Micropower LDO Withstands up to 100V Input in DFN and Sot-23 Packages

MILPITAS, CA – April 5, 2005 – Linear Technology Corporation announces the LT3014, a high voltage, micropower, low dropout regulator capable of delivering 20mA output current. The LT3014 operates with a continuous input voltage range of 3V to 80V and generates output voltages from 1.22V to 60V with a low dropout of 350mV, making it ideal for automotive, 48V telecom backup supplies and industrial control applications. Ultra-low quiescent current of 7uA (operating) and 1uA (in shutdown) make it an excellent choice for battery-powered memory “keep alive” systems that require optimal run time. The LT3014HV version will survive 100V input voltage transients for a 2ms duration, making it ideal for both telecom and automotive applications.

For high voltage applications that require large input-to-output voltage differentials, the LT3014 offers an extremely compact and thermally effective solution. Its miniature low-profile (0.75mm) 3mm x 3mm DFN and ThinSOT™ packages make it the smallest 100V LDO in the industry.

The LT3014 operates with very tiny, low cost ceramic output capacitors, featuring stability with only 0.47uF on the output. These tiny external capacitors can be used without any necessary series resistance as is common with many other regulators. Internal circuitry includes reverse-battery protection, current limiting, thermal limiting, and reverse current protection.

The LT3014EDD and LT3014ES5 standard versions and the corresponding high-voltage versions LT3014HVEDD and LT3014HVES5 are available from stock in an 8-lead 3mm x 3mm DFN package and a 5-lead ThinSOT-23 package. Pricing starts at $1.19 for the standard versions and $1.36 for the HV versions for 1,000-piece quantities.

(more...)
.Summary of Features: LT3014

- 3V to 80V Input Voltage Range
- Ultra-Low Quiescent Current: Only 7uA
- Low Dropout Voltage: 350mV
- Output Current: 20mA
- 100V Input Transient Capable (LT3014HV only)
- No Protection Diodes Needed
- Adjustable Output from 1.22V to 60V
- Stable with 0.47uF Ceramic Capacitors
- Reverse Battery Protection
- Thermal Limiting
- Miniature 3mm x 3mm 8-Lead DFN and 5-lead ThinSOT packages

COMPANY BACKGROUND: Linear Technology Corporation was founded in 1981 as a manufacturer of high performance linear integrated circuits. Linear Technology products include operational, instrumentation and audio amplifiers; voltage regulators, power management devices, DC-DC converters and voltage references; comparators; monolithic filters; communications interface circuits; one-chip data acquisition sub-systems; pulse-width modulators and sample-and-hold devices; and high frequency devices. Applications for Linear Technology’s high performance circuits include wireless and broadband telecommunications infrastructure, cellular telephones, networking products and satellite systems, notebook and desk top computers, computer peripherals, video/multimedia, industrial and medical instrumentation, automotive electronics, factory automation, process control, military and space systems, and high-end consumer products including digital cameras, MP3 players and other electronic products.

For more information, contact:

Doug Dickinson, Media Relations Manager
Linear Technology Corporation
1630 McCarthy Boulevard
Milpitas, CA 95035-7417

ddickinson@linear.com
408-432-1900

READER SERVICE: Call toll-free 1-800-4-LINEAR (for literature only), or go to the company’s web site: http://www.linear.com

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