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**FINAL PRODUCT/PROCESS CHANGE NOTIFICATION #20401**Generic Copy

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**Issue Date:** 18-Mar-2014**TITLE:** Qualification of ON Semiconductor Vietnam for Assembly/Test of SMA (Zener, Power Schottky and Ultrafast Rectifiers).**PROPOSED FIRST SHIP DATE:** 18-Jun-2014**AFFECTED CHANGE CATEGORY(S):** ON Semiconductor Assembly Location**FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:**

Contact your local ON Semiconductor sales office or Raja Roziah Raja Rahmat <[Raja.Roziah.Rahmat@onsemi.com](mailto:Raja.Roziah.Rahmat@onsemi.com)> for Power Schottky and Ultrafast Rectifiers or Syahrul Samsuddin @ A.Rahim <[Syahrul.SamsuddinA.Rahim@onsemi.com](mailto:Syahrul.SamsuddinA.Rahim@onsemi.com)> for Zener.

**SAMPLES:** Contact your local ON Semiconductor Sales Office**ADDITIONAL RELIABILITY DATA:** Available

Contact your local ON Semiconductor Sales Office or Chean Ching Sim <[cheanching.sim@onsemi.com](mailto:cheanching.sim@onsemi.com)>

**NOTIFICATION TYPE:**

Final Product/Process Change Notification (FPCN)

Final change notification sent to customers. FPCN are issued at least 90 days prior to implementation of the change.

ON Semiconductor will consider this change approved unless specific conditions of acceptance are provided in writing within 30days of receipt of this notice. To do so, contact <[quality@onsemi.com](mailto:quality@onsemi.com)>.

**DESCRIPTION AND PURPOSE:**

This FPCN announces the planned capacity expansion of ON Semiconductor's assembly and test operations of SMA discrete packaged products, currently built at ON Semiconductor Seremban facility to ON Semiconductor Vietnam (OSV).

Upon the expiration of this FPCN, Zener, Power Schottky and Ultrafast Rectifiers 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. As part of this planned capacity expansion, ON Semiconductor has qualified a more automated manufacturing process. As a result of this automated process, die polarity orientation for Zener devices could occur cathode or anode to leadframe. Final product polarity will be determined at 100% final electrical test and cathode polarity band will be laser marked at that time on the package.



## FINAL PRODUCT/PROCESS CHANGE NOTIFICATION #20401

RELIABILITY DATA SUMMARY:**1SMA5945BT3G**

Test	Conditions	Interval	Result
Autoclave	Ta =121°C, RH=100%, Pressure=15Psig	96hrs	0/252
H3TRB	Ta=85°C, 85% RH, 80% rated or 100V max	504hrs	0/252
HTRB	Ta=150°C, Tj Max=150°C, Tj=150°C	504hrs	0/252
HTSL	Ta=150°C	504hrs	0/252
IOL	Ta=25°C, delta Tj=100°C On/off = 2 min	7500cyc	0/252
RSH	260°C Immersion		0/90
Solderability	Steam Aging=8hrs	8 hrs	0/45
TC	Ta=-65/150° C	1000cyc	0/252

**1SMA54AT3G**

Test	Conditions	Interval	Result
Autoclave	Ta =121°C, RH=100%, Pressure=15Psig	96hrs	0/252
H3TRB	Ta=85°C, 85% RH, 80% rated or 100V max	504hrs	0/252
HTRB	Ta=150°C, Tj Max=150°C, Tj=150°C	504hrs	0/252
HTSL	Ta=150°C	504hrs	0/252
IOL	Ta=25°C, delta Tj=100°C On/off = 2 min	7500cyc	0/252
RSH	260°C Immersion		0/90
Solderability	Steam Aging=8hrs	8 hrs	0/45
TC	Ta=-65/150° C	1000cyc	0/252

**1SMA60CAT3G**

Test	Conditions	Interval	Result
Autoclave	Ta =121°C, RH=100%, Pressure=15Psig	96hrs	0/252
H3TRB	Ta=85°C, 85% RH, 80% rated or 100V max	504hrs	0/252
HTRB	Ta=150°C, Tj Max=150°C, Tj=150°C	504hrs	0/252
HTSL	Ta=150°C	504hrs	0/252
IOL	Ta=25°C, delta Tj=100°C On/off = 2 min	7500cyc	0/252
RSH	260°C Immersion		0/90
Solderability	Steam Aging=8hrs	8 hrs	0/45
TC	Ta=-65/150° C	1000cyc	0/252

**MBRA2H100T3G**

Test	Conditions	Interval	Result
Autoclave	Ta =121°C, RH=100%, Pressure=15Psig	96hrs	0/252
H3TRB	Ta=85°C, 85% RH, 80% rated or 100V max	504hrs	0/252
HTRB	Ta=150°C, Tj Max=150°C, Tj=150°C	504hrs	0/252
HTSL	Ta=150°C	504hrs	0/252
IOL	Ta=25°C, delta Tj=100°C On/off = 2 min	7500cyc	0/252
RSH	260°C Immersion		0/90
Solderability	Steam Aging=8hrs	8 hrs	0/45
TC	Ta=-65/150° C	1000cyc	0/252



**FINAL PRODUCT/PROCESS CHANGE NOTIFICATION #20401**

**MURA260T3G**

<b>Test</b>	<b>Conditions</b>	<b>Interval</b>	<b>Result</b>
Autoclave	Ta =121°C, RH=100%, Pressure=15Psig	96hrs	0/252
H3TRB	Ta=85°C, 85% RH, 80% rated or 100V max	504hrs	0/252
HTRB	Ta=150°C, Tj Max=150°C, Tj=150°C	504hrs	0/252
HTSL	Ta=150°C	504hrs	0/252
IOL	Ta=25°C, delta Tj=100°C On/off = 2 min	7500cyc	0/252
RSH	260°C Immersion		0/90
Solderability	Steam Aging=8hrs	8 hrs	0/45
TC	Ta=-65/150° C	1000cyc	0/252

**ELECTRICAL CHARACTERISTIC SUMMARY:**

Product performance meets data sheet specification.

**CHANGED PART IDENTIFICATION:**

Devices sourced from OSV in Vietnam will carry the site code "VN" at the bottom of the package.

**List of affected General Parts:**

1SMA5913BT3G	1SMA5914BT3G	1SMA5915BT3G
1SMA5916BT3G	1SMA5917BT3G	1SMA5918BT3G
1SMA5919BT3G	1SMA5920BT3G	1SMA5921BT3G
1SMA5922BT3G	1SMA5923BT3G	1SMA5924BT3G
1SMA5925BT3G	1SMA5926BT3G	1SMA5927BT3G
1SMA5928BT3G	1SMA5929BT3G	1SMA5930BT3G
1SMA5931BT3G	1SMA5932BT3G	1SMA5933BT3G
1SMA5934BT3G	1SMA5935BT3G	1SMA5936BT3G
1SMA5937BT3G	1SMA5938BT3G	1SMA5939BT3G
1SMA5940BT3G	1SMA5941BT3G	1SMA5942BT3G
1SMA5943BT3G	1SMA5945BT3G	1SMA10AT3G
1SMA11AT3G	1SMA12AT3G	1SMA13AT3G
1SMA14AT3G	1SMA15AT3G	1SMA16AT3G
1SMA17AT3G	1SMA18AT3G	1SMA20AT3G
1SMA22AT3G	1SMA24AT3G	1SMA26AT3G
1SMA28AT3G	1SMA30AT3G	1SMA33AT3G
1SMA36AT3G	1SMA40AT3G	1SMA43AT3G
1SMA45AT3G	1SMA48AT3G	1SMA5.0AT3G
1SMA54AT3G	1SMA58AT3G	1SMA6.0AT3G
1SMA6.5AT3G	1SMA70AT3G	1SMA8.0AT3G
1SMA8.5AT3G	1SMA9.0AT3G	BZG03C150G
BZG03C15G	NS6A12AT3G	NS6A13AT3G
NS6A5.0AT3G	NSA5.0AT3G	1SMA10CAT3G



**FINAL PRODUCT/PROCESS CHANGE NOTIFICATION #20401**

NS6A13AT3H	NS6A5.0AT3H	1SMA15CAT3G
1SMA12CAT3G	1SMA13CAT3G	1SMA20CAT3G
1SMA16CAT3G	1SMA18CAT3G	1SMA28CAT3G
1SMA24CAT3G	1SMA26CAT3G	1SMA36CAT3G
1SMA30CAT3G	1SMA33CAT3G	1SMA58CAT3G
1SMA40CAT3G	1SMA48CAT3G	1SMA78CAT3G
1SMA60CAT3G	1SMA70CAT3G	MBRA140T3G
MBRA120ET3G	MBRA130LT3G	MBRA210ET3G
MBRA160T3G	MBRA1H100T3G	MBRA210LT3H
MBRA210ET3H	MBRA210LT3G	MBRA340T3G
MBRA2H100T3G	MBRA320T3G	MURA110T3G
SS16T3G	MURA105T3G	MURA120T3H
MURA115T3G	MURA120T3G	MURA160T3G
MURA130T3G	MURA140T3G	MURA210T3G
MURA160T3H	MURA205T3G	MURA230T3G
MURA215T3G	MURA220T3G	
MURA240T3G	MURA260T3G	