



FINAL PRODUCT/PROCESS CHANGE NOTIFICATION #16727

Generic Copy

Issue Date: 22 Sep 2011

TITLE: Copper Wire for SOIC and TSSOP packages in Carmona, Philippines

PROPOSED FIRST SHIP DATE: 22-Dec-2011

AFFECTED CHANGE CATEGORY(S): Assembly Process

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:

Contact your local ON Semiconductor Sales Office or Shannon Riggs<Shannon.Riggs@onsemi.com>

SAMPLES: Contact your local ON Semiconductor Sales Office, Shannon Riggs
<Shannon.Riggs@onsemi.com>or Scott Brow<Scott.Brow@onsemi.com>

ADDITIONAL RELIABILITY DATA: Available

Contact your local ON Semiconductor Sales Office or Ken Fergus<Ken.Fergus@onsemi.com>

NOTIFICATION TYPE:

Final Product/Process Change Notification (FPCN)

Final change notification sent to customers. FPCNs are issued at least 90 days prior to implementation of the change.

ON Semiconductor 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 <quality@onsemi.com>.

DESCRIPTION AND PURPOSE:

A General Announcement (GA#16200) was published on 1-29-09 regarding the ongoing Copper Wirebond conversion program at ON Semiconductor. This is a FPCN to notify customers of its plan to qualify Copper Wire (in place of Gold Wire) on SOIC and TSSOP packages assembled at the Carmona, Philippine assembly location. Reliability Qualification and full electrical characterization over temperature has now been completed on the designated package qualification vehicles.



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RELIABILITY DATA SUMMARY:

Reliability Test Results:

#	Test	Name	Test Conditions	End Point Req's	Test Results	(rej/ ss)	(rej/ ss)	(rej/ ss)	(rej/ss)
					Read Point	Lot A	Lot B	Lot C	Control
1	Prep	Sample preparation and initial part testing	Various	---	Initial Electrical	Done	Done	Done	Done
A1	PC	Preconditioning Test (Test@Room/hot) SMD only; Moisture preconditioning for THB/HAST, AC/UHAST, TC; Peak reflow Temp = 260C	MSL 1 260	Test at R and Hot	0/240	0/240	0/240	0/240	0/240
A2	PC -HAST	Preconditioned Highly accelerated stress test	TA= +130°C, RH = 85%, PSIG= 18.8, bias	c = 0, Room, Hot	96 hours	0/80	0/80	0/80	0/80
					144 hours	0/78	0/78	0/78	0/78
					192 hours	0/78	0/78	0/78	0/78
A3	PC-TC	Preconditioned Temperature Cycle	-65/+150 C	c = 0, Room, Hot	500	0/80	0/80	0/80	0/80
					1000cyc	0/78	0/80	0/68	0/78
A4	PC-AC	Preconditioned Autoclave/Unbiased HAST	121C/100%RH,15psig	c = 0, Room	96 hours	0/80	0/80	0/80	0/80
					192 hours	0/80	0/78	0/78	0/78
					240 hours	0/80	0/78	0/78	0/
A6	HTSL	High Temperature Storage Life	150C at 1008hrs	c = 0, Room, Hot	504 hours	0/80	0/80	0/80	0/80
					1008 hours	0/80	0/80	0/80	0/80
B1	HTOL	High Temp Op Life	TA = 150°C for 1008hrs	c = 0, Room, Hot	504 hours	0/80	0/80	0/80	0/80
					1008 hours	0/80	0/80	0/80	0/80
C3	SD	Solderability (>95% coverage)		10 units per lot	Pass	0/10	0/10	0/10	0/10
	RSH	Resistance to solder heat	JESD22 – B106 260°C Immersion	Test at R	Pass	0/10	0/10	0/10	0/10

ELECTRICAL CHARACTERISTIC SUMMARY:

There is no electrical characterization difference in products assembled with copper wire. Electrical data is available upon request.

CHANGED PART IDENTIFICATION:

Products affected on this FPCN will have part number date code greater than WW52, 2011.



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List of affected General Parts:

LM201ADG	MC33072DG	MC34072DG	TL431BCDR2G
LM201ADR2G	MC33072DR2G	MC34072DR2G	TL431BIDG
LM201AVDR2G	MC33074ADG	MC34072VDG	TL431BIDR2G
LM211DG	MC33074ADR2G	MC34072VDR2G	TL431BVVDG
LM211DR2G	MC33074ADTBG	MC34074ADG	TL431BVDR2G
LM285D-1.2G	MC33074ADTBR2G	MC34074ADR2G	TL431CDG
LM285D-1.2R2G	MC33074DG	MC34074DG	TL431CDR2G
LM285D-2.5G	MC33074DR2G	MC34074DR2G	TL431IDG
LM285D-2.5R2G	MC33074DTBG	MC34074VDG	TL431IDR2G
LM301ADG	MC33074DTBR2G	MC34074VDR2G	TY40470R2G
LM301ADR2G	MC33077DG	MC34161DG	UC2842BD1G
LM311DG	MC33077DR2G	MC34161DR2G	UC2842BD1R2G
LM311DR2G	MC33078DG	MC34164D-3R2G	UC2842BDG
LM385BD-1.2G	MC33078DR2G	MC34164D-5G	UC2842BDR2G
LM385BD-1.2R2G	MC33079DG	MC34164D-5R2G	UC2843BD1G
LM385BD-2.5G	MC33079DR2G	MC34262DG	UC2843BD1R2G
LM385BD-2.5R2G	MC33161DG	MC34262DR2G	UC2843BDG
LM385D-1.2G	MC33161DR2G	NCV1455BDR2G	UC2843BDR2G
LM385D-1.2R2G	MC33164D-3G	NCV2951ACD3.3R2G	UC2844BD1R2G
LM385D-2.5G	MC33164D-3R2G	NCV2951ACDR2G	UC2844BDR2G
LM385D-2.5R2G	MC33164D-5G	NCV2951CDR2G	UC2845BD1G
LM833DG	MC33164D-5R2G	NCV33064D-5R2G	UC2845BD1R2G
LM833DR2G	MC33171DG	NCV33074ADTBR2G	UC2845BDG
LP2951ACD-3.0G	MC33171DR2G	NCV33161DR2G	UC2845BDR2G
LP2951ACD-3.0R2G	MC33171DR2GH	NCV33164D-5R2G	UC3842BD1G
LP2951ACD-3.3G	MC33172DG	NCV33172DR2G	UC3842BD1R2G
LP2951ACD-3.3R2G	MC33172DR2G	NCV33272ADR2G	UC3842BDG
LP2951ACD-3.3R2GH	MC33172VDG	NCV33274ADR2G	UC3842BDR2G
LP2951ACDG	MC33172VDR2G	NCV33274ADTBR2G	UC3842BVD1G
LP2951ACDGH	MC33174DG	NCV3843BVD1R2G	UC3842BVD1R2G
LP2951ACDR2G	MC33174DR2G	NCV3843BVDR2G	UC3842BVDR2G
LP2951CD-3.0G	MC33174DTBG	NCV431AIDR2G	UC3843BD1G
LP2951CD-3.0R2G	MC33174DTBR2G	NE5517DG	UC3843BD1R2G
LP2951CD-3.3G	MC33174VDG	NE5517DR2G	UC3843BDG
LP2951CD-3.3R2G	MC33174VDR2G	NE5534DG	UC3843BDR2G
LP2951CDG	MC33262CDR2G	NE5534DR2G	UC3843BVD1G
LP2951CDR2G	MC33262DG	NE570DG	UC3843BVD1R2G
MC1455BDR2G	MC33272ADG	NE570DR2G	UC3843BVDG



FINAL PRODUCT/PROCESS CHANGE NOTIFICATION #16727

MC1455DG	MC33272ADR2G	NE592D14G	UC3843BVDR2G
MC1455DR2G	MC33274ADG	NE592D14R2G	UC3844BD1G
MC1496BDG	MC33274ADR2G	NE592D8G	UC3844BD1R2G
MC1496BDR2G	MC33274ADTBR2G	NE592D8R2G	UC3844BDG
MC1496DG	MC3403DG	SA571DG	UC3844BDR2G
MC1496DR2G	MC3403DR2G	SA571DR2G	UC3844BVD1G
MC3303DG	MC34064D-005G	SA572DG	UC3844BVD1R2G
MC3303DR2G	MC34064D-5G	SA572DR2G	UC3844BVDG
MC33064D-5G	MC34064D-5R2G	SA572DTBG	UC3844BVDR2G
MC33064D-5R2G	MC34071ADG	SA572DTBR2G	UC3845BD1G
MC33071ADG	MC34071ADR2G	SC33262DR2G	UC3845BD1R2G
MC33071ADR2G	MC34071DG	TL431ACDG	UC3845BDG
MC33071DG	MC34071DR2G	TL431ACDR2G	UC3845BDR2G
MC33071DR2G	MC34072ADG	TL431AIDG	UC3845BVD1G
MC33072ADG	MC34072ADR2G	TL431AIDR2G	UC3845BVD1R2G
MC33072ADR2G	MC34072ADR2GH	TL431BCDG	UC3845BVDR2G