

Magnetic Sensor IC**Latch Detection High
Performance Hall-Effect
Sensor IC****AS1697****● General Description**

Using BiCMOS process, the AS1697 is designed for high performance latch detection hall-effect application, such as automotive, industrial, electric tools, 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 amplifiers 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, and a voltage regulator for operation with supply voltage of 2.5V to 30V.

AS1697 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 SIP-3L and SOT23-3L Package and is rated over the -40°C to 150°C . the package is RoHS compliant.

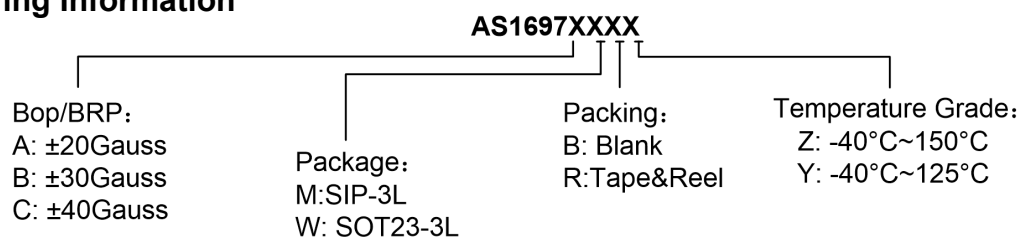
● Features

- High Performance BiCMOS Process Tech.
- Input Voltage Range : 2.5V to 30V
- Resistant to physical stress
- Bipolar Latch Operation
- High Sensitivity Hall Sensor
- High Chopping Frequency
- Magnetic Sensitivity (typical)
 - ✓ A: $B_{OP}=20\text{Gauss}$, $B_{RP}=-20\text{Gauss}$
 - ✓ B: $B_{OP}=30\text{Gauss}$, $B_{RP}=-30\text{Gauss}$
 - ✓ C: $B_{OP}=40\text{Gauss}$, $B_{RP}=-40\text{Gauss}$
- Open Drain Output
- Reverse Battery Protection (up to 24V)
- Small Solution Size
- RoHS Compliant
- SIP-3L and SOT23-3L Packages
- -40°C to $+150^{\circ}\text{C}$ Temperature Range

● Applications

- Electric Tools
- Automotive, Home appliances, Industrial
- Rotor Position Sensing and Flow Meters
- Brushless DC Motor/Fan
- Speed Measurement
- Revolution Counting
- Valve and Solenoid Status
- Proximity Sensing
- Tachometers
- Magnetic Encoder

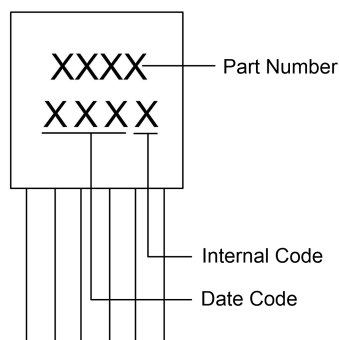
Ordering Information



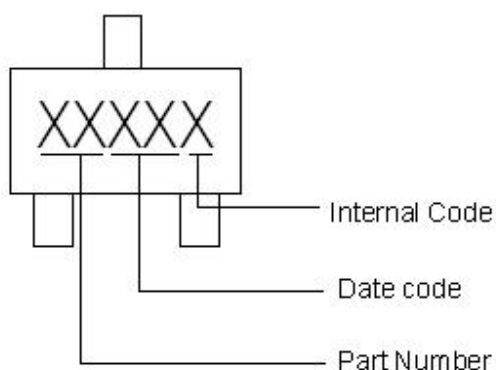
Part Number	B _{OP} /B _{RP} (Gauss)	Package Type	Package Qty	Temperature	Eco Plan
AS1697AMBY	± 20	SIP-3L	1K/Package	$-40 \sim 125^{\circ}\text{C}$	RoHS
AS1697AWRY	± 20	SOT23-3L	7-in reel 3000pcs/reel	$-40 \sim 125^{\circ}\text{C}$	RoHS
AS1697BMBY	± 30	SIP-3L	1K/Package	$-40 \sim 125^{\circ}\text{C}$	RoHS
AS1697BWRY	± 30	SOT23-3L	7-in reel 3000pcs/reel	$-40 \sim 125^{\circ}\text{C}$	RoHS
AS1697CMBY	± 40	SIP-3L	1K/Package	$-40 \sim 125^{\circ}\text{C}$	RoHS
AS1697CWRY	± 40	SOT23-3L	7-in reel 3000pcs/reel	$-40 \sim 125^{\circ}\text{C}$	RoHS
AS1697AMBZ	± 20	SIP-3L	1K/Package	$-40 \sim 150^{\circ}\text{C}$	RoHS
AS1697AWRZ	± 20	SOT23-3L	7-in reel 3000pcs/reel	$-40 \sim 150^{\circ}\text{C}$	RoHS
AS1697BMBZ	± 30	SIP-3L	1K/Package	$-40 \sim 150^{\circ}\text{C}$	RoHS
AS1697BWRZ	± 30	SOT23-3L	7-in reel 3000pcs/reel	$-40 \sim 150^{\circ}\text{C}$	RoHS
AS1697CMBZ	± 40	SIP-3L	1K/Package	$-40 \sim 150^{\circ}\text{C}$	RoHS
AS1697CWRZ	± 40	SOT23-3L	7-in reel 3000pcs/reel	$-40 \sim 150^{\circ}\text{C}$	RoHS

Marking Information

SIP-3L:

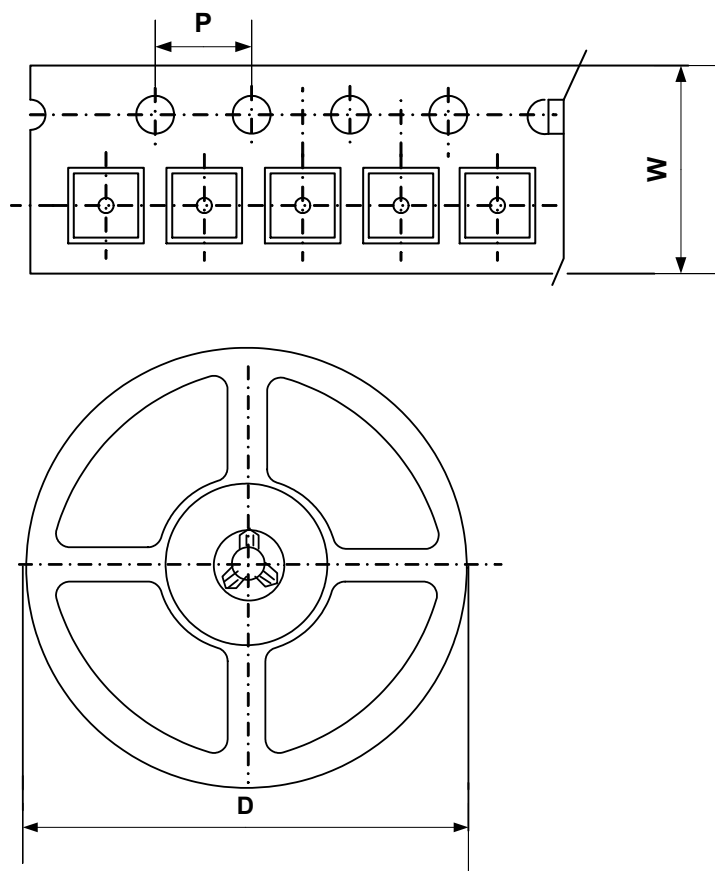


SOT23-3L



■ 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

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