



## **Linear LED Controllers from Diodes Incorporated Deliver Efficiency and Accuracy**

**Plano, Texas – March 28, 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 AL5814, AL5817, AL5815 and AL5816 linear LED controllers. These devices deliver dimmable and adjustable drive current for LED strings with more than 80% efficiency. The AL58xx series provides a low BOM-cost solution for a range of applications in the commercial and industrial areas including signage, instrumentation illumination, appliance interior lighting, architectural details and general smart-lighting installations.

With an input range of 4.5V to 60V, these devices do not require inductors and maintain good EMI performance, making system integration simpler. Internal power dissipation is also minimized compared with other designs due to an external power transistor. The AL58xx series is capable of providing up to 15mA to an external MOSFET or bipolar transistor to drive LED strings. The LED drive current is configured by an external resistor with 4% reference voltage accuracy and excellent temperature stability. In addition, the AL5815 and AL5816 devices support PWM dimming, while the AL5814 and AL5817 devices support both analog and PWM dimming.

Protection features include over-temperature and input under-voltage lock-out. The AL5814 and AL5817 devices also provide 'LED open' protection via a  $V_{\text{FAULT}}$  pin, as well as LED thermal fold-back protection. As linear controllers, the AL58xx series exhibits good EMI performance, while the wide operating temperature range of -40°C to +105°C enables the parts to also be used in harsh environments.

The AL58xx series is available in SOT-25 and thermally-enhanced MSOP-8EP packages. 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; 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).

###

### **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)