

MDLH2003-X REV 0AL

Original Creation Date: 09/18/95
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HIGH SPEED BUFFER

Industry Part Number

LH2003

NS Part Numbers

LH2003H/883
LH2003J/883

Prime Die

LH2003

Controlling Document

DESC

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: $V_s = \pm 15V$, $R_s = 50\ \Omega$

SYMBOL	PARAMETER	CONDITIONS	NOTES	PIN-NAME	MIN	MAX	UNIT	SUB-GROUPS
Vos	Output Offset Voltage	$V_{in} = 0V$, $R_l = \text{Infinity}$			-40	+40	mV	1
					-50	+50	mV	2, 3
Iin	Input Current	$V_{in} = 0V$, $R_l = \text{Infinity}$			-25	+25	μA	1
					-50	+50	μA	2, 3
Rin	Input Resistance	$V_{in} = \pm 12V$, $R_l = 100\ \Omega$			1		M Ω	1
		$V_{in} = \pm 12V$, $R_l = 100\ \Omega$			0.1		M Ω	2, 3
Av	Voltage Gain	$V_{in} = \pm 12V$, $R_l = 1K\ \Omega$			0.98		V/V	1
		$V_{in} = \pm 12V$, $R_l = 1K\ \Omega$			0.97		V/V	2, 3
		$V_{in} = \pm 6V$, $R_l = 50\ \Omega$			0.83		V/V	1
		$V_{in} = \pm 6V$, $R_l = 50\ \Omega$			0.80		V/V	2, 3
		$V_{in} = \pm 3V$, $R_l = 50\ \Omega$, $V_s = \pm 5V$			0.82		V/V	1
		$V_{in} = \pm 3V$, $R_l = 50\ \Omega$, $V_s = \pm 5V$			0.79		V/V	2, 3
Vo	Output Voltage Swing	$V_{in} = \pm 14V$, $R_l = 1K\ \Omega$			-13	+13	V	1
		$V_{in} = \pm 14V$, $R_l = 1K\ \Omega$			-12.5	+12.5	V	2, 3
		$V_{in} = \pm 12V$, $R_l = 100\ \Omega$			-10.5	+10.5	V	1
		$V_{in} = \pm 12V$, $R_l = 100\ \Omega$			-10	+10	V	2, 3
Rout	Output Resistance	$V_{in} = \pm 2V$, $R_l = 50\ \Omega$				10	Ω	1
		$V_{in} = \pm 2V$, $R_l = 50\ \Omega$				12	Ω	2, 3
Iout	Output Current	$V_{in} = \pm 12V$, $V_{out} = \pm 10V$			-105	+105	mA	1
		$V_{in} = \pm 12V$, $V_{out} = \pm 10V$			-100	+100	mA	2, 3
Is	Supply Current	$V_{in} = 0V$, $R_l = \text{Infinity}$				15	mA	1
						20	mA	2, 3
PSRR	Power Supply Rejection	$V_{in} = 0V$, $R_l = \text{Infinity}$, $V_s = \pm 4.5V$ to $\pm 18V$			60		dB	1
		$V_{in} = 0V$, $R_l = \text{Infinity}$, $V_s = \pm 4.5V$ to $\pm 18V$			50		dB	2, 3
Sr	Slew Rate	$V_{in} = \pm 10V$, $R_l = 1K\ \Omega$, Tested at $V_{out} = \pm 5V$	1, 2		600		V/ μs	1
		$V_{in} = \pm 5V$, $R_l = 50\ \Omega$, Tested at $V_{out} = \pm 2.5V$	1, 2		200		V/ μs	1
Thd	Distortion at 1KHz	$V_{in} = 4V_{rms}$, $R_l = 50\ \Omega$	1, 3			1	%	1

Note 1: Tested for Group A only.

Note 2: Bench tested, see THP-4-005-HY.

(Continued)

Note 3: Bench tested, see THP-4-007-HY.