| BUS IC | DC/DC CONVERTER | MOTOR DRIVER IC | RIPPLE COUNTER | DRIVER IC | I/O IC | SENSOR IC | SENSOR INTERFACE IC |

DRIVER IC

▶ Low side driver 8x, serial
Low side driver 8x, parallel
LCD controller

▶ Low side driver (8 channel, serial interface) E910.01

FEATURES

- ▶ Supply voltage range VDD 4.5V to 5.5V
- ▶ Low standby current (typical < 1µA)
- ▶ Serial structure for direct µC interfacing
- ▶ Cascadable
- ▶ Output status detection
- ▶ TTL - compatible input levels with threshold hysteresis
- ▶ 8 high current outputs
  (R_{ON} typ. 1.5 Ω / I_{max}=350mA)
- ▶ Wide output operating voltage range (5.5 to 25.5V)
- ▶ Output open- and short - circuit detection
- ▶ Individual output short - circuit protection
- ▶ Thermal overload protection
- ▶ −40°C to +125°C operating temperature
- ▶ SO20w package

APPLICATION

Driver for:
- ▶ Relays
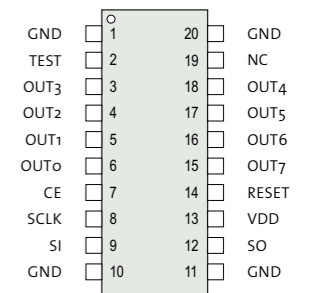- ▶ Lamps / LEDs
- ▶ DC and stepper motors

DESCRIPTION

The IC is developed for automotive applications and can also be used in several other application areas. The IC is well suited to drive relays, lamps, bus systems etc. with medium power consumption.

The device provides a serial data bus for comunication with a µC and 8 identical power drivers. All outputs are short circuit protected. A thermal shut-off protects the device against thermal overload. Readback capability enables fault detection as well as simple switch monitoring.
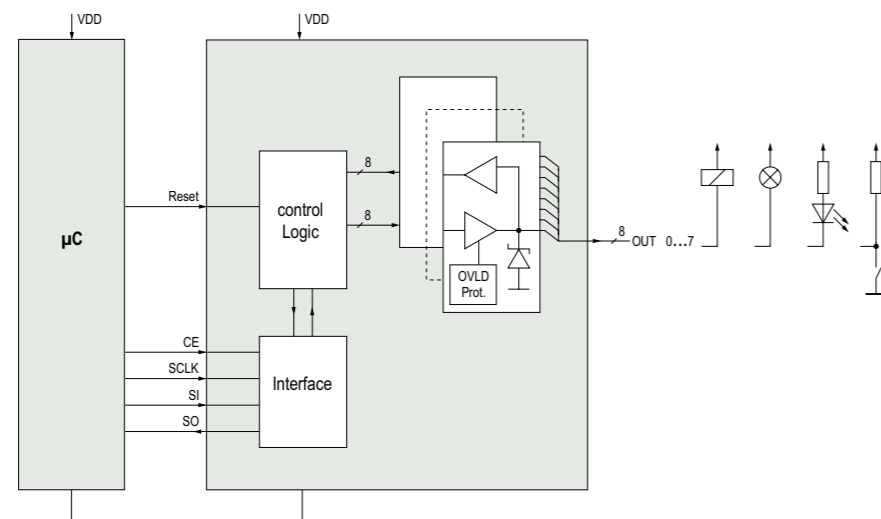
PINNING

Pin	Name	Description
1	GND	Ground
2	TEST	Connect to ground
3	OUT3	Open - drain low - side driver
4	OUT2	Open - drain low - side driver
5	OUT1	Open - drain low - side driver
6	OUT0	Open - drain low - side driver
7	CE	Open - drain low - side driver
8	SCLK	Chip enable - active low (output data is read back on the falling edge of the pulse and only after 8x n falling edges on SCLK is the output data clocked on the next rising edge)
9	SI	Serial clock input
10	GND	Serial data input
11	GND	Ground
12	SO	Ground
13	VDD	Serial data output (high impendence when CE = High)
14	RESET	Supply voltage
15	OUT7	External reset - active low (= internal power on reset)
16	OUT6	Open - drain low - side driver
17	OUT5	Open - drain low - side driver
18	OUT4	Open - drain low - side driver
19	NC	Not connected
20	GND	Ground

PACKAGE

GND	1	20	GND
TEST	2	19	NC
OUT3	3	18	OUT4
OUT2	4	17	OUT5
OUT1	5	16	OUT6
OUT0	6	15	OUT7
CE	7	14	RESET
SCLK	8	13	VDD
SI	9	12	SO
GND	10	11	GND

BLOCK DIAGRAM