



FINAL PRODUCT/PROCESS CHANGE NOTIFICATION
Generic Copy

28-AUG-2002

SUBJECT: ON Semiconductor Final Product/Process Change Notification #12530

TITLE: Final Notification - Motorola BMC to TESLA: MC3479 and MC34167

EFFECTIVE DATE: 27-Oct-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 the Tesla Wafer Fab.



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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 Hrs	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	96 Hrs	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
Std Linear	Epi78/79	MC34167T	Tesla	HAST	131C; 85%RH;Biased	96 Hrs	0 160
Std Linear	Epi78/79	MC34167T	Tesla	TC	-65 to 150C	500 Cyc	0 160
Std Linear	Epi78/79	MC34167T	Tesla	PTH	121C;100%RH;15PSI	96 Hrs	0 160



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ELECTRICAL CHARACTERISTIC SUMMARY:

MC3479- 1 lot Characterization data, Major parameters

Parameter	Unit	Mean	S.D.	Min.	Max.	Specification	
						Min.	Max.
Threshold Voltage Low to High	V	1.662	0.009	1.646	1.678	NA	2
Threshold Voltage High to Low	V	1.113	0.012	1.108	1.139	0.8	NA
Threshold Voltage Hysteresis	V	0.554	0.009	0.538	0.570	0.4	NA
Input Logic Current (Vi=0.4V)	uA	-0.848	0.027	-0.920	-0.790	-100	NA
Input Logic Current (Vi=5.5V)	uA	0.138	0.004	0.130	0.140	NA	100
Input Logic Current (Vi=2.7V)	uA	0.056	0.006	0.040	0.060	NA	20
Driver Output High Voltage (Iod=-350mA)	V	5.625	0.020	5.550	5.660	5.2	7.2
Driver Output High Voltage (Iod=-0.1mA)	V	6.496	0.005	6.490	6.500	6	7.2
Driver Output Low Voltage	V	0.544	0.008	0.533	0.569	NA	0.8
Clamp Diode Vf	V	2.095	0.009	2.080	2.110	NA	3
Diode Leakage Current	uA	0.151	0.024	0.110	0.220	NA	100
Phase A Output Low Voltage	V	0.120	0.001	0.118	0.123	NA	0.4
Phase A Off-state Leakage Current	uA	0.036	0.005	0.030	0.040	NA	100
Power Supply Current (Imw)	mA	41.216	0.467	40.420	42.380	NA	70
Power Supply Current (Imz)	mA	26.576	0.323	26.100	27.460	NA	40
Power Supply Current (Imn)	mA	45.600	0.568	44.290	46.560	NA	75

MC34167-- 1 lot Characterization data, Major parameters

Parameter	Unit	Mean	S.D.	Min.	Max.	Specification	
						Min.	Max.
Drain Current On (40V)	mA	-35.14	0.305	-35.859	-34.552	-60	NA
Reference Voltage	V	5.051	0.017	5.015	5.091	4.95	5.15
Line Regulation Vcc=7.5-40	MV	7.228	0.437	6.111	8.136	NA	25
Min Compensation Voltage	V	1.514	0.002	1.508	1.516	NA	1.9
Max Compensation Voltage	V	4.647	0.014	4.615	4.673	4.2	NA
Feedback Input Current (IIB)	UA	0.018	0.013	0.004	0.051	NA	1
Oscillator Frequency 7.5V	KHZ	71.868	1.052	69.2	73.9	65	79
Oscillator Frequency 40V	KHZ	71.975	1.053	69.3	74	65	79
PSRR, 10-20V, 120Hz	DB	-101.157	0.081	-101.313	-101.01	NA	-60
UVLO Start Up	V	5.898	0.016	5.8	5.9	5.5	6.3
UVLO Hysteresis	V	0.861	0.027	0.79	0.89	0.6	1.2
Current Limit - 12V	A	6.445	0.131	6.774	7.232	5.5	8
Rise Time/Switching Time	NS	85.441	2.590	80.651	90.229	NA	200
Fall Time/Switching Time	NS	23.920	1.832	21.83	28.19	NA	100
Output Leakage Current	UA	52.730	1.194	49.9	56.06	NA	100
Input Standby Current	UA	-63.560	1.453	-67.47	-61.51	-100	NA

CHANGED PART IDENTIFICATION:

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

AFFECTED DEVICE LIST (WITHOUT SPECIALS):

PART

MC33167D2T, MC33167T, MC33167TH, MC33167TV, MC34167D2T, MC34167T, MC34167TH, MC34167TV, MC3479P, SC33167TV