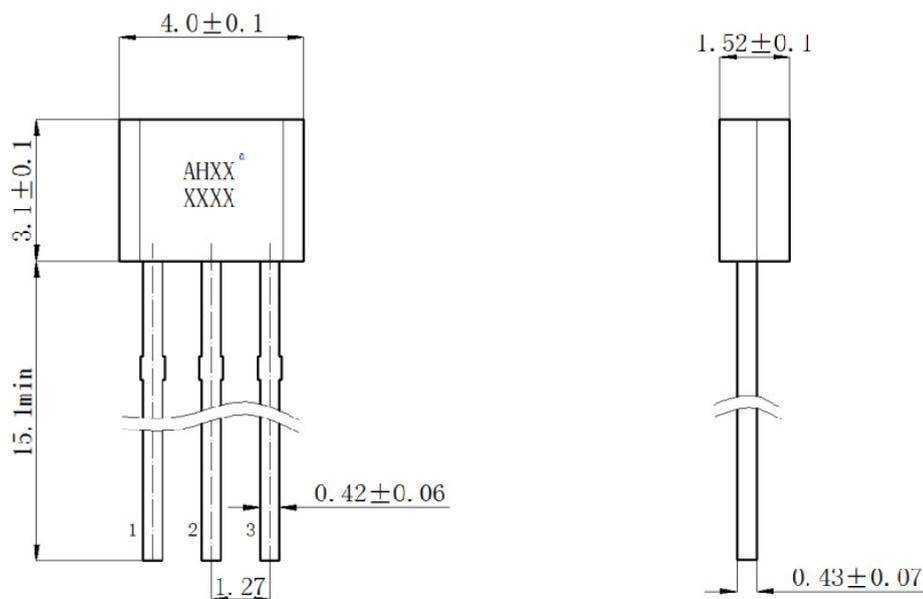
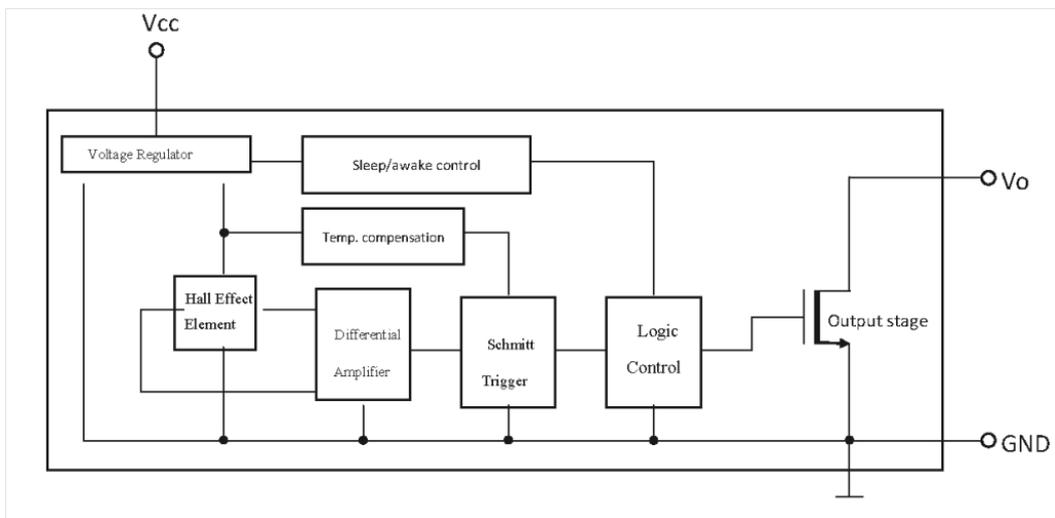
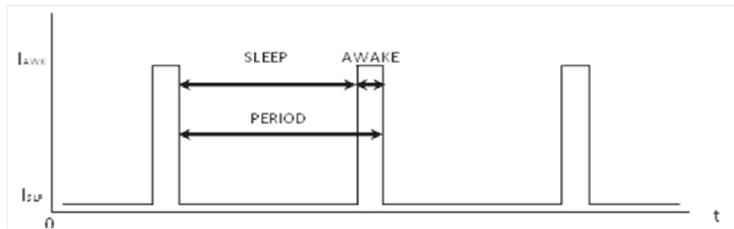
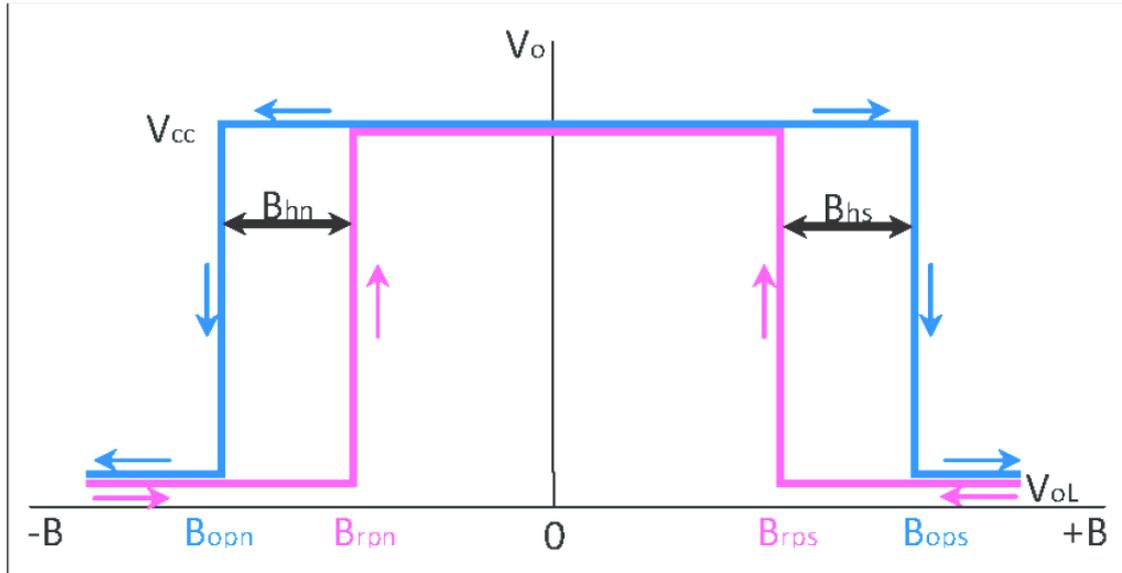


Micro power hall effect IC



- Rated working voltage 2.4V ~ 5.5V,
- Work under Omnipolar, the excitation field regardless of N or S pole, high magnetic sensitivity, highly symmetric of positive and negative magnetic switching points;
- Built-in dynamic offset voltage compensation circuit, high temperature stability, small drift switching point, resistance to mechanical stress and thermal stress;
- Ultra small power consumption, it's only $8\mu\text{W}$ when the power supply is 2.75V ;
- Immune to ESD which is greater than 5kV (body static mode, Human-Body Model, HBM);
- Products meet the EU RoHS instruction 2011/65 / EU and REACH regulations 1907/2006 / EU requirements.

Magnetic and Electric Transfer Characteristic



Datasheet

Item no. 1569221

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Limit Condition

Parameter	Symbol	Limit Value		Unit
		Min.	Max.	
Storage temp.	T_s	-55	150	°C
Supply voltage	V_{CC}	2.4	7	V
Admitting power loss	p_d	—	300 ^a	mW
Magnetic strength	B	Unlimited	Unlimited	mT
Output current	I_o	—	5	mA

^a On the glass fiber epoxy resin that is 50 mm x50 mm x1.6 mm

Operating Condition

Parameter	Symbol	Value		Unit
		Min.	Max.	
Supply voltage	V_{CC}	2.4	5.4	V
Operating Temp.	T_a	-40	85	°C
Output current	I_o	—	5	mA

Electrical Characteristic

Parameter	Symbol	Test condition	Value		Unit		
			Typ.	Max.			
output low level voltage	V_{OL}	$V_{CC1} = V_{CC2} = 2.75V, I_o = 1mA, B \geq B_{OP}$	0.1	0.25	V		
Supply current	Awake	I_{AWK}	Awake, $V_{CC1} = 2.75V, V_o$ Open circuit		3	5	mA
	Sleeping	I_{SLP}	Sleeping, $V_{CC1} = 2.75V, V_o$ Open circuit		2	4	µA
	Average	I_{AVG}	$V_{CC1} = 2.75V, V_o$ Open circuit		2.75	5.25	µA
Awake time	t_{AWV}	$V_{CC1} = 4V, R_L = 200\Omega, V_o$ Open circuit	45	90	µs		
Cycle	t_p		90	180	ms		
Duty factor	f_d		0.05	—	%		

Datasheet

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Magnetic Characteristic

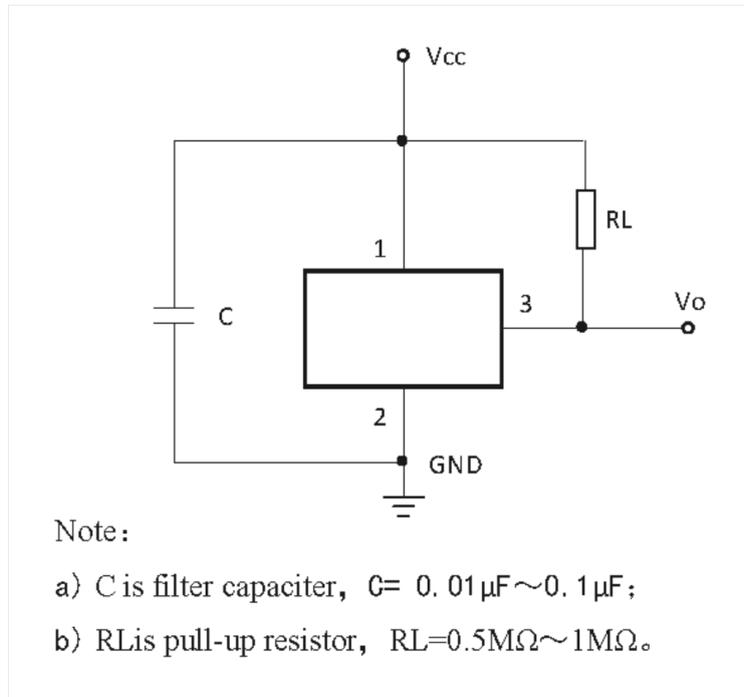
Parameter	Symbol		Test condition	Value		
				Min.	Typ.	Max.
Operating point	S pole faces the product mark	B_{OPS}	$V_{CC1} = V_{CC2} = 2.75V$ $I_O = 1 mA$	—	3.5	7
Magnetic strength	N pole faces the product mark	B_{OPN}		-7	-3.5	—
Release Point magnetic strength	S pole faces the product mark	B_{RPS}		1	2.5	—
	N pole faces the product mark	B_{RPN}		—	-2.5	-1
Hysteresis	$ B_{OPX} - B_{RPX} $			B_{HX}	—	1

Note1: Unit is mT, 1mT (mT) = 10 (Gs)
 Note2: Pole S is vertical to the mark surface of the product, the field defined into $B > 0$.
 Note3: The operating field of M type (SOT23-3L) is subject to pole "N".

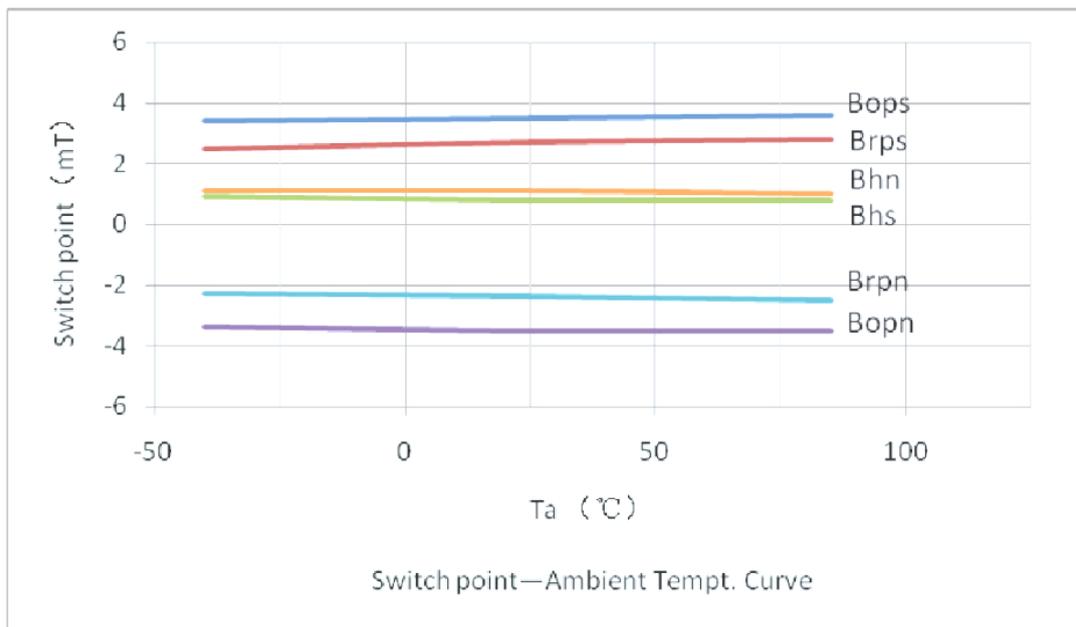
Pin Function

Pin No.	Pin Symbol	Pin Name	Function	
			When $ B \geq B_{op} $	When $ B \leq B_{rp} $
1	Vcc	Power supply	Power Supply (+)	
2	GND	Ground	Power Supply (-)	
3	Vo	Output	Low Level	High Level

Typical application Circuit



● Magnetic Characteristic



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Electrical characteristic

