July 13, 2009

New Product Introduction: SS30AT Bipolar Hall-Effect Magnetic Position Sensor

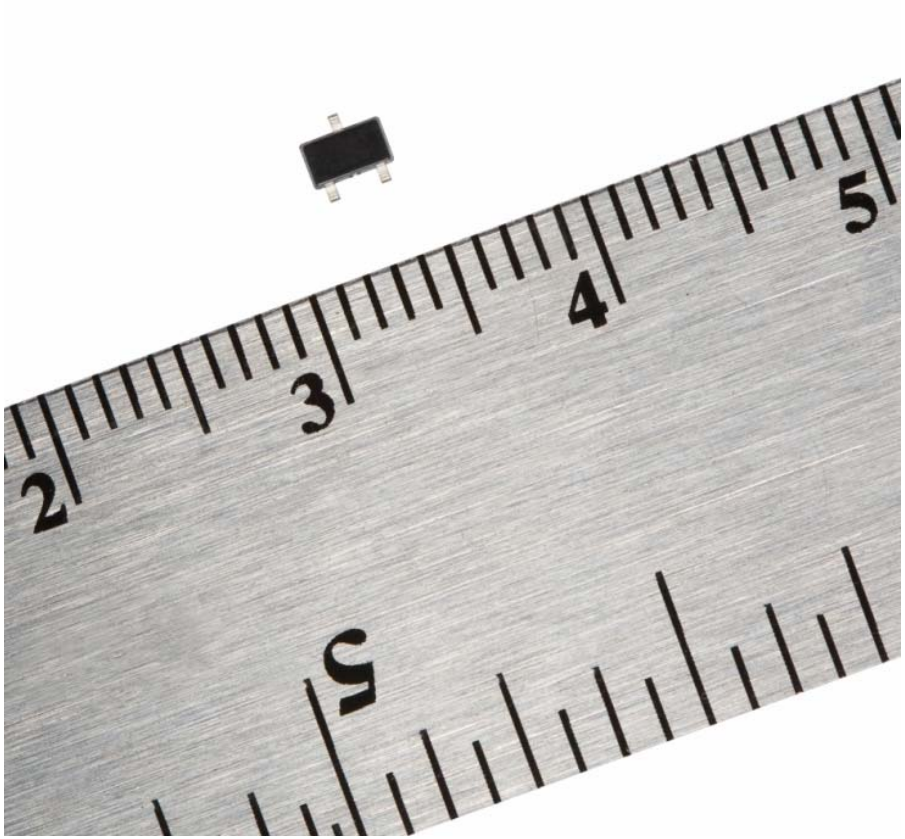
Honeywell

SS30AT Bipolar Hall-Effect Magnetic Sensor

- **Introduction**
  - Honeywell has expanded its bipolar Hall-effect sensor product line with the new SS30AT Bipolar Hall-Effect Magnetic Position Sensor
  - Honeywell's smallest bipolar Hall-effect magnetic position sensor
  - Available in a subminiature SOT-23 surface mount package that takes up less space on the printed circuit board (PCB)
  - Available on tape and reel, often allowing for lower-cost pick and place assembly, helping to reduce manufacturing costs
  - Very small, versatile, digital Hall-effect device operated by the magnetic field from a permanent magnet or an electromagnet designed to respond to alternating North and South poles

SS30AT Bipolar Hall-Effect Magnetic Sensor

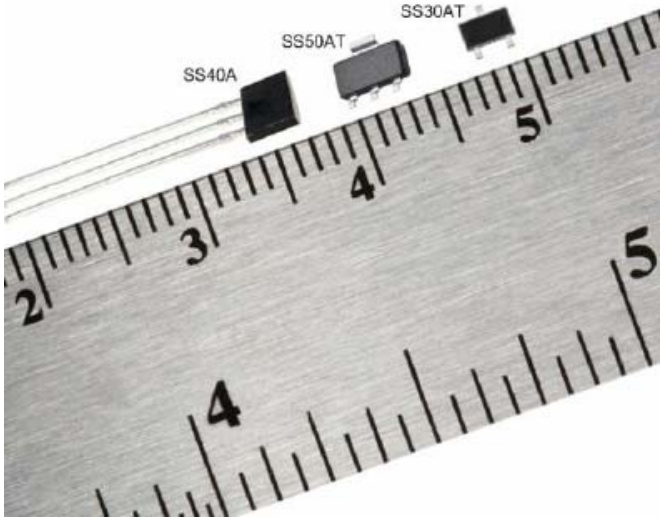
SS30AT, enlarged



SS30AT, actual size

SS30AT Bipolar Hall-Effect Magnetic Sensor

- **Bipolar Product Line now Consists of:**
  - New SS30AT: Subminiature SOT-23 surface mount package (tape and reel); an extension of the SS40A Series with a flat TO-92 type package
  - SS40A: Leaded flat TO-92 style package (bulk packaging, 1000 units per bag)
  - SS40A-T2: Straight leads on tape in ammopack (fan-fold)
  - SS40A-T3: Formed leads on tape in ammopack (fan-fold)
  - SS50AT: Miniature SOT-89 surface mount package (tape and reel)



SS40A, SS50AT, SS30AT, actual size

SS30AT Bipolar Hall-Effect Magnetic Sensor

- **Features and Benefits**
  - Subminiature package size often allows for use in applications with tight PCB space where a compact design is needed
  - Sensitive bipolar magnetics respond to alternating North and South poles, often making these products well-suited for a variety of speed sensing and RPM measurement applications
  - Built-in reverse voltage protection simplifies installation and protects device from damage when mounted on PCB
  - Thermally balanced integrated circuit provides stable operation over a full temperature range
  - 4.5 to 24 Vdc supply voltages enhance application flexibility
  - Operating temperature to 125 °C [257 °F] provides application flexibility
  - RoHS-compliant materials meet Directive 2002/95/EC

SS30AT Bipolar Hall-Effect Magnetic Sensor

- **Potential Applications**
  - Transportation:
    - Speed and RPM (revolutions per minute) sensing
    - Tachometer, counter pickup
    - Motor and fan control
    - Electric vehicle control
    - Convertible roof position
  - Industrial:
    - Speed and RPM (revolutions per minute) sensing
    - Tachometer, counter pickup
    - Flow-rate sensing
    - Brushless dc (direct current) motor commutation
    - Motor and fan control
    - Robotics control

How the SS30AT Provides Value to our Customers

For (customer)	**SEGMENTS:** Transportation motion control, industrial **POTENTIAL APPLICATIONS:** Transportation motion control: speed/RPM sensing, tachometer, counter pickup, motor and fan control, electric vehicle control, convertible roof position; Industrial: speed and RPM sensing, tachometer, counter pickup, flow-rate sensing, brushless dc motor commutation, motor and fan control, robotics control
… that need	a miniature device with a robust design and reliable performance to sense alternating North and South poles from a permanent magnet or an electro magnet.
… Honeywell's	**Bipolar Hall-Effect Magnetic Position Sensor** SS30AT

CUSTOMER BENEFITS		***HONEYWELL DELIVERS…***	*Competitive differentiation*
• Cost savings result in lower costs to customers	**Price competitive**	• Honeywell has optimized the size of the integrated circuit, reducing manufacturing costs while still meeting customer requirements	
• Often allows for automated, lower-cost pick and place assembly, helping the customer to reduce manufacturing costs	**Economical**	• Package is supplied on tape and reel	
• Typically allows more components on same board	**Small**	• Small footprint takes up less space on PCB	1
• Enhances application flexibility	**Flexible**	• Sinking output with open collector allows sensor to interface with many electrical components without buffering; 4.5 to 24 Vdc supply voltages; operating temperature to 125 °C [257 °F]	2
• Provides stable operation over full temp range	**Stable**	• Thermally balanced integrated circuit	
• Provides enhanced circuit protection	**Safe**	• Built-in reverse voltage protection	3

1. Some competitive offerings do not offer a package as small as Honeywell's; 2. Honeywell has higher input voltage, wider temp range and better magnetic symmetry than do some competitive offerings. Some competitive offerings require external circuitry/components for reliable operation, while Honeywell doesn't; 3. Honeywell has reverse voltage protection, while some competitive offerings do not.

SS30AT Bipolar Hall-Effect Magnetic Sensor

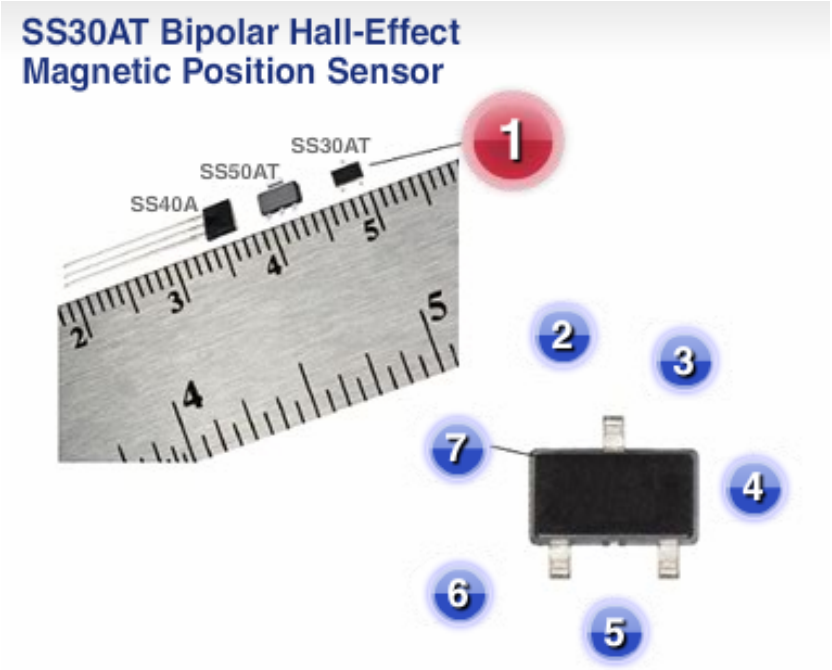
- **How to Order**
  - SS30AT: Bipolar Hall-effect magnetic position sensor, SOT-23 package, tape and reel packaging
  - SS40A, SS40A-T2, SS40A-T3: Bipolar Hall-effect magnetic position sensor, flat TO-92 package, bulk packaging (1000 units per bag) or on ammopack tape (-T2 and -T3)
  - SS50AT: Bipolar Hall-effect magnetic position sensor, SOT-89B package, tape and reel packaging
- **Samples**
  - Available now
  - Contact your Authorized Distributor or Sales Rep
    - Visit the Honeywell Sensing and Control website to find an Authorized Distributor or Rep in your area
- **Product Availability**
  - July 13, 2009

SS30AT Bipolar Hall-Effect Magnetic Sensor

- **Training**
  - Available from:
    - Product manager: Mike Adkins, mike.adkins@honeywell.com, +1 815-235-5967
    - Application engineer: JC Phillippon, jean-claude.phillippon@honeywell.com, +1 815-235-5444
    - Application engineer: Al Buisker, alan.buisker@honeywell.com, +1 815-235-6701

SS30AT Bipolar Hall-Effect Magnetic Sensor

- **For More Information**
  - Visit the SS30AT Bipolar Hall-Effect Magnetic Sensor New Product Webpage with hotspot rollovers
  - Product Sheet
  - Installation Instructions
  - Magnetic Sensors Line Guide
  - Press release
  - S&C Website



New Product Webpage

Warranties, Remedies, and Warnings

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Warnings and Remedies

⚠ WARNING

PERSONAL INJURY

DO NOT USE these products as safety or emergency stop devices or in any other application where failure of the product could result in personal injury.

Failure to comply with these instructions could result in death or serious injury.

WARRANTY/REMEDY

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship. Honeywell's standard product warranty applies unless agreed to otherwise by Honeywell in writing; please refer to your order acknowledgement or consult your local sales office for specific warranty details. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace, at its option, without charge those items it finds defective. **The foregoing is buyer's sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose. In no event shall Honeywell be liable for consequential, special, or indirect damages.**

While we provide application assistance personally, through our literature and the Honeywell web site, it is up to the customer to determine the suitability of the product in the application.

Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this printing. However, we assume no responsibility for its use.

⚠ WARNING

MISUSE OF DOCUMENTATION

- The information presented in this document is for reference only. Do not use this document as a product installation guide.
- Complete installation, operation, and maintenance information is provided in the instructions supplied with each product.

Failure to comply with these instructions could result in death or serious injury.