



45V, 1.5A LED Driver for Boost, Buck or Buck-Boost High Current LED Applications Offers Maximum Junction Temperature of 150°C

MILPITAS, CA – April 8, 2010 – Linear Technology announces the H-grade version of the LT3517. The LT3517 is a high side current sense DC/DC converter designed to drive high current LEDs at constant current. Its 3V to 30V input voltage range with transient protection to 40V makes it ideal for a range of applications, including automotive, industrial and architectural lighting. The H-grade version operates with a junction temperature up to 150°C, compared to the E- and I-grade versions' 125°C maximum junction temperature. All electrical specifications are identical for the E-, I- and H-grade versions. The H-grade parts are tested and guaranteed to the maximum junction temperature of 150°C, making them ideal for automotive and industrial applications which are subjected to high ambient temperatures.

The LT3517 can drive up to four 300mA white LEDs from a nominal 12V input, making it ideal for applications such as automotive display backlighting. The LT3517 senses output current at the high side of the LED, enabling buck, buck-boost or boost configurations. The device delivers efficiencies up to 90% in boost mode from a 4mm x 4mm QFN package. The LT3517 offers True Color PWM™ dimming which ensures constant LED color with dimming ranges of up to 5,000:1. For less demanding dimming requirements, the CTRL pin can be used to provide 10:1 analog dimming. Its fixed frequency, current mode architecture offers stable operation over a wide range of supply and output voltages. A frequency adjust pin enables the user to program the frequency between 250kHz and 2.5MHz to optimize efficiency while minimizing external component size.

The LT3517HUF is available from stock in 16-pin QFN package, priced starting at \$3.49 each in 1,000-piece quantities. For more information, visit www.linear.com.


Photo Caption: 45V, 1.5A LED Driver Offers Maximum Junction Temperature of 150°C

Summary of Features: LT3517H

- 150°C Maximum Junction Temperature
- 5000:1 True Color PWM™ Dimming Ratio
- 1.5A, 45V Internal Switch(LT3517)
- 100mV High Side Current Sense
- Open LED Protection
- Adjustable Frequency: 250kHz to 2.5MHz
- Wide Input Voltage Range:
 - Operation from 3V to 30V
 - Transient Protection to 40V
- Operates in Boost, Buck Mode & Buck-Boost Mode
- Gate Driver for PMOS LED Disconnect
- Constant-Current & Constant-Voltage Regulation
- CTRL Pin Provides 10:1 Analog Dimming
- Low Shutdown Current: <1uA
- Tiny (4mm × 4mm) 16-Pin QFN 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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