



*For immediate release*

## **Automotive-Compliant 60V Fast Dimming Linear LED Controller from Diodes Incorporated Targets Automotive LED Lighting Applications**

**Plano, TX – March 28, 2019** – 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 availability of the AL5816Q, an automotive-compliant linear LED controller for Automotive LED lighting. With an operating voltage range of 4.5V to 60V, the AL5816Q supplies an output drive current of 15mA to control LED lights through an external BJT, delivering a constant current of a few mA up to 1.5A, or higher LED current if a MOSFET is used. This ability to optimize the external transistor makes the AL5816Q well-suited for many automotive LED lighting applications, such as rear light clusters, interior illumination, instrument panels, and license plate lighting.

The combination of a high-input voltage and high-output drive current, coupled with a versatile high-voltage PWM dimming feature, means automotive manufacturers can realize a significantly lower BOM for a wide range of automotive applications using the AL5816Q. The 5-pin SOT25 package requires very few external components and does not need a separate switching inductor. It features a high-voltage PWM input for LED light dimming.

The feedback pin operates at just 200mV, enabling the AL5816Q to control the LED drive current precisely while minimizing the drop-out voltage and reducing the LED system power dissipation, particularly when compared against traditional linear LED controllers.

The high-output drive current allows the AL5816Q to drive a single LED, an LED chain or multiple LED channels, as required by automotive manufacturers. The PWM dimming input accepts a signal operating at up to 50kHz. The device also features a number of protection features including input undervoltage lock-out and overtemperature shutdown. Further information is available at [www.diodes.com](http://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 facility is located in 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; 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](mailto:diodes-fin@diodes.com).

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**Company Contact:**

Diodes Incorporated  
Emily Yang  
VP, Worldwide Sales and Marketing  
P: 972-987-3900  
E: [pressinquiries@diodes.com](mailto:pressinquiries@diodes.com)

**Investor Relations Contact:**

Shelton Group  
Leanne K. Sievers  
EVP, Investor Relations  
P: 949-224-3874  
E: [lsievers@sheltongroup.com](mailto:lsievers@sheltongroup.com)