



For immediate release

Adaptive LED Current Ripple Suppressor from Diodes Incorporated Enables High Power Factor and Flicker-Free Professional LED Lighting

Plano, TX – June 18, 2019 – Diodes Incorporated (Nasdaq: DIOD) today announced the availability of the AL5822 LED current ripple suppressor, which provides high levels of ripple suppression while maintaining high power factor for commercial and industrial lighting applications.

It is now mandatory to meet regulatory requirements to suppress low frequency ripple (100Hz to 120Hz) in LED lighting applications in many markets, enforced through standards such as the California Energy Commission Title 24. The AL5822 delivers a high level of ripple current suppression in single-stage, high power LED installations, even when triac or PWM dimming techniques are being used to vary the light level. This ensures there is no sign of flicker or strobing across the entire dimming range, while still maintaining a high power factor.

The AL5822 has been designed and tested to comply with the Title 24 building code requirement of less than 30% flicker. The results show that the AL5822 suppresses over 97% of ripple while still achieving a power factor of greater than 0.9.

By monitoring the current flowing through the LEDs, the AL5822 compensates for ripple by adjusting the drive voltage for the external MOSFET. This control loop keeps the MOSFET operating in the saturation region to deliver a constant current.

With support for various pre-stage circuits, the AL5822 can work with a number of drivers, such as the AL1665 single stage PFC flyback buck/boost controller, also from Diodes Incorporated. The integrated features of the AL5822 remove the need for magnetic discrete components, minimizing the overall bill of materials.

The AL5822 operates over an input voltage range of 24V_{AC} to 305V_{AC}. Safety features include LED short-circuit, over-temperature, and over-current protection.

The AL5822 is available in the SOT26 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, England; 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; 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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