



## **Programmable 200mA Two-Terminal Current Source Has 10PPM Regulation**

MILPITAS, CA –April 27, 2009 – An innovative new power IC from Linear Technology Corporation now provides system designers with a two-terminal current source. Until now, current sources were imprecise or had to be designed from other components. The new LT3092 200mA two-terminal current source overcomes the problems associated with previous current sources, with its wide voltage range, high AC and DC impedance, good regulation, low temperature coefficient, and the fact that it requires no capacitors. The device’s two floating terminals make it easy to use.

The LT3092 features 1% initial accuracy and a very low temperature coefficient. Output current is programmable from 0.5mA to 200mA and current regulation over 1.5V to 40V is better than 10ppm/volt. Unlike other analog integrated circuits, the LT3092 leverages special design techniques for high DC and AC impedance, ensuring stable operation without supply bypass capacitors. Since the LT3092 requires no capacitors, it is ideal for “intrinsically safe” applications in which the output may be shorted and no sparking can be tolerated. Reverse supply tolerance and thermal shutdown protect both the IC and the load.

According to Robert Dobkin, Vice President, Engineering and Chief Technical Officer for Linear Technology, “The LT3092 current source adds a significant new component to the designer’s toolbox for future designs. Its ability to easily generate a constant current enables the simplification of many circuits. It can be used in precision or remote current limiting, bias circuits, temperature sensing, active loads, and signaling. Further, the LT3092 can be easily extended to operate at higher voltages or higher currents.”

The LT3092 is offered in three packages: the low profile (0.75mm) 8-lead DFN (3mm x 3mm), 8-pin SOT-23, and 3-pin power SOT-223 package. Both the LT3092E and LT3092I feature an operating junction temperature of -40°C to +125°C, while the LT3092MP operates from -55°C to +125°C junction temperature. 1,000 piece pricing starts at \$1.65 and \$1.83 for the DFN and SOT-23 packages in E and I grades, \$1.75 and \$1.94 for the SOT-223

package in E and I grades, and \$4.73 for the SOT-223 in the MP grade. For more information, visit [www.linear.com](http://www.linear.com).

**Photo Caption:** A New Generation, Two-Terminal Programmable 200mA Current Source

### Summary of Features: LT3092

- Programmable 2-Terminal Current Source
- Output Current: 0.5mA to 200mA
- Easily Set Output Current
- Wide  $V_{IN}$  Range: 1.2V to 40V
- Input/Output Capacitors Not Required
- Reverse Battery and Reverse Current Protection
- Initial Current Accuracy: 1.0%
- 10ppm/V Current Regulation
- Internal Overcurrent Limit & Thermal Shutdown Protection
- Packages: 3mm x 3mm DFN-8, 8-Lead SOT-23 & 3-Lead SOT-223

### 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.

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