



PowerDI8080-Packaged MOSFET from Diodes Incorporated Increases Power Density in Modern Automotive Applications

Plano, Texas – May 18, 2022 – Diodes Incorporated (Diodes) (Nasdaq: DIOD) has announced the PowerDI®8080-5, an innovative high current, thermally efficient power package that meets the needs of electric vehicle (EV) applications. The first product to be released in the PowerDI®8080-5 package is the DIODES™ [DMTH4M70SPGWQ](#), a 40V automotive-compliant MOSFET that features a typical $R_{DS(ON)}$ of just 0.54mΩ at a gate drive of 10V, while its gate charge is 117nC. This industry-leading performance enables designers of automotive high-power BLDC motor drives, DC-DC converters, and charging systems to maximize system efficiency while ensuring power dissipation is kept to an absolute minimum.

The PowerDI®8080-5 package has a PCB footprint of 64mm², which is 40% less than that occupied by the TO263 (D2PAK) package format. It also has an off-board profile of 1.7mm, which is 63% lower than that of a TO263. The copper clip bonding between the die and the terminals facilitates a low junction-to-case thermal resistance of 0.36°C/W. This enables the PowerDI®8080-5 to handle currents up to 460A and deliver a power density that is eight times greater than a TO263 package.

The [DMTH4M70SPGWQ](#) is AEC-Q101 qualified, PPAP capable, and manufactured in IATF 16949 certified facilities. Its gull wing leads facilitate optical inspection (AOI), as well as improving temperature cycling reliability. This device is available at \$4.99 in 2000 piece quantities.

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 31 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.

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