ON Semiconductor®

Final Product/Process Change Notification

Document # : FPCN21497ZA
Issue Date: 29 June 2017

Title of Change:	Transfer of Automotive Assembly and Test operations of SMB packaged products to ON Semiconductor Vietnam (OSV).
Proposed Changed Material First Ship Date:	1 July 2018 *or earlier upon customer approval*
Current Material Last Order Date:	1 April 2018 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 June 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 <Phuong.Hoang@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:	1 July 2017
PPAP Availability Date:	31 July 2017
Additional Reliability Data	Contact your local ON Semiconductor Sales Office or <cheanching.sim@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**
Process – Assembly	Move of all or part of assembly to a different location/site/subcontractor.
Test Flow	Move of all or part of electrical wafer test and/or final test to a different location/site/subcontractor.
Equipment	Production from a new equipment/tool which uses the same basic technology (replacement equipment or extension of existing equipment pool) without change of process.

Description and Purpose:

This Final Notification announces the transfer of Assembly and Test of SMB products from ON Semiconductor Malaysia (SBN) to ON Semiconductor Vietnam (OSV).

The OSV part numbers are available to early adaptors for immediate SBN demand conversion. Customer can view a list of those OSV part numbers, cross referenced to the transferring SBN part numbers listed in the attached Excel file.

Upon completion of this transfer, SMB demand will be sourced solely from OSV and will no longer be available from SBN. At that time, either the transferring SBN or the current OSV part numbers can be utilized to order these products from OSV.

ON Semiconductor Vietnam (OSV) is qualified site for SMB Standard discrete packaged products and is ISO TS16949 certified.

Products sourced from OSV have been qualified to Automotive requirements and continue remain as Pb-free, Halide free and RoHS compliant.

Reason / Motivation for Change:	• Change benefits for customer(s): o Unconstrained Automotive Sourcing; Mfg floor space for future expansion o Sustained TS16949 Certification with the Same BOM / Equipment / Processes o Allow for increased support for Seremban packages that are currently constrained o OSV has been audited to VDA6.3 • Risks for delayed conversion: o No Seremban supply after July 1st, 2018 o Limited ability to support bridge build availability.
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 Seremban, Malaysia* *ON Dong Nai Province, Vietnam* ☐ External Foundry/Subcon site(s)

Marking of Parts/ Traceability of Change:	Products from OSV will carry site code "VN" at the bottom of the package.

Reliability Data Summary:

QV DEVICE NAME: MBRS3200T3G (Schottky Rectifier)
PACKAGE: SMB

Test	Specification	Condition	Interval	Result
HTRB	JESD22-A108	Ta = 90 °C, bias = 80% of rated V	1008 hrs	0/252
HTSL	JESD22-A103	Ta = 150 °C	1008 hrs	0/252
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, deltaTj=100°C max, Ton = Toff = 2min	15000 cyc	0/252
TC	JESD22-A104	Temp = -65°C to +150°C	1000 cyc	0/252
AC	JESD22-A102	121°C, 100% RH, 15psig, unbiased	96 hrs	0/252
H3TRB	JESD22-A101	Temp = 85°C, RH=85%, bias = 100V max	1008 hrs	0/252
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C		0/1008
RSH	JESD22- B106	Ta = 265°C, 10 sec		0/90
SD	JSTD002	Ta = 245°C, 10 sec		0/45

NOTE: See attached AEC 1 –Pager

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:

Electrical characteristics are not impacted.

List of affected Parts:

Transferring Malaysia (SBN) Part Number	Qualification Vehicle
SBRS8190T3G	MBRS3200T3G
NRVBS130T3G	
NRVBS230LT3G	
NRVBS260T3G	
SBRS81100T3G	
NRVBS3200T3G	
SBRS8140T3G	
NBRS2H100T3G	
NRVBS2040LT3G	
SBRS8130LT3G	
NRVBSS24T3G	
NRVBSS26T3G	
SBRS5654T3G	
NRVBS360BT3G	
NRVBS240LT3G	
SBRS5641T3G	
SBRS8120T3G	