



ORIENT-CHIP

■ General Description

The OCH29831 is an integrated Hall sensor with H-Bridged output driver designed for brushless DC motor applications. The device is using high voltage BCD process includes an on-chip Hall sensor for magnetic sensing, an amplifier that amplifies the Hall voltage, a comparator to provide switching hysteresis for noise rejection, a bi-directional driver for sinking and driving large current load. OCH29831 built-in power supply reverse connection protection circuit enables the OCH29831 do no need for external reverse diode in application, can reducing the fan cost. OCH29831 is available in SIP-4L package and is rated over the -40°C to 125°C.

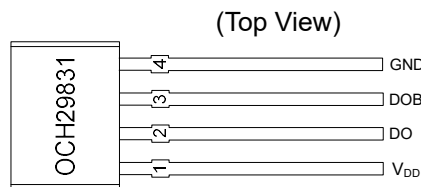
■ Features

- Built-in VCC to GND reverse voltage protection
- Low Output Switching Current Noise
- One-chip Solution (Hall Element+Driver)
- Input Voltage Range:3.5V to 36V
- High Sensitivity Hall Sensor BOP (20GS), BRP (-20GS)
- Thermal Shutdown Protection
- $R_{DS(ON)} : 1.65\Omega$
- Special ULTRA-SAFE® Design
- No Support Vcc PWM Speed Control
- RoHS Compliant
- Available in SIP-4L(TO94) package

■ Applications

- Single Coil Design Cooling Fan
- Single Coil DC Brushless Motor

■ Pin Configuration



SIP-4L

Figure 1, Pin Assignments of OCH29831

| Pin Name | Pin No. | Pin Function |
|-----------------|---------|-----------------------|
| V _{DD} | 1 | Positive Power Supply |
| DO | 2 | Output 1 |
| DOB | 3 | Output 2 |
| GND | 4 | Ground |

■ Typical Application Circuit

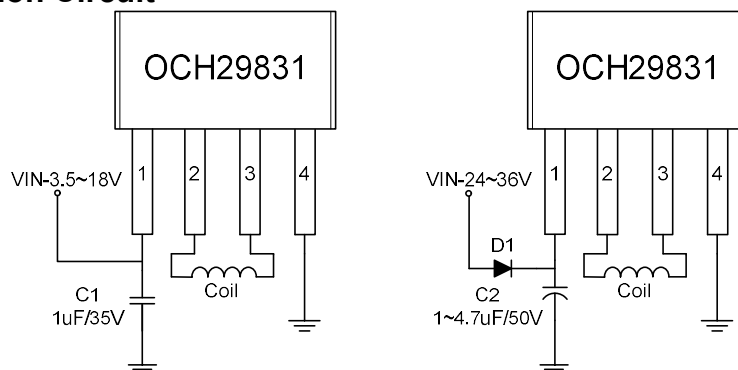


Figure 2, Typical Application Circuit Of OCH29831

Note1: When the power pulse is relatively large, Must use least C1=1µF ceramic capacitor or C2=1~4.7µF electrolytic capacitor for the decoupling between V_{DD} and GND and place the capacitor as close to the IC as Possible.

Note2: When VIN is large than 18V, a diode D1 for reversed protection is need.



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■ **Block Diagram**

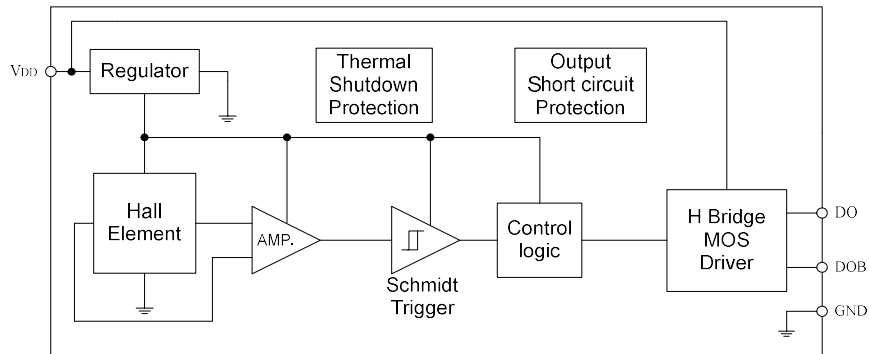


Figure 3, Block Diagram Of OCH29831