Automotive-Grade High-Voltage Rectifiers from Diodes Incorporated Provide Robust Operation and Small Footprint

Plano, Texas – November 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 a new series of high-voltage rectifiers. This latest features two AEC-Q101-qualified devices designed to provide robust rectification, blocking, and reverse-battery protection for automotive electronic control units (ECUs). The compact, small form factor and thermally efficient SOD123F package enables the S1MSWFQ standard rectifier and RS1MSWFQ fast rectifier to deliver a superior level of performance from a PCB footprint that is less than half that of similar SMA packaged rectifiers.

With a maximum off-board profile of 1.15mm, the SOD123F is less than half the height of the SMA package, while its board footprint of 7mm² occupies just 43% of the area required by the equivalent SMA part. In addition to providing circuit designers with space-saving benefits, the SOD123F package offers superior thermal performance with a junction-to-case thermal resistance of 13°C/W compared to the SMA package's 30°C/W rating, using recommended pad layouts.

With a minimum reverse-breakdown voltage of 1000V these rectifiers ensure plenty of voltage headroom for automotive system designs. This allows for voltage spikes caused by inductive kickback from coils and inductors and means these devices will meet ISO7637 in withstanding electrical disturbances when used for ECU reverse-battery protection. The performance features of the S1MSWFQ and RS1MSWFQ rectifiers all contribute to the robust and reliable operation demanded by harsh automotive environments. This is further underwritten by AEC-Q101 qualification of these devices and supported by the
automotive industry’s Production Part Approval Process (PPAP). For further information, visit the Company’s website 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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