

DESIGN/PROCESS CHANGE NOTIFICATION

This is to inform you that a change is being made to the products listed below.

Unless otherwise indicated in the details of this notification, the identified change will have no impact on product quality, reliability, electrical, visual or mechanical performance and affected products will remain fully compliant to all published specifications. 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 manage your inventory of unchanged product if your evaluation of this change will require more than 90 calendar days.

Please contact your local Customer Quality Engineer within 30 days of receipt of this notification if you require any additional data or samples. Alternatively, you may send an email request for data, samples or other information to PCNSupport@fairchildsemi.com.

Implementation of change:

Expected First Shipment Date for Changed Product : Dec. 19, 2012

Expected First Date Code of Changed Product :1251

Description of Change (From) :

AMC-2P molding compound, non halogen free mold compound (Stock#: 500108). This mold compound having the poor adhesion between the DAP (die attach pad) and causing separation gap (delamination) after stress condition at 3X IR Reflow at 260 Degree C. As the package being stress, the separation gap will propagated to the layer between die attach epoxy and DAP (Die Attach Pad). The big separation gap between DAP and epoxy area will causing the package failed resisvity (RdSON failure).

Description of Change (To) :

GR828FC molding compound, halogen free mold compound (Stock#: 500686). This mold compound have the good adhesive between DAP and mold compound as compare to AMC-2P mold compound. After stress, the package molded with GR828FC mold compound would not have DA delamination (Separation beteen die attach epoxy and DAP). Hence, this mold compound is good for RdSON (resistivity) performance.

Reason for Change:

Change Mold Compound from AMC-2P molding compound (non halogen free mold compound) to GR828FC molding compound (halogen free mold compound) and improve DA delamination (Separation beteen die attach epoxy and DAP). FSPM would like to proposed this mold compound (GR828FC) to Murata customer to improve the RdSON failure issue for FDS9435A_NBAD008 device, where the AMC-2P (existing mold compound) is not robust enough after stress.

Affected Product(s):

FDS9435A_NBAD008		
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Qualification Plan	Device	Package	Process	No. of Lots
Q20070269	NDS9407	NMSONC08	-	1

Test Description:	Condition:	Standard :	Duration:	Results:
MSL1 Precondition	260C, 3 cycles	JESD22-A113		0/308
Autoclave	100%RH, 121°C, 15psig	JESD22-A102	96hrs	0/77
Highly Accelerated Stress Test	130C, 85%RH	JESD22-A110	96 hrs	0/77
Temperature Cycle	-65C, 150C	JESD22-A104	500 cycles	0/77
High Temperature Storage Life	150C	JESD22-A103	1000hrs	0/77
High Temperature Gate Bias Test	150C	JESD22-A108	1000 hrs	0/77
High Temperature Reverse Bias	150C	JESD22-A108	1000 hrs	0/77
Gate Leakage Positive	155C, +400V	AEC-Q100-006		0/3
Gate Leakage Negative	155C, -400V	AEC-Q100-006		0/3
Power Cycle	2 min on / 2 min off	JESD22-A122	10000 cycles	0/77

Qualification Plan	Device	Package	Process	No. of Lots
Q20070269	FDS8978	NMSONC08	-	1

Test Description:	Condition:	Standard :	Duration:	Results:
MSL1 Precondition	260C, 3 cycles	JESD22-A113		0/308
Autoclave	100%RH, 121°C, 15psig	JESD22-A102	96hrs	0/77
Highly Accelerated Stress Test	130C, 85%RH	JESD22-A110	96 hrs	0/77
Temperature Cycle	-65C, 150C	JESD22-A104	500 cycles	0/77
High Temperature Gate Bias Test	150C	JESD22-A108	1000 hrs	0/77
High Temperature Reverse Bias	150C	JESD22-A108	1000 hrs	0/77
High Temperature Storage Life	150C	JESD22-A103	1000hrs	0/77
Gate Leakage Positive	155C, +400V	AEC-Q100-006		0/3
Gate Leakage Negative	155C, -400V	AEC-Q100-006		0/3
Power Cycle	2 min on / 2 min off	JESD22-A122	10000 cycles	0/77

Qualification Plan	Device	Package	Process	No. of Lots
Q20070269	FDS4465	NMSONC08	-	1

Test Description:	Condition:	Standard :	Duration:	Results:
MSL1 Precondition	260C, 3 cycles	JESD22-A113		0/308
Autoclave	100%RH, 121°C, 15psig	JESD22-A102	96hrs	0/77
Highly Accelerated Stress Test	130C, 85%RH	JESD22-A110	96 hrs	0/77
Temperature Cycle	-65C, 150C	JESD22-A104	500 cycles	0/77
High Temperature Gate Bias Test	150C	JESD22-A108	1000 hrs	0/77
High Temperature Reverse Bias	150C	JESD22-A108	1000 hrs	0/77
High Temperature Storage Life	150C	JESD22-A103	1000hrs	0/77
Gate Leakage Positive	155C, +400V	AEC-Q100-006		0/3
Gate Leakage Negative	155C, -400V	AEC-Q100-006		0/3
Power Cycle	2 min on / 2 min off	JESD22-A122	10000 cycles	0/77

Qualification Plan	Device	Package	Process	No. of Lots
Q20070269	FMS6406CS	NMSONC08	-	1

Test Description:	Condition:	Standard :	Duration:	Results:
MSL1 Precondition	260C, 3 cycles	JESD22-A113		0/353
Autoclave	100%RH, 121°C, 15psig	JESD22-A102	96hrs	0/77
Highly Accelerated Stress Test	130C, 85%RH	JESD22-A110	96 hrs	0/45
Temperature Cycle	-65C, 150C	JESD22-A104	500 cycles	0/77
High Temperature Storage Life	150C	JESD22-A103	1000hrs	0/77
Gate Leakage Positive	155C, +400V	AEC-Q100-006		0/3
Gate Leakage Negative	155C, -400V	AEC-Q100-006		0/3
Static Op Life	150C	JESD22-A108	1000 hrs	0/77