



Diodes Incorporated's Power Switcher with HV Transistor Improves Efficiency of Line-Powered Chargers

Plano, Texas – February 21, 2017 – Diodes Incorporated (Nasdaq: DIOD), a leading global manufacturer and supplier of high-quality application specific standard products within the broad discrete, logic, analog and mixed-signal semiconductor markets, today introduced the AP3984 high-performance power switcher. With its unique integrated high-voltage (HV) start-up circuit, this device provides a cutting-edge solution for line-powered chargers and adaptors in the consumer and industrial markets. Delivering increased conversion efficiency with better voltage and current accuracy, the AP3984 also features ultra-low power consumption and improved protection functions.

Designed as a primary-side controller, the AP3984 realizes excellent transient characteristics when combined with secondary-side ICs such as the AP4341/2, supplying outputs above 4.3V. This is achieved with current and voltage tolerances of just $\pm 5\%$. The built-in start-up circuit with integrated 700V bipolar junction transistor also eliminates external resistors, simplifying system design and allowing the AP3984 to directly switch the line input. The AP3984 also has a programmable line voltage drop-compensation function.

With protection features such as over-voltage, open- and short-circuit protection, and over-temperature protection (OTP) with auto-restart, the AP3984 provides a high-performance, highly integrated and cost-effective solution that also meets Energy Star 6.0 efficiency criteria with a standby power of less than 10mW. Multiple PWM/PFM switching modes combined with a frequency dithering function further aid efficiency while improving EMC performance and reducing audible noise.

The AP3984MTR-G1 power switcher is available in the space-saving in SO-7 package. 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, analog and mixed-signal semiconductor markets. Diodes serves the consumer electronics, computing, communications, industrial, and automotive markets. Diodes' products include diodes, rectifiers, transistors, MOSFETs, protection devices, function-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 and Milpitas, California. Design, marketing, and engineering centers are located in Plano; Milpitas; Taipei, Taiwan; Taoyuan City, Taiwan; Zhubei City, Taiwan; Manchester, England; and Neuhaus, Germany. Diodes' wafer fabrication facilities are located in Kansas City, Missouri and Manchester, with an additional facility located in Shanghai, China. Diodes has assembly and test facilities located in Shanghai, Jinan, Chengdu, and Yangzhou, China, as well as in Hong Kong, Neuhaus and Taipei. Additional engineering, sales, warehouse, and logistics offices are located in Taipei; Hong Kong; Manchester; Shanghai; Shenzhen, China; Seongnam-si, South Korea; and Munich, Germany, with support offices throughout the world.

Recent news releases, annual reports and SEC filings are available at the Company's website: <http://www.diodes.com>. Written requests may be sent directly to the Company, or they may be e-mailed to: diodes-fin@diodes.com.

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