



New High-Temperature 200mA LDOs Withstand 80V Input up to 140°C

MILPITAS, CA – April 17, 2007 – Linear Technology Corporation announces new high-temperature versions of the LT3012 and LT3013, micropower LDOs with input voltage capability up to 80V. These H grade devices are offered in the TSSOP package and operate up to +140°C, featuring low dropout voltage of only 360mV while delivering up to 200mA of output current. The wide V_{IN} capability of 3.3V to 80V and adjustable output from 1.24V up to 60V makes them ideal for automotive, 48V telecom backup supplies and industrial control applications. Additionally, their very low quiescent current of 40uA (operating) and 1uA (shutdown) make them an excellent choice for battery-powered memory “keep alive” systems that require extended run times. The LT3013’s Powergood flag feature is programmable and indicates output regulation.

For high voltage applications that require large input-to-output differentials, the LT3012 and LT3013 offer a very compact and thermally effective solution. The thermally enhanced TSSOP package provides thermal resistances comparable to much larger conventional packages.

The LT3012 and LT3013 operate with very small, low cost ceramic output capacitors. They are stable with only a 3.3uF output capacitor, compared to older regulator devices of comparable output current and high voltage requiring 10uF to more than 100uF. These tiny external capacitors can be used without any necessary series resistance as is common with many other regulators. Internal protection circuitry includes reverse-battery protection, current limiting, thermal limiting, and reverse-current protection.

LT3012HFE and LT3013HFE pricing in the TSSOP package is \$2.73 and \$3.01 respectively.

Photo Caption: +140°C Capable 200mA 80V LDOs**Summary of Features: LT3012/H and LT3013/H**

- V_{IN} Range: 4V to 80V
- Adjustable Output from 1.24V to 60V
- Quiescent Current: LT3012 = 40 μ A (Typ), LT3013 = 65 μ A (Typ), $I_{SD} < 1\mu$ A
- Low Dropout Voltage: 360mV Typical
- Output Current: 200mA
- Temperature Range: -40°C to +140°C
- Programmable Powergood Flag (LT3013 only)
- No Protection Diodes Needed
- Stable with Aluminum, Tantalum or Ceramic Capacitors
- Reverse-Battery Protection
- No Reverse Current Flow From Output
- Thermally Enhanced 16-Lead TSSOP 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, 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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