► Bus controlled steppermotor driver

system evaluation chip

E910.80

FEATURES

- Supply voltage range 9V to 16V
- Stalled recognition without additional shunts
- Two H-bridges which drive directly a stepper motor
- Drives 200mA per coil
- K-Bus controlled
- Slope controlled bus interface
- Self adjusting oscillator
- Bus concept not sensitive to disturbances
- LabView™ programm using RS232 for testapplications is available.
- –40°C to +85 °C operating temperature
- SO16w package

APPLICATION

- Automotive electronics
- Climate controllers
- Positioning and moving applications

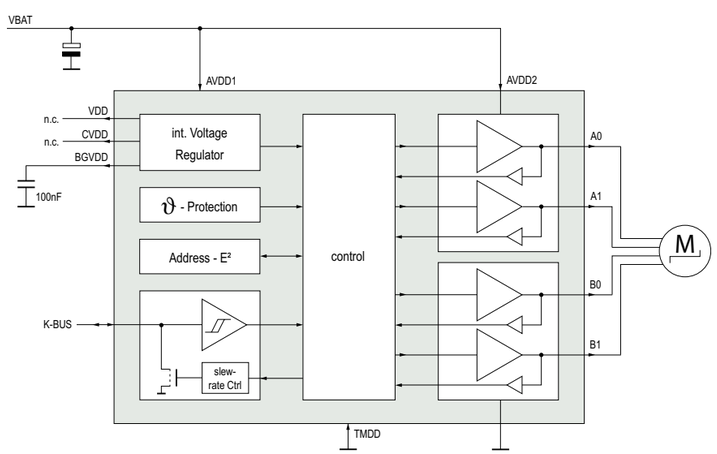
DESCRIPTION

The IC is developed for automotive applications. The stepper motor driver is optimized to drive SAIA stepper motors, but is also verified with several bipolar stepper motors in the market. A stalled detection is fully integrated and does not need a shunt resistor. With a configuration bit it is possible to decide whether to stop the movement or not in case of a stalled situation.

With the blocking recognition capability no additional end-switches are needed, system noise is reduced, initialization is faster and mechanical problems do not lead to problems in the motor.
When up to 32 ASICs can be used on one bus; whereby the 5 bit address of each chip is stored in EEPROM cells. The chip can program itself when triggered with the suitable command.

The IC allows to give movement tasks with up to 4096 steps in each direction. There is a one task stack which allows you to change speed settings smoothly.

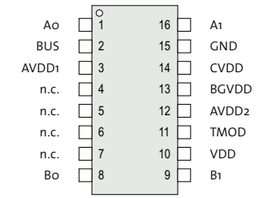
BLOCK DIAGRAM



PINNING

Pin	Name	Description
1	A0	Motor driver coil A side 0
2	BUS	Bidirectional bus-line
3	AVDD1	Supply voltage
4	NC	Not connected
5	NC	Not connected
6	NC	Not connected
7	NC	Not connected
8	B0	Motor driver coil B side 0
9	B1	Motor driver coil B side 1
10	VDD	Internal digital supply
11	TMOD	Testpin (connect to GND)
12	AVDD2	Supply voltage, to be externally connected to pin 3
13	BGVDD	Internal preregulator may be connected to an ext. capacitor
14	CVDD	Internal analog supply (no exterenal connections needed)
15	GND	Ground
16	A1	Motor driver coil A side 1

PACKAGE



AVAILABILITY

Samples	available
Series	tbd.

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