



INITIAL PRODUCT/PROCESS CHANGE NOTIFICATION
Generic Copy

08 May 2007

SUBJECT: ON Semiconductor Initial Product/Process Change Notification #16009

TITLE: Initial Notification for Gold wire changing to Copper wire on SOT-23 commodity parts

PROPOSED FIRST SHIP DATE: 08 Sep 2007

AFFECTED CHANGE CATEGORY: ON Semiconductor assembly – wire bond

AFFECTED PRODUCT DIVISION: Discrete Products

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:

Contact you local ON Semiconductor Sales Office or Terry Galloway <terry.galloway@onsemi.com>

NOTIFICATION TYPE:

Initial Product/Process Change Notification (IPCN)

First change notification sent to customers. IPCNs are issued at least 120 days prior to implementation of the change. An IPCN is advance notification about an upcoming change and contains general information regarding the change details and devices affected. It also contains the preliminary reliability qualification plan.

The completed qualification and characterization data will be included in the Final Product/Process Change Notification (FPCN).

This IPCN notification will be followed by a Final Product/Process Change Notification (FPCN) at least 60 days prior to implementation of the change.

DESCRIPTION AND PURPOSE:

On Semiconductor is notifying customers of its plan to qualify Copper wire on commodity products of Small Signal PNP transistors, Small Signal NPN Transistors, and switching diodes in the SOT-23 package.

The mold compound, die attach, and lead frame materials used in the SOT-23 package will remain the same. A qualification vehicle has been selected for each of the device functions and full electrical characterization over temperature will be performed on each qualification vehicle to ensure device functionality and electrical specifications are met.

Multiple final PCNs will be published, starting in the end of May of 2007, providing the qualification results and 90 days of notice of effective planned production release dates for specific devices. The final PCNs will list the devices being released and the date code which will contain Copper wire instead of Gold.



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QUALIFICATION PLAN:

Qualification of each device type to be transferred is being performed to the following requirements:

- 1) Three temperature electrical characterization (3 lots, 30 units each at -55C, 25C, and 150C)
- 2) ESD testing (3 lots) Human Body Model, Machine Model

Reliability testing will be performed on qualification vehicles chosen based on die size, voltage rating, and run rates.

Planned reliability tests are:

#	Test	Name	Test Conditions	End Point Req's	Test Results
					Read Point
1	HTSL	High Temp Storage Life	Ta=150°	c = 0, Room	1008 Hrs.
2	AC-PC	Autoclave-PC	121°C/100% RH/15psig	c = 0, Room	96 Hrs
3	TC -PC	Temperature Cycle-PC	Ta=-65/+150deg.C, Air to air, Dwell = 10 min,	c = 0, Room	1000 Cys
4	H3TRB - PC	High Humidity High Temp Rev Bias + PC	Ta=85°C, 85% RH, 80% rated or 100V max	c = 0, Room	1008 Hrs.
5	IOL-PC	IOL-PC	Ta=+25°C, delta Tj=100°C On/of = 2 min	c = 0, Room	15000 Cys.

Electrical Characterization Plan:

Datasheet specifications and product electrical performance will remain unchanged

Characterization of each qual vehicle device will be performed to the following requirements:

- 1) ESD performance (HBM, MM) on 15 units from 1 lot
- 2) Three temperature characterization on 30 units from 3 lots



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AFFECTED DEVICE LIST:

PART

BAS16LT1
BAS16LT1G
BAS16LT3
BAS16LT3G
BAS21LT1
BAS21LT1G
BAS21LT3
BAS21LT3G
BAS21SLT1G
BAV70LT1
BAV70LT1G
BAV70LT3
BAV70LT3G
BAV99LT1
BAV99LT1G
BAV99LT3
BAV99LT3G
BAW56LT1
BAW56LT1G
BAW56LT3
BAW56LT3G
BC807-25LT1
BC807-25LT1G
BC807-25LT3
BC807-25LT3G
BC807-40LT1
BC807-40LT1G
BC807-40LT3
BC807-40LT3G
BC817-25LT1
BC817-25LT1G
BC817-25LT3
BC817-25LT3G
BC817-40LT1
BC817-40LT1G
BC817-40LT3
BC817-40LT3G
BC846BLT1
BC846BLT1G
BC846BLT3
BC846BLT3G
BC847BLT1
BC847BLT1G
BC847BLT3
BC847BLT3G
BC847CLT1
BC847CLT1G
BC847CLT3
BC847CLT3G
BC848BLT1
BC848BLT1G
BC848BLT3



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BC848BLT3G
BC848CLT1
BC848CLT1G
BC856BLT1
BC856BLT1G
BC856BLT3
BC856BLT3G
BC857BLT1
BC857BLT1G
BC857BLT3
BC857BLT3G
BC858BLT1
BC858BLT1G
BC858BLT3
BC858BLT3G
BC858CLT1
BC858CLT1G
BC858CLT3
BC858CLT3G
MMBD6050LT1
MMBD6050LT1G
MMBD6050LT3
MMBD6050LT3G
MMBD7000LT1
MMBD7000LT1G
MMBD7000LT3
MMBD7000LT3G
MMBD914LT1
MMBD914LT1G
MMBD914LT3
MMBD914LT3G
MMBT2222ALT1
MMBT2222ALT1G
MMBT2222ALT3
MMBT2222ALT3G
MMBT2222LT1
MMBT2222LT1G
MMBT2222LT3
MMBT2222LT3G
MMBT2907ALT1
MMBT2907ALT1G
MMBT2907ALT3
MMBT2907ALT3G
MMBT3904LT1
MMBT3904LT1G
MMBT3904LT3
MMBT3904LT3G
MMBT3906LT1
MMBT3906LT1G
MMBT3906LT3
MMBT3906LT3G
MMBT4401LT1
MMBT4401LT1G
MMBT4401LT3
MMBT4401LT3G
MMBT4403LT1



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MMBT4403LT1G
MMBT4403LT3
MMBT4403LT3G
MMBT5551LT1
MMBT5551LT1G
MMBT5551LT3
MMBT5551LT3G
MMBTA06LT1
MMBTA06LT1G
MMBTA06LT3
MMBTA06LT3G
MMBTA92LT1
MMBTA92LT1G
MMBTA92LT3
MMBTA92LT3G
BAL99LT1
BAL99LT1G
BAS19LT1
BAS19LT1G
BAS19LT3
BAS19LT3G
BAS20LT1
BAS20LT1G
BAV74LT1
BAV74LT1G
BAV74LT3
BAV74LT3G
BC808-25LT1
BC808-25LT1G
BC808-40LT1
BC808-40LT1G
BC849BLT1
BC849BLT1G
BC849BLT3
BC849BLT3G
BC849CLT1
BC849CLT1G
BC850BLT1
BC850BLT1G
BC850CLT1
BC850CLT1G
BC859BLT1
BC859BLT1G
BC859BLT3
BC859BLT3G
BC859CLT1
BC859CLT1G
BCW30LT1
BCW30LT1G
BCW32LT1
BCW32LT1G
BCW33LT1
BCW33LT1G
BCW33LT3
BCW33LT3G
BCW66GLT1



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BCW66GLT1G
BCW70LT1
BCW70LT1G
BCW72LT1
BCW72LT1G
BCX17LT1
BCX17LT1G
BCX18LT1
BCX18LT1G
BSS64LT1
BSS64LT1G
MMBD2835LT1
MMBD2835LT1G
MMBD2836LT1
MMBD2836LT1G
MMBD2837LT1
MMBD2837LT1G
MMBD2838LT1
MMBD2838LT1G
MMBD6100LT1
MMBD6100LT1G
MMBD6100LT3
MMBD6100LT3G
MMBT4126LT1
MMBT4126LT1G
MMBT4126LT3G
MMBT5550LT1
MMBT5550LT1G
MMBT5550LT3G
MMBTA05LT1
MMBTA05LT1G
MMBTA05LT3
MMBTA05LT3G
MMBTA55LT1
MMBTA55LT1G
MMBTA55LT3
MMBTA93LT1
MMBTA93LT1G