

Magnetic Sensor ICs

High Sensitivity Bipolar Latch Detection Hall-Effect Sensor ICs



AS1634

● General Description

Using BCD process, the AS1634 is designed for high performance latch detection hall effect application, such as transportation, industrial and commercial, medical, home appliances, rotor position sensing, brushless DC motor etc. The hall IC integrated an on-chip hall voltage generator for magnetic sensing, a comparator that amplifies the hall voltage, hall sensor with dynamic offset cancellation system, an open drain output, and a Schmitt trigger to provide switching hysteresis for noise rejection, reverse protection, and a voltage regulator for operation with supply voltage of 2.5V to 28V.

AS1634 is designed to respond to alternating North and South poles. 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 SOT23-3L Package and is rated over the -40°C to 150°C . the package is RoHS compliant.

● Features

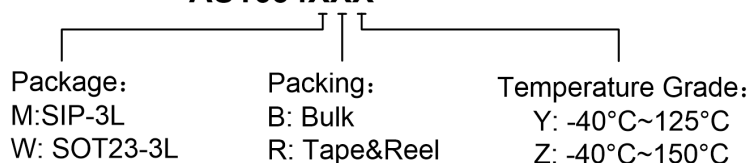
- Input Voltage Range : 2.5V to 28V
- Reverse Protection voltage: -30V
- Over Voltage Protection: 30V
- Bipolar Latch Operation
- High Performance BCD Process Tech.
- Magnetic Sensitivity (typical)
 $B_{OP}=90\text{Gauss}$, $B_{RP}=-90\text{Gauss}$
- Open Drain Output
- Output Pin 36V Over Voltage Protection
- Small Solution Size
- RoHS Compliant
- SOT23-3L and SIP-3L Packages
- -40°C to $+150^{\circ}\text{C}$ Temperature Range

● Applications

- Automotive, Home appliances, Industrial
- Rotor Position Sensing
- Brushless DC Motor/Fan
- Speed & RPM Sensing
- Tachometer, Counter Pickup
- Motor and Fan Control
- Electronic Window Lift
- Convertible Roof Position
- Revolution Counting
- Robotics Control
- Medical Equipment Using Electric Motors

■ Ordering Information

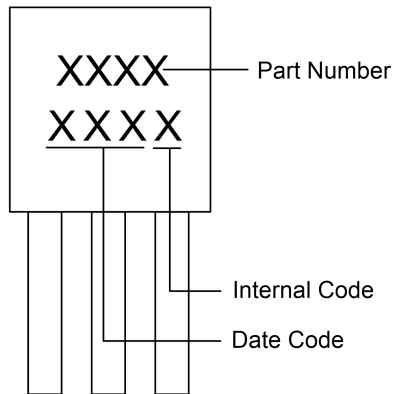
AS1634XXX



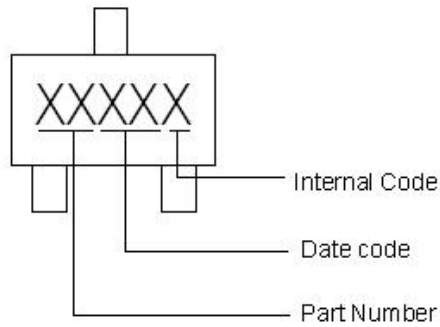
| Part Number | B_{OP}/B_{RP} (Gauss) | Package Type | Package Qty | Temperature | Eco Plan |
|-------------|----------------------------|--------------|------------------------|-------------------------------|----------|
| AS1634MBY | 90/-90 | SIP-3L | 1K/Package | $-40\sim 125^{\circ}\text{C}$ | RoHS |
| AS1634WRY | 90/-90 | SOT23-3L | 7-in reel 3000pcs/reel | $-40\sim 125^{\circ}\text{C}$ | RoHS |
| AS1634MBZ | 90/-90 | SIP-3L | 1K/Package | $-40\sim 150^{\circ}\text{C}$ | RoHS |
| AS1634WRZ | 90/-90 | SOT23-3L | 7-in reel 3000pcs/reel | $-40\sim 150^{\circ}\text{C}$ | RoHS |

■ **Marking Information**

SIP-3L



SOT23-3L



■ **Typical Application Circuit**

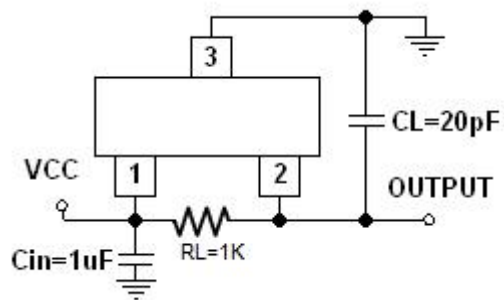
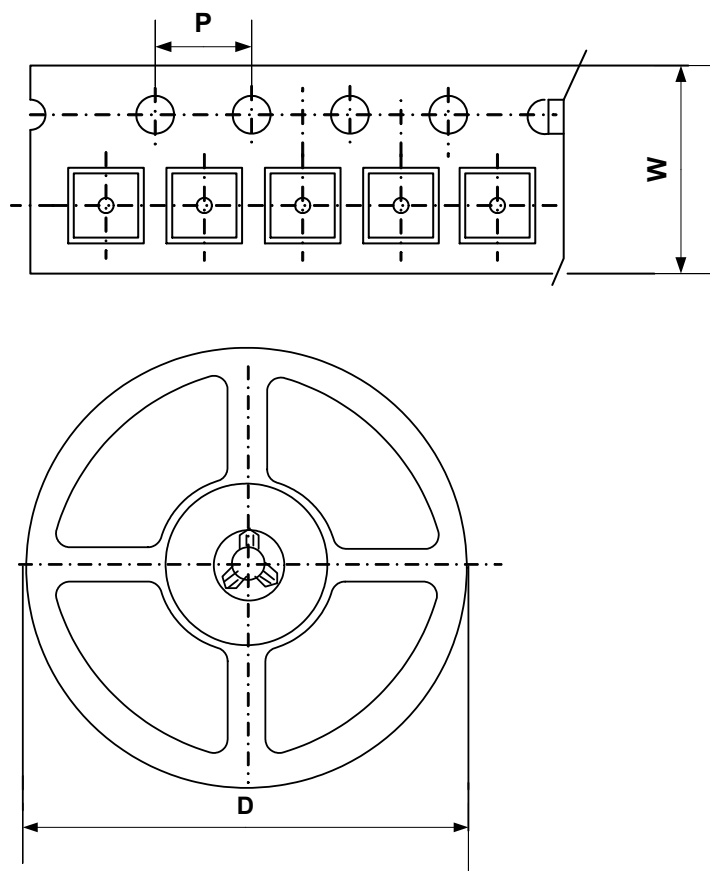


Figure 1, Typical Application Circuit of AS1634

■ **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 |

Note: Carrier Tape Dimension, Reel Size and Packing Minimum

■ **Packing Information**

SIP-3L

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