



Buck Controller from Diodes Incorporated Manages High POL Current

Plano, Texas – May 1, 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 single-phase synchronous buck PWM controller series to meet the rigors of high-current desktop PC applications. Producing a continuous current of 25A, the AP3585 devices help simplify the design of distributed power architectures serving memory arrays and graphics processing units.

Offered in the compact and thermally efficient SO-8 and SO-8EP packages, the AP3585 series provides single feedback loop voltage-mode control, and operates from a supply of between 4.5V to 13.2V, delivering a high-quality output from as low as 0.6V up to 80% V_{IN} .

The integration of a 10MHz error amplifier with a 6V/ μ s slew means the buck controllers exhibit a high converter bandwidth and a fast transient response. The devices have fixed oscillator frequencies of either 200kHz or 300kHz and feature a high level of integration, which helps to reduce the overall size and cost of power supplies.

With its built-in 12V+12V bootstrapped MOSFET driver and companion bootstrap diode, the AP3585 is able to achieve greater than 90% efficient power conversion while simplifying circuit design and minimizing the external part count.

The controllers feature comprehensive fault protection, consistent with their high-current operating capabilities, including lossless programmable overcurrent protection, under- and over-voltage protection, soft-start functionality and

thermal shutdown. For further information, visit the Company's website at 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 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 four manufacturing facilities located in Shanghai, China, and two joint venture facilities located in Chengdu, China, as well as manufacturing facilities located in Neuhaus and 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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