

Installation Instructions for the SS552MT Series Surface-Mount Magnetoresistive Position Sensors

ISSUE 1
50000275

⚠ 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.

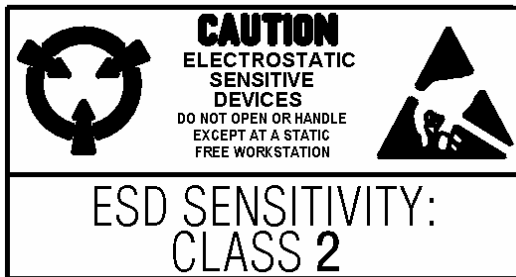
Failure to comply with these instructions could result in death or serious injury.

OPERATING MODE

SS552MT Series are operated by magnetic fields (North or South) **parallel** to the sensor package.

NOTICE

Due to the inherently high sensitivity of the SS552MT, stray magnetic fields parallel to the IC may affect operation.



SOLDERING INSTRUCTIONS

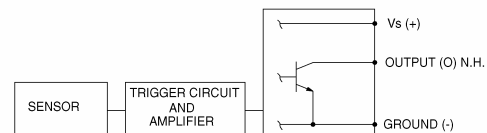
Honeywell recommends an infrared reflow process with peak temperatures not to exceed 245 °C [473 °F] for 10 seconds maximum.

ABSOLUTE MAXIMUM RATINGS*

| | |
|--------------------------------------|---|
| Supply Voltage (V_s) | -0.5 Vdc to 30 Vdc |
| Voltage Externally Applied to Output | 30 Vdc max. (OFF cond. only) -0.5 Vdc min. (OFF or ON cond.) |
| Output ON Current | 20 mA max. |
| Temperature | -40 °C to 150 °C [-40 °F to 302 °F] |
| Magnetic Flux | No limit—circuit cannot be damaged by magnetic overdrive |

*Absolute maximum ratings are the extreme limits the device will withstand without damage to the device. However, the electrical and mechanical characteristics are not guaranteed as the maximum limits (above recommended operating conditions) are approached, nor will the device necessarily operate at absolute maximum ratings.

BLOCK DIAGRAM CURRENT SINKING OUTPUT (NPN)



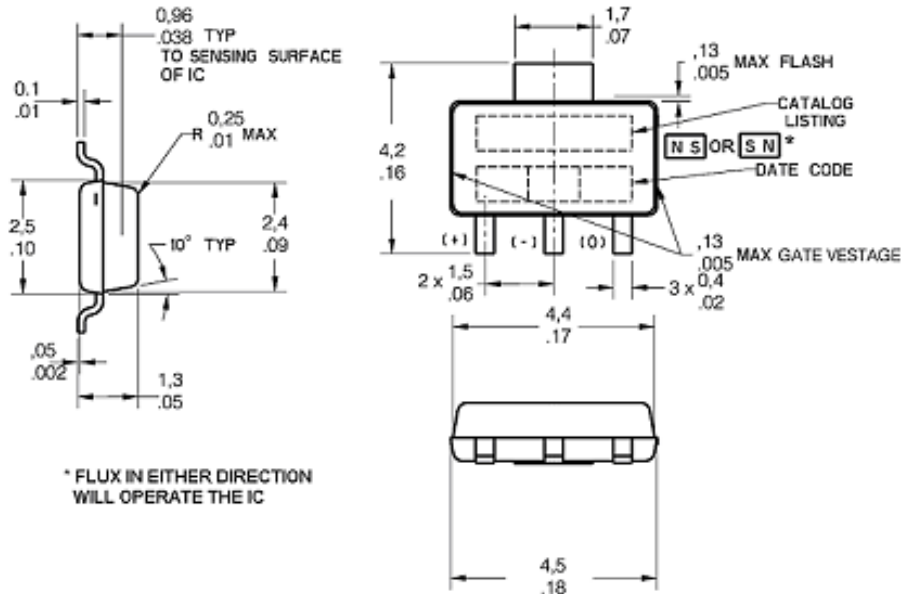
ELECTRICAL SPECIFICATIONS over 3.8 Vdc to 30 Vdc and -40 °C to 150 °C [-40 °F to 302 °F]
unless otherwise noted

| | Min. | Typ. | Max. | Remarks |
|--|---------|--------|------------------|--------------------------------|
| Supply Current (without load) at 25°C, with 16 V supply | – | 6 mA | 11 mA 10 mA | Max. operated Max. released |
| Supply Voltage | 3.8 Vdc | | 30 Vdc | |
| Output Voltage (operated) | – | 0.25 V | 0.40 V | Sinking 20 mA max. |
| Output Leakage Current (released) | – | | 10 µA | Leakage into sensor output |
| Output Switching Time | Rise | – | 0.2 µs 1.5 µs | 10% to 90%, 1600 Ω, 20 pF load |
| | Fall | | 0.1 µs 1.5 µs | 90% to 10%, 1600 Ω, 20 pF load |

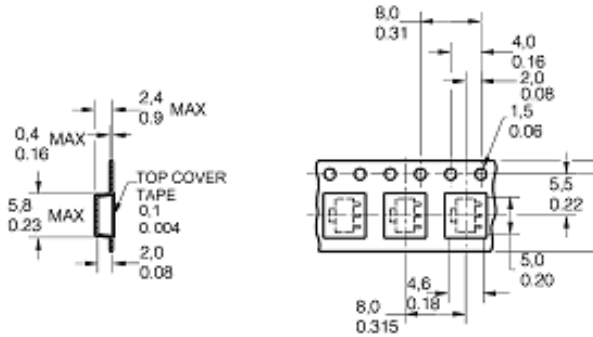
MAGNETIC CHARACTERISTICS OVER 3.8 TO 30 VDC SUPPLY VOLTAGE

| Temperature Range | Max. Operate | Min. Release | Max. Differential |
|-----------------------------|--------------|--------------|-------------------|
| -25 to 85°C [-13 to 185°F] | 25 gauss | 5 gauss | 7 gauss |
| -40 to 150°C [-40 to 302°F] | 25 gauss | 4 gauss | 8 gauss |

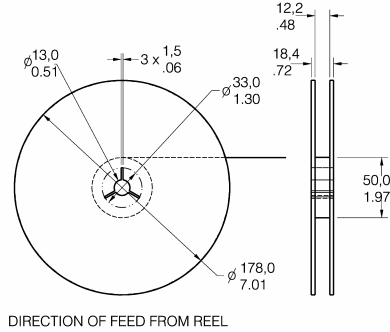
MOUNTING DIMENSIONS (for reference only) mm/in



TAPE DIMENSIONS (for reference only) mm/in



REEL DIMENSIONS (for reference only) mm/in



NOTE: This product is sold in tape and reel form **only**, per EIA STD 481. There are 1,000 parts per reel.

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
www.honeywell.com/sensing
info.sc@honeywell.com

Honeywell

Sensing and Control

Honeywell
11 West Spring Street
Freeport, Illinois 61032

50000275-1-EN IL50 GLO 0803 Printed in USA
Copyright 2003 Honeywell International Inc.

www.honeywell.com/sensing