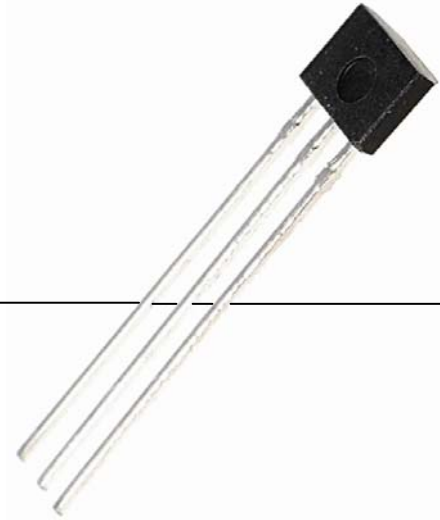


SS41F

Low Gauss Bipolar Hall-effect Sensor



DESCRIPTION

The SS41F is a sensitive, bipolar Hall-effect sensor. This magnetic sensor offers reverse power polarity protection up to the full operating range and is designed to deliver stable output over a -40 °C to 150 °C [-40 °F to 302 °F] temperature range.

Operation from any dc supply voltage from 4.5 Vdc to 24 Vdc is acceptable.

FEATURES

- Small size: 4,1 mm x 3,0 mm [0.16 in x 0.12 in]
- Current sinking output
- Reverse polarity protection
- Operating speed from 0 Hz to over 100 kHz
- Sensitive: bipolar magnetics respond to alternating north and south poles

POTENTIAL APPLICATIONS

- Cooling fan control in computers and appliances
- RPM (revolutions per minute) sensing and speed control
- Brushless dc motor commutation
- Position sensing and motor control
- Simple magnetic encoding
- Flow rate sensing (air or liquid)

SS41F

ABSOLUTE MAXIMUM RATINGS

Parameter	Minimum	Typical	Maximum	Unit
Supply voltage	-28	–	28	V
Applied output voltage	-0.5	–	28	V
Output current	–	–	20	mA
Magnetic flux	–	–	no limit	gauss

Note:

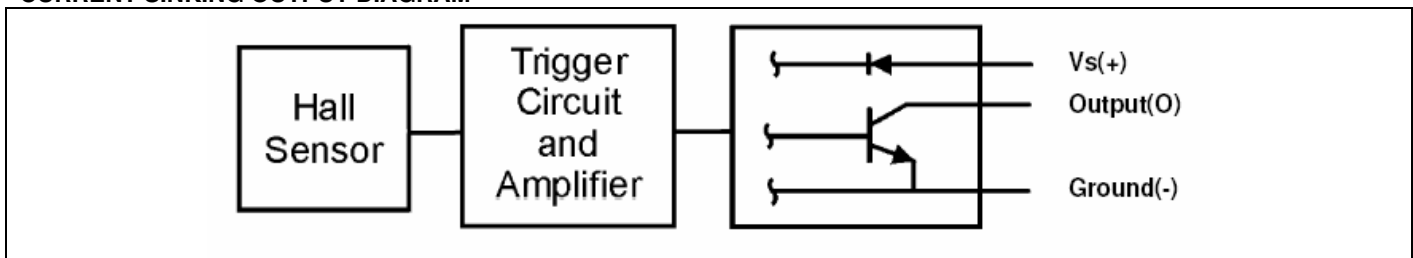
Absolute maximum ratings are the extreme limits the device will momentarily withstand without damage to the device. Electrical and magnetic characteristics are not guaranteed if the rated voltage and/or currents are exceeded nor will the device necessarily operate at absolute maximum ratings.

PERFORMANCE SPECIFICATIONS (At 4.5 V to 24 V with 20 mA load unless otherwise noted.)

Parameter	Condition	Minimum	Typical	Maximum	Unit
Supply voltage	–	4.5	–	24	V
Supply current	25 °C [77 °F] Ioff	–	–	10	mA
Supply current	25 °C [77 °F] Ion	–	–	11	mA
Output current	–	–	–	20.0	mA
Vsat at 20 mA	25 °C [77 °F]	–	–	0.4	V
Output leakage	gauss < -170	–	–	10.0	µA
Rise time	25 °C [77 °F]	–	0.2	1.5	µs
Fall time	25 °C [77 °F]	–	0.5	1.5	µs
Operate	25 °C [77 °F]	–	–	150	gauss
Release	25 °C [77 °F]	-140	–	–	gauss
Differential	–	50	80	–	gauss
Operating temperature	–	-40 [-40]	–	150 [302]	°C [°F]
Storage temperature	–	-40 [-40]	–	150 [302]	°C [°F]

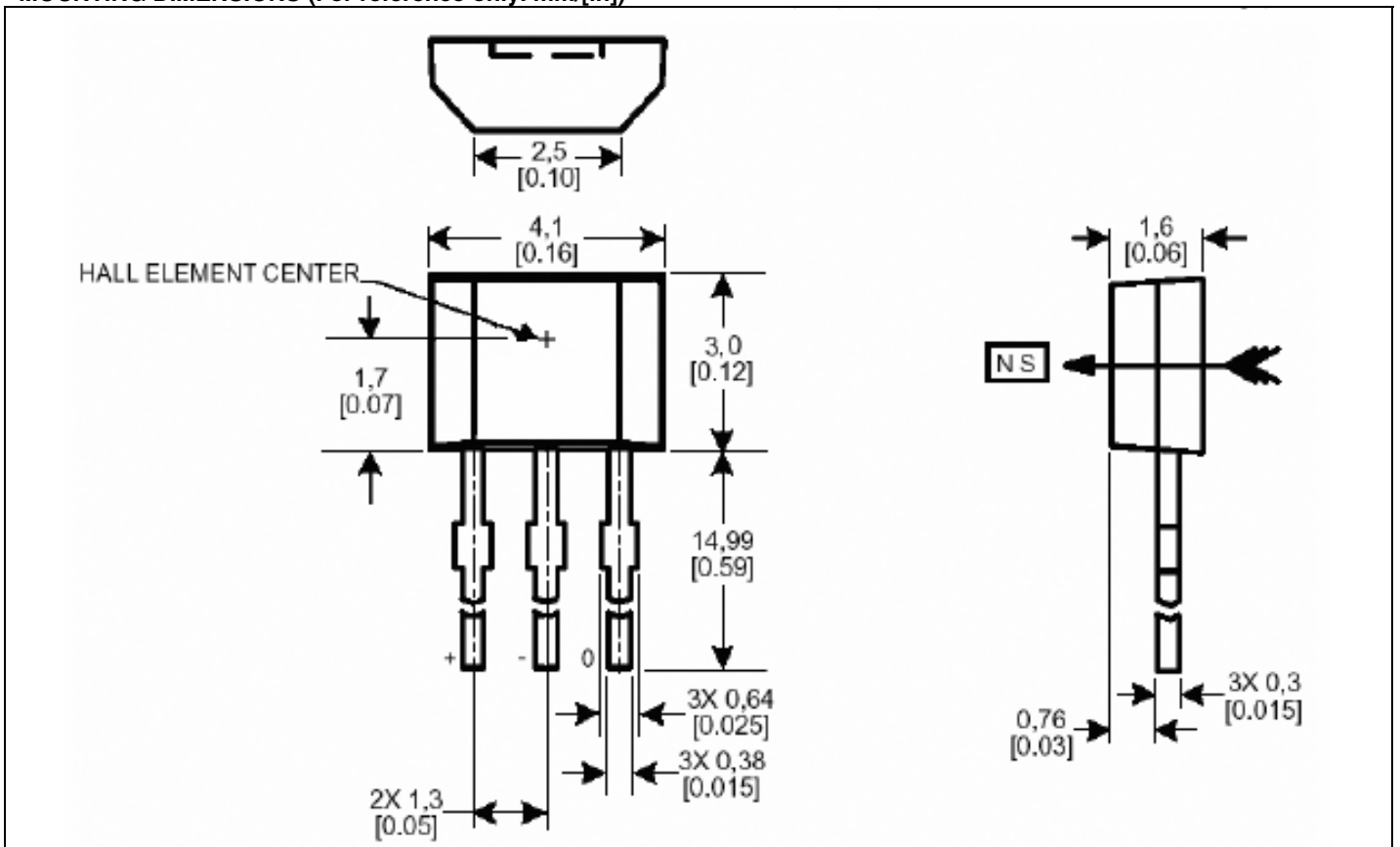


CURRENT SINKING OUTPUT DIAGRAM



Low Gauss Bipolar Hall-effect Sensor

MOUNTING DIMENSIONS (For reference only. mm/[in])



ORDER GUIDE

Catalog Listing	Description
SS41F	Low gauss bipolar hall-effect sensor, standard bulk pack with 1000 units per bag

WARNING

MISUSE OF DOCUMENTATION

- The information presented in this product sheet 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.

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

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.

SALES AND SERVICE

Honeywell serves its customers through a worldwide network of sales offices, representatives and distributors. For application assistance, current specifications, pricing or name of the nearest Authorized Distributor, contact your local sales office or:

E-mail: info.sc@honeywell.com

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