



FINAL PRODUCT/PROCESS CHANGE NOTIFICATION #16984

Issue Date: 12-Feb-2013

TITLE: 8-mil Aluminium Wire Anneal Process Change

PROPOSED FIRST SHIP DATE: 12-May-2013

AFFECTED CHANGE CATEGORY(S): Power MOSFET Business Unit: Wire Anneal Process Change

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:

Contact your local ON Semiconductor Sales Office or Chor-Siang Lee<chor-siang.lee@onsemi.com>

SAMPLES: Contact your local ON Semiconductor Sales Office Brian Goodburn
<brian.goodburn@onsemi.com>

ADDITIONAL RELIABILITY DATA: Available

Contact your local ON Semiconductor Sales Office or Donna Scheuch at Chean Ching Sim
<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>.

DESCRIPTION AND PURPOSE:

This Final Process Change Notification (FPCN) is being issued for Power MOSFET products, NTD20N06T4G/ STD20N06T4G.

ON Semiconductor is presenting this notification for Hitachi to announce that ON Semiconductor would be using a new wire anneal process to optimize the wire bond process on MOSFET device part ID NTD20N06T4G.

There will be no major Electrical, Switching, and Dynamic performance difference between the new 8 mil wire process and process of record on the NTD20N06T4G/STD20N06T4G. All Qualification and Reliability testing has been completed, and has passed all the required criteria.



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RELIABILITY DATA SUMMARY:

STD20N06T4G:

Test: Temperature Cycling (TC-PC)

Conditions: Ta=-65°C/150°C, Air-to-Air, Dwell >=10-min, Duration: 1000-cyc, 2 Lots: WEMY1038081B and WEMY1038081C

Results:

Rel ID: S12565

Request Title: TC TESTING FOR WIRE & MOLD DOE

BU:AUTO AND

Device: STD20N06T4G POWER REG

Requestor: Shashitharan Balakrishnan ()

Rel Engineer: Chean Ching Sim (+60-6-6712112)

Rel Coordinator: Zanariah Si Baweh (3617/ 3651)

Est Compl: F/cast Compl:

Request Status:COMPLETED

				Lot B	Lot C
				Heraeus New (w/anneal) Process - GE8000	Heraeus New (w/anneal) Process - G700HC
Event Name	Condition	Process Step	Interval	Rej Qty	Rej Qty
TC	Ta/min(°C): -65	Mount		0 / 84	0 / 84
CYCLING	Tj/max(°C): 150	Electrical Test		0 / 84	0 / 84
	RH(%):	Pc Bake	24 Hr	0 / 84	0 / 84
	Pressure:	Pc Moisture	168 Hr	0 / 84	0 / 84
Qual Point: 1000		Pc Ir Reflow	3 Cyc	0 / 84	0 / 84
Special Instruction:		Electrical Test	0 Cyc	0 / 84	0 / 84
		Stress Interval	500 Cyc	0 / 84	0 / 84
Precon Level:		Electrical Test	500 Cyc	0 / 84	0 / 84
		Stress Interval	1000 Cyc	0 / 84	0 / 84
		Electrical Test	1000 Cyc	0 / 84	0 / 84

ELECTRICAL CHARACTERISTIC SUMMARY:

No changes in electrical parameter distributions. This change will not result in any change to data sheet limits nor device performance. Characterization data is available upon request.

CHANGED PART IDENTIFICATION:

There will be no physical change to the Devices assembled with the new wire anneal process. Parts assembled with this change can be identified by assembly lot Date Codes. Product, assembled with this change, will have a Finish Good Date Code of Work Week 20, 2013 and newer.

List of affected General Parts:

NTD20N06T4G

STD20N06T4G