

**LINEAR HALL-EFFECT IC****AH49E****Description**

The AH49E is a small, versatile linear Hall-effect device that is operated by the magnetic field from a permanent magnet or an electromagnet. The output voltage is set by the supply voltage and varies in proportion to the strength of the magnetic field.

The integrated circuitry features low noise output, which makes it unnecessary to use external filtering. It also includes precision resistors to provide increased temperature stability and accuracy. The operating temperature range of these linear Hall sensors is -40°C to 85°C, appropriate for commercial, consumer and industrial applications.

The AH49E is available in standard TO-92S and SOT-23-3 packages.

Features

- Miniature Construction
- Power Consumption of 3.5mA at $V_{CC}=5V$ for Energy Efficiency
- Single Current Sourcing Output
- Linear Output for Circuit Design Flexibility
- Low Noise Output Virtually Eliminates the Need for Filtering
- A Stable and Accurate Output
- Temperature Range of -40°C to 85°C
- Responds to Either Positive or Negative Gauss

Applications

- Current Sensing
- Motor Control
- Position Sensing
- Magnetic Code Reading
- Ferrous Metal Detector
- Vibration Sensing
- Liquid Level Sensing
- Weight Sensing

Parametric Table

$V_{CC}=5V$, $T_A=25^{\circ}C$, unless otherwise noted

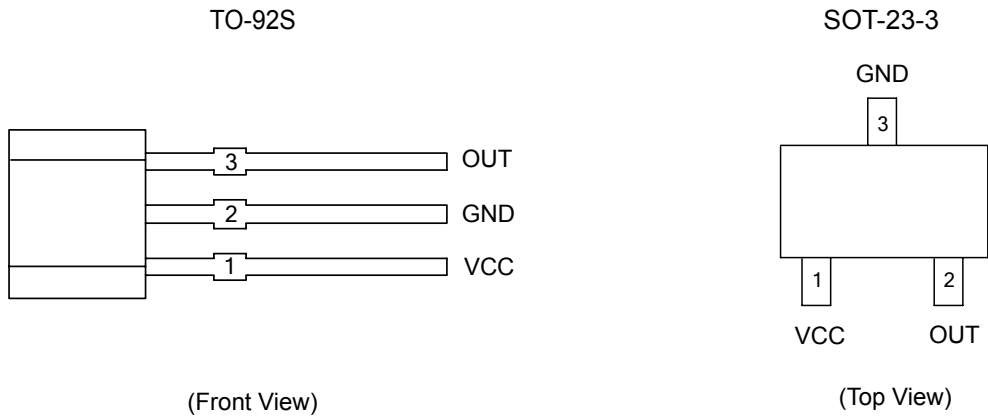
Supply Current (mA)	3.5
V_{NULL} (V)	2.5
Output Voltage Sensitivity (mV/GS)	1.6
Output Voltage Span (V)	0.8 to $V_{CC}-0.8$
Output Resistor (Ω)	60
Magnetic Field Range (GS)	± 1000
Packages	TO-92S SOT-23-3

Benefits

- Low Supply Current
- Good Linearity and Varies in Proportion to the Strength of the Magnetic Field
- Low Noise Output
- Stable Output

Additional Available Materials

- Samples
- Data Sheet
- Reliability Report
- ESD Report

**LINEAR HALL-EFFECT IC****AH49E****Pin Configuration****Ordering Information Example**

Package	Temperature Range	Part Number		Marking ID		Packing Type
		Lead Free	Green	Lead Free	Green	
TO-92S	-40 to 85°C	AH49EZ3-E1	AH49EZ3-G1	AH49E	AH49G	Bulk
SOT-23-3			AH49ENTR-G1		GJ1	Tape & Reel

Detailed information please refer to the relevant datasheet.

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