



Product news

40V, 2.2MHz Synchronous Buck Converters from Diodes Incorporated Deliver High Efficiency across All Loads

Plano, Texas – October 30, 2019 – Diodes Incorporated (Nasdaq: DIOD) today announced the introduction of five synchronous buck converters with integrated high- and low-side MOSFETs, providing point-of-load (PoL) solutions with a continuous output current of either 3.5A or 5A. The devices feature proprietary gate driver technology, delivering superior EMI performance in step-down DC-DC conversion for consumer, industrial, networking, and automotive applications.

The [AP64350](#), [AP64351](#), and [AP64352](#) operate with a quiescent current (I_q) of 22 μ A, while the I_q of the [AP64500](#) and [AP64501](#) is just 25 μ A. All devices feature low $R_{DS(ON)}$ and operate from a supply voltage of between 3.8V and 40V and provide a low dropout (LDO) mode. As well as the optimized gate driver design, the parts also employ a frequency spread spectrum topology to further reduce EMI.

In addition, the AP64351 and AP64501 implement programmable soft-start, which can mitigate the effects of inrush currents as well as tracking, allowing power sequencing to be implemented more efficiently.

Switching frequencies are adjustable between 100kHz and 2.2MHz. This adjustable frequency allows engineers to select the most appropriate configuration for their application, based on efficiency, size of external components, or RF compatibility with other system-level functions.

The AP64350, AP64351, AP64352, AP64500, and AP64501 are available in the SO-8EP package.

Further information is available 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 also has timing, connectivity, switching, and signal integrity solutions for high-speed signals. 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, UK; and Neuhaus, Germany. Diodes' wafer fabrication facilities are located in Manchester and Greenock, UK, and 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; Munich, Germany; and Tokyo, Japan, 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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