



PRODUCT BULLETIN
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03-Dec-2005

SUBJECT: ON Semiconductor Product Bulletin #15156

TITLE: Family Specification Update for MC10SX1189, MC10SX1190, and 10EP89

EFFECTIVE DATE: 03-Dec-2005

AFFECTED PRODUCT DIVISION: Analog High Frequency Products

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:

Contact your local ON Semiconductor sales office or Gregg Hooker <FFMGNR@onsemi.com>

NOTIFICATION TYPE:

ON Semiconductor considers this change approved unless specific conditions of acceptance are provided in writing. To do so, contact your local ON Semiconductor sales office.

DESCRIPTION AND PURPOSE:

ON Semiconductor is generating a Family Specification for the MC10SX1189, MC10SX1190, and the MC10EP89 devices. These limits for Voh and Vol are applied across the MC10SX1189, MC10SX1190, and the MC10EP89 which all share a common design as Coax Cable Driver devices. This corrects datasheet errata for these devices.

- 1.) The MC10SX1189, MC10SX1190, and MC10EP89 will share a common Voh / Vol DC Characteristics table for 5 Volt Operation.

5 V PECL Existing Datasheet Limits for the MC10SX1189

Symbol	-40 deg C		25 deg C		85 deg C	
	min	max	min	max	min	max
Voh QR (V)	3.92	4.11	4.02	4.19	4.09	4.28
Voh QT (V)	3.71	4.08	3.83	4.20	3.90	4.28
Vol QR (V)	3.05	3.35	3.05	3.37	3.05	3.41
Vol QT (V)	1.94	2.50	1.80	2.39	1.77	2.35

5 V PECL Existing Datasheet Limits for the MC10SX1190

Symbol	-40 deg C		25 deg C		85 deg C	
	min	max	min	max	min	max
Voh QR (V)	3.92	4.13	3.98	4.18	4.03	4.23
Voh QT (V)	3.84	4.04	3.94	4.14	4.05	4.25
Vol QR (V)	2.92	3.32	2.94	3.34	2.96	3.36
Vol QT (V)	2.00	2.40	1.90	2.30	1.85	2.25


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5 V PECL Family Limits for both the MC10SX1189 and MC10SX1190

	-40 deg C		25 deg C		85 deg C	
Symbol	min	max	min	max	min	max
Voh QR (V)	3.92	4.22	3.97	4.27	4.00	4.30
Voh QT (V)	3.83	4.105	3.88	4.155	3.90	4.175
Vol QR (V)	3.050	3.350	3.070	3.370	3.10	3.41
Vol QT (V)	1.90	2.50	1.850	2.45	1.850	2.45

5 V NECL Existing Datasheet Limits for the MC10EP89

	-40 deg C		25 deg C		85 deg C	
Symbol	min	max	min	max	min	max
Voh (mV)	-1200	-1020	-1150	-950	-1075	-875
Vol (mV)	-2680	-2480	-2670	-2470	-2630	-2430

5 V NECL Family Limits for the MC10EP89

	-40 deg C		25 deg C		85 deg C	
Symbol	min	max	min	max	min	max
Voh (mV)	-1170	-895	-1120	-845	-1100	-825
Vol (mV)	-3100	-2500	-3150	-2550	-3150	-2550

2.) In DC Characteristics Table for the MC10SX1190,

Current Datasheet Limits for Icc

	-40 deg C			25 deg C			85 deg C		
Symbol	min	typ	max	min	typ	max	min	typ	max
Icc (mA)	75	95	115	75	95	115	75	95	115

Corrected Datasheet Limits for Icc

	-40 deg C			25 deg C			85 deg C		
Symbol	min	typ	max	min	typ	max	min	typ	max
Icc (mA)	30	60	90	30	60	90	30	60	90

3.) In DC Characteristics Table for NECL Vee=-3.3V the MC10EP89

Current Datasheet Limits for Iee

	-40 deg C			25 deg C			85 deg C		
Symbol	min	typ	max	min	typ	max	min	typ	max
Iee (mA)	22	28	34	24	32	38	28	34	40

Corrected Datasheet Limits for Iee

	-40 deg C			25 deg C			85 deg C		
Symbol	min	typ	max	min	typ	max	min	typ	max
Iee (mA)	24	30	36	26	34	40	30	36	42

4.) In DC Characteristics Table for NECL Vee=-5.2V the MC10EP89

Current Datasheet Limits for Iee

	-40 deg C			25 deg C			85 deg C		
Symbol	min	typ	max	min	typ	max	min	typ	max
Iee (mA)	25	32	39	28	35	42	31	38	45

Corrected Datasheet Limits for Iee

	-40 deg C			25 deg C			85 deg C		
Symbol	min	typ	max	min	typ	max	min	typ	max
Iee (mA)	27	34	41	30	37	44	33	40	47



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5.) In DC Characteristics Table for the MC10SX1190

Current Datasheet Limits for Vbb

Symbol	-40 deg C			25 deg C			85 deg C		
	min	typ	max	min	typ	max	min	typ	max
Vbb (mV)	3.50	3.60	3.75	3.50	3.60	3.70	3.55	3.65	3.75

Corrected Datasheet Limits for Vbb

Symbol	-40 deg C			25 deg C			85 deg C		
	min	typ	max	min	typ	max	min	typ	max
Vbb (mV)	3.50	3.60	3.75	3.50	3.60	3.75	3.55	3.65	3.75

AFFECTED DEVICE LIST**PART**

MC10SX1189D
 MC10SX1189DG
 MC10SX1189DR2
 MC10SX1189DR2G
 MC10SX1190DT
 MC10SX1190DTG
 MC10SX1190DTR2
 MC10SX1190DTR2G
 MC10EP89D
 MC10EP89DG
 MC10EP89DR2
 MC10EP89DR2G
 MC10EP89DT
 MC10EP89DTG
 MC10EP89DTR2
 MC10EP89DTR2G