



45V Input 100mA LDO Offers 30uV_{RMS} Noise & Output Down to 0.6V

MILPITAS, CA – February 1, 2010 – Linear Technology Corporation announces the LT3060, a high voltage, low noise, low dropout voltage linear regulator. The IC delivers up to 100mA continuous output current with a 300mV dropout voltage at full load. The LT3060 features a wide input voltage range of 1.6V to 45V, delivering adjustable output voltages from 0.6V to 44.5V. A single capacitor provides both programmable ultra-low noise operation -- only 30uV_{RMS} across a wide bandwidth of 10Hz to 100kHz -- and reference soft start functionality, preventing output voltage overshoot at turn-on. The LT3060's output voltage tolerance is highly accurate at $\pm 2\%$ over line, load and temperature. The IC's wide input and output voltage ranges, fast transient response, low quiescent current of 40uA (operating) and <1uA (in shutdown) make it an excellent choice for portable battery-powered systems that require optimum run time, and usage in automotive, industrial and avionic power supply applications.

The LT3060 operates with a very small, low cost, ceramic output capacitor, optimizing stability and transient response. It is stable with only a 2.2uF output capacitor. These tiny external capacitors can be used without the necessary addition of series resistance (ESR) as is common with many other regulators. The LT3060's internal protection circuitry includes reverse-battery protection, reverse-output protection, reverse-current protection, current limit with foldback and thermal limiting.

The LT3060EDC, LT3060IDC, LT3060ETS8 and LT3060ITS8 are housed in 8-lead 2mm x 2mm DFN and 8-lead ThinSOT™ packages, respectively, offering a compact footprint. The “E” and “I” grade versions are available from stock with an operating junction temperature of -40°C to +125°C and are priced at \$1.21 and \$1.33 each, respectively. The LT3060HTS8 “H” grade and LT3060MPTS8 “MP” grade are available from stock and offered in the ThinSOT package, with respective operating junction temperatures of -40°C to +150°C and -55°C to +125°C, and are priced at \$1.67 and \$4.34 each, respectively. For more information, visit www.linear.com.


Photo Caption: 45V_{IN}, 0.6V_{OUT} 100mA Ultralow Noise LDO

Summary of Features: LT3060

- Output Current: 100mA
- Low Dropout Voltage: 300mV
- Low Noise: 30uV_{RMS} (10Hz to 100kHz)
- Low Quiescent Current: 40uA
- Wide Input Voltage Range: 1.6V to 45V
- Adjustable Output Voltage: 0.6V to 44.5V
- Output Tolerance: $\pm 2\%$ Over Load, Line & Temperature
- Single Capacitor Soft-Starts Reference & Lowers Output Noise
- Stable with 2.2uF Ceramic Capacitors
- Low Shutdown Current <1uA
- Reverse Battery, Reverse-Output and Reverse-Current Protection
- Thermal Limiting & Current Limiting with Foldback
- 2mm x 2mm DFN-8 & 8-Lead ThinSOT Packages

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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