



Synchronous Forward MOSFET Driver Eliminates Signal Transformer

MILPITAS, CA – April 2, 2014 – Linear Technology Corporation announces the [LT8311](#), a high efficiency secondary-side MOSFET driver that operates without the need for primary control in an isolated synchronous forward converter. The LT8311's unique preactive mode eliminates the need for a signal transformer for primary to secondary-side communication by sensing signals on the secondary side to control synchronous rectification. This mode reduces component count and solution size.

The LT8311 operates over a 3.7V to 30V input voltage range and is used with a primary-side IC, such as the LT3752/-1. The complete forward converter can operate with input voltages ranging from 6.5V up to 400V+ making it ideal for a wide range of applications including hybrid/electric vehicle automotive requirements. Furthermore, the LT8311 combines a 10mA opto-driver and a feedback loop error amplifier to enable output voltage feedback from the secondary to the primary side. The entire system provides fixed frequency peak current mode control that has excellent line/load regulation and fast transient response. Additional features include a 1.5% reference voltage, a power good monitor and programmable soft-start of the output voltage.

The LT8311 is available in a TSSOP-20 package with several pins removed for high peak voltage spacing. The LT8311 E- and I-grade versions operate from a -40°C to 125°C junction temperature. The LT8311 H grade is guaranteed to operate from a -40°C to 150°C operating junction temperature. The LT8311 MP grade is guaranteed to operate from -55°C to 150°C operating junction temperature. The 1,000-piece price starts at \$3.06 each. For more information, visit www.linear.com/product/LT8311


Photo Caption: Synchronous Forward MOSFET Driver

Summary of Features: LT8311

- Eliminates Signal Transformer for Synchronous Rectification Control
- LT8311 Input Voltage Range: 3.7V to 30V
- Operates with Primary-Side IC for up to 400V+ Input Voltages
- 1.5% Reference Voltage
- Onboard 10mA Opto-Coupler Driver
- Output Power Good Indicator
- Programmable Soft-Start of Output Voltage
- Onboard Feedback Error Amplifier
- Extended & Industrial Grades: -40°C to 125°C Operating Junction Temp
- Automotive Temp Grade: -40°C to 150°C Operating Junction Temp
- Military Temp Grade: -55°C to 150°C Operating Junction Temp

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

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