

### ■ General Description

The OCH29897 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 drivers for sinking and driving large current load.

OCH29897 built-in power supply reverse connection protection circuit enables the OCH29897 do no need for external reverse diode in application, can reducing the fan cost.

OCH29897 is available in SOT23-6F package and is rated over the -40°C to 125°C.

### ■ Features

- **24V One-chip Solution**
- **Built-in VDD to GND Reverse Voltage Protection**
- **RD/FG Signal Output Select By SET Pin**
- Input Voltage Range:3.5V ~ 30V
- Lock-shutdown Protection & Auto-Restart Function
- High Sensitivity Hall Sensor  
BOP (20GS), BRP (-20GS)
- $R_{DS(ON)}$  :1.4Ω
- Thermal Shutdown Protection
- RoHS Compliant
- Available in SOT23-6F package

### ■ Applications

- 24V Single Coil DC Brushless Fan
- 24V Single Coil DC Brushless Motor

### ■ Pin Configuration

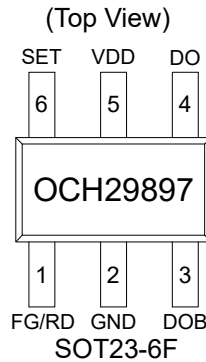


Figure 1, Pin Assignments Of OCH29897

Pin Name	Pin Number	Pin Function
RD/FG	1	FG Or RD Signal Output
GND	2	IC Ground
DOB	3	Output 2
DO	4	Output 1
VDD	5	Power Supply
SET	6	SET Pin (when SET Pin connected to the GND, the PIN 1 output is FG signal , and when SET Pin NC, the PIN 1 output is RD signal)

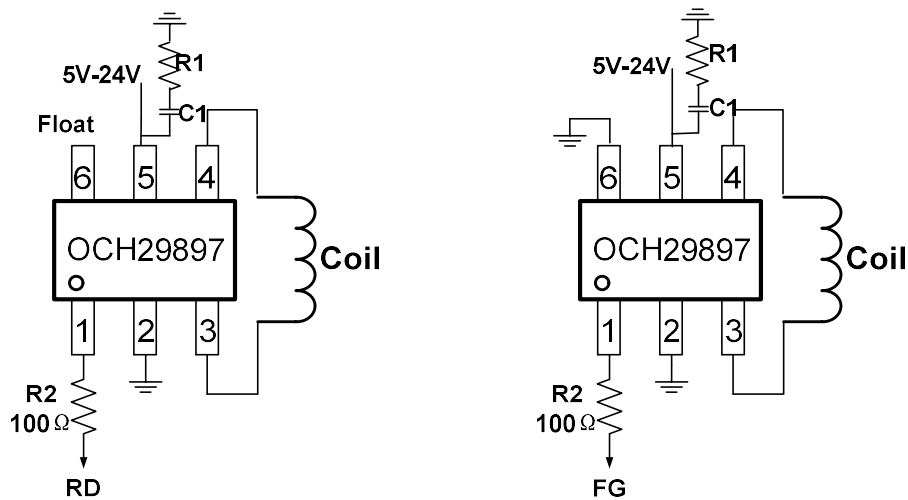
**■ Typical Application Circuit**


Figure 2, Typical Application Circuit Of OCH29897

**Note1:** When the power pulse is relatively large, must use least  $C1=1\sim 2.2\mu\text{F}$  ceramic capacitor and  $R1=2\Omega$ (Typ.) for the decoupling between VDD and GND and place the capacitor as close to the IC as possible.

**Note2:** The R2 is used to prevent FG/RD pin, typical value is  $50\sim 100\Omega$ .

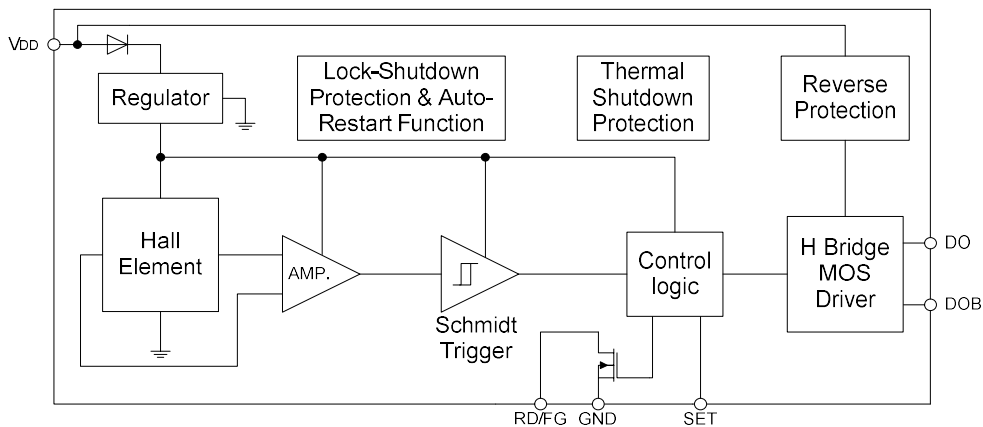
**■ Block Diagram**


Figure 3, Block Diagram Of OCH29897