



45V Input 200mA LDO Offers 30 μ V_{RMS} Noise & Robust Reverse Protection

MILPITAS, CA – August 18, 2014 – Linear Technology Corporation announces the [LT3062](#), a high voltage, low noise, low dropout voltage linear regulator. The IC delivers up to 200mA continuous output current with a 300mV dropout voltage at full load. The LT3062 features a wide input voltage range of 1.6V to 45V, delivering adjustable output voltages from 0.6V to 40V. A single capacitor provides both programmable ultralow noise operation - only 30 μ V_{RMS} across a 10Hz to 100kHz bandwidth - and reference soft-start functionality, preventing output voltage overshoot at turn-on. The LT3062's output voltage tolerance is highly accurate at $\pm 2\%$ over line, load and temperature. The device's wide input and output voltage ranges, fast transient response, low quiescent current of 40 μ A (operating) and <1 μ A (in shutdown) make it ideal for portable battery-powered systems that require optimum run time, and for automotive, industrial and avionic power supply applications.

The LT3062 operates with a small, low cost, ceramic output capacitor, optimizing stability and transient response. It is stable with only a 3.3 μ F 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 LT3062's internal protection circuitry includes reverse-battery protection, reverse-output protection, reverse-current protection, current limit with foldback and thermal limiting.

The LT3062 is offered in thermally enhanced 8-lead 2mm x 3mm DFN and MSOP packages, ensuring a compact footprint. The E- and I- grade versions feature an operating junction temperature of -40°C to $+125^{\circ}\text{C}$, the high reliability H-grade is specified from -40°C to $+150^{\circ}\text{C}$ and the military MP-grade operates from -55°C to $+150^{\circ}\text{C}$. 1,000 piece pricing starts at \$1.60 each for the DFN and MSOP packages for E-grade. All devices are available from stock. For more information, visit www.linear.com/product/LT3062

Photo Caption: 45V_{IN} , 0.6V_{OUT} 200mA Ultralow Noise LDO


Summary of Features: LT3062

- Output Current: 200mA
- Low Dropout Voltage: 300mV
- Low Noise: $30\mu\text{V}_{\text{RMS}}$ (10Hz to 100kHz)
- Low Quiescent Current: 40 μA
- Wide Input Voltage Range: 1.6V to 45V
- Adjustable Output Voltage: 0.6V to 40V
- Output Tolerance: $\pm 2\%$ Over Load, Line & Temperature
- Single Capacitor Soft-Starts Reference & Lowers Output Noise
- Stable with 3.3 μF Ceramic Capacitor
- Low Shutdown Current <1 μA
- Reverse Battery, Reverse-Output & Reverse-Current Protection
- Thermal Limiting & Current Limiting with Foldback
- Thermally Enhanced 8-lead 2mm x 3mm DFN & MSOP Packages

The USA list pricing shown is for budgetary use only. International prices may differ due to local duties, taxes, fees and exchange rates.

About Linear Technology

Linear Technology Corporation, a member of the S&P 500, has been designing, manufacturing and marketing a broad line of high performance analog integrated circuits for major companies worldwide for over three decades. The Company's products provide an essential bridge between our analog world and the digital electronics in communications, networking, industrial, automotive, computer, medical, instrumentation, consumer, and military and aerospace systems. Linear Technology produces power management, data conversion, signal conditioning, RF and interface ICs, $\mu\text{Module}^{\text{®}}$ subsystems, and wireless sensor network products. For more information, visit www.linear.com

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