



Title of Change:	Qualification of Amkor Technology Malaysia (ATM) for the Assembly and Test of Trench MOSFET products packaged in SO8FL.																																																										
Proposed first ship date:	9 May 2017 <i>or earlier after customer approval</i>																																																										
Contact information:	Contact your local ON Semiconductor Sales Office or <GuoKun.Yeng@onsemi.com>																																																										
Samples:	Contact your local ON Semiconductor Sales Office or <Amit.Gole@onsemi.com>																																																										
Additional Reliability Data:	Contact your local ON Semiconductor Sales Office or <Phine.Guevarra@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 Amkor Technology Malaysia will be marked with site code YE prior to 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: ☐ All site(s) ☐ not applicable ☐ ON Semiconductor site(s) : ☒ External Foundry/Subcon site(s) Amkor Technology Malaysia																																																											
Description and Purpose: This Product Change Notice is to announce that ON Semiconductor is expanding assembly and test operations of SO8FL discrete packaged products, currently built at ON Semiconductor Seremban, Malaysia facility to Amkor Technology Malaysia (ATM). Upon the expiration of this FPCN or earlier after customer approval, Trench Mosfet 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. Device quality and reliability will continue to meet ON Semiconductors high standards.																																																											
Reliability Data Summary: <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/ 252</td> </tr> <tr> <td>HTGB</td> <td>JESD22-A108</td> <td>Ta=150°C, 100% max rated Vgss</td> <td>1008 hrs</td> <td>0/252</td> </tr> <tr> <td>HTSL</td> <td>JESD22-A103</td> <td>Ta= 150°C</td> <td>1008 hrs</td> <td>0/252</td> </tr> <tr> <td>IOL</td> <td>MIL-STD-750 (M1037) AEC-Q101</td> <td>Ta=+25°C, delta Tj=100°C On/off = 2 min</td> <td>15000 cyc</td> <td>0/252</td> </tr> <tr> <td>TC</td> <td>JESD22-A104</td> <td>Ta= -65°C to +150°C</td> <td>1000 cyc</td> <td>0/252</td> </tr> <tr> <td>HAST</td> <td>JESD22-A110</td> <td>130°C, 85% RH, 18.8psig, bias</td> <td>96 hrs</td> <td>0/252</td> </tr> <tr> <td>uHAST</td> <td>JESD22-A118</td> <td>130°C, 85% RH, 18.8psig, unbiased</td> <td>96 hrs</td> <td>0/240</td> </tr> <tr> <td>PC</td> <td>J-STD-020 JESD-A113</td> <td>MSL 1 @ 260 °C</td> <td></td> <td>Pass</td> </tr> <tr> <td>RSH</td> <td>JESD22- B106</td> <td>Ta = 265°C, 10 sec</td> <td></td> <td>0/90</td> </tr> <tr> <td>SD</td> <td>JSTD002</td> <td>Ta = 245°C, 10 sec</td> <td></td> <td>0/45</td> </tr> </tbody> </table>					Test	Specification	Condition	Interval	Results	HTRB	JESD22-A108	Ta=150°C, 80% max rated V	1008 hrs	0/ 252	HTGB	JESD22-A108	Ta=150°C, 100% max rated Vgss	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 On/off = 2 min	15000 cyc	0/252	TC	JESD22-A104	Ta= -65°C to +150°C	1000 cyc	0/252	HAST	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs	0/252	uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/240	PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C		Pass	RSH	JESD22- B106	Ta = 265°C, 10 sec		0/90	SD	JSTD002	Ta = 245°C, 10 sec		0/45
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**Electrical Characteristic Summary:**

There is no change in electrical parametric performance.

List of Affected Standard Parts:

Part Number	Qualification Vehicle
NTMFS4C13NT1G	NTMFS4C05NT1G