

OH44E

Unipolar Hall Effect Switch IC

Order Information

PN	OH44E	Operate temperature	-40~150℃	Package	1000pcs/bag
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General Description: OH44E is a switched Hall-Effect IC which is for contactless switching applications. The device includes an on-chip Hall voltage generator for magnetic sensing, an amplifier that amplifies the Hall voltage, a schmitt trigger to provide switching hysteresis for noise rejection, and an open-collector output.



Features

- High reliability
- good temperature performance
- anti-environmental stress
- Reverse Polarity Protection

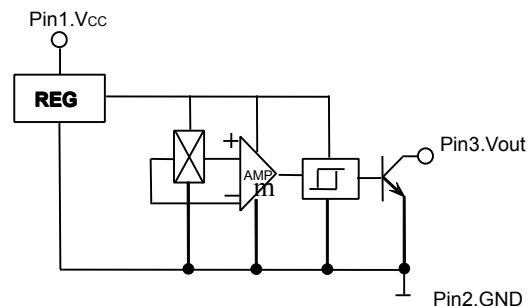
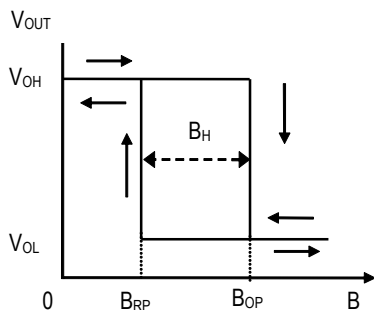
Applications

- Speed measurement
- Home appliances
- Position detection
- Flow measurement

Absolute Maximum Ratings (T_A=25℃)

Supply Voltage V_{CC}.....4-30V Operating Temperature Range T_A-40 ~ 150℃
 Output Current I_O.....50mA Storage Temperature Range T_S-65~150℃

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	-	30	V
Output Saturation Voltage	V _{OL}	V _{CC} =4.5V, I _{out} =20mA, B≥B _{OP}	-	200	400	mV
Output Leakage Current	I _{OH}	V _{out} =24V, B≤B _{RP}	-	1.0	10	μA
Supply Current	I _{CC}	V _{CC} =V _{CCmax} OC output	-	5	-	mA
Output Rise Time	t _r	V _{CC} =12V, R _L =820Ω, C _L =20pF	-	0.2	2.0	μS
Output Falling Time	t _f		-	0.18	2.0	μS

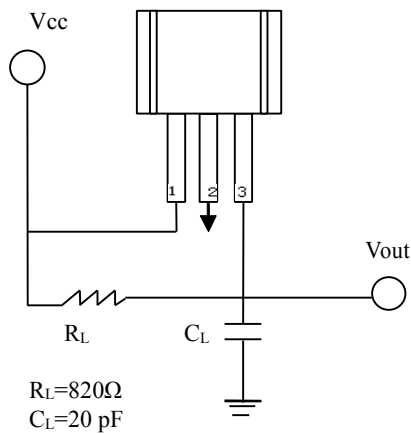
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Magnetic Characteristics (Ta= 25°C) (1mT = 10 Gauss)

Parameter	symbol	Value			Unit
		Min	Typ	Max	
Operate Point	B _{OP}	-	-	20	mT
Release Point	B _{RP}	3	-	-	mT
Hysteresis	B _H	-	6	-	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)

