



High-Frequency 100V-Rated Gate Driver from Diodes Incorporated Raises Power Efficiency While Saving Board Space

Plano, Texas – January 25, 2022 – Diodes Incorporated (Nasdaq: DIOD) has introduced the [DGD0579U](#) high-side and low-side gate driver. This high-frequency device, which has a built-in bootstrap diode, is capable of driving two N-channel MOSFETs in the half-bridge configurations that are commonly used for motor control and DC-DC power delivery functions. It targets high power applications, like cordless power tools, e-bikes, and autonomous robot appliances, where there are increasing demands for heightened efficiency levels plus greater compactness.

The DGD0579U's 100V floating high-side driver provides greater flexibility for demanding high-power applications. Short propagation delays (typically 60ns) and delay matching (within 10ns) enable higher switching speeds and reduced dead-time, resulting in smaller, more efficient power system implementations.

Advanced MOSFET protection mechanisms are directly integrated into the device, improving system reliability, optimizing board space usage, and further reducing component count compared to traditional discrete solutions. These mechanisms include cross conduction prevention, so that the high-side and low-side MOSFETs are not on at the same time, and under-voltage lockout (UVLO) to address potential supply losses.

Featuring an enable pin for power management and ultra-low (<1µA) standby current, the DGD0579U contributes to prolonged battery running times. Compatible with control signals from microcontrollers and PWM controller ICs, the DGD0579U supports TTL and CMOS logic level inputs (down to 3.3V).

The [DGD0579U](#) gate driver is supplied in the compact W-DFN3030-10 package, with a 3mm x 3mm footprint and a 0.75mm profile height, and is available at \$0.47 in 1000 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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