
PRODUCT/PROCESS CHANGE NOTIFICATION

ISSUE DATE: 13-Jun-2000

NOTIFICATION #:10187

EFFECTIVE DATE: 22-Sep-2000

ISSUING DIVISION:ON SEMICONDUCTOR

DESCRIPTION AND PURPOSE

ON Semiconductor is pleased to announce that it has qualified PSI (Pacific Semiconductors Industries) as a qualified manufacturer and tester of the large size plastic packages known as the TO-264, the TO-247, and the TO-218 (a.k.a. SOT93). We currently manufacture the TO-264 in Team Pacific and the TO-247 and TO-218 at ST Microelectronics. PSI has been a manufacturer to ON Semiconductor, formerly as a division of Motorola, for more than 20 years, manufacturing the TO-220, D Pak and D2Pak. PSI is a member of the Semiconductor Assembly Council and received the Philippines 1999 Quality Award for Outstanding Quality.

The mentioned packages will be manufactured using the same high quality materials on equipment capable of meeting the high quality standards of ON Semiconductor. Qualification of the various technologies and packages is in process and in some cases completed with results contained herein. AEC-Q-101 requirements were used to qualify MOSFET devices.

ON Semiconductor continues to make substantial investments in both new technologies and improved manufacturing capabilities to provide the highest quality and most reliable products in the industry. We believe that these actions will provide the capability to provide a continuous supply of quality devices to you through the future.

Physical Dimensions

The packages from PSI are all within the industry standard JEDEC outline. In the case of the TO-247, the body of the package is identical, but the lead length is .220" longer and the lead thickness is .003" thicker at PSI than the current factory. The dimensions for the other two packages are identical.

The shipping tubes for the TO-247 are also slightly different dimensionally. They have a thinner but longer profile (.306" x 1.81") than the current shipping tubes (.470" x 1.55"). The tubes for the other packages are similarly dimensioned.

RECTIFIER SAMPLES

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BIPOLAR SAMPLES

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MOSFET SAMPLES

Name: Catherine Chandiooux
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QUALIFICATION PLAN

TEST	CONDITIONS	EXCEPTIONS
H3TRB	Ta=85 deg. C, RH= 85%,	

Semiconductor Technology Grp

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1000 hours
 ESD HBM
 HTRB Ta=150 deg.C, 1000 hrs.
 IOL Ta=25 deg. C, delta Tj =>100 deg. C,
 5 minutes on/off, 5000 cycles
 Temp Cycle Air to Air, -65 to 150 deg. C
 1000 cycles
 Autoclave Ta=121 deg. C, RH= 100%,
 PSIG= 15, 96 hrs.
 HTGB Ta=150 deg.C, 1000 hrs. This test is for MOSFET only

*MOSFET devices were qualified per AEC-Q-101 guidelines.

RELIABILITY DATA SUMMARY

RELIABILITY TESTS FOR DEVICE MJL21193

Test	Description	Lot 1	Lot 2	Lot 3	Control
H3TRB	1000 hrs.	0/80	0/80	0/80	0/80
ESD		pass	pass	pass	pass
HTRB	1000 hours	0/80	0/80	0/80	0/80
IOL	5000 cycles	0/80	0/80	0/80	0/80
Temp Cycle	1000 cycles	0/80	0/80	0/80	0/80
Autoclave	96 hours	0/80	0/80	0/80	0/80

RELIABILITY TESTS AND RESULTS FOR DEVICE MTW35N15E

Test	Description	Lot 1	Lot 2	Lot 3	Control
H3TRB	1000 hours	0/80	0/80	0/80	0/80
ESD		pass	pass	pass	pass
HTRB	1000 hours	0/80	0/80	0/80	0/80
IOL	5000 cycles	0/80	0/80	0/80	0/80
Temp Cycle	1000 cycles	0/80	0/80	0/80	0/80
Autoclave	96 hours	0/80	0/80	0/80	0/80
HTGB	1000 hours	0/80	0/80	0/80	0/80

Remaining Qualifications in process and expected completion dates :

TO-264 MOSFET	MTY25N60E	June 30, 2000
TO-247 Bi-Polar	MJW16212	July 7, 2000
TO-247 Rectifier	MR7030WT	June 18, 2000
TO-247 MOSFET	MTW10N100E	June 26, 2000
TO-218 Bi-Polar	MJH16006A	September 10, 2000
TO-218 Rectifier	MUR3080	September 18, 2000

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ELECTRICAL CHARACTERISTIC SUMMARY

Available upon request. Please contact appropriate engineer (based on technology).

CHANGED PART IDENTIFICATION

Devices from PSI (Pacific Semiconductors Industries) can be identified with the Location Identifier CQ preceding the date code.

FILE FORMAT: ASCII TEXT

FONT - Courier
SIZE - 12 Point
LINE - 70 characters/line
PAGE - 55 lines/page
PAGEBREAK CHARACTER - ^L (Control L)

AFFECTED DEVICE LIST (WITHOUT SPECIALS)

BD249C , BDV65B , BU323AP , MBR3045PT
MBR4045PT , MBR5025L , MBR6045PT , MJE4343
MJE4353 , MJH10012 , MJH11017 , MJH11018
MJH11019 , MJH11020 , MJH11021 , MJH11022
MJH6284 , MJH6287 , MJL1302A , MJL16218
MJL21193 , MJL21194 , MJL21195 , MJL21196
MJL3281A , MJW21191 , MJW21192 , MTW10N100E
MTW14N50E , MTW16N40E , MTW20N20E , MTW20N50E
MTW24N40E , MTW32N20E , MTW32N25E , MTW6N100E
MTW7N80E , MTW8N60E , MTY100N10E , MTY20N50E
MTY25N60E , MTY30N50E , MTY55N20E , MUR3020PT
MUR3040PT , MUR3060PT , MUR3080 , MUR6040
SBR5571-002 , TIP140 , TIP141 , TIP142
TIP2955 , TIP3055 , TIP33A , TIP33C
TIP35A , TIP35C , TIP36A , TIP36C