

OCH29830**500mA Single Phase DC Fan Driver****ORIENT-CHIP**

■ General Description

The OCH29830 is an integrated Hall sensor with H-Bridged output driver designed for brushless DC motor applications. The device is using HV process includes an one-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.

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 turned to drive and DOB turned to sink.

OCH29830 is available in SIP-4L package and is rated over the -40°C to 125°C.

■ Features

- One-chip Solution (Hall Element + Driver)
- Continuous Output Current : 500mA
- High Sensitivity Hall Sensor
BOP25GS、BRP-25GS
- Lock-shutdown protection & auto-restart function
- Thermal Shutdown Protection
- -40°C to +125 °C Temperature Range
- RoHS Compliant
- Available in SIP-4L(TO94) Packages

■ Applications

- Single phase DC Brushless Fan
- Single phase DC Brushless Fan
- Single phase DC Brushless Motor

■ Pin Configuration

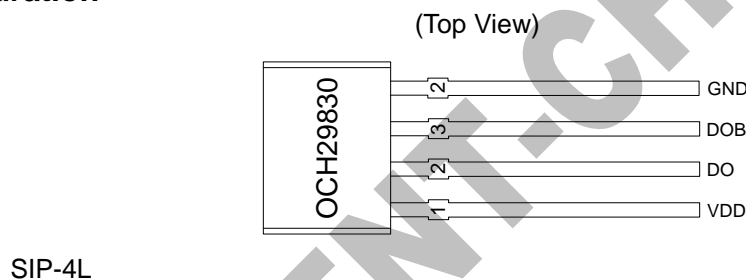


Figure 1, Pin Assignments of OCH29830

Pin Name	Pin No.	Pin Function
VDD	1	Positive Power Supply
DO	2	Output 1
DOB	3	Output 2
GND	4	Ground

■ Typical Application Circuit

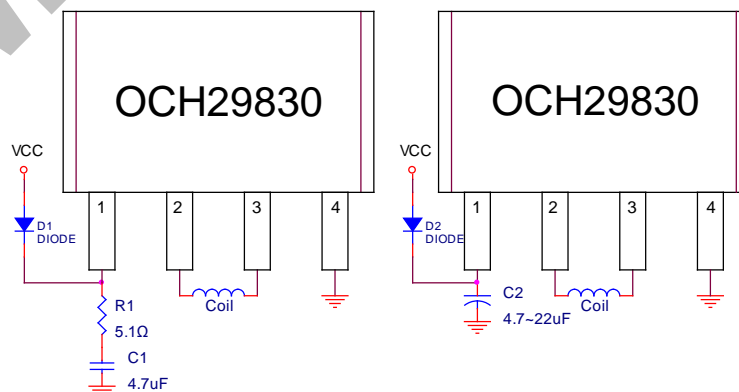


Figure 2, Typical Application Circuit of OCH29830

Note1: When the power pulse is relatively large, Must use least C1=4.7μF (ceramic capacitor) capacitor & R1=5.1Ω or C2=4.7~22μF for the decoupling between VDD and GND and place the capacitor as close to the IC as possible.



■ Ordering Information

PartNumber	Package Type	Packing Qty	B _{OP} (Gauss)	B _{RP} (Gauss)	Temperature	Eco Plan	Lead
OCH29830ME	SIP-4L	1000pcs/Bag	25(Typ.)	-25(Typ.)	-40~ 125℃	ROHS	Cu

■ Block Diagram

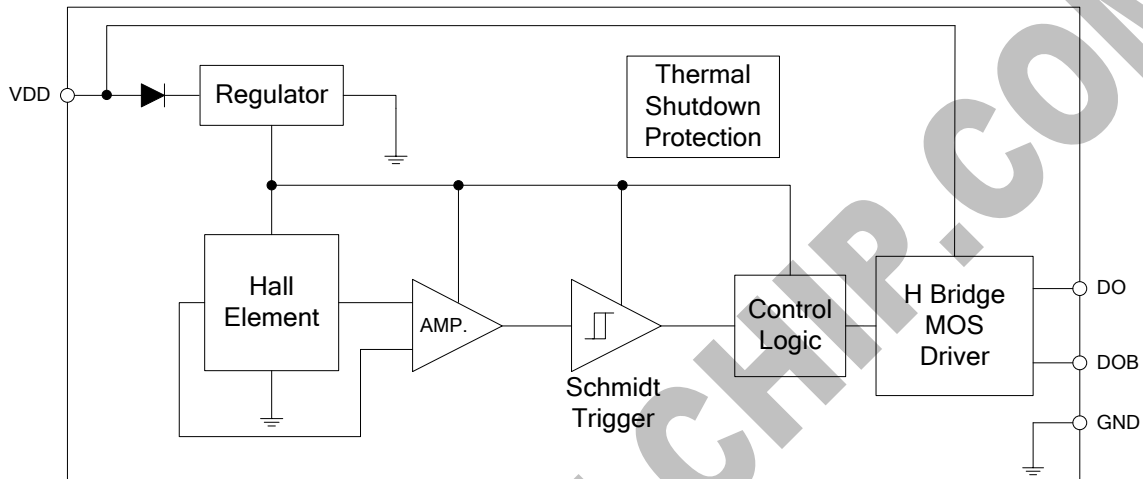
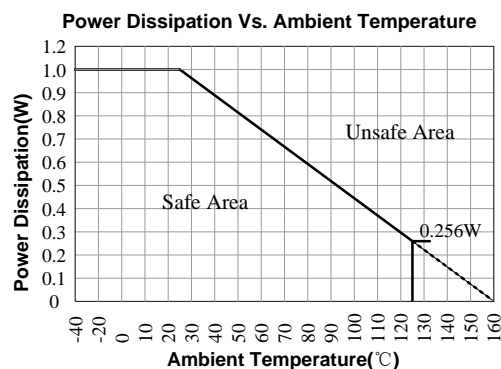


Figure 3, Block Diagram of OCH29830

■ Absolute Maximum Ratings^{2/34} (T_A=25℃, unless otherwise noted)

Parameter	Symbol	Rating	Unit
V _{DD} Pin to GND	V _{DD}	-0.3 to +30	V
Continuous Output Current	I _{O(CONT)}	500	mA
Hold Output Current	I _{O(HOLD)}	1000	mA
Peak Output Current	I _{O(PEAK)}	1500	mA
Power Dissipation	P _D	1	W
Junction temperature	T _J	160	℃
Thermal Resistance	θ _{JA}	135	℃/W
Storage Temperature Range	T _S	-55 to +150	℃
Maximum Soldering Temperature (at leads, 10 sec)	T _{LEAD}	260	℃

Note2: The maximum dissipation power P_D allowed at any ambient temperature point is calculated: P_D (max) = (T_J - T_A) / θ_{JA}, T_J = 160℃. When applied, do not exceed the maximum rating to prevent chip damage, and work for a long time at maximum rating may affect chip reliability.



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