National Semiconductor

Semiconductors

Linear I.C.'s - Consumer Circuits

LM382N Dual Preamplifier

REFERENCE TABLE

Code Stock No.	LM382N	33154G
	Code	Stock No.

GENERAL DESCRIPTION

The LM382 is a dual preamplifier for the amplication of low level signals in applications requiring optimum noise performance. Each of the two amplifiers is completely independent, with individual internal power supply decoupler-regulator, providing 120dB supply rejection and 60dB channel separation. Other outstanding features include high gain (100dB), large output voltage swing ($V_{\rm CC}-2V$) p-p, and wide power bandwidth (75 kHz, $20V_{\rm p-p}$). The LM382 operates from a single supply across the wide range of 9 to 40V.

A resistor matrix is provided on the chip to allow the user to select a variety of closed loop gain options and frequency response characteristics such as flat-band, NAB or RIAA equilization. The circuit is supplied in the 14 lead dual-in-line package.

FEATURES

Low noise—0.8 µV total equivalent input noise. High gain—100dB open loop.

Single supply operation.

Wide supply range 9 to 40V.

Power supply rejection—120dB.

Large output voltage swing.

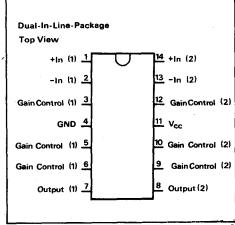
Wide bandwidth—15 MHz unity gain.

Power bandwidth—75 kHz, 20 V_{p-p}.

Internally compensated.

Short circuit protected.

CONNECTION DIAGRAM



See outline drawing No. 109 for dimensions.

ABSOLUTE MAXIMUM RATINGS

Supply voltage	+40V
Power dissipation	800mW
Operating Temperature Range	0°C to 70°C
Storage Temperature Range	-65°C to +150°C
Lead Temperature (Soldering, 10 sec)	300°C