



MILITARY DATA SHEET

MNLM160-X REV OBL

Original Creation Date: 08/14/95
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HIGH SPEED DIFFERENTIAL COMPARATOR

Industry Part Number

LM160

Prime Die

LM160

NS Part Numbers

LM160H/883
LM160J-14/883
LM160J/883

Processing

MIL-STD-883, Method 5004

Quality Conformance Inspection

MIL-STD-883, Method 5005

Subgrp Description

Temp (°C)

1	Static tests at	+25
2	Static tests at	+125
3	Static tests at	-55
4	Dynamic tests at	+25
5	Dynamic tests at	+125
6	Dynamic tests at	-55
7	Functional tests at	+25
8A	Functional tests at	+125
8B	Functional tests at	-55
9	Switching tests at	+25
10	Switching tests at	+125
11	Switching tests at	-55

Electrical Characteristics

DC PARAMETERS

SYMBOL	PARAMETER	CONDITIONS	NOTES	PIN-NAME	MIN	MAX	UNIT	SUB-GROUPS
VohB	Logical "1" Output Voltage	Vcc \pm 4.5V, Iout = -320uA			2.4		V	1, 2, 3
VohA	Logical "1" Output Voltage	Vcc \pm 4.5V, Iout = -320uA			2.4		V	1, 2, 3
VolA	Logical "0" Output Voltage	Vcc \pm 4.5V, Iout = 6.4mA				0.4	V	1, 2, 3
VolB	Logical "0" Output Voltage	Vcc = 4.5V, Iout = 6.4mA				0.4	V	1, 2, 3
Iib	Input Bias Current	Vcc = \pm 5V, Vin = 5V				20	uA	1, 2, 3
Icc+	Positive Supply Current	Vcc = \pm 6.5V				32	mA	1, 2, 3
Icc-	Negative Supply Current	Vcc = \pm 6.5V				-16	mA	1, 2, 3
IosB	Short Circuit Current	Vcc = \pm 4.5V			-15	-52	mA	1, 2, 3
IosA	Short Circuit Current	Vcc = \pm 4.5V			-15	-52	mA	1, 2, 3
Vio	Input Offset Voltage	Vcc = \pm 5V			-5	5	mV	1, 2, 3
Iio	Input Offset Current	Vcc = \pm 5V			-3	3	uA	1, 2, 3
Iin1	Unbalanced Input Current	Vcc = \pm 5V, Vin1 = 0, Vin2 = 5V	1			-1	mA	1, 2, 3
Iin2	Unbalanced Input Current	Vcc = \pm 5V, Vin1 = 5V, Vin2 = 0V	1			-1	mA	1, 2, 3
Vcc	Supply Voltage		1		\pm 4.5	\pm 6.5	V	1, 2, 3
BVcc	Supply Breakdown Voltage		1		\pm 8		V	1, 2, 3
Vcm	Common Mode Input Voltage Range	Vcc = \pm 6.5V	1		\pm 4		V	1, 2, 3
Vdiff	Differential Input Voltage Range		1		\pm 5		V	1, 2, 3

AC PARAMETERS

(The following conditions apply to all the following parameters, unless otherwise specified.)

AC: Vcc = \pm 5V, f = 10 MHz (sinusoidal)

tresp	Response Time	Vin = 30mVp-p	2			25	nS	9
		Vin = 2 Vp-p	2			20	nS	9

Electrical Characteristics

DC PARAMETERS: DRIFT VALUES

(The following conditions apply to all the following parameters, unless otherwise specified.)
 DC: "Deltas not required on B-Level product. Deltas required for S-Level product ONLY as specified on Internal Processing Instructions (IPI)."

SYMBOL	PARAMETER	CONDITIONS	NOTES	PIN-NAME	MIN	MAX	UNIT	SUB-GROUPS
VohB	Logical "1" Output Voltage	Vcc = $\pm 4.5V$, Iout = -320uA			-0.2	0.2	V	1
VohA	Logical "1" Output Voltage	Vcc = $\pm 4.5V$, Iout = -320uA			-0.2	0.2	V	1
Iib	Input Bias Current	Vcc = $\pm 5V$, Vin = 5V			-4	4	uA	1

Note 1: Parameter tested go-no-go only.

Note 2: Bench test, use 70256648 for J packages and 70256644 for H packages.