

ADVANCE INFORMATION

All information in this data sheet is preliminary and subject to change.

8/97



High-Speed, Differential Line Driver

MAX4142

General Description

The MAX4142 differential line driver combines high-speed performance with fully symmetrical differential inputs and outputs. With an internally set $+2V/V$ closed-loop gain, the MAX4142 is ideal for driving back-terminated cables and transmission lines.

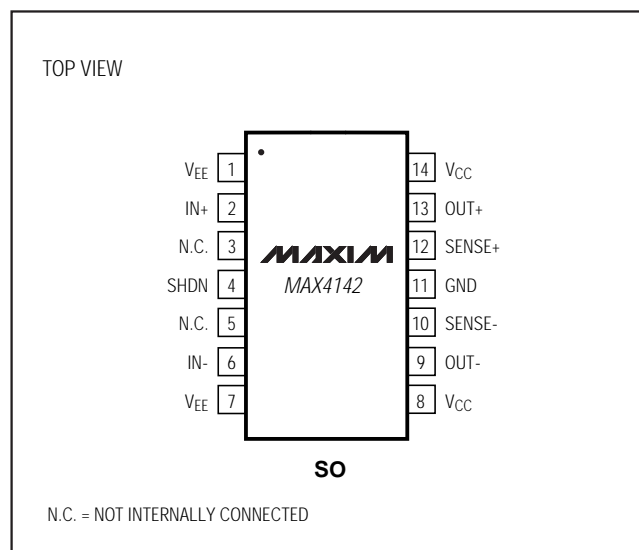
This device utilizes laser-trimmed, thin-film resistors and common-mode cancellation circuitry to deliver an outstanding 70dB at 10MHz common-mode rejection (CMR). Using current-feedback techniques, the MAX4142 achieves a 300MHz ($A_V = +2V/V$) bandwidth and a 2700 V/ μ s slew rate. Excellent differential gain/phase error and noise specifications make these amplifiers excellent choices for a wide variety of video and RF signal-processing applications.

The MAX4142 operates from $\pm 5V$ power supplies and requires only 11mA of quiescent current. The output stage is capable of driving a 100 Ω load to $\pm 6V$ (differentially) or to $\pm 3V$ (single-ended). The MAX4142 is available in a space saving 14-pin SO package.

Applications

Video Twisted-Pair Driver
Differential Pulse Amplifier
High-Speed Instrumentation Amplifier
Low-Noise Differential Receivers
Differential ADC Driver

Pin Configuration



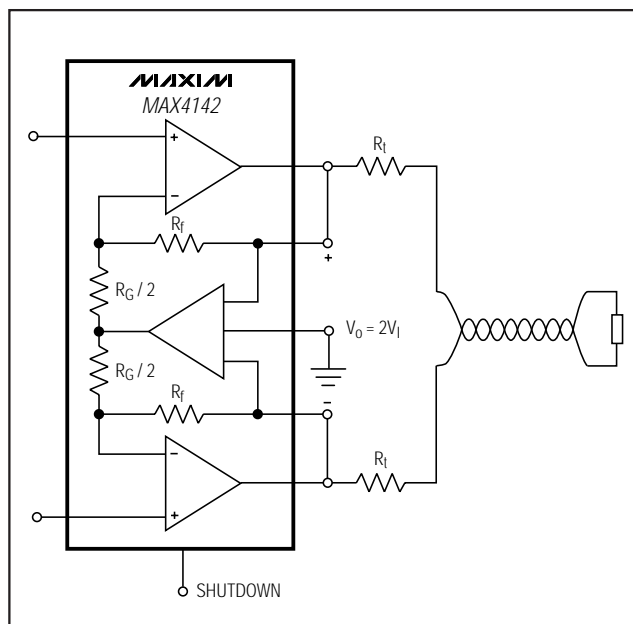
Features

- ♦ 300MHz Bandwidth ($A_V = +2V/V$)
- ♦ 2700V/ μ s Slew Rate
- ♦ 70dB at 10MHz CMR
- ♦ 0.008%/0.03° Differential Gain/Phase
- ♦ $\pm 6V$ into 100 Ω Output Drive
- ♦ 800 μ A Shutdown Capability
- ♦ 11mA Quiescent Supply Current
- ♦ Available in 14-pin, Narrow SO Package

Ordering Information

PART	TEMP. RANGE	PIN-PACKAGE
MAX4142ESD	-40°C to +85°C	14 SO

Typical Application Circuit



Maxim Integrated Products 1

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For small orders, phone 408-737-7600 ext. 3468.