

Magnetic Sensor IC

Omnipolar Detection High Performance Low Power Hall-Effect Sensor IC



AS1801AOD

● General Description

Using low power CMOS process, the AS1801AOD is designed for low power, high performance omnipolar detection hall-effect application, such as cover switch, contact less switch, solid state switch and lid close sensor etc battery operation. The hall IC integrated an on-chip hall voltage generator for magnetic sensing, a comparator that amplifiers the hall voltage, a Chopper amplifier, a Schmitt trigger to provide switching hysteresis for noise rejection, and a complementary output.

The total power consumption of AS1801AOD is typically less than 3uA at 2.8V power supply. AS1801AOD is designed to respond to alternating North and South poles. When the magnetic flux density (B) is larger than operate point (B_{OP}), the output will be turned on (low), the output is held until the magnetic flux density (B) is lower than release point (B_{RP}), then turn off (high).

The device is available in SOT23-3L&SIP-3L Package is rated over the -40°C to 85°C.

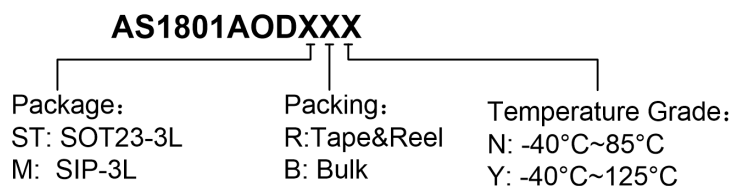
● Features

- Input Voltage Range: 2.4V to 5.5V
- Micro-power consumption ideal for battery power applications
- Omnipolar Operation, easy to use as output
- Sensitivity hall sensor
- Low Power CMOS process technology
- Chopper stabilization amplifier stage
- Magnetic Sensitivity (typical)
B_{OP}= ±18Gauss, B_{RP}= ±10Gauss
- Good RF noise immunity
- RoHS & Green Compliant
- SOT23-3L & SIP-3L Packages
- -40°C to +85 °C Temperature Range

● Applications

- Smart Meter
- Cover switch
- Contact-less switch

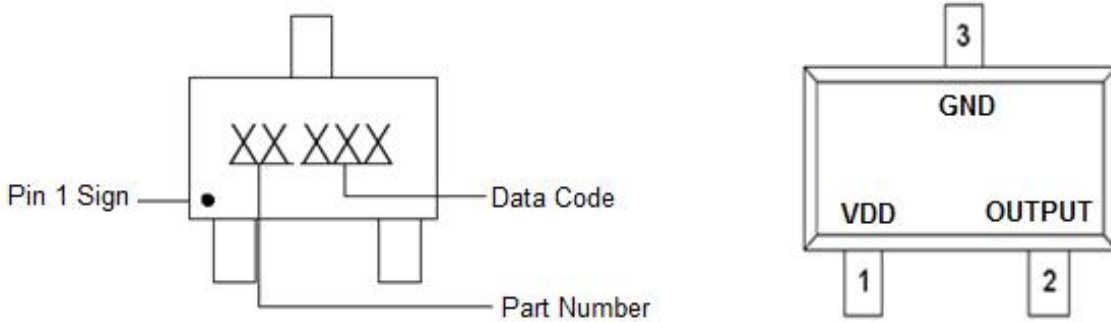
■ Ordering Information



Part Number	B _{OP} (GAUSS)	B _{RP} Gauss)	Package Type	Package Qty	Temperature	Eco Plan
AS1801AODSTRN	±18Gauss	±10Gauss	SOT23-3L	7-in reel 3000pcs/reel	-40~85°C	Green
AS1801AODMBN	±18Gauss	±10Gauss	SIP-3L	1K/Package	-40~85°C	RoHS
AS1801AODSTRY	±18Gauss	±10Gauss	SOT23-3L	7-in reel 3000pcs/reel	-40~125°C	Green
AS1801AODMBY	±18Gauss	±10Gauss	SIP-3L	1K/Package	-40~125°C	RoHS

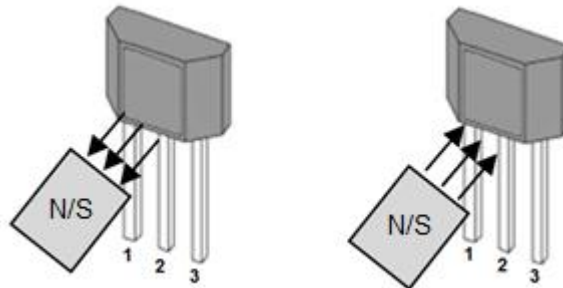
■ **Marking & Pin Assignment**

SOT23-3L



Pin Name	Pin No.	I/O	Pin Function
	SOT23-3L		
VDD	1	P	Input Power Supply
GND	3	P	Ground
OUTPUT	2	O	Output Pin

SIP-3L



Pin Name	Pin No.	I/O	Pin Function
	SIP-3L		
VDD	1	P	Input Power Supply
GND	2	P	Ground
OUTPUT	3	O	Output Pin.

■ **Typical Application Circuit**

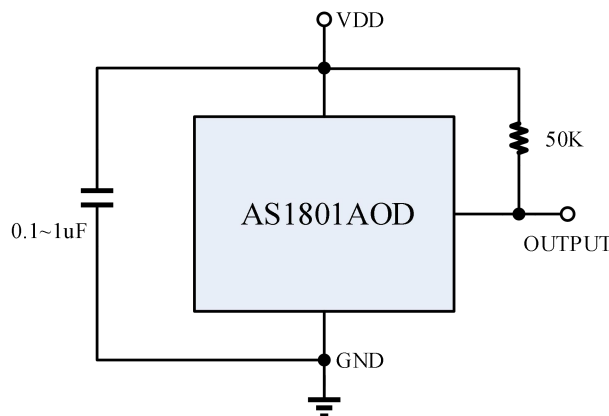
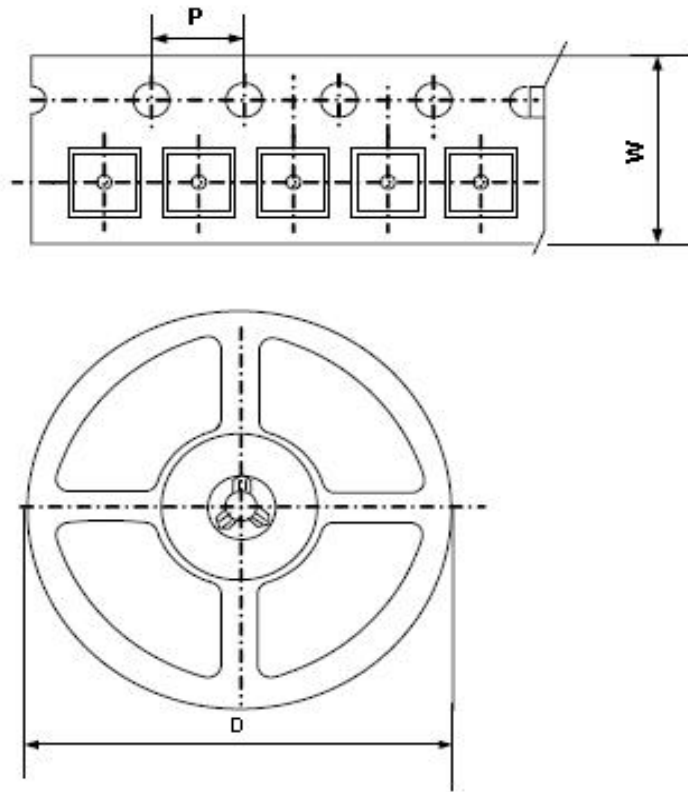


Figure 1, Typical Application Circuit of AS1801AOD

■ **Packing Information**

SOT23-3L:



Package Type	Carrier Width(W)	Pitch(P)	Reel Size(D)	Packing Minimum
SOT23-3L	8.0±0.1 mm	4.0±0.1 mm	180±1 mm	3000pcs

SIP-3L:

1. Packingtype: Bulk
2. Packing minimum: 1000pcs