



Title of Change:	SMA, SMB and SMC Leadframe Change from Strip to Matrix, Green EMC, Fully Automated Assembly Process													
Proposed first ship date:	6 August 2018 or earlier upon customer approval													
Contact information:	Contact your local ON Semiconductor Sales Office or <Benjo.Rulona@onsemi.com>													
Samples:	Contact your local ON Semiconductor Sales Office or <PCN.Samples@onsemi.com>													
Additional Reliability Data:	Contact your local ON Semiconductor Sales Office or <Ken.Fergus@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:	Cut-off Date code: WW31 FY18													
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 checked="" type="checkbox"/> Manufacturing Process Change <input type="checkbox"/> Product specific change <input type="checkbox"/> Shipping/Packaging/Marking <input type="checkbox"/> Other: _____													
Sites Affected:	ON Semiconductor Sites: None	External Foundry/Subcon Sites: Yangxin China												
Description and Purpose:														
This FPCN announces the following changes:														
<table border="1"> <thead> <tr> <th>Material to be changed</th> <th>Before Change Description</th> <th>After Change Description</th> </tr> </thead> <tbody> <tr> <td>Leadframe</td> <td>Traditional and Folded</td> <td>Matrix</td> </tr> <tr> <td>Mold Compound</td> <td>Non-HF EME-1100 and HF EME-E110</td> <td>HF EME-E500</td> </tr> <tr> <td>Packing</td> <td>Transparent Carrier tape and White Paper Reel</td> <td>Black Carrier Tape and Black Plastic Reel</td> </tr> </tbody> </table>			Material to be changed	Before Change Description	After Change Description	Leadframe	Traditional and Folded	Matrix	Mold Compound	Non-HF EME-1100 and HF EME-E110	HF EME-E500	Packing	Transparent Carrier tape and White Paper Reel	Black Carrier Tape and Black Plastic Reel
Material to be changed	Before Change Description	After Change Description												
Leadframe	Traditional and Folded	Matrix												
Mold Compound	Non-HF EME-1100 and HF EME-E110	HF EME-E500												
Packing	Transparent Carrier tape and White Paper Reel	Black Carrier Tape and Black Plastic Reel												
<p>Unless otherwise indicated in the details of this notification, the identified changes will have no impact on product quality, reliability, electrical, thermal or mechanical performance and affected products will remain fully compliant to all published specifications. Package dimensions are still within the existing ON published package case outlines. Products incorporating these changes may be shipped interchangeably with existing unchanged products.</p>														



Reliability Data Summary:

QV DEVICE NAME

Lots 1, 2, 3: S1M

PACKAGE: SMA

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Ta=150°C, 100% max rated V	500 hrs 1000 hrs	0/231 0/231
H3THB	JESD22-A101	TA=85°C+/-2°C RH=85%+/-5% VR=80% rated V DC	500 hrs 1000 hrs	0/231 0/231
HTSL	JESD22-A103	Ta=150°C	500 hrs 1000 hrs	0/231 0/231
PC	J-STD-020 JESD-A113	MSL1 @ 260 °C		0/693
IOL	MIL-STD-750 (M1037) AEC-Q101	I=IF±10% DC supply On time: 2 mins at least, Off time : 2 mins at least	7500cyc 15000cyc	0/231 0/231
TC	JESD22-A104	Ta= -55°Cto +150°C	500 cyc 1000 cyc	0/231 0/231
AC	JESD-A102	TA= 121°C, P= 15psig Relative Humidity = 100%	96 hrs	0/231
RSH	JESD22- B106	Ta = 260±5°C, 10±1sec; Dipping depth=within 1.27mm of the body		0/90
SD	JSTD002	Ta = 245±5C, 5±0.5 sec		0/30

QV DEVICE NAME

lot 1: SS26

Lot 2: S2M

Lot 3: MURS160S

PACKAGE: SMB

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Ta=150°C, 100% max rated V	500 hrs 1000 hrs	0/231 0/231
H3THB	JESD22-A101	TA=85°C+/-2°C RH=85%+/-5% VR=80% rated V DC	500 hrs 1000 hrs	0/231 0/231
HTSL	JESD22-A103	Ta=150°C	500 hrs 1000 hrs	0/231 0/231
PC	J-STD-020 JESD-A113	MSL1 @ 260 °C		0/693
IOL	MIL-STD-750 (M1037) AEC-Q101	I=IF±10% DC supply On time: 2 mins at least, Off time : 2 mins at least	7500cyc 15000cyc	0/231 0/231
TC	JESD22-A104	Ta= -55°Cto +150°C	500 cyc 1000 cyc	0/231 0/231
AC	JESD-A102	TA= 121°C, P= 15psig Relative Humidity = 100%	96 hrs	0/231
RSH	JESD22- B106	Ta = 260±5°C, 10±1sec; Dipping depth=within 1.27mm of the body		0/90
SD	JSTD002	Ta = 245±5C, 5±0.5 sec		0/30



QV DEVICE NAME

lot 1: S3M

Lot 2: ES3D

Lot 3: MURS460S

PACKAGE: SMC

Test	Specification	Condition	Interval	Results
HTRB	JESD22-A108	Ta=150°C, 100% max rated V	500 hrs 1000 hrs	0/231 0/231
H3THB	JESD22-A101	TA=85°C+/-2°C RH=85%+/-5% VR=80% rated V DC	500 hrs 1000 hrs	0/231 0/231
HTSL	JESD22-A103	Ta=150°C	500 hrs 1000 hrs	0/231 0/231
PC	J-STD-020 JESD-A113	MSL1 @ 260 °C		0/693
IOL	MIL-STD-750 (M1037) AEC-Q101	I=IF±10% DC supply On time: 2 mins at least, Off time : 2 mins at least	7500cyc 15000cyc	0/231 0/231
TC	JESD22-A104	Ta= -55°C to +150°C	500 cyc 1000 cyc	0/231 0/231
AC	JESD-A102	TA= 121°C, P= 15psig Relative Humidity = 100%	96 hrs	0/231
RSH	JESD22- B106	Ta = 260±5°C, 10±1sec; Dipping depth=within 1.27mm of the body		0/90
SD	JSTD002	Ta = 245±5C, 5±0.5 sec		0/30

Electrical Characteristic Summary:

Electrical characteristics are not impacted.

List of Affected Standard Parts:

Part Number	Qualification Vehicle
GF1J	S1M
RGF1J	S1M
S1M	S1M
US2KA	S1M
EGF1A	S1M
EGF1B	S1M
EGF1C	S1M
EGF1D	S1M
ES1A	S1M
ES1B	S1M
ES1C	S1M
ES1D	S1M



Part Number	Qualification Vehicle
ES1F	S1M
ES1G	S1M
ES1H	S1M
ES1J	S1M
GF1A	S1M
GF1B	S1M
GF1D	S1M
GF1G	S1M
GF1K	S1M
GF1M	S1M
RGF1D	S1M
RGF1M	S1M
RS1A	S1M
RS1B	S1M
RS1D	S1M
RS1G	S1M
RS1J	S1M
RS1K	S1M
RS1M	S1M
S1A	S1M
S1B	S1M
S1D	S1M
S1G	S1M
S1J	S1M
S1K	S1M
US2AA	S1M
US2BA	S1M
US2DA	S1M
US2FA	S1M
US2GA	S1M
US2JA	S1M
US2MA	S1M
ES2A	S2M
ES2B	S2M
ES2C	S2M



Part Number	Qualification Vehicle
ES2D	S2M
S2A	S2M
S2B	S2M
S2D	S2M
S2G	S2M
S2J	S2M
S2K	S2M
S2M	S2M
S3AB	S2M
S3BB	S2M
S3DB	S2M
S3GB	S2M
S3JB	S2M
S3KB	S2M
S3MB	S2M
SMBJ100A	S2M
SMBJ100CA	S2M
SMBJ10A	S2M
SMBJ10CA	S2M
SMBJ110A	S2M
SMBJ110CA	S2M
SMBJ11A	S2M
SMBJ11CA	S2M
SMBJ120A	S2M
SMBJ120CA	S2M
SMBJ12A	S2M
SMBJ12CA	S2M
SMBJ130A	S2M
SMBJ130CA	S2M
SMBJ13A	S2M
SMBJ13CA	S2M
SMBJ14A	S2M
SMBJ14CA	S2M
SMBJ150A	S2M
SMBJ150CA	S2M



Part Number	Qualification Vehicle
SMBJ15A	S2M
SMBJ15CA	S2M
SMBJ160A	S2M
SMBJ160CA	S2M
SMBJ16A	S2M
SMBJ16CA	S2M
SMBJ170A	S2M
SMBJ170CA	S2M
SMBJ17A	S2M
SMBJ17CA	S2M
SMBJ18A	S2M
SMBJ18CA	S2M
SMBJ20A	S2M
SMBJ20CA	S2M
SMBJ22A	S2M
SMBJ22CA	S2M
SMBJ24A	S2M
SMBJ24CA	S2M
SMBJ26A	S2M
SMBJ26CA	S2M
SMBJ28A	S2M
SMBJ28CA	S2M
SMBJ30A	S2M
SMBJ30CA	S2M
SMBJ33A	S2M
SMBJ33CA	S2M
SMBJ36A	S2M
SMBJ36CA	S2M
SMBJ40A	S2M
SMBJ40CA	S2M
SMBJ43A	S2M
SMBJ43CA	S2M
SMBJ45A	S2M
SMBJ45CA	S2M
SMBJ48A	S2M



Part Number	Qualification Vehicle
SMBJ48CA	S2M
SMBJ51A	S2M
SMBJ51CA	S2M
SMBJ54A	S2M
SMBJ54CA	S2M
SMBJ58A	S2M
SMBJ58CA	S2M
SMBJ5V0A	S2M
SMBJ5V0CA	S2M
SMBJ60A	S2M
SMBJ60CA	S2M
SMBJ64A	S2M
SMBJ64CA	S2M
SMBJ6V0A	S2M
SMBJ6V0CA	S2M
SMBJ6V5A	S2M
SMBJ6V5CA	S2M
SMBJ70A	S2M
SMBJ70CA	S2M
SMBJ75A	S2M
SMBJ75CA	S2M
SMBJ78A	S2M
SMBJ78CA	S2M
SMBJ7V0A	S2M
SMBJ7V0CA	S2M
SMBJ7V5A	S2M
SMBJ7V5CA	S2M
SMBJ85A	S2M
SMBJ85CA	S2M
SMBJ8V0A	S2M
SMBJ8V0CA	S2M
SMBJ8V5A	S2M
SMBJ8V5CA	S2M
SMBJ90A	S2M
SMBJ90CA	S2M



Part Number	Qualification Vehicle
SMBJ9V0A	S2M
SMBJ9V0CA	S2M
SS22	S2M
SS23	S2M
SS24	S2M
SS25	S2M
SS26	S2M
SS28	S2M
ES3A	S3M
ES3B	S3M
ES3C	S3M
ES3D	S3M
ES3J	S3M
S310	S3M
S3A	S3M
S3B	S3M
S3D	S3M
S3G	S3M
S3J	S3M
S3K	S3M
S3M	S3M
S3N	S3M
SMCJ100A	S3M
SMCJ100CA	S3M
SMCJ10A	S3M
SMCJ10CA	S3M
SMCJ110A	S3M
SMCJ110CA	S3M
SMCJ11A	S3M
SMCJ11CA	S3M
SMCJ120A	S3M
SMCJ120CA	S3M
SMCJ12A	S3M
SMCJ12CA	S3M
SMCJ130A	S3M



Part Number	Qualification Vehicle
SMCJ130CA	S3M
SMCJ13A	S3M
SMCJ13CA	S3M
SMCJ14A	S3M
SMCJ14CA	S3M
SMCJ150A	S3M
SMCJ150CA	S3M
SMCJ15A	S3M
SMCJ15CA	S3M
SMCJ160A	S3M
SMCJ160CA	S3M
SMCJ16A	S3M
SMCJ16CA	S3M
SMCJ170A	S3M
SMCJ170CA	S3M
SMCJ17A	S3M
SMCJ17CA	S3M
SMCJ18A	S3M
SMCJ18CA	S3M
SMCJ20A	S3M
SMCJ20CA	S3M
SMCJ22A	S3M
SMCJ22CA	S3M
SMCJ24A	S3M
SMCJ24CA	S3M
SMCJ26A	S3M
SMCJ26CA	S3M
SMCJ28A	S3M
SMCJ28CA	S3M
SMCJ30A	S3M
SMCJ30CA	S3M
SMCJ33A	S3M
SMCJ33CA	S3M
SMCJ36A	S3M
SMCJ36CA	S3M



Part Number	Qualification Vehicle
SMCJ40A	S3M
SMCJ40CA	S3M
SMCJ43A	S3M
SMCJ43CA	S3M
SMCJ45A	S3M
SMCJ45CA	S3M
SMCJ48A	S3M
SMCJ48CA	S3M
SMCJ51A	S3M
SMCJ51CA	S3M
SMCJ54A	S3M
SMCJ54CA	S3M
SMCJ58A	S3M
SMCJ58CA	S3M
SMCJ5V0A	S3M
SMCJ5V0CA	S3M
SMCJ60A	S3M
SMCJ60CA	S3M
SMCJ64A	S3M
SMCJ64CA	S3M
SMCJ6V0A	S3M
SMCJ6V0CA	S3M
SMCJ6V5A	S3M
SMCJ6V5CA	S3M
SMCJ70A	S3M
SMCJ70CA	S3M
SMCJ75A	S3M
SMCJ75CA	S3M
SMCJ78A	S3M
SMCJ78CA	S3M
SMCJ7V0A	S3M
SMCJ7V0CA	S3M
SMCJ7V5A	S3M
SMCJ7V5CA	S3M
SMCJ85A	S3M



Part Number	Qualification Vehicle
SMCJ85CA	S3M
SMCJ8V0A	S3M
SMCJ8V0CA	S3M
SMCJ8V5A	S3M
SMCJ8V5CA	S3M
SMCJ90A	S3M
SMCJ90CA	S3M
SMCJ9V0A	S3M
SMCJ9V0CA	S3M
SS32	S3M
SS33	S3M
SS34	S3M
SS35	S3M
SS36	S3M
SS38	S3M
SS39	S3M

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