



Speed PROFET™ – BTF 50060-1TEA Motor Drive High Side Switch

THE BTF 50060-1TEA IS A SINGLE CHANNEL 6mΩ (max. 12mΩ @ 150°C) High Side Driver, able to be driven by PWM control signals with high frequencies, such as 25kHz, but also capable of DC operation.

The device is housed in PG-T0252-5 (DPAK 5 pin) RoHS compliant package. In combination with a freewheeling diode, the BTF50060-1TEA can be set up in a half bridge topology.

The device includes protection functions like short circuit and overtemperature shutdown. Through the IS pin, BTF 50060-1TEA provides an accurate load current measurement in normal operation and a diagnostic feedback, with a defined signal, for such events as open load – both in ON and OFF state, overcurrent and overtemperature.

The Speed PROFET™ doesn't need an external bootstrap capacitor for high frequency switching.

Applications

- Most suitable for driving motors, valves, and coils, e.g. fuel pump
- Capable of PWM switching frequency of 25kHz and above

Key Features

- PWM capability of more than 25kHz
- 6mΩ R_{ON} (max. 12mΩ @ 150°C) with high inrush current
- No external bootstrap capacitor necessary
- 3.3V and 5V compatible logic inputs
- Advanced analog load current sense signal
- Overload and overtemperature protection, with defined diagnostic signal

Key Benefits

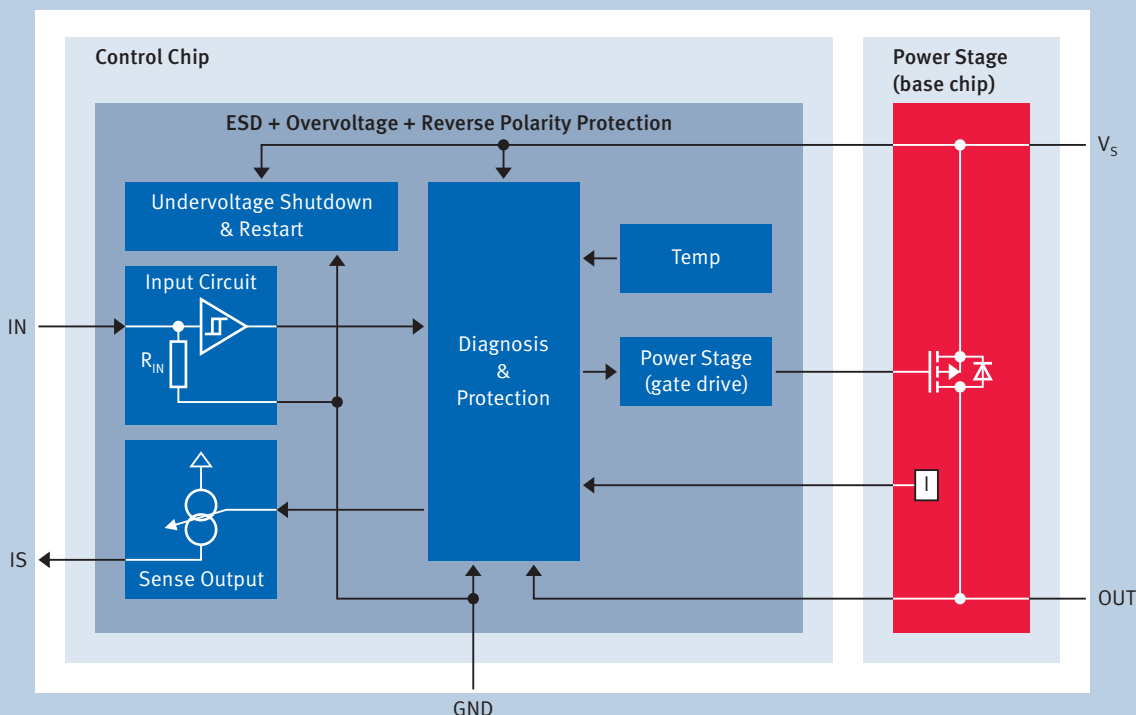
- Reduced power dissipation
- Small package for high current motor drive, less PCB space
- Reduced component count and easier PCB layout
- Direct connection to the MCU
- Easy current sense calibration



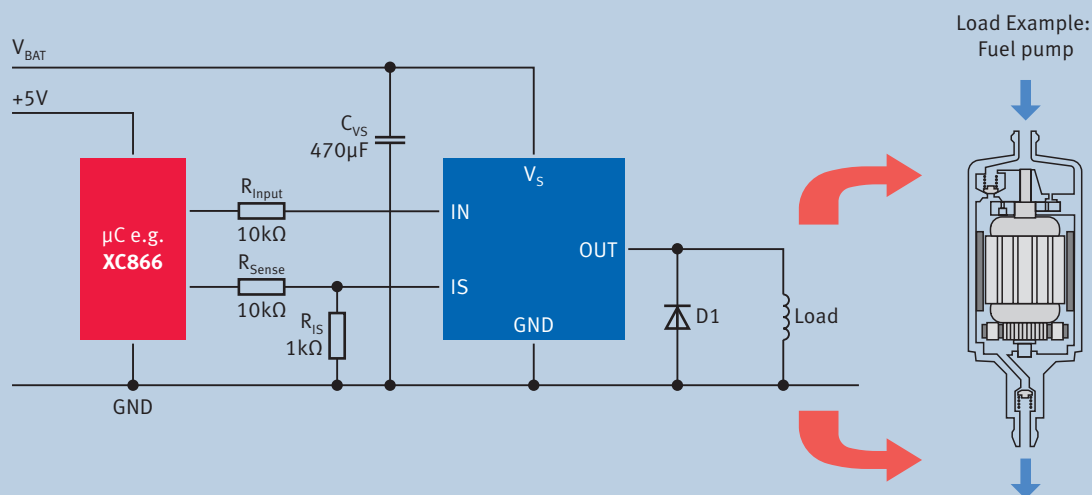
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Motor Drive High Side Switch

Block Diagram



Application Example



How to reach us:
<http://www.infineon.com>

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