



## BTS 50060-1TEA

### Smart Switches, Smart Choice

WITH THE INTRODUCTION OF BTS 50060-1TEA, Infineon broadens its already extensive portfolio of low ohmic smart switches. The BTS 50060-1TEA is a single channel 6mΩ (max. 12mΩ @ 150°C) High Side Driver, housed in TO-252-5 (DPAK 5 pin) RoHS compliant package.

An optimized edge shaping results in low switching losses and good EMC performance, for the best combination between Power and Efficiency.

The device includes protection functions like short circuit and overtemperature shutdown. Through the IS pin, the BTS 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, short to battery, overcurrent and overtemperature.

An innovative sense current concept enables a simplified end of line calibration, for improved load current sensing accuracy.

#### Applications

- Most suitable for loads with high inrush current, e.g. PTC heaters
- Relay and fuse replacement
- All types of resistive, inductive and capacitive loads

#### Key Features

- 6mΩ  $R_{ON}$  (max. 12mΩ @ 150°C) with 60A (min.) inrush current
- Optimized edge shaping during switching
- 3.3V and 5V compatible logic inputs
- Advanced analog load current sense signal
- Infineon® Intelligent Latch
- Overload and overtemperature protection, with defined diagnostic signal

#### Key Benefits

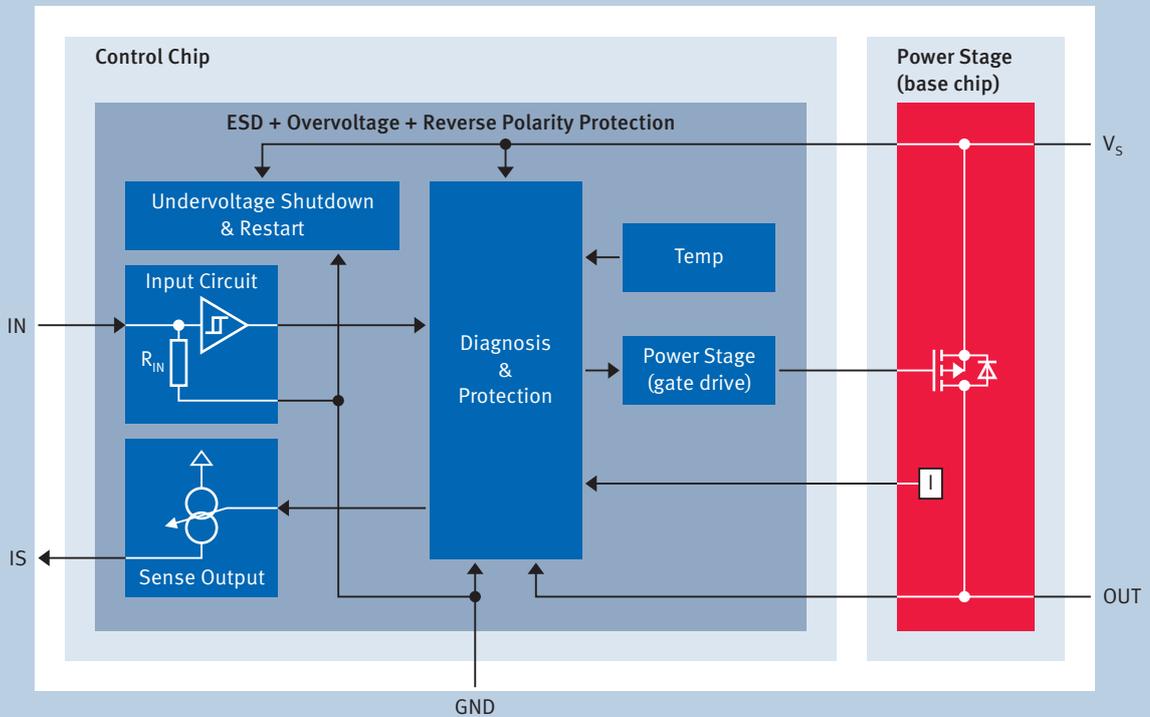
- Low switching losses
- EMC optimized performance
- Direct connection to the MCU
- Easy current sense calibration
- Latched switch-off and reporting in case of fault condition



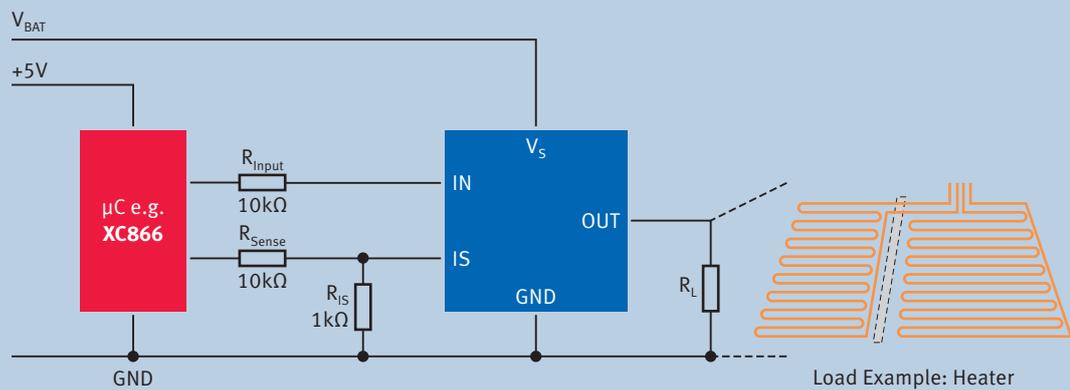
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### Block Diagram



### Application Example



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