OH1881

Hall effect Latching IC

Order Information

PN	OH1881	Operate temperature	-40～125℃	Package	1000pcs/bag

General Description: OH1881Hall 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

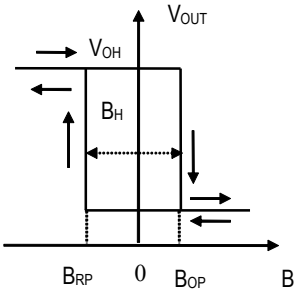
- Non-contact switch
- Speed measurement
- Position detection
- Brushless DC motor

Absolute Maximum Ratings （T_A=25℃）

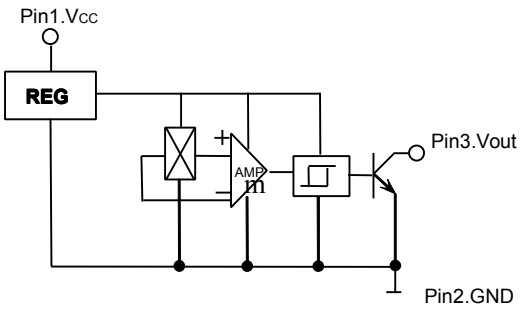
Supply VoltageV_{CC}.....4.5-24V　　Operating Temperature Range T_A .....-40～125℃

Output Current I_O.....25mA　　Storage Temperature RangeT_S .....-55～150℃

Magnetic-electrical Transfer Characteristics



Functional Block Diagram:



Electrical Characteristics (Ta= 25°C)

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}	Vo=Vccmax , B≤B_{RP}	-	1	10	μA
Supply Current	I_{CC}	V_{CC}=V_{CCMAX} OC OUTPUT	-	6	-	mA
Output Rise Time	t_r	Vcc=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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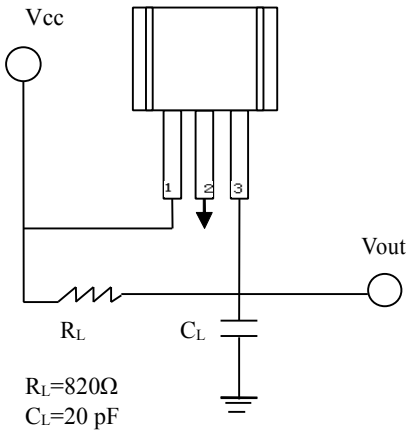
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Magnetic Characteristics (Ta= 25°C) (1mT = 10 Gauss)

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

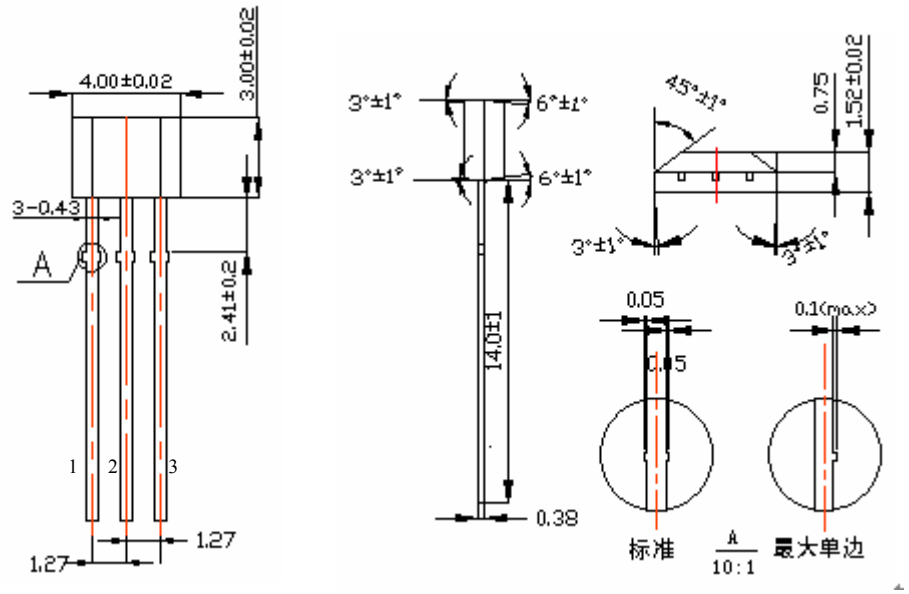
Caution:

1)when installing, please minimize mechanical stress on the IC shell and leads.

2)Welding temperature should be lower than 260 ℃, 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)



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