ON Semiconductor®

Update Notification

Document # : FPCN21628Z1
Issue Date: 13 March 2017

Title of Change:	Update Notification of FPCN21628Z1 - 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:	13 October 2017 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:	23 February 2018 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 <Coleen.Long@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:	23 June 2017
PPAP Availability Date:	31 March 2017
Additional Reliability Data	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>.
Change Category:	**Type of Change**
Design	Mask Design Change

Description and Purpose:

This Update Notification is issued to change the dates of the following items below :

	From	To
Current Material Last Order Date:	December 15, 2016	October 13, 2017
Current Material Last Delivery Date:	December 30, 2016	February 23, 2018
Sample Availability Date:	March 30, 2018	June 23, 2017
PPAP Availability Date:	March 30, 2017	March 31, 2017

FPCN21628Z1 was previously released to announced that 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 manufacturability	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. No anticipated impacts.

Sites Affected:

☐ All site(s) ☐ not applicable ☒ ON Semiconductor site(s) : *ON ISMF, Malaysia* ☐ External Foundry/Subcon site(s)

Marking of Parts/ Traceability of Change:	Affected products will be identified with date code.

Reliability Data Summary:

QV DEVICE NAME : NSVMMBT6520LT1G
PACKAGE : SOT23

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Ta= 150 °C, 100 % max rated V	1008 hrs	0/84
HTSL	JESD22-A103	Ta= 150 °C	1008 hrs	0/84
TC	JESD22-A104	Ta= - 65 °C to + 150 °C	1000 cyc	0/84
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/84
H3TRB	JEDS22-A101	Temp = 85C, RH=85%, bias=80% of rated V or 100v max	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