

## Primary-Side Switcher from Diodes Incorporated Raises Power Supply Efficiency

Plano, Texas – September 8, 2016 – 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 AP3983 series of products. This family of primary-side power switchers enable power supply designers to handily achieve the high conversion efficiency needed to meet Energy Star Level 6 and EU CoC Tier 2 requirements. Operating up to 80kHz, the AP3983 series employs piecewise Pulse Frequency Modulation (p-PFM) in discontinuous conduction mode to regulate the primary-side voltage and current to better than ±5% and provide an audible noise-free solution for chargers, ADSL adapters and home appliance power supplies.

As a primary side device with an integrated 650V or 700V BVDSS MOSFET, the AP3983 family eliminates opto-couplers and secondary-side CV/CC control circuitry to minimize external component count. Other features include built-in fixed cable voltage-drop compensation, adjustable line-voltage compensation and a range of safety functions, such as, over-voltage and over-temperature protection, and a hiccup function to improve response to short circuits.

A low start-up current  $(0.6\mu\text{A}, \text{max})$  combined with a no-load power consumption (75mW, max) and excellent load transient stability all contribute to the high performance offered by the AP3983 switcher, which provides a highly integrated and cost-effective solution for consumer power supplies.

Devices in the AP3983 family support ranges of adapter power ratings (6W to 20W), package types (SO-7 or PDIP-7), and MOSFET voltage ratings (650V or 700V).

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 highquality 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: <a href="mailto:diodes-fin@diodes.com">diodes-fin@diodes.com</a>.

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