



Title of Change:	Qualification of ON Semiconductor Vietnam (OSV) as an additional Assembly and Test location for Schottky, Ultrafast and Trench Schottky in D2PAK package.							
Proposed first ship date:	7 June 2018							
Contact information:	Contact your local ON Semiconductor Sales Office or <Phuong.Hoang@onsemi.com>							
Samples:	Contact your local ON Semiconductor Sales Office or <Phuong.Hoang@onsemi.com>							
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 90 days prior to implementation of the change. ON Semiconductor will consider this change accepted, unless an inquiry is made in writing within 30 days of delivery of this notice. To do so, contact <PCN.Support@onsemi.com>.							
Change Part Identification:	Product from ON Semiconductor Vietnam (OSV) will be marked with site code "VN" prior to the date code.							
Change category:	☐ Wafer Fab Change ☒ Assembly Change ☒ Test Change ☐ Other _____							
Change Sub-Category(s):	☒ Manufacturing Site Change/Addition ☒ Material Change ☐ Datasheet/Product Doc change ☐ Manufacturing Process Change ☐ Product specific change ☒ Shipping/Packaging/Marking ☐ Other: _____							
Sites Affected:	ON Semiconductor Sites: ON Dong Nai Province, Vietnam	External Foundry/Subcon Sites: None						
Description and Purpose: This Final Notification announces the planned capacity expansion of ON Semiconductor's assembly and test operations of D2PAK discrete packaged products to ON Semiconductor Vietnam (OSV). Schottky, Ultrafast, and Trench Schottky products are currently being assembled and tested in ON Semiconductor Seremban (SBN) and Tongfu Fujitsu Microelectronics, China (TFME). Upon the expiration of this FPCN, the affected OPNs can be sourced from either assembly or test locations, as mentioned above. Schottky, Ultrafast, and Trench Schottky products in D2PAK package will be processed in ON Semiconductor Vietnam (OSV) with improved mold compound.								
<table border="1"> <thead> <tr> <th>Material to be changed</th> <th>Before Change (SBN)</th> <th>After Change (OSV)</th> </tr> </thead> <tbody> <tr> <td>Mold Compound</td> <td>EMC-GE8000CH4ES</td> <td>EMC-G700HF</td> </tr> </tbody> </table>			Material to be changed	Before Change (SBN)	After Change (OSV)	Mold Compound	EMC-GE8000CH4ES	EMC-G700HF
Material to be changed	Before Change (SBN)	After Change (OSV)						
Mold Compound	EMC-GE8000CH4ES	EMC-G700HF						
ON Semiconductor Vietnam (OSV) is a qualified site for D2PAK Standard discrete packaged products. Products sourced from OSV have been qualified to Industrial requirements and continue remain as Pb-free, Halide free and RoHS compliant.								



Reliability Data Summary:

QV DEVICE NAME: MBRB20200CTT4G (Schottky Rectifier)

PACKAGE: D2PAK

Test	Specification	Condition	Interval	Result
HTRB	JESD22-A108	Ta = 90°C, bias = 100% of rated V	1008 hrs	0/252
HTSL	JESD22-A103	Ta = 175 °C	1008 hrs	0/252
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C max, Ton = Toff = 3.5min	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 @ 245 °C		0/1008
RSH	JESD22- B106	Ta = 265°C, 10 sec		0/90
SD	JSTD002	Ta = 245°C, 10 sec		0/45

QV DEVICE NAME: MURB1660CTT4G (Ultrafast Rectifier)

PACKAGE: D2PAK

Test	Specification	Condition	Interval	Result
HTRB	JESD22-A108	Ta = 150°C, Tj(est) = 175 °C, bias = 100% of rated V	1008 hrs	0/252
HTSL	JESD22-A103	Ta = 175 °C	1008 hrs	0/252
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C max, Ton = Toff = 3.5min	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 @ 245 °C		0/1008
RSH	JESD22- B106	Ta = 265°C, 10 sec		0/90
SD	JSTD002	Ta = 245°C, 10 sec		0/45



QV DEVICE NAME: NTSB60100CTG (Trench Schottky Rectifier)

PACKAGE: D2PAK

Test	Specification	Condition	Interval	Result
HTRB	JESD22-A108	Ta = 90°C, bias = 100% 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, delta Tj=100°C max, Ton = Toff = 3.5min	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 @ 245 °C		0/1008
RSH	JESD22- B106	Ta = 265°C, 10 sec		0/90
SD	JSTD002	Ta = 245°C, 10 sec		0/45

Electrical Characteristic Summary:

Electrical characteristics are not impacted.

List of Affected Standard Parts:

Part Number	Qualification Vehicle
MBRB1045G	MBRB20200CTT4G
MBRB1045T4G	
MBRB1545CTG	
MBRB1545CTT4G	
MBRB1645T4G	
MBRB20100CTG	
MBRB20100CTT4G	
MBRB20200CTG	
MBRB20200CTT4G	
MBRB2060CTG	
MBRB2060CTT4G	
MBRB20H100CTT4G	
MBRB2515LG	
MBRB2515LT4G	
MBRB2535CTLG	
MBRB2535CTLT4G	
MBRB2545CTG	
MBRB2545CTT4G	



MBRB3030CTG	MBRB20200CTT4G
MBRB3030CTLG	
MBRB3030CTT4G	
MBRB30H60CTT4G	
MBRB40250TG	
MBRB40250TT4G	
MBRB4030G	
MBRB4030T4G	
MBRB41H100CTT4G	
MBRB60H100CTT4G	
MBRB8H100T4G	
MURB1620CTG	MURB1660CTT4G
MURB1620CTRG	
MURB1620CTRT4G	
MURB1620CTT4G	
MURB1660CTG	
MURB1660CTT4G	
MURHB840CTG	
MURHB840CTT4G	
MURHB860CTT4G	
NTSB20100CTG	NTSB60100CTG
NTSB20100CTT4G	
NTSB20120CTG	
NTSB20120CTT4G	
NTSB30100CTG	
NTSB30100CTT4G	
NTSB30120CTG	
NTSB30120CTT4G	
NTSB30U100CTG	
NTSB30U100CTT4G	
NTSB40100CTG	
NTSB40100CTT4G	
NTSB40120CTG	
NTSB40120CTT4G	
NTSB60100CTG	
NTSB60100CTT4G	