

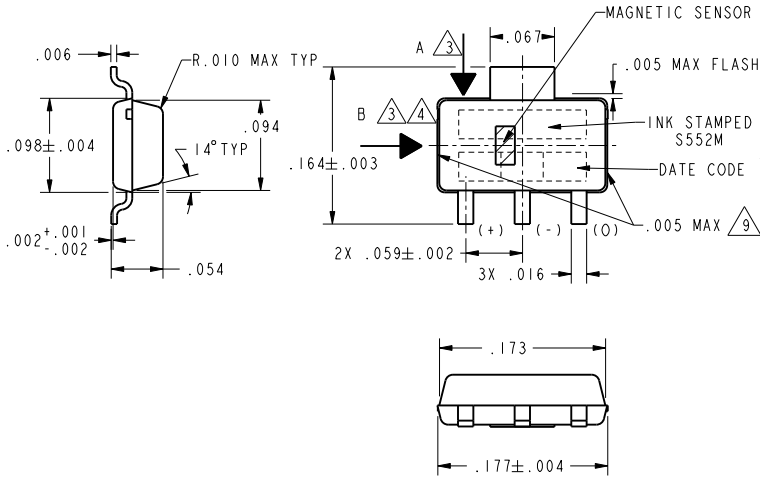
MICRO SWITCH
a Honeywell Division
FED. MFG. CODE 91929

SOLID STATE SENSOR

CATALOG LISTING
SS552MT

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CATALOG LISTING
SS552MT
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REPLACES
RELEASE NO. 0000904
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A 0000904 18 JAN 06
3 0018451 18 JAN 06
PTC/CAD
WJK 15 MAR 99
DRAWN
CHECK SAV 10 SEP 03
CHECK D60
CHECK 18 JAN 06



NOTES
1 - SOLDERING INSTRUCTIONS: EXPOSURE TO HIGH TEMPERATURES SHOULD BE KEPT AT A MINIMUM MICRO SWITCH RECOMMENDS AN INFRARED REFLOW PROCESS WITH PEAK TEMPERATURES NOT EXCEEDING 245°C FOR 10 SECONDS MAXIMUM. DO NOT WAVE SOLDER THIS PRODUCT, AS THIS PROCESS MAY NEGATIVELY AFFECT THE SENSOR'S PERFORMANCE AND RELIABILITY. SUBJECTING THESE PRODUCTS TO WAVE SOLDERING WILL VOID MICRO SWITCH'S WARRANTY.
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 SPECIFIED VOLTAGE AND/OR CURRENTS ARE EXCEEDED NOR WILL THE DEVICE NECESSARILY OPERATE AT ABSOLUTE MAXIMUM RATING.
TO TEST THE SENSOR AGAINST THE SPECIFIED OPERATING CHARACTERISTICS PLACE IN A HELMHOLTZ COIL FIELD AND GIVE THE FOLLOWING HISTORY: 35 GAUSS MINIMUM IN DIRECTION "A"; 35 GAUSS MINIMUM IN DIRECTION "B"; TEST TO OPERATING CHARACTERISTICS IN DIRECTION "B" (THIS ASSUMES THE CONVENTION THAT THE DIRECTION OF THE EXTERNAL FLUX OF A MAGNET IS FROM THE NORTH TO SOUTH POLE OF THE MAGNET) THE SENSOR WILL OPERATE WITH THE FLUX FROM EITHER POLE OF A MAGNET WHEN APPLIED IN THE DIRECTION AND LOCATION SHOWN.
AT SUPPLY VOLTAGE OF 3.8 TO 30 VDC AND OVER THE TEMPERATURE RANGE SPECIFIED AT 24°C ± 2°C AND 16 VDC ± 0.5 % SUPPLY VOLTAGE THE MAGNETIC CHARACTERISTICS OF THE SENSOR MAY BE AFFECTED BY STRAY MAGNETIC FIELDS.
THIS PRODUCT WILL BE SUPPLIED IN TAPE AND REEL FORM PER EIA STD 481. GATE VESTIGE PERMITTED IN THESE AREAS. UNDERFLUSH BREAKOUT LIMITED TO .007.

CAUTION
ELECTROSTATIC SENSITIVE DEVICE
DO NOT STORE OR HANDLE UNTIL YOU ARE READY TO ASSEMBLE
ESD SENSITIVITY: CLASS 2

THIRD ANGLE PROJECTION	
SCALE	NONE
DO NOT SCALE PRINT	
UNLESS OTHERWISE SPECIFIED TOLERANCES ARE	
ONE PLACE	(.0) ±.030
TWO PLACE	(.00) ±.015
THREE PLACE	(.000) ±.005
ANGLES	±
WEIGHT	

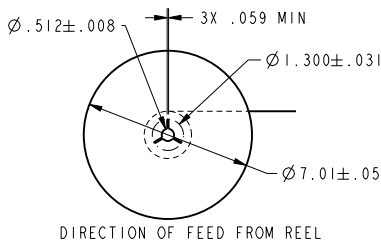
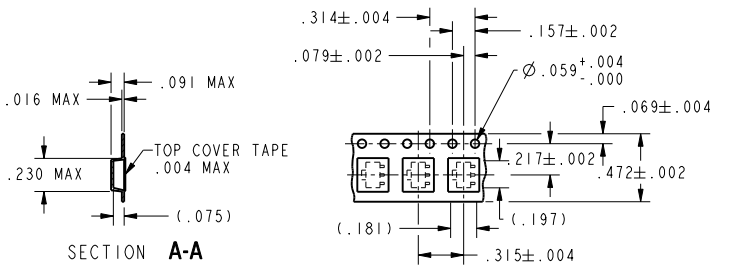
ANSI Y14.5M-1982 APPLIES

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TAPE AND REEL DIMENSIONS \triangle

MAGNETIC CHARACTERISTICS \triangle \triangle \triangle \triangle

TEMPERATURE RANGE	-20°C TO 85°C	-40°C TO 150°C
OPERATE MAX	25 GAUSS	25 GAUSS
RELEASE MIN	5 GAUSS	4 GAUSS
DIFF MAX	7 GAUSS	8 GAUSS

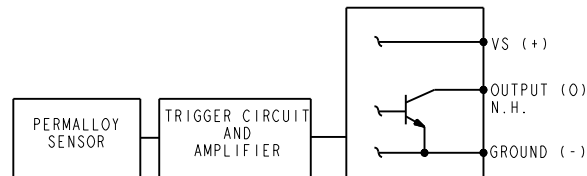
ABSOLUTE MAXIMUM RATING \triangle

SUPPLY VOLTAGE (VS)	- .5 TO 30 VOLTS DC
VOLTAGE EXTERNALLY APPLIED TO OUTPUT	+30 VDC MAX WITH SWITCH IN "OFF" CONDITION ONLY -0.5 VOLTS WITH SWITCH IN "OFF" OR "ON" CONDITION
OUTPUT CURRENT	20 mA
TEMPERATURE	-40°C TO 150°C
MAGNETIC FLUX	NO LIMIT, THE CIRCUIT CANNOT BE DAMAGED BY MAGNETIC OVERDRIVE

ELECTRICAL CHARACTERISTICS

	MIN	TYP	MAX	REMARKS
SUPPLY CURRENT (WITHOUT LOAD) \triangle \triangle		6 mA	11 mA 10 mA	MAX (OPERATED) MAX (RELEASED)
OUTPUT VOLTAGE (OPERATED) \triangle		0.25 V	0.40 V	SINKING 20 mA MAX
OUTPUT LEAKAGE CURRENT (RELEASED) \triangle			10 μ A	LEAKAGE INTO SWITCH OUTPUT
OUTPUT SWITCHING TIME \triangle				1600 OHM, 20pF LOAD
RISE TIME		0.2 μ S	1.5 μ S	10% TO 90%
FALL TIME		0.1 μ S	1.5 μ S	90% TO 10%
SUPPLY VOLTAGE	3.8 V		30 V	

BLOCK DIAGRAM OF CURRENT SINKING OUTPUT



CAUTION
ELECTROSTATIC SENSITIVE DEVICE
DO NOT OPEN UP HANDLE
UNTIL AFTER DISCHARGE
THE OPERATION

ESD SENSITIVITY:
CLASS 2

THIRD ANGLE PROJECTION
SCALE NONE
DO NOT SCALE PRINT
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