



***For immediate release***

## **Diodes Incorporated's Automotive-Compliant Linear LED Driver-Controller Features Low Dropout and Enhanced Dimming**

**Plano, TX – July 2, 2019** – Diodes Incorporated (Nasdaq: DIOD) today announced the AL5814Q, an automotive-compliant linear LED driver-controller with low dropout voltage and open LED detection for automotive linear-driven LED lamps.

The AL5814Q is suitable for automotive applications requiring specific change control and is AEC-Q100 qualified, has a grade 1 temperature rating, is PPAP capable, and is manufactured in IATF16949:2016 certified facilities. The device operates from an input voltage in the range of 4.5V to 60V. It has up to 15mA drive and uses an external drive transistor, MOSFET or BJTs, minimizing its power dissipation. This ability to drive higher current LEDs or multiple LED strings makes it suitable for applications that require higher light output including license plate illumination, rear lamps, internal lamps, and instrument panels.

The AL5814Q's VSET pin can be used to adjust output current feedback level for a lower dropout via resistor divider, analog dimming and thermal fold-back, the latter being implemented using an NTC resistor.

PWM dimming is supported through applying a PWM signal to the VFAULT pin. Over-temperature protection is also included, along with input under-voltage lockout. Open-LED detection, via the VFAULT pin, can also be supported with its activation via the SFAULT pin.

The AL5814Q's tight 0.4V reference voltage ( $\pm 5\%$  across temperature) provides a high level of thermal stability and matching between lamps.

The AL5814Q is available in the exposed MSOP-8EP package. 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 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](mailto:diodes-fin@diodes.com).

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