ON Semiconductor

FINAL PRODUCT/PROCESS CHANGE NOTIFICATION
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05 Nov 2007

SUBJECT: ON Semiconductor Final Product/Process Change Notification #16062

TITLE: Dual Source ISMF Wafer Fab Qualification for Zener/TVS Products

PROPOSED FIRST SHIP DATE: 05 Feb 2008

AFFECTED CHANGE CATEGORY(S): ON Semiconductor Fab Site

AFFECTED PRODUCT DIVISION(S): Discrete Products Division

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:
Contact your local ON Semiconductor Sales Office or Calvin Lim<calvin.lim@onsemi.com>

SAMPLES: Contact your local ON Semiconductor Sales Office

ADDITIONAL RELIABILITY DATA: Available
Contact your local ON Semiconductor Sales Office or Laura Rivers<laura.rivers@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 your local ON Semiconductor Sales Office.

DESCRIPTION AND PURPOSE:

This is the Final notification announcing that ON Semiconductor is adding wafer fabrication capacity for the Zener/TVS products listed herein at the ISMF wafer fab in Seremban, Malaysia. The ISMF facility is an ON Semiconductor owned wafer fab that has been producing products for ON Semiconductor since 1998. Several existing technologies within ON Semiconductor's product families are currently sourced from ISMF, including Zener Diodes, Small Signal, and USB array filter products. The "P-type" zener technology used for the products listed herein was initially qualified in ISMF in 2003 (FPCN# 12790).

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RELIABILITY DATA SUMMARY:

The “P-type” Zener Diode technology was previously qualified in ISMF per FPCN# 12790, issued 24-June-2003; results as shown below. This FPCN is extending that qualification to additional devices in the same technology family.

Lot A: SMS05T1 : Zero failures.
Lot B: SMS24T1 : Zero failures.

Autoclave: Ta=121C,P=15psig,RH=100% for 96hrs(Sample size: 230 units/lot)

Tempcycle: Ta=-65C/150C, Air to air, Dwell>=10min for 1000 cycles (Sample size: 231 units/lot)

Solder Heat: Ta=260C for 1X(Sample size: 45 units/lot)

High Temperature Reverse Bias: Ta=150C, Bias(V=80%rated) for 1008hrs (Sample size: 231 units/lot)

High Humidity High Temperature Reverse Bias: Ta=85C, RH=85%,
Bias (V=80%rated) for 1008hrs (Sample size: 231 units/lot)

Intermittent Operating Life: Ton=2 min, Toff=2 min, PD=rated for 7500 cycle
(Sample size: 231 units/lot)

Lot C: MMQA33VT1: Zero failures.

-High Temperature Reverse Bias: Ta=150C, Bias (V=80%rated) for 1008hrs (Sample size:84 units/lot)

ELECTRICAL CHARACTERISTIC SUMMARY:

Characterization summary of qual(ISMF) and control(Z/R) lots.
1) DC electrical parametric test(Vbr,IR and Vf)at -55C, 25C and 150C:
Found no-significant difference and well within all spec limits for both groups.
2) Peak Power Dissipation (8X20usec waveform). Both groups met maximum
Power ratings of 350Watts.
3) ESD Rating: Compliance to IEC61000-4-2 15kV(air) and 8kV(contact) for both groups.

CHANGED PART IDENTIFICATION:

Product with a date code of 0808 (or 82 or F) or later may be sourced from the ISMF facility.

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AFFECTED DEVICE LIST

PART

DF3A6.8FUT1G
DF6A6.8FUT1G
ESD7C3.3DT5G
ESD7C5.0DT5G
ESD9C3.3ST5G
ESD9C5.0ST5G
ESD9X12ST5G
ESD9X3.3ST5G
ESD9X5.0ST5G
MA3075WALT1
MA3075WALT1G
MMQA12VT1G
MMQA15VT1G
MMQA18VT1G
MMQA20VT1G
MMQA20VT3G
MMQA22VT1G
MMQA24VT1G
MMQA27VT1G
MMQA27VT3
MMQA30VT1G
MMQA33VT1G
MMQA5V6T1G
MMQA5V6T3G
MMQA6V2T1G
MMQA6V2T3G
MMQA6V8T1G
MSQA6V1W5T2G
NSQA6V8AW5T2G
NUP2201MR6T1
NUP2201MR6T1G
NUP2202W1T2G
NUP4004M5T1G
NUP4060AXV6T1G
NUP4102XV6T1G
NUP4108W5T2G
NUP412VP5T5G
NUP4202W1T2G
NUP4204MR6T1G
NUP45V6P5T5G
NUP46V8P5T5G
NUP5120X6T1
NUP5120X6T1G
NUP5120X6T2
NUP5120X6T2G
NUP5150MUTBG
NUP8010MNT1G
NUP8011MUTAG
NUP8020X6T1G
NUP8028MNT1G
NZL5V6AXV3T1G

NZL6V2AXV3T1
NZL6V8AXV3T1
NZL6V8AXV3T1G
NZL7V5AXV3T1
NZL7V5AXV3T1G
NZQA5V6AXV5T1
NZQA5V6AXV5T1G
NZQA5V6XV5T1G
NZQA5V6XV5T3
NZQA5V6XV5T3G
NZQA6V2XV5T1G
NZQA6V8AXV5T1G
NZQA6V8AXV5T2
NZQA6V8AXV5T2G
NZQA6V8AXV5T3
NZQA6V8AXV5T3G
NZQA6V8XV5T1G
NZQA6V8XV5T2
NZQA6V8XV5T2G
SD05T1
SD05T1G
SD12T1
SD12T1G
SM05T1
SM05T1G
SMF05T1
SMS05T1G
SMS12T1G
SMS15T1G
SMS24T1G
UESD12ST5G
UESD3.3DT5G
UESD3.3ST5G
UESD5.0DT5G
UESD5.0ST5G
UESD6.0DT5G