



Self-Excitation Piezo Sounder Driver from Diodes Incorporated Extends Runtime and Maintains High SPL Output Across Entire Battery Life

Plano, Texas – March 14, 2023 – Diodes Incorporated (Diodes) (Nasdaq: DIOD) is introducing a new driver IC to address the need for increased output from piezoelectric sounders. Featuring an integrated synchronous boost converter, the DIODES [PAM8906](#) enables higher sound pressure levels (SPL), allowing sound to be carried over larger distances. This driver also integrates functionality that prolongs its battery-powered operation. Key applications for the device include smoke/gas/water alarms, air humidifiers, handheld GPS devices, industrial security alarms, medical devices, and home appliances.

The PAM8906 operates with either external pulse-width modulation (PWM) input or in self-excitation mode, whereas other solutions will generally only support one or the other. This provides greater application flexibility and allows support for an increased variety of sounders.

Its boost converter, using a small 0.47 μ H inductor, switches at a fixed 1.8MHz frequency. This presents engineers with a solution that takes up significantly less board space and has a reduced bill of materials (BOM). It has a low quiescent current (<1 μ A), and an automatic shutdown/wake-up that helps extend operational lifespan in battery-powered applications.

The PAM8906 has three output voltage variants: 20V_{PP}, 24V_{PP}, and 36V_{PP}. This enables the creation of different output versions of the same system. Unlike charge pump-based alternatives, this device maintains its output even as battery voltage drops over time.

The [PAM8906](#) sounder driver from Diodes is supplied in a 10-pin MSOP package and is available at \$0.37 each in 1,000 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 automotive, industrial, computing, consumer electronics, and communications 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 32 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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