

# OH543

## Unipolar Hall Effect IC In SMD Package

### Order Information

PN	OH543	Operate temperature	-40~150℃	Package	1000pcs/reel
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**General Description:** OH543 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

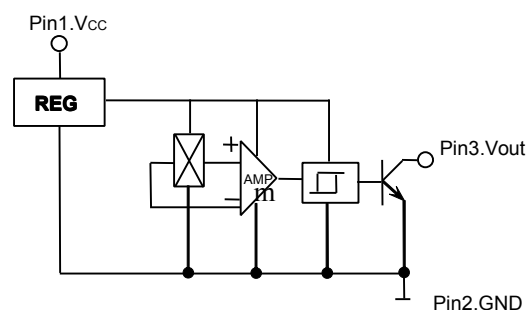
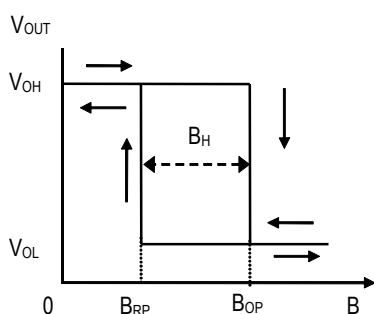
### Applications

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

### Absolute Maximum Ratings (T<sub>A</sub>=25℃)

Supply Voltage V <sub>CC</sub> .....	4-30V	Operating Temperature Range T <sub>A</sub> .....	-40 ~ 150℃
Output Current I <sub>O</sub> .....	50mA	Storage Temperature Range T <sub>S</sub> .....	-65~150℃

### Magnetic-electrical Transfer Characteristics Functional Block Diagram:



### Electrical Characteristics (T<sub>a</sub>= 25℃)

Parameter	Symbol	Conditions	Value			Unit
			Min	Typ	Max	
Supply Voltage	V <sub>CC</sub>		4	-	30	V
Output Saturation Voltage	V <sub>OL</sub>	V <sub>CC</sub> =4.5V, I <sub>out</sub> =20mA, B≥B <sub>OP</sub>	-	0.2	0.4	V
Output Leakage Current	I <sub>OH</sub>	V <sub>out</sub> =24V, B≤B <sub>RP</sub>	-	0.1	10	μA
Supply Current	I <sub>CC</sub>	V <sub>CC</sub> =V <sub>CCmax</sub> OC output	-	5	-	mA
Output Rise Time	t <sub>r</sub>	V <sub>CC</sub> =12V, R <sub>L</sub> =820Ω, C <sub>L</sub> =20pF	-	0.2	2.0	μS
Output Falling Time	t <sub>f</sub>		-	0.18	2.0	μS

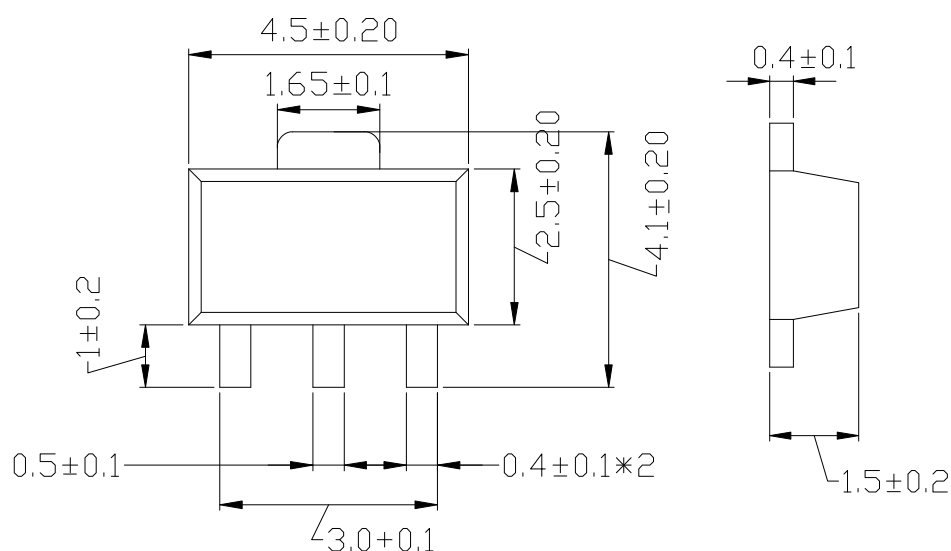
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### Magnetic Characteristics (V<sub>cc</sub>=4-30V ) (1mT = 10 GS)

Parameter	symbol	Value			Unit
		Min	Typ	Max	
Operate Point	B <sub>OP</sub>	-	-	20	mT
Release Point	B <sub>RP</sub>	2	-	-	mT
Hysteresis	B <sub>H</sub>	3	-	6	mT

### Dimension (unit:mm)



### Pin Descriptions: 1.V<sub>cc</sub> 2. GND 3.V<sub>out</sub>

#### 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.