

125HZ、1.9uA Micro Power Hall-Effect Latch Sensor

OCH1610

General Description

The OCH1610 is a Hall-effect **Latch sensor** IC, It is fabricated from mixed signal CMOS technology. It is comprised of a Hall plates and a CMOS output driver, mainly designed for battery-operation. The total power consumption in normal operation is typically 5.7μ W with a 3V power source. either north or south poles of sufficient strength will turn the output on.

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The OCH1610 is available in many flexible packaging options, such as SOT23-3L/SIP-3L. Operating temperature range of the OCH1610 is from -40°C to 85°C.

Features

- 1.9uA Micro power design
- 125HZ measuring frequency
- CMOS Output
- 2.4V to 5.5V operation voltage
- High sensitivity and high stability of the magnetic switching points
- High resistance to mechanical stress
- Digital output signal
- -40°C to 85°C operating temperature
- SOT23-3L/SIP-3L(TO92S) package

Applications

- Smart meter
- Flow measurement



Application Circuit



Figure 1, application circuit

Note: C_{IN} is for power stabilization and to strengthen the noise immunity, the recommended capacitance is 0.1~1uF.

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Ordering Information

PartNumber	Package Type	Packing Qty	B _{OP} (Gauss)	B _{RP} (Gauss)	Temperature	Eco Plan	Lead
OCH1610WAD	SOT23-3L	3000pcs/Reel	+20(Typ.)	-20(Typ.)	-40~ +85℃	ROHS	Cu
OCH1610MD	SIP-3L	1000pcs/Bag	+20(Typ.)	-20(Typ.)	-40~ +85℃	ROHS	Cu

Block Diagram



Figure 2, Block Diagram Of OCH1610

■ Absolute Maximum Ratings¹ (T_A=25°C unless otherwise noted)

Parameter	Symbol	Rating	Unit	
V _{cc} to GND	Vcc	-0.3 to 6	V	
Magnetic Flux Density	В	Unlimited		
Storage Temperature Range	Ts	-40 to 150	°C	
Operating JunctionTemperatureR	TJ	-40 to 150	Ĉ	
Maximum Dowar Dissinction	SOT23-3L	PD	230	mW
Maximum Fower Dissipation	SIP-3L		300	
Maximum Soldering Temperature(at lea	T _{LEAD}	260	°C	

■ **Recommended Operating Conditions** (T_A=25°C unless otherwise noted)

Parameter	Symbol	Conditions	Rating	Unit
Supply Voltage	V _{DD}	Operating	2.4 ~ 5.5	V
Operating Temperature Range	TA	Operating	-40 ~ +85	°C