► Contact monitor to GND or VBAT (16 channel, serial interface)

E910.52

FEATURES

- Supply range VDD 3.8V to 6V
- Supply range VS 5.5V to 18V
- Maximum over voltage protection up to 45V
- Low standby current (typical < 100µA)
- Parallel to serial interface
- High noise immunity
- Contact status monitoring by comparison to internal reference
- Interrupt request generated on debounced pin change
- Filtering of all inputs
- – 40°C to + 105°C operating temperature
- SO28w package

APPLICATION

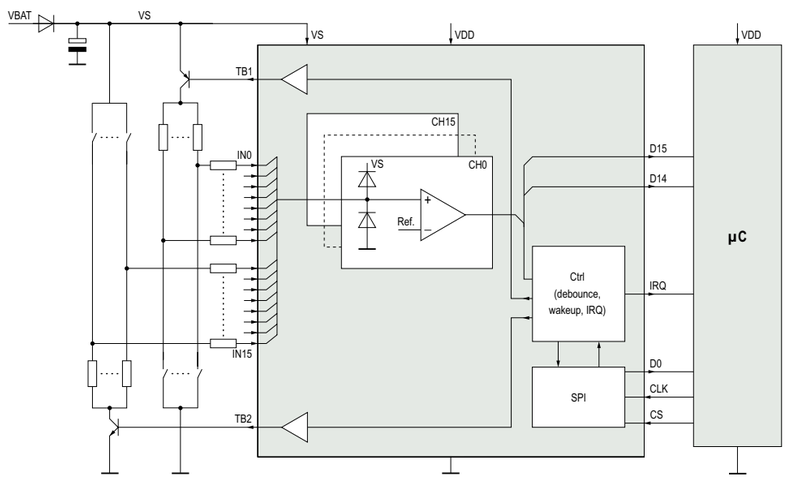
- Automotive electronics
- Monitor for mechanical switches
- Monitor for voltage levels

DESCRIPTION

The IC is intended to reduce the costs of products with a large number of inputs and also to reduce software overhead by generating an interrupt on pin change. To decrease the system power dissipation the external driver transistors are only active for 20µs of a 7ms frame corresponding to 140 Hz polling frequency.

All inputs compare with the internal reference, will be debounced and can be monitored by the SPI. Additionally the inputs IN15 and IN14 are available on their outputs D15 and D14 directly without debouncing.

BLOCK DIAGRAM



PINNING

Pin	Name	Description
1	DATA0	Tristate output – serial transmission of the inputs IN0-15 in normal mode
2	DATA1	Logic level output of the input IN14
3	DATA2	Logic level output of the input IN15
4-11	IN0-7	Input 0-7
12	GND	Ground
13	TEST	Test, connect to ground
14	VS	Analog supply voltage
15	TB1	Control signal of the external PNP transistor (T1)
16	TB2	Control signal of the external NPN transistor (T2)
17	IRQ	Informs the µC about a change of the input state (open drain)
18-25	IN15-8	Input 15-8
26	CS	Modus signal CS=0 : “stand-by” mode, CS=1: normal mode
27	CK	Clock used for the parallel load and serial transmission of the inputs
28	VDD	Logic supply voltage

PACKAGE