



CORRECTING and REPLACING Automotive-Compliant Precision Op-Amps from Diodes Incorporated Offer Wide Dynamic Range and Low Noise Operation

CORRECTION...by Diodes Incorporated

PLANO, Texas--([BUSINESS WIRE](#))-- Second paragraph, second sentence of release dated September 30, 2022, should read: "Its low input noise density (9.5nV/ $\sqrt{\text{Hz}}$) and 0.8 μV_{pp} low frequency noise..." (instead of 7.5 nV/ $\sqrt{\text{Hz}}$ and adding the word low before frequency).

The updated release reads:

AUTOMOTIVE-COMPLIANT PRECISION OP-AMPS FROM DIODES INCORPORATED OFFER WIDE DYNAMIC RANGE AND LOW NOISE OPERATION

Diodes Incorporated (Diodes) (Nasdaq: DIOD) is addressing the need for advanced signal conditioning in modern automotive designs by introducing two precision operational amplifiers (op-amps) aimed at different signal frequency scenarios. The low signal-to-noise ratio characteristics of the DIODES™ [AS2376Q](#) mean it is optimized for high frequency usage, such as in on-board chargers (OBCs), DC-DC converters, battery management system (BMS) implementations, pumps, airbags, position sensors and occupancy detection systems. The minimal quiescent current exhibited by DIODES™ [AS2333Q](#), launched in August, make it highly suited to addressing functions that continue even when the vehicle is inactive.

A 5.5MHz bandwidth enables the AS2376Q op-amp to handle 50kHz signals without significant loss of signal accuracy. Its low input noise density (9.5nV/ $\sqrt{\text{Hz}}$) and 0.8 μV_{pp} low frequency noise, coupled with rail-rail output, result in enhanced signal integrity. With 5 μV (typical) offset voltage, the AS2376Q supports a wide dynamic range. Supply voltages from 2.2V to 5.5V are accepted, enabling greater design-in flexibility.

The AS2333Q op-amp has a quiescent current of just 12 μA on each amplifier channel that allows it to be used in systems that have to remain live at all times. Excellent common-mode rejection ratio (CMRR) across its rail-rail input range coupled with near-zero drift over time and temperature provide long-term signal accuracy in wide common-mode rail precision applications. Its 1.8V to 5.5V supply voltage enables it to operate from 3.3V and 5V automotive rails.

The [AS2376Q](#) and [AS2333Q](#) are supplied in the SO-8 package. These devices are available at unit pricings of \$0.93 and \$1.56 respectively in 1000 piece quantities. Both are qualified to AEC-Q100 Grade 1, are manufactured in IATF 16949 certified facilities, and support PPAP documentation.

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 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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