ON Semiconductor

FINAL PRODUCT/PROCESS CHANGE NOTIFICATION
Generic Copy

24-JUN-2003

SUBJECT: ON Semiconductor Final Product/Process Change Notification #12790

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

EFFECTIVE DATE: 24-Aug-2003

AFFECTED CHANGE CATEGORY: ON Semiconductor Fab Site

AFFECTED PRODUCT DIVISION: Bipolar Discretes Products Div

ADDITIONAL RELIABILITY DATA: Available
Contact your local ON Semiconductor Sales Office or Laura Rivers <S20636@onsemi.com>

SAMPLES: Contact your local ON Semiconductor Sales Office
or Hyung Kim <R16342@onsemi.com>

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:
Contact Sales Office or Hyung Kim <R16342@onsemi.com>

NOTIFICATION TYPE:

Final Product/Process Change Notification (FPCN)

Final change notification sent to customers. FPCNs are issued at least 60 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 ON Semiconductor is adding wafer fabrication capacity for the Zener TVS array Technology at ISMF, in Seremban, Malaysia. The ISMF facility is an Internal Wafer Fab that has been producing products for ON Semiconductor since 1998. Several existing technologies within ON Semiconductor's Micro-Integration and Standard components group are sourced from ISMF, including Small Signal and USB array filter products.

Electrical performance and datasheet specifications will not change.

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RELIABILITY DATA SUMMARY:

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 of 0332 or later may be sourced from the ISMF facility.
For wafer or die sales customers, please note that ISMF material is fabricated on 6-inch substrates.

AFFECTED DEVICE LIST (WITHOUT SPECIALS):

PART
DF6A6.8FUT1
L1B6V8F2WP
LN1B15VF1WP
LOQ5V6WP
LOQ6V8WP
LOSMS05WP
MMBZ12VALT1
MMBZ15VALT1
MMBZ15VALT3
MMBZ15VDLT1
MMBZ15VDLT3
MMBZ18VALT1
MMBZ20VALT1

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MMBZ20VALT3
MMBZ27VALT1
MMBZ27VCLT1
MMBZ33VALT1
MMBZ33VALT3
MMBZ5V6ALT1
MMBZ5V6ALT3
MMBZ6V2ALT1
MMBZ6V2ALT3
MMBZ6V8ALT1
MMBZ9V1ALT1
MMQA12VT1
MMQA13VT1
MMQA15VT1
MMQA18VT1
MMQA20VT1
MMQA20VT3
MMQA21VT1
MMQA22VT1
MMQA24VT1
MMQA27VT1
MMQA30VT1
MMQA33VT1
MMQA5V6T1
MMQA6V2T1
MMQA6V2T3
MMQA6V8T1
MSQA6V1W5T2
NSQA6V8AW5T2
NZL5V6ATT1
NZL5V6AUA3
NZQA5V6XV5T1
NZQA6V2XV5T1
NZQA6V8AXV5T1
NZQA6V8XV5T1
SM12T1
SMQA1001T1
SMS05T1
SMS12T1
SMS15T1
SMS24T1
SZMMBZ15VALT1
SZMMBZ20VALT1
SZMMBZ27VALT1
SZMMBZ27VCLT1
SZMMBZ5V6ALT1