



## **Tiny, High Voltage LDO Has 3uA I<sub>Q</sub>**

MILPITAS, CA – November 19, 2008 – Linear Technology Corporation announces the LT3008, the newest member in a family of high voltage, micropower PNP-based LDOs featuring ultralow quiescent current of just 3uA. The LT3008 has high input voltage capability, spanning 2.0V to 45V with an adjustable output voltage ranging from 0.6V to 36V. The IC delivers up to 20mA output current with a corresponding low dropout voltage of only 300mV. Output tolerance is tightly regulated to within  $\pm 2\%$  over line, load and temperature. The device's ultralow quiescent and shutdown ( $< 1\mu\text{A}$ ) currents make it an excellent choice for applications requiring moderate output drive capability and high input voltage, coupled with ultralow standby power consumption, such as remote monitoring and low-current battery-powered memory for “keep alive” systems that require extended run times.

The LT3008 regulator optimizes stability and transient response with low ESR, ceramic output capacitors as small as 2.2uF. These tiny external capacitors can be used without the need of series resistance, as is common with many other regulators. Internal protection circuitry includes reverse-battery protection, reverse output and reverse output-to-input protection, current limiting, and thermal limiting.


The LT3008EDC and LT3008IDC are housed in the low profile (0.75mm) 6-lead DFN (2mm x 2mm) package with backside thermal pad, while the LT3008ETS8 and LT3008ITS8 are offered in the 8-lead SOT-23 package with 3 pins fused to the ground paddle for enhanced thermal performance. The I-grade options offer wider guaranteed operating temperature range. 1,000-piece pricing starts at \$1.20 each for both packages in the E grade, and \$1.40 each for both packages in the I grade.

**Photo Caption:** 45V, 3uA  $I_Q$ , 20mA, Wide  $V_{IN}$  &  $V_{OUT}$  LDO**Summary of Features: LT3008**

- Ultra-Low Quiescent Current: 3uA (Typ)
- $V_{IN}$  Range: 2.0V to 45V
- Adjustable  $V_{OUT}$ : 0.6V to 36V
- Output Tolerance:  $\pm 2\%$  Over Line, Load & Temperature
- Low Dropout Voltage: 300mV Typical at Full Load
- Output Current: 20mA
- Stable with Low-ESR, Ceramic Output Capacitors (2.2uF minimum)
- Shutdown Current:  $< 1\mu A$
- Reverse-Battery, Reverse Output and Reverse Output-to-Input Protection
- Thermal Limit and Current Limit Protection
- 6-Pin Thermally Enhanced DFN (2mm x 2mm x 0.75mm) Package
- 8-Pin Thermally Enhanced TSOT-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](http://www.linear.com).

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