National Semiconductor

MICROCIRCUIT DATA SHEET

MNLM714-X REV 0BL

Original Creation Date: 08/04/95
Last Update Date: 11/12/98
Last Major Revision Date: 08/04/95

OPERATIONAL AMPLIFIER

Industry Part Number

LM714

NS Part Numbers

LM714H/883

Prime Die

LM714

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: Vcc = ±15V, Vcm = 0V

SYMBOL	PARAMETER	CONDITIONS	NOTES	PIN-NAME	MIN	MAX	UNIT	SUB-GROUPS
Vio	Input Offset Voltage	Rs = 50 Ohms			-75	75	uV	1
					-200	200	uV	2, 3
Iio	Input Offset Current				-2.8	2.8	nA	1
					-5.6	5.6	nA	2, 3
Iib	Input Bias Current				-3.0	3.0	nA	1
					-6.0	6.0	nA	2, 3
PSRR	Power Supply Rejection Ratio	±3V ≤ Vcc ≤ ±18V, Rs = 50 Ohms			100		dB	1
		±3V ≤ Vcc ≤ ±18V, Rs = 50 Ohms			94		dB	2, 3
CMRR	Common Mode Rejection Ratio	Vcm = ±13V, Rs = 50 Ohms			110		dB	1
		Vcm = ±13V, Rs = 50 Ohms			106		dB	2, 3
+Icc1	Supply Current	Vo = 0V	2			4.0	mA	1
+Icc2	Supply Current	Vcc = ±3V, Vo = 0V	2			1.0	mA	1
Vir	Input Voltage Range		1		-13	13	V	1, 2, 3
+Vop	Output Voltage Swing	Rl = 10K Ohms			12.5		V	4
		Rl = 2K Ohms			12.0		V	4, 5, 6
		Rl = 1K Ohms			10.5		V	4
-Vop	Output Voltage Swing	Rl = 10K Ohms				-12.5	V	4
		Rl = 2K Ohms				-12.0	V	4, 5, 6
		Rl = 1K Ohms				-10.5	V	4
+Avs	Large Signal Voltage	Vo = 0V to +10V, Rl = 2K Ohms			200		V/mV	4
					150		V/mV	5, 6
		Vo = 0V to +0.5V, Rl = 500 Ohms, Vcc = ±3V			150		V/mV	4
-Avs	Large Signal Voltage	Vo = 0V to -10V, Rl = 2K Ohms			200		V/mV	4
					150		V/mV	5, 6
		Vo = 0V to -0.5V, Rl = 500 Ohms, Vcc = ±3V			150		V/mV	4

Note 1: Guaranteed by CMRR test.
Note 2: This test is to guarantee Power Consumption.

Revision History

Rev	ECN #	Rel Date	Originator	Changes
0BL	M0001703	11/12/98	Barbara Lopez	Changed: MNLM714-X Rev. 0AL to MNLM714-X Rev. 0BL.