



FINAL PRODUCT/PROCESS CHANGE NOTIFICATION
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06-MAY-2004

SUBJECT: ON Semiconductor Final Product/Process Change Notification #13462

TITLE: Qualification of T0220 Packages at ON Semi Seremban

EFFECTIVE DATE: 06-Jul-2004

AFFECTED CHANGE CATEGORY: ON Semiconductor Assembly Site

AFFECTED PRODUCT DIVISION: Analog Products

ADDITIONAL RELIABILITY DATA: Available

Contact your local ON Semiconductor Sales Representative or Bob Marquis <FC88FC@onsemi.com>

SAMPLES: Contact your local ON Semiconductor Sales Representative or Jaroslav Supina <FFBX3N@onsemi.com>

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:

Contact Sales Representative or Alan Garlington <RRP180@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:

Final Product Change Notice to inform customers of the qualification of the ON Semiconductor Seremban factory for assembly and test of T0220 packages. Initial Product Change Notice number 13276 was issued on December 19, 2003 which provided advance notice for this change to T0220 and D2Pak packages. A subsequent final notice will follow for the D2Pak package when reliability data is available. The Seremban factory already produces many other packaged products and is ISO9001:2000 and TS16949 certified.

In addition to the change of location, two other modifications are being made to the T0220 package:

- 1) T0220 Lead finish will change from a Solder Dip process to a Tin-Lead or Tin plated process;
- 2) Lead finish plating will be performed prior to parts being trimmed from the lead frame.

There will be a small area of exposed copper showing at the edge of the heat sink.

Customers may receive product for the T0220 package style from either the current Tesla, Czech Republic factory or the new Seremban, Malaysia factory in the future.

**Final Product/Process Change Notification #13462****RELIABILITY DATA SUMMARY:**

Device Tested: MC33167T

Number of Lots Tested: 3

Test	Conditions	Interval	Rejects	Sample
Autoclave	Ta=121C, P = 15PSIG RH = 100%	96 Hrs	0	231
Temp Cycle	Ta= -65 to 150C	500 Cycle	1*	231
		1000 Cycle	0	230
High Temp Storage	Ta = 150C	504 Hrs	0	231
		1008 Hrs	0	231
High Temp Op Life	Ta=125C with Bias Vin = 40 v.	504 Hrs	0	231
		1008 Hrs	0	231
HAST	Ta=130C, RH=85% Vin = 10 v.	96 Hrs	0	231
Solder Heat	Ta=260C, 10 Sec Dwell	1X	0	135
Solderability	Steam Age = 8Hr, Ta=245C	1X	0	30

* Failure Analysis indicated failure not related to assembly

ELECTRICAL CHARACTERISTIC SUMMARY:

Assembly change location only. No change to die or electrical performance.

CHANGED PART IDENTIFICATION:

Assembly lot traceability codes can be used to determine the factory used for assembly.

AFFECTED DEVICE LIST :**PART**

LM2575T-005
 LM2575T-012
 LM2575T-015
 LM2575T-3.3
 LM2575T-ADJ
 LM2576T-005
 LM2576T-012
 LM2576T-015
 LM2576T-3.3
 LM2576T-ADJ
 LM2931AT-5.0
 LM2931CT
 LM2931T-5.0
 LM317BT
 LM317BTG
 LM317MABT



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LM317MBT
LM317MT
LM317T
LM317TG
LM323AT
LM323T
LM337BT
LM337T
LM337TG
LM350T
MC33166T
MC33167T
MC33167TG
MC33269T
MC33269T-012
MC33269T-3.3
MC33269T-5.0
MC34166T
MC34167T
MC7805ABT
MC7805ACT
MC7805ACTG
MC7805BT
MC7805CT
MC7805CT2
MC7805CTG
MC7806ACT
MC7806BT
MC7806CT
MC7806CTG
MC7808ABT
MC7808ACT
MC7808BT
MC7808BTG
MC7808CT
MC7808CT2
MC7808CTG
MC7809ACT
MC7809BT
MC7809CT
MC7809CTG
MC7812ABT
MC7812ACT
MC7812ACTG
MC7812BT
MC7812CT
MC7812CT2
MC7812CTG
MC7815ABT
MC7815ACT
MC7815ACTG
MC7815BT
MC7815CT
MC7815CTG
MC7818ACT
MC7818BT



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MC7818CT
MC7818CTG
MC7824ACT
MC7824BT
MC7824CT
MC7824CTG
MC78M05ABT
MC78M05ACT
MC78M05BT
MC78M05CT
MC78M05CTG
MC78M06BT
MC78M06CT
MC78M08ABT
MC78M08ACT
MC78M08BT
MC78M08CT
MC78M08CTG
MC78M09CT
MC78M09CTG
MC78M12ABT
MC78M12ACT
MC78M12BT
MC78M12CT
MC78M12CTG
MC78M15ABT
MC78M15ACT
MC78M15ACTG
MC78M15BT
MC78M15CT
MC78M15CTG
MC78M18BT
MC78M18CT
MC78M20BT
MC78M20CT
MC78M24BT
MC78M24CT
MC78T05ABT
MC78T05ACT
MC78T05ACTG
MC78T05BT
MC78T05BTG
MC78T05CT
MC78T05CTG
MC78T08CT
MC78T12ACT
MC78T12BT
MC78T12CT
MC78T15ABT
MC78T15ACT
MC78T15CT
MC7905.2CT
MC7905.2CTG
MC7905ACT
MC7905BT
MC7905CT



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MC7905CT1
MC7905CTG
MC7906CT
MC7906CTG
MC7908ACT
MC7908CT
MC7908CTG
MC7912ACT
MC7912BT
MC7912CT
MC7912CTG
MC7915ACT
MC7915BT
MC7915CT
MC7915CTG
MC7918CT
MC7918CTG
MC7924BT
MC7924CT
MC7924CTG
MC79M05BT
MC79M05CT
MC79M08BT
MC79M08CT
MC79M12BT
MC79M12CT
MC79M15BT
MC79M15CT
MC79M15CTG
NCV317BT
NCV7805BT
NCV7812BT
SC2576T-3.3