

Final Product/Process Change Notification

Document # : FPCN21628Z Issue Date: 15 February 2017

Title of Change:	Mask Design Change of NSVMMBT6520LT1G for Product Robustness.		
Proposed Changed Material First Ship Date:	13 April 2018 or earlier upon customer approval		
Current Material Last Order Date:	15 December 2016 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:	30 December 2016 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 – Discrete components		
Contact information	Contact your local ON Semiconductor Sales Office or <a href="mailto:semi-co</td></tr><tr><td>Samples</td><td colspan=2>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.</td></tr><tr><td>Sample Availability Date:</td><td>30 March 2018</td></tr><tr><td>PPAP Availability Date:</td><td>30 March 2018</td></tr><tr><td>Additional Reliability Data</td><td>Contact your local ON Semiconductor Sales Office or Laura.Rivers@onsemi.com		
Type of Notification:	This is a Final Product/Process Change Notification (FPCN) sent to customers. FPCNs are issued 12 months prior to implementation of the change or earlier upon customer approval. ON Semiconductor 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>.</pcn.support@onsemi.com>		
Change Category:	Type of Change		
Design	Mask Design Change		

Description and Purpose:

ON Semiconductor is notifying customers of ISMF fabrication facility (Seremban, Malaysia) to perform mask design change that are compatible in order to meet ON Semiconductor quality requirements.

The ISMF Fab facility is an ON Semiconductor owned wafer fab that has been producing products for ON Semiconductor that is TS16949, ISO-9001 and ISO-14000 certified.

Qualification tests are designed to show that the reliability of the device will continue to meet or exceed ON Semiconductor standards.

Reason / Motivation for Change:	Product robustness: Modify the die layout to include a base metal overlay that covers the entire base perimeter. Base metal overlay is expected to widen the depletion region producing a higher BVCBO with a lower electrical field.
Anticipated impact on fit, form, function, reliability, product safety or	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 ON Semiconductor in relation to the PCN, associated risks are verified and excluded.
manufacturability	No anticipated impacts.

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Sites Affected:							
☐ All site(s) ☐ no	t applicable	ON Semiconductor site(s): ON ISMF, Malaysia	☐ External Foundry/Subcon site(s)				
Marking of Parts/ Traceability of Change:		roducts will be identified with date code.					
Reliability Data Summary: QV DEVICE NAME: NSVMMBT6520LT1G PACKAGE: SOT23							
Test	Specification	n Condition	Interval	Results			
HTRB	JESD22-A10	Ta= <u>150</u> °C, <u>100</u> % max rated V	1008 hrs	0/84			
HTSL	JESD22-A10	3 Ta= <u>150</u> °C	1008 hrs	0/84			
тс	JESD22-A10	4 Ta= - <u>65</u> °C to + <u>150</u> °C	1000 сус	0/84			
uHAST	JESD22-A11	3 130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/84			
H3TRB	JEDS22-A10	Temp = 85C, RH=85%, bias=80% of rate max	ed V or 100v 1008 hrs	0/84			
IOL	MIL-STD-750	Ta=+25°C, delta, Tj=100°C On/of=2 min	15000 hrs	0/84			
Note: AEC-1pager is attached. To access file attachments on pdf copy of PCN, please be guided by the steps below: 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/s							
Electrical Characteristic Summary: There are no changes in electrical characteristics and product performance meets Datasheet specifications. Characterization data is available upon request.							
List of Affected Standard Parts:							
Current Part Number		New Part Number	Qualification Vehicle				
NSVMMBT6520LT1G		NSVMMBT6520LT1G	NSVMMBT6520LT1G				

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