

MILITARY DATA SHEET

MNLM110-X REV 0BL

Original Creation Date: 06/28/95
 Last Update Date: 12/10/96
 Last Major Revision Date: 06/28/95

VOLTAGE FOLLOWER

Industry Part Number

LM110

Prime Die

LM110

NS Part Numbers

LM110H/883
 LM110J-8/883
 LM110J/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

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

DC: $V_{CC} = \pm 15V$, $R_s = 3K\ \Omega$, $V_{in} = 0$

SYMBOL	PARAMETER	CONDITIONS	NOTES	PIN-NAME	MIN	MAX	UNIT	SUB-GROUPS
Vio	Input Offset Voltage		2			4	mV	1
			2			6	mV	2, 3
		$V_{CC} = \pm 18V$	2			4	mV	1
		$V_{CC} = \pm 18V$	2			6	mV	2, 3
		$V_{CC} = \pm 5V$	2			4	mV	1
		$V_{CC} = \pm 5V$	2			6	mV	2, 3
Iib	Input Current	$V_{in} = +10V$	2			3	nA	1
			2			10	nA	2, 3
		$V_{in} = -10V$	2			3	nA	1
			2			10	nA	2, 3
		$V_{CC} = \pm 18V$, $V_{in} = +10V$	2			3	nA	1
		$V_{CC} = \pm 18V$, $V_{in} = +10V$	2			10	nA	2, 3
		$V_{CC} = \pm 18V$, $V_{in} = -10V$	2			3	nA	1
		$V_{CC} = \pm 18V$, $V_{in} = -10V$	2			10	nA	2, 3
		$V_{CC} = \pm 5V$, $V_{in} = +2V$	2			3	nA	1
		$V_{CC} = \pm 5V$, $V_{in} = +2V$	2			10	nA	2, 3
		$V_{CC} = \pm 5V$, $V_{in} = -2V$	2			3	nA	1
		$V_{CC} = \pm 5V$, $V_{in} = -2V$	2			10	nA	2, 3
Avs	Large Signal Gain Voltage	$V_{out} = \pm 10V$, $R_L = 8K\ \Omega$	2		0.999		V/V	1
		$V_{out} = \pm 10V$, $R_L = 10K\ \Omega$	2			0.999	V/V	2, 3
PSRR	Power Supply Rejection Ratio	$\pm 18V \geq V_{CC} \geq \pm 5V$	2		70		db	1, 2, 3
+Vout	Output Voltage Swing	$R_L = 10K\ \Omega$, $V_{in} = +15V$	2		10		V	1, 2, 3
-Vout	Output Voltage Swing	$R_L = 10K\ \Omega$, $V_{in} = -15V$	2			-10	V	1, 2, 3
Icc	Power Supply Current	$V_{CC} = \pm 18V$	2			5.5	mA	1
		$V_{CC} = \pm 18V$	2			4	mA	2
		$V_{CC} = \pm 18V$	2			7.5	mA	3
Rout	Output Resistance		1, 2			2.5	Ω	1
Rin	Input Resistance		1, 2		10		G Ω	1

Electrical Characteristics

DC PARAMETERS: DRIFT VALUES

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

DC: $V_{CC} = \pm 15V$, $R_s = 3K\ \Omega$, $V_{in} = 0$. "Delta 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
Vio	Input Offset Voltage		2		-1	1	mV	1
Iib	Input Bias Current	$V_{in} = +10V$	2		-1	1	nA	1
		$V_{in} = -10V$	2		-1	1	nA	1

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

Note 2: FIELD APPLICATION NOTE: To prevent oscillation, a 10K Ω resistor should be tied in series with the input.