



Final Product/Process Change Notification

Document #:FPCN25207Z

Issue Date:22 May 2024

Title of Change:	SOT23 Low VCEsat transistors wire, mold compound and top metal change.	
Proposed Changed Material First Ship Date:	29 Nov 2024 or earlier if approved by customer	
Current Material Last Order Date:	N/A <i>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.</i>	
Current Material Last Delivery Date:	N/A <i>The Current Material Last Delivery Date may be subject to change based on build and depletion of the current (unchanged) material inventory</i>	
Product Category:	Active components – Discrete components	
Contact information:	Contact your local onsemi Sales Office or BernardRajVellangani.Pelevindran@onsemi.com	
PCN Samples Contact:	Contact your local onsemi Sales Office to place sample order. Sample requests are to be submitted no later than 45 days after publication of this change notification. Samples delivery timing will be subject to request date, sample quantity and special customer packing/label requirements.	
Sample Availability Date:	30 Apr 2024	
PPAP Availability Date:	26 May 2024	
Additional Reliability Data:	Contact your local onsemi Sales Office or ChangKit.Mok@onsemi.com	
Type of Notification:	This is a Final Product/Process Change Notification (FPCN) sent to customers. The change will be implemented at 'Proposed Change Material First Ship Date' in compliance to J-STD-46 or ZVEI, or earlier upon customer approval, or per our signed agreements. onsemi will consider this proposed change and it's conditions acceptable, unless an inquiry is made in writing within 45 days of delivery of this notice. To do so, contact PCN.Support@onsemi.com .	
Change Category		
Category	Type of Change	
Process - Wafer Production	Change in process technology (e. g. process changes like lithography, etch, oxide deposition, diffusion, die back surface preparation/backgrind, ...)	
Process - Assembly	Change of mold compound, Change of wire bonding	
Description and Purpose:		
This final notification is to notify customers of the qualification of 2 mil bare Cu wire for SOT23 Low VCEsat transistor devices at onsemi Leshan, China facility, while changing the mold compound from Hitachi G200F/Hysol GR640HV to Sumitomo G700LS and changing top metal from 20KA AISi to 20KA AISi with oxide island under emitter.		
	Before Change Description	After Change Description
Bond Wire	2 mil Au wire	2mi bare Cu wire
Mold compound	Hitachi G200F/Hysol GR640HV	Sumitomo G700LS
Top metal	20KA AISi	20KA AISi+ oxide island under emitter



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Reason / Motivation for Change:	Process/Materials Change			
Anticipated impact on fit, form, function, reliability, product safety or manufacturability:	<p>The device has been qualified and validated based on the same Product Specification. The device has successfully passed the qualification tests. Potential impacts can be identified, but due to testing performed by onsemi in relation to the PCN, associated risks are verified and excluded.</p> <p>No anticipated impacts.</p>			
Sites Affected:				
onsemi Sites			External Foundry/Subcon Sites	
onsemi Leshan, China			None	
onsemi, ISMF Malaysia				
Marking of Parts/ Traceability of Change:	Changed material can be identified by date code or lot code			
Reliability Data Summary:				
QV: NSV1C201LT1G RMS#: 92841 Package: SOT23				
Test	Specification	Condition	Interval	Result
PC	JESD22-A113	MSL 1 @ 260 °C	Before TC, UHAST, HAST, IOL	0/924
UHAST	JESD22-A118	130C/85%RH, ~18.8 psig, no bias	96 hrs	0/231
TC	JESD22-A104	Ta= - 65°C to +150°C	1000 cyc	0/231
HAST	JESD22-A110	110°C, 85% RH, V=80% rated V or to a voltage arching may occur	264 hrs	0/231
HTRB	JESD22- A108	Tj= max, V=100% rated V, 1008 Hrs	1008 hrs	0/231
HTSL	JESD22- A103	Temp.=150°C	1008 hrs	0/231
IOL	MIL-STD-750 Method 1037	Ta=25C DeltaTj=100C°, t(on)=t(off)= 2 min	15k cyc	0/231
RSH	JESD22-B106	Ta = 265C, 10 sec	-	0/30
SD	JSTD002	Ta = 245C, 10 sec	-	0/30
Note: AEC-1pager is attached.				
<i>To view attachments:</i> 1. Download pdf copy of the PCN to your computer 2. Open the downloaded pdf copy of the PCN 3. Click on the paper clip icon available on the menu provided in the left/bottom portion of the screen to reveal the Attachment field 4. Then click on the attached file.				



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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**.

Current Part Number	New Part Number	Qualification Vehicle
NSV40201LT1G	#NONE	NSV1C201LT1G
NSV1C201LT1G	#NONE	NSV1C201LT1G
NSV60201LT1G	#NONE	NSV1C201LT1G
NSV20201LT1G	#NONE	NSV1C201LT1G

Appendix A: Changed Products**PCN#: FPCN25207Z**
Issue Date: May 22, 2024

DIKG: DIGI-KEY

Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
NSV40201LT1G		NSV1C201LT1G	#NONE	
NSV60201LT1G		NSV1C201LT1G	#NONE	
NSV20201LT1G		NSV1C201LT1G	#NONE	
NSV1C201LT1G		NSV1C201LT1G	#NONE	