

OH3172X OH1881 Hall effect Latch IC

1. General Description

OH3172X, OH1881 Hall-effect Latching Switch IC is composed of a reverse protector, voltage regulator, Hall voltage generator, differential amplifier, Schmitt trigger, and an open-collector output on a single silicon chip. It can convert the changeable magnetic field signal into a digital voltage output.

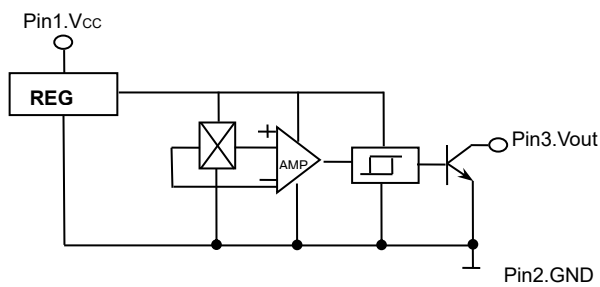
2. Features

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

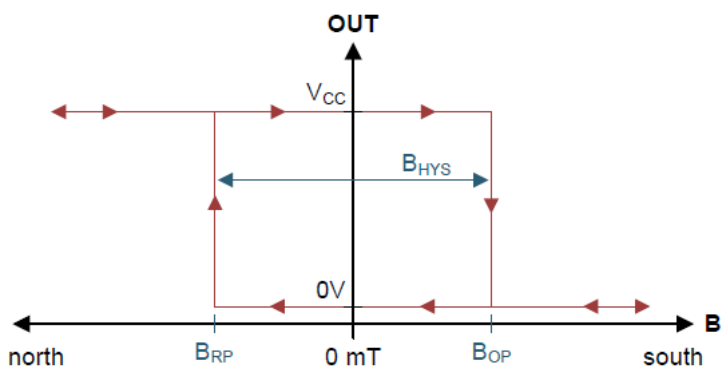
3. Applications

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

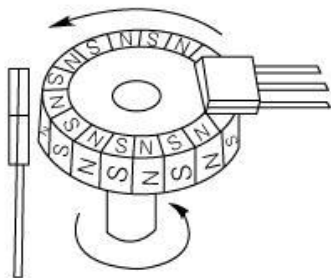
4. Functional Block Diagram



5. Magnetic-electrical Transfer Characteristics



6. Typical Working Mode



7. Order information

Part number	Package type	Quantity/Package
OH3172X	TO-92S	1000 PCS/ Reel
OH1881	TO-92S	1000 PCS/ Reel



8. Absolute Maximum Ratings (TA=25°C)

Parameter	Symbol	Value	Unit
Supply Voltage	V _{CC}	4.5 to 24	V
Output current	I _{out}	25	mA
Operating temperature range	T _A	-40 to 125	°C
Storage temperature range	T _{stg}	-55 to 150	°C

9. 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}	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

10. 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

Nanjing Ouzhuo Technology Co., Ltd

Tel: 025-52312738, 83247886

Fax: 025-52312738

Website: www.zbling.com

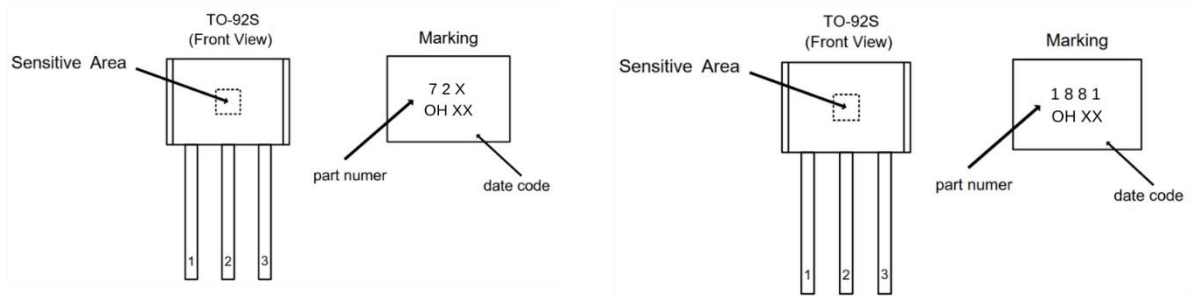
E-mail: ouzhuo@zbling.com

www.ohhallsensor.com

sale@ohhallsensor.com



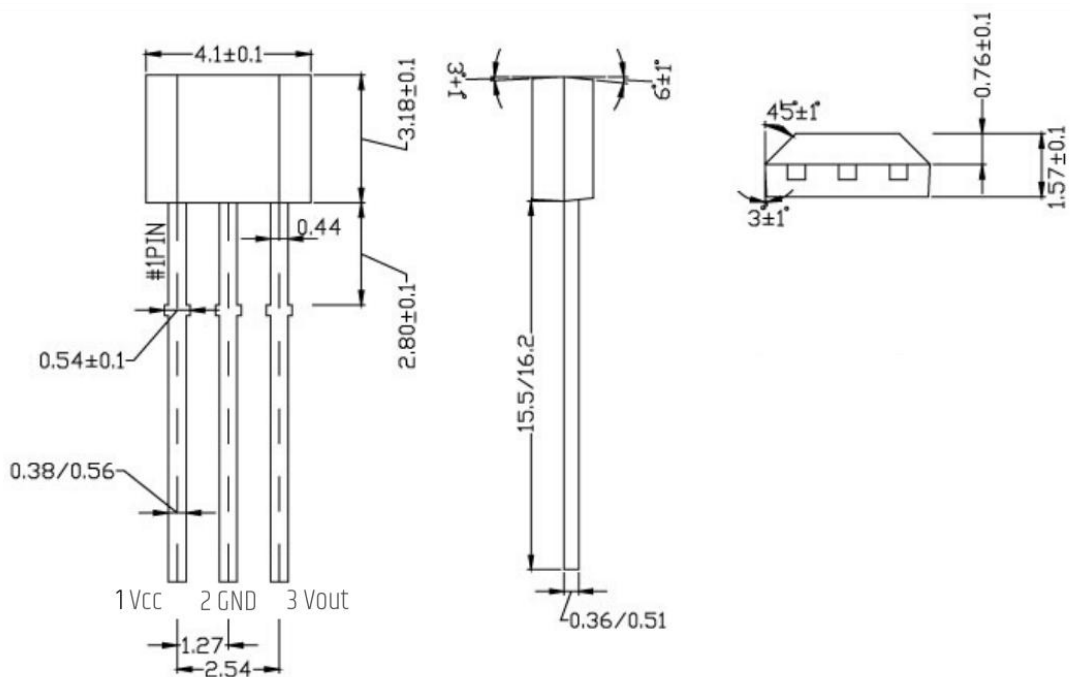
11. Pin configuration



Pin Name	PIN	Function description
Vcc	1	Supply Voltage
GND	2	Ground
Vout	3	Output

12. Dimension (Unit: mm)

TO-92S



Nanjing Ouzhuo Technology Co., Ltd

Tel: 025-52312738, 83247886

Fax: 025-52312738

Website: www.zbling.com

E-mail: ouzhuo@zbling.com

www.ohhallsensor.com

sale@ohhallsensor.com



For more information:

Ouzhuo Technology service you through a worldwide network of sales offices and distributors. For application assistance, current specifications, pricing, or the nearest Authorized Distributor, you could reach us the way you are convenient, thank you for your support!

www.ohhallsensor.com

sale@ohhallsensor.com

China headquarters: 86-25-52312738

Canada Office: 1-514-995-5788

NOTICE:

The information presented in this datasheet is for reference only. Specifications may change without notice.

