

LTC News for Immediate Release

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**Precision 48V High Side Current Sense Amp
Features 6 Gain Settings**

MILPITAS, CA – May 19, 2005 – Linear Technology Corporation’s newest current sense amplifier, the LT6100, is a complete high-side current sense solution. Simply connect a high side shunt to the inputs; the LT6100 extracts and then amplifies the differential signal and provides a ground-referenced output signal. Using internal resistors, the amplifier can be configured for one of six gain settings with a gain accuracy of 0.5%. A buffered output allows the part to be directly loaded by other circuitry.

The LT6100 has robust differential inputs with a very low 300uV offset and can accept fully differential voltages up to the supply. This capability allows the part to monitor a fuse or MOSFET directly without damaging the part. It also ensures that the part can withstand a –48V reverse battery condition. The LT6100 uses Linear Technology’s Over-The-Top® architecture with a separate voltage supply that operates from 2.7V to 36V and draws only 60uA. When powered down, the sense pins are high impedance. This prevents loading of the shunt, irrespective of the sense voltage, making this part ideal for battery-powered devices. Portable equipment will also benefit from the small footprint, with a complete solution consuming only 9 mm².

“The LT6100 includes many features demanded of today’s current sense applications,” says Bill Jett, design manager for Linear Technology. “It’s a complete, precision part with a lot of flexibility in a small package”.

The LT6100 is in full production, with prices starting at \$1.18 each in 1,000-piece quantities.

(more...)

Summary of Features: LT6100

- Complete Current Sense Amplifier with Buffered Output
- Input Offset Voltage: 300uV Max
- Sense Input Voltage Up to 48V
- Pin Selectable Gain (10,12.5,20,25,40,50V/V)
- Gain Accuracy 0.5% Max
- Reverse Battery Protected
- Separate Power Supply: 60uA
- Sense Input Current (V_{CC} Powered Down): 1nA
- Input Noise Filtering
- -40°C to 125°C Operating Temperature Range
- Low Profile 8-Lead DFN 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.

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

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