



## **MOSFET Gate Drivers from Diodes Incorporated Boosts Conversion Efficiency**

**Plano, Texas – December 2, 2014** – Diodes Incorporated (Nasdaq: DIOD), a leading global manufacturer and supplier of high-quality application specific standard products within the broad discrete, logic and analog semiconductor markets, today introduced a pair of compact 40V, 1A-rated gate drivers specifically designed to control the high-current power MOSFETs used in on-board and embedded power supplies and motor drive circuits. Enabling the MOSFETs to be more rapidly and fully switched on and off, the ZXGD3009E6 (SOT26 package) and ZXGD3009DY (SOT363 package) help minimize switching losses, improve power density and increase overall conversion efficiency.

Acting as a high-gain buffer stage for low-power control ICs, the devices can provide a typical drive current of 500mA from an input current of only 10mA, ensuring the desirable fast charging and discharging of the power MOSFET's capacitive load. The drivers' switching capability is ultra-fast, with a propagation delay time of less than 5ns, and rise and fall times of less than 20ns.

Separate source and sink outputs offer independent control of MOSFET turn-on and turn-off times, which enables MOSFET behavior to be more closely tailored to the needs of the application. The ZXGD3009s' ability to drive the gate negatively as well as positively assures dependable hard turn-off of the power MOSFET.

The gate drivers' rugged emitter-follower design avoids any issues of latch-up or shoot-through and can tolerate peak currents of up to 2A. Their wide 40V operating range will also cater for voltage spikes far beyond the typical 12V

normally associated with power MOSFET gate driving. Further information is available at [www.diodes.com](http://www.diodes.com).

### **About Diodes Incorporated**

Diodes Incorporated (Nasdaq: DIOD), a Standard and Poor's SmallCap 600 and Russell 3000 Index company, is a leading global manufacturer and supplier of high-quality application specific standard products within the broad discrete, logic and analog semiconductor markets. Diodes serves the consumer electronics, computing, communications, industrial, and automotive markets. Diodes' products include diodes, rectifiers, transistors, MOSFETs, protection devices, functional specific arrays, single gate logic, amplifiers and comparators, Hall-effect and temperature sensors; power management devices, including LED drivers, AC-DC converters and controllers, DC-DC switching and linear voltage regulators, and voltage references along with special function devices, such as USB power switches, load switches, voltage supervisors, and motor controllers. Diodes' corporate headquarters, logistics center, and Americas' sales office are located in Plano, Texas. Design, marketing, and engineering centers are located in Plano; San Jose, California; Taipei, Taiwan; Manchester, England; and Neuhaus, Germany. Diodes' wafer fabrication facilities are located in Kansas City, Missouri and Manchester, with two more located in Shanghai, China. In addition, two assembly-test facilities are located in Shanghai; two are located in Chengdu, China, with one in Neuhaus and one in Taipei. Additional engineering, sales, warehouse, and logistics offices are located in Fort Worth, Texas; Taipei; Hong Kong; Manchester; Shanghai; Shenzhen, China; Seongnam-si, South Korea; Suwon, South Korea; Tokyo, Japan; and Munich, Germany, with support offices throughout the world. For further information, including SEC filings, visit Diodes' website at <http://www.diodes.com>.

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