

MNLM759-X REV 0BL

 Original Creation Date: 08/07/95
 Last Update Date: 10/13/97
 Last Major Revision Date: 08/07/95

POWER OPERATIONAL AMPLIFIER
Industry Part Number

LM759

NS Part Numbers

LM759H/883*

Prime Die

LM759

Controlling Document

5962-9086201MGA*

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: $V_{CC} = \pm 15V$, $V_{CM} = 0V$, $R_S = 50\ \Omega$

SYMBOL	PARAMETER	CONDITIONS	NOTES	PIN-NAME	MIN	MAX	UNIT	SUB-GROUPS
Vio	Input Offset Voltage				-3	3	mV	1
					-4.5	4.5	mV	2, 3
		$R_S = 10K\ \Omega$			-3	3	mV	1
					-4.5	4.5	mV	2, 3
Iio	Input Offset Current				-30	30	nA	1
					-60	60	nA	2, 3
Iib+	Input Bias Current					150	nA	1
						300	nA	2, 3
Iib-	Input Bias Current					150	nA	1
						300	nA	2, 3
PSRR	Power Supply Rejection Ratio	$V_{CC} = \pm 5V$ to $\pm 18V$, $R_S = 10K$	1			100	uV/V	1, 2, 3
CMRR	Common Mode Rejection Ratio	$-15V \leq V_{CM} \leq +13V$, $R_S = 10K$			80		dB	1
		$-14.5V \leq V_{CM} \leq +13V$, $R_S = 10K$			80		dB	2, 3
Vioadj+	Offset Null				6		mV	1
Vioadj-	Offset Null					-6	mV	1
Icc	Power Supply Current	$V_{out} = 0V$				18	mA	1, 2, 3
Ipk+	Ipeak+	$-12V \leq V_o \leq -5V$	3		325		mA	1, 3
		$-12V \leq V_o \leq -5V$	3		180		mA	2
Ipk-	Ipeak-	$+5V \leq V_o \leq +12V$	3			-325	mA	1, 3
		$+5V \leq V_o \leq +12V$	3			-180	mA	2
Ri	Input Resistance		4		250		K Ω	1
Vir	Input Voltage Value		5		-15	+13	V	1

Electrical Characteristics

AC PARAMETERS

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

AC: $V_{CC} = \pm 15V$, $V_{CM} = 0V$, $R_S = 50\ \Omega$

SYMBOL	PARAMETER	CONDITIONS	NOTES	PIN-NAME	MIN	MAX	UNIT	SUB-GROUPS
Vop+	Output Voltage Swing	$R_L = 50\ \Omega$			10		V	4, 5, 6
Vop-	Output Voltage Swing	$R_L = 50\ \Omega$				-10	V	4, 5, 6
Avs+	Large Signal Voltage Gain	$R_L = 50\ \Omega$, $V_O = 0$ to $10V$	2		50		K	4
			2		25		K	5, 6
Avs-	Large Signal Voltage Gain	$R_L = 50\ \Omega$, $V_O = 0$ to $-10V$	2		50		K	4
			2		25		K	5, 6

Note 1: Datalog in $\mu V/V$.

Note 2: Datalog in $V/mV = K$.

Note 3: $V_O = \pm 12V$ guaranteed by testing at worst case $V_O = \pm 5V$.

Note 4: Guaranteed by Iib test, $RI = 4.0\ V_T/I_{ib}$, $V_T = 26mV$ at $25\ ^\circ C$.

Note 5: Guaranteed by CMRR testing.

Revision History

Rev	ECN #	Rel Date	Originator	Changes
0BL	M0002125	10/13/97	Barbara Lopez	Initial Release to MDS: MNLM759-X Rev. 0BL for Lifetime Buy.