



Constant-Current LED Drivers now Offered in Low-Profile DFN Package Suitable for Edge Lighting

Plano, Texas – January 30, 2018 – 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 announced the BCR420UFD and BCR421UFD. In response to growing demand for smaller LED lighting installations that also provide high efficiency and ultra-low EMI, Diodes Incorporated has extended its popular BCR420U and BCR421U families of linear LED drivers to include these devices in the ultra-low profile DFN2020 package, making them well-suited for 12V and 24V LED edge-lighting applications.

The primary benefits of LED lighting, namely longer lifetime and higher efficiencies, means there is growing demand for more varied and less intrusive solutions. This includes fittings that emit light from the edges as opposed to vertically. In order to meet this demand, manufacturers are looking for solutions that support a thinner overall profile. At just 0.6mm in height, the DFN2020 package is uniquely suited to edge lighting.

Like other members of the BCR4xxU series, the new devices can deliver an adjustable constant current between 10mA and 200mA (BCR420UFD) or 350mA (BCR421UFD) with $\pm 10\%$ tolerance, which in the case of the BCR421UFD can be controlled using a PWM signal of up to 25kHz and a duty cycle of 1% to provide LED dimming functionality. Both devices include a negative temperature coefficient, which lowers the LED driver current as the internal temperature rises, thereby protecting and extending the lifetime of the LEDs. In addition, the linear topology used is based on an NPN emitter-follower with emitter resistor, which means the devices exhibit virtually no EMI, making them well-suited for sensitive applications such as medical lighting.

With a wide operating voltage range of between 1.4V and 40V, total power dissipation of up to 1.7W, the devices can be used to drive longer strings of LEDs while still

providing sufficient protection from transients in a 24V system. Designed as monolithic solutions, the devices integrate transistors, diodes and resistors in a single package measuring just 0.6mm high. This is much thinner than the standard SOT26 package, allowing engineers, architects and lighting designers to develop LED fitments with a much lower overall profile, for a wider range of applications. Edge lighting is now being specified in areas such as emergency, mood or decorative lighting, but is equally applicable in medical, industrial and commercial environments.

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 Manchester and Shanghai, China. Diodes has assembly and test facilities located in Neuhaus, Shanghai, Jinan, Chengdu, and Yangzhou, China. 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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