



<b>Title of Change:</b>	ON Semiconductor Tarlac, Philippines as additional Assembly and Test Site for ESD Protection Diodes - NSPM5131MUTBG							
<b>Proposed first ship date:</b>	9 May 2018 or earlier upon customer approval							
<b>Contact information:</b>	Contact your local ON Semiconductor Sales Office or <mike.begonia@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 <Andy.Esteva@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>	Change marking for identification Additional vertical line/bar after one digit date code as site identification – MI <table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th>Device</th> <th>SBN MARKING</th> <th>OSPI TARLAC MARKING</th> </tr> </thead> <tbody> <tr> <td>NSPM5131MUTBG</td> <td>A3M</td> <td>A3MI</td> </tr> </tbody> </table>		Device	SBN MARKING	OSPI TARLAC MARKING	NSPM5131MUTBG	A3M	A3MI
Device	SBN MARKING	OSPI TARLAC MARKING						
NSPM5131MUTBG	A3M	A3MI						
<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"/> Product specific change <input type="checkbox"/> Datasheet/Product Doc change <input type="checkbox"/> Manufacturing Process Change <input type="checkbox"/> Shipping/Packaging/Marking <input type="checkbox"/> Other: _____							
<b>Sites Affected:</b>	ON Semiconductor Sites: ON Seremban, Malaysia ON Tarlac City, Philippines	External Foundry/Subcon Sites: None						
<b>Description and Purpose:</b>								
The Final Notification announces to customers of the plan to have ON Semiconductor Tarlac, Philippines factory as additional production site for NSPM5131MUTBG which is currently manufactured at ON semiconductor Seremban, Malaysia factory.  The Philippines internal facility is certified with ISO/TS 16949:2009 and is currently running production for DFN packages. These products will continue being Pb-free, Halide free and RoHS compliant. Qualification tests are designed to show that the reliability of the qualified devices will continue to meet or exceed ON Semiconductor standards.								
<b>NSPM5131MUTBG</b>								
	<b>Before Change (Seremban Build) Description</b>	<b>After Change (Seremban and Tarlac Build) Description</b>						
Lead Frame	Selective Ag UDFN 1.8 X 2.0 6L	Selective Ag UDFN 1.8 X 2.0 6L (SBN) PPF UDFN 1.8 X 2.0 6L (TARLAC)						
Epoxy	AB 8008HT	No change						
Mold Compound	MC SU EMEG770	MC SU EMEG770 (SBN) MC SU EMEG760 (TARLAC)						
Wire Size/Type	2 mils / PCC	No Change						



**Reliability Data Summary:**

**QV DEVICE NAME:** NSPM5131MUTBG

**RMS:** 41151

**PACKAGE:** UDFN6, 1.8x2, 0.4P

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	High Temperature Reverse Bias Tj=150C Bias = 100% Vrwm	1008 hrs	0/77*3
HTSL	JESD22-A103	Ta=150C max storage storage temp for device	2000 hrs	0/77*3
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, deltaTj=100°C max, 2min on/off for 15000 cyc	15000 cyc	0/77*3
TC	JESD22-A104	Temp = -65°C to +150°C; for 1000 cycles	1000 cyc	0/77*3
HAST	JESD22-A110	Temp = 130C, 85% RH, ~ 18.8 psig, 100% VRWM for 96hr (JA101)	192 hrs	0/77*3
uHAST	JESD22-A118	Temp = 130C, RH=85%, ~ 18.8 psig	96 hrs	0/77*3
PC	J-STD-020 JESD-A113	IR reflow at 260C		0/480*3
RSH	JESD22- B106	Ta=265C 10 sec dwell B106		0/30*3

**Electrical Characteristic Summary:**

Data are available upon request.

**List of Affected Standard Parts:**

Part Number	Qualification Vehicle
NSPM5131MUTBG	NSPM5131MUTBG



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## Appendix A: Changed Products

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Product	Customer Part Number	Qualification Vehicle
NSPM5131MUTBG		NSPM5131MUTBG