



Current Sense Amplifier Operates from -55°C to 150°C

MILPITAS, CA – June 3, 2008 – Linear Technology announces the LT6107, a Military Plastic grade (MP-grade) high side current sense amplifier specified for operation from -55°C to 150°C . As an MP-grade device, the LT6107 is guaranteed and tested across the specified temperature range and is intended to meet the demands of automotive, military and industrial, and other harsh environment applications.

The LT6107 operates with common mode voltages up to 36V. The offset voltage is guaranteed to be less than 400uV over temperature and the LT6107 can accept a full-scale differential input of 500mV, resulting in a minimum dynamic range of 1250:1. Over the full operating temperature range, input bias current is guaranteed to be no more than 130nA, essentially eliminating bias current as a source of error. For handling fault conditions, the LT6107 can withstand common mode voltages up to 44V and can respond to sudden signal changes within 3.5usec.

The LT6107 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 LT6107 is also pin-compatible with Linear Technology's LT6106, LTC6101 and LTC6101HV, providing interchangeable current sense amplifiers with specific performance advantages.

"The LT6107 offers a simple high side current sense solution for extremely challenging environments," stated Mike Kultgen, Design Manager for Linear Technology.

The LT6107 is in full production, with prices starting at \$2.35 each in 1,000-piece quantities.


Photo Caption: High Reliability Plastic Precision High Side Current Sense Amplifier Operates up to 150°C

Summary of Features: LT6107

- Performance Guaranteed over the -55°C to 150°C Temperature Range
- Gain Configurable with Two Resistors
- Low Offset Voltage: 400uV Maximum Over -55° to 150°C
- Output Current: 1mA Guaranteed
- Supply Range: 2.7V to 36V, 44V Absolute Maximum
- Low Input Bias Current: 130nA Maximum
- PSRR: 106dB Minimum
- Low Supply Current: 65uA
- Low Profile (1mm) SOT-23 Package

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, uModule™ products, 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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