

National Semiconductor

Semiconductors

Linear I.C.'s - Consumer Circuits

LM1303 Stereo Preamplifier

GENERAL DESCRIPTION

The LM1303 consists of two identical operational amplifiers constructed on a single silicon chip. Intended for amplification of low-level stereo signals, the LM1303 features low input noise voltage, high open-loop voltage gain, large output voltage swing and short circuit protection.

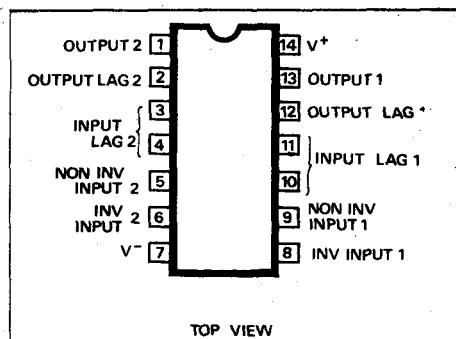
FEATURES

Large output voltage swing 4.0V rms min

High open-loop voltage gain 6,000 min

Channel separation 68 dB min at 10kHz

CONNECTION DIAGRAM



TOP VIEW

See outline drawing No. 109 for dimensions.

ELECTRICAL CHARACTERISTICS

Parameter	Min	Typ	Max	Units
Input Offset Voltage	1.5	10	mV	
Input Offset Current	0.2	0.4	μ A	
Input Bias Current	1.0	10	μ A	
Supply Current Both Amplifiers $V_{out}=0V$		15	mA	
Large Signal Voltage Gain	6,000	10,000		V/V
Channel Separation $f=10kHz$	60	70		dB
Output Voltage Swing $R_L=10k\Omega$	4.0	5.5		V_{rms}

ABSOLUTE MAXIMUM RATINGS

Supply voltage	$\pm 15V$
Power dissipation (Note 1)	415mW
Operating temperature range	0 to 75°C
Storage temperature range	-65°C to 150°C
Lead temperature (soldering, 10 sec)	300°C

REFERENCE TABLE

Code	Stock No.
LM1303N	34512A

PLEASE QUOTE STOCK NO. AND MANUFACTURER'S CODE WHEN ORDERING