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**FINAL PRODUCT/PROCESS CHANGE NOTIFICATION**

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**09-Jan-2006**

**SUBJECT: ON Semiconductor Final Product/Process Change Notification #15304**

**TITLE: Update to FPCN #15121: OP AMP and Comparator Process Enhancement at CZ4**

**EFFECTIVE DATE: 01-Feb-2006**

**AFFECTED CHANGE CATEGORY(S): Design Change**

**AFFECTED PRODUCT DIVISION(S): Analog Power Management**

**ADDITIONAL RELIABILITY DATA:** Available

Contact your local ON Semiconductor Sales Office or Vladislav Hrachovec <ffbc3t@onsemi.com>

**SAMPLES:** Contact your local ON Semiconductor Sales Office or Brian Pickard <r17360@onsemi.com>

**FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:**

Contact your local ON Semiconductor Sales Office or Brian Pickard <r17360@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:**

This is an update to the Final PCN 15121 (IPCN 13848).  
The LM258/358 and LM2904 families of devices have been added to this FPCN.

These PCN's are available at [www.onsemi.com](http://www.onsemi.com) announcing ON Semiconductor's plan to redesign the wafer process for fabricating high volume Operational Amplifier (Op Amp) and Comparator devices in ON Semiconductor's Roznov wafer fab. The device designs were revised to match the latest design rules for the wafer process.

\*\*\*\*\* 15121 \*\*\*\*\*

This is the Final PCN to IPCN 13848 available at [www.onsemi.com](http://www.onsemi.com) announcing ON Semiconductor's plan to redesign the wafer process for fabricating high volume Operational Amplifier (Op Amp) and Comparator devices in ON Semiconductor's Roznov wafer fab. The device designs were revised to match the latest design rules for the wafer process.



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**RELIABILITY DATA SUMMARY:**

Qualification Vehicle: LM124  
Temp Cycle (TC) - 0/240  
High Temp Operational Life (HTOL) - 0/240  
DPA (post Temp Cycle) - 0/6

**ELECTRICAL CHARACTERISTIC SUMMARY:**

Electrical characterization has been completed with no changes to the AC/DC specifications. ON Semiconductor recommends samples be obtained for application specific review. Further analysis of ESD capability resulted in some device specifications changing as listed below:

- LM224 - No Change
- LM239 - HBM from 2kV to 1.5kV
- LM2901 - HBM from 2kV to 1.5kV
- LM2902 - No Change
- LM2903 - HBM from 2kV to 1.5kV and MM from 200V to 150V
- LM293 - HBM from 2kV to 1.5kV and MM from 200V to 150V
- LM324 - No Change
- LM339 - HBM from 2kV to 1.5kV
- LM393 - HBM from 2kV to 1.5kV and MM from 200V to 150V
- MC3302 - HBM from 2kV to 1.5kV
- LM258 – No Change
- LM358 – No Change
- LM2904 – No Change

**CHANGED PART IDENTIFICATION:**

No physical changes or part marking changes will be made. The change will take effect on product assembled on or after WW02 2006

**AFFECTED DEVICE LIST**

**PART**

- FLM2904D
- FLM2904DG
- FLM2904DR2
- FLM2904DR2G
- LM258D
- LM258DG



**Final Product/Process Change Notification #15304**

**AFFECTED DEVICE LIST cont**

**PART**

LM258DR2  
LM258DR2G  
LM258N  
LM258NG  
LM2904AN  
LM2904ANG  
LM2904D  
LM2904DG  
LM2904DR2  
LM2904DR2G  
LM2904N  
LM2904NG  
LM2904VD  
LM2904VDG  
LM2904VDR2  
LM2904VDR2G  
LM2904VN  
LM2904VNG  
LM358D  
LM358DG  
LM358DR2  
LM358DR2G  
LM358N  
LM358NG  
LMW358