Gate Drivers from Diodes Incorporated Simplify the Switching of MOSFETs and IGBTs in Motors and Power Supplies

Plano, Texas – May 16, 2017 – 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 introduced the DGD2103M, DGD2104M and DGD2304. These gate drivers feature a floating high-side driver to simplify the switching of two N-channel MOSFETs or two IGBTs in a half-bridge configuration. These drivers suit a wide range of motor control and power supply applications in industrial automation and white goods, that require AC and DC motor control boards rated above 100W, and LLC resonant converter power supply topologies.

The half-bridge configuration of the DGD2103M, DGD2104M and DGD2304 devices includes high-side (HS) and low-side (LS) drivers with high pulse-current outputs to provide effective switching of low RDS(on) MOSFETs or IGBTs, and increase overall system efficiencies. Shoot-through prevention logic includes closely matched delay times and a fixed internal deadtime to protect the HS and LS power switches by ensuring they are not on simultaneously. The floating high-side driver provides high-voltage isolation allowing operation on power rails up to 600V.

Compatible with logic-level inputs from 2.5V, these gate drivers further simplify the driving of power switches by enabling direct PWM control from 3.3V MCUs, while the gate drive output operates up to the VCC supply (10V to 20V) to minimise conduction losses in the switch. The DGD2103M and DGD2104M have optimized Schmitt trigger inputs to avoid false triggering in noisy motor applications; while the DGD2304 provides a shorter internal deadtime, typically 100ns, making it a better choice for high-frequency applications. Additional self-protection features include a gate drive that is tolerant to negative transients arising from high dV/dt switching, and undervoltage lockout (UVLO) to avoid malfunction under low supply voltage conditions.
All three gate drivers are offered in an industry standard SO-8 package, providing pin-for-pin compatibility with competitive parts but with superior faster switching performance. Further information is also be 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’ 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 Kansas City, Missouri and 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](http://www.diodes.com). Written requests may be sent directly to the Company, or they may be e-mailed to: diodes-fin@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)