

Features

- ▶ Gate driver with 20 Ω (on) / 10 Ω (off) on resistance @150°C for 1 NMOS LS FET
- ▶ PWM frequency up to 50 kHz
- ▶ μ C interface, SPI
- ▶ IC supply voltage range 7V to 28V (peak 42V) (limited operation range down to 5V)
- ▶ Sleep mode current less than 30 μ A
- ▶ Supply generation for external μ C 3.3V or 5V with maximal load current 30mA
- ▶ μ C window watchdog (adjustable)
- ▶ Amplifier for low side motor current measurement
- ▶ Adjustable comparator for fast over current switch off
- ▶ Power FET short circuit protection
- ▶ Gate driving for reverse polarity protection circuits
- ▶ Detection and protection for over temperature
- ▶ Available interfaces LIN 1.3-2.2A or PWM
- ▶ Wake-up via LIN or PWM interface
- ▶ LIN Flash Mode with 125kbaud
- ▶ Monitoring VBAT, VG, temperature
- ▶ QFN20L4 package ¹⁾: -40°C to + 150°C junction temperature (+170°C peak)

Applications

- ▶ DC motor HVAC fans
- ▶ DC motor Cooling fans
- ▶ DC motor Fuel, Hydraulik, Oil and Water pumps
- ▶ General DC motor control

General Description

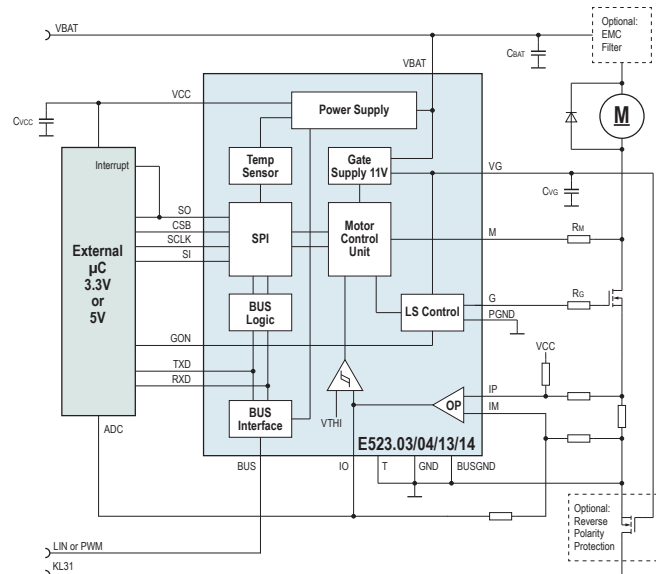
This IC controls one NMOS – FET for driving DC motors, or other loads. The IC provides a power supply (3.3V or 5V), reset and watchdog for an external μ C. The QFN package guarantees good power dissipation performance. Product versions with LIN 1.3-2.2A or PWM interface are available. For controlling the motor a current amplifier is implemented. Diagnostic functions are detecting over current (programmable threshold), over temperature, over- and undervoltage.

Ordering Information

Product ID	Interface	Regulator Voltage
E523.03	LIN 2.x or PWM	5V
E523.13	PWM	5V
E523.04	LIN 2.x or PWM	3.3V
E523.14	PWM	3.3V

¹⁾ For alternative package please contact factory.

Typical Applications Circuit



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