



FINAL PRODUCT/PROCESS CHANGE NOTIFICATION # 20306

Generic Copy

Issue Date: 04-Dec-2013

TITLE: Wafer fab expansion of TMOS7 devices at ON Semiconductor fab location in Niigata, Japan.

PROPOSED FIRST SHIP DATE: 04-Mar-2014

AFFECTED CHANGE CATEGORY(S): ON Semiconductor Wafer Fab

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:

Contact your local ON Semiconductor Sales Office or following contact Product Engineers:

Sew Seng Tam<SewSeng.Tam@onsemi.com>

Mohd Hezri Abu Bakar<MohdHezri.AbuBakar@onsemi.com>

SAMPLES: Contact your local ON Semiconductor Sales Office

ADDITIONAL RELIABILITY DATA: Available

Contact your local ON Semiconductor Sales Office or Reliability Engineer

Donna Scheuch<Donna.Scheuch@onsemi.com>

NOTIFICATION TYPE:

Final Product/Process Change Notification (FPCN)

Final change notification sent to customers. FPCNs 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 30 days of receipt of this notice. To do so, contact <quality@onsemi.com>.

DESCRIPTION AND PURPOSE:

This FPCN announces the planned capacity expansion of ON Semiconductor's wafer operations of TMOS7 products to their facility in Niigata Japan.

Upon the expiration of this FPCN, TMOS7 devices may be processed at either Niigata or existing location. These products have been qualified to commodity/commercial requirements. These products will continue being Pb-free, Halide free and RoHS compliant.



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RELIABILITY DATA SUMMARY:

Reliability Test Results:

NTDV20P06LT4G

Test	Condition	Duration	Results
HTGB	High Temperature Gate Bias	175C, 100% Rated Vgss	1008 hr 0/240
HTRB	High Temperature Reverse Bias	175C, 80% rated Vdss	1008 hr 0/240
IOL - PC	Intermittent Operating Life + PC	On/off = 2 min Ta=+25°C, delta Tj=100°C	7,500 cyc 0/240
TC - PC	Temperature Cycling + PC	-55 to + 150C	1000 cyc 0/240
H3TRB – PC	High Humidity High Temp Rev Bias + Preconditioning	Ta=85°C, 85% RH, 80% rated	504 hr 0/240
AC- PC	Autoclave + PC	121°C/100% RH/15psig	96 hr 0/240

NTB45N06T4G

HTGB	High Temperature Gate Bias	175C, 100% Rated Vgss	1008 hr 0/80
HTRB	High Temperature Reverse Bias	175C, 80% rated Vdss	1008 hr 0/80
IOL - PC	Intermittent Operating Life + PC	On/off = 3.5 min Ta=+25°C, delta Tj=100°C	8572 cyc 0/80
TC - PC	Temperature Cycling + PC	-55 to + 150C	1000 cyc 0/80
H3TRB – PC	High Humidity High Temp Rev Bias + Preconditioning	Ta=85°C, 85% RH, 80% rated	504 hr 0/80
AC- PC	Autoclave + PC	121°C/100% RH/15psig	96 hr 0/80

NTB25P06T4G

HTGB	High Temperature Gate Bias	175C, 100% Rated Vgss	1008 hr 0/80
HTRB	High Temperature Reverse Bias	175C, 80% rated Vdss	1008 hr 0/80
IOL - PC	Intermittent Operating Life + PC	On/off = 3.5 min Ta=+25°C, delta Tj=100°C	8572 cyc 0/80
TC - PC	Temperature Cycling + PC	-55 to + 150C	1000 cyc 0/80
H3TRB – PC	High Humidity High Temp Rev Bias + Preconditioning	Ta=85°C, 85% RH, 80% rated	504 hr 0/80
AC- PC	Autoclave + PC	121°C/100% RH/15psig	96 hr 0/80

BSS123LT1G

HTGB	High Temperature Gate Bias	150C, 100% Rated Vgss	504 hr 0/240
HTRB	High Temperature Reverse Bias	150C, 80% rated Vdss	504 hr 0/240
IOL - PC	Intermittent Operating Life + PC	On/off = 2 min Ta=+25°C, delta Tj=100°C	7500 cyc 0/240
TC - PC	Temperature Cycling + PC	-55 to + 150C	500 cyc 0/240
H3TRB – PC	High Humidity High Temp Rev Bias + Preconditioning	Ta=85°C, 85% RH, 80% rated	504 hr 0/240
AC- PC	Autoclave + PC	121°C/100% RH/15psig	96 hr 0/240



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BVSS123LT1G

Test		Condition	Duration	Results
HTGB	High Temperature Gate Bias	150C, 100% Rated Vgss	504 hr	0/80
HTRB	High Temperature Reverse Bias	150C, 80% rated Vdss	504 hr	0/80
IOL - PC	Intermittent Operating Life + PC	On/off = 2 min Ta=+25°C, delta Tj=100°C	7500 cyc	0/80
TC - PC	Temperature Cycling + PC	-55 to + 150C	500 cyc	0/80
H3TRB – PC	High Humidity High Temp Rev Bias + Preconditioning	Ta=85°C, 85% RH, 80% rated	504 hr	0/80
AC- PC	Autoclave + PC	121°C/100% RH/15psig	96 hr	0/80

ELECTRICAL CHARACTERISTIC SUMMARY:

There are no changes in electrical characteristics; product performance meets data sheet specifications. Characterization data is available upon request.

CHANGED PART IDENTIFICATION:

Products having work week 08, 2014 and newer may have die coming from Niigata or existing fab.



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List of affected General Parts:

BS170G
BS170RLRAG
BSS123LT1G
BSS138LT1G
BSS138LT3G
MMBF170LT1G
NTB25P06T4G
NTB45N06T4G
NTB5605PT4G
NTD18N06LT4G
NTD20N06T4G
NTD20P06LT4G
NTD2955-1G
NTD2955G
NTD2955T4G
NTD3055L104-1G
NTD3055L104T4G
NTF2955T1G
NTF3055L108T1G
NTP2955G