ON Semiconductor

FINAL PRODUCT/PROCESS CHANGE NOTIFICATION
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16-OCT-2002

SUBJECT: ON Semiconductor Final Product/Process Change Notification #12591

TITLE: Final Notification to IPCN 11528- Motorola BMC to Tesla: LP2950, LP2951 and MC79XXA

EFFECTIVE DATE: 15-Dec-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 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.

This is the last final PCN to be issued in this program. All devices to be transferred from BMC have been completed and are now qualified at Tesla.

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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
Std Linear	Epi 44	MC7905ACT	Tesla	HTOL	150C; Biased	504 Hrs	0	80
Std Linear	Epi 79 TF	LP2951CD-5.0	Tesla	TC	-65C to +150C	500 Cyc	0	80

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ELECTRICAL CHARACTERISTIC SUMMARY:

LP2950AC - 1 lot Characterization data, Major parameters (9649)

						Specification	
Parameter	**Unit**	**Mean**	**S.D.**	**Min.**	**Max.**	**Min.**	**Max.**
Output Voltage, I=100ua, V=30v	V	5.013	0.006	4.996	5.021	4.925	5.075
Output Voltage, I=100ma, V=30v	V	5.016	.006	4.999	5.024	4.925	5.075
Dropout Voltage, I=100ua	mV	34.279	1.65	31.0	37.0	NA	80.
Dropout Voltage, I=100ma	mV	347.4	17.8	213.	355.	NA	450.
Supply Bias Current, V=6v, I=100ma	mA	3.956	.113	4.30	3.70	NA	12.
Current Limit	mA	218.7	3.196	213.5	225.9	NA	300.
Load Regulation, 100ua-100ma	mV	.484	.237	-.100	.900	-10.	10.
Line Regulation, 6-30v	mv	2.06	.270	1.50	2.70	-30.	30.

LP2951ACD -- 1 lot Characterization data, Major parameters (20665)

						Specification	
Parameter	**Unit**	**Mean**	**S.D.**	**Min.**	**Max.**	**Min.**	**Max.**
Output Voltage, I=100ua, V=30v	V	4.998	0.009	4.977	5.017	4.925	5.075
Output Voltage, I=100ma, V=30v	V	4.995	.009	4.974	5.011	4.925	5.075
Dropout Voltage, I=100ua	mV	34.12	1.43	30.9	36.8	NA	80.
Dropout Voltage, I=100ma	mV	357.6	2.54	352.7	367.	NA	450.
Supply Bias Current, V=6v, I=100ma	mA	4.20	.084	4.35	3.940	NA	12.
Current Limit	mA	217.8	2.959	214.2	225.5	NA	300.
Load Regulation, 100ua-100ma	mV	-1.71	.368	-2.28	-.877	-10.	10.
Line Regulation, 6-30v	mV	1.226	.331	.626	2.050	-30.	30.
Voltage Reference, 30v; 100ma	V	1.229	.004	1.221	1.238	1.20	1.27
Comp. Output-Low V. 400ua	mV	157.6	1.013	155.8	160.2	NA	250.
Shutdown Input Current, V=30v	uA	439.9	11.97	415.6	478.5	NA	600.

MC7905ACT -- 1 lot Characterization data, Major parameters (21822)

						Specification	
Parameter	**Unit**	**Mean**	**S.D.**	**Min.**	**Max.**	**Min.**	**Max.**
Output Voltage, I=1A, 10v	V	-5.018	.015	-5.046	-4.976	-5.10	-4.90
Output Voltage, I= 5ma, 20v	V	-5.020	.015	-5.047	-4.978	-5.20	-4.80
Input Bias Current, Io=500ma	mA	3.14	.033	3.060	3.220	NA	8.
Load Regulation, 5ma-1A	mA	1.80	.176	1.50	2.20	-50.	50.
Line Regulation, I=1A, 7-20v	mV	.858	.612	-.60	2.70	-25.	25.

CHANGED PART IDENTIFICATION:

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

AFFECTED DEVICE LIST (WITHOUT SPECIALS):

PART

FLP2951ACD
FLP2951ACDR2
LP2950ACDT-3.0
LP2950ACDT-3.0RK
LP2950ACDT-3.3
LP2950ACDT-3.3RK
LP2950ACDT-5.0
LP2950ACDT-5.0RK

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LP2950ACZ-3.0
LP2950ACZ-3.0RA
LP2950ACZ-3.3
LP2950ACZ-3.3RA
LP2950ACZ-5.0
LP2950ACZ-5.0RA
LP2950CDT-3.0
LP2950CDT-3.0RK
LP2950CDT-3.3
LP2950CDT-3.3RK
LP2950CDT-5.0
LP2950CDT-5.0RK
LP2950CZ-3.0
LP2950CZ-3.0RA
LP2950CZ-3.3
LP2950CZ-3.3RA
LP2950CZ-5.0
LP2950CZ-5.0RA
LP2950CZ-5.0RP
LP2951ACD
LP2951ACD-3.0
LP2951ACD-3.0R2
LP2951ACD-3.3
LP2951ACD-3.3R2
LP2951ACDM-3.0R2
LP2951ACDM-3.3R2
LP2951ACDM-5.0R2
LP2951ACDMR2
LP2951ACDR2
LP2951ACN
LP2951ACN-3.0
LP2951ACN-3.3
LP2951CD
LP2951CD-3.0
LP2951CD-3.0R2
LP2951CD-3.3
LP2951CD-3.3R2
LP2951CDM-3.0R2
LP2951CDM-3.3R2
LP2951CDM-5.0R2
LP2951CDMR2
LP2951CDR2
LP2951CN
LP2951CN-3.0
LP2951CN-3.3
MC7905ACD2T
MC7905ACD2TR4
MC7905ACT
MC7908ACT
MC7912ACD2T
MC7912ACD2TR4
MC7912ACT
MC7915ACD2T
MC7915ACT