

WS331 Latch-type Hall-Effect IC

General description

WS331 is an InSb sensor + Si ASIC hybrid Latch-type Hall IC with ultra high sensitivity and low temperature drift in wide operating voltage range.

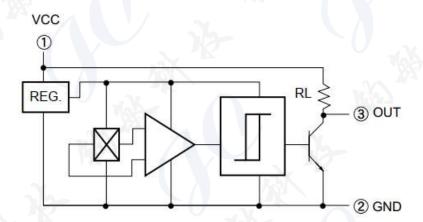
Features

- -Ultra high sensitivity with typically Bop 15Gs
- -Low temperature drift of operating points in the temp. range of -25°C ~ 120°C
- -Wide operating voltage range of 2.5V ~ 30V
- -Built-in Pull-up Resistor

Applications

- -Flow-rate sensing
- -Position sensing of rotor in BLDC motor
- -Angle and Speed sensing
- -Stroke sensing

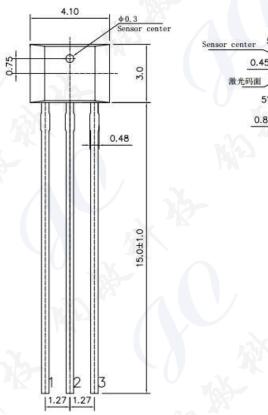
Functional Block Diagram

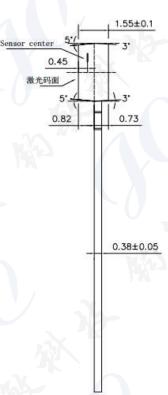


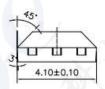
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Dimensional Drawing and Pin Configuration (Unit MM)







引脚编号 (Pinning)	引脚名称 (Pining Define)
1	VCC
2	GND
3	OUT

Absolute Maximum Ratings

Parameter	Symbol	Limit	Unit	
Power Supply Voltage	VCC	-0.3~30	V	
Operating Temperature	Topr	-30~120	°C	
Storage Temperature	Tstg	-40~150	°C	

Note : Stresses beyond the limits listed in "Absolute Maximum Ratings" may cause permanent damage to the device.

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Recommended Operating Conditions

Parameter	Symbol	Min	Max	Unit
Power Supply Voltage	VCC	2.5	24	V
Operation Temperature	Topr	-25	110	°C

Electrical Characteristics

VCC=12V, Topr =25°C, unless otherwise specified.

VCC=12V, 10pl =25	o, amood our	or wise openined.		1		/
Parameter	Symbol	Conditions	Min	Туре	Max	Unit
Power Supply Voltage	VCC	Operating	2.5	12	24	V
Supply Current	ICC	VCC=12V,Output=High	-	4	8	mA
Output Leakage Current	I _{LEAKAGE}		-	0.1	10	μΑ
Output Saturation	V _{SAT}	VCC=12V,Output=Low	X		0.4	V
Built-in Pull-Up	RL		7		13	ΚΩ

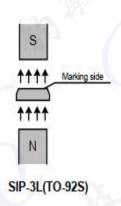
Magnetic Characteristics

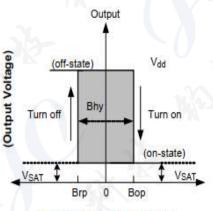
VCC=12V, Topr =25°C, unless otherwise specified.

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Parameter	Symbol	Min	Туре	Max	Unit
Operating Point	ВОР	10	-	40	Gs
Releasing Point	BRP	-40	33-	-10	Gs
Hysteresis	BHYS	20	-	-	Gs



Latch-Type Output Characteristics

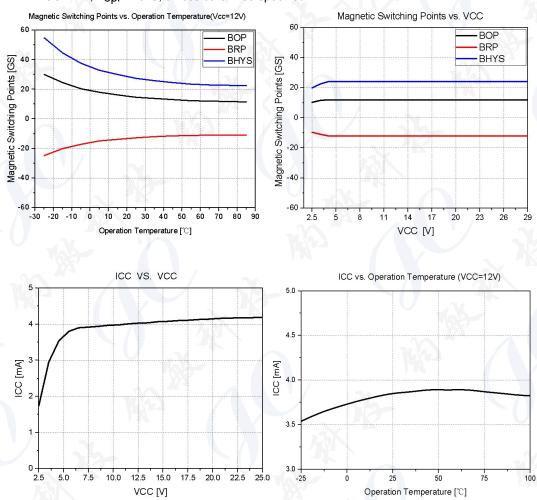




(Magnetic Flux Density B)

Typical Characteristics

VCC=12V, Topr =25°C, unless otherwise specified.



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Matrix Opto Co., Ltd -WS331 Latch-type Hall-Effect IC-

Ordering Information

Product	Package	Marking ID	Packing Type	Quantity
WS331	SIP-3L	Wafer ID	Pack	500 pcs