



General Description

The OCH1510 is an integrated Hall effect omnipolar sensor. The device using High Voltage process includes an on-chip Hall voltage generator for magnetic sensing, a comparator that amplifies the Hall voltage, and a Schmitt trigger to provide switching hysteresis for noise rejection, and an Open-Drain output. An internal band-gap regulator is used to provide temperature compensated supply voltage for internal circuits and allows a wide operating supply range.

Features

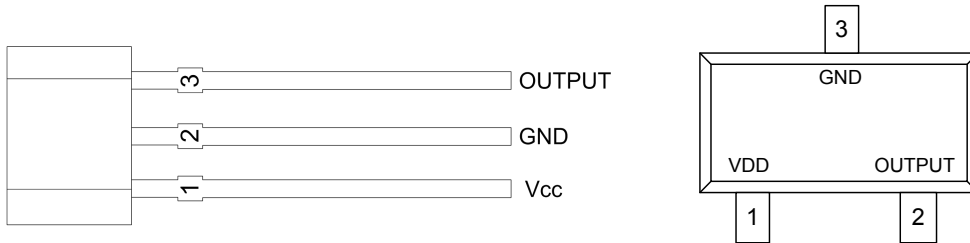
- Wide operating voltage range: 2.7V~30V
- Operating temperature range: -40°C ~+150°C
- Temperature compensation
- Reverse polarity protection
- Open-Drain pre-driver
- Package: SIP-3L、SSIP-3L、SOT23-3L

Applications

- Rotor Position Sensing
- Brush-less DC Motor
- Speed measurement
- Revolution counting

Pin Configuration

(Top View)



SIP-3L/SSIP3 SOT23-3L

Name	PIN No.		Description
	SIP-3L SSIP-3L	SOT23-3L	
VDD	1	1	IC Power Supply
GND	2	3	IC Ground
OUTPUT	3	2	Output PIN

Application Circuit

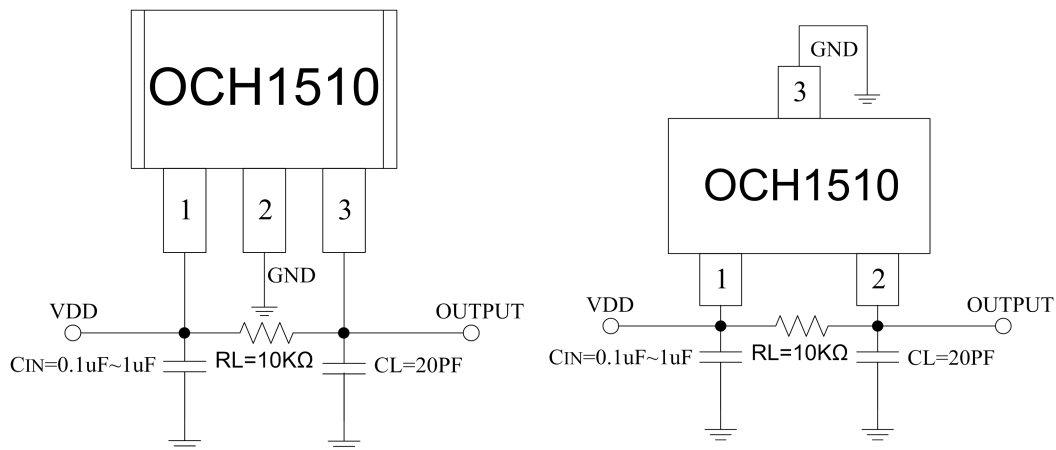


Figure 1, application circuit

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

■ **Ordering Information**

Part Number	Package Type	Packing Qty	B _{OP} (Gauss)	B _{RP} (Gauss)	Temperature	Eco Plan	Lead
OCH1510MF	SIP-3L	1000pcs	±35(Typ.)	±25(Typ.)	-40~ 150°C	ROHS	Cu
OCH1510WAF	SOT23-3L	3000pcs	±35(Typ.)	±25(Typ.)	-40~ 150°C	ROHS	Cu
OCH1510SMAF	SSIP-3L	4000pcs	±35(Typ.)	±25(Typ.)	-40~ 150°C	ROHS	Cu

■ **Block Diagram**

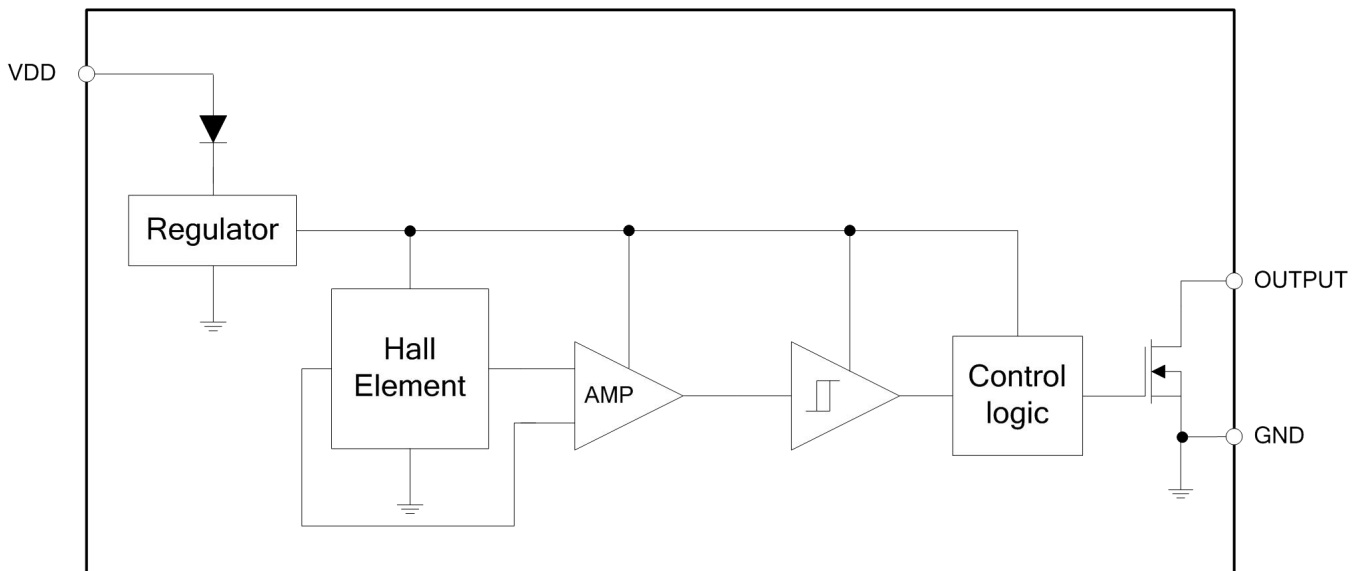


Figure 2, Block Diagram of OCH1510

■ **Absolute Maximum Ratings**

Supply Voltage		36V
Output OFF Voltage, V _{DS}		36V
Output Maximum Sink Current(AVG)		25mA
Power Dissipation (SIP-3L、SSIP-3L)	T _a =25°C	400mW
Power Dissipation (SOT23-3L)	T _a =25°C	260mW
Thermal Resistance (SIP-3L、SSIP-3L)	T _{ja}	0.34°C/mW
	T _{jc}	0.42°C/mW
Thermal Resistance (SOT23-3L)	T _{ja}	0.52°C/mW
	T _{jc}	0.64°C/mW
Operating Temperature Range		-40°C ~+150°C
Storage Temperature Range		-65°C ~+150°C
Junction Temperature		+150°C
Lead Temperature(Soldering, 10 sec)		+260°C