



General Description

The OCH29893 is a single-phase, brushless DC motor driven IC .The device is using high voltage BCD process includes an op-chip Hall sensor for magnetic sensing an amplifier that amplifies the Hall voltage , a low RDSON H bridge (full bridge) driver . The OCH29893 has a 3.5V to 28V wide input voltage range.

The OCH29893 integrates soft start function .With soft start function OCH29893 can effectively reduce the peak current when power on, reduce fan driver audible noise and power loss.

The OCH29893 integrates rotor deadlock (RD) signal output in SOT23-6F package.

Full protection features include under-voltage lockout (UVLO), rotor deadlock protection, thermal shutdown and the current-limit protection.

The OCH29893 is available in SIP-4L, SOT23-6F package and is rated over the -40°C to 125°C.

Features

- One-chip Solution (Hall Element + Driver)
- Wide 3.5V to 28V Operating Input Range
- Integrated 0.7Ω full bridge driver
- High Sensitivity Hall Sensor: ±25GS
- Built-in Soft On/Off Phase Transition
- Built-in Soft Start and Soft Restart Function
- Lock-shutdown protection & auto-restart function
- Rotor Deadlock (RD) Signal(SOT23-6F)
- Thermal Protection and Automatic Recovery
- ULTRA-SAFE®
- No Support Vcc PWM Speed Control
- RoHS Compliant
- Available in SIP-4L(TO94),SOT23-6F package

Applications

- Single Coil DC Brushless Fan
- Single Coil DC Brushless Motor

Pin Configuration

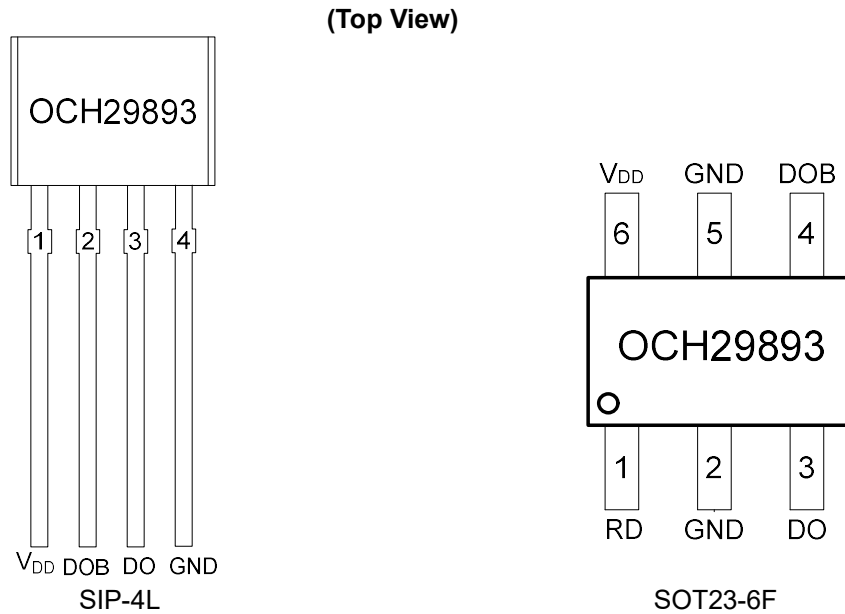


Figure 1, Pin Assignments Of OCH29893

Pin Name	Pin Number		Pin Function
	SIP-4L	SOT23-6F	
VDD	1	6	Positive Power Supply
DOB	2	4	Output 2
DO	3	3	Output 1
GND	4	2、5	Ground
RD	-	1	RD Signal Output



■ Typical Application Circuit

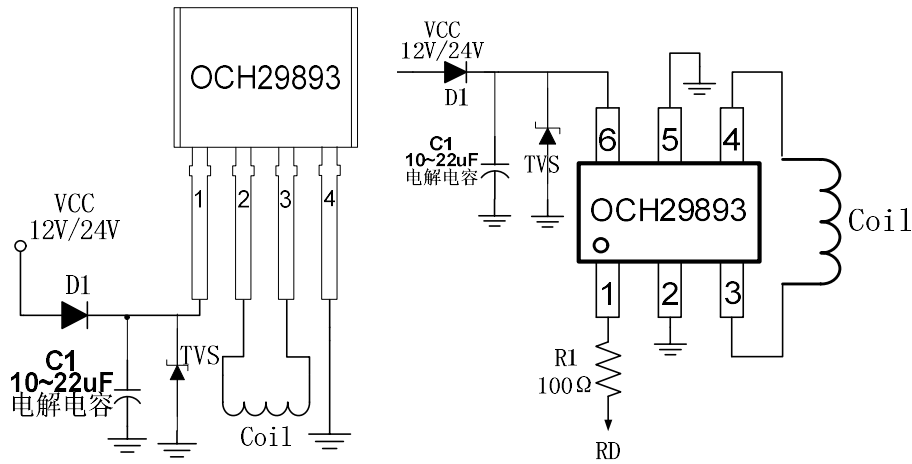


Figure 2, Typical Application Circuit of OCH29893

Note:1. When the power pulse is relatively large (24V application), Must use least C1=4.7μF (ceramic capacitor) capacitor for the decoupling between VDD and GND and place the capacitor as close to the IC as Possible.

2. To avoid high voltage spikes caused by the energy stored in the motor inductor charges back to the input capacitor side, add a voltage clamping transient voltage suppressor (TVS) diode.

■ Block Diagram

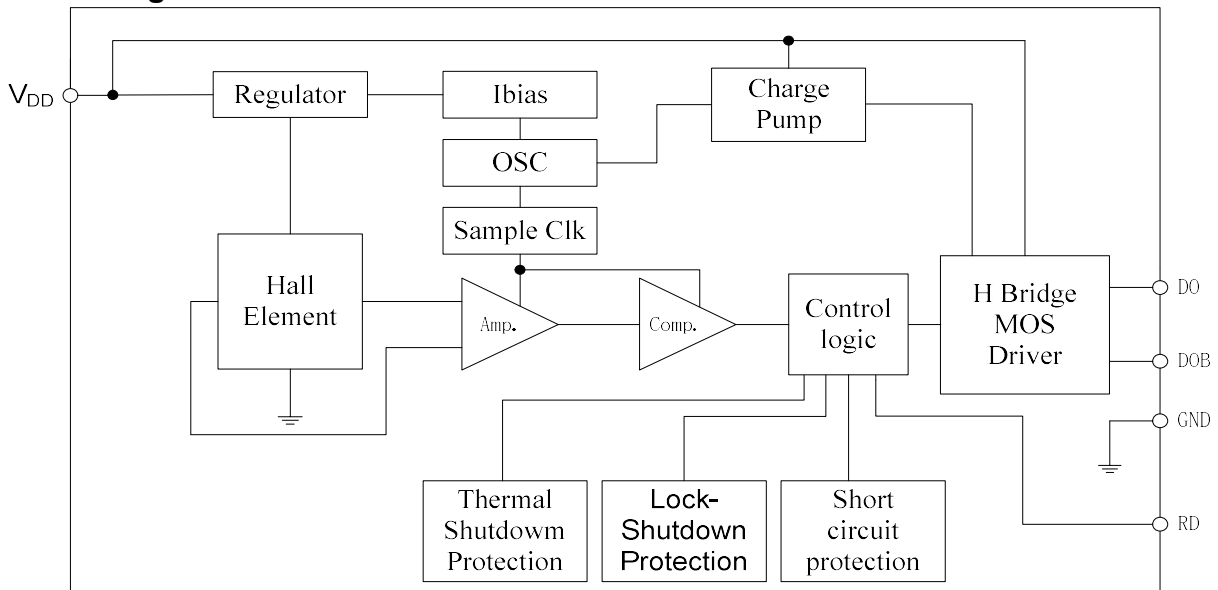


Figure 3, Block Diagram Of OCH29893