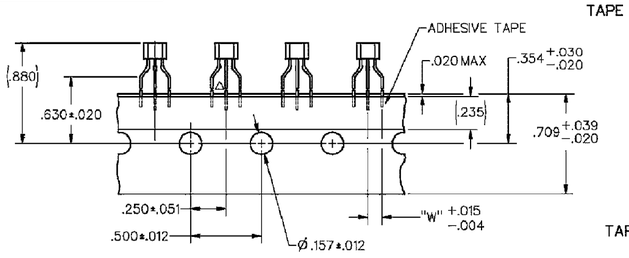
FO-55112-A

HONEYWELL PART NUMBER

SS491 SERIES CHART 1

REV	DOCUMENT	CHANGED BY	CHECK
A	0014722	PS 04OCT05	VK

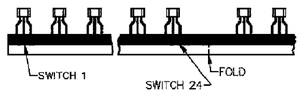
TAPE PACKING OPTIONS

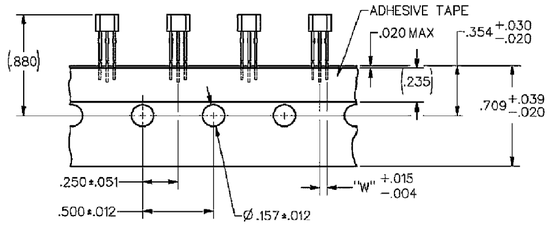


TAPE DIMENSIONS

TAPE STYLE

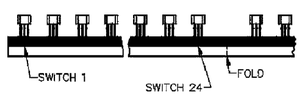
AMMOPACK STYLE "T2" 12,14

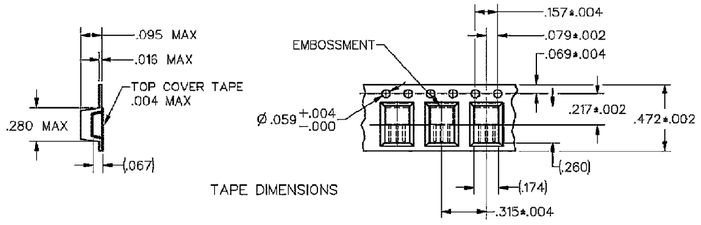




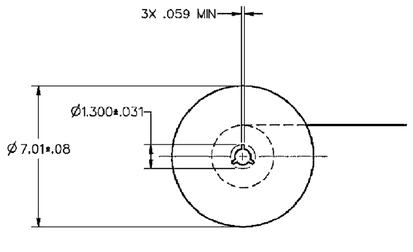
TAPE DIMENSIONS

AMMOPACK STYLE "T3" 12,14





TAPE DIMENSIONS



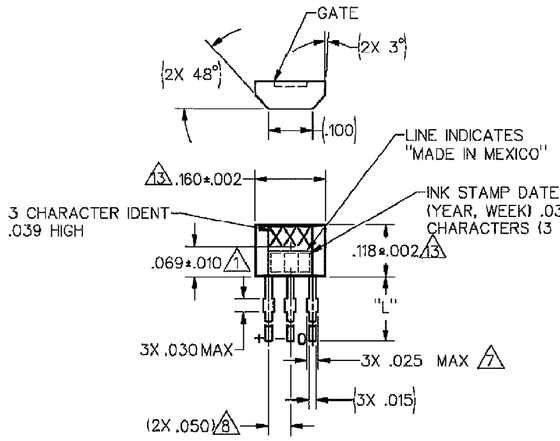
DIRECTION OF FEED FROM REEL

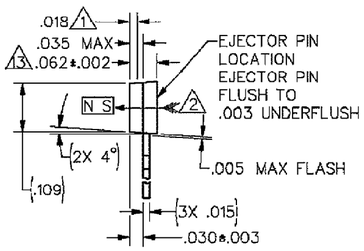
TAPE STYLE "P" 15

NOTES

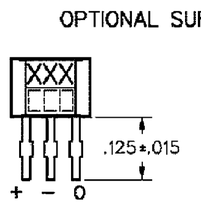
1. CENTERLINE OF HALL CELL
2. THE + MAGNETIC FLUX IS IN THE DIRECTION SHOWN (THIS ASSUMES THE CONVENTION THAT THE DIRECTION OF THE EXTERNAL FLUX OF A MAGNET IS FROM THE NORTH TO THE SOUTH POLE OF THE MAGNET)
3. – THE DEVICE CANNOT BE DAMAGED BY MAGNETIC OVERDRIVE
4. – OUTPUT TYPE – RATIOMETRIC
5. – LEADS 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 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. 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 MAXIMUM
14. TAPE AND AMMOPACK PER EIA–468
15. POCKET TAPE PER EIA–481

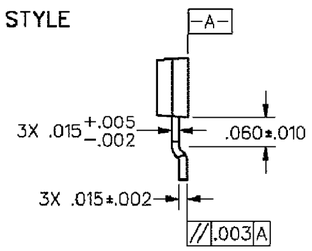
CATALOG LISTING	TAPE STYLE	DIM "L"	DIM "W"	COMMENTS 11
SS491B	NONE	.590	.050	BULK-1000/BAG
SS491B-F	NONE	.590	.100	BULK-1000/BAG
SS491B-T2	T2	.590	.100	5000/BOX
SS491B-T3	T3	.590	.050	5000/BOX
SS491B-S	NONE	.125	.050	BULK-1000/BAG
SS491B-SP	P	.125	.050	1000/PACKET TAPE AND REEL





OPTIONAL SURFACE MOUNT LEAD STYLE





ESD SENSITIVITY: CLASS 3

DESIGN UNITS: INCH TOLERANCES UNLESS NOTED:	DRAWN	PS	04OCT05
	CHECK	VK	04OCT05

ONE PLACE .X ± 0.030
TWO PLACE .XX ± 0.015
THREE PLACE .XXX ± 0.005
ANGLES ± 2

THIRD ANGLE PROJECTION

INTERPRET PER ANSI Y14.5M-1982 OTHER HONEYWELL ENGINEERING STANDARDS MAY APPLY

RASTER

Honeywell

TITLE: MINIATURE RATIOMETRIC LINEAR HALL EFFECT SENSOR

SIZE	TYPE	DRAWING NAME	REV
C	I	SS491 SERIES CHART 1	A

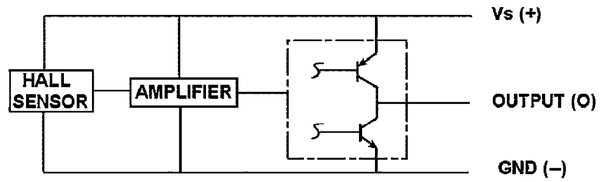
SCALE NTS

SHEET 1 OF 2

CHARACTERISTICS ARE AT Vs = 10.0 Vdc WITH 4.7K OUTPUT TO MINUS AND TA = -40°C TO +85°C UNLESS OTHERWISE SPECIFIED

PARAMETER		CONDITIONS	MIN	TYP	MAX	UNITS
SENSITIVITY		TA = + 25° C	40	50	60	mV/GAUSS
NULL		TA = + 25° C	4	5	6	VOLTS
SUPPLY CURRENT				18	30	mA
OUTPUT CURRENT	SOURCE	Vs > 4.5	1	1.5		mA
	SINK	Vs > 4.5	.6	1.5		mA
	SINK	Vs > 5.0	1	1.5		mA
RESPONSE TIME				3		uS
OUTPUT VOLTAGE	VOM –	- B APPLIED	.4	.2		VOLTS
	VOM +	+ B APPLIED	Vs - .4	Vs - .2		VOLTS
B LIMITS FOR LINEAR OPERATION		- B MAX	- 50	- 60		GAUSS
		+ B MAX	+ 50	+ 60		GAUSS
Vnull DRIFT		B = 0, TA = - 40° C TO + 85° C	- .06		+ .08	% / °C
SENSITIVITY DRIFT		TA = - 40° C TO + 85° C	- .02		+ .06	% / °C
LINEARITY		B = - 60 to + 60	0	- 1.0	- 1.5	% OF SPAN
SUPPLY VOLTAGE		TA = - 40° C TO + 85° C	4.5	10.0	10.5	VOLTS
OPERATING TEMP			- 40		+ 85	°C

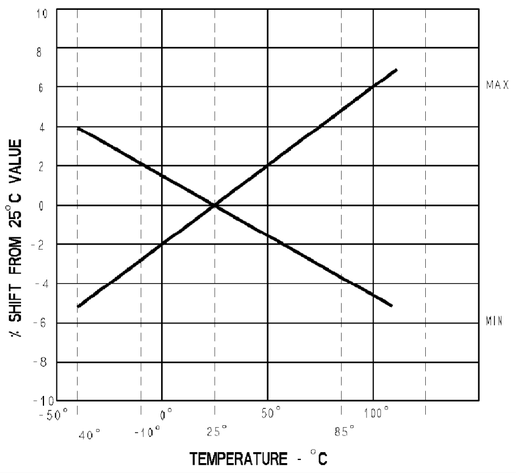
BLOCK DIAGRAM CURRENT SINKING OR SOURCING OUTPUT



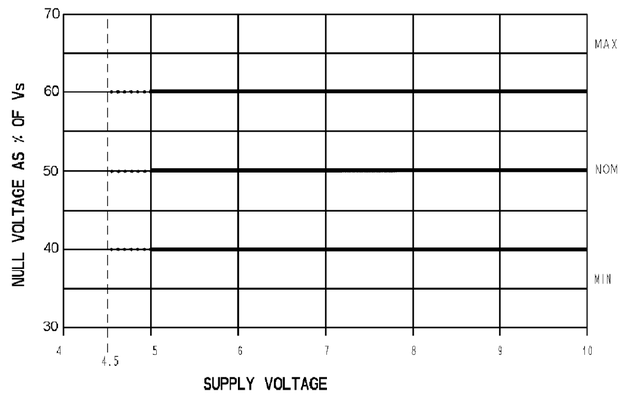
ABSOLUTE MAXIMUM CHARACTERISITICS (10)

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	-40	110	°C
	Ts	STORAGE (Vcc=0)	-55	165	°C

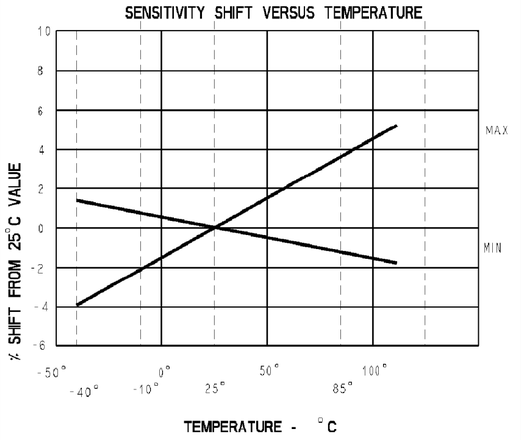
NULL SHIFT VERSUS TEMPERATURE



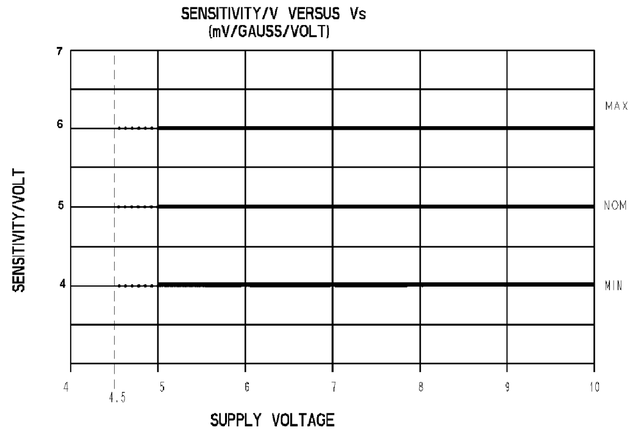
RATIO OF Vnull TO Vs



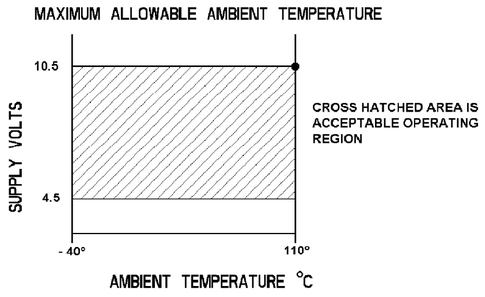
SENSITIVITY SHIFT VERSUS TEMPERATURE



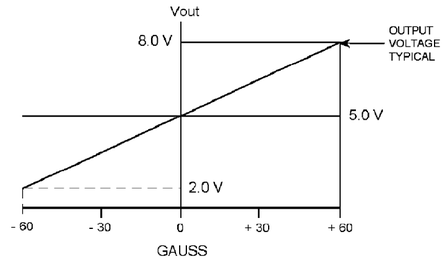
SENSITIVITY/V VERSUS Vs
(mV/GAUSS/VOLT)



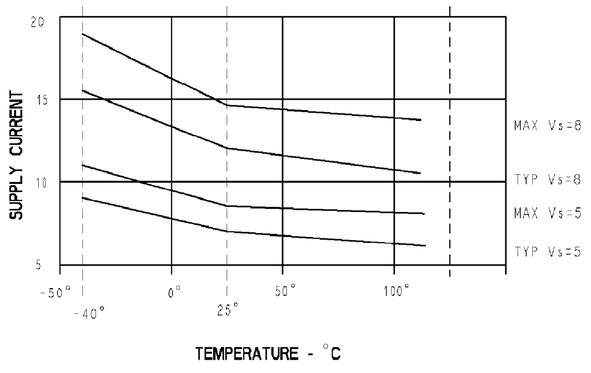
MAXIMUM ALLOWABLE AMBIENT TEMPERATURE



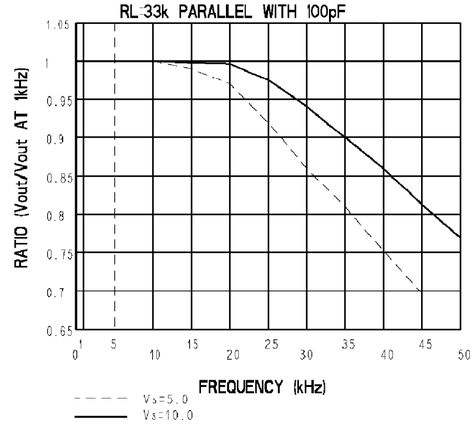
TRANSFER CHARACTERISTICS AT Vs = 10.0 Vdc



SUPPLY CURRENT VERSUS TEMPERATURE



TYPICAL FREQUENCY RESPONSE
RL=33k PARALLEL WITH 100pF



ESD SENSITIVITY: CLASS 3

Honeywell

SIZE	DWG TYPE	DRAWING NAME	REV
C	I	SS491 SERIES CHART 1	A
SCALE NTS		SHEET 2 OF 2	