600V IC Intended for 3-phase Inverterized Motor-drive Applications

International Rectifier today introduced the automotive qualified AUIRS2334S 600V IC for 3-phase inverterized motor drive applications such as high-voltage compressors (HVAC) and fans.

The AUIRS2334S features an advanced input filter to improve the input/output pulse symmetry of the signals processed by the device. Other key features include integrated fixed deadtime protection circuitry, shoot-through protection circuitry and under-voltage lockout protection on both the VCC low-side and all VBS high-side floating power supplies. The new device is also fully characterized for negative transients on the switching node (NTSOA) that may occur during normal operation and protection mode.

“With its compact package, high level of integration and comprehensive set of protection features, the AUIRS2334S offers a smaller, robust solution for 3-phase inverterized motor drive applications used in vehicles compared to alternative solutions that use three half bridge drivers,” said Davide Giacomini, Product Marketing Director, IR’s Automotive Products Business Unit.

Proprietary HVIC and latch immune CMOS technology enables ruggedized monolithic construction. Logic inputs are compatible with CMOS or LSTTL outputs, down to 3.3 V. The output drivers feature a high pulse current buffer stage designed for minimum driver cross-conduction. Propagation delays are matched to simplify

use in high frequency applications. The floating channel can be used to drive N-channel power MOSFETs or IGBTs in the high side configuration up to 600 V.

IR's automotive grade IC products are subject to dynamic and static part average testing combined with 100 percent automated wafer level visual inspection as part of IR’s automotive quality initiative targeting zero defects. The devices are qualified according to AEC-Q100 standards, feature an environmentally friendly, lead-free and RoHS compliant bill of materials.

Specifications

Part Number	**Package**	**V_{OFFSET} (V)**	**Vout**	**I_{O+} / I_{O-} (Typical)**	**T_{ON} / T_{OFF} (Typical)**
AUIRS2334S	SOIC20	600V	10-20V	+ 200mA / -350mA	530ns

Datasheets are available on the International Rectifier website at www.irf.com [1].

Availability and pricing

Pricing for AUIRS2334S begins at US $1.30 each in quantities of 10,000-units. Production quantities are available immediately. The devices are lead free and RoHS compliant.

Prices are subject to change.

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