# Installation Instructions for the 2SS52M Series Magnetoresistive Position Sensors

PK 80077

# **A** 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**

2SS52M Series are operated by magnetic fields (North **or** South) **parallel** to the sensor package.

### NOTICE

Due to the inherently high sensitivity of the 2SS52M, stray magnetic fields parallel to the IC may affect operation.



### SOLDERING/ASSEMBLY

Leads **must** be adequately supported during any forming/shearing operation to ensure that the leads are not stressed inside the plastic case. Recommended PC board wave soldering temperature is 250 to 260°C (482 to 500°F) for 3 seconds maximum.

### **ABSOLUTE MAXIMUM RATINGS\***

Supply voltage	3.8 to +30 VDC			
Voltage externally	+24 VDC max. (OFF cond. only)			
applied to output	-0.5 VDC min. (OFF or ON cond.)			
Output ON current	20 mA max.			
Temperature	-40 to +150°C (-40 to +302°F)			
Magnetic flux	No limit. Circuit cannot be damaged by magnetic overdrive.			

\* Absolute maximum ratings are the extreme limits that 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.

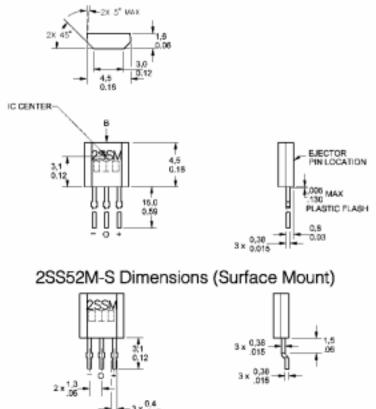
# ELECTRICAL SPECIFICATIONS over 3.8 to 30 VDC and -40 to +150°C unless otherwise noted

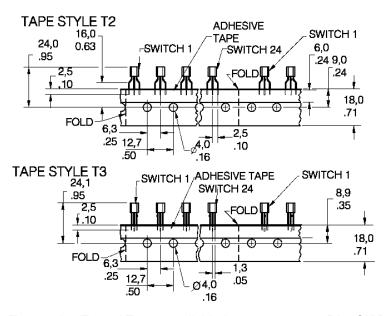
		Тур.	Max.	Remarks
Supply Current (without load)		6 mA	11 mA	Max. operated
at 25°C, with 16V supply			10 mA	Max. released
Output Voltage (operated)		0.25 V	0.40 V	Sinking 20 mA max.
Output Leakage Current (released)			10 μΑ	Leakage into sensor output
Output Switching Time	Rise	0.2 μs	1.5 μs	10 to 90%, 1600 Ω, 20 pF load
	Fall	0.1 μs	1.5 μs	90 to 10%, 1600 $\Omega$ , 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

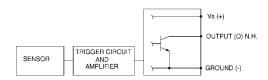
## **MOUNTING DIMENSIONS** (for reference only)



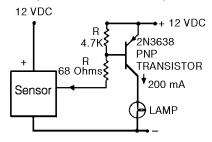


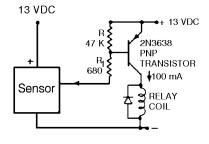
Tape styles T2 and T3 are available in ammo style package.

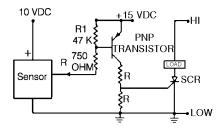
# **BLOCK DIAGRAM CURRENT SINKING OUTPUT (NPN)**

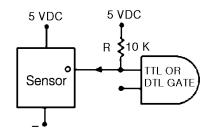


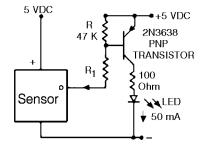
# **INTERFACE DIAGRAMS** NPN (CURRENT SINKING) OUTPUT

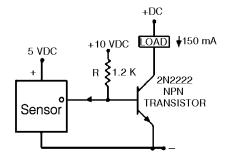


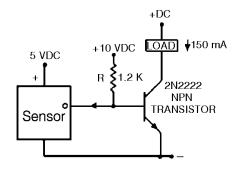


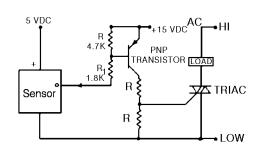












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### **FAX**

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### **INTERNET**

http://www.honeywell.com/sensing/info@micro.honeywell.com

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# Website:

Welcome to visit www.ameya360.com

# Contact Us:

# > Address:

401 Building No.5, JiuGe Business Center, Lane 2301, Yishan Rd Minhang District, Shanghai , China

# > Sales:

Direct +86 (21) 6401-6692

Email amall@ameya360.com

QQ 800077892

Skype ameyasales1 ameyasales2

# Customer Service :

Email service@ameya360.com

# Partnership :

Tel +86 (21) 64016692-8333

Email mkt@ameya360.com