



General Description

The OCH1451 is a unipolar hall effect switch sensor, 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. The bandgap regulator allows a wideoperating voltage range.

OCH1451 is rated for operating temperature range from -40°C to 150°C and voltage rangefrom 2.8V to 24V.

Features

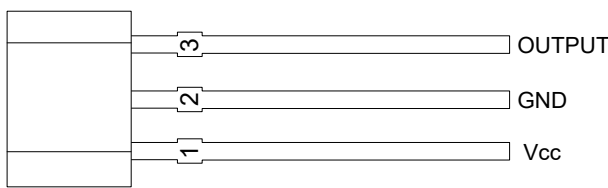
- Wide operating voltage range:2.8V~24V
- Operating Temperature: -40°C~+150°C
- Maximum output sink current: 25mA
- Reverse polarity protection
- Open-Drain pre-driver output
- Package: SIP-3L、SOT23-3L

Applications

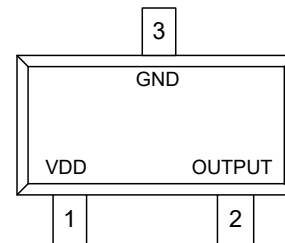
- RPM Detection
- Speed measurement
- Non-Contact Switch
- Position Control
- Revolution Detection
- Textile Control System

Pin Configuration

(Top View)



SIP-3L



SOT23-3L

Name	PIN No.		Status	Description
	SIP-3L	SOT23-3L		
V _{CC}	1	1	P	IC Power Supply
GND	2	3	P	IC Ground
OUTPUT	3	2	O	Output PIN

Application Circuit

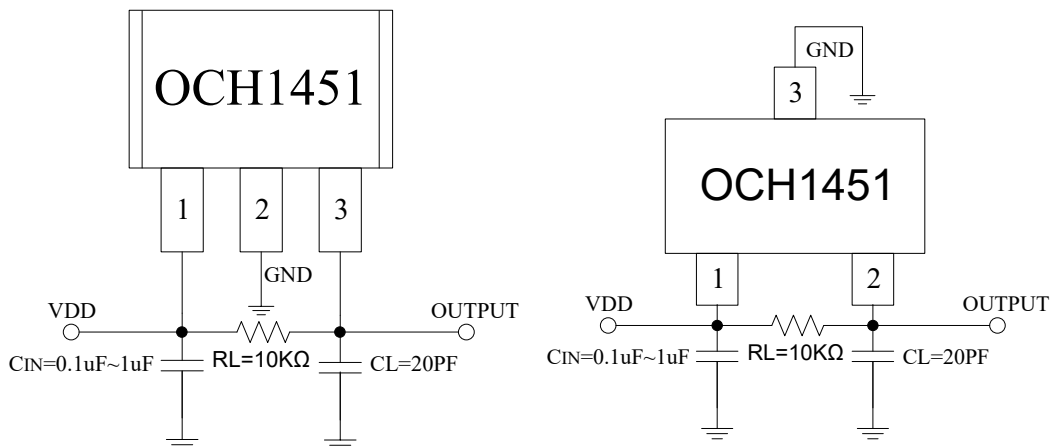


Figure 1, application circuit

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



OCS Confidential
DO NOT COPY

OCH1451

Unipolar Hall Effect Switch Sensor

ORIENT-CHIP

Ordering Information

PartNumber	Package Type	Packing Qty	B _{OP} (Gauss)	B _{RP} (Gauss)	Temperature	Eco Plan	Lead
OCH1451MF	SIP-3L	1000pcs	55(Typ.)	35(Typ.)	-40~ 150°C	ROHS	Cu
OCH1451NWAF	SOT23-3L	3000pcs	-55(Typ.)	-35(Typ.)	-40~ 150°C	ROHS	Cu

Block Diagram

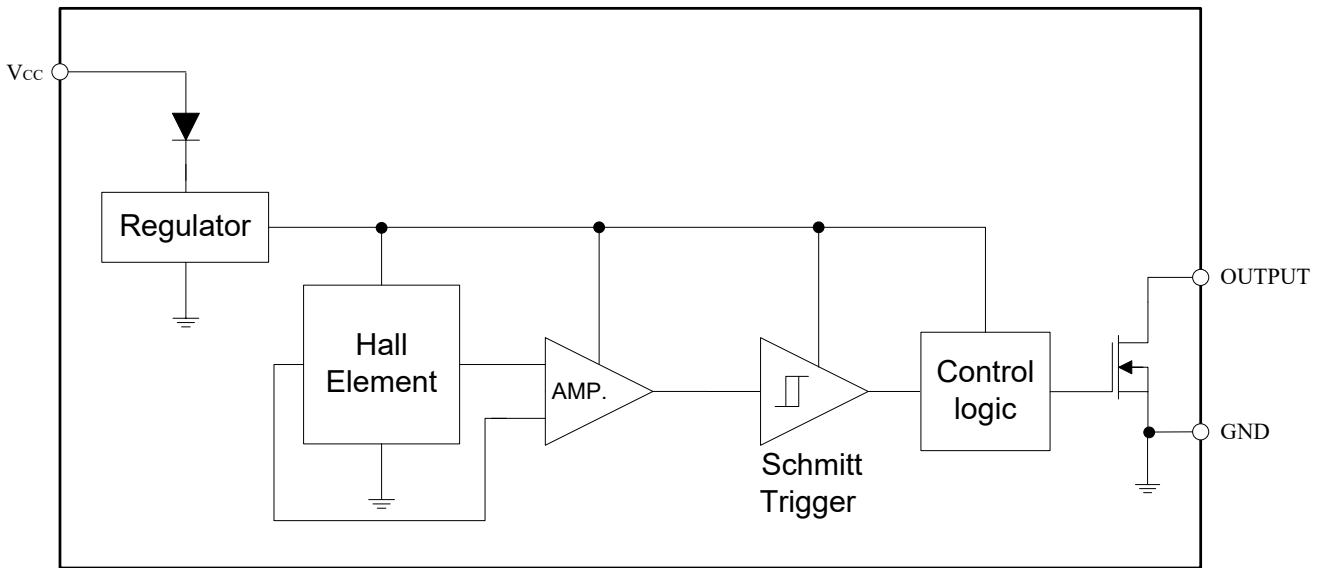


Figure 2, Block Diagram Of OCH1451

Absolute Maximum Ratings

Supply Voltage	30V	
Output OFF Voltage, V _{DS}	30V	
Output Maximum Sink Current (AVG)	25mA	
Power Dissipation (SIP-3L)	T _a =25°C	400mW
Power Dissipation (SOT23-3L)	T _a =25°C	260mW
Thermal Resistance (SIP-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	

