



Product news

Automotive-Compliant Linear Regulators from Diodes Incorporated Deliver High PSRR and Low Quiescent Current

Plano, Texas – October 9, 2019 – Diodes Incorporated (Nasdaq: DIOD) today introduced the company's first low-dropout (LDO) linear regulators compliant to AEC-Q100 Grade 1. The [AP7315Q](#) and [AP7343Q](#) deliver 150mA and 300mA respectively and are suitable for any automotive application that requires tight voltage regulation across operating conditions, such as point-of-load power supplies in advanced driver assist systems (ADAS), RF communications, infotainment systems, and cameras.

Automotive manufacturers are integrating an increasing level of ADAS into vehicles with sensors and other sensitive circuits that demand highly stable power supplies. With full production part approval process (PPAP) capability, the AP7315Q and AP7343Q linear regulators can be used in automotive applications that require product qualified to AEC-Q100 with a Grade 1 (-40°C to +125°C) temperature rating.

The AP7315Q and AP7343Q provide practical alternatives to switching regulators in highly demanding automotive applications. As well as current limiting and short-circuit protection, the LDOs feature an enable input that allows the linear regulators to be switched off when not required. While in use, the regulators have a low quiescent current of just 35µA. Both devices are also available with (AP7315DQ/43DQ) and without (AP7315Q/43Q), an output capacitor discharge feature, which is often required to protect sensitive loads during shutdown, such as CMOS image sensors.

The LDOs feature a high power-supply rejection ratio (PSRR) of 75dB at 1kHz to deliver stable output voltages for sensitive loads from an input voltage of between 1.7V to 5.25V. Output noise is just 60µVrms between 10Hz and 100kHz for a fixed-output voltage of between 1.1V to 3.3V (AP7315Q) or 0.9V to 3.6V (AP7343Q).

Both regulators are supplied in the SOT25 package.

Further information is available at www.diodes.com.

About Diodes Incorporated

Diodes Incorporated (Nasdaq: DIOD), a Standard and Poor's SmallCap 600 and Russell 3000 Index company, is a leading global manufacturer and supplier of high-quality application specific standard products within the broad discrete, logic, analog, and mixed-signal semiconductor markets. Diodes serves the consumer electronics, computing, communications, industrial, and automotive markets. Diodes' products include diodes, rectifiers, transistors, MOSFETs, protection devices, function-specific arrays, single gate logic, amplifiers and comparators, Hall-effect and temperature sensors, power management devices, including LED drivers, AC-DC converters and controllers, DC-DC switching and linear voltage regulators, and voltage references along with special function devices, such as USB power switches, load switches, voltage supervisors, and motor controllers. Diodes also has timing, connectivity, switching, and signal integrity solutions for high-speed signals. Diodes' corporate headquarters and Americas' sales office are located in Plano, Texas and Milpitas, California. Design, marketing, and engineering centers are located in Plano; Milpitas; Taipei, Taiwan; Taoyuan City, Taiwan; Zhubei City, Taiwan; Manchester, UK; and Neuhaus, Germany. Diodes' wafer fabrication facilities are located in Manchester and Greenock, UK, and Shanghai, China. Diodes has assembly and test facilities located in Shanghai, Jinan, Chengdu, and Yangzhou, China, as well as in Hong Kong, Neuhaus, and Taipei. Additional engineering, sales, warehouse, and logistics offices are located in Taipei; Hong Kong; Manchester; Shanghai; Shenzhen, China; Seongnam-si, South Korea; Munich, Germany; and Tokyo, Japan, with support offices throughout the world.

Recent news releases, annual reports and SEC filings are available at the Company's website: <http://www.diodes.com>. Written requests may be sent directly to the Company, or they may be e-mailed to: diodes-fin@diodes.com.

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Company Contact:

Diodes Incorporated
Emily Yang
VP, Worldwide Sales and Marketing
P: 972-987-3900
E: pressinquiries@diodes.com

Investor Relations Contact:

Shelton Group
Leanne K. Sievers
EVP, Investor Relations
P: 949-224-3874
E: lsievers@sheltongroup.com