



Flyback Controller Operates at 150°C Junction Temperature

MILPITAS, CA – June 18, 2009 – Linear Technology Corporation announces the H-grade version of the LTC3803-3, a current mode flyback DC/DC controller in a tiny 6-pin ThinSOT™ package. This H-grade device is guaranteed up to +150°C operating junction temperature and is ideal for automotive and industrial applications subjected to high ambient temperatures. The LTC3803H-3 can be powered from an input voltage ranging from 9V to 75V through a series resistor clamped with the device's internal shunt regulator. The controller is well suited for 4:1 input voltage range isolated applications commonly found in 12V and 42V automotive requirements.

The constant 300kHz operating frequency is maintained down to very light loads, minimizing low frequency noise generation over a wide range of load current. With adjustable slope compensation, an LTC3803H-3 based power supply achieves fast transient response with minimum output capacitance. An integrated soft-start function reduces inrush current and output voltage overshoot. A 100mV current sense threshold allows the use of a very small current sense resistor even at high power levels to maintain high efficiency. An LTC3803H-3-based design does not require a minimum load on the output for stable operation, and the output voltage is determined by the selection of external components. With its ultralow 40uA start-up and 240uA quiescent current, the IC maintains high efficiency at light loads, allowing the use of a high-value input resistor for low power dissipation and quick power supply start-up.


The LTC3803H-3 operates and is guaranteed over an operating junction temperature of -40°C to 150°C. 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-3**

- 9V to 75V Input Voltage Range Applications
- -40°C to 150°C Operating Junction Temperature Range
- Ideal for 4:1 Input Voltage Range Isolated Requirements
- 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
- 300kHz 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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