

Magnetic Sensor IC

Unipolar Detection High Performance Hall-Effect Sensor IC



AS1700

● General Description

Using bipolar process, the AS1700 is designed for high performance unipolar detection hall-effect application, such as E-bike, E-Motorcycle, rotor position sensing, brushless DC motor etc. The hall IC integrated an on-chip hall voltage generator for magnetic sensing, a comparator that amplifiers the hall voltage, an open collector output, and a Schmitt trigger to provide switching hysteresis for noise rejection, and a voltage regulator for operation with supply voltage of 3.8V to 60V.

AS1700 is designed to respond to South pole. While 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 SIP-3L Package and is rated over the -40°C to 150°C . the package is RoHS compliant.

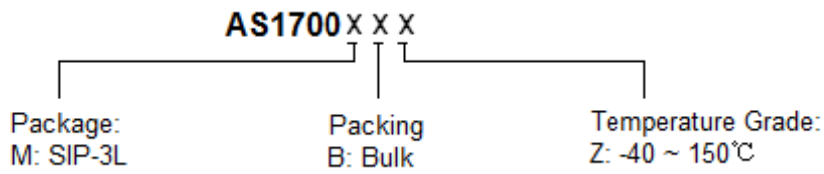
● Features

- Input Voltage Range : 3.8V to 60V
- Unipolar Operation
- High Performance Bipolar Process Tech.
- Magnetic Sensitivity (typical)
 $B_{OP}=100\text{Gauss}$, $B_{RP}=50\text{Gauss}$
- Open Collector Output
- Small Solution Size
- RoHS Compliant
- SIP-3L Packages
- -40°C to $+150^{\circ}\text{C}$ Temperature Range

● Applications

- BLDC Communication for E-bike
- BLDC Communication for E-Motorcycle
- Position Detection for Tool Post
- Automotive, Home appliances, Industrial
- Rotor Position Sensing
- Brushless DC Motor/Fan
- Speed Measurement
- Revolution Counting
- Magnetic Encoder

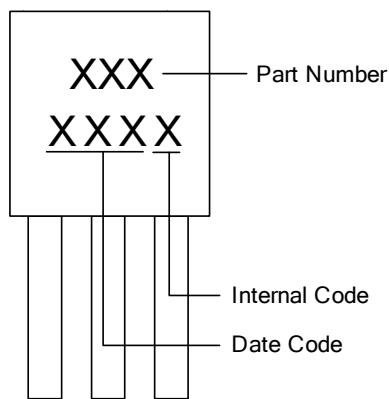
■ **Ordering Information**



Part Number	B _{OP} /B _{RP} (Gauss)	Package Type	Package Qty	Temperature	Eco Plan	Lead
AS1700MBZ	100/50	SIP-3L	1K/Package	-40~150°C	RoHS	Cu Sn

■ **Marking Information**

SIP-3L



■ **Typical Application Circuit**

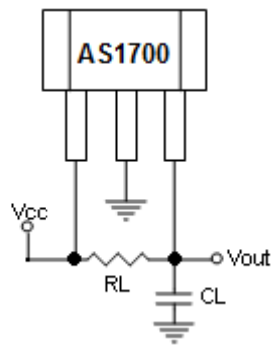


Figure 1, Typical Application Circuit of AS1700