

OH1881

Hall effect Latching IC

Order Information

PN	OH1881	Operate temperature	-40~125℃	Package	1000pcs/bag
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General Description: OH1881 Hall effect Latching Switch IC are composed of a reverse protector, voltage regulator, Hall voltage generator, differential amplifier, Schmitt trigger and an open-collector output on a single silicon chip. ICs can convert the changeable magnetic field signal into digital voltage output.



Features

- High reliability
- anti-environmental stress
- Reverse Polarity Protection
- Interfacing with All Kinds of Logic Circuits

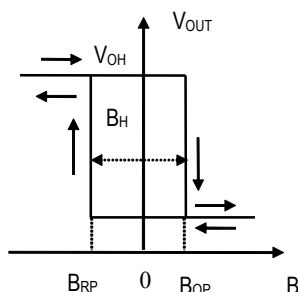
Applications

- Non-contact switch
- Speed measurement
- Position detection
- Brushless DC motor

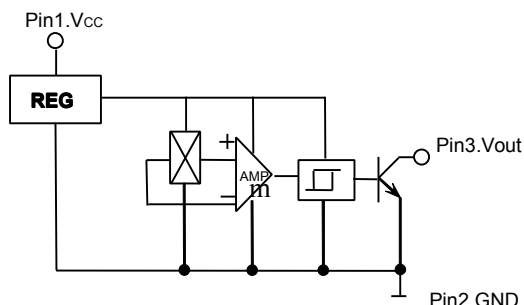
Absolute Maximum Ratings (T_A=25℃)

Supply Voltage V _{CC}	4.5-24V	Operating Temperature Range T _A	-40~125℃
Output Current I _O	25mA	Storage Temperature Range T _S	-55~150℃

Magnetic-electrical Transfer Characteristics



Functional Block Diagram:



Electrical Characteristics (T_a= 25℃)

Parameter	Symbol	Conditions	Value			Unit
			Min	Typ	Max	
Supply Voltage	V _{CC}		4.5	-	24	V
Output Saturation Voltage	V _{OL}	V _{CC} =4.5V, R _L =960Ω, B≥B _{OP}	-	200	400	mV
Output Leakage Current	I _{OH}	V _O =V _{CCmax} , B≤B _{RP}	-	1	10	μA
Supply Current	I _{CC}	V _{CC} =V _{CCMAX} OC OUTPUT	-	6	-	mA
Output Rise Time	t _r	V _{CC} =12V, R _L =820Ω, C _L =20pF	-	0.3	1.5	μS
Output Falling Time	t _f		-	0.3	1.5	μS

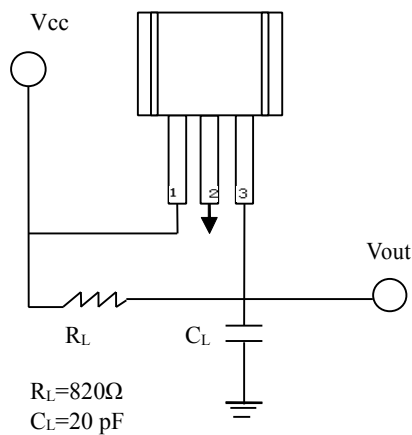
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Magnetic Characteristics (Ta= 25°C) (1mT = 10 Gauss)

Parameter	symbol	Value			Unit
		Min	Typ	Max	
Operate Point	B _{OP}	1	-	6	mT
Release Point	B _{RP}	-6	-	-1	mT
Hysteresis	B _H	-	7	-	mT

Test Circuit for Reference:



Pin Descriptions: 1.Vcc 2. GND 3.Vout

Caution:

- 1)when installing, please minimize mechanical stress on the IC shell and leads.
- 2)Welding temperature should be lower than 260 °C, less than 3 seconds.
- 3)IC is OC output, so a pull-up resistor connected pin 1 (power) and pin 3 (output) is necessary.

Dimension (unit:mm)

