



Title of Change:	Qualify Stars Microelectronics as alternative site for assembly and test of SOT23-3 devices to include changes to molding compound, leadframe, and die attach.	
Proposed Changed Material First Ship Date:	29 April 2019	
Current Material Last Order Date:	NA Orders received after the Current Material Last Order Date expiration are to be considered as orders for new changed material as described in this PCN. Orders for current (unchanged) material after this date will be per mutual agreement and current material inventory availability.	
Current Material Last Delivery Date:	NA The Current Material Last Delivery Date may be subject to change based on build and depletion of the current (unchanged) material inventory.	
Product Category:	Active components – Integrated circuits	
Contact information:	Contact your local ON Semiconductor Sales Office or <Marquita.jones@onsemi.com>	
Samples:	Contact your local ON Semiconductor Sales Office to place sample order. Sample requests are to be submitted no later than 45 days after publication of this change notification.	
Sample Availability Date:	29 January 2018	
PPAP Availability Date:	29 January 2018	
Additional Reliability Data:	Contact your local ON Semiconductor Sales Office or <MohdAzizi.Azman@onsemi.com>.	
Type of Notification:	<p>This is an Initial Product/Process Change Notification (IPCN) sent to customers. IPCNs are issued at least 30 days prior to the issuance of the Final Change Notice (FPCN). 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.</p> <p>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 12 months prior to implementation of the change. In case of questions, contact <PCN.Support@onsemi.com>.</p>	
Change Category	Type of Change	
Test Flow	Move of all or part of electrical wafer test and/or final test to a different location/site/subcontractor	
Process – Assembly	Change in leadframe dimensions	
Process – Assembly	Change of lead frame finishing material / area (internal)	
Process – Assembly	Die attach material	
Process – Assembly	Mold Compound	
Description and Purpose:		
<p>This IPCN is announcing the Qualification of Stars Microelectronics as an alternative site for assembly and test to increase capacity of SOT23-3 devices with changes on the following:</p>		
	Before Change Description	After Change Description
Leadframe	AG SPOT 35x60 mils	PPF+ME2 38x64 mils
Die Attach	EN4370K3	ABLESTIK 8900NC
Molding Compound	G600FB	G600



Reason / Motivation for Change:	Benefit of the change: Provide additional assembly and test capacity and flexibility for manufacturing. Risk for Late Release: Limited flexibility for assembly and test for SOT-23-3 devices.	
Anticipated impact on fit, form, function, reliability, product safety or manufacturability:	The device will be qualified and validated based on the same Product Specification. No anticipated impacts.	
Sites Affected:	ON Semiconductor Sites: None	External Foundry/Subcon Sites: Stars Microelectronics
Marking of Parts/ Traceability of Change:	As material from different assembly sites cannot be combined into (1) reel, product from Stars will show ASSY LOC: UB (ASSY LOC = Assembly Location Code) on the label of the reel and box. Please see sample MPN on page 2 at the following link http://www.onsemi.com/pub_link/Collateral/LABELRM-D.PDF to see the location of the ASSY LOC identifier.	

Reliability Data Summary:

QV DEVICE NAME TLV431BSN1T1G

RMS 43362

PACKAGE SOT23-3

Test	Specification	Condition	Interval
HTOL	JESD22-A108	Ta=125°C, 100 % max rated Vcc	2016 hrs
HTSL	JESD22-A103	Ta= 150°C	2016 hrs
TC	JESD22-A104	Ta= -65°C to +150°C	1000 cyc
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C	
RSH	JESD22- B106	Ta = 265C, 10 sec	
SD	JSTD002	Ta = 245C, 10 sec	

QV DEVICE NAME NCP431BVSNT1G

RMS 43363

PACKAGE SOT23-3

Test	Specification	Condition	Interval
HTOL	JESD22-A108	Ta=125°C, 100 % max rated Vcc	2016 hrs
HTSL	JESD22-A103	Ta= 150°C	2016 hrs
TC	JESD22-A104	Ta= -65°C to +150°C	1000 cyc
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C	
RSH	JESD22- B106	Ta = 265C, 10 sec	
SD	JSTD002	Ta = 245C, 10 sec	

Electrical Characteristic Summary:

Electrical characteristics are not impacted.



List of Affected Standard Parts:

Current Part Number	Qualification Vehicle
SC431AVSNT1G	NCP431BVSNT1G
SC431BVSNT1G	NCP431BVSNT1G
SCV431ASN1T1G	TLV431BSN1T1G
SCV431BSN1T1G	TLV431BSN1T1G

Appendix A: Changed Products

Product	Customer Part Number	New Part Number	Qualification Vehicle
SC431AVSNT1G		NA	NCP431BVSNT1G
SC431BVSNT1G		NA	NCP431BVSNT1G
SCV431ASN1T1G		NA	TLV431BSN1T1G
SCV431BSN1T1G		NA	TLV431BSN1T1G