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Flyback Controller in ThinSOT Operates at 150°C

MILPITAS, CA – March 2, 2009 – Linear Technology Corporation announces the H-Grade version of the LTC3803, a current mode flyback DC/DC controller in a tiny 6-pin ThinSOT™ package specified from -40°C to +150°C operating junction temperature. With its ultralow 40uA start-up and 240uA quiescent current, the device allows the use of a high-value input resistor and a low-value capacitor for low power dissipation and quick power supply start-up. The LTC3803H contains all the necessary features to design a high efficiency single-ended isolated or non-isolated flyback converter ideal for automotive, industrial, telecom, Power-over-Ethernet and datacom requirements.

With adjustable slope compensation, an LTC3803H-based power supply achieves fast transient response with minimum output capacitance. The constant 200kHz operating frequency is maintained down to very light loads, resulting in less low frequency noise generation over a wide range of load currents. An integrated soft-start function reduces inrush current, reducing output voltage overshoot. The LTC3803H can be powered with inputs from 9V to 75V through a series resistor clamped with the IC's internal shunt regulator, making it ideal for 4:1 input range applications. The 100mV current sense threshold enables the use of a very small current sense resistor even at high power levels, ensuring high efficiency.

The H-Grade version is production tested and guaranteed over an operating junction temperature range from -40°C to 150°C, making it ideal in wide temperature range applications. The E- and I-Grade versions are specified for 85°C and 125°C maximum junction temperature,

respectively. Pricing starts at \$1.63 each in 1,000-piece quantities. For more information, visit www.linear.com.


Photo Caption: 150°C Operating Temp Flyback Controller

Summary of Features: LTC3803H

- -40°C to 150°C Operating Junction Temperature Range
- Start-up Current of Only 40uA
- Low 240uA Quiescent Current
- V_{IN} and V_{OUT} Limited by External Components
- Adjustable Slope Compensation
- Internal Soft Start
- Current Mode Control
- 200kHz Operating Frequency
- Low Profile (1mm) ThinSOT 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.

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