



**Product news**

## **Power Block MOSFET from Diodes Incorporated Increases Power Converter Efficiency and Saves PCB Space**

**Plano, Texas – May 21, 2020** Diodes Incorporated (Nasdaq: DIOD) today announced the availability of the first in a new generation of discrete MOSFETs. The [DMN3012LEG](#) delivers increased efficiency in a smaller package to provide significant cost, power, and space savings in a wide variety of power conversion and control applications.

The DMN3012LEG integrates dual MOSFETs in a single package measuring just 3.3mm x 3.3mm and reduces the board space requirement by up to 50% compared to a typical two-chip solution. This space saving benefits a range of applications using point of load (PoL) and power management modules. The DMN3012LEG can be used in DC-DC synchronous buck converters and half-bridge power topologies to reduce the size of power converter solutions.

The 3D structure of the PowerDI®3333-8 Type D package helps to increase overall power efficiency, while the high voltage and current ratings make it widely applicable. The fully-grounded pad design delivers good thermal performance, allowing the total solution to run cooler. The high switching speeds and efficiency of the process used also minimize the need for large inductors and capacitors.

The [DMN3012LEG](#) integrates two N-channel enhancement mode MOSFETs, making it well suited for synchronous buck converter designs. Using a lateral diffused MOS (LDMOS) process, it combines fast turn-on and turn-off delay speeds of 5.1nS and 6.4nS for Q1, and 4.4nS and 12.4ns for Q2. The device has maximum on-resistance ( $R_{DS(ON)}$ ) figures of just 12mΩ at  $V_{GS}=5V$  for Q1 and 6mΩ at  $V_{GS}=5V$  for Q2. The DMN3012LEG can accept a 30V drain-source voltage with 10V gate-source, while supporting 5V gate drive.

The DMN3012LEG is available now priced at \$0.589 each in 1000 piece quantities.

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*PowerDI® is a registered trademark of Diodes Incorporated.*

**About Diodes Incorporated**

Diodes Incorporated (Nasdaq: DIOD), a Standard and Poor's SmallCap 600 and Russell 3000 Index company, delivers high-quality semiconductor products to the world's leading companies in the consumer electronics, computing, communications, industrial, and automotive markets. We leverage our expanded product portfolio of discrete, analog, and mixed-signal products and leading-edge packaging technology to meet customers' needs. Our broad range of application-specific solutions and solutions-focused sales, coupled with worldwide operations of 28 sites, including engineering, testing, manufacturing, and customer service, enables us to be a premier provider for high-volume, high-growth markets. For more information visit [www.Diodes.com](http://www.Diodes.com).

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