ON Semiconductor®

Final Product/Process Change Notification

Document # : FPCN22213X
Issue Date: 29 June 2018

Title of Change:	Gold wire to bare copper wire conversion for X2DFN normal bonding devices assembled in ON Semiconductor Leshan facility.
Proposed first ship date:	9 October 2018
Contact information:	Contact your local ON Semiconductor Sales Office or <Jim.Peng@onsemi.com>
Samples:	Contact your local ON Semiconductor Sales Office or <PCN.samples@onsemi.com> Sample requests are to be submitted no later than 30 days from the date of first notification, Initial PCN or Final PCN, for this change.
Additional Reliability Data:	Contact your local ON Semiconductor Sales Office or <Rui.Zhang@onsemi.com>.
Type of notification:	This is a Final Product/Process Change Notification (FPCN) sent to customers. FPCNs are issued 90 days prior to implementation of the change. ON Semiconductor will consider this change accepted, unless an inquiry is made in writing within 30 days of delivery of this notice. To do so, contact <PCN.Support@onsemi.com>
Change Part Identification:	Products assembled with 0.8 mils bare copper wire from ON Semiconductor Leshan facility will have a Finish Goods Date Code of Oct, 2018 or later.
Change Category:	☐ Wafer Fab Change ☑ Assembly Change ☐ Test Change ☐ Other _____

Change Sub-Category(s):

☐ Manufacturing Site Addition
☐ Manufacturing Site Transfer
☐ Manufacturing Process Change
☑ Material Change
☐ Product specific change
☐ Datasheet/Product Doc change
☐ Shipping/Packaging/Marking
☐ Other: _____

Sites Affected:	ON Semiconductor Sites: ON Leshan, China	External Foundry/Subcon Sites: None

Description and Purpose:

This Final Product Notification announces the plan to qualify 0.8 mils bare copper wire on selected devices in X2DFN package. The copper wire is with higher thermal conductivity and lower resistivity which benefits for customer application. This is to unify the wire material in bonding process also.

There is no change in the fit, form or functions of the affected OPNs.

Material to be changed	Before Change Description	After Change Description
Wire	0.8 mils gold wire	0.8 mils bare copper wire

Reliability Data Summary:

Qual Vehicle Device: ESD5581N2T5G
NSR0240MXT5G

Test	Specification	Condition	Interval	Results
PC	JESD22-A113	MSL 1 @ 260 °C	Before TC, UHAST, HAST, IOL	0/924
UHAST	JESD22 A118	Ta=130C, 85% RH, no bias, 96 hrs	96 hrs	0/231
TC	JESD22 A104	Ta= - 65°C to +150°C	2000 cyc	0/231
HAST	JESD22 A110	130C/85%RH, 80% rated V or 42V max, 192 hours.	192 hrs	0/231
IOL	MIL-STD-750	Ta=+25°C, delta Tj=100°C, On/off = 2 min	30000 cyc	0/231
HTRB	JESD22-A108	Tj= max, V=100% rated V, 1008 Hrs	1008hrs	0/231
HTSL	JEDS22- A103	Temp.=150°C,no bias,2016hours	2016hrs	0/231
RSH	JESD22- B106	Ta = 265C, 10 sec	-	0/30

Electrical Characteristic Summary:

Three temperature characterization and ESD performance meet datasheet specification. Detail of electrical characterization result is available upon request.

List of Affected Parts:

Part Number	Qualification Vehicle
NSR0240MXT5G	NSR0240MXT5G
ESDM3051N2T5G	ESD5581N2T5G
ESDM3551N2T5G	ESD5581N2T5G
ESD5581N2T5G	ESD5581N2T5G