



## **Diodes Incorporated Introduces 100V MOSFETs Optimized for PoE Applications**

**Plano, Texas – September 22, 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 DMN10H120SFG MOSFET. This device is designed as a switch for IEEE 802.3 compliant 48V Power-over-Ethernet (PoE) systems. This switch enables the delivery of power through the Ethernet cable to end-applications such as wireless access points, VoIP phones, point-of-sale terminals, call systems, IP security cameras and building management devices.

In power-sourcing equipment such as LAN routers and midspans, this 100V N-channel MOSFET switches power to the CAT5 (or CAT6) network cable. The cable then provides both power and data, which reduces system costs by eliminating the power supply in the end-equipment. It also protects end-users because PoE operates between 44V to 57V, which meets the 60V Safety Extra Low Voltage (SELV) rating, which removes the need for rigorous isolation and certification of end-equipment while also easing system maintenance.  $I^2R$  losses are minimized when operating at these voltage levels and this helps maximize power delivery to the end-equipment and improve efficiency.

With a 100V  $BV_{DSS}$  rating the DMN10H120SFG MOSFET provides plenty of headroom for 48V PoE operation. The DMN10H120SFG also offers an extended safe-operating-area (SOA) that can withstand the power dissipation due to short-circuit fault conditions, such as an Ethernet cable breaking, until the PSE controller detects the fault and switches off. During this fault condition the MOSFET goes into linear mode and needs to dissipate 30W for at least 20ms, which is achieved even with a +60°C elevated operating temperature.

The DMN10H120SFG is offered in the space-saving PowerDI3333 package. Within its extensive 100V DMN10H family, Diodes also offers SOT23, SOT223 and TO252 (DPAK) packages. The avalanche-rugged DMN10H099SK3, for example, in TO252 is 100% unclamped-inductive-switch (UIS) tested to ensure it can withstand the energy pulse in switching inductive loads such as coils, motors and relays. 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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