



300mA Output Automotive-Compliant LDOs from Diodes Incorporated with Power Good Support Off-Battery Point-of-Load

Plano, Texas – September 14, 2023 – Diodes Incorporated (Diodes) (Nasdaq: DIOD) today broadens its portfolio of automotive-compliant low dropout (LDO) voltage regulators, introducing two device series. The [AP7583AQ](#) and [AP7583Q](#) series both have 300mA maximum output current and 320mV dropout voltages. These LDOs are highly suited for battery-connected automotive applications. They are aimed at supporting the microelectronics hardware used in body control modules, in-vehicle networking transceivers, electric vehicle (EV) battery-management systems, exterior lighting infrastructure, and instrumentation clusters.

The power-good indicator output that is featured on each of the AP7583AQ series devices is an important differentiator. This enables ongoing supply monitoring. It also provides fault reporting capabilities and facilitates power sequencing.

The AP7583AQ and AP7583Q devices have fixed output voltage versions (3.3V and 5V), and adjustable output versions. They support a wide input voltage from 3V to 42V. This, in combination with their low-dropout voltage, allows these LDOs to support cold-cranking and handle load dump situations.

The ultra-low quiescent current is another key characteristic of the AP7583AQ and AP7583Q series. This is only 3 μ A at light loads—making them highly optimized for powering “always-on” components such as the microcontroller units (MCUs) and CAN transceivers in standby systems.

The AP7583AQ and AP7583Q series are AEC-Q100 Grade 1 qualified, manufactured in IATF 16949 certified facilities, and support PPAP documentation. Both LDO series are supplied in 6-pin W-DFN2020 packages. In addition, the AP7583AQ series is offered in 8-pin MSOP and 4-pin TO252 package formats. In 1,000 piece quantities, the [AP7583AQ](#) series is available at \$0.38, and the [AP7583Q](#) series is available at \$0.35.

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.

Automotive-compliant - AEC qualified, manufactured in IATF 16949 certified sites supporting PPAP documents.

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Company Contact:

Gurmeet Dhaliwal
Director, Investor Relations & Corporate Marketing
Diodes Incorporated
+1 408-232-9003

[Contact Us](#)