

Magnetic Sensor IC

**Continuous-Time Ratio-metric  
Linear Hall-Effect Sensor IC****AS1292****● General Description**

The AS1292 is small, versatile linear Hall effect devices which are operated by the magnetic field from a permanent magnet or an electromagnet. They are optimized to accurately provide a voltage output that is proportional to an applied magnetic field. These devices have a quiescent output voltage that is about 50% of the supply voltage.

The integrated circuitry provides increased temperature stability and sensitivity, for both linear target motion and rotational motion. These linear position sensors have an operating temperature range of -40°C to +125°C, appropriate for industrial environments. They respond to either positive or negative gauss, monitoring either or both magnetic poles. The quad Hall sensing element minimizes the effects of mechanical or thermal stress on the output. The positive temperature coefficient of the sensitivity helps compensate for the negative temperature coefficients of low cost magnets, providing a robust design over a wide temperature range.

The AS1292 is available in SIP-3L and SOT23 package, and is rated over the -40°C to +125°C. These packages are available in a lead (Pb) free version.

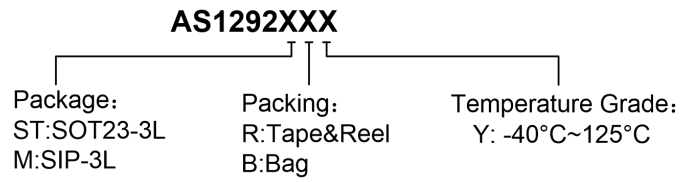
**● Features**

- Input Voltage Range : 3.0V to 5.5V
- Fast Power-on Time
- Power consumption of 2.5mA/5V
- Single Current Sinking or Current Sourcing Output
- Linear Output For Circuit Design Flexibility
- Temperature Stable Quiescent Output Voltage
- Quad Hall Sensing Element For Stable Output
- Responds to Either Positive or Negative Gauss
- Robust EMC Protection
- Small Solution Size
- RoHS & Green Compliant
- SIP-3L and SOT23-3L Packages
- -40°C to +125 °C Temperature Range

**● Applications**

- Current Sensing
- Motor Control
- Linear Position Sensing
- Magnetic Code Reading
- Rotary Position Sensing
- Ferrous Metal Detector
- Vibration Sensing

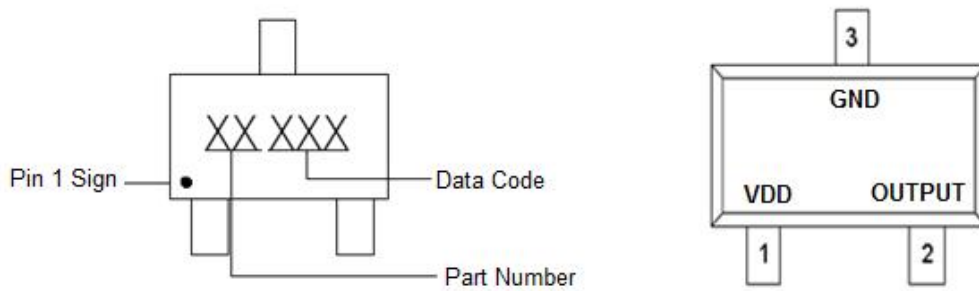
## Ordering Information



Part Number	Sensitivity (Typ.)	Package Type	Package Qty	Temperature	Eco Plan
AS1292STRY	-2.9mV/Gauss	SOT23-3L	7-in reel 3000pcs/reel	-40~125°C	Green
AS1292MBY	+2.9mV/Gauss	SIP-3L	1000pcs/Package	-40~125°C	Rohs

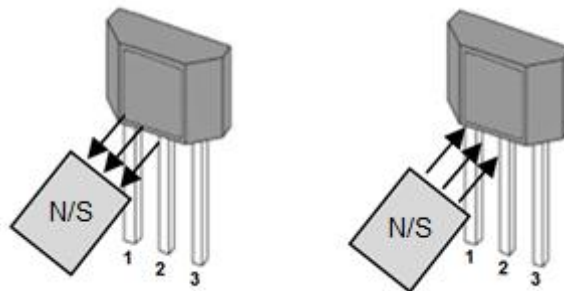
## Marking & Pin Assignment

### SOT23-3L



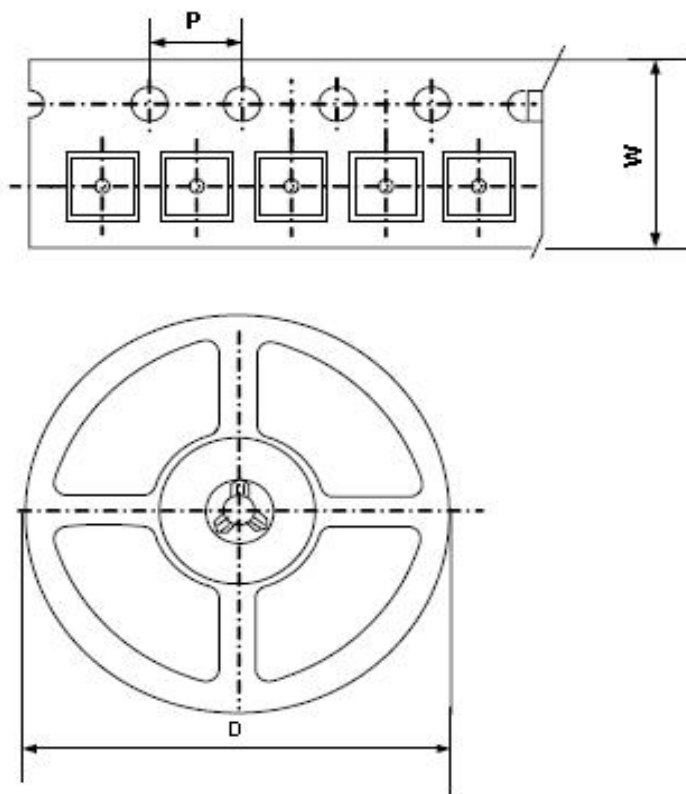
Pin Name	Pin No.	I/O	Pin Function
	SOT23-3L		
VDD	1	P	Input Power Supply
GND	3	P	Ground
OUTPUT	2	O	Output Pin

### 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.

■ **Packing Information**



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: Bag
- 2, Packing minimum: 1000pcs