



Flyback Synchronous Rectifier Driver Provides 10A Output Current

MILPITAS, CA – March 3, 2014 – Linear Technology Corporation announces the [LT8309](#), a flyback secondary-side synchronous rectifier driver that replaces the output diode with a MOSFET, allowing up to 10A output current without the use of a heat sink. The maximum output current of a flyback power supply has been limited by the power loss and heat generated from the output diode when no heat sink is used. The LT8309 replaces the diode forward voltage drop with the $R_{DS(ON)}$ of an external N-channel MOSFET, thereby reducing the power loss, increasing converter efficiency and easing the thermal design.

Most prior solutions use a signal transformer driven from the primary-side to control the synchronous rectifier; however the LT8309 senses the drain-to-source voltage of the MOSFET for activation. This technique not only eliminates a transformer, but allows the LT8309 to work with Linear Technology's growing line of no-opto-coupler products required for output voltage feedback boundary conduction mode (BCM)/critical conduction mode (CrCM) flyback converters, making it highly versatile for many types of applications.

The LT8309 operates from a 4.5V to 40V input voltage range. Its 500 μ A quiescent current maximizes light load efficiency. The strong 1 Ω pull-down gate driver provides fast device turn-off and its low minimum on- and off-times improve noise immunity. Additional features include a mere 22ns propagation delay, adjustable and accurate trip voltage along with the ability to drive 150V rated MOSFETs.

The LT8309 is available in a SOT-23 package. Pricing starts at \$1.82 each in 1,000-piece quantities. For more information, visit www.linear.com/product/LT8309

Photo Caption: Flyback Synchronous Rectifier Driver**Summary of Features: LT8309**

- Synchronous Rectification
- High Output Current – Up to 10A
- Higher Efficiency & Better Thermal Performance
- Works with BCM/CrCM Architectures
- Wide 4.5V to 40V Input Voltage Range
- Supports Up to 150V MOSFETs
- 22ns Turn-Off Propagation Delay
- Accurate Minimum On- & Off-Times for Reliable Operation
- Adjustable & Accurate Trip Point: -5mV to -30mV
- 1 Ohm Gate Driver Pull-Down
- SOT23 5-Lead Package

About Linear Technology

Linear Technology Corporation, a member of the S&P 500, has been designing, manufacturing and marketing a broad line of high performance analog integrated circuits for major companies worldwide for over three decades. The Company's products provide an essential bridge between our analog world and the digital electronics in communications, networking, industrial, automotive, computer, medical, instrumentation, consumer, and military and aerospace systems. Linear Technology produces power management, data conversion, signal conditioning, RF and interface ICs, μ Module[®] subsystems, and wireless sensor network products. For more information, visit www.linear.com

 , LT, LTC, LTM, Linear Technology, the Linear logo and μ Module are registered trademarks of Linear Technology Corp. All other trademarks are the property of their respective owners.

Press Contacts:**North America / Worldwide**

John Hamburger, Director Marketing
Communications
jhamburger@linear.com
Tel: 408-432-1900 ext 2419

Doug Dickinson, Media Relations Manager
ddickinson@linear.com
Tel: 408-432-1900 ext 2233

UK & Nordic

Alan Timmins
alan@ezwire.com
Tel: +44-1-252-629937