

General Description

OCH1306 is a X-axis Ultra-sensitive Bipolar magnetic switch, OCH1306 including TMR magnetic head, power timing circuit, Chopper Amplifier, Schmidt trigger and CMOS output circuit. OCH1306 internal integrated power compensation and temperature compensation circuit. To ensure that the chip has wide working voltage range, wide working temperature range, 1.5uA current consumption and superior anti-interference characteristics, it has become an ideal choice for many low power and high performance applications.

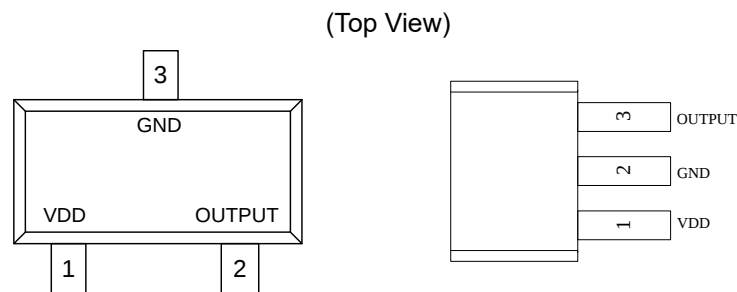
Features

- Micro power 1.5uA
- Ultra-sensitive 5GS
- X-axis Operation
- Digital output signal
- Operating Voltage Range 2.4V to 5.5V
- Open-Drain Output
- SOT23-3L、SIP3L package

Applications

- Solid State Switch
- Water meter
- Gas meter

Pin Configuration



Pin Name	Pin Number		Description
	SOT23-3L	SIP3L	
V _{CC}	1	1	IC Power Supply
OUTPUT	2	3	IC Output
GND	3	2	IC Ground

Application Circuit

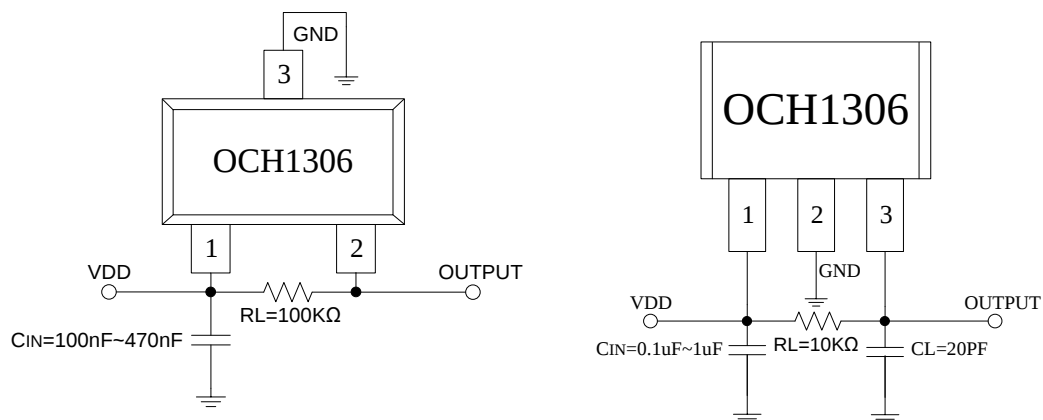


Figure 1, application circuit

Note: C_{IN} is for power stabilization and to strengthen the noise immunity, the recommended capacitance is 100nF~470nF.

■ Block Diagram

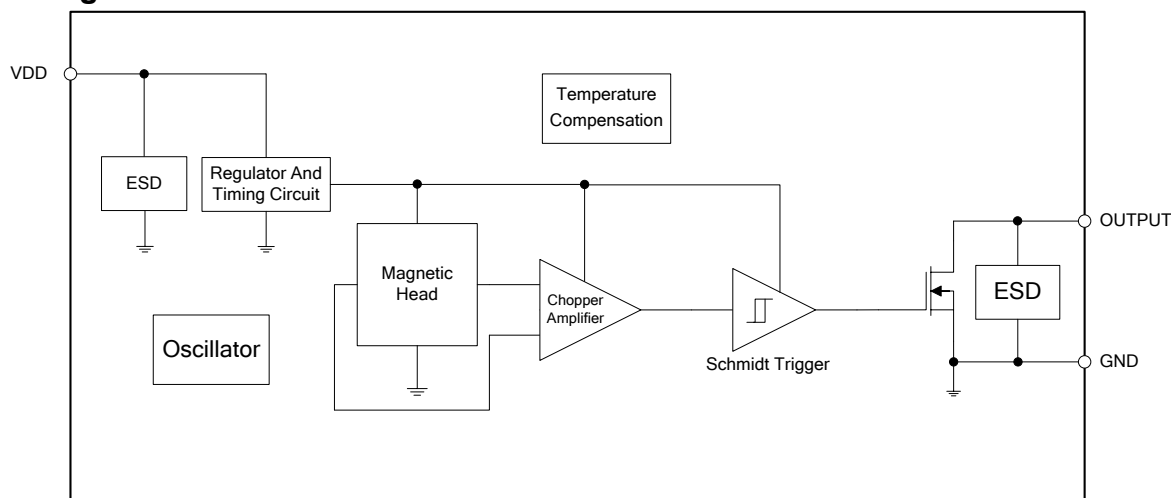


Figure 2, Block Diagram Of OCH1306

■ Absolute Maximum Ratings (T_A=25°C unless otherwise noted)

Parameter	Symbol	Rating	Unit
V _{CC} To GND	V _{CC}	-0.3 to 7	V
Magnetic Flux Density	B	2800	GS
Storage Temperature Range	T _S	-65 to +150	°C
Operating Junction Temperature Range	T _J	-40 to 150	°C
Maximum Power Dissipation	P _D	230	mW
Maximum Soldering Temperature(at leads, 10 sec)	T _{LEAD}	260	°C

■ Recommended Operating Conditions (T_A=25°C, unless otherwise noted)

Parameter	Symbol	Conditions	Rating	Unit
Supply Voltage	V _{DD}	Operating	2.4 ~ 5.5	V
Operating Temperature Range	T _A	Operating	-40 ~ +125	°C

■ Electrical Characteristics (typical values are at T_A=25°C, V_{DD}=3V, Unless otherwise noted)

Symbol	Parameter	Conditions	Min.	Typ.	Max.	Unit
V _{OL}	Output Low level	I _{OUT} =-1mA	-0.3	0.1	0.3	V
R _{DS(on)}	OD Output FET Resistance	Output "L", V _{DD} =3.5V	-	-	10	Ω
I _{OFF}	Output Leakage Current	V _{OUT} =3V, Output off	-	<0.1	1	μA
I _{DD}	Supply Current	Average supply current, T _A =25°C, V _{DD} = 3V	-	1.5	1.8	μA
F	Operating Frequency			1000		Hz