



*For immediate release*

## **Diodes Incorporated Introduces High-Efficiency, Single-Winding Inductor 500V Buck LED Drivers**

**Plano, Texas – August 19, 2015** – Diodes Incorporated (Nasdaq: DIOD), a leading global manufacturer and supplier of high-quality application specific standard products within the broad discrete, logic and analog semiconductor markets, today introduced the AL1678 family of LED Drivers. These devices are well-suited for driving non-dimmable retrofit LED bulbs in general illumination applications that do not require high power factor ( $>0.7$ ). Ensuring a low total circuit bill-of-material (BOM) cost while keeping performance high, these 500V buck-converter LED drivers support output powers up to 15W for wide-ranging LED lighting applications such as Class-A/B/P and GU10 lamps across all mains line voltages.

The AL1678 family is offered in the space-saving SO-7 and provides a variety of different current-rated 500V MOSFETs, which allow designers to select the most appropriate driver to meet the needs of different bulb wattage and cost requirements.

With its improved driver topology, the AL1678 family provides significant circuit flexibility and delivers accurate constant current line and load regulation over the  $85V_{AC}$  to  $277V_{AC}$  universal input range. In addition, by operating in boundary-conduction mode, the driver keeps EMI low with greater than 90% high-efficiency, which aids with EMC compliance.

The AL1678 LED drivers' total BOM lamp cost is low because it removes the need for an external high-voltage MOSFET and an auxiliary winding, while requiring only a single external inductor. Integrated protection features include under-voltage lockout, over-temperature protection, LED open- and short-circuit

protection, as well as a thermal fold-back function to help improve the system reliability of retrofit LED lamps at high temperature. The AL1678's SO-7 package also helps improve electrical isolation and offers improved moisture resistance. 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 and analog semiconductor markets. Diodes serves the consumer electronics, computing, communications, industrial, and automotive markets. Diodes' products include diodes, rectifiers, transistors, MOSFETs, protection devices, functional 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. Design, marketing, and engineering centers are located in Plano; San Jose, California; Taipei, Taiwan; Manchester, England; and Neuhaus, Germany. Diodes' wafer fabrication facilities are located in Kansas City, Missouri and Manchester, with two additional facilities located in Shanghai, China. Diodes has assembly and test facilities located in Shanghai and in Chengdu, China, as well as in Neuhaus and in 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. For further information, including SEC filings, visit Diodes' website at [www.diodes.com](http://www.diodes.com).

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#### **Company Contact:**

Diodes Incorporated  
Julie Holland  
VP, Worldwide Analog Products  
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)