

#### PRODUCT/PROCESS CHANGE NOTIFICATION Generic Copy

## 28-AUG-2001

#### SUBJECT: ON Semiconductor Product/Process Change Notification #11703

TITLE: T0220 and D2pak 5 Lead Change To Copper Wirebond

EFFECTIVE DATE: 27-Oct-2001

AFFECTED CHANGE CATEGORY: Subcontractor Assembly Site and Assembly Process

#### **AFFECTED PRODUCT DIVISION: Analog Products**

#### ADDITIONAL RELIABILITY DATA: Available

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

SAMPLES: Contact your local ON Semiconductor Sales Office or Mouayed Saleh <R12646@onsemi.com>

#### FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:

Contact Sales Office or Mouayed Saleh <R12646@onsemi.com>

#### **DISCLAIMER:**

Initial Product/Process Change Notification (IPCN) - First Notification distributed to customers. Distributed at least 120 days from the effective date of the change.

Final Product/Process Change Notification (FPCN) - Final Notification completing the notification process. Distributed at least 60 days from the effective date 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 Product Change Notice (PCN) is to notify customers of the intent to change the assembly manufacturing flow for the 5 lead T0220 and 5 lead D2Pak package. This line is located at the Tesla manufacturing facility in Rosnov, Czech Republic.

Manufacturing change for the 5 lead T0220 (Case 314B, 314D) and 5 Lead D2Pak (Case 936A) package.

- 1) Change from Gold wirebond to Copper wirebond
- 2) Change from selective Ni plated copper leadframe with Silver post to 100% Copper leadframe

This new assembly process has been previously qualified on the 3 lead T0220 assembly line and has been in production for several years. This change is to consolidate and standardize all T0220 products into one flow.

Full reliability testing has been completed for this change and is attached to this notice.

QUALIFICATION PLAN: See Reliability Data

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<b>RELIABILITY DA</b> <b>Test Name</b> High Temp Op Life	Test	<b>MARY:</b> <b>Test Conditions</b> Ta = 150	$\begin{array}{l} \mathbf{Accept} \\ \mathbf{c} = 0 \end{array}$	<b>Read Point</b> 504 Hr	<b>SS</b> 77	<b>Lots</b> 3
High Temp Bake	HTB	Ta = 150 C	c = 0	504 Hr	77	3
Preconditioning (for D2Pak only)	PC	JEDEC Moisture Preconditioning	c = 0	see AC; TC		
Temperature Cycle	TC	-65 DegC - + 150 DegC 500 C		500 Cycles	77	3
Autoclave	AC	Ta = 121 DegC, 00% RH / 15 PSIG		96 Hr	77	3

Testing has been completed on the following devices:

LM2931CT	2 lots	0 Rejects / 154	All Tests
LM2931ACD2TR4	3 lots	0 Rejects / 231	All Tests
MC33267T2TR4	1 lot	0 Rejects / 77	All Tests

## **ELECTRICAL CHARACTERISTIC SUMMARY:**

Electrical yield analysis showed no statistical differences in lot yields.

## CHANGED PART IDENTIFICATION:

There will be no change to the standard part type markings. Product Date Codes can be used to identify product processed with the new assembly flow. Estimated date code for implementation of this change: 4401.

## AFFECTED DEVICE LIST (WITHOUT SPECIALS)

PART LM2575D2T-005 LM2575D2T-012 LM2575D2T-015 LM2575D2T-12R4 LM2575D2T-15R4 LM2575D2T-3.3 LM2575D2T-3.3R4 LM2575D2T-5R4 LM2575D2T-ADJ LM2575D2T-ADJR4 LM2575T-005 LM2575T-012 LM2575T-015 LM2575T-3.3 LM2575T-ADJ LM2575TV-005 LM2575TV-012 LM2575TV-015 LM2575TV-3.3 LM2575TV-ADJ LM2576D2T-005 LM2576D2T-012 LM2576D2T-015 LM2576D2T-3.3

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LM2576D2T-ADJ LM2576D2T-ADJR4 LM2576D2TR4-005 LM2576D2TR4-3.3 LM2576T-005 LM2576T-012 LM2576T-015 LM2576T-3.3 LM2576T-ADJ LM2576TV-005 LM2576TV-012 LM2576TV-015 LM2576TV-3.3 LM2576TV-ADJ LM2931ACD2TR4 LM2931ACTV LM2931CD2T LM2931CD2TR4 LM2931CT LM2935D2T LM2935T MC33166D2T MC33166D2TR4 MC33166T MC33166TH MC33166TV MC33167D2T MC33167T MC33167TH MC33167TV MC33267D2T MC33267D2TR4 MC33267T MC33267TH MC33267TV MC33566D2T-001 MC33566D2T-1RK MC34166D2T MC34166D2TR4 MC34166T MC34166TH MC34166TV MC34167D2T MC34167T MC34167TH MC34167TV TCM2575-12.0VAT TCM2575-12.0VBV TCM2575-12.0VRT TCM2575-12VRTTR TCM2575-15.0VAT TCM2575-15.0VBV TCM2575-15.0VRT TCM2575-15VRTTR TCM2575-3.3VAT TCM2575-3.3VBV





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TCM2575-3.3VRT TCM2575-33VRTTR TCM2575-5.0VAT TCM2575-5.0VBV TCM2575-5.0VRT TCM2575-50VRTTR TCM2575VAT TCM2575VBV TCM2575VRT TCM2575VRTTR TCM2576-12.0VAT TCM2576-12.0VBV TCM2576-12.0VRT TCM2576-15.0VAT TCM2576-15.0VRT TCM2576-3.3VAT TCM2576-3.3VRT TCM2576-33VRTTR TCM2576-5.0VAT TCM2576-5.0VBV TCM2576-5.0VRT TCM2576-50VRTTR TCM2576VAT TCM2576VBV TCM2576VRT TCM2576VRTTR TCM33166EAT TCM33166EBV TCM33166ERT **TCM33167EAT** TCM33167EBV TCM33167ERT