



Title of Change:	Qualification of SOD123FL packaged ON Semiconductor products built with G600FB Mold Compound and New Lead frame (Without Mold Lock Hole) in ON Semiconductor Seremban Assembly Facility.													
Proposed first ship date:	28 October 2016 <i>or earlier upon customer approval</i>													
Contact information:	Contact your local ON Semiconductor Sales Office or <eben.lim@onsemi.com> and <SitiNurhaza.MohdRamli@onsemi.com>													
Samples:	Contact your local ON Semiconductor Sales Office or <eben.lim@onsemi.com> and <SitiNurhaza.MohdRamli@onsemi.com>													
Additional Reliability Data:	Contact your local ON Semiconductor Sales Office or <ffxg4t@onsemi.com>.													
Type of notification:	<p>This is a Final Product/Process Change Notification (FPCN) sent to customers. FPCNs are issued 90 days prior to implementation of the change.</p> <p>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>.</p>													
Change Part Identification:	Products assembled with the new mold compound and new lead frame from the ON Semiconductor facility will have a Finish Goods Date Code of WW39, 2016 or greater.													
Change category:	<input type="checkbox"/> Wafer Fab Change <input checked="" type="checkbox"/> Assembly Change <input type="checkbox"/> Test Change <input type="checkbox"/> Other _____													
Change Sub-Category(s):	<input type="checkbox"/> Manufacturing Site Change/Addition <input checked="" 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: _____													
Sites Affected:	<input type="checkbox"/> All site(s) <input type="checkbox"/> not applicable <input checked="" type="checkbox"/> ON Semiconductor site(s) : ON Seremban, Malaysia <input type="checkbox"/> External Foundry/Subcon site(s)													
Description and Purpose:	<p>ON Semiconductor is notifying customers of its intended use of a new Lead frame without Mold Lock Hole for the below listed devices at ON Semiconductor's Seremban, Malaysia facility. Discrete products built with Zener, Clippers, Ultrafast & Schottky Rectifier Diodes packaged in SOD123FL, are represented by this Process Change Notice.</p> <p>At the expiration of this FPCN, the below listed devices will be assembled with G600FB mold compound and new lead frame (<i>without mold lock hole</i>) at ON Semiconductor's existing Seremban facility.</p> <table border="1" data-bbox="107 1507 1526 1724"> <thead> <tr> <th></th> <th>Before Change</th> <th>After Change</th> </tr> <tr> <th></th> <th>Description</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Leadframe</td> <td>CDA194 Leadframe with Mold Lock Hold</td> <td>CDA194 Leadframe without Mold Lock Hold</td> </tr> <tr> <td>Mold Compound</td> <td>Nitto GE200A</td> <td>Sumitomo G600FB</td> </tr> </tbody> </table> <p>Datasheet specifications and product electrical performance remain unchanged.</p> <p>Reliability Qualification and full electrical characterization over temperature has been performed to ensure device functionality and electrical specifications are met.</p>			Before Change	After Change		Description	Description	Leadframe	CDA194 Leadframe with Mold Lock Hold	CDA194 Leadframe without Mold Lock Hold	Mold Compound	Nitto GE200A	Sumitomo G600FB
	Before Change	After Change												
	Description	Description												
Leadframe	CDA194 Leadframe with Mold Lock Hold	CDA194 Leadframe without Mold Lock Hold												
Mold Compound	Nitto GE200A	Sumitomo G600FB												



Reliability Data Summary:

NRVHP220SFT3G

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Ta=150°C, 80 % max 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 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	0/252
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C		0/252
RSH	JESD22- B106	Ta = 265C, 10 sec		0/90
SD	JSTD002	Ta = 245C, 10 sec		0/90
DPA		Following TC1000 cyc + PC		0/12
DPA		Following HAST 96 hrs + PC		0/12

SMF58AT1G

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Ta=150°C, 80 % max 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 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	0/252
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C		0/252
RSH	JESD22- B106	Ta = 265C, 10 sec		0/90
SD	JSTD002	Ta = 245C, 10 sec		0/90
DPA		Following TC1000 cyc + PC		0/12
DPA		Following HAST 96 hrs + PC		0/12



NRVTS260ESFT3G

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Ta=150°C, 80 % max 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 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	0/252
PC	J-STD-020 JESD-A113	MSL 1 @ 260 °C		0/252
RSH	JESD22- B106	Ta = 265C, 10 sec		0/90
SD	JSTD002	Ta = 245C, 10 sec		0/90
DPA		Following TC1000 cyc + PC		0/12
DPA		Following HAST 96 hrs + PC		0/12

MBR2H200SFT1G

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Ta=150°C, 80 % max 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 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	0/252
PC	J-STD-020 JESD-A113	MSL 1 @ 260°C		0/252
RSH	JESD22- B106	Ta = 265C, 10 sec		0/90
SD	JSTD002	Ta = 245C, 10 sec		0/90
DPA		Following TC1000 cyc + PC		0/12
DPA		Following HAST 96 hrs + PC		0/12

Electrical Characteristic Summary:

Three temperature characterization and ESD performance meet datasheet specification. Detail of Electrical characterization result is available upon request.



List of Affected Standard Parts:

Part Number	Qualification Vehicle
MBR120ESFT1G	MBR2H200SFT1G
MBR120ESFT3	MBR2H200SFT1G
MBR120ESFT3G	MBR2H200SFT1G
MBR120LSFT1G	MBR2H200SFT1G
MBR120LSFT1H	MBR2H200SFT1G
MBR120LSFT3	MBR2H200SFT1G
MBR120LSFT3G	MBR2H200SFT1G
MBR120VLSFT1G	MBR2H200SFT1G
MBR120VLSFT1H	MBR2H200SFT1G
MBR120VLSFT3	MBR2H200SFT1G
MBR120VLSFT3G	MBR2H200SFT1G
MBR130LSFT1G	MBR2H200SFT1G
MBR130LSFT1H	MBR2H200SFT1G
MBR140ESFT1G	MBR2H200SFT1G
MBR140ESFT3G	MBR2H200SFT1G
MBR140SFT1	MBR2H200SFT1G
MBR140SFT1G	MBR2H200SFT1G
MBR140SFT1H	MBR2H200SFT1G
MBR140SFT3	MBR2H200SFT1G
MBR140SFT3G	MBR2H200SFT1G
MBR1H100SFT3G	MBR2H200SFT1G
MBR230LSFT1G	MBR2H200SFT1G
MBR230LSFT1H	MBR2H200SFT1G
MBR2H100SFT3G	MBR2H200SFT1G
MBR2H200SFT1G	MBR2H200SFT1G
MBR2H200SFT3G	MBR2H200SFT1G
NHP120SFT3G	NRVHP220SFT3G
NHP220SF-ST3G	NRVHP220SFT3G
NHP220SFT3G	NRVHP220SFT3G
NTS245SFT1G	NRVTS260ESFT3G
NTS245SFT3G	NRVTS260ESFT3G
NTS260ESFT1G	NRVTS260ESFT3G
NTS260ESFT3G	NRVTS260ESFT3G
NTS260SFT1G	NRVTS260ESFT3G
NTS260SFT3G	NRVTS260ESFT3G



SMF10AT1G	SMF58AT1G
SMF11AT1G	SMF58AT1G
SMF12AT1G	SMF58AT1G
SMF13AT1G	SMF58AT1G
SMF14AT1G	SMF58AT1G
SMF15AT1G	SMF58AT1G
SMF18AT1G	SMF58AT1G
SMF20AT1G	SMF58AT1G
SMF22AT1G	SMF58AT1G
SMF24AT1G	SMF58AT1G
SMF26AT1G	SMF58AT1G
SMF28AT1G	SMF58AT1G
SMF30AT1G	SMF58AT1G
SMF33AT1G	SMF58AT1G
SMF36AT1G	SMF58AT1G
SMF48AT1G	SMF58AT1G
SMF5.0AT1G	SMF58AT1G
SMF58AT1G	SMF58AT1G
SMF6.0AT1G	SMF58AT1G
SMF6.5AT1G	SMF58AT1G
SMF7.0AT1G	SMF58AT1G
SMF7.5AT1G	SMF58AT1G
SMF8.0AT1G	SMF58AT1G
SMF9.0AT1G	SMF58AT1G
1SMF5920BT1G	SMF58AT1G