



*For immediate release*

## **Robust and Flexible, Automotive Buck, LED Drivers from Diodes Incorporated Streamline Interior and Exterior Lighting**

**Plano, Texas – July 23, 2019** – Diodes Incorporated (Nasdaq: DIOD) introduced two automotive LED drivers that combine robust performance, simplified design, and flexibility to address internal and external lighting applications, such as fog lamps, position lamps, rear lamps, and door lamps.

The AL8860Q and AL8861Q have a wide-operating voltage range from 4.5V to 40V to withstand load-dump events and operate correctly at low-cranking voltages in stop-start applications. Leveraging hysteretic-mode buck control simplifies the design of the feedback loop, enabling inherent stability with only four external components. Designers can save real estate and minimize the electronic bill of materials due to the integrated, main power MOSFET and a programmable switching frequency up to 1MHz that allows a small output inductor.

The devices can source 1.5A for powering loads up to 40W depending on supply voltage and external components. In addition, both drivers support 0.3V to 2.5V analog dimming as well as high-precision PWM dimming from 1% to 100% to allow various automatic or user-adjustable brightness controls. Such flexibility enables use in a wide variety of applications inside and outside the vehicle, permitting designers to create multiple lamp types efficiently using the same driver and streamline inventory management for manufacturing.

Comprehensive built-in protection features ensure reliability and safety, including short-circuit and open-LED protection as well as overtemperature shutdown. The AL8861Q additionally features current-sense resistor, short-circuit protection.

Both drivers are packaged in the high-power density MSOP-8EP with support for analog and PWM dimming via one control pin. This control pin, with its analog dimming function, can be used for soft-start of the LED current with only one capacitor.

The AL8860Q and AL8861Q are automotive-compliant and support PPAP documents. AL8860Q and AL8861Q are qualified to AEC-Q100 Grade 1.

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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