



FINAL PRODUCT/PROCESS CHANGE NOTIFICATION
Generic Copy

23-OCT-2002

SUBJECT: ON Semiconductor Final Product/Process Change Notification #12594

TITLE: Final Notification for IPCN#12477 - High Frequency, High Voltage NPN Transistors and Switching Diode Transfer from Primarion Fab to ISMF Fab

EFFECTIVE DATE: 22-Dec-2002

AFFECTED CHANGE CATEGORY:

**ON Semiconductor Fab Site
Subcontractor 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 Barbara Matteson <RM2230@onsemi.com>

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:

Contact Sales Office or Donald Barlow <R39117@onsemi.com>

DISCLAIMER:

Final Product/Process Change Notification (FPCN) - Final Notification completing the notification process. Distributed at least 60 days from the effective date 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 first of three FPCNs that will be issued to complete the changes stated in IPCN #12477 - High Frequency, High Voltage NPN Transistors and Switching Diode Transfer from Primarion Fab to ISMF Fab.

This notification applies only to the finished goods affected device list below. The list is comprised of High Voltage parts that are rated less than 400V. In order to continue to fully support our customer's requirements for High Voltage NPN Transistors the fabrication of these devices is being moved from ON Semiconductor's current subcontractor wafer fab, Primarion in Phoenix Arizona to ON Semiconductor's internal wafer fab ISMF in Seremban, Malaysia.



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RELIABILITY DATA SUMMARY:

Qualification Vehicle: MMBTA42LT1

TEST:	CONDITIONS	INTERVAL	SIZE	FAILURES
Autoclave	Ta=121DegC , RH=100%, P=15 psig,	0	240	0/240
		96	240	0/240
Temperature Cycle	Ta=65/+150DegC, Air to Air, Dwell equal to or greater than 15 Min., Transfer equal to or less than 10 Min.	0	240	0/240
		500	240	0/240
		1000	240	0/240
IOL	Ton=2 min, Toff=2min, Ta=25 DegC	7500 cycles	240	0/240
		15000 cycles	240	0/240
External Visual	Equal to or greater than Mid-Std-750, Method 2071	N/M	100%	
D.P.A	Random sample of good Temp Cycle and H3TRB devices per CDF-AEC-Q101-004 Section	N/M	6	Passed
Die Bond (Die Shear)	In-process assembly	N/M	15	Passed
Wire Bond (Pull)	In-process assembly	N/M	15	Passed
High Humidity High Temp. Reverse Bias	Ta=+85DegC, RH=85% VCB = 100V	0	240	0/240
		504	240	0/240
		1008	240	0/240
High Temp. Reverse Bias	Ta=+150DegC VCB = 240V	0	240	0/240
		504	240	0/240
		1008	240	0/240
Electro Static Discharge	Human Body Model & Machine Models 1 & 2	N/M	HBM MM	>16kV >400V

Reliability Testing Conclusions:

Test results meet all quality and reliability requirements.

ELECTRICAL CHARACTERISTIC SUMMARY:

Electrical characterization of the old and new process showed equal or better performance by the new product. Data is available upon request.

CHANGED PART IDENTIFICATION:

No changes to the Physical part. Product with date codes after WW51 may come from either site.



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AFFECTED DEVICE LIST (WITHOUT SPECIALS):

PART

BF393
BF393ZL1
MMBTA42LT1
MMBTA42LT3
MMBTA43LT1
MPSA42
MPSA42RL1
MPSA42RLRA
MPSA42RLRE
MPSA42RLRF
MPSA42RLRM
MPSA42RLRP
MPSA42ZL1
MPSA43
MPSA43RLRA
MPSA43ZL1
MPSW42
MPSW42RLRA
MSD42T1
MSD42WT1
PZTA42T1