



High Current Rated TOLL MOSFETs from Diodes Incorporated Target EV Applications

Plano, Texas – November 11, 2021 – Diodes Incorporated (Nasdaq: DIOD) has introduced a portfolio of automotive MOSFETs packaged in the space saving, thermally-efficient TOLL (PowerDI®1012-8) package. Capable of operating to 175°C, the 100V-rated [DMTH10H1M7STLWQ](#) and [DMTH10H2M5STLWQ](#), plus the 80V-rated [DMTH8001STLWQ](#) MOSFETs occupy 20% less PCB area than the TO263. These devices feature an off board profile of just 2.4mm. This makes them ideal for use in high reliability power applications, such as energy recuperation, integrated starter alternators, and DC-DC converters in battery-equipped vehicles.

The TOLL package uses clip bonding to achieve low package resistance and reduced parasitic package inductance enabling the [DMTH8001STLWQ](#), [DMTH10H1M7STLWQ](#), and [DMTH10H2M5STLWQ](#) to achieve typical on-resistances of 1.3mΩ, 1.4mΩ, and 1.68mΩ, respectively at a gate drive of 10V. Moreover, the low parasitic package inductance provides improvements in circuit EMI performance.

With a solder contact area that is 50% bigger than the TO263, the TOLL package enables a junction-case thermal impedance of 0.65°C/W, allowing these MOSFETs to handle currents up to 270A. Their tin-plated trapezoidal grooved leads help to facilitate automated optical inspection (AOI) procedures. These MOSFETs are qualified to AEC-Q101, PPAP capable, and are manufactured in IATF 16949 certified facilities.

For 10,000 piece quantities, the [DMTH8001STLWQ](#) unit cost is \$2.36; the [DMTH10H1M7STLWQ](#) unit cost is \$2.36; and the [DMTH10H2M5STLWQ](#) unit cost is \$2.00.

PowerDI® is a registered trademark of Diodes Incorporated in the United States and other countries.

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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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