ON Semiconductor

**FINAL PRODUCT/PROCESS CHANGE NOTIFICATION**
Generic Copy

**30-MAY-2002**

**SUBJECT: ON Semiconductor Final Product/Process Change Notification #12461**

**TITLE: Final Notification - Motorola BMC to TESLA: MC33268, MC33269, MC3403, MC34074**

**EFFECTIVE DATE: 29-Jul-2002**

**AFFECTED CHANGE CATEGORY: On Semiconductor Fab Site**

**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
Alan Garlington <RPR180@onsemi.com>

**FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:**
Contact Sales Office or Alan Garlington <RPR180 @onsemi.com>

**DISCLAIMER:**
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 is a Final PCN (Product Change Notice) to notify customers of the qualification of certain Analog devices being transferred to the Tesla Wafer Fab in the Czech Republic. An initial PCN (# 11528) was published on 19 July 2001 providing information on all the devices being transferred and the overall scope of the program.

The devices listed below have been fully qualified and are now ready to transfer to Tesla from the Motorola BMC wafer fab. The existing design database in use at BMC was transferred to Tesla with no change to the to the functional circuit design. No change in the device functionality nor electrical distributions have been found but it is recommended that customers evaluate the devices in their applications to insure proper operation.

Samples are available upon request. At the expiration of this PCN (60 Days), fabrication of these devices will occur at either the Tesla Wafer Fab or the BMC Fab depending on capacity and demand requirements.

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**RELIABILITY DATA SUMMARY:**

| Technology | Flow | Device Types | Fab | Test Conditions | Rej | Sample Size |
|---|---|---|---|---|---|---|
| Std Linear | EPI 85/92 | MC33033P | Tesla | HTOL 150C;Biased 1008 Hrs | 0 | 240 |
| Std Linear | EPI 85/92 | MC33033P | Tesla | TC -65C to +150C 1000 Cyc | 0 | 240 |
| Std Linear | EPI 85/92 | MC33033P | Tesla | HTS 150C; No Bias 1008 Hrs | 0 | 80 |
| Std Linear | EPI 85/92 | MC33033P | Tesla | AC 121C; 100% RH 144 Hrs | 0 | 240 |
| Std Linear | EPI 85/92 | MC33064D | Tesla | HTOL 150C; Biased 1008 Hrs | 0 | 240 |
| Std Linear | EPI 85/92 | MC33064D | Tesla | TC -65C to +150C 1000 Cyc | 0 | 240 |
| Std Linear | EPI 85/92 | MC33064D | Tesla | HTS 150C; No Bias 1008 Hrs | 0 | 80 |
| Std Linear | EPI 85/92 | MC33064D | Tesla | AC 121C; 100% RH 144 Hrs | 0 | 240 |
| Std Linear | Epi 85 DL | MC44603A | Tesla | HTOL 125C; Biased 1000 Hr | 0 | 231 |
| Std Linear | Epi 85 DL | MC44603A | Tesla | TC -65C to +150C 500 Cyc | 0 | 231 |
| Std Linear | Epi 85 DL | MC44603A | Tesla | AC 121C;100%RH;15psi 96 Hrs | 0 | 231 |
| Std Linear | Epi 85 DL | MC44603A | Tesla | HAST 130C;85%RH biased 96Hrs | 0 | 231 |
| Std Linear | Epi 78/79 | MC1413D | Tesla | HTOL 150C; Biased 1008 Hrs | 0 | 154 |
| Std Linear | Epi 78/79 | MC1413 | Tesla | TC -65C to +150C 500 Cyc | 0 | 154 |
| Std Linear | Epi 78/79 | MC1413 | Tesla | AC 121C; 100% RH 96 Hrs | 0 | 154 |
| Std Linear | Epi 78/79 | MC1413 | Tesla | HAST 130C;85%RH;Biased 96 Hrs | 0 | 154 |
| Std Linear | Epi 78/79 | MC1413 | Tesla | THB 85C;85%RH;Biased 1008 Hrs | 0 | 154 |
| Std Linear | Epi 78/79 | MC1413 | Tesla | HTS 150C;No Bias 1008 Hrs | 0 | 154 |
| Std Linear | Epi 78/79 | MC33079P | Tesla | HTOL 150C; Biased 1008 Hrs | 0 | 240 |
| Std Linear | Epi 78/79 | MC33079P | Tesla | TC -65C to +150C 1000 Cyc | 0 | 240 |
| Std Linear | Epi 78/79 | MC33079P | Tesla | HTS 150C; No Bias 1008 Hrs | 0 | 240 |
| Std Linear | Epi 78/79 | MC33079P | Tesla | AC 121C; 100% RH 96 Hrs | 0 | 240 |
| Std Linear | Epi 78/79 | MC33079P | Tesla | HAST 130C;85%RH;Biased 96 Hrs | 0 | 240 |
| Std Linear | Epi 78/79 | MC33079P | Tesla | THB 85C;85%RH;Biased 1008 Hrs | 0 | 240 |
| Std Linear | Epi 78/79 | UC3843AN | Tesla | HTOL 150C; Biased 1008 Hrs | 0 | 240 |
| Std Linear | Epi 78/79 | UC3843AN | Tesla | TC -65C to +150C 1000 Cyc | 0 | 240 |
| Std Linear | Epi 78/79 | UC3843AN | Tesla | HTS 150C; No Bias 1008 Hrs | 0 | 240 |
| Std Linear | Epi 78/79 | UC3843AN | Tesla | AC 121C; 100% RH 96 Hrs | 0 | 240 |
| Std Linear | Epi 78/79 | UC3843AN | Tesla | HAST 130C;85%RH;Biased 96 Hrs | 0 | 240 |
| Std Linear | Epi 78/79 | UC3843AN | Tesla | THB 85C;85%RH;Biased 1008 Hrs | 0 | 240 |
| Std Linear | Epi 85 TF | MC33269T | Tesla | HTOL 125C; Biased 500 Cyc | 0 | 231 |
| Std Linear | Epi 85 TF | MC33269T | Tesla | TC -65 to +150C 500 Cyc | 0 | 231 |
| Std Linear | Epi 44 | MC34074D | Tesla | HTOL 150C; Biased 504 Hrs | 0 | 234 |
| Std Linear | Epi 44 | MC34074D | Tesla | HAST 131C;85%RH;Biased 96Hrs | 0 | 237 |
| Std Linear | Epi 44 | MC34074D | Tesla | TC -65 to +150C 500 Cyc | 0 | 236 |

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**ELECTRICAL CHARACTERISTIC SUMMARY:**

MC33269T (MC33268) - 1 lot Characterization data, Major parameters

| Parameter | Unit | Mean | S.D. | Min. | Max. | Specification Min. | Specification Max. |
|---|---|---|---|---|---|---|---|
| V Out (Vin=16v,Io=500ma) | V | 1.248 | .003 | 1.239 | 1.254 | 1.225 | 1.275 |
| V Out (Vin=2.5v,Io=500ma) | V | 1.248 | .003 | 1.239 | 1.254 | 1.225 | 1.275 |
| V Out (Vin=2.5v,Io=10ma) | V | 1.248 | .003 | 1.239 | 1.254 | 1.225 | 1.275 |
| V Out (vin=11v,Io=800ma) | V | 1.248 | .003 | 1.239 | 1.254 | 1.225 | 1.275 |
| Dropout Voltage(Io=500ma) | V | .922 | .004 | .916 | .932 | | 1.250 |
| Load Reg (Io=10;800ma) | mV | .096 | .09 | 0 | .470 | | 6.26 |
| Line Reg (Vin=2,5;16,25v) | mV | .123 | .114 | 0 | .470 | | 3.75 |

MC3403 -- 1 lot Characterization data, Major parameters

| Parameter | Unit | Mean | S.D. | Min. | Max. | Specification Min. | Specification Max. |
|---|---|---|---|---|---|---|---|
| ID+ | mA | 2.654 | 0.012 | 2.625 | 2.673 | 0.0 | 5.0 |
| ID- | mA | -2.697 | 0.012 | -2.717 | -2.666 | -5.0 | 0.0 |
| VIO | mV | 1.104 | 0.637 | -0.215 | 2.39 | -10.0 | 10.0 |
| SR+ | V/uS | N/A | | | | | |
| SR- | V/uS | N/A | | | | | |
| GBW | kHz | N/A | | | | | |

MC34074 -- 1 lot Characterization data, Major parameters

| Parameter | Unit | Mean | S.D. | Min. | Max. | Specification Min. | Specification Max. |
|---|---|---|---|---|---|---|---|
| ID+ | mA | 8.474 | 0.048 | 8.395 | 8.627 | 1.0 | 10.0 |
| ID- | mA | -8.523 | 0.047 | -8.676 | -8.443 | -10.0 | -1.0 |
| VIO | mV | 0.428 | 1.102 | -1.983 | 2.494 | -5.0 | 5.0 |
| SR+ | V/uS | 11.824 | 0.135 | 11.550 | 12.120 | 8.0 | 40.0 |
| SR- | V/uS | n/a | | | | | |
| GBW | kHz | 4359.7 | 37.7 | 4300.3 | 4433.0 | 3500 | 10000 |

**CHANGED PART IDENTIFICATION:**

Normal assembly lot traceability codes can be used to identify the wafer fab source.

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

**PART**

BS33269DTRK-3.3
FMC33269D-3.3
FMC33269DR2-3.3
MC3303D
MC3303DR2
MC3303P
MC33074AD
MC33074ADR2
MC33074ADTB
MC33074ADTBR2
MC33074AP

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MC33074D
MC33074DR2
MC33074DTB
MC33074DTBR2
MC33074P
MC33269D
MC33269D-012
MC33269D-3.3
MC33269D-5.0
MC33269DR2
MC33269DR2-012
MC33269DR2-3.3
MC33269DR2-5.0
MC33269DT
MC33269DT-012
MC33269DT-3.3
MC33269DT-5.0
MC33269DTRK
MC33269DTRK-012
MC33269DTRK-3.3
MC33269DTRK-5.0
MC33269T
MC33269T-012
MC33269T-3.3
MC33269T-5.0
MC3403D
MC3403DR2
MC3403P
MC34074AD
MC34074ADR2
MC34074AP
MC34074D
MC34074DR2
MC34074P
MC34074VD
MC34074VDR2
MC34074VP
MC34268D
MC34268DR2
MC34268DT
MC34268DTRK
MCW34074
MCW34074A
SC111013D
SC33074DR2