Solid State Sensors
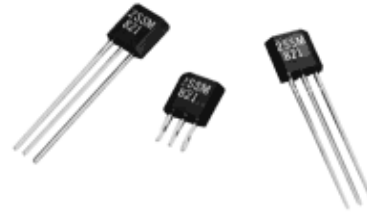### Digital Magnetoresistive Sensor

2SS52M Series

FEATURES/BENEFITS

- Advanced electronic circuitry including a band-gap regulator. Can be used with a wide range of supply voltages.
- Low gauss operation can extend sensing distance to one inch or more, depending on magnet size.
- Digital current sinking output
- Omnipolar - can be operated with either North or South magnetic pole. Will simplify installation in single pole applications and double the resolution in rotating magnet applications.
- Operating speed: 0 to over 100kHz; will keep up with fast moving targets.
- 3-pin, in-line PC board terminals on 0.050-inch mounting centers (0.100 centers available on tape for automated assembly).
- Operating temperature range: -40° to +150°C (-40° to 302°F) allows use in extreme temperature conditions.
- Surface mount style available 2SS52M-S for mounting flexibility.

TYPICAL APPLICATIONS

- Cylinder position sensing
- Elevator sensor
- Laptop lid sensor
- Geartooth sensor
- Blood analyzer
- Industrial proximity sensor
- High-resolution magnetic encoder

2SS52M Series position sensors have a built-in magnetoresistive bridge integrated on silicon and encapsulated in a plastic package. The integrated circuit also includes a band-gap regulator and a digital output that will respond to very low magnetic fields. Though the signal is identical to our digital Hall effect sensors, it can be achieved by magnetoresistive sensors at much greater sensor-to-magnet distances.

CATALOG LISTINGS

2SS52M, 2SS52M-S, 2SS52M-T2, 2SS52M-T3
(See reverse side for mounting dimensions)

OPERATING CHARACTERISTICS

	2SS52M/2SS52M-S		
Supply voltage (VDC)	3.8 to 30		
Supply Current (mA max.)			
Operate	11		
Release	10		
Output Type	Sink		
Output Voltage (V) @ 20mA	.40 max.		
Output Current (mA max.)	20		
Leakage Current (µA, max.)	10		
Operating Temperature	-40 to +150°C		
Magnetics Type	Omnipolar		
Magnetic Char. & Temp.		Gauss	mT
-40 to +150°C Max. Op.		25	2.5
Min. Rel.		4	0.4
Max. Dif.		8	0.8

mT = milliTesla

OPERATING MODE (Arrows indicate direction of magnetic flux.)

2SS52M sensors are operated by magnetic fields (North **or** South pole) **parallel** to the magnetoresistive element.

 Note: Due to the inherent high sensitivity of 2SS52M sensors, stray magnetic fields that are parallel to the IC may effect operation.

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Digital Magnetoresistive Sensor

2SS52M Series

WARRANTY/REMEDY

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship. Contact your local sales office for warranty information. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace 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.**

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.

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.

For application assistance, current specifications or name of the nearest Authorized Distributor, contact a nearby sales office. Or call:

1-800-537-6945 USA
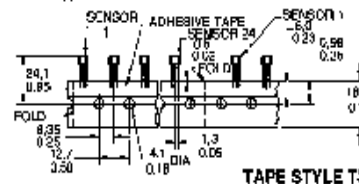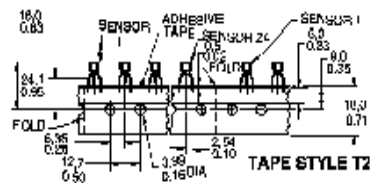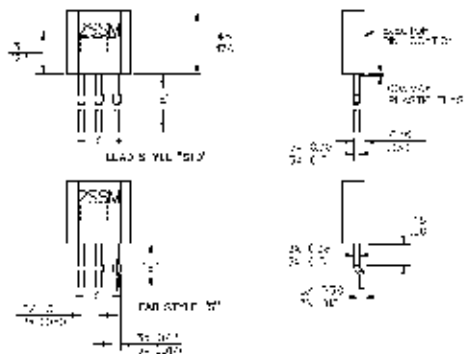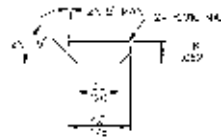1-800-737-3360 Canada
1-815-235-6847 International

FAX
1-815-235-6545 USA

INTERNET
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MOUNTING DIMENSIONS

Suffix	Description	Nominal Lead Spacing	Nominal "E" Dim Length	Parts Per Container
(none)	Standard, Bulk Pack	.050	.590	1000/Bag
S	Surface Mount, Bulk Pack	.050	.125	1000/Bag
T2	Tape, Ammopack	.100	.590	5000/Box
T3	Tape, Ammopack	.050	.590	5000/Box

TAPE STYLE T2

TAPE STYLE T3

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