



Initial Product/Process Change Notification

Document #: IPCN23026X

Issue Date: 10 Dec 2019

Title of Change:	Wafer top Metal change in ON Semiconductor Seremban and Gold wire to bare copper wire conversion for SOT23 transistor devices assembled in Leshan Phoenix Semiconductor, China.	
Proposed First Ship date:	01 Aug 2020 or earlier if approved by customer	
Contact Information:	Contact your local ON Semiconductor Sales Office or Andy.Tao@onsemi.com	
PCN Samples Contact:	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. Samples delivery timing will be subject to request date, sample quantity and special customer packing/label requirements.	
Type of Notification:	This is an Initial Product/Process Change Notification (IPCN) sent to customers. An IPCN is an advance notification about an upcoming change and contains general information regarding the change details and devices affected. It also contains the preliminary reliability qualification plan. The completed qualification and characterization data will be included in the Final Product/Process Change Notification (FPCN). This IPCN notification will be followed by a Final Product/Process Change Notification (FPCN) at least 90 days prior to implementation of the change. In case of questions, contact <PCN.Support@onsemi.com>	
Marking of Parts/ Traceability of Change:	At the expiration of this PCN devices will be assembled with 2.0mils bare Cu Wire at Leshan Phoenix Semiconductor, China. Products assembled with 2.0 mils bare Cu Wire from the On Semiconductor facility will have a finish goods date code of ww31, 2020 or greater.	
Change Category:	Assembly Change, Wafer Fab Change	
Change Sub-Category(s):	Material Change	
Sites Affected:		
ON Semiconductor Sites	External Foundry/Subcon Sites	
Leshan Phoenix Semiconductor, China	None	
ON Semiconductor Seremban, Malaysia		
Description and Purpose:		
	Before Change Description	After Change Description
Bond Wire	2.0 mils gold wire	2.0 mils bare copper wire
Wafer top metal	20KA AISi	1.5KA TiW+20KA AISi

**Qualification Plan:**

Qual Vehicle Device: NSS30101LT1G/NSV30100LT1G

PACKAGE: SOT23

Test	Specification	Condition	Interval
PC	JESD22-A113	MSL 1 @ 260 °C	Before TC, AC, H3TRB, IOL
AC	JESD22-A102	121°C, 100% RH, ~15psig, unbiased	96 hrs
TC	JESD22-A104	Ta = - 65°C to +150°C	2000 cyc
H3TRB	JESD22-A101	85°C, 85% RH, V=80% rated V or 100V max.	2016 hrs
IOL	MIL-STD-750 (M1037)	Ta=+25°C, delta Tj=100°C On/off = 2 min	30000 cyc
HTRB	JESD22- A108	Tj= max, V=100% rated V, 1008 Hrs	1008hrs
HTSL	JESD22- A103	Temp.=165°C, no bias, 2016hours	2016hrs
RSH	JESD22- B106	Ta = 265C, 10 sec	-
SD	JSTD002	Ta = 2645, 10 sec	-

Estimated date for qualification completion: 30 April 2020

List of Affected Parts:

Note: Only the standard (off the shelf) part numbers are listed in the parts list. Any custom parts affected by this PCN are shown in the customer specific PCN addendum in the PCN email notification, or on the [**PCN Customized Portal**](#).

Part Number	Qualification Vehicle
NSS30101LT1G	NSS30101LT1G
NSS30100LT1G	NSV30100LT1G



Appendix A: Changed Products

Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
NSS30100LT1G		NSV30100LT1G		
NSS30101LT1G		NSS30101LT1G		