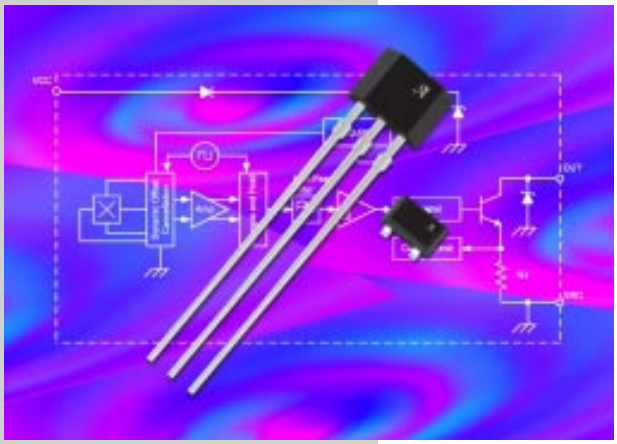

Chopper-stabilised precision Hall-effect latches in small, robust packages with reverse battery protection

A3290 and A3291

- Temperature-stable and stress-resistant Hall-effect latches in small, robust packages
- Superior high-temperature performance is made possible through dynamic offset cancellation

The new A3290 and A3291 from Allegro MicroSystems Europe are temperature-stable and stress-resistant Hall-effect latches in small, robust packages.

Superior high-temperature performance is made possible through dynamic offset cancellation, which reduces the residual offset voltage normally caused by device package over moulding, temperature dependencies, and thermal stress. The two devices are targeted at non-automotive applications and are identical except for their magnetic switch points.

Each device includes, on a single silicon chip, a voltage regulator, a Hall-voltage transducer, a small-signal amplifier, chopper stabilisation circuitry, a Schmitt trigger, and a short-circuit protected open-collector output to sink up to 25 mA.

A south polarity magnetic field of sufficient strength is required to turn the output on. A north polarity field of sufficient strength is necessary to turn the output off. An onboard regulator permits operation with supply voltages in the range of 4.2 to 24 V with an operating temperature range of -40°C to +125°C.

The combination of resistance to physical stress, temperature stability, output short-circuit protection, ability to operate from unregulated supplies, reverse battery protection and solid-state reliability mean that these devices are especially suited for replacing electromechanical switches in consumer and industrial products.

The A3290 and A3291 are available in a three-lead single in-line package (UA) and a SOT-23W surface mount package (LH).

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