



<b>Title of Change:</b>	Qualification of ON Semiconductor Vietnam (OSV) for the Assembly and Test of Bipolar Power Transistors packaged in TO220.																																																					
<b>Proposed first ship date:</b>	23 January 2016																																																					
<b>Contact information:</b>	Contact your local ON Semiconductor Sales Office or <farrah.omar@onsemi.com>																																																					
<b>Samples:</b>	Contact your local ON Semiconductor Sales Office																																																					
<b>Additional Reliability Data:</b>	Contact your local ON Semiconductor Sales Office or <cheanching.sim@onsemi.com>																																																					
<b>Type of notification:</b>	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>.																																																					
<b>Change Part Identification:</b>	Product from On Semiconductor Vietnam (OSV) will be marked with site code VN prior to date code.																																																					
<b>Change category:</b>	<input type="checkbox"/> Wafer Fab Change <input checked="" type="checkbox"/> Assembly Change <input checked="" type="checkbox"/> Test Change <input type="checkbox"/> Other _____																																																					
<b>Change Sub-Category(s):</b>	<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 type="checkbox"/> Shipping/Packaging/Marking <input type="checkbox"/> Other: _____																																																					
<b>Sites Affected:</b>	<input type="checkbox"/> All site(s) <input type="checkbox"/> not applicable <input checked="" type="checkbox"/> ON Semiconductor site(s) : ON Dong Nai Province, Vietnam <input type="checkbox"/> External Foundry/Subcon site(s) Nantong Huada Nantong Fujitsu Microelectronics Co., Ltd (NFME)																																																					
<b>Description and Purpose:</b>	<p>This FPCN announces the planned capacity expansion of ON Semiconductor's assembly and test operations of TO220 discrete packaged products, currently built at Nantong Fujitsu Microelectronics Co., Ltd (NFME) and Nantong Huada Microelectronics Group Co. Ltd (Huada), China facility to ON Semiconductor Vietnam (OSV).</p> <p>Upon the expiration of this FPCN, Bipolar Power Transistor devices may be processed at either location. These products have been qualified to commodity/commercial requirements. These products will continue being Pb-free, Halide free and RoHS compliant.</p>																																																					
<b>Reliability Data Summary:</b>	<p><b>MJE15032G (NPN)</b></p> <table border="1"> <thead> <tr> <th>Test</th> <th>Specification</th> <th>Condition</th> <th>Interval</th> <th>Results</th> </tr> </thead> <tbody> <tr> <td>HTRB</td> <td>JESD22-A108</td> <td>Ta= 150°C, 80% max rated V</td> <td>1008 hrs</td> <td>0/80</td> </tr> <tr> <td>HTSL</td> <td>JESD22-A103</td> <td>Ta= 150°C</td> <td>1008 hrs</td> <td>0/80</td> </tr> <tr> <td>IOL</td> <td>MIL-STD-750 (M1037) AEC-Q101</td> <td>Ta=+25°C, delta Tj=100°C On/off = 3.5 min</td> <td>8572 cyc</td> <td>0/80</td> </tr> <tr> <td>TC</td> <td>JESD22-A104</td> <td>Ta= -65°C to +150°C</td> <td>1000 cyc</td> <td>0/80</td> </tr> <tr> <td>H3TRB</td> <td>JESD22-A101</td> <td>85°C, 85% RH, bias</td> <td>1008 hrs</td> <td>0/80</td> </tr> <tr> <td>AC</td> <td>JESD22-A102</td> <td>121°C, 100% RH, 15psig</td> <td>96 hrs</td> <td>0/80</td> </tr> <tr> <td>PC</td> <td>J-STD-020 JESD-A113</td> <td>MSL 1 @ 260 °C</td> <td></td> <td>0/320</td> </tr> <tr> <td>RSH</td> <td>JESD22- B106</td> <td>Ta = 265C, 10 sec</td> <td></td> <td>0/30</td> </tr> <tr> <td>SD</td> <td>JSTD002</td> <td>Ta = 245C, 10 sec</td> <td></td> <td>0/15</td> </tr> </tbody> </table>				Test	Specification	Condition	Interval	Results	HTRB	JESD22-A108	Ta= 150°C, 80% max rated V	1008 hrs	0/80	HTSL	JESD22-A103	Ta= 150°C	1008 hrs	0/80	IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 3.5 min	8572 cyc	0/80	TC	JESD22-A104	Ta= -65°C to +150°C	1000 cyc	0/80	H3TRB	JESD22-A101	85°C, 85% RH, bias	1008 hrs	0/80	AC	JESD22-A102	121°C, 100% RH, 15psig	96 hrs	0/80	PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C		0/320	RSH	JESD22- B106	Ta = 265C, 10 sec		0/30	SD	JSTD002	Ta = 245C, 10 sec		0/15
Test	Specification	Condition	Interval	Results																																																		
HTRB	JESD22-A108	Ta= 150°C, 80% max rated V	1008 hrs	0/80																																																		
HTSL	JESD22-A103	Ta= 150°C	1008 hrs	0/80																																																		
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 3.5 min	8572 cyc	0/80																																																		
TC	JESD22-A104	Ta= -65°C to +150°C	1000 cyc	0/80																																																		
H3TRB	JESD22-A101	85°C, 85% RH, bias	1008 hrs	0/80																																																		
AC	JESD22-A102	121°C, 100% RH, 15psig	96 hrs	0/80																																																		
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C		0/320																																																		
RSH	JESD22- B106	Ta = 265C, 10 sec		0/30																																																		
SD	JSTD002	Ta = 245C, 10 sec		0/15																																																		

**MJE15033G (PNP)**

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Ta= 150°C, 80% max rated V	1008 hrs	0/80
HTSL	JESD22-A103	Ta= 150°C	1008 hrs	0/80
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 3.5 min	8572 cyc	0/80
TC	JESD22-A104	Ta= -65°C to +150°C	1000 cyc	0/80
H3TRB	JESD22-A101	85°C, 85% RH, bias	1008 hrs	0/80
AC	JESD22-A102	121°C, 100% RH, 15psig	96 hrs	0/80
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C		0/320
RSH	JESD22- B106	Ta = 265C, 10 sec		0/30
SD	JSTD002	Ta = 245C, 10 sec		0/15

**Electrical Characteristic Summary:**

There are no changes in electrical characteristics; product performance meets data sheet specifications. Characterization data is available upon request.



## List of affected Standard Parts:

Part Number	Qualification Vehicle
2N6043G	MJE15032G
2N6045G	MJE15032G
2N6288G	MJE15032G
2N6292G	MJE15032G
2N6387G	MJE15032G
2N6388G	MJE15032G
2N6487G	MJE15032G
2N6488G	MJE15032G
BD241CG	MJE15032G
BD243CG	MJE15032G
BD809G	MJE15032G
BDW42G	MJE15032G
BDX33BG	MJE15032G
BDX33CG	MJE15032G
BDX53BG	MJE15032G
BDX53CG	MJE15032G
BU406G	MJE15032G
BUL45D2G	MJE15032G
BUV26G	MJE15032G
BUV27G	MJE15032G
BUX85G	MJE15032G
D44H11G	MJE15032G
D44H8G	MJE15032G
D44VH10G	MJE15032G
MJE13007G	MJE15032G
MJE15028G	MJE15032G
MJE15030G	MJE15032G
MJE15032G	MJE15032G
MJE15034G	MJE15032G
MJE18004G	MJE15032G
MJE18008G	MJE15032G
MJE3055TG	MJE15032G
MJE5742G	MJE15032G
TIP100G	MJE15032G
TIP101G	MJE15032G
TIP102G	MJE15032G
TIP110G	MJE15032G
TIP111G	MJE15032G
TIP112G	MJE15032G
TIP120G	MJE15032G



TIP121G	MJE15032G
TIP122G	MJE15032G
TIP29AG	MJE15032G
TIP29BG	MJE15032G
TIP29CG	MJE15032G
TIP31AG	MJE15032G
TIP31BG	MJE15032G
TIP31CG	MJE15032G
TIP31G	MJE15032G
TIP41AG	MJE15032G
TIP41BG	MJE15032G
TIP41CG	MJE15032G
TIP47G	MJE15032G
TIP48G	MJE15032G
TIP50G	MJE15032G
2N6040G	MJE15033G
2N6042G	MJE15033G
2N6107G	MJE15033G
2N6109G	MJE15033G
2N6111G	MJE15033G
2N6490G	MJE15033G
2N6491G	MJE15033G
2N6667G	MJE15033G
BD242BG	MJE15033G
BD242CG	MJE15033G
BD244BG	MJE15033G
BD244CG	MJE15033G
BD810G	MJE15033G
BDW46G	MJE15033G
BDW47G	MJE15033G
BDX34BG	MJE15033G
BDX34CG	MJE15033G
BDX54BG	MJE15033G
BDX54CG	MJE15033G
D45H11G	MJE15033G
D45H8G	MJE15033G
D45VH10G	MJE15033G
MJE15029G	MJE15033G
MJE15031G	MJE15033G
MJE15033G	MJE15033G
MJE15035G	MJE15033G
MJE2955TG	MJE15033G
MJE5730G	MJE15033G



MJE5731AG	MJE15033G
MJE5731G	MJE15033G
MJE5850G	MJE15033G
MJE5851G	MJE15033G
MJE5852G	MJE15033G
TIP106G	MJE15033G
TIP107G	MJE15033G
TIP115G	MJE15033G
TIP116G	MJE15033G
TIP117G	MJE15033G
TIP125G	MJE15033G
TIP126G	MJE15033G
TIP127G	MJE15033G
TIP30CG	MJE15033G
TIP32AG	MJE15033G
TIP32BG	MJE15033G
TIP32CG	MJE15033G
TIP32G	MJE15033G
TIP42AG	MJE15033G
TIP42BG	MJE15033G
TIP42CG	MJE15033G
TIP42G	MJE15033G