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**FINAL PRODUCT/PROCESS CHANGE NOTIFICATION**  
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**24-JUL-2003**

**SUBJECT: ON Semiconductor Final Product/Process Change Notification #12816**

**TITLE: Qualification of Modified Leadframe Design for Analog 3 Lead D2PAK Package**

**EFFECTIVE DATE: 24-Sep-2003**

**AFFECTED CHANGE CATEGORY:** ON Semiconductor Assembly Site

**AFFECTED PRODUCT DIVISION:** Analog Products Div

**ADDITIONAL RELIABILITY DATA:** Available

Contact your local ON Semiconductor Sales Representative or Joe Duffalo <FFBH9W@onsemi.com>

**SAMPLES:** Contact your local ON Semiconductor Sales Representative or Bett Lofts <FFBGFX@onsemi.com>

**FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:**

Contact Sales Representative or Bett Lofts <FFBGFX@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 the Final PCN to notify customers of the qualification on the new lead frame design change for the 3 lead D2PAK package at ON Semiconductor's assembly site in the Czech Republic.

An initial PCN#12816, located at [www.onsemi.com](http://www.onsemi.com), was published on April 15, 2003 providing information on the overall scope of the lead frame design changes.

The new lead frame design changes will not affect the case outline, electrical or thermal characteristics of the devices. The new leadframe has two pedestals which appear on the outside of the package as small indentations in the heat sink. The indentations will not alter the performance of the product and are a visual change only.

Samples are available upon request. After the expiration date of this notification, the devices listed below will be processed using the new lead frame.



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**RELIABILITY DATA SUMMARY:**

**Qualification Data :**

TEST NAME	TEST CONDITIONS	Accept	Read Point	SS	Lots
Autoclave(AC-PC)	Ta =121DegC, RH=100%	c=0	0,96	80	3
Temp(TC-PC) Cycling	Ta = -65DegC to +150DegC for 500 cycles	c=0	0,100,500	80	3

**RELIABILITY DATA SUMMARY:**

**Results of Preconditioned Reliability Tests at 240DegC**

	AC		TC		
	Read Point (Hrs)		Read Point (Cycles)		
LOT ID	0	96	0	100	500
Qual A	0/80	0/80	0/80	0/80	0/80
Qual B	0/80	0/80	0/80	0/80	0/80

**Results of Preconditioned Reliability Tests at 260DegC**

	AC		TC		
	Read Point (Hrs)		Read Point (Cycles)		
LOT ID	0	96	0	100	500
Qual C	0/80	0/80	0/80	0/80	0/80

**ELECTRICAL CHARACTERISTIC SUMMARY: N/A**

**CHANGED PART IDENTIFICATION:**

Normal assembly lot traceability codes can be used to identify the new lead frame used.

**AFFECTED DEVICE LIST (WITHOUT SPECIALS):**

**PART**

- LM2931AD2T-5.0
- LM2931AD2T-5.0R4
- LM2931D2T-5.0
- LM2931D2T-5.0R4
- LM317BD2T
- LM317BD2TR4
- LM317D2T
- LM317D2TR4
- LM337BD2T
- LM337BD2TR4
- LM337D2T
- LM337D2TR4
- MC7805ABD2T
- MC7805ABD2TR4
- MC7805ACD2T
- MC7805ACD2TR4
- MC7805BD2T
- MC7805BD2TR4
- MC7805CD2T
- MC7805CD2TR4
- MC7806BD2T
- MC7806BD2TR4
- MC7808ABD2T



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MC7808ABD2TR4  
MC7808BD2T  
MC7808BD2TR4  
MC7808CD2T  
MC7808CD2TR4  
MC7809CD2T  
MC7809CD2TR4  
MC7812ABD2T  
MC7812ABD2TR4  
MC7812ACD2T  
MC7812ACD2TR4  
MC7812BD2T  
MC7812BD2TR4  
MC7812CD2T  
MC7812CD2TR4  
MC7815ABD2T  
MC7815ABD2TR4  
MC7815ACD2T  
MC7815BD2T  
MC7815BD2TR4  
MC7815CD2T  
MC7815CD2TR4  
MC7818CD2T  
MC7818CD2TR4  
MC7824BD2T  
MC7824BD2TR4  
MC7824CD2T  
MC7824CD2TR4  
MC78T05CD2T  
MC78T05CD2TR4  
MC7905ACD2T  
MC7905ACD2TR4  
MC7905BD2T  
MC7905BD2TR4  
MC7905CD2T  
MC7905CD2TR4  
MC7906CD2T  
MC7908CD2T  
MC7908CD2TR4  
MC7912ACD2T  
MC7912CD2T  
MC7912CD2TR4  
MC7915ACD2T  
MC7915BD2T  
MC7915CD2T  
MC7915CD2TR4  
MC7924CD2T  
NCV2931D2T-5.0R4  
NCV317BD2T  
NCV317BD2TR4  
NCV7805BD2T  
NCV7805BD2TR4