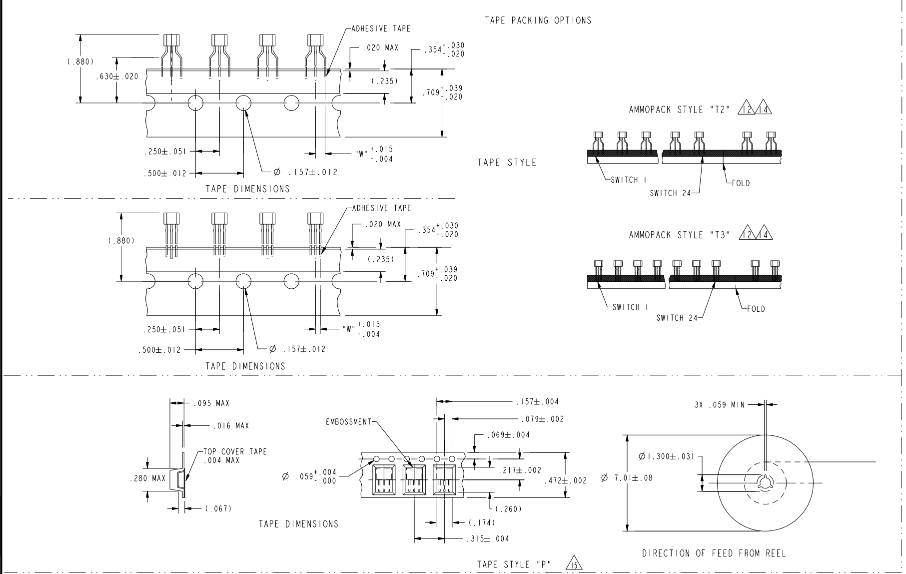
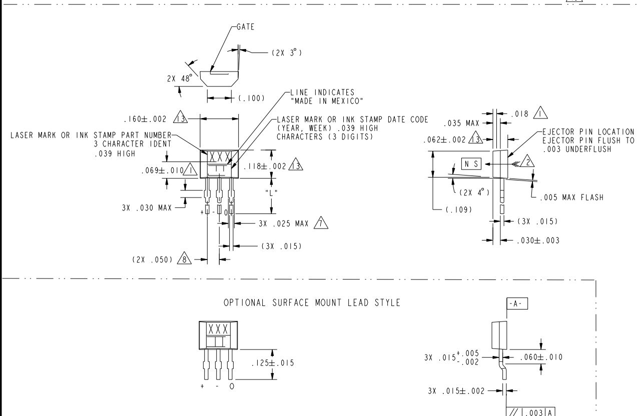
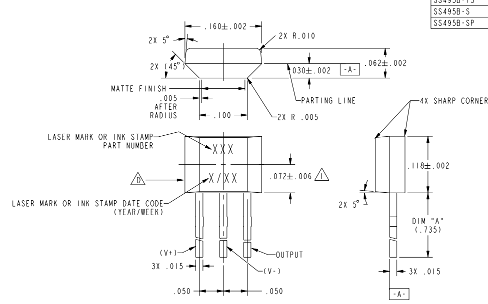
SS495 SERIES CHART 1







LEAD STYLES L ONLY
SCALE 10:1

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 - OUTPUT TYPE - RATIOMETRIC
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 PEAK FOR 10 S MAX OR 260° C PEAK FOR 5 S MAX.
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. AMMOPACK STYLE "T2" & "T3". 24 SWITCHES BETWEEN FOLDS, SKIP 1 SPACE AT FOLD. MAY BE REFERRED TO AS "FAN FOLD"
13. MOLDED PART DIMENSIONS DO NOT INCLUDE FLASH. FLASH IS LIMITED TO .005 MAX
14. TAPE AND AMMOPACK PER EIA-468
15. POCKET TAPE PER EIA-481

CATALOG LISTING	TAPE STYLE	DIM "L"	DIM "W"	COMMENTS 11
SS495A	NONE	.590	.050	BULK - 1000/BAG
SS495A-T2	T2	.590	.100	5000/BOX
SS495A-T3	T3	.590	.050	5000/BOX
SS495A-S	NONE	.125	.050	BULK - 1000/BAG
SS495A-SP	P	.125	.050	1000/PACKET TAPE AND REEL
SS495A1	NONE	.590	.050	BULK - 1000/BAG
SS495A1-T2	T2	.590	.100	5000/BOX
SS495A1-T3	T3	.590	.050	5000/BOX
SS495A1-S	NONE	.125	.050	BULK - 1000/BAG
SS495A1-SP	P	.125	.050	1000/PACKET TAPE AND REEL
SS495A2	NONE	.590	.050	BULK - 1000/BAG
SS495A2-S	NONE	.125	.050	BULK - 1000/BAG
SS495A2-SP	P	.125	.050	1000/PACKET TAPE AND REEL
SS495A2-T2	T2	.590	.100	5000/BOX
SS495A2-T3	T3	.590	.050	5000/BOX
SS495A-L	NONE	.735	.050	BULK - 1000/BAG
SS495A1-L	NONE	.735	.050	BULK - 1000/BAG
SS495A2-L	NONE	.735	.050	BULK - 1000/BAG
SS495B	NONE	.590	.050	BULK - 1000/BAG
SS495B-T2	T2	.590	.100	5000/BOX
SS495B-T3	T3	.590	.050	5000/BOX
SS495B-S	NONE	.125	.050	BULK - 1000/BAG
SS495B-SP	P	.125	.050	1000/PACKET TAPE AND REEL

CAUTION ELECTROSTATIC SENSITIVE DEVICES DO NOT OPEN OR HANDLE EXCEPT AT A STATIC FREE WORKSTATION
ESD SENSITIVITY: CLASS 3
ANSI Y14.5M-1982 APPLIES

FED. MFG. CODE 91929
MICRO SWITCH a Honeywell Division

MINIATURE RATIOMETRIC LINEAR HALL EFFECT SENSOR

CATALOG LISTING: SS495 SERIES CHART 1

THIRD ANGLE PROJECTION
SCALE 5:1
DO NOT SCALE PRINT
UNLESS OTHERWISE SPECIFIED TOLERANCES ARE
ONE PLACE (.0) ±.030
TWO PLACE (.00) ±.015
THREE PLACE (.000) ±.005
ANGLES ± 2°
WEIGHT

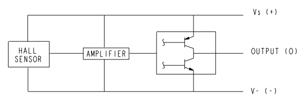
CHARACTERISTICS ARE AT Vs=5.00 WITH 4.7K OUTPUT TO MINUS WITH TA= -40°C TO +125°C UNLESS OTHERWISE SPECIFIED

SS495A

M SS495 SERIES CHART 1

PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
SENSITIVITY	TA = 25° C	3.00	3.125	3.25	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	Vs > 4.5	1mA	1.5mA		
SINK	Vs > 4.5	.6mA	1.5mA		
SINK	Vs > 5.0	1mA	1.5mA		
RESPONSE TIME			3µS		
OUTPUT VOLTAGE SWING					
VOM -	-B APPLIED	.4	.2		VOLTS
VOM +	+B APPLIED	Vs -.4	Vs -.2		VOLTS
B LIMITS FOR LINEAR	-B MAX	-600	-670		GAUSS
OPERATION	+B MAX	+600	+670		GAUSS
Vnull DRIFT	B = 0, TA = 25° C TO 125° C	-.06		+.06	% /° C
Vnull DRIFT	B = 0, TA = -125° C TO +150° C	-.08		+.08	% /° C
SENSITIVITY DRIFT	TA=+25° C TO +150° C	-.01		+.05	% /° C
SENSITIVITY DRIFT	TA=-40° C TO +25° C	0		+.06	% /° C
LINEARITY	B = -600 TO +600	0	-1.0	-1.5	% 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

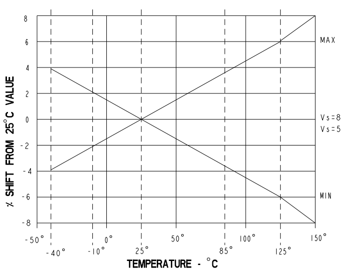
BLOCK DIAGRAM CURRENT SINKING OR SOURCING OUTPUT



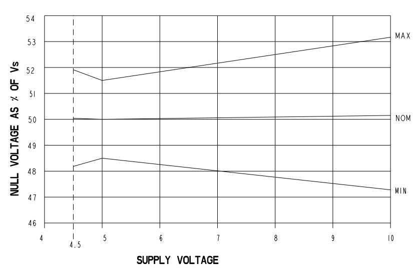
ABSOLUTE MAXIMUM CHARACTERISTICS (10)

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

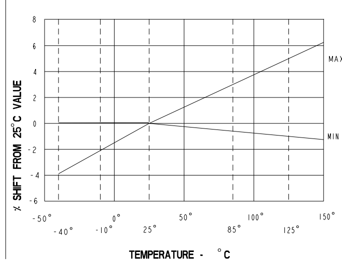
NULL SHIFT VERSUS TEMPERATURE



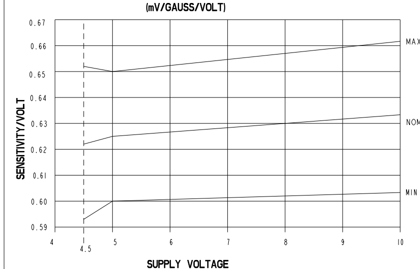
RATIO OF Vnull TO Vs



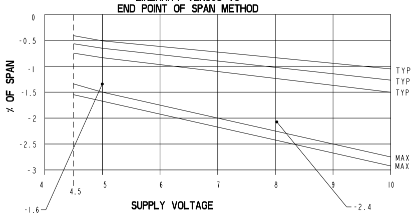
SENSITIVITY SHIFT VERSUS TEMPERATURE



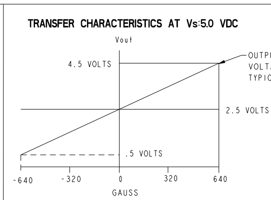
SENSITIVITY/V VERSUS Vs (mV/GAUSS/VOLT)



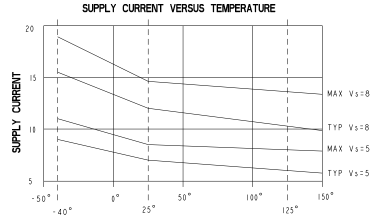
LINEARITY VERSUS Vs END POINT OF SPAN METHOD



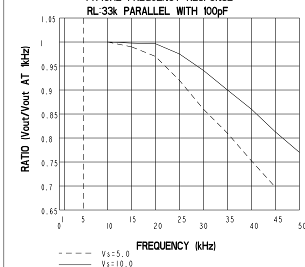
TRANSFER CHARACTERISTICS AT Vs=5.0 VDC



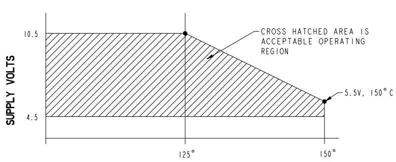
SUPPLY CURRENT VERSUS TEMPERATURE



TYPICAL FREQUENCY RESPONSE RL=33k PARALLEL WITH 100pF



MAXIMUM ALLOWABLE AMBIENT TEMPERATURE



CAUTION ELECTROSTATIC SENSITIVE DEVICES
ESD SENSITIVITY: CLASS 3

ANSI Y14.5M-1982 APPLIES

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FED. MFG. CODE 91929

MICRO SWITCH a Honeywell Division

MINIATURE RATIOMETRIC LINEAR HALL EFFECT SENSOR

CATALOG LISTING: SS495 SERIES CHART 1

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 ±2°
WEIGHT

SS495 SERIES CHART 1 — PAGE 2 OF 5 — RELEASE NO PR-2783 — ISSUE 14

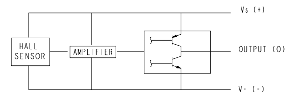
M SS495 SERIES CHART 1

SS495A1

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

PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
SENSITIVITY	TA = 25°C	3.031	3.125	3.219	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	Vs > 4.5	1mA	1.5mA		
SINK	Vs > 4.5	.6mA	1.5mA		
SINK	Vs > 5.0	1mA	1.5mA		
RESPONSE TIME			3µS		
OUTPUT VOLTAGE SWING					
VOM -	-B APPLIED	.4	.2		VOLTS
VOM +	+B APPLIED	Vs -.4	Vs -.2		VOLTS
B LIMITS FOR LINEAR	-B MAX	-600	-670		GAUSS
OPERATION	+B MAX	+600	+670		GAUSS
Vnull DRIFT	B = 0, TA = 25°C TO 125°C	-.04		+.04	% / °C
Vnull DRIFT	B = 0, TA = +125°C TO +150°C	-.08		+.08	% /°C
SENSITIVITY DRIFT	TA=+25°C TO +150°C	-.01		+.05	% /°C
SENSITIVITY DRIFT	TA=-40°C TO +25°C	0		+.06	% /°C
LINEARITY	B = -600 TO +600	0	-1.0	-1.5	% 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

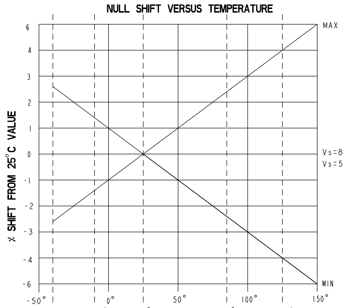
BLOCK DIAGRAM CURRENT SINKING OR SOURCING OUTPUT



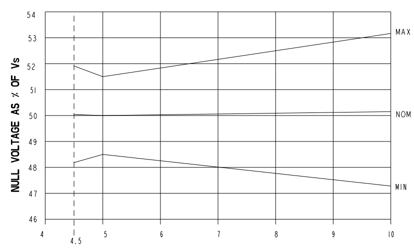
ABSOLUTE MAXIMUM CHARACTERISTICS (10)

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

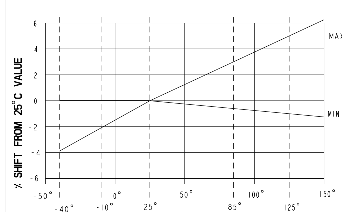
NULL SHIFT VERSUS TEMPERATURE



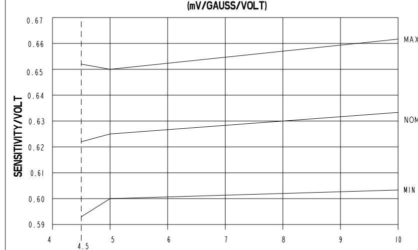
RATIO OF Vnull TO Vs



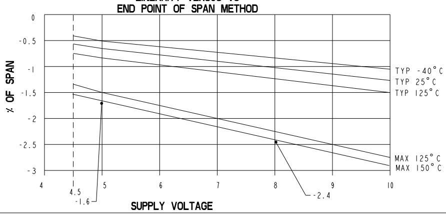
SENSITIVITY SHIFT VERSUS TEMPERATURE*



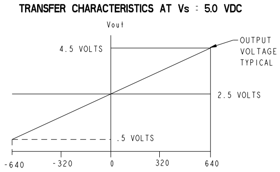
SENSITIVITY/V VERSUS Vs (mV/GAUSS/VOLT)



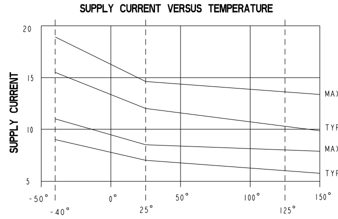
LINEARITY VERSUS Vs END POINT OF SPAN METHOD



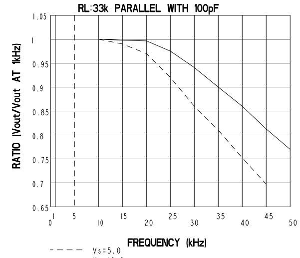
TRANSFER CHARACTERISTICS AT Vs = 5.0 VDC



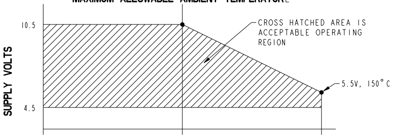
SUPPLY CURRENT VERSUS TEMPERATURE



TYPICAL FREQUENCY RESPONSE RL=33k PARALLEL WITH 100pF



MAXIMUM ALLOWABLE AMBIENT TEMPERATURE



ESD SENSITIVITY: CLASS 3

ANSI Y14.5M-1982 APPLIES

FED. MFG. CODE 91929

MICRO SWITCH a Honeywell Division

MINIATURE RATIOMETRIC LINEAR HALL EFFECT SENSOR

CATALOG LISTING: SS495 SERIES CHART 1

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		±2°

WEIGHT

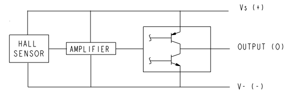
M SS495 SERIES CHART 1 — PAGE 3 OF 5 — RELEASE NO PR-21283 — ISSUE 14

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

SS495A2

PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
SENSITIVITY	TA = 25° C	2.969	3.125	3.281	mV/GAUSS
NULL	TA = 25° C	2.400	2.50	2.600	VOLTS
SUPPLY CURRENT	TA = 25° C		7	8.7	mA
OUTPUT CURRENT SOURCE	Vs > 4.5	1mA	1.5mA		
SINK	Vs > 4.5	.6mA	1.5mA		
SINK	Vs > 5.0	1mA	1.5mA		
RESPONSE TIME			3μS		
OUTPUT VOLTAGE SWING					
VOM -	-B APPLIED	.4	.2		VOLTS
VOM +	+B APPLIED	Vs -.4	Vs -.2		VOLTS
B LIMITS FOR LINEAR	-B MAX	-600	-670		GAUSS
OPERATION	+B MAX	+600	+670		GAUSS
Vnull DRIFT	B = 0, TA = 25°C TO 125°C	-.07		+.07	% /° C
Vnull DRIFT	B = 0, TA = +125°C TO +150°C	-.08		+.08	% /° C
SENSITIVITY DRIFT	TA=+25° C TO +150° C	-.02		+.06	% /° C
SENSITIVITY DRIFT	TA=-40° C TO +25° C	-.01		+.07	% /° C
LINEARITY	B = -600 TO +600	0	-1.0	-1.5	% 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

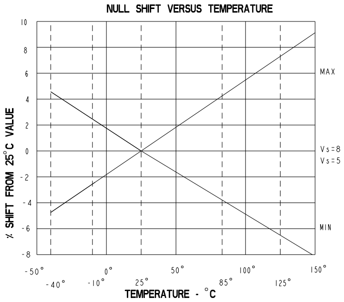
BLOCK DIAGRAM CURRENT SINKING OR SOURCING OUTPUT



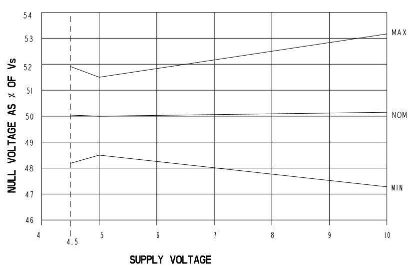
ABSOLUTE MAXIMUM CHARACTERISTICS (10)

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

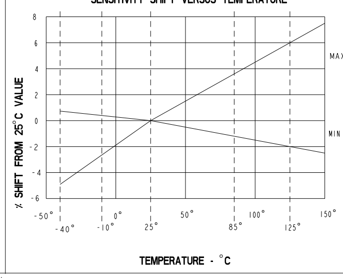
NULL SHIFT VERSUS TEMPERATURE



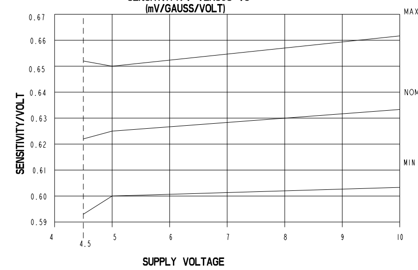
RATIO OF Vnull TO Vs



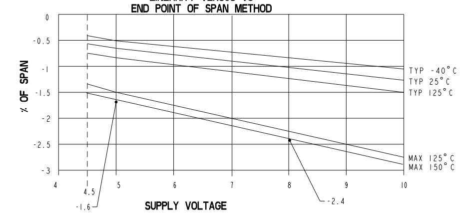
SENSITIVITY SHIFT VERSUS TEMPERATURE



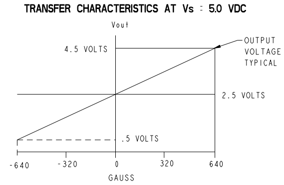
SENSITIVITY/V VERSUS Vs (mV/GAUSS/VOLT)



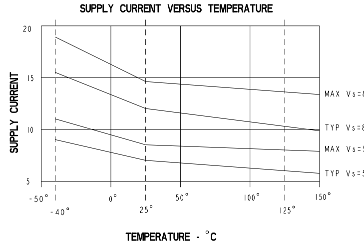
LINEARITY VERSUS Vs END POINT OF SPAN METHOD



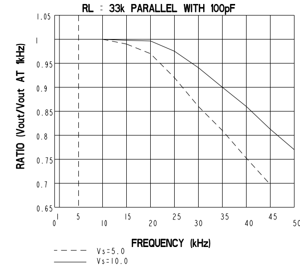
TRANSFER CHARACTERISTICS AT Vs = 5.0 VDC



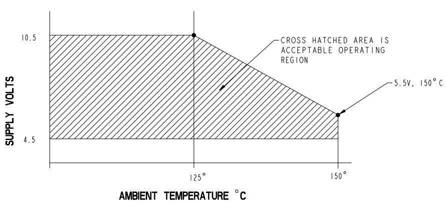
SUPPLY CURRENT VERSUS TEMPERATURE



TYPICAL FREQUENCY RESPONSE
RL = 33k PARALLEL WITH 100pF



MAXIMUM ALLOWABLE AMBIENT TEMPERATURE



ESD SENSITIVITY: CLASS 3

ANSI Y14.5M-1982 APPLIES

FED. MFG. CODE 91929

MICRO SWITCH a Honeywell Division

MINIATURE RATIOMETRIC LINEAR HALL EFFECT SENSOR

CATALOG LISTING SS495 SERIES CHART 1

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 ±2°
WEIGHT

M SS495 SERIES CHART 1 — ISSUE 14 — — RELEASE NO PR-22532

PTC/CAD 20 — C S L 15 APR 02 — SAV 15 APR 02

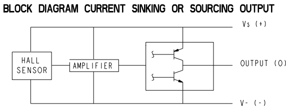
CHARACTERISTICS ARE AT Vs=5.00 WITH 4.7K OUTPUT TO MINUS WITH TA= -40°C TO +125°C UNLESS OTHERWISE SPECIFIED

SS495B

M SS495 SERIES CHART 1

PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
SENSITIVITY	TA = 25° C	2.875	3.125	3.375	mV/GAUSS
NULL	TA = 25° C	2.35	2.50	2.650	VOLTS
SUPPLY CURRENT	TA = 25° C		7	8.7	mA
OUTPUT CURRENT SOURCE	Vs > 4.5	1mA	1.5mA		
SINK	Vs > 4.5	.6mA	1.5mA		
SINK	Vs > 5.0	1mA	1.5mA		
RESPONSE TIME			3µS		
OUTPUT VOLTAGE SWING					
VOM -	-B APPLIED	.4	.2		VOLTS
VOM +	+B APPLIED	Vs -.4	Vs -.2		VOLTS
B LIMITS FOR LINEAR	-B MAX	-600	-670		GAUSS
OPERATION	+B MAX	+600	+670		GAUSS
Vnull DRIFT	B = 0, TA = 25°C TO 125°C	-.08		+.08	% /°C
Vnull DRIFT	B = 0, TA = +125°C TO +150°C	-.08		+.08	% /°C
SENSITIVITY DRIFT	TA=+25°C TO +150°C	-.02		+.08	% /°C
SENSITIVITY DRIFT	TA=-40°C TO +25°C	-.02		+.08	% /°C
LINEARITY	B = -600 TO +600	0	-1.0	-1.5	% 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

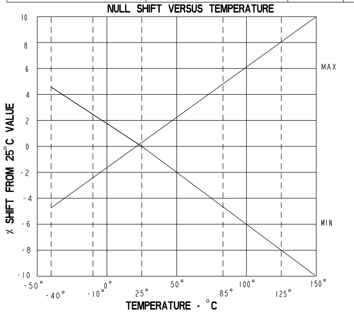
BLOCK DIAGRAM CURRENT SINKING OR SOURCING OUTPUT



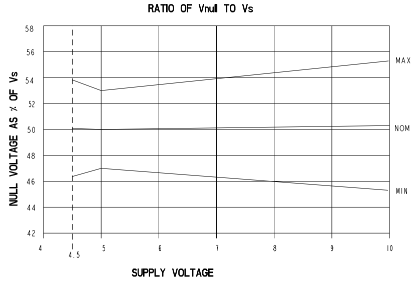
ABSOLUTE MAXIMUM CHARACTERISTICS (10)

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

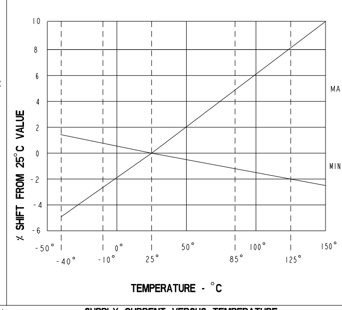
NULL SHIFT VERSUS TEMPERATURE



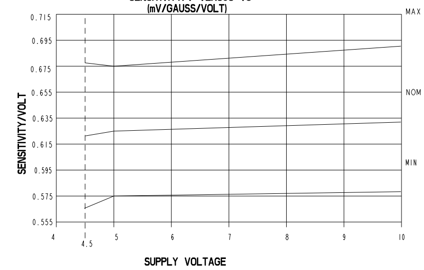
RATIO OF Vnull TO Vs



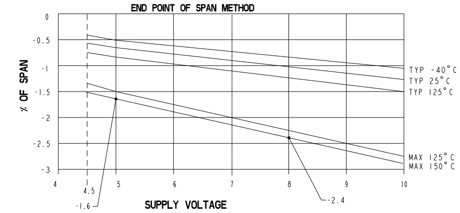
SENSITIVITY SHIFT VERSUS TEMPERATURE



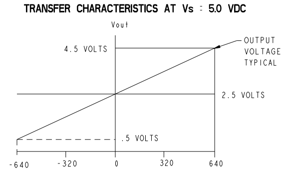
SENSITIVITY/V VERSUS Vs (mV/GAUSS/VOLT)



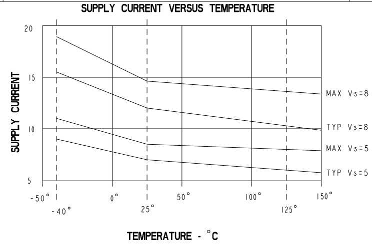
LINEARITY VERSUS Vs END POINT OF SPAN METHOD



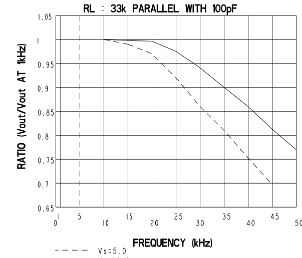
TRANSFER CHARACTERISTICS AT Vs = 5.0 VDC



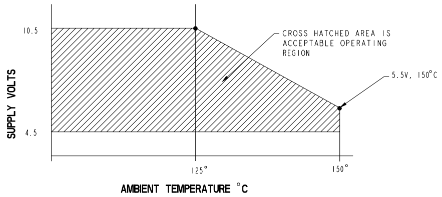
SUPPLY CURRENT VERSUS TEMPERATURE



TYPICAL FREQUENCY RESPONSE RL = 33k PARALLEL WITH 100pF



MAXIMUM ALLOWABLE AMBIENT TEMPERATURE



ESD SENSITIVITY: CLASS 3

ANSI Y14.5M-1982 APPLIES

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MINIATURE RATIOMETRIC LINEAR HALL EFFECT SENSOR

CATALOG LISTING: SS495 SERIES CHART 1

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 ±2°

WEIGHT

SS495 SERIES CHART 1 — PAGE 5 OF 5 — PR-24063