



Low Cost 36V Current Sense Amplifier Offers Precision in a SOT-23

MILPITAS, CA – May 9, 2007 – Linear Technology announces the LT6106, a low cost, high side current sense amplifier that can resolve small differential signals from common mode voltages up to 36V. With only 250uV(max) of input offset voltage and a full-scale differential input of 500mV, the LT6106 offers a dynamic range of 2000:1. The input bias current is guaranteed to be no more than 40nA, essentially eliminating bias current as a source of error. For handling fault conditions, the LT6106 can withstand common mode voltages up to 44V and can respond to signal changes within 3.5usec. The operating temperature range of -40°C to 125°C makes the LT6106 suitable for industrial and automotive applications such as power management, motion control and battery charging.

The LT6106 is versatile and simple to use. Two external resistors set the amplifier gain, providing control of gain accuracy and drift, power consumption, response time and input/output impedance. The LT6106's SOT-23 package is pin compatible with Linear Technology's LTC6101 and LTC6101HV, providing designers with interchangeable current sense amplifiers for inputs up to 36V, 60V or 100V.

"The performance and low cost of the LT6106 enables wider adoption of current sense in industrial and automotive applications," says Mike Kultgen, Design Manager for Linear Technology.

The LT6106 is in full production, with prices starting at \$0.82 each in 1,000-piece quantities.

Photo Caption: Low Cost Precision High Side Current Sense Amplifier

Summary of Features: LT6106

- Gain Configurable with Two Resistors
- Low Offset Voltage: 250 μ V Maximum
- Output Current: 1mA Guaranteed
- Supply Range: 2.7V to 36V, 44V Absolute Maximum
- Low Input Bias Current: 40nA Maximum
- PSRR: 106dB Minimum
- Low Supply Current: 65 μ A, $V_S = 12V$
- Low Profile (1mm) SOT-23 Package
- $-40^{\circ}C$ to $125^{\circ}C$ Operating Temperature Range

About Linear Technology

Linear Technology Corporation, a manufacturer of high performance linear integrated circuits, was founded in 1981, became a public company in 1986 and joined the S&P 500 index of major public companies in 2000. 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, visit www.linear.com

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