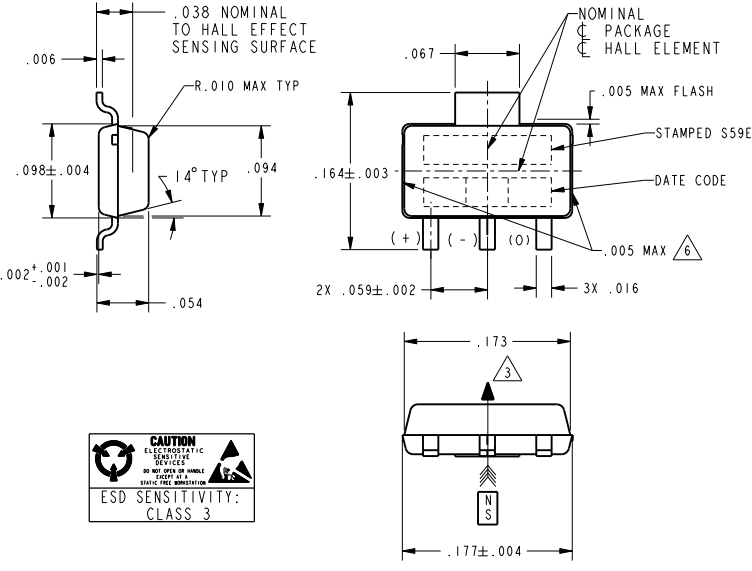


ISSUE 5
CATALOG LISTING SS59ET
PAGE 1 OF 3
DGD 18 JAN 06 RELEASE NO. 201674
REPLACES -
REVISIONS
A 0000179 24 APR 03
B 0000946 12 SEP 05
C 0014910 17 MAR 03
D 1250145 17 MAR 03
E 0018451 17 MAR 03
SAV 17 MAR 03
GLH 17 MAR 03
PTC/CAD 3D
DRAWN



CAUTION
ELECTROSTATIC SENSITIVE DEVICES
DO NOT TOUCH OR HANDLE
UNLESS IN A
STATIC FREE ENVIRONMENT

ESD SENSITIVITY:
CLASS 3

- 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.
 - 2 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.
 - 3 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).
 - 4 THE DEVICE CANNOT BE DAMAGED BY MAGNETIC OVERDRIVE.
 - 5 THIS PRODUCT WILL BE SUPPLIED IN TAPE AND REEL FORM PER EIA STD 481 GATE VESAGE PERMITTED IN THESE AREAS. UNDERFLUSH BREAKOUT LIMITED TO .007.
 - 6

CONVERSION TO METRIC DIMENSIONS

DIMENSION IN INCHES	METRIC REFERENCE EQUIVALENT, MM	DIMENSION IN INCHES	METRIC REFERENCE EQUIVALENT, MM
.001	0,025	.095	2,413
.002	0,051	.098	2,489
.003	0,076	.157	3,988
.004	0,102	.164	4,166
.005	0,127	.173	4,394
.006	0,152	.177	4,496
.007	0,178	.181	4,597
.008	0,203	.197	5,004
.015	0,381	.217	5,512
.016	0,406	.230	5,842
.030	0,762	.314	7,976
.031	0,787	.315	8,001
.038	0,965	.472	11,989
.050	1,270	.480	12,192
.059	1,499	.512	13,005
.067	1,702	.724	18,390
.069	1,753	1,300	33,020
.078	1,981	1,970	50,038
.079	2,007	7,010	178,054
.094	2,388	10,000	254,000

THIRD ANGLE PROJECTION

SCALE NONE

DO NOT SCALE PRINT

UNLESS OTHERWISE SPECIFIED TOLERANCES ARE

ONE PLACE (.01) ±.030
TWO PLACE (.00) ±.015
THREE PLACE (.000) ±.005
ANGLES ±

WEIGHT

ANSI Y14.5M-1982 APPLIES

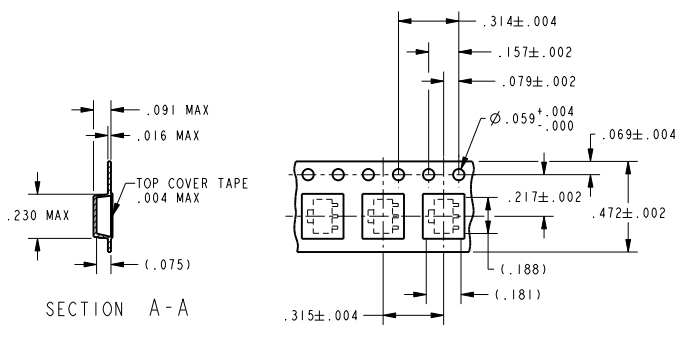
MICRO SWITCH
a Honeywell Division
FED. MFG. CODE 91929

LINEAR HALL EFFECT SENSOR

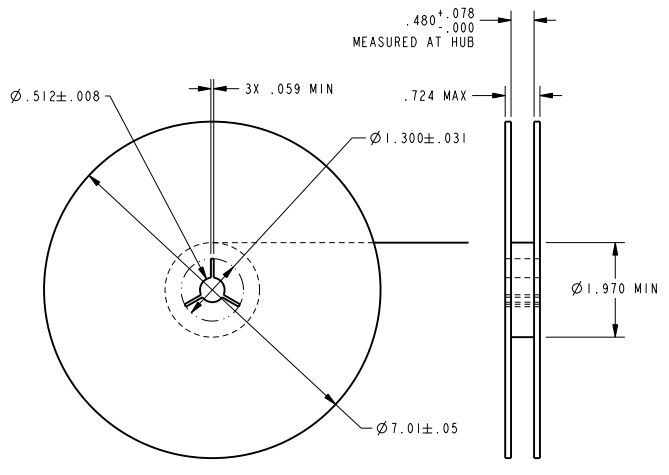
CATALOG LISTING
SS59ET

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ISSUE	CATALOG LISTING	SS59ET
5	2 OF 3	
DGD	18 JAN 06	RELEASE NO. 201674
REPLACES		
REVISIONS	CHECK	
A	0000179	12 SEP 05
B	0000546	
C	0014910	
D	0018451	
DR	17 MAR 03	17 MAR 03
SAV	17 MAR 03	17 MAR 03
GLH	17 MAR 03	17 MAR 03
PTC/CAD	3D	
DRN		



SECTION A-A
TAPE AND REEL DIMENSIONS \triangle



DIRECTION OF FEED FROM REEL

CAUTION
ELECTROSTATIC SENSITIVE DEVICE
DO NOT OPEN OR HANDLE FROM OR NEAR STATIC FREE ENVIRONMENT

ESD SENSITIVITY:
CLASS 3

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

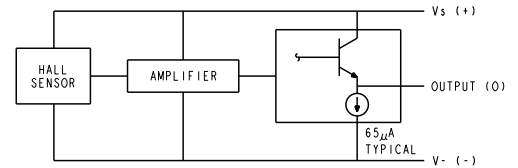


SS59ET

CHARACTERISTICS ARE AT $V_s=5.00$ WITH 10K OUTPUT TO MINUS
WITH $T_A=-40^\circ\text{C}$ TO $+85^\circ\text{C}$ UNLESS OTHERWISE SPECIFIED

PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
SENSITIVITY	$T_A = 25^\circ\text{C}$	1.0	1.4	1.75	mV/GAUSS
NULL	$T_A = 25^\circ\text{C}$	2.25	2.50	2.75	VOLTS
SUPPLY CURRENT			6	10.	mA
OUTPUT CURRENT SOURCE	$V_s > 3.0$	1	1.5		mA
RESPONSE TIME			3		μs
OUTPUT VOLTAGE SWING	-B APPLIED	1.05	.95		VOLTS
	+B APPLIED	$V_s - 1.05$	$V_s - .95$		VOLTS
B LIMITS FOR LINEAR OPERATION	-B MAX	-650	-1000		GAUSS
	+B MAX	+650	+1000		GAUSS
V_{null} DRIFT	$B = 0, T_A = -40^\circ\text{C}$ TO $+85^\circ\text{C}$	-1.10		+1.10	% / $^\circ\text{C}$
SENSITIVITY DRIFT	$T_A = +25^\circ\text{C}$ TO $+85^\circ\text{C}$	-1.15		+1.05	% / $^\circ\text{C}$
SENSITIVITY DRIFT	$T_A = -40^\circ\text{C}$ TO $+25^\circ\text{C}$	-1.04		+1.185	% / $^\circ\text{C}$
LINEARITY	$B = -650$ TO $+650$		-1.7		% OF SPAN
SUPPLY VOLTAGE	-40°C TO $+100^\circ\text{C}$	2.7	5.0	6.5	VOLTS
OPERATING TEMP		-40		+100	$^\circ\text{C}$

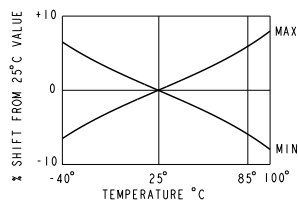
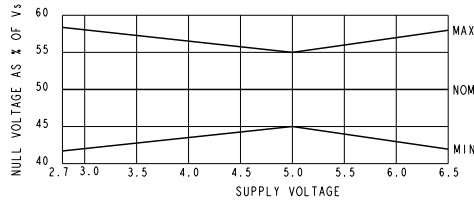
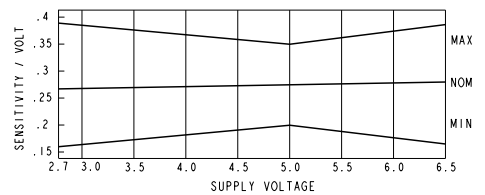
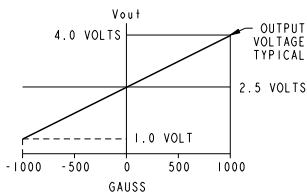
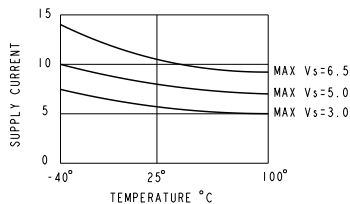
BLOCK DIAGRAM CURRENT SOURCING OUTPUT



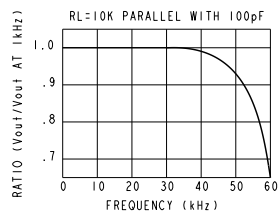
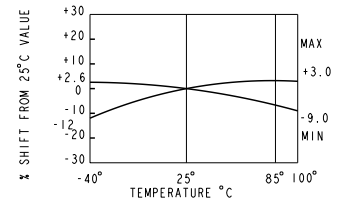
ABSOLUTE MAXIMUM CHARACTERISTICS

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN	MAX	UNITS
SUPPLY VOLTAGE	V_s		-0.5	8	V
OUTPUT VOLTAGE	V_{out}		-0.5	8	V
OUTPUT CURRENT	I_{out}	SOURCE		10	mA
TEMPERATURE	T_A	OPERATING	-40	100	$^\circ\text{C}$
	T_s	STORAGE ($V_s=0$)	-55	165	$^\circ\text{C}$

NULL SHIFT VERSUS TEMPERATURE

RATIO OF V_{null} TO V_s SENSITIVITY/V VERSUS V_s
(mV/Gauss/Volt)TRANSFER CHARACTERISTICS
AT $V_s=5.0$ VDCSUPPLY CURRENT
VERSUS TEMPERATURE

TYPICAL FREQUENCY RESPONSE

SENSITIVITY
SHIFT VERSUS TEMPERATURE

THIRD ANGLE PROJECTION		
SCALE	NONE	
DO NOT SCALE PRINT		
UNLESS OTHERWISE SPECIFIED TOLERANCES ARE		
ONE PLACE	(.01)	±.030
TWO PLACES	(.001)	±.015
THREE PLACES	(.0001)	±.005
ANGLES		±
WEIGHT		

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MICROSWITCH
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LINEAR HALL EFFECT SENSOR

CATALOG LISTING
SS59ET

ANSI Y14.5M-1982 APPLIES

FED. MFG. CODE 91229

PTC/CAD 30
 GLE 17 MAR 03
 SAV 17 MAR 03
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 18 JAN 06
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