ON Semiconductor

FINAL PRODUCT/PROCESS CHANGE NOTIFICATION
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May 25, 2006

SUBJECT: ON Semiconductor Final Product/Process Change Notification #15550

TITLE: FINAL NOTICE FOR IC T0220 PACKAGE CHANGE TO SINGLE GAGE HEATSINK

EFFECTIVE DATE: July 25, 2006

AFFECTED CHANGE CATEGORY(S): Assembly

AFFECTED PRODUCT DIVISION(S): Analog Products Group

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:
Contact your local ON Semiconductor Sales Office or Alan.Garlington@onsemi.com>

SAMPLES: Contact your local ON Semiconductor Sales Office

ADDITIONAL RELIABILITY DATA: Available
Contact your local ON Semiconductor Sales Office or Peter.Turlo@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 Initial Product Change Notice IPCN#15018 (available at www.onsemi.com) to notify customers the T0220 product lines for IC products running in Seremban, Malaysia have been qualified for a single gage thickness heat sink. The current heat sink has a thickness of .050 inch (1.265 mm). The new heat sink will have a thickness of .020 inch (.508 mm). Full reliability and characterization has been completed successfully.

Thermal analysis comparing difference between the two thickness heat sinks indicate insignificant difference in performance. Report is available upon request.

The new heat sink dimensions are in compliance with the standard JEDEC specification T0-220 issue K. Package designator R-PSFM-F.

Product samples are available now.

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RELIABILITY DATA SUMMARY:

LM350T (Largest Die) - 3 Assembly Lots

RELIABILITY TEST	QUAL A	QUAL B	QUAL C
AC (96 Hrs)	0/77	0/77	0/77
HAST (96hrs – Ta = 125C)	0/77	0/77	0/77
TC (500 cycles @ -65 to +150C)	0/77	0/77	0/77
High Temp Storage Life (Ta = 150C, Readout @1008 Hrs)	0/77	0/77	0/77
High Temp Operating Life (Ta = 125C, Readout @1008 Hrs)	0/77	0/77	0/77
Solder Heat Ice Test	0/100	0/100	0/100
Solderability Test	0/15	0/15	0/15
DPA – After TC500 & HAST 96	0/30	0/30	0/30
Bond Pull Strength Test After TC	0/5	0/5	0/5

SAT – No significant delamination found 0/20

ELECTRICAL CHARACTERISTIC SUMMARY:

There are no significant differences from current performance and qualification material. Characterization report is available upon request.

CHANGED PART IDENTIFICATION:

Devices will be converted to Single Gage heat sink thickness on a part by part basis beginning work week 31 – 2006. Transition will take place over a several month period. Packaging of tubes in boxes will not be mixed between the two thicknesses of heat sinks.

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AFFECTED DEVICE LIST

PART

LM2931AT-5.0
LM2931AT-5.0G
LM2931T-5.0
LM2931T-5.0G
LM317BT
LM317BTG
LM317MABT
LM317MABTG
LM317MBT
LM317MBTG
LM317MT
LM317MTG
LM317T
LM317TG
LM323AT
LM323T
LM323TG
LM337BT
LM337BTG
LM337T
LM337TG
LM350T
LM350TG
MC33269T
MC33269T-012
MC33269T-012G
MC33269T-3.3
MC33269T-3.3G
MC33269T-5.0
MC33269T-5.0G
MC33269TG
MC7805ABT
MC7805ABTG
MC7805ACT
MC7805ACTG
MC7805BT
MC7805BTG
MC7805CT
MC7805CTG
MC7806ACT
MC7806ACTG
MC7806BT
MC7806BTG
MC7806CT
MC7806CTG
MC7808ABT
MC7808ABTG
MC7808ACT
MC7808ACTG
MC7808BT
MC7808BTG
MC7808CT
MC7808CTG

AFFECTED DEVICE LIST

PART
MC7809ACT
MC7809ACTG
MC7809BT
MC7809BTG
MC7809CT
MC7809CTG
MC7812ABT
MC7812ABTG
MC7812ACT
MC7812ACTG
MC7812BT
MC7812BTG
MC7812CT
MC7812CTG
MC7815ABT
MC7815ABTG
MC7815ACT
MC7815ACTG
MC7815BT
MC7815BTG
MC7815CT
MC7815CTG
MC7818ACT
MC7818ACTG
MC7818BT
MC7818BTG
MC7818CT
MC7818CTG
MC7824ACT
MC7824ACTG
MC7824BT
MC7824BTG
MC7824CT
MC7824CTG
MC78M05ABT
MC78M05ABTG
MC78M05ACT
MC78M05ACTG
MC78M05BT
MC78M05BTG
MC78M05CT
MC78M05CTG
MC78M06BT
MC78M06BTG
MC78M06CT
MC78M06CTG
MC78M08ABT
MC78M08ABTG
MC78M08ACT
MC78M08ACTG
MC78M08BT
MC78M08BTG
MC78M08CT
MC78M08CTG
MC78M09CT

AFFECTED DEVICE LIST

PART
MC78M09CTG
MC78M12ABT
MC78M12ABTG
MC78M12ACT
MC78M12ACTG
MC78M12BT
MC78M12BTG
MC78M12CT
MC78M12CTG
MC78M15ABT
MC78M15ABTG
MC78M15ACT
MC78M15ACTG
MC78M15BT
MC78M15BTG
MC78M15CT
MC78M15CTG
MC78M18BT
MC78M18BTG
MC78M18CT
MC78M18CTG
MC78M20BT
MC78M20CT
MC78M20CTG
MC78M24BT
MC78M24BTG
MC78M24CT
MC78M24CTG
MC78T05ABT
MC78T05ACT
MC78T05ACTG
MC78T05BT
MC78T05BTG
MC78T05CT
MC78T05CTG
MC78T08CT
MC78T08CTG
MC78T12ACT
MC78T12ACTG
MC78T12BT
MC78T12BTG
MC78T12CT
MC78T12CTG
MC78T15ABT
MC78T15ACT
MC78T15CT
MC78T15CTG
MC7905.2CT
MC7905.2CTG
MC7905ACT
MC7905ACTG
MC7905BT
MC7905BTG
MC7905CT
MC7905CTG
MC7906CT

AFFECTED DEVICE LIST

PART
MC7906CTG
MC7908ACT
MC7908ACTG
MC7908CT
MC7908CTG
MC7912ACT
MC7912ACTG
MC7912BT
MC7912BTG
MC7912CT
MC7912CTG
MC7915ACT
MC7915ACTG
MC7915BT
MC7915BTG
MC7915CT
MC7915CTG
MC7918CT
MC7918CTG
MC7924BT
MC7924BTG
MC7924CT
MC7924CTG
MC79M05BT
MC79M05BTG
MC79M05CT
MC79M05CTG
MC79M08BT
MC79M08BTG
MC79M08CT
MC79M08CTG
MC79M12BT
MC79M12BTG
MC79M12CT
MC79M12CTG
MC79M15BT
MC79M15BTG
MC79M15CT
MC79M15CTG
NCV317BT
NCV317BTG
NCV7805BT
NCV7805BTG
TYA7805CTV
TYA7805CTVG
TYA7809CTV
TYA7809CTVG