

Automotive Electronics

Product Information

CJ260

Monolithic B6 Bridge for Automotive Actuators



BOSCH
Invented for life



At a glance:

- ▶ Complete B6 bridge for automotive BLDC applications
- ▶ Integrated drivers
- ▶ High efficiency, low weight
- ▶ Peak power for high initial torque
- ▶ Powerful continuous drive
- ▶ Lowest electromagnetic emission
- ▶ Direct μC control
- ▶ Diagnosis and recovery functions
- ▶ Dual release concept for safety

Package

- ▶ PowerSSO-36
- ▶ Pitch 0.5mm
- ▶ Body 7.5 mm x 10.3 mm
- ▶ Power Pins ESD 4kV HBM w/o ext protection

Features

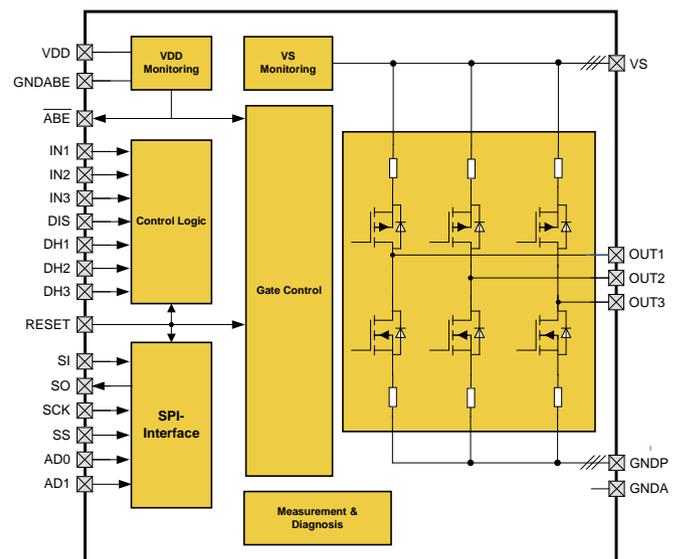
- ▶ Output stage with high side and low side drivers
- ▶ No charge pump and respective capacitor
- ▶ H-Bridge mode for DC motors
- ▶ Recovery strategies after incidents
- ▶ Slew rate control, four stages
- ▶ Output tri-state-mode in idle

Communication interface

- ▶ SPI
- ▶ Compatible with 3.3 and 5V logic μC
- ▶ Stands 18V over-voltage

Output stage protection against

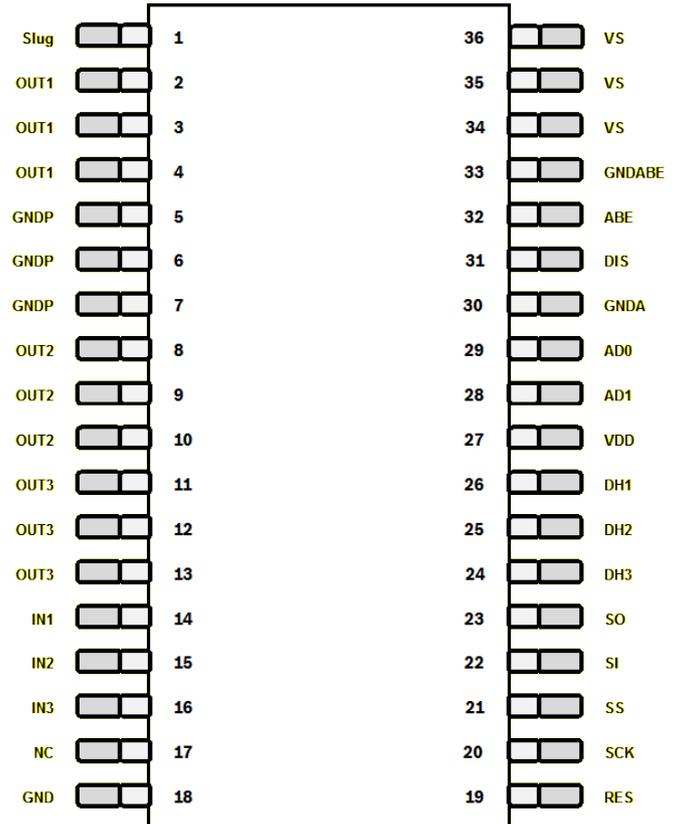
- ▶ Uncontrolled activation of half-bridges
- ▶ Excessive / low supply voltage
- ▶ Over-current, especially in load dump
- ▶ Thermal damage
- ▶ Short and open load



Key Parameters

Parameter	Value
Power stage active at	4.5 V .. 28 V
Load dump pulse robustness	40 V
Inverse current robustness on V_s	5 A
Half bridge resistance at 3A, 150°C	max. 540 mΩ
Current limit setting, 3 ranges	5A .. 8.6 A
Continuous VS load current	3 A _{rms}
Digital supply voltage	4.5 V .. 5.25 V
Junction temperature	-40 °C .. 150 °C
Output switching frequency	max.20 kHz
Output rise/fall slew rate set at 3A	typ. 1.7.. 45 V/μs

Pins on PowerSSO36 package



Potential applications

- ▶ Throttle valve
- ▶ General Purpose Actuator
- ▶ Engine Compartment Actuator
- ▶ Electric Gearbox Oil Pump
- ▶ Accelerator Pedal Module
- ▶ Window Lifter Electronic Control Unit
- ▶ Sunroof Electronic Control Unit
- ▶ Windshield Electronic Control Unit
- ▶ Auxiliary Pump
- ▶ Pump Control Electronic
- ▶ Fuel Supply Module
- ▶ Electric fuel pump tank installation unit

All document:
Target values, subject to change without notice

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