

NOTES

1 CENTERLINE OF HALL CELL

2 THE + MAGNETIC FLUX IS IN THE DIRECTION SHOWN (THIS ASSUMES THE CONVENTION THAT THE DIRECTION OF THE EXTERNAL FLUX OF A MAGNET IS FROM THE NORTH TO THE SOUTH POLE OF THE MAGNET)

3 - THE DEVICE CANNOT BE DAMAGED BY MAGNETIC OVERDRIVE

4 - THE MAGNETIC FIEKD STRENGTH (GAUSS) REQUIRED TO CAUSE THE SWITCH TO CHANGE STATE (OPERATE AND RELEASE) WILL BE AS TABULATED. TO TEST THE SWITCH AGAINST THE SPECIFIED LIMITS, THE SWITCH MUST BE PLACED IN A UNIFORM MAGNETIC FIELD

5 - LEADS MUST BE ADEQUATELY SUPPORTED DURING ANY FORMING/SHEERING OPERATION TO ASSURE THAT THE LEADS ARE NOT STRESSED WITHIN THE PLASTIC

6 - PCB WAVE SOLDERING GUIDELINES ARE AS FOLLOWS:  
250°C TO 260°C SOLDERING TEMPERATURE 3 SECONDS MAX SOLDERING TIME

7 BURRS ARE ALLOWED ONLY IF FULL LENGTH OF LEADS WILL PASS THROUGH Ø.023 HOLE. LEAD REFERENCE DIMENSIONS DO NOT INCLUDE SOLDER THICKNESS

8 DIMENSION REFERS TO THE LOCATION OF LEAD CENTERLINES AS THE EXIT THE PLASTIC PACKAGE

9 - SOME COMBINATIONS OF BASIC LISTING AND PACKAGE OPTIONS MAY NOT BE AVAILABLE

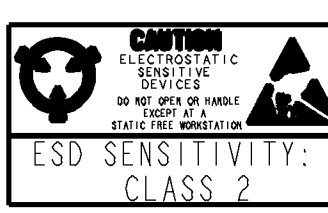
10 ABSOLUTE MAXIMUM RATINGS ARE THE EXTREME LIMITS THE DEVICE WILL MOMENTARILY WITHSTAND WITHOUT DAMAGE TO THE DEVICE. ELECTRICAL AND MAGNETIC CHARACTERISTICS ARE NOT GUARANTEED IF THE RATED VOLTAGE AND/OR CURRENTS ARE EXCEEDED NOR WILL THE DEVICE NECESSARILY OPERATE AT ABSOLUTE MAXIMUM RATINGS

11 LEAD STRAIGHTNESS MAY BE DETERIORATED ON SOME UNITS BY BULK PACKAGING. APPLICATIONS HAVING A CRITICAL LEAD STRAIGHTNESS REQUIREMENT SHOULD USE A TAPE PACKAGING OPTION

12 MOLDED PART DIMENSIONS DO NOT INCLUDE FLASH. FLASH IS LIMITED TO .005 MAX

13 THESE HALL EFFECT SENSORS MAY HAVE AN INITIAL OUTPUT IN EITHER THE ON OR OFF STATE IF POWERED UP WITH AN APPLIED MAGNETIC FIELD IN THE DIFFERENTIAL ZONE (APPLIED MAGNETIC FIELD > Brp AND < Bop). HONEYWELL RECOMMENDS THAT THE APPLICATION CIRCUIT DESIGNER ALLOW 10 MICROSECONDS AFTER SUPPLY VOLTAGE HAS REACHED 3 VOLTS FOR THE OUTPUT VOLTAGE TO STABILIZE

CATALOG LISTING	TAPE STYLE	DIM "L"	DIM "W"	COMMENTS
SS461R	NONE	.575	.050	BULK - 1000/BAG



DESIGN UNITS: INCH TOLERANCES UNLESS NOTED:	DRAWN JLH 28JAN09	Honeywell	
NO PLACE .X ± .030 ONE PLACE .XX ± .015 TWO PLACE .XXX ± .005 THREE PLACE .XXXX ± . FOUR PLACE X ± . ANGLES	CHECK JLH 28JAN09	TITLE SOLID STATE SENSOR	
THIRD ANGLE PROJECTION	INTERPRET PER ASME Y14.5M-1994 OTHER HONEYWELL ENGINEERING STANDARDS MAY APPLY		REV A
RASTER	SIZE D	TYPE I	DRAWING NAME SS461R
	SCALE -	SHEET 1 OF 2	

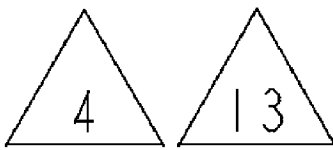
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C

B

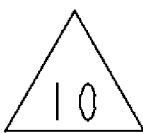
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CHARACTERISTICS ARE AT  $V_s=3.0$  TO 18 VOLTS WITH 20mA LOAD WITH  
 $T_A=-40^{\circ}\text{C}$  TO  $+150^{\circ}\text{C}$  UNLESS OTHERWISE NOTED



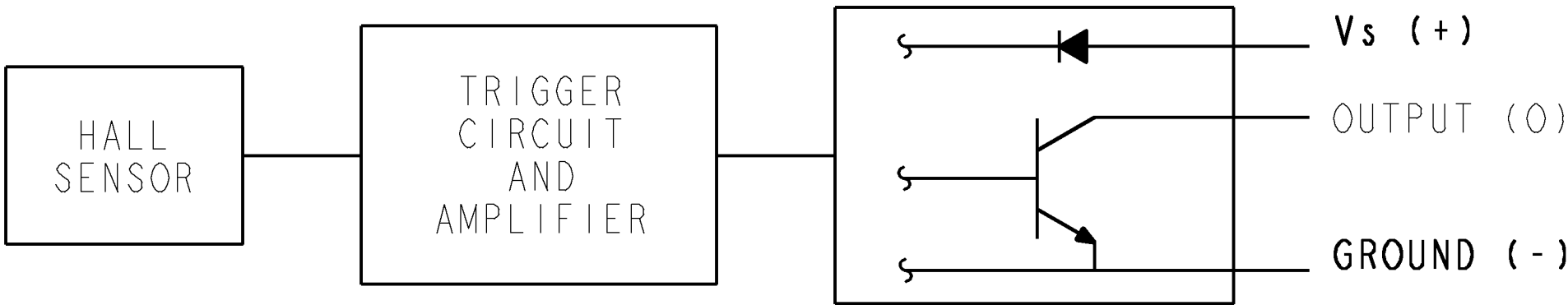
PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
SUPPLY VOLTAGE		3.0		18.0	VOLTS
SUPPLY CURRENT	VSUPPLY=5 V AT 25 C VSUPPLY=3 V AT 25 C		4.0 3.5 -	6.0 5.0 8.0	mA
Vsat AT 15mA	GAUSS > 120			0.4	VOLTS
OUTPUT LEAKAGE	GAUSS < -120			10.0	μA
RISE TIME	25°C			1.5	μS
FALL TIME	25°C			1.5	μS
OPERATE		5	50	120	GAUSS
RELEASE		-120	-50	-5	GAUSS
DIEFERENTIAL		50	100	170	GAUSS
OPERATING TEMP		-40		+150	°C
STORAGE TEMP		-55		+165	°C

ABSOLUTE MAXIMUM RATING



PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
SUPPLY VOLTAGE		-26		28	VOLTS
APPLIED OUTPUT VOLTAGE		-0.5		28	VOLTS
OUTPUT CURRENT				20	mA
MAGNETIC FLUX				NO LIMIT	GAUSS

BLOCK DIAGRAM CURRENT SINKING OUTPUT



ANSI Y14.5M-1982 APPLIES

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Honeywell

SIZE	TYPE	DRAWING NAME	REV
D	I	SS461R	A
SCALE	-		SHEET 2 OF 2