

### General Description

The OCH2981 is a single-chip solution for driving two-coil brushless direct current (BLDC) fans and motors. The device includes a Hall-effect sensor, dynamic offset correction and two complementary open-drain output drivers with internal Zener diode protection. It is optimized for low start-up voltage.

To help protect the motor coils, the OCH2981 provides Rotor Lock Protection which shuts down output drives if rotor lock is detected. The device automatically re-starts when the rotor lock is removed. Over temperature shutdown provides thermal protection for the device.

The OCH2981 is available in SIP4 package.

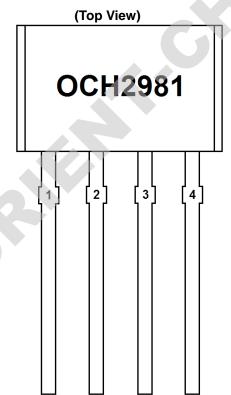
#### Features

- Single-Chip solution
- High sensitivity Hall-effect Sensor
- Operating Voltage: 3.5V to 28V
- Average output current up to 300mA
- Built-in Hall sensor and input amplifier
- Rotor Lock Protection (Lock detection, output shutdown and automatic re-start)
- Built-in reverse voltage protection diode
- Built-in Zener protection for output drivers
- Packages: SIP-4L

#### Applications

- Dual-coil BLDC Cooling Motor/Fans
- Low Voltage/ Low Power BLDC Motors
- For 12V/24V Fans/Motor
- Speed Measurement / Revolution Counting

## ■ Pin Configuration



Pin	Pin No.	Pin Function				
Name	SIP-4L	Pin Function				
VDD	1	Input Power				
DO	2	Output Pin				
DOB	3	Output Pin				
GND	4	Ground				

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# ■ Typical Application Circuit

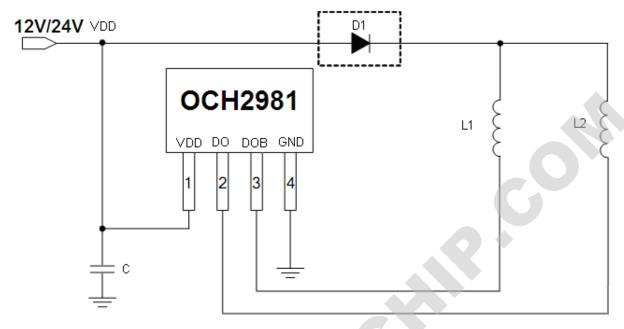


Figure 3, Typical Application Circuit of OCH2981

Notes: 5, Recommended value of C is 1uF/50V (E-Cap).

Diode D1 is optional and helps to protect the device and fan coils from reverse power conditions. The OCH2981 also includes an internal reverse blocking diode at VDD pin.

# Ordering Information

Part Number	Package Type	Packing Qty	B <sub>OP</sub> (Gauss)	B <sub>RP</sub> (Gauss)	Temperature	Eco Plan	Lead
OCH2981MD	SIP-4L	1500pcs/Box	25(Typ.)	-25(Typ.)	-40 ~ 85℃	ROHS	Cu

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