



General Description

The OCH184 is an integrated Hall effect latched sensor designed for electronic commutation of brush-less DC motor applications. The device using High Voltage process includes an on-chip Hall voltage generator for magnetic sensing, a comparator that amplifiers 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

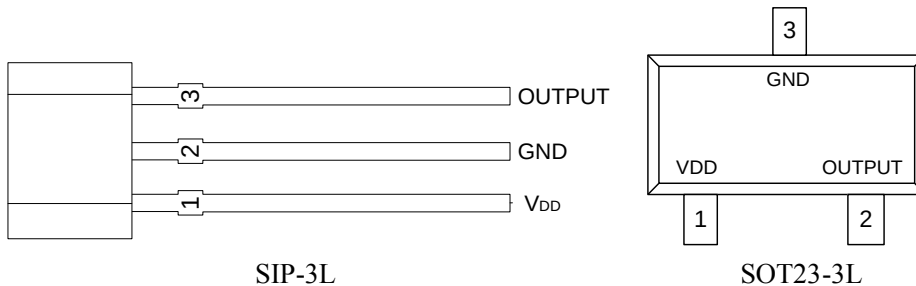
- Wide operating voltage range: 2.7V~40V
- Operating temperature range: -40°C ~ +150° C
- Temperature compensation
- Reverse polarity protection
- Open-Drain pre-driver
- Package: SIP-3L、SOT23-3L

Applications

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

Pin Configuration

(Top View)



Name	No.		Status	Description
	SIP-3L	SOT23-3L		
VDD	1	1	P	IC Power Supply
GND	2	3	P	IC Ground
OUTPUT	3	2	O	OCH184(SIP-3L)
				OCH184S(SOT23-3L)
				OCH184N(SOT23-3L)

Application Circuit

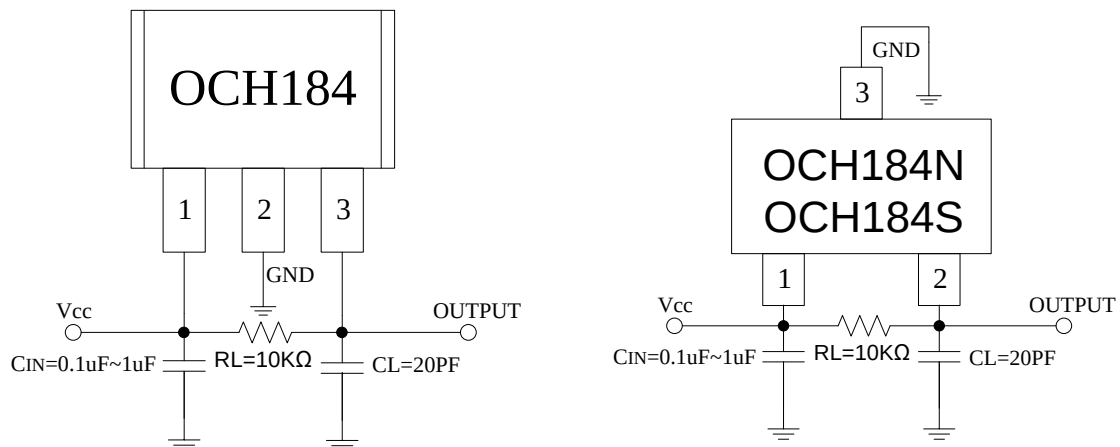


Figure 1, application circuit

Note: C_{IN} is for power stabilization and to strengthen the noise immunity, the recommended capacitance is 0.1~1μF. If the Vcc power supply is clean, the C_{IN} can be cancelled.

■ Ordering Information

Part Number	Package Type	Packing Qty	B _{OP} (Gauss)	B _{RP} (Gauss)	Temperature	Eco Plan	Lead
OCH184ME	SIP-3L	1000pcs	23(Typ.)	-23(Typ.)	-40 ~ 150°C	ROHS	Cu
OCH184NWAE	SOT23-3L	3000pcs	-23(Typ.)	23(Typ.)	-40 ~ 150°C	ROHS	Cu
OCH184SWAE	SOT23-3L	3000pcs	23(Typ.)	-23(Typ.)	-40 ~ 150°C	ROHS	Cu

■ Block Diagram

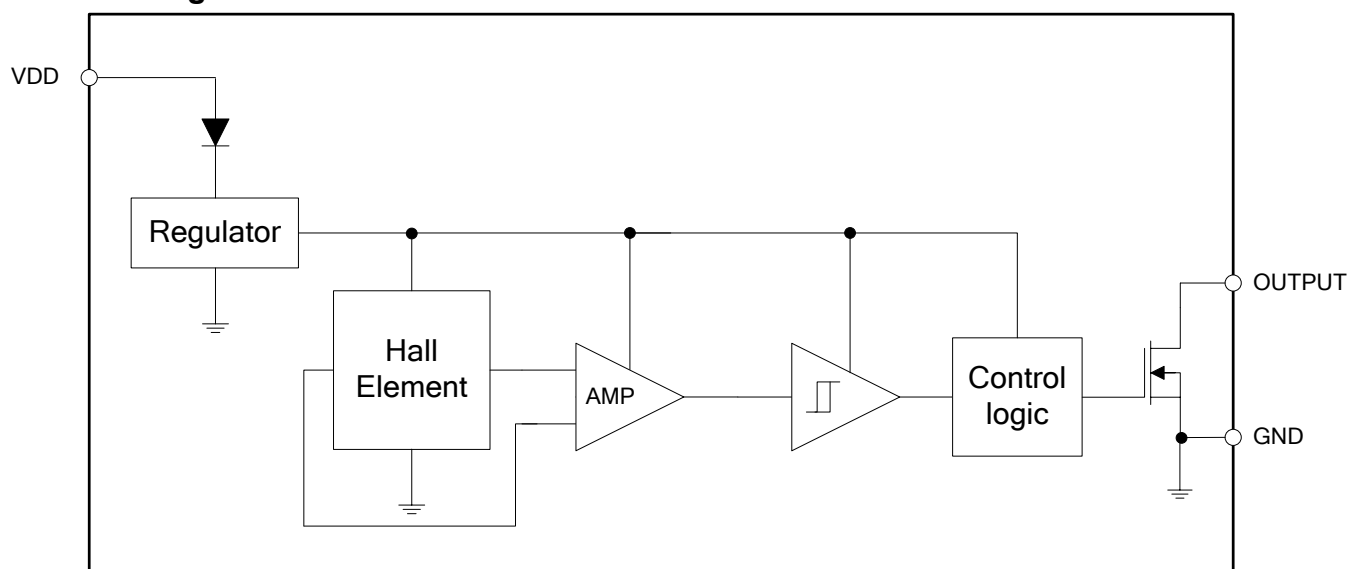


Figure 2, Block Diagram of OCH184

■ Absolute Maximum Ratings

Supply Voltage		65V
Output OFF Voltage, V _{DS}		65V
Output Maximum Sink Current (AVG)		55mA
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