIL-S	TD-750-1036
Q20110111AAHAST1 Q20110111ABHAST1 Q20110111ACHAST1 Test: (Power Cycle)	· · · · ·	FDMS0300S FDMS0300S FDMS0300S nditions: Delta	100CC, 2		0/77 0/77 0/77 N/OFF Sta		
Q20110111AAHAST1 Q20110111ABHAST1 Q20110111ACHAST1 Test: (Power Cycle) Lot	I	FDMS0300S FDMS0300S FDMS0300S nditions: Delta ⁻ Device	100CC, 2	5000-CN	0/77 0/77 0/77 N/OFF Sta	andard: MIL-S	TD-750-1036 Failure Code
Q20110111AAHAST1 Q20110111ABHAST1 Q20110111ACHAST1 Test: (Power Cycle) Lot Q20110111AAPRCL	[FDMS0300S FDMS0300S FDMS0300S aditions: Delta Device FDMS0300S	100CC, 2		0/77 0/77 0/77 N/OFF Sta	10000-CYCLES	
Q20110111AAHAST1 Q20110111ABHAST1 Q20110111ACHAST1 Test: (Power Cycle) Lot Q20110111AAPRCL Q20110111AAPRCL	F	FDMS0300S FDMS0300S FDMS0300S aditions: Delta Device FDMS0300S FDMS0300S	100CC, 2	5000-CN 0/77	0/77 0/77 0/77 N/OFF Sta		
Q20110111AAHAST1 Q20110111ABHAST1 Q20110111ACHAST1 Test: (Power Cycle) Lot Q20110111AAPRCL Q20110111AAPRCL Q20110111ABPRCL	F	FDMS0300S FDMS0300S FDMS0300S aditions: Delta Device FDMS0300S FDMS0300S FDMS0300S	100CC, 2	5000-CN	0/77 0/77 0/77 N/OFF Sta	10000-CYCLES 0/77	
Q20110111AAHAST1 Q20110111ABHAST1 Q20110111ACHAST1 Test: (Power Cycle) Lot Q20110111AAPRCL Q20110111AAPRCL Q20110111ABPRCL Q20110111ABPRCL	F	FDMS0300S FDMS0300S FDMS0300S rditions: Delta Device FDMS0300S FDMS0300S FDMS0300S FDMS0300S	100CC, 2	5000-CN 0/77 0/77	0/77 0/77 0/77 N/OFF Sta	10000-CYCLES	
Q20110111AAHAST1 Q20110111ABHAST1 Q20110111ACHAST1 Test: (Power Cycle) Lot Q20110111AAPRCL Q20110111AAPRCL Q20110111ABPRCL Q20110111ABPRCL Q20110111ACPRCL	F F F	FDMS0300S FDMS0300S FDMS0300S rditions: Delta Device FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S	100CC, 2	5000-CN 0/77	0/77 0/77 0/77 N/OFF Sta	0/77 0/77	
Q20110111AAHAST1 Q20110111ABHAST1 Q20110111ACHAST1 Test: (Power Cycle) Lot Q20110111AAPRCL Q20110111AAPRCL Q20110111ABPRCL Q20110111ABPRCL	F F F	FDMS0300S FDMS0300S FDMS0300S rditions: Delta Device FDMS0300S FDMS0300S FDMS0300S FDMS0300S	100CC, 2	5000-CN 0/77 0/77	0/77 0/77 0/77 N/OFF Sta	10000-CYCLES 0/77	
Q20110111AAHAST1 Q20110111ABHAST1 Q20110111ACHAST1 Test: (Power Cycle) Lot Q20110111AAPRCL Q20110111AAPRCL Q20110111ABPRCL Q20110111ABPRCL Q20110111ACPRCL Q20110111ACPRCL	F F F F	FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S		5000-CN 0/77 0/77 0/77 0/77	0/77 0/77 0/77 V/OFF St ′CLES	0/77 0/77	
Q20110111AAHAST1 Q20110111ABHAST1 Q20110111ACHAST1 Test: (Power Cycle) Lot Q20110111AAPRCL Q20110111AAPRCL Q20110111ABPRCL Q20110111ABPRCL Q20110111ACPRCL Q20110111ACPRCL Q20110111ACPRCL Test: (Precondition)	F F F F	FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S		5000-CN 0/77 0/77 0/77 0/77	0/77 0/77 0/77 V/OFF St CLES	0/77 0/77	Failure Code
Q20110111AAHAST1 Q20110111ABHAST1 Q20110111ACHAST1 Test: (Power Cycle) Lot Q20110111AAPRCL Q20110111AAPRCL Q20110111ABPRCL Q20110111ABPRCL Q20110111ACPRCL Q20110111ACPRCL Q20110111ACPRCL Test: (Precondition) Lot	F F F F	FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S		5000-CN 0/77 0/77 0/77 0/77	0/77 0/77 0/77 V/OFF St ′CLES	0/77 0/77	
Q20110111AAHAST1 Q20110111ABHAST1 Q20110111ACHAST1 Test: (Power Cycle) Lot Q20110111AAPRCL Q20110111AAPRCL Q20110111ABPRCL Q20110111ABPRCL Q20110111ACPRCL Q20110111ACPRCL Test: (Precondition) Lot Q20110111AAPCNL1A	F F F F	FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S		5000-CN 0/77 0/77 0/77 0/77	0/77 0/77 0/77 V/OFF St ′CLES	0/77 0/77	Failure Code
Q20110111AAHAST1 Q20110111ABHAST1 Q20110111ACHAST1 Test: (Power Cycle) Lot Q20110111AAPRCL Q20110111AAPRCL Q20110111ABPRCL Q20110111ABPRCL Q20110111ACPRCL Q20110111ACPRCL Test: (Precondition) Lot Q20110111AAPCNL1A Q20110111ABPCNL1A	F F F F	FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S		5000-CN 0/77 0/77 0/77 0/77	0/77 0/77 0/77 V/OFF St ′CLES	0/77 0/77	Failure Code
Q20110111AAHAST1 Q20110111ABHAST1 Q20110111ACHAST1 Test: (Power Cycle) Lot Q20110111AAPRCL Q20110111AAPRCL Q20110111ABPRCL Q20110111ABPRCL Q20110111ACPRCL Q20110111ACPRCL Test: (Precondition) Lot Q20110111AAPCNL1A	F F F F	FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S		5000-CN 0/77 0/77 0/77 0/77	0/77 0/77 0/77 V/OFF St ′CLES	0/77 0/77	Failure Code
Q20110111AAHAST1 Q20110111ABHAST1 Q20110111ACHAST1 Test: (Power Cycle) Lot Q20110111AAPRCL Q20110111AAPRCL Q20110111ABPRCL Q20110111ABPRCL Q20110111ACPRCL Q20110111ACPRCL Test: (Precondition) Lot Q20110111AAPCNL1A Q20110111ABPCNL1A Q20110111ACPCNL1A	i i i i i i i i i i i i i i i i i i i	FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S	dard: JES	5000-C\) 0/77 0/77 0/77 0/77 D22-A	0/77 0/77 0/77 V/OFF St ′CLES 113 Results 0/154 0/154 0/154	10000-CYCLES 0/77 0/77 0/77	Failure Code
Q20110111AAHAST1 Q20110111ABHAST1 Q20110111ACHAST1 Test: (Power Cycle) Lot Q20110111AAPRCL Q20110111AAPRCL Q20110111ABPRCL Q20110111ABPRCL Q20110111ACPRCL Q20110111ACPRCL Test: (Precondition) Lot Q20110111AAPCNL1A Q20110111APCNL1A Q20110111ACPCNL1A Test: (Resistance to	i i i i i i i i i i i i i i i i i i i	FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S	dard: JES	5000-C\) 0/77 0/77 0/77 0/77 D22-A	0/77 0/77 0/77 V/OFF St 'CLES 113 Results 0/154 0/154 0/154 0/154 d: JESD22	10000-CYCLES 0/77 0/77 0/77	Failure Code
Q20110111AAHAST1 Q20110111ABHAST1 Q20110111ACHAST1 Test: (Power Cycle) Lot Q20110111AAPRCL Q20110111AAPRCL Q20110111ABPRCL Q20110111ABPRCL Q20110111ACPRCL Q20110111ACPRCL Q20110111ACPRCL Test: (Precondition) Lot Q20110111AAPCNL1A Q20110111AAPCNL1A Q20110111ACPCNL1A Test: (Resistance to Lot	i i i i i i i i i i i i i i i i i i i	FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S	dard: JES	5000-C\) 0/77 0/77 0/77 0/77 D22-A	0/77 0/77 0/77 V/OFF St. 'CLES 113 Results 0/154 0/154 0/154 0/154 d: JESD22 Results	10000-CYCLES 0/77 0/77 0/77	Failure Code
Q20110111AAHAST1 Q20110111ABHAST1 Q20110111ACHAST1 Test: (Power Cycle) Lot Q20110111AAPRCL Q20110111AAPRCL Q20110111ABPRCL Q20110111ABPRCL Q20110111ACPRCL Q20110111ACPRCL Q20110111ACPRCL Test: (Precondition) Lot Q20110111AAPCNL1A Q20110111AAPCNL1A Q20110111AAPCNL1A Test: (Resistance to Lot Q20110111AARSDH	i i i i i i i i i i i i i i i i i i i	FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S	dard: JES	5000-C\) 0/77 0/77 0/77 0/77 D22-A	0/77 0/77 0/77 V/OFF St. 'CLES 113 Results 0/154 0/154 0/154 0/154 d: JESD22 Results 0/22	10000-CYCLES 0/77 0/77 0/77	Failure Code
Q20110111AAHAST1 Q20110111ABHAST1 Q20110111ACHAST1 Test: (Power Cycle) Lot Q20110111AAPRCL Q20110111AAPRCL Q20110111AAPRCL Q20110111ABPRCL Q20110111ABPRCL Q20110111ACPRCL Q20110111ACPRCL Test: (Precondition) Lot Q20110111AAPCNL1A Q20110111ABPCNL1A Test: (Resistance to Lot Q20110111AARSDH Q20110111AARSDH Q20110111ABRSDH	i i i i i i i i i i i i i i i i i i i	FDMS0300S FDMS0300S	dard: JES	5000-C\) 0/77 0/77 0/77 0/77 D22-A	0/77 0/77 0/77 V/OFF St. 'CLES 113 Results 0/154 0/154 0/154 0/154 0/154 d: JESD22 Results 0/22 0/22	10000-CYCLES 0/77 0/77 0/77	Failure Code
Q20110111AAHAST1 Q20110111ABHAST1 Q20110111ACHAST1 Test: (Power Cycle) Lot Q20110111AAPRCL Q20110111AAPRCL Q20110111ABPRCL Q20110111ABPRCL Q20110111ACPRCL Q20110111ACPRCL Q20110111ACPRCL Test: (Precondition) Lot Q20110111AAPCNL1A Q20110111AAPCNL1A Q20110111AAPCNL1A Test: (Resistance to Lot Q20110111AARSDH	i i i i i i i i i i i i i i i i i i i	FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S FDMS0300S	dard: JES	5000-C\) 0/77 0/77 0/77 0/77 D22-A	0/77 0/77 0/77 V/OFF St. 'CLES 113 Results 0/154 0/154 0/154 0/154 d: JESD22 Results 0/22	10000-CYCLES 0/77 0/77 0/77	Failure Code
Q20110111AAHAST1 Q20110111ABHAST1 Q20110111ABHAST1 Test: (Power Cycle) Lot Q20110111AAPRCL Q20110111AAPRCL Q20110111ABPRCL Q20110111ABPRCL Q20110111ABPRCL Q20110111ACPRCL Q20110111ACPRCL Q20110111ACPRCL Q20110111ACPRCL 1A Q20110111ACPRCL Test: (Precondition) Lot Q20110111APCNL1A Q20110111ABPCNL1A Q20110111ABPCNL1A Test: (Resistance to Lot Q20110111ARSDH Q20110111ARSDH Q20110111ACRSDH	Cor	FDMS0300S FDMS0300S	dard: JES ditions: S	5000-C\ 0/77 0/77 0/77 D22-A	0/77 0/77 0/77 V/OFF St ′CLES // CLES / CLES // CLES // CLES // CLES // CLES // CLES	10000-CYCLES 0/77 0/77 0/77 0/77	Failure Code
Q20110111AAHAST1 Q20110111ABHAST1 Q20110111ABHAST1 Test: (Power Cycle) Lot Q20110111AAPRCL Q20110111AAPRCL Q20110111ABPRCL Q20110111ABPRCL Q20110111ABPRCL Q20110111ACPRCL Q20110111ACPRCL Q20110111APRCL Q20110111APRCL Q20110111APRCL Cot Q20110111APCNL1A Q20110111ABPCNL1A Q20110111ABPCNL1A Test: (Resistance to Lot Q20110111ARSDH Q20110111ARSDH Q20110111ARSDH Q20110111ARSDH Q20110111ARSDH	Cor	FDMS0300S FDMS0300S	dard: JES ditions: S	5000-C\ 0/77 0/77 0/77 D22-A	0/77 0/77 0/77 V/OFF St CLES 113 Results 0/154 0/154 0/154 0/154 d: JESD22 Results 0/22 0/22 0/22 0/22	10000-CYCLES 0/77 0/77 0/77 0/77 2-B106 SD22-A104	Failure Code
Q20110111AAHAST1 Q20110111ABHAST1 Q20110111ABHAST1 Test: (Power Cycle) Lot Q20110111AAPRCL Q20110111AAPRCL Q20110111AAPRCL Q20110111ABPRCL Q20110111ABPRCL Q20110111ACPRCL Q20110111ACPRCL C20110111AAPCNL1A Q20110111AAPCNL1A Q20110111AAPCNL1A C20110111AAPCNL1A Test: (Resistance to Lot Q20110111AARSDH Q20110111ARSDH Q20110111ACRSDH C20110111ACRSDH C20110111ACRSDH C20110111ACRSDH C20110111ACRSDH C20110111ACRSDH C20110111ACRSDH	Cor	FDMS0300S FDMS0300S	dard: JES ditions: S	5000-C\ 0/77 0/77 0/77 D22-A	0/77 0/77 0/77 V/OFF St 'CLES 113 Results 0/154 0/154 0/154 0/154 d: JESD22 Results 0/22 0/22 0/22 0/22 andard: JE	10000-CYCLES 0/77 0/77 0/77 0/77 2-B106 SD22-A104	Failure Code
Q20110111AAHAST1 Q20110111ABHAST1 Q20110111ABHAST1 Test: (Power Cycle) Lot Q20110111AAPRCL Q20110111AAPRCL Q20110111ABPRCL Q20110111ABPRCL Q20110111ABPRCL Q20110111ACPRCL Q20110111ACPRCL Q20110111APRCL Q20110111APRCL Q20110111AAPCNL1A Q20110111AAPCNL1A Q20110111ABPCNL1A Test: (Resistance to Lot Q20110111ARSDH Q20110111ARSDH Q20110111ARSDH Q20110111ARSDH Q20110111ACRSDH Test: (Temperature 0 Lot Lot	Cor	FDMS0300S FDMS0300S	dard: JES ditions: S	5000-C\ 0/77 0/77 0/77 D22-A	0/77 0/77 0/77 V/OFF St 7CLES 113 Results 0/154 0/154 0/154 0/154 0/154 0/154 0/154 0/22 0/22 0/22 0/22 andard: JE 1000-CYCLE 0/77	10000-CYCLES 0/77 0/77 0/77 0/77 2-B106 SD22-A104	Failure Code
Q20110111AAHAST1 Q20110111ABHAST1 Q20110111ABHAST1 Test: (Power Cycle) Lot Q20110111AAPRCL Q20110111AAPRCL Q20110111ABPRCL Q20110111ABPRCL Q20110111ABPRCL Q20110111ACPRCL Q20110111ACPRCL Q20110111APRCL Q20110111APRCL Q20110111AAPCNL1A Q20110111AAPCNL1A Q20110111AAPCNL1A Test: (Resistance to Lot Q20110111ARSDH Q20110111ARSDH Q20110111ACRSDH Q20110111ACRSDH Q20110111ACRSDH Q20110111ACRSDH Q20110111ACRSDH Q20110111ACRSDH	Cor	FDMS0300S FDMS0300S	dard: JES ditions: S	5000-C\ 0/77 0/77 0/77 D22-A	0/77 0/77 0/77 V/OFF St 'CLES 113 Results 0/154 0/154 0/154 0/154 d: JESD22 Results 0/22 0/22 0/22 0/22 andard: JE	10000-CYCLES 0/77 0/77 0/77 0/77 2-B106 SD22-A104	Failure Code

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	