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**FINAL PRODUCT/PROCESS CHANGE NOTIFICATION # 20210A**Generic Copy

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**Issue Date:** 24-Sep-2013**TITLE:** Qualification of ON Semiconductor Vietnam (OSV) for the Assembly and Test of Trench Mosfet, Ultrafast Rectifier and Bipolar Power Transistors packaged in DPAK case 369C, 369AA & 369AD.**PROPOSED FIRST SHIP DATE:** 24-Dec-2013**AFFECTED CHANGE CATEGORY(S):** ON Semiconductor Assembly & Test**FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:**

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

Bipolar Power Transistor  
Trench Mosfet  
Ultrafast RectifiersFarrah Omar  
Sew Seng Tam  
Raja Roziah[farrah.omar@onsemi.com](mailto:farrah.omar@onsemi.com)  
[SewSeng.Tam@onsemi.com](mailto:SewSeng.Tam@onsemi.com)  
[Raja.Roziah.Rahmat@onsemi.com](mailto:Raja.Roziah.Rahmat@onsemi.com)**SAMPLES:** Contact your local ON Semiconductor Sales Office**ADDITIONAL RELIABILITY DATA:** AvailableContact your local ON Semiconductor Sales Office or Reliability Engineer Chean Ching Sim  
<[cheanching.sim@onsemi.com](mailto:cheanching.sim@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](mailto:quality@onsemi.com)>.**DESCRIPTION AND PURPOSE:**

This FPCN announces the planned capacity expansion of ON Semiconductor's assembly and test operations of DPAK discrete packaged products, currently built at ON Semiconductor Seremban, Malaysia facility to ON Semiconductor Vietnam (OSV).

Upon the expiration of this FPCN, Trench Mosfet, Ultrafast Rectifier, Bipolar Power Transistor devices may be processed at either location. These products have been qualified to commodity/commercial requirements. These products will continue being Pb-free, Halide free and RoHS compliant.



**FINAL PRODUCT/PROCESS CHANGE NOTIFICATION # 20210A**

**RELIABILITY DATA SUMMARY:**

**Reliability Test Results:**

**Device MJD340T4G**

<b>Test:</b>	<b>Conditions:</b>	<b>Interval:</b>	<b>Results</b>
HTRB	Ta=150°C 80% Rated Voltage	1008 hrs	0/84
Autoclave	Ta=121°C RH=100% 15 psig	96 hrs	0/84
H3TRB	Ta=85°C RH=85% bias=80% rated V or 100V Max	1008 hrs	0/84
IOL	Ta=25°C, Delta TJ = 100°C, Ton/off = 2 min.	15,000 cycles	0/84
TC	Ta= -65°C to 150°C	1000 cycles	0/84
HTSL	Ta = 150°C	1008 hrs	0/84
RSH	Ta=260°C, 10 sec dwell		0/30
Solderability	Ta=245°C, 10 sec dwell		0/15

**Device MJD350T4G**

<b>Test:</b>	<b>Conditions:</b>	<b>Interval:</b>	<b>Results</b>
HTRB	Ta=150°C 80% Rated Voltage	1008 hrs	0/84
Autoclave	Ta=121°C RH=100% 15 psig	96 hrs	0/84
H3TRB	Ta=85°C RH=85% bias=80% rated V or 100V Max	1008 hrs	0/84
IOL	Ta=25°C, Delta TJ = 100°C, Ton/off = 2 min.	15,000 cycles	0/84
TC	Ta= -65°C to 150°C	1000 cycles	0/84
HTSL	Ta = 150°C	1008 hrs	0/84
RSH	Ta=260°C, 10 sec dwell		0/30
Solderability	Ta=245°C, 10 sec dwell		0/15

**Device MURHD560T4G**

<b>Test:</b>	<b>Conditions:</b>	<b>Interval:</b>	<b>Results</b>
HTRB	Ta=150°C 80% Rated Voltage	1008 hrs	0/252
Autoclave	Ta=121°C RH=100% 15 psig	96 hrs	0/252
H3TRB	Ta=85°C RH=85% bias=80% rated V or 100V Max	1008 hrs	0/252
IOL	Ta=25°C, Delta TJ = 100°C, Ton/off = 2 min.	15,000 cycles	0/252
TC	Ta= -65°C to 150°C	1000 cycles	0/252
HTSL	Ta = 150°C	1008 hrs	0/252
RSH	Ta=260°C, 10 sec dwell		0/90
Solderability	Ta=245°C, 10 sec dwell		0/45



**FINAL PRODUCT/PROCESS CHANGE NOTIFICATION # 20210A**

**RELIABILITY DATA SUMMARY:**

**Reliability Test Results:**

**Device NTD5862NT4G**

<b>Test:</b>	<b>Conditions:</b>	<b>Interval:</b>	<b>Results</b>
HTRB	Ta=175°C 80% Rated Voltage	1008 hrs	0/252
HTGB	Ta=175°C 100% Rated Voltage	1008 hrs	0/252
Autoclave	Ta=121°C RH=100% 15 psig	96 hrs	0/252
H3TRB	Ta=85°C RH=85% bias=80% rated V or 100V Max	1008 hrs	0/252
IOL	Ta=25°C, Delta TJ = 100°C, Ton/off = 2 min.	15,000 cycles	0/252
TC	Ta= -55°C to 150°C	1000 cycles	0/252
HTSL	Ta = 150°C	1008 hrs	0/252
RSH	Ta=260°C, 10 sec dwell		0/90
Solderability	Ta=245°C, 10 sec dwell		0/45

**Device NTD4904NT4G**

<b>Test:</b>	<b>Conditions:</b>	<b>Interval:</b>	<b>Results</b>
HTRB	Ta=175°C 80% Rated Voltage	1008 hrs	0/252
HTGB	Ta=175°C 100% Rated Voltage	1008 hrs	0/252
Autoclave	Ta=121°C RH=100% 15 psig	96 hrs	0/252
H3TRB	Ta=85°C RH=85% bias=80% rated V or 100V Max	1008 hrs	0/252
IOL	Ta=25°C, Delta TJ = 100°C, Ton/off = 2 min.	15,000 cycles	0/252
TC	Ta= -55°C to 150°C	1000 cycles	0/252
HTSL	Ta = 150°C	1008 hrs	0/252
RSH	Ta=260°C, 10 sec dwell		0/90
Solderability	Ta=245°C, 10 sec dwell		0/45

**ELECTRICAL CHARACTERISTIC SUMMARY:**

There are no changes in electrical characteristics; product performance meets data sheet specifications. Characterization data is available upon request.

**CHANGED PART IDENTIFICATION:**

Product from On Semiconductor Vietnam will be marked with site code VN prior to date code.

**FINAL PRODUCT/PROCESS CHANGE NOTIFICATION # 20210A****List of affected General Parts:****AFFECTED DEVICE LIST BIPOLAR POWER:**

MJD50G	MJD45H11T4G	MJD3055T4G
MJD50T4G	MJD45H11RLG	MJD148T4G
MJD47G	MJD44H11RLG	MJD128T4G
NJD35N04T4G	MJD210G	MJD32CT4G
NJD35N04G	MJD340G	MJD32CG
MJD47T4G	MJD200T4G	MJD42CG
BUD42DT4G	MJD200RLG	MJD2955T4G
MJD5731T4G	NSS1C300ET4G	MJD2955G
MJD44H11T5G	NSS1C301ET4G	MJD42CT4G
MJD44H11T4G	MJD6039T4G	MJD127T4G
MJD44H11G	MJD32RLG	MJD122T4G
MJD44E3T4G	MJD42CRLG	MJD122G
MJD350T4G	MJD41CT4G	MJD117RLG
MJD340T4G	MJD41CRLG	MJD117G
MJD340RLG	MJD32CRLG	MJD3055G
MJD45H11G	MJD31T4G	MJD42C1G
MJD253T4G	MJD31CT4G	MJD31C1G
MJD243G	MJD31CRLG	NJD2873T4G
MJD210T4G	MJD31CG	NJD1718T4G
MJD200G	MJD127G	MJD112T4G
MJD243T4G	MJD32T4G	MJD112RLG
MJD210RLG	MJD117T4G	MJD112G

**FINAL PRODUCT/PROCESS CHANGE NOTIFICATION # 20210A****AFFECTED DEVICE LIST TRENCH MOSFET:**

NTD4906NT4G	NTD5807NT4G	NTD4909NT4G
NTD4963NT4G	NTD4906N-35H	NTD5802NT4G
NTD4979N-35G	NTD4906NA-35G	NTD5804NT4G
NTD4965NT4G	NTD4906NA-35H	NTD5806NT4G
NTD4906NAT4H	NTD4906NAT4G	NTD5862NT4G
NTD4969NT4G	NTD4906NT4H	NTD5865NLT4G
NTD4806NT4G	NTD4909N-35G	NTD5865NT4G
NTD4809NT4G	NTD4909N-35H	NTD5867NLT4G
NTD4858N-35G	NTD4909NA-35G	NTD4813NHT4G
NTD4858NT4G	NTD4909NA-35H	NTD4815N-35G
NTD4906N-35G	NTD4909NT4H	NTD4860NT4G
NTD4970NT4G	NTD4910NT4G	NTD4963N-35G
NTD4805NT4G	NTD4969N-35G	NTD5805NT4G
NTD4909NAT4H	NTD4970N-35G	NTD5803NT4G
NTD4965N-35G	NTD4979NT4G	STD4963NT4G
NTD4806N-35G	NTD4809N-35H	NTD5863NLT4G
NTD4806NT4H	NTD4809NAT4H	NTD4804NT4G
NTD4809N-35G	NTD4813NT4H	NTD4809NHT4G
NTD4813N-35G	NTD4863NT4G	

**AFFECTED DEVICE LIST ULTRAFAST RECTIFIERS:**

MSRD620CTG  
MSRD620CTRG  
MSRD620CTT4G  
MSRD620CTT4RG  
MURD320T4G  
MURD330T4G  
MURD340T4G  
MURD530T4G  
MURD550PFT4G  
MURD620CTG  
MURD620CTH  
MURD620CTT4G  
MURHD560T4G  
MURHD560W1T4G