

General Description

The OCH29851 is an integrated Hall sensor with H-Bridged output driver designed for brushless DC motor applications. The device is using HV 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.

Placing the device in a variable magnetic field, if the magnetic flux density is larger than threshold BOP, the DO is turned to sink and DOB is turned to drive. This output state is held until the magnetic flux density reverses and falls below BRP, then causes DO to be turn to drive and DOB turned to sink.

OCH29851 is available in SOP-8F、FTSOT23-6L(TO23-6F) package and is rated over the -40°C to 125°C.

Features

- One-chip Solution (Hall Element + Driver)
- Input Voltage Range: 2.5V to 20V
- Start Voltage: 1.9V(min.)
- Soft Switch
- Lock-shutdown Protection &Auto-Restart Function
- Speed Controllable by PWM Input Signal
- FG Output (OCH29851)
RD Output (OCH29851B)
- $R_{DS(ON)}$: 1.5Ω
- High Sensitivity Hall Sensor
 B_{OP} (15GS), B_{RP} (-15GS)
- Thermal Shutdown Protection
- -40°C to +125°C Temperature Range
- RoHS Compliant
- Available in SOP-8F、FTSOT23-6L(TO23-6F)、package

Applications

- Single Coil Design Cooling Fans
- Single Coil DC Brushless Fan
- Single Coil DC Brushless Motor
- Office Automated Equipment
- Brown-Goods
- Home Applications
- Car Audio Cooling Fan

Pin Configuration

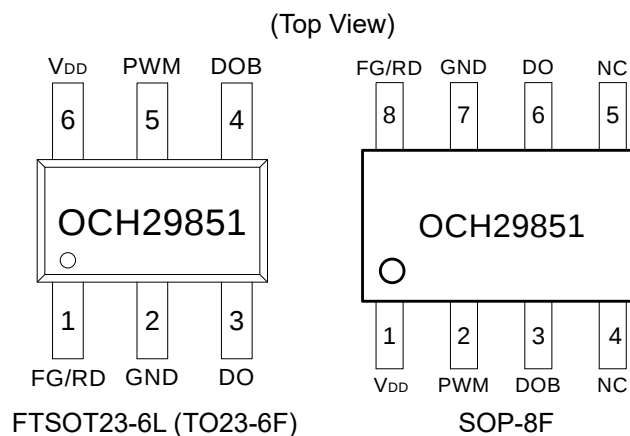


Figure 1, Pin Assignments of OCH29851

Pin Name	Pin Number		Pin Function
	SOP-8F	FTSOT23-6L(TO23-6F)	
V _{DD}	1	6	Positive Power Supply
PWM	2	5	PWM Signal Input
DOB	3	4	Output 2
NC	4	-	NC Pin
NC	5	-	NC Pin
DO	6	3	Output 1
GND	7	2	Ground
FG (OCH29851) RD (OCH29851B)	8	1	FG/RD Signal Output



Typical Application Circuit

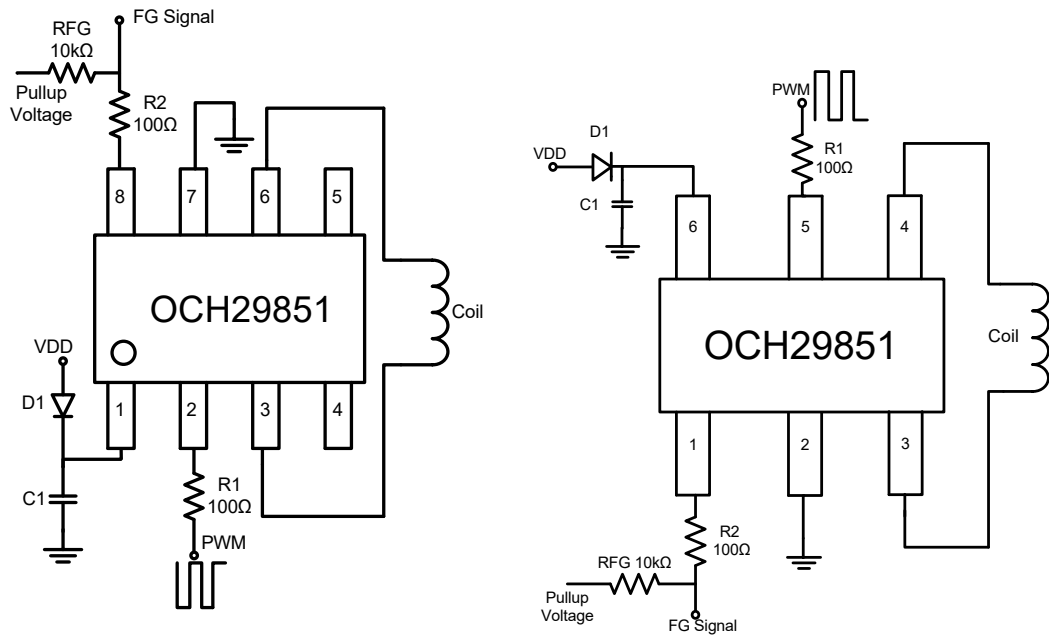


Figure 2, Typical Application Circuit of OCH29851

Note1: When the power pulse is relatively large, Must use least C1=1~2.2μF ceramic capacitor or 4.7~10μF electrolytic capacitor for the decoupling between V_{DD} and GND and place the capacitor as close to the IC as Possible.

Ordering Information

Part Number	Package Type	Packing Qty.	B _{OP} (Gauss)	B _{RP} (Gauss)	Temperature	Eco Plan	Lead
OCH29851SFAE	SOP-8F	4000pcs /Reel	15(Typ.)	-15(Typ.)	-40~ +125°C	ROHS	Cu
OCH29851BSFAE	SOP-8F	4000pcs /Reel	15(Typ.)	-15(Typ.)	-40~ +125°C	ROHS	Cu
OCH29851TOAE	TO23-6F (FTSOT23-6L)	3000pcs /Reel	15(Typ.)	-15(Typ.)	-40~ +125°C	ROHS	Cu

Block Diagram

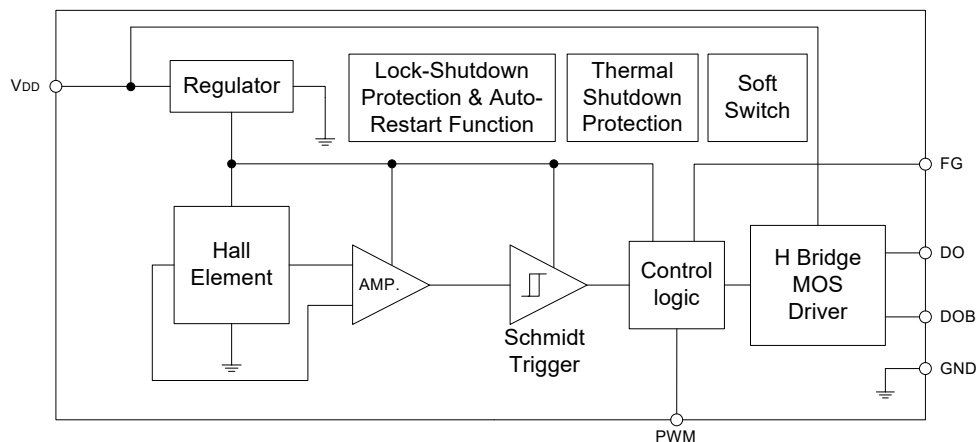


Figure 3, Block Diagram Of OCH29851



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