

Features

- ▶ Drives 1 bipolar stepper motor
- ▶ Sensorless "stall detection" for end position or blocking detection of bipolar stepper motors
- ▶ I - Coil current up to 2 x 800mA
- ▶ Programmable chopper current
- ▶ 5.5V - 30V supply voltage (load dump 42V)
- ▶ Sleep mode current typically 30µA
- ▶ 68HC05 code compatible µC 256 Byte RAM, FLASH memory for customers end-of-line-programming versions: 8k FLASH, 8k ROM
- ▶ 32 Byte EEPROM for customer parametrisation
- ▶ 3 x Hall sensor or potentiometer GPIO input for a range of standard Hall sensors
- ▶ Alternatively driving of 1 to 3 DC motors
- ▶ -40°C to +150°C peak junction temperature range

Applications

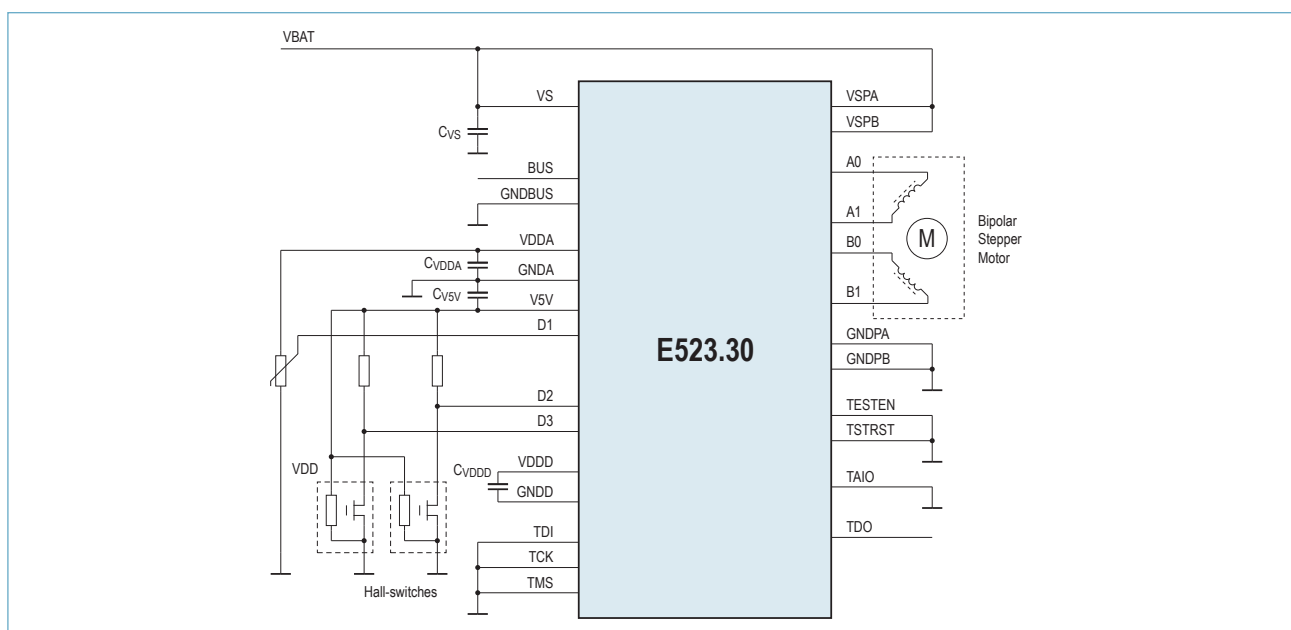
- ▶ Stepper or DC Motor Actuators
- ▶ Grill-Shutter
- ▶ Head-Light Adjust

General Description

This IC is designed to drive one bipolar stepper motor. The IC is intended to be placed inside the motor itself. The stepper motor coil currents can be controlled by the integrated µC and a current chopper principle. A sensorless end position detection is integrated which also detects error conditions like a blocked motor. For absolute precise positioning it's possible to supply and read out up to 3 hall-sensors or potentiometers. Alternatively the IC can drive up to 3 DC motors. ICs with FLASH memory can be end-of line programmed via JTAG interface. The state of the art LIN2.1 interface with auto-baud functionality makes it possible, to integrate the actuator in an existing LIN 2.1 bus system, or lower. Alternatively the IC can be ordered with a PWM-interface line. (Bidirectional for error message feedback.)

Ordering Information

ID No.	Features	Package
E523.30	LIN or PWM with 8k FLASH eol prog.	QFN32L6
E523.31	LIN or PWM with universal firmware	QFN32L6
E523.32	PWM interface 8k FLASH: eol-progr.	QFN32L6
E523.33	PWM int. with universal firmware	QFN32L6
E523.34	LIN with universal firmware ROM)	QFN32L6
E523.35	PWM interface with universal firm-ware (ROM)	QFN32L6



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ELMOS Semiconductor AG – Headquarters

Heinrich-Hertz-Str. 1 | 44227 Dortmund | Germany

Phone +49 (0) 231-75 49-100 | Fax +49 (0) 231-75 49-159

sales@elmos.de | www.elmos.de

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