

- NOTES**
- 1 - CENTERLINE OF HALL CELL
  - 2 - DIMENSION L15 IN THE DIRECTION SHOWN (THIS ASSURES THE CONNECTION 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 - OUTPUT TYPE - RADIOMETRIC SUPPORTED DURING ANY FORMING/SHEERING OPERATION TO
  - 5 - ASSURE THAT LEAD LENGTHS ARE NOT STRESSED WITHIN THE ELASTIC
  - 6 - PCB WAVE SOLDERING GUIDELINES ARE AS FOLLOWS:
  - 7 - BURGERS ARE ALLOWED ONLY A FULL LENGTH OF LEADS WILL PASS THROUGH  $\phi 0.23$  HOLE.
  - 8 - ABSOLUTE MAXIMUM RATINGS ARE THE EXTREME LIMITS THE DEVICE WILL MOMENTARILY WITHSTAND WITHOUT DAMAGE TO THE DEVICE. ELECTRICAL AND MAGNETIC CHARACTERISTICS THE DEVICE NECESSARILY OPERATE AT ABSOLUTE MAXIMUM RATINGS.
  - 9 - LEAD STRAIGHTNESS MAY BE DETERIORATED ON SOME UNITS BY BULK PACKAGING. APPLICATIONS HAVING A CRITICAL LEAD STRAIGHTNESS REQUIREMENT SHOULD USE A TAPE PACKAGING OPTION 24 SWITCHES BETWEEN FOLDS, SWP 1 SPACE AT FOLD. MAY BE REFERRED TO AS "AN FOLD"
  - 10 - WOLDED PART DIMENSIONS DO NOT INCLUDE FLASH. FLASH IS LIMITED TO .005 MAXIMUM.
  - 11 - TAPE AND AMMOPACK PER EA-468
  - 12 - POKET TAPE PER EA-461

CATALOG LISTING	TAPE STYLE	DIM "L"	DIM "W"	COMMENTS
SS496A-1	NONE	.590	.050	BULK-1000/BAG
SS496A-2	NONE	.590	.100	5000/BOX
SS496A-3	NONE	.590	.150	BULK-1000/BAG
SS496A-4	NONE	.590	.200	BULK-1000/BAG
SS496A-5	P	.125	.050	1000/PACKET TAPE AND REEL
SS496A-6	NONE	.590	.050	BULK-1000/BAG
SS496A-7	NONE	.590	.100	5000/BOX
SS496A-8	NONE	.590	.150	BULK-1000/BAG
SS496A-9	NONE	.590	.200	BULK-1000/BAG
SS496A-10	P	.125	.050	1000/PACKET TAPE AND REEL
SS496B-1	NONE	.590	.050	BULK-1000/BAG
SS496B-2	NONE	.590	.100	5000/BOX
SS496B-3	NONE	.590	.150	BULK-1000/BAG
SS496B-4	NONE	.590	.200	BULK-1000/BAG
SS496B-5	P	.125	.050	1000/PACKET TAPE AND REEL

THIS DRAWING CONVEYS A MANDATORY REQUIREMENT IN THE DESIGN OF MICRO SWITCHES. A VIOLATION OF THIS REQUIREMENT WILL BE CAPTURED AND WISE WITHIN THE APPROVAL OF MICRO SWITCHES.

**Micro Switch**  
 MINIATURE RADIOMETRIC  
 LINEAR HALL EFFECT SENSOR  
 SS496 SERIES CHART 1

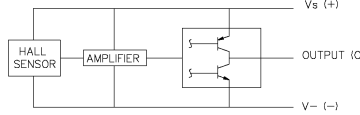
SCALE: 5:1  
 UNITS: DIMENSIONS ARE IN INCHES  
 DIMENSIONS ARE IN MILLIMETERS  
 ONE PLACE  
 TWO PLACES  
 THREE PLACES  
 ANGLES  
 FEET  
 INCHES  
 DEGREE

CHARACTERISTICS ARE AT Vs=5.00 WITH 4.7K OUTPUT TO MINUS WITH TA= -40°C TO +125°C UNLESS OTHERWISE SPECIFIED

SS496A

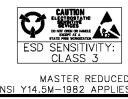
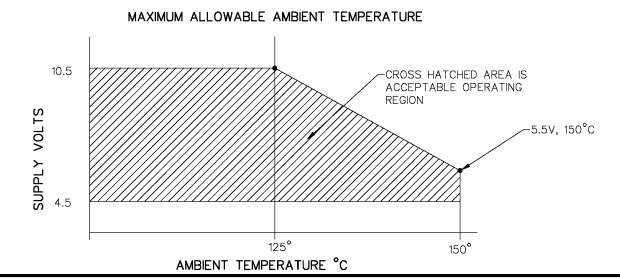
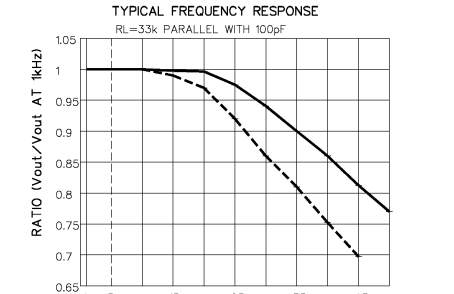
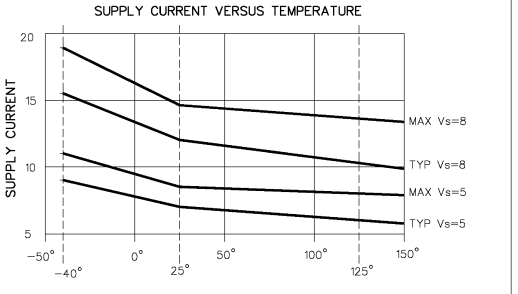
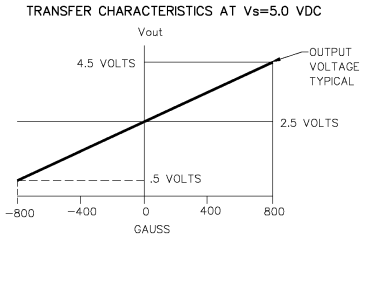
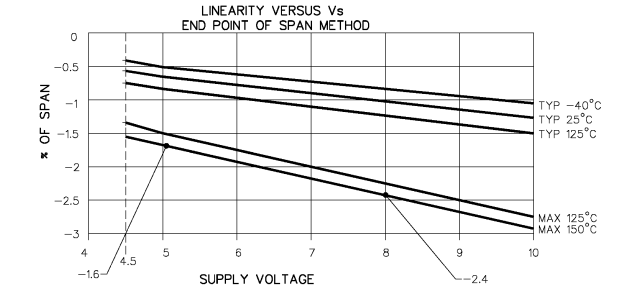
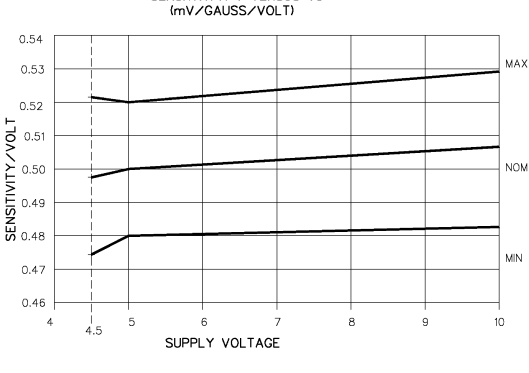
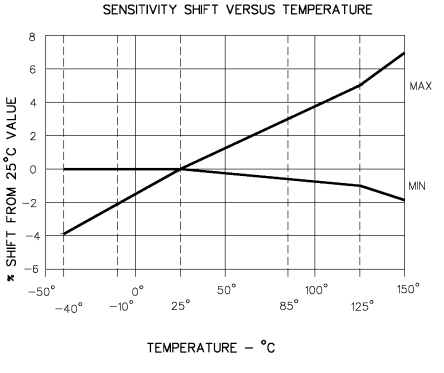
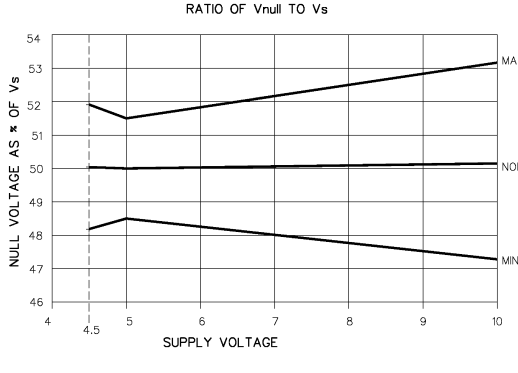
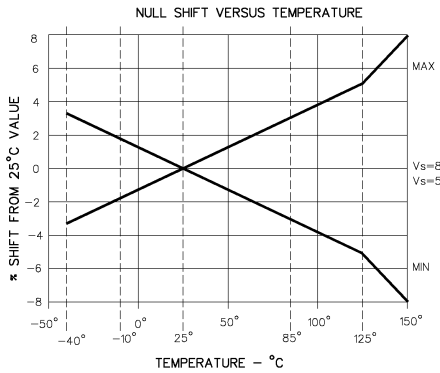
PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
SENSITIVITY	TA = 25°C	2.4	2.5	2.6	mV/GAUSS
NULL	TA = 25°C	2.425	2.50	2.575	VOLTS
SUPPLY CURRENT	TA = 25°C		7	8.7	mA
OUTPUT CURRENT SOURCE SINK SINK	Vs > 4.5	1mA	1.5mA		
	Vs > 4.5	.6mA	1.5mA		
	Vs > 5.0	1mA	1.5mA		
RESPONSE TIME					
OUTPUT VOLTAGE SWING			3μs		
VOM -	-B APPLIED	.4	.2		VOLTS
	+B APPLIED	Vs -.4	Vs -.2		VOLTS
B LIMITS FOR LINEAR OPERATION	-B MAX	-750	-840		GAUSS
	+B MAX	+750	+840		GAUSS
Vnull DRIFT	B = 0, TA = 25°C TO 125°C		-0.048		% /°C
Vnull DRIFT	B = 0, TA = +125°C TO +150°C		-0.064		% /°C
SENSITIVITY DRIFT	TA=+25°C TO +125°C		-0.01		% /°C
SENSITIVITY DRIFT	TA=-40°C TO +25°C		0		% /°C
LINEARITY	B = -600 TO +600	0	-1.0		% OF SPAN
SUPPLY VOLTAGE	-40°C TO +125°C	4.5	5.0	10.5	VOLTS
OPERATING TEMP	SEE MAX TEMPERATURE CHART	-40		+150	°C

BLOCK DIAGRAM CURRENT SINKING OR SOURCING OUTPUT



ABSOLUTE MAXIMUM CHARACTERISTICS

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN	MAX	UNITS
SUPPLY VOLTAGE	Vcc		-0.5	11	V
OUTPUT VOLTAGE	Vout		-0.5	11	V
OUTPUT CURRENT	Iout	SOURCE OR SINK		10	mA
TEMPERATURE	TA	OPERATING	-55	150	°C
	Ts	STORAGE (Vcc=0)	-55	165	°C



THIRD ANGLE PROJECTION

SCALE NONE

DO NOT SCALE PRINT

UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:

ONE PLACE	ISO	±.030
TWO PLACES	LODI	±.015
THREE PLACES	LODDI	±.005
ANGLES		±.2°

WEIGHT

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PRO: MRS. COOP 01998

MASTER REDUCED ANSI Y14.5M-1982 APPLIES

CATALOG LISTING

MINIATURE RATIO METRIC SS496 SERIES CHART 1

LINEAR HALL EFFECT SENSOR

DRAWING NUMBER  
 SS496 SERIES CHART 1  
 OF 10 PAGES  
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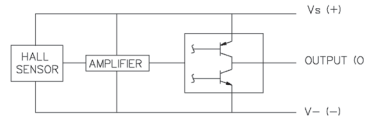
CHARACTERISTICS ARE AT  $V_s=5.00$  WITH 4.7K OUTPUT TO MINUS WITH  $T_A=-40^{\circ}\text{C}$  TO  $+125^{\circ}\text{C}$  UNLESS OTHERWISE SPECIFIED

SS496A1

SS496 SERIES CHART 1

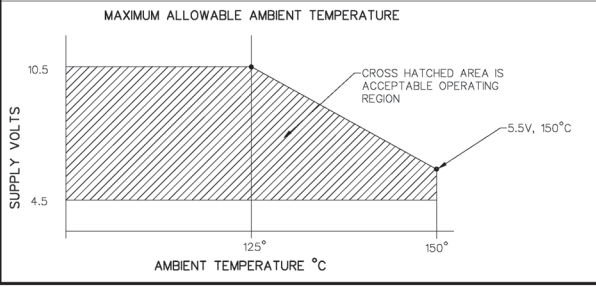
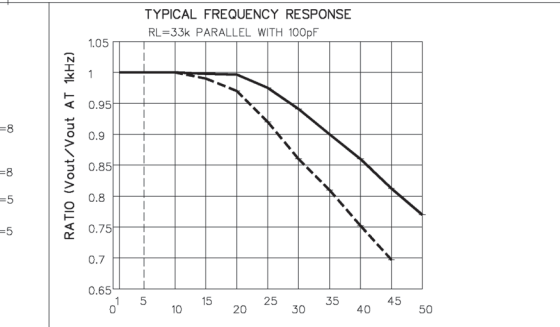
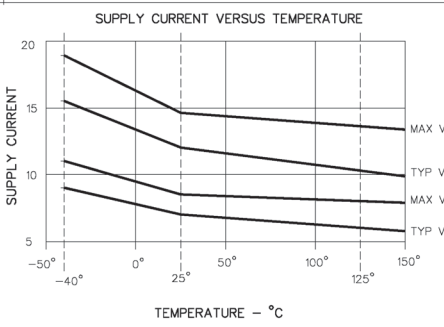
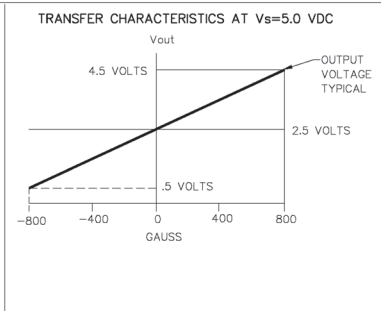
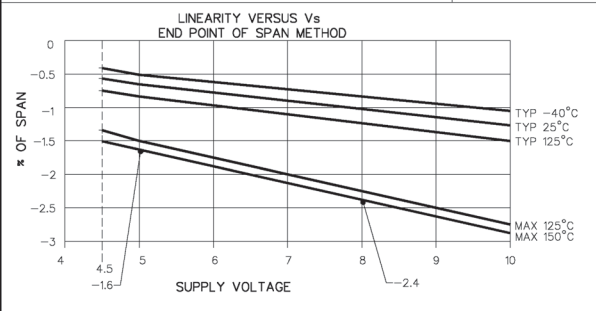
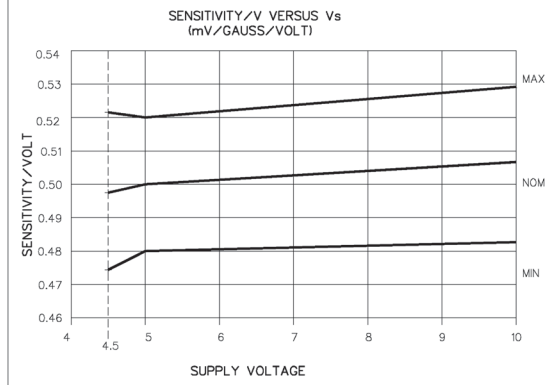
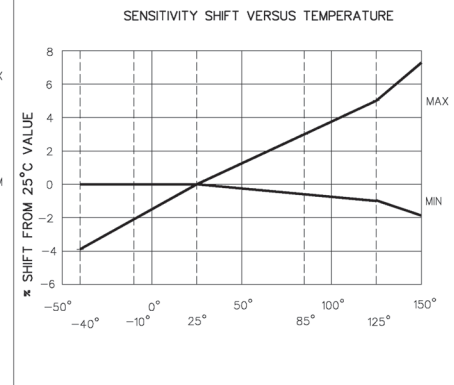
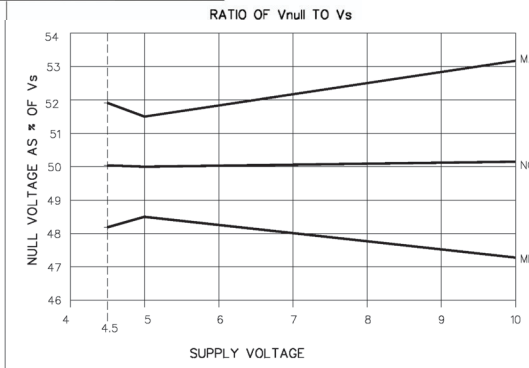
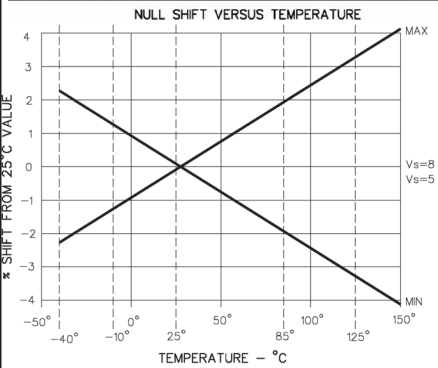
PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
SENSITIVITY	$T_A = 25^{\circ}\text{C}$	2.425	2.500	2.575	mV/GAUSS
NULL	$T_A = 25^{\circ}\text{C}$	2.425	2.50	2.575	VOLTS
SUPPLY CURRENT	$T_A = 25^{\circ}\text{C}$		7	8.7	mA
OUTPUT CURRENT SOURCE	$V_s > 4.5$	1mA		1.5mA	
SINK	$V_s > 4.5$	.6mA		1.5mA	
SINK	$V_s > 5.0$	1mA		1.5mA	
RESPONSE TIME				3μs	
OUTPUT VOLTAGE SWING					
VOM -	-B APPLIED	.4	.2		VOLTS
VOM +	+B APPLIED	$V_s - .4$	$V_s - .2$		VOLTS
B LIMITS FOR LINEAR OPERATION					
-B MAX		-750	-840		GAUSS
+B MAX		+750	+840		GAUSS
Vnull DRIFT	$B = 0, T_A = 25^{\circ}\text{ TO } 125^{\circ}\text{C}$			$\pm .032$	$\% / ^{\circ}\text{C}$
Vnull DRIFT	$B = 0, T_A = +125^{\circ}\text{ TO } +150^{\circ}\text{C}$			$\pm .064$	$\% / ^{\circ}\text{C}$
SENSITIVITY DRIFT	$T_A = +25^{\circ}\text{C TO } +125^{\circ}\text{C}$			$\pm .05$	$\% / ^{\circ}\text{C}$
SENSITIVITY DRIFT	$T_A = -40^{\circ}\text{C TO } +25^{\circ}\text{C}$			$\pm .06$	$\% / ^{\circ}\text{C}$
SENSITIVITY DRIFT	$T_A = +125^{\circ}\text{C TO } +150^{\circ}\text{C}$			$\pm .08$	$\% / ^{\circ}\text{C}$
LINEARITY	$B = -6.00 \text{ TO } +6.00$		-1.0	-1.5	$\% \text{ OF SPAN}$
SUPPLY VOLTAGE	$-40^{\circ}\text{C TO } +125^{\circ}\text{C}$		4.5	5.0	VOLTS
OPERATING TEMP	SEE MAX TEMPERATURE CHART	-40		+150	$^{\circ}\text{C}$

BLOCK DIAGRAM CURRENT SINKING OR SOURCING OUTPUT



ABSOLUTE MAXIMUM CHARACTERISTICS

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN	MAX	UNITS
SUPPLY VOLTAGE	$V_{cc}$		-0.5	11	V
OUTPUT VOLTAGE	$V_{out}$		-0.5	11	V
OUTPUT CURRENT	$I_{out}$	SOURCE OR SINK		10	mA
TEMPERATURE	$T_A$	OPERATING	-55	150	$^{\circ}\text{C}$
	$T_s$	STORAGE ( $V_{cc}=0$ )	-55	165	$^{\circ}\text{C}$



REVISION NUMBER: 10  
 SS496 SERIES CHART 1  
 OF 3  
 PAGE 3  
 REVISED: 10/2004  
 MICRO SWITCH CORPORATION  
 1400 N. GARDEN AVENUE  
 ARIZONA, AZ 85645  
 TEL: 480/948-8800  
 FAX: 480/948-8801  
 WWW.MICROSWITCH.COM  
 MASTER REDUCED ANS I Y14.5M-1982 APPLIES



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 FED. REG. CODE 91000  
**MICRO SWITCH**  
 a Honeywell Division  
 MASTER REDUCED ANS I Y14.5M-1982 APPLIES  
 CATALOG LISTING  
**SS496 SERIES CHART 1**  
 MINIATURE RATIO-METRIC LINEAR HALL EFFECT SENSOR

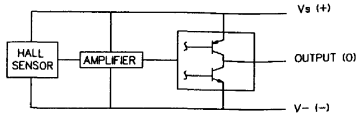
THIRD ANGLE PROJECTION	
SCALE	NONE
DO NOT SCALE PRINT	
UNLESS OTHERWISE SPECIFIED TOLERANCES ARE	
ONE PLACE (Ø)	±.030
TWO PLACES (ØØ)	±.015
THREE PLACES (ØØØ)	±.005
ANGLES	±2°
WEIGHT	

CHARACTERISTICS ARE AT  $V_s=5.00$  WITH 4.7K OUTPUT TO MINUS WITH  $T_A=-40^{\circ}\text{C}$  TO  $+125^{\circ}\text{C}$  UNLESS OTHERWISE SPECIFIED

SS496B

PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
SENSITIVITY	$T_A = 25^{\circ}\text{C}$	2.300	2.500	2.700	mV/GAUSS
NULL	$T_A = 25^{\circ}\text{C}$	2.350	2.50	2.650	VOLTS
SUPPLY CURRENT	$T_A = 25^{\circ}\text{C}$		7	8.7	mA
OUTPUT CURRENT SOURCE	$V_s > 4.5$	1mA	1.5mA		
SINK	$V_s > 4.5$		1.5mA		
SINK	$V_s > 5.0$	1mA	1.5mA		
RESPONSE TIME			3μS		
OUTPUT VOLTAGE SWING					
VOM +	-B APPLIED	.4	.2		VOLTS
VOM -	+B APPLIED	$V_s - .4$	$V_s - .2$		VOLTS
B LIMITS FOR LINEAR OPERATION					GAUSS
-B MAX		-750	-840		
+B MAX		+750	+840		
Vnull DRIFT	$B = 0, T_A = 25^{\circ}\text{ TO } 125^{\circ}\text{C}$	-0.64		+0.64	mV/°C
Vnull DRIFT	$B = 0, T_A = +125^{\circ}\text{ TO } +150^{\circ}\text{C}$	-0.64		+0.64	mV/°C
SENSITIVITY DRIFT	$T_A = +25^{\circ}\text{C TO } +150^{\circ}\text{C}$	-0.02		+0.08	mV/°C
SENSITIVITY DRIFT	$T_A = -40^{\circ}\text{C TO } +25^{\circ}\text{C}$	-0.02		+0.08	mV/°C
LINEARITY	$B = -600 \text{ TO } +600$	0	-1.0	+1.5	% OF SPAN
SUPPLY VOLTAGE	$-40^{\circ}\text{C TO } +125^{\circ}\text{C}$	4.5	5.0	10.5	VOLTS
OPERATING TEMP	SEE MAX TEMPERATURE CHART	-40		+150	°C

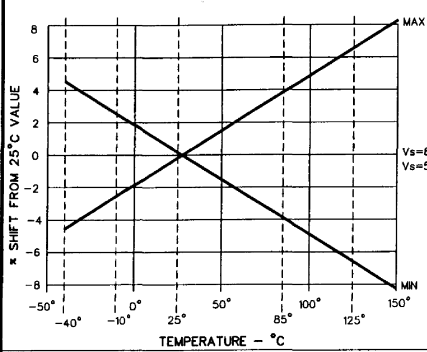
BLOCK DIAGRAM CURRENT SINKING OR SOURCING OUTPUT



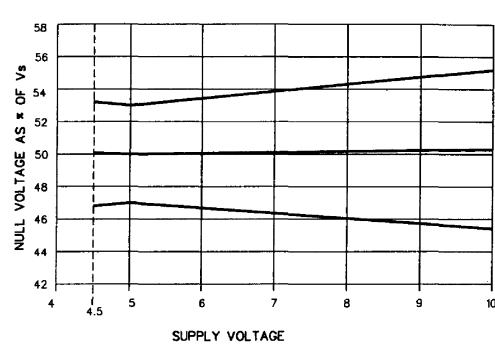
ABSOLUTE MAXIMUM CHARACTERISTICS

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN	MAX	UNITS
SUPPLY VOLTAGE	$V_{cc}$		-0.5	11	V
OUTPUT VOLTAGE	$V_{out}$		-0.5	11	V
OUTPUT CURRENT	$I_{out}$	SOURCE OR SINK		10	mA
TEMPERATURE	$T_A$	OPERATING	-55	150	°C
	$T_s$	STORAGE ( $V_{cc}=0$ )	-55	165	°C

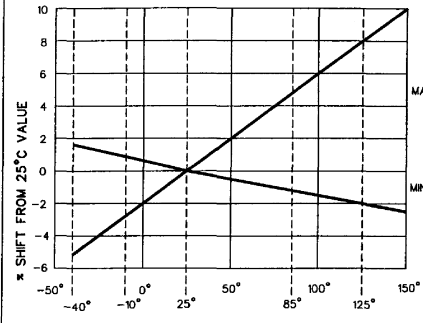
NULL SHIFT VERSUS TEMPERATURE



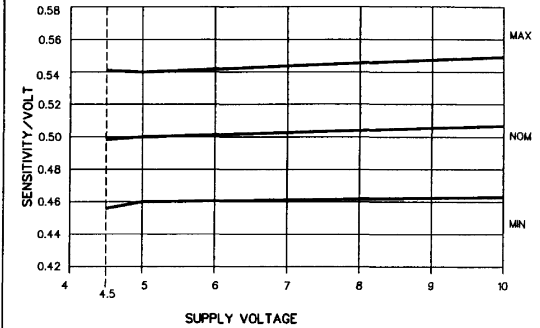
RATIO OF Vnull TO Vs



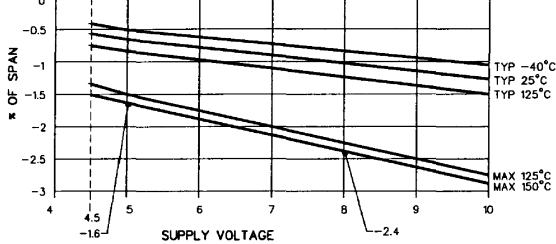
SENSITIVITY SHIFT VERSUS TEMPERATURE



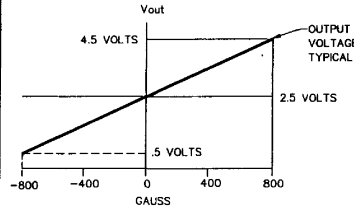
SENSITIVITY/V VERSUS Vs (mV/GAUSS/VOLTI)



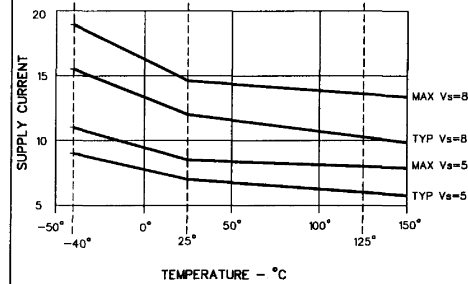
LINEARITY VERSUS Vs END POINT OF SPAN METHOD



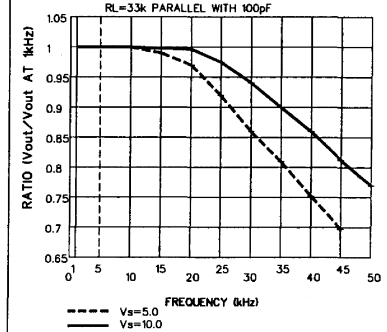
TRANSFER CHARACTERISTICS AT Vs=5.0 VDC



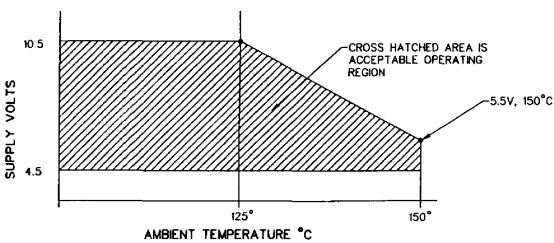
SUPPLY CURRENT VERSUS TEMPERATURE



TYPICAL FREQUENCY RESPONSE



MAXIMUM ALLOWABLE AMBIENT TEMPERATURE



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PRO. WFO. CODE 8180

**MICRO SWITCH**  
Honeywell Division

MINIATURE RATIOMETRIC  
LINEAR HALL EFFECT SENSOR

SS496 SERIES CHART 1

UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:  
ONE PLACE (0) ±0.030  
TWO PLACES (00) ±0.015  
THREE PLACES (000) ±0.005  
ANGLES ±2°

THIRD ANGLE PROJECTION		
SCALE	NONE	
DO NOT SCALE PRINT		
UNLESS OTHERWISE SPECIFIED TOLERANCES ARE		
ONE PLACE (0)	±0.030	
TWO PLACES (00)	±0.015	
THREE PLACES (000)	±0.005	
ANGLES	±2°	
WEIGHT		

MICRO SWITCH  
 SS496 SERIES CHART 1  
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Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

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