



FINAL PRODUCT/PROCESS CHANGE NOTIFICATION #16403

Generic Copy

Issue Date: 16 Feb 2010

TITLE: Vreg Spec Relaxation on HSBA-005

PROPOSED FIRST SHIP DATE: 16 May 2010

AFFECTED CHANGE CATEGORY(S): specification change

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:

Contact your local ON Semiconductor Sales Office or Stanley Memita<Stanley.Memita@onsemi.com>

SAMPLES: Contact your local ON Semiconductor Sales Office or Bram Senave<Bram.Senave@onsemi.com>

ADDITIONAL RELIABILITY DATA: NA

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 Veronique.Hooft@onsemi.com.

DESCRIPTION AND PURPOSE:

Introduction

Based on extensive data analysis, we propose a spec change (for Spec. Rev 6.3) in order to bring the capabilities of the HSBA-005/HSB14 (packaged version) in line with standards (CPK > 1, 67).

Conclusion

Following spec changes are proposed:

Test	Spec	Unit	Actual LSL	Actual USL	Proposed new LSL	Proposed new USL	
Vreg _{offset}	8.1	mV	-6	6	-8	8	Packaged version

These spec changes are required to bring the cpk of the mentioned parameters in line with the standards. This will avoid yield loss and guarantee test throughput.



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The proposed limits are based on data analysis of production material. This way, standard process variations are covered in the dataset and should guarantee future cpk capabilities for the HSB14 (packaged version).

ELECTRICAL CHARACTERISTIC SUMMARY:

Limits shown are spec limits. In the test program, we use guardbands, so the production limits are even tighter than the spec limits.

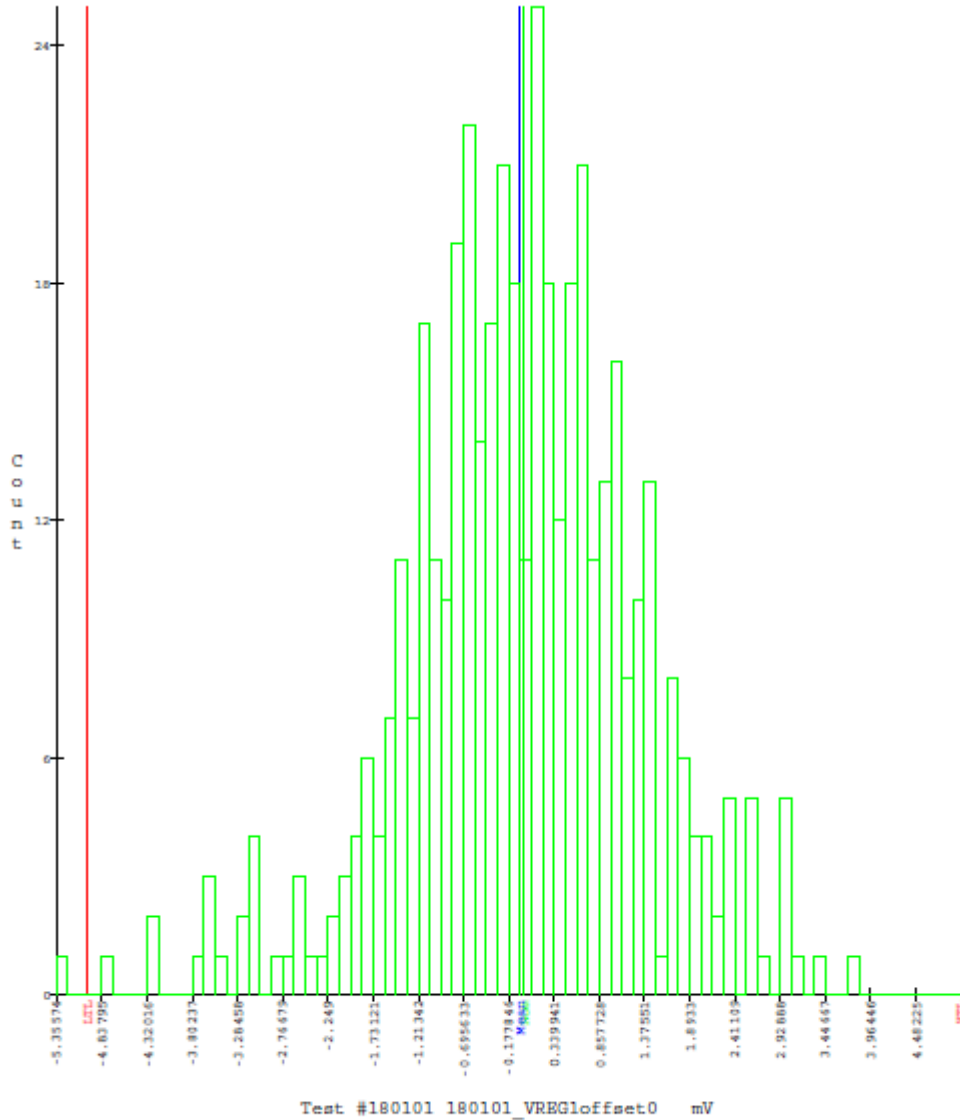
Vreg_{offset}

Test	Spec	Unit	Actual LSL	Actual USL	Proposed new LSL	Proposed new USL	
Vreg _{offset}	8.1	mV	-6	6	-8	8	Packaged version

The distribution is shown below (standard production data):



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Mean:	-0.05073	Cp:	1.21394	Failures (PPM):	266.908
Sdev:	1.37294	Cpk:	1.20162	Deviation from the Nominal:	0.000051
Lt1:	-5	Ht1:	5	Taguchi Loss Factor:	0.075501
Pop. Size (N) of the Data Set:	436			Data is:	Not Normal

Current Cpk (spec limits) is 1,44. New cpk (new spec limits) with shifted spec window is 1,93.

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List of affected Customer Specific Parts:

PART
OHSBA-005-APT