ON Semiconductor

FINAL PRODUCT/PROCESS CHANGE NOTIFICATION
Generic Copy

15-Feb-2006

SUBJECT: ON Semiconductor Final Product/Process Change Notification #15385

TITLE: Qualification of Hana Semiconductor for NCP2890DMR2, NCP2890DMR2G Micro-8 Assembly

EFFECTIVE DATE: 15-Mar-2006

AFFECTED CHANGE CATEGORY(S): Sub-conductor Assembly

AFFECTED PRODUCT DIVISION(S): Analog Power Management

ADDITIONAL RELIABILITY DATA: Available
Contact your local ON Semiconductor Sales Office or Edmond Gallard <tt0015@onsemi.com>

SAMPLES: Contact your local ON Semiconductor Sales Office

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:
Contact your local ON Semiconductor Sales Office or Todd Manes <rp06650@onsemi.com>

NOTIFICATION TYPE:

Final Product/Process Change Notification (FPCN)

Final change notification sent to customers. FPCNs are issued at least 60 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 your local ON Semiconductor Sales Office.

DESCRIPTION AND PURPOSE:
ON Semiconductor is pleased to announce that it has successfully completed the qualification for the Hana Semiconductor facility located in Ayutthaya, Thailand as an additional source for assembly of the NCP2890DMR2 and NCP2890DMR2G in the Micro-8 package. Hana is a fully certified ISO9002 and QS9000 supplier.

There will be no changes in the wafer/die source; therefore, device functionality will be identical to that of the existing production material. Device parameters will continue to meet all Data Book specifications and reliability will continue to meet or exceed ON Semiconductor standards.

This change is classified as a capacity expansion since the products listed below may be assembled at either Hana or the existing qualified ON Semiconductor facility in Seremban, Malaysia.

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RELIABILITY DATA SUMMARY:

The Hana Micro-10 package has been previously qualified by ON Semiconductor for devices with a larger die size than that of the NCP2890. The NCP2890 is qualified by similarity.

Qualification testing performed on the larger die-size device included:

Test	Conditions	Duration	SS	Failures
AC/PC	121C, 15psig, 100%RH	96hrs	231	0
TC/PC	-65/150C	500cycles	231	0
HTSL	150C	504hrs	231	0
Solderability	245C, 8hrs		45	0
Solder Heat	260C, 10sec		90	0
Solder Heat	310C, 10sec		90	0
HAST/PC	130C, 85%RH	96hrs	231	0
HTOL	150C	504hrs	231	0

In addition, SAT testing of NCP2890 MSL Level 1 Pre-Conditioned devices was performed. All devices passed.

ELECTRICAL CHARACTERISTIC SUMMARY:
Electrical characterization testing of one lot over the guaranteed temperature range (-40C to +85C) was performed. All normal production tests were evaluated. Cpk was 1.9 or better for all parameters and all temperatures.

Performance of Hana-assembled units was compared to performance of current standard production products and no significant differences were observed.

CHANGED PART IDENTIFICATION:
Devices marked with date code 0605 or later may be assembled at either qualified site (ON Semiconductor in Seremban, Malaysia or Hana Semiconductor in Ayutthaya, Thailand).

AFFECTED DEVICE LIST:

PART

NCP2890DMR2
NCP2890DMR2G