

Generic Copy

Issue Date: 09-Jun-2010

<u>TITLE</u>: Final Notification for Transfer of the Low Voltage Bipolar Planar and EMI Filters from ON Semiconductor ZR Fab in Phoenix (USA) to ON Semiconductor ISMF Fab in Seremban (Malaysia)

PROPOSED FIRST SHIP DATE: 02-Sep-2010

AFFECTED CHANGE CATEGORY(S): ON Semiconductor Fab Site

ADDITIONAL RELIABILITY DATA: Available

Contact your local ON Semiconductor Sales Office or Laura Rivers <<u>laura.rivers@onsemi.com</u>>

SAMPLES: Contact your local ON Semiconductor Sales Office

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:

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

FPCN Contact person by Affected Technology:

Low Voltage Bipolar PlanarFarrah Awang Omarfarrah.omar@onsemi.comEMI FiltersYew Hee Soony.soon@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:

ON Semiconductor is notifying customers of this update notification to a previous issued FPCN#16477. The only updated information is a correction to the qualification vehicle identified in the original FPCN. We corrected the third qualification vehicle to the NUF2450MUT2G and deleted the ESD11N5.0ST5G.

Original FPCN#16477 is below:

ON Semiconductor is notifying customers of its plan to transfer Low Voltage Bipolar Planar and EMI Filters products from ON Semiconductor ZR Fab in Phoenix (USA) to ON Semiconductor ISMF Fab in Seremban (Malaysia). **ON Semiconductor**



UPDATE CHANGE NOTIFICATION #16477

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 Diodes, Small Signal Bipolar Transistor, and USB array filter products. ON Semiconductor Seremban Wafer FAB is an internal factory that is TS16949, ISO-9001 and ISO-14000 certified.

Qualification tests are designed to show that the reliability of transferred devices will continue to meet or exceed ON Semiconductor standards.

Products listed in this final PCN should be transferred to ON Semiconductor ISMF Fab in Seremban (Malaysia) starting 3rd Sep 2010. After 3rd Sep 2010, customer may receive products from either facility.

QUALIFICATION PLAN:

Reliability testing was performed on qualification vehicles chosen based on die size, voltage rating, and run rates.

RELIABILITY DATA SUMMARY FOR LOW VOLTAGE BIPOLAR PLANAR:

Package: TO220, DPAK

Qual Vehicles:

MJE5852G, Package: TO220

Test:	Conditions:	Interval:	Results
HTRB	TA=150C,80% Rated Voltage	1008 hrs	0/80
Autoclave+PC	Ta=121C RH=100% ~15 psig	96 hrs	0/80
H3TRB+PC	Ta=85C RH=85% bias=80% rated V or100V Max	1008 hrs	0/80
IOL+PC	Ta=25C, Delta TJ = 100 C,	8572 cyc	0/80
	Ton/off = 3.5 min.		
TC+PC	Ta= -65 C to 150 C	1000 cyc	
RSH	Ta=260C, 10 sec dwell		0/30
DPA	post TC		0/2
DPA	post H3TRB		0/2
MJD340G, Package: Dpak			
Test:	Conditions:	Interval:	Results
HTRB	TA=150C,80% Rated Voltage	1008 hrs	0/160
Autoclave+PC	Ta=121C RH=100% ~15 psig	96 hrs	0/160
H3TRB+PC	Ta=85C RH=85%	1008 hrs	0/160
	bias=80% rated V or100V Max		
IOL+PC	Ta=25C, Delta TJ = 100 C,	15000 cyc	0/160
	Ton/off = 2 min.	1000 ava	0/400
TC+PC RSH	Ta = -65 C to 150 C	1000 cyc	0/160
DPA	Ta=260C, 10 sec dwell post TC		0/30 0/4
DPA	post H3TRB		0/4
	postione		0/-



RELIABILITY DATA SUMMARY FOR EMI FILTERS:

Package: WDFN Qual Vehicles:

NUF2450MUT2G			
Test:	Conditions:	Interval:	Results
HTRB	TA=125C,80% Rated Voltage	1008 hrs	0/240
Autoclave+PC	Ta=121C RH=100% ~15 psig	96 hrs	0/240
HAST+PC	Ta=131C RH=85% , ~18.8psig	96 hrs	0/240
	Bias = 80% rated V or100V Max		
TC+PC	Ta= -65 C to 150 C	500 cyc	0/240
RSH	Ta=260C, 10 sec dwell	-	0/30
DPA	post TC		0/6
DPA	post HAST		0/6

ELECTRICAL CHARACTERISTIC SUMMARY:

Available upon request.

CHANGED PART IDENTIFICATION:

Affected products from ON Semiconductor with date code 1032 or F representing WW35, 2010 and greater may be sourced from either the ISMF Fab in Seremban (Malaysia) or the ZR Fab in Phoenix (USA).



List of affected General Parts for Low Voltage Bipolar Planar:

2N5038 2N5038G 2N5655G 2N5657 2N5657G 2N6338G 2N6341G BD135G BD136G BD137G BD138G BD139G **BD140G BD159G** BD787G BD788G BU406G BUV21 BUV21G BUV22G BUV26G BUV27G D44C12G D44H11G D44H8G D44VH10G D45C12G D45H11G D45H8G D45VH10G MJB44H11G MJB44H11T4 MJB44H11T4G MJB45H11G MJB45H11T4 MJB45H11T4G MJC5038WP MJD200G MJD200RL MJD200RLG MJD200T4 MJD200T4G MJD200T5G MJD210G MJD210RLG MJD210T4 MJD210T4G MJD243G MJD243T4 MJD243T4G MJD253-1G MJD253T4



MJD253T4G MJD340G MJD340RL MJD340RLG MJD340T4 MJD340T4G MJD350 MJD350G MJD350T4 MJD350T4G MJD350T4H MJD44E3T4 MJD44E3T4G MJD44H11 MJD44H11-1G MJD44H11G MJD44H11RL MJD44H11RLG MJD44H11T4 MJD44H11T4G MJD44H11T5G MJD45H11 MJD45H11-1G MJD45H11G MJD45H11RL MJD45H11RLG MJD45H11T4 MJD45H11T4G MJD5731T4G MJE15028G MJE15029G MJE15030G MJE15031G MJE15032G MJE15033G MJE15035G MJE170G MJE171G MJE172G **MJE180** MJE180G MJE181G **MJE182** MJE182G **MJE200** MJE200G MJE210G MJE210TG MJE243 MJE243G MJE253 MJE253G MJE270G MJE271G **MJE340**



MJE340G MJE3439 MJE3439G MJE344 MJE344G **MJE350** MJE350G MJE5730G MJE5731AG MJE5731G MJE5850G MJE5851G MJE5852G MJEC15030WP MJEC15031WP MJEC15032TR MJEC15033TR MJEC340WP MJEC350WP MJF15030G MJF15031G MJF44H11G MJF45H11G MJL1302AG MJL4281AG MJL4302AG MJW1302AG MMJT350T1G NJD2873 NJD2873T4 NJD2873T4G NJL0281DG NJL0302DG NJL1302DG NJL4281DG NJL4302DG NJW0281G NJW0302G NJW1302G

List of affected General Parts for EMI Filters:

NUF2450MUT2G NUF4220MNT1G **ON Semiconductor**



UPDATE CHANGE NOTIFICATION #16477

List of affected Customer Specific Parts for Low Voltage Bipolar Planar:

NJVMJD340T4G NJVMJD44H11T4 NJVMJE15031G NJVMJE15032G NJVNJD2873T4G SJ7158G SJC45H11PF SJC45H11TR SJC45H11TS1 SJD1030-001 SJD1030T4 SJD1030T4G SJD1031T4 SJD1031T4G SJD200T4 SJD200T4G SJD44H12T4 SJD45H11T4 SJD45H11T4G SJW1302G SMJD44H11T4G SMMJT350T1G TE02462TG TE02463TG