

Features

- ▶ Drives one bipolar stepper motor
- ▶ Sensorless stall detection
- ▶ Programmable chopper current up to 2*190mA
- ▶ Micro-stepping capability
- ▶ Supply voltage 7V to 18V (reduced 6V to 25V,42V)
- ▶ Sleep mode current typically 30µA
- ▶ 8 bit micro-controller with 256 Byte RAM
- ▶ 8 KByte FLASH memory (FLASH version)
- ▶ 8 KByte ROM (ROM version)
- ▶ 64 Byte customer EEPROM
- ▶ Potentiometer input and digital I/O interface DI1,2;DO
- ▶ LIN2.x transceiver compatible to LIN2.2A, LIN2.1, LIN2.0, LIN1.3 and SAE-J2602-2
- ▶ LIN auto-addressing
- ▶ Junction temperature range -40°C to +150°C

Applications

- ▶ Universal bipolar stepper motor actuators
- ▶ HVAC flap actuator
- ▶ Small grill shutter
- ▶ Water valve actuator
- ▶ Multi purpose LIN slave

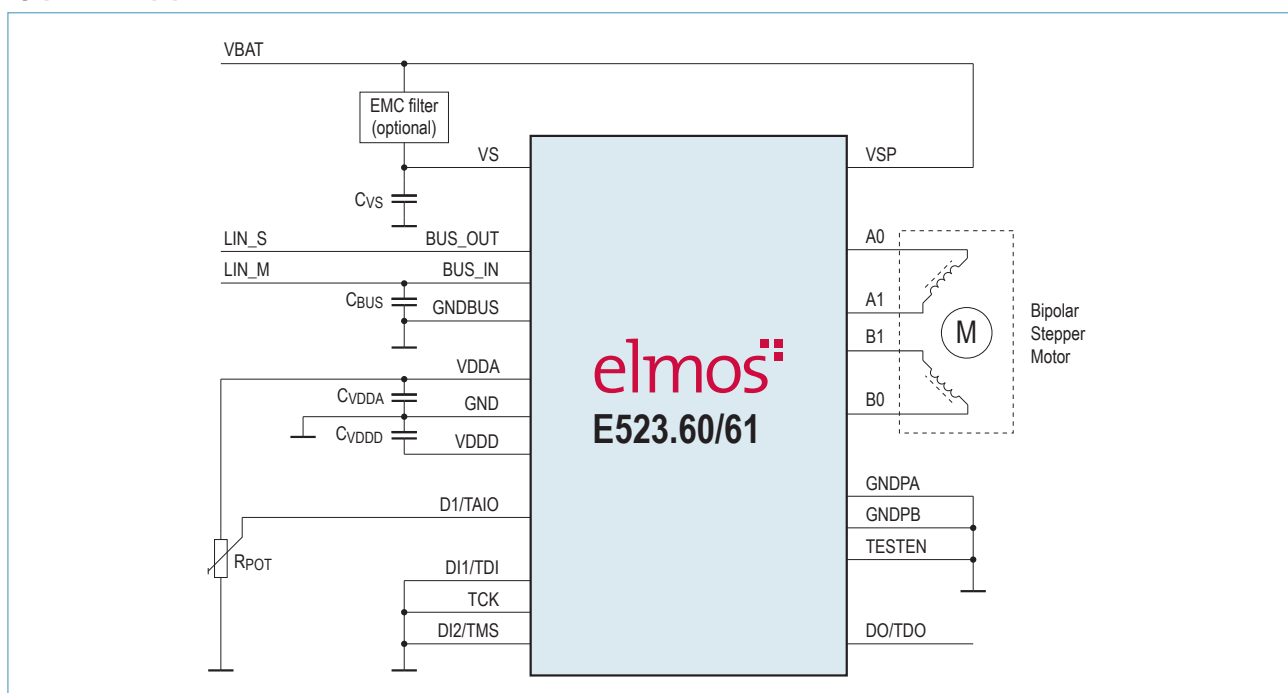
General Description

This bipolar stepper-motor actuator provides a sensorless end position detection which also is able to detect a blocked motor due to mechanical problems. This function, called “stall detection” is performing within a wide range of motors, supply voltages and ambient temperatures. The stepper motor coil currents can be controlled by the integrated micro-controller and a current chopper principle. For precise absolute positioning it is possible to supply and read out a potentiometer. The state of the art LIN 2.2Rev.A / LIN2.1 transceiver with auto-baud functionality is downwards compatible to LIN1.3. For fast customer’s end-of-line FLASH firmware programming, the FLASH-version is prepared with a JTAG interface. Alternatively a partial or complete FLASH update can be done via high-speed-LIN communication.

Ordering Information

Product ID	Features	Package
E523.60	8k FLASH	QFN32L6
E523.61	8k ROM	QFN20L5

Typical Application Circuit



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Headquarters

ELMOS Semiconductor AG
Heinrich-Hertz-Str. 1
44227 Dortmund (Germany)
Phone: +49 (0) 231 / 75 49-100
Fax: +49 (0) 231 / 75 49-149
sales-germany@elmos.com
www.elmos.com

Regional Sales and Application Support Office Munich

ELMOS Semiconductor AG
Am Gefluegelhof 12
85716 Unterschleißheim/Eching (Germany)
Phone: +49 (0) 89 / 31 83 70-0
Fax: +49 (0) 89 / 31 83 70-31
sales-germany@elmos.com

Sales and Application Support Office North America

ELMOS NA. Inc.
32255 Northwestern Highway, Suite 45
Farmington Hills, MI 48334 (United States)
Phone: +1 (0) 248 / 8 65 32 00
sales-usa@elmosna.com

Sales and Application Support Office Korea and Japan

ELMOS Korea
B-1007, U-Space 2, #670 Daewangpangyo-ro,
Sampyoung-dong, Bunddang-gu, Sungnam-si
Kyounggi-do 463-400 Korea
Phone: +82 (0)31 / 7 14 11 31
sales-korea@elmos.com

Sales and Application Support Office China

ELMOS Semiconductor Technology (Shanghai) Co., Ltd.
Unit London, 1BF GC Tower,
No. 1088 YuanShen Road,
Pudong New District,
Shanghai, PR China, 200122
Phone: +86 (0) 21 / 51 78 51 88
Fax: +86 (0) 21 / 51 78 52 05
sales-china@elmos.com

中国地区销售与应用支持

艾尔默斯半导体技术(上海)有限公司
中国上海浦东新区源深路1088号
葛洲坝大厦1B楼伦敦单元, 200122
电话: +86 (0) 21 / 51 78 51 88
传真: +86 (0) 21 / 51 78 52 05
sales-china@elmos.com

Sales and Application Support Office Singapore

ELMOS Semiconductor Singapore Pte Ltd.
60 Alexandra Terrace
#09-31 The Comtech (Singapore 118502)
Phone: +65 (0) 663 / 5 11 41
Fax: +65 (0) 663 / 5 11 40
sales-singapore@elmos.com

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