

### PROTECTED HIGH FREQUENCY HIGH SIDE SWITCH FOR AUTOMOTIVE DC MOTOR DRIVE

#### Features

- Up to 30Khz PWM switching capability
- Charge pump for DC operation
- Active di/dt control to reduce EMI
- Load current feedback
- Short-circuit protection
- Programmable over current shutdown
- Over temperature shutdown
- Diagnostic feedback
- Under voltage shutdown
- Gnd, IN and bootstrap pin loss protection
- E.S.D protection
- Low power mode
- Lead-free, RoHS compliant

#### Description

The AUIR3330S is a 7 terminals high side switch for variable speed DC motor. It features simplify the design of the DC motor drive with a microcontroller. The Mosfet switches the power load proportionally to the input signal duty cycle at the same frequency and provides a current I<sub>fbk</sub> pin. The over-current shutdown is programmable from 5A to 50A. Over-current, over-temperature latch OFF the power switch, providing a digital diagnostic status on the input pin. In sleep mode, the device consumes typically less then 1uA. Further integrated protections such as ESD and GND disconnect protection guarantee safe operation in harsh conditions of the automotive environment.

#### Product Summary

R <sub>ds(on)</sub> @25°C	3.5mΩ max.
Max current	65A
Operating voltage	6 -18V

#### Application

- Fan engine cooling
- Air conditioning blower
- Pumps (oil, fuel, water...)
- Compressor

#### Packages

AUIR3330S  
D2Pak - 7 leads



#### Typical connection with reverse battery protection

