



Title of Change:	Qualify ON Semiconductor Vietnam (OSV) as an additional Automotive site for Assembly/Test of specified products in DPAK package.
Proposed first ship date:	8 March 2017 <i>or earlier upon customer approval</i>
Contact information:	Contact your local ON Semiconductor Sales Office or <Phuong.Hoang@onsemi.com>
Samples:	Contact your local ON Semiconductor Sales Office
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. This FPCN is being issued 6 months prior to implementation because this change provides an alternate source to an ON manufacturing facility utilizing the same BOM. ON Semiconductor will consider this proposed change and it's conditions acceptable, 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 while the Seremban device does not have site code marking.
Change category:	<input type="checkbox"/> Wafer Fab Change <input checked="" type="checkbox"/> Assembly Change <input checked="" type="checkbox"/> Test Change <input type="checkbox"/> Other _____
Change Sub-Category(s):	<input checked="" type="checkbox"/> Manufacturing Site Change/Addition <input type="checkbox"/> Material Change <input type="checkbox"/> Datasheet/Product Doc change <input type="checkbox"/> Manufacturing Process Change <input type="checkbox"/> Product specific change <input checked="" type="checkbox"/> Shipping/Packaging/Marking <input type="checkbox"/> Other: _____
Sites Affected:	<input type="checkbox"/> All site(s) <input type="checkbox"/> not applicable <input checked="" type="checkbox"/> ON Semiconductor site(s) : ON Dong Nai Province, Vietnam ON Seremban, Malaysia <input type="checkbox"/> External Foundry/Subcon site(s) _____
Description and Purpose:	<p>This Final Notification announces the plan to qualify ON Semiconductor Vietnam (OSV) as an additional Assembly and Test site for operations of Automotive discrete DPAK packaged products.</p> <p>Upon the expiration of this FPCN, new OSV part numbers will be available to allow specified products to be sourced from either the Seremban or Vietnam locations using the same Bill of Material.</p> <p>ON Semiconductor Vietnam (OSV) is qualified site for DPAK Standard discrete packaged products and is ISO TS16949 certified.</p> <p>Products sourced from OSV have been qualified to Automotive requirements and continue remain as Pb-free, Halide free and RoHS compliant.</p> <p>Change benefits: Rapid utilization of availability capacity.</p> <p>Risk for late release: Limited capacity.</p>



Reliability Data Summary:

QV DEVICE NAME: MJD340T4G (Bipolar)

PACKAGE: DPAK

Test	Specification	Condition	Interval	Result
HTRB	JESD22-A108	Ta = 150 °C, bias = 80% of rated V	1008 hrs	0/84
HTSL	JESD22-A103	Ta = 150 °C	1008 hrs	0/84
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, deltaTj=100°C max, Ton = Toff = 2min	15000 cyc	0/84
TC	JESD22-A104	Temp = -65°C to +150°C	1000 cyc	0/84
AC	JESD22-A102	121°C, 100% RH, 15psig, unbiased	96 hrs	0/84
H3TRB	JESD22-A101	Temp = 85°C, RH=85%, bias = 100V max	1008 hrs	0/84
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C		0/336
RSH	JESD22- B106	Ta = 265°C, 10 sec		0/30
SD	JSTD002	Ta = 245°C, 10 sec		0/30

QV DEVICE NAME: NTD6414ANT4G (MV HD3E)

PACKAGE: DPAK

Test	Specification	Condition	Interval	Result
HTRB	JESD22-A108	Ta = 175 °C, bias = 80% of rated V	1008 hrs	0/84
HTGB	JESD22-A108	Ta = 175 °C, 100% max rated Vgss	1008 hrs	0/84
HTSL	JESD22-A103	Ta = 175 °C	1008 hrs	0/84
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, deltaTj=100°C max, Ton = Toff = 2min	15000 cyc	0/84
TC	JESD22-A104	Temp = -65°C to +150°C	1000 cyc	0/84
AC	JESD22-A102	121°C, 100% RH, 15psig, unbiased	96 hrs	0/84
H3TRB	JESD22-A101	Temp = 85°C, RH=85%, bias = 80% of rated V	1008 hrs	0/84
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C		0/336
RSH	JESD22- B106	Ta = 265°C, 10 sec		0/30
SD	JSTD002	Ta = 245°C, 10 sec		0/15



QV DEVICE NAME: MURHD560T4G (Ultrafast Rectifier)

PACKAGE: DPAK

Test	Specification	Condition	Interval	Result
HTRB	JESD22-A108	Ta = 150 °C, Tj(est) = 175 °C, bias = 80% 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, 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

QV DEVICE NAME: MTD6N20ET4G (Mosfet)

PACKAGE: DPAK

Test	Specification	Condition	Interval	Result
HTRB	JESD22-A108	Ta = 150 °C, bias = 80% of rated V	1008 hrs	0/84
HTGB	JESD22-A108	Ta = 150 °C, 100% max rated Vgss	1008 hrs	0/84
HTSL	JESD22-A103	Ta = 150 °C	1008 hrs	0/84
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, deltaTj=100°C max, Ton = Toff = 2min	15000 cyc	0/84
TC	JESD22-A104	Temp = -55°C to +150°C	1000 cyc	0/84
AC	JESD22-A102	121°C, 100% RH, 15psig, unbiased	96 hrs	0/84
H3TRB	JESD22-A101	Temp = 85°C, RH=85%, bias = 100V max	1008 hrs	0/84
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C		0/84
RSH	JESD22- B106	Ta = 265°C, 10 sec		0/336
SD	JSTD002	Ta = 245°C, 10 sec		0/30



QV DEVICE NAME: MBRD5H100T4G (Schottky Rectifier)

PACKAGE: DPAK

Test	Specification	Condition	Interval	Result
HTRB	JESD22-A108	Tj = 90 °C, bias = 80% of rated V	1008 hrs	0/84
HTSL	JESD22-A103	Ta = 175 °C	1008 hrs	0/84
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25 °C, deltaTj=100°C max, Ton = Toff = 2min	15000 cyc	0/84
TC	JESD22-A104	Temp = -65°C to +150 °C	1000 cyc	0/84
AC	JESD22-A102	121°C, 100% RH, 15psig, unbiased	96 hrs	0/84
H3TRB	JESD22-A101	Temp = 85 °C, RH=85%, bias = 80% of rated V	1008 hrs	0/84
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C		0/336
RSH	JESD22- B106	Ta = 265 °C, 10 sec		0/30
SD	JSTD002	Ta = 245 °C, 10 sec		0/15

NOTE: AEC-1pagers 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:

Electrical characteristics are not impacted.



List of Affected Parts:

Current SBN Part Number	New OSV part number	Qualification Vehicle
NJVMJD122T4G	NJVMJD122T4G-VF01	MJD340T4G
NJVMJD32CT4G	NJVMJD32CT4G-VF01	MJD340T4G
NJVMJD44H11RLG	NJVMJD44H11RLG-VF01	MJD340T4G
NJVMJD45H11RLG	NJVMJD45H11RLG-VF01	MJD340T4G
NJVMJD45H11T4G	NJVMJD45H11T4G-VF01	MJD340T4G
NJVMJD253T4G	NJVMJD253T4G-VF01	MJD340T4G
NJVMJD31CT4G	NJVMJD31CT4G-VF01	MJD340T4G
NVD6415ANLT4G	NVD6415ANLT4G-VF01	NTD6414ANT4G
NVD6416ANLT4G	NVD6416ANLT4G-VF01	NTD6414ANT4G
STD5406NT4G	STD5406NT4G-VF01	NTD6414ANT4G
SSRD8620CTT4G	NRVSRD620VCTT4G	MURHD560T4G
SSRD8620CTT4RG	NRVSRD620VCTT4RG	MURHD560T4G
SURD8320T4G	NRVUD320VT4G	MURHD560T4G
NTDV20P06LT4G	NTDV20P06LT4G-VF01	MTD6N20ET4G
STD18N06LT4G	STD18N06LT4G-VF01	MTD6N20ET4G
STD3055L104T4G	NVD3055L104T4G-VF01	MTD6N20ET4G
NTDV3055L104T4G	STDV3055L104T4G	MTD6N20ET4G
NVD2955T4G	SVD2955T4G	MTD6N20ET4G
NRVBD640CTT4G	NRVBD640VCTT4G	MBRD5H100T4G
SBR660CTT4G	SBRV660VCTT4G	MBRD5H100T4G
SBR640CTT4G	SBRV640VCTT4G	MBRD5H100T4G
SBRD81035CTLT4G	NRVBD1035VCTLT4G	MBRD5H100T4G
SBRD8360T4G	NRVBD360VT4G	MBRD5H100T4G