

***LTC News for Immediate Release***

For more information, tel. 408-432-1900  
Doug Dickinson, Media Relations Mgr., ext. 2233  
[www.linear.com](http://www.linear.com)

**60V High Side Current Sense Amplifier Offers 1us Response Time**

MILPITAS, CA – May 2, 2005 – Linear Technology Corporation's LTC6101 high side current sense amplifier combines very quick response times with an input voltage range of 4V to 60V. The LTC6101 can withstand voltages up to 70V, a valuable feature when power supply failures or catastrophic load changes can lead to transient overvoltage. With a response time under 1us, the LTC6101 is ideal for automatic power shutdown under fault conditions.

The LTC6101 is designed to extract a small differential signal from a high common mode voltage, and then amplify and translate this into a ground-referenced signal. Achieving this functionality with precision has typically required a combination of discrete components and op-amps, differential amplifiers or instrumentation amplifiers. The LTC6101 simplifies this task by requiring only the LTC6101 ThinSOT™ package and two resistors. Not only is this part much smaller and simpler, it consumes only 250uA. The LTC6101 includes outstanding performance: input bias current is 170nA Max and input offset voltage is 300uV Max. Better than 1% accuracy can be achieved using precision gain resistors, allowing for excellent measurement resolution and the ability to accommodate inputs with large dynamic range.

“The LTC6101 solves many current sense design problems,” says Brendan Whelan, design section lead for Linear Technology. “With the LTC6101, we achieve high voltage, high precision, fast response time and flexibility in a tiny SOT-23 package”.

The LTC6101 is in full production, with prices starting at \$1.04 each in 1,000-piece quantities.

(more...)

## Summary of Features: LT6101

- 1us Response Time (to 2.5V on a 5V Output Step)
- Operates from 4V to 60V, 70V ABS MAX
- Low Offset Voltage: 450uV (Max)
- Low Input Bias Current: 170nA Max
- Gain Configurable with 2 Resistors
- Max Output Current: 1mA
- 110dB Min PSRR
- 220uA Typical Supply Current
- -40°C to 125°C Operating Temperature Range
- Low Profile SOT23 (ThinSOT) and MSOP Packages

COMPANY BACKGROUND: Linear Technology Corporation was founded in 1981 as a manufacturer of high performance linear integrated circuits. Linear Technology products include high performance amplifiers, comparators, voltage references, monolithic filters, linear regulators, DC-DC converters, battery chargers, data converters, communications interface circuits, RF signal conditioning circuits, and many other analog functions. Applications for Linear Technology's high performance circuits include telecommunications, cellular telephones, networking products such as optical switches, notebook and desktop computers, computer peripherals, video/multimedia, industrial instrumentation, security monitoring devices, high-end consumer products such as digital cameras and MP3 players, complex medical devices, automotive electronics, factory automation, process control, and military and space systems.

For more information, contact:

Doug Dickinson, Media Relations Manager

**Linear Technology Corporation**


1630 McCarthy Boulevard

Milpitas, CA 95035-7417

[ddickinson@linear.com](mailto:ddickinson@linear.com)

408-432-1900

READER SERVICE: Call toll-free 1-800-4-LINEAR (for literature only), or go to the company's web site: **<http://www.linear.com>**

**Note:** LT, LTC, and  are registered trademarks and ThinSOT is a trademark of Linear Technology Corp.