



Automotive-Compliant USB Type-C Port Protector from Diodes Incorporated Offers Overvoltage and Short Circuit Protection with Low Insertion Loss

Plano, Texas – December 10, 2020 – Diodes Incorporated (Nasdaq: DIOD) today announced the automotive-compliant, AEC-Q100 qualified, and PPAP capable [DPO2039DABQ](#) 4-channel protection solution for USB Type-C® ports. DPO2039DABQ is targeted for use in applications including automotive head units, rear seat entertainment units, and in-car charging.

There has been increasing adoption of the USB Type-C interface, particularly by automotive manufacturers keen to provide future-proof ports for smart devices and other peripherals. As a result, many design engineers are now looking for simple but effective solutions to provide in-line protection for the data lines of USB Type-C ports.

Part of Diodes Incorporated's [Discrete Dataline Protection](#) series, the DPO2039DABQ is used in line with the CC1, CC2, and D+ and D- or SBU signals of a USB Type-C port to protect the device from electrostatic discharge (ESD), faults caused by the presence of an excessive voltage or short circuit to VBUS on any of the four data lines, or an over-temperature event.

The DPO2039DABQ features low insertion loss, with an on-resistance of typically 300mΩ and equivalent capacitance of 50pF or less, meaning it has no negative impact on the bandwidth of the data lines. The DPO2039DABQ's high level of ESD protection also removes the need for external transient voltage suppressors.

The DPO2039DABQ integrates high-performance MOSFETs, gate drivers, and control logic to isolate the data lines if a fault condition is detected. The typical overvoltage fault detection response time is 100ns. Thermal shutdown is preconfigured with a threshold of +150°C and +20°C hysteresis.

The [DPO2039DABQ](#) is available now, priced at \$0.35 in 3000 piece quantities.

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USB Type-C® is a registered trademark of USB Implementers Forum.

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.

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