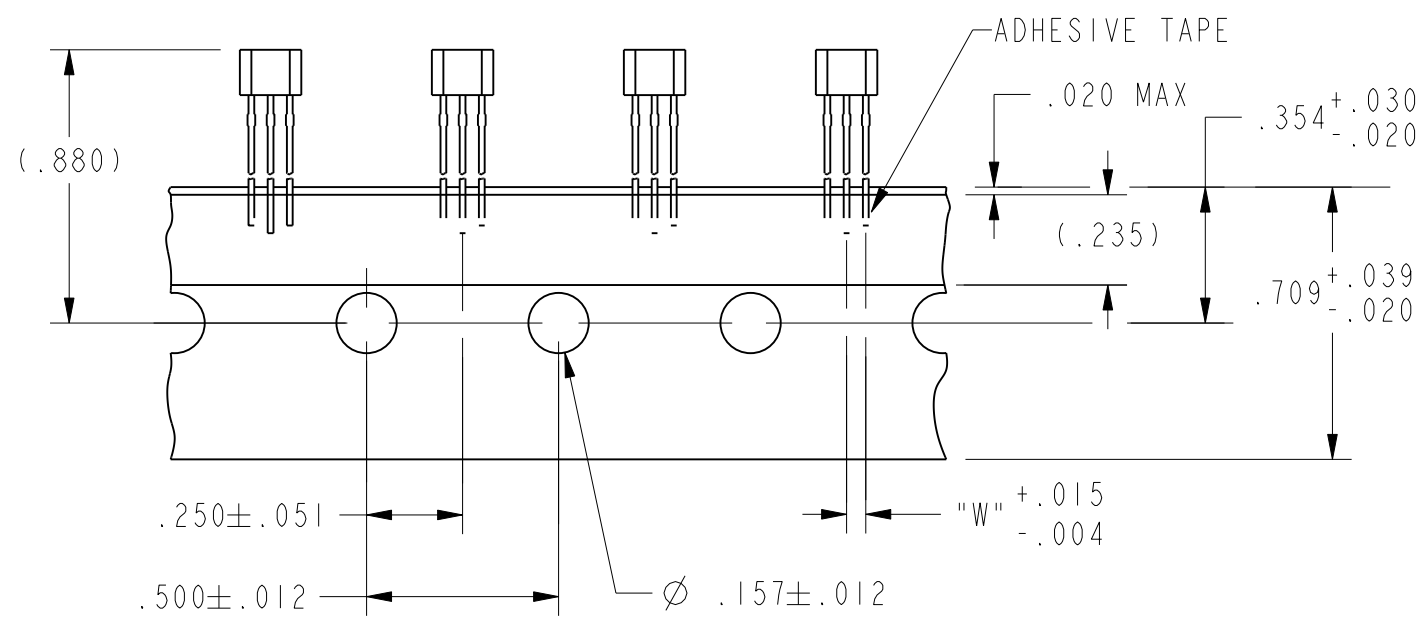


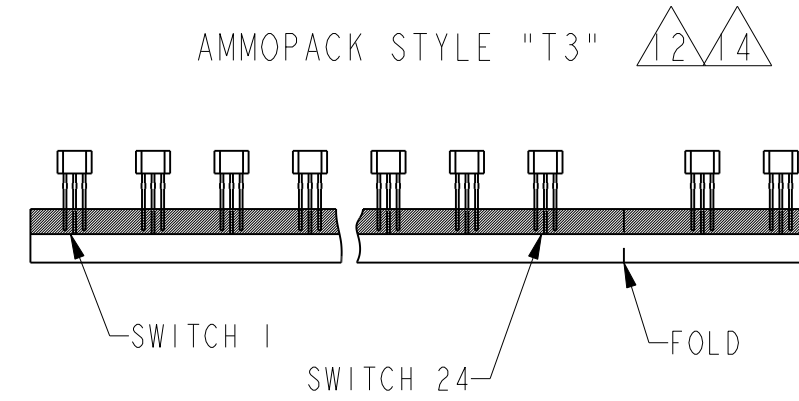
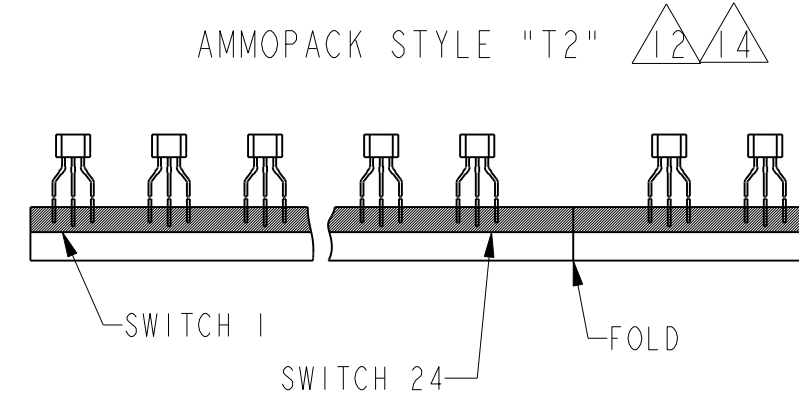
TAPE DIMENSIONS



TAPE DIMENSIONS

TAPE PACKING OPTIONS

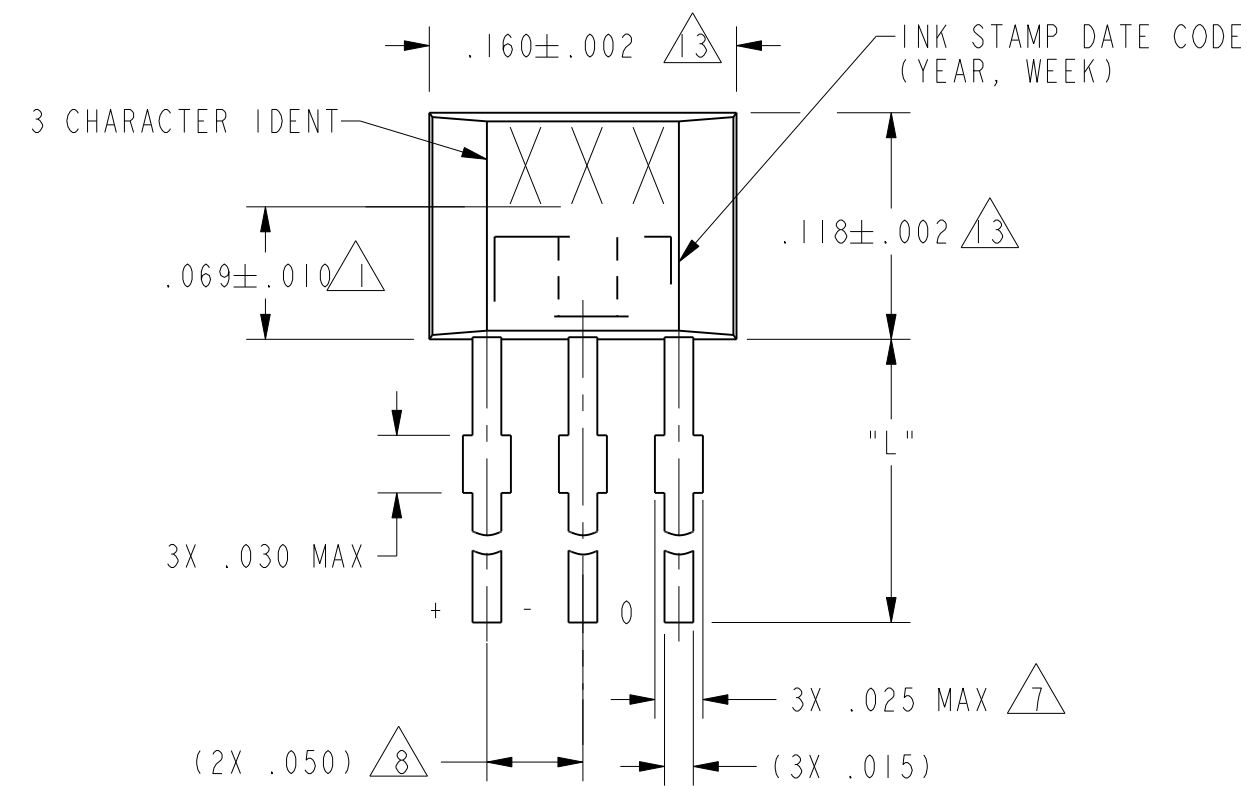
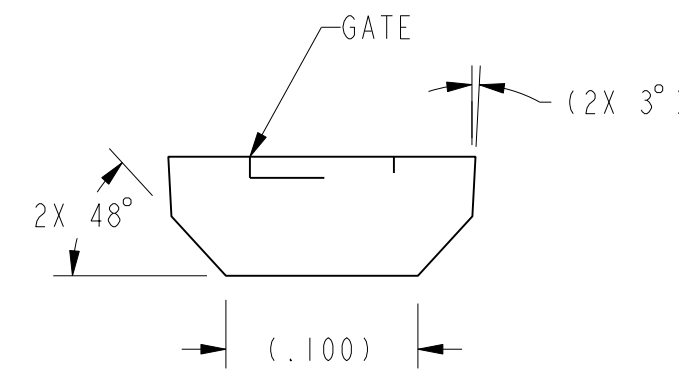
TAPE STYLE



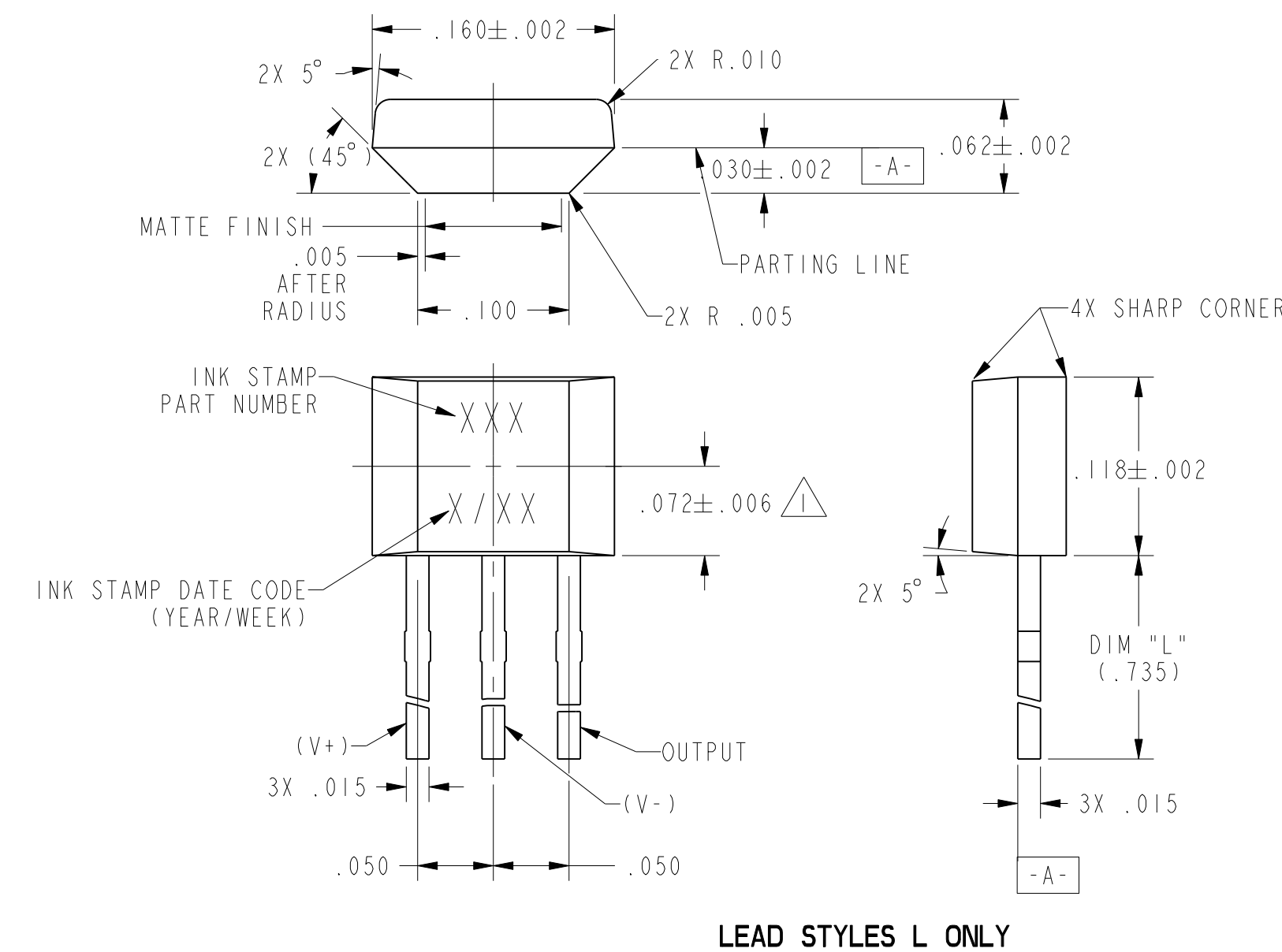
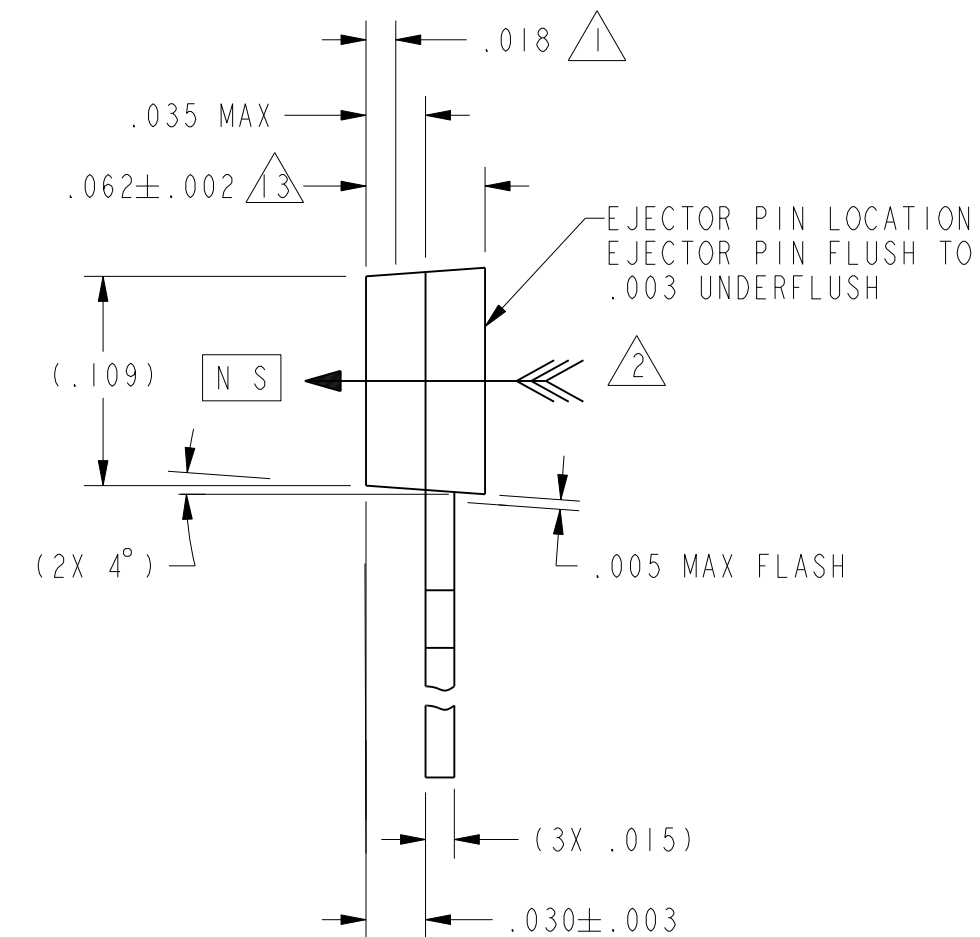
NOTES

- 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 - RATIO METRIC
- 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
LEAD REFERENCE DIMENSIONS DO NOT INCLUDE SOLDER THICKNESS
- 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

CATALOG LISTING	TAPE STYLE	DIM "L"	DIM "W"	COMMENTS
SS49E	NONE	.590	.050	BULK - 1000/BAG
SS49E-T2	T2	.590	.100	5000/BOX
SS49E-T3	T3	.590	.050	5000/BOX
SS49E-L	NONE	.735	.050	BULK - 1000/BAG
SS49E-F	NONE	.590	.100	BULK - 1000/BAG

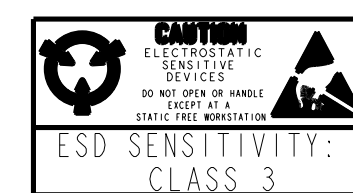


LEAD STYLES "STD", "T2", "T3"



LEAD STYLES L ONLY

MISS49E SERIES CHART 1
 DRAWING NUMBER: 67
 PAGE 1 OF 2
 RELEASE NO. 0000168
 ISSUE: 67
 DATE: 01 AUG 02
 CHECKED: 03197
 DATE: 03 MAR 03
 DESIGNED: 0000166
 DATE: 03 APR 03
 DRAWN: 0000946
 DATE: 21 JUL 03
 CHECKED: 0002137
 DATE: 03 DEC 03
 DESIGNED: 0014910
 DATE: 03 JUN 05
 DRAWN: PTC/CAD 20
 DATE: 13 JUN 02
 CHECKED: SAV
 DATE: 3 JUN 02
 APPROVED: GRT



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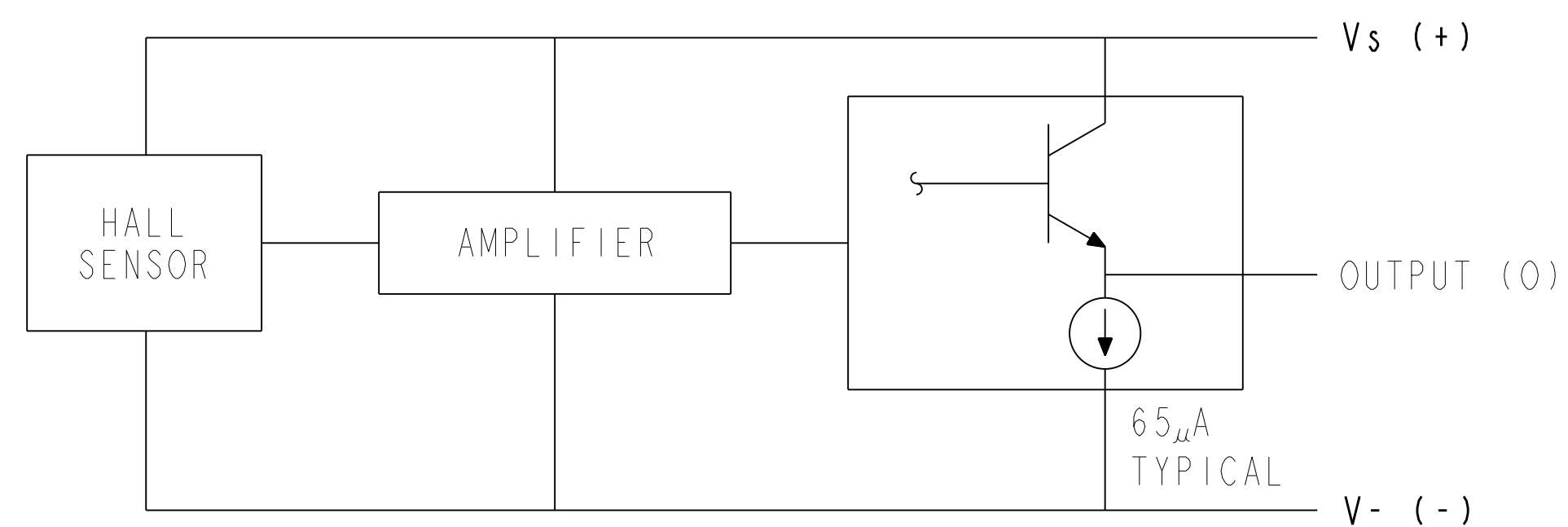
CATALOG LISTING
LINEAR HALL EFFECT SENSOR SS49E SERIES CHART 1

THIRD ANGLE PROJECTION	
SCALE	10 : 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 $V_s=5.00$ 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 VOM - VOM +	-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 $+85^{\circ}\text{C}$	-.10		+.10	% / $^{\circ}\text{C}$
SENSITIVITY DRIFT	$T_A = +25^{\circ}\text{C}$ TO $+85^{\circ}\text{C}$	-.15		+.05	% / $^{\circ}\text{C}$
SENSITIVITY DRIFT	$T_A = -40^{\circ}\text{C}$ TO $+25^{\circ}\text{C}$	-.04		+.185	% / $^{\circ}\text{C}$
LINEARITY	$B = -650$ TO $+650$		-.7		% OF SPAN
SUPPLY VOLTAGE	-40°C TO $+100^{\circ}\text{C}$	2.7	5.0	6.5	VOLTS
OPERATING TEMP		-40		+100	$^{\circ}\text{C}$

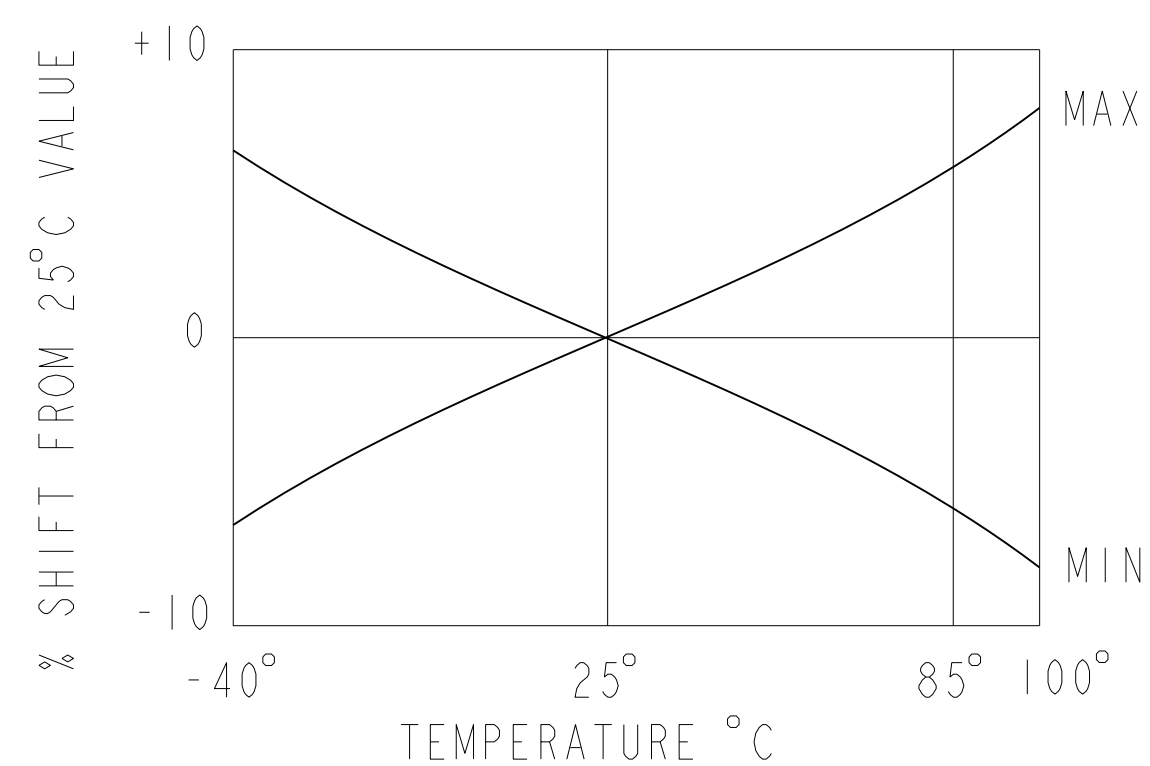
BLOCK DIAGRAM CURRENT SOURCING OUTPUT



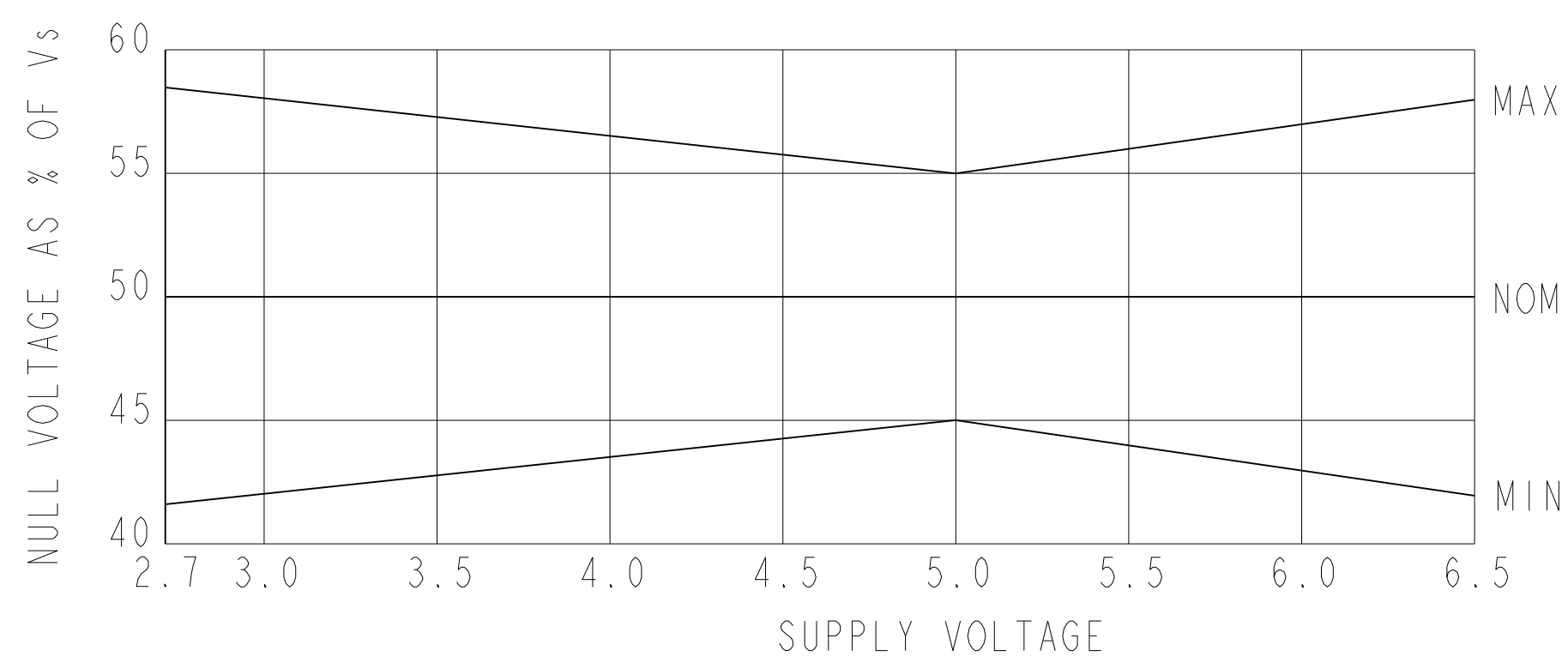
ABSOLUTE MAXIMUM CHARACTERISTICS $\triangle 10$

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	$^{\circ}\text{C}$

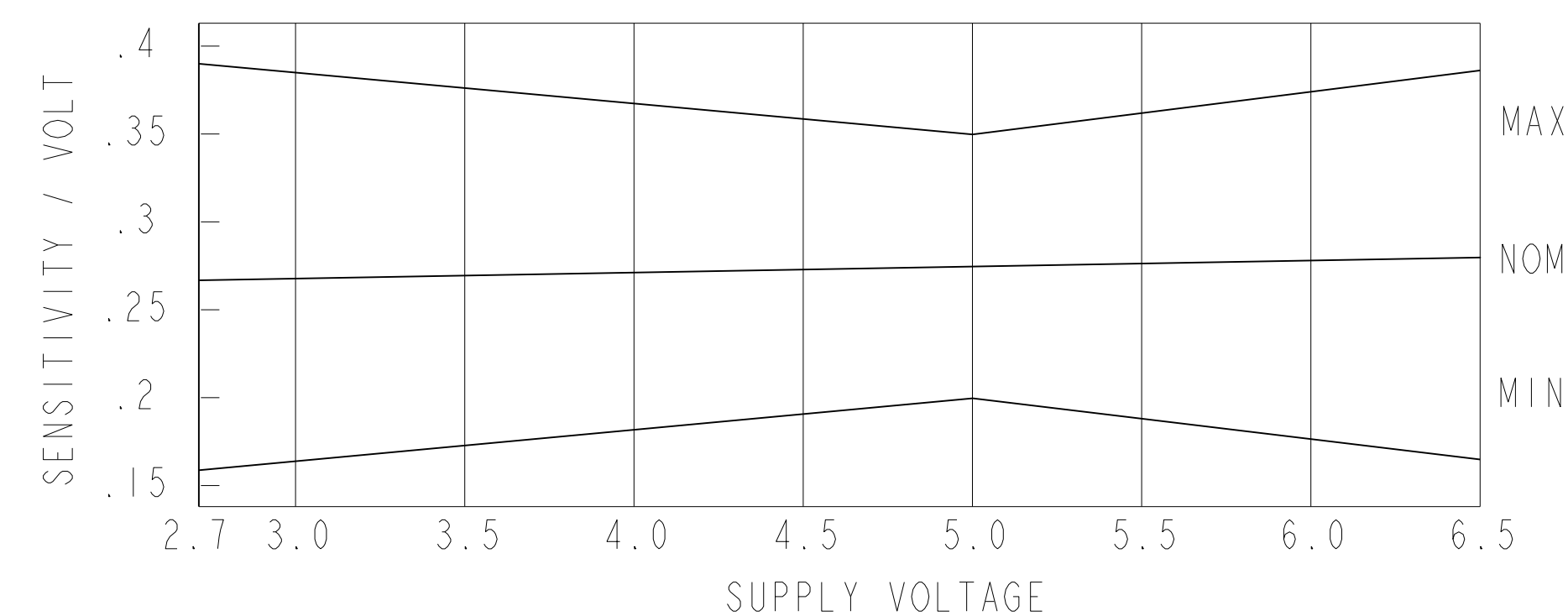
NULL SHIFT VERSUS TEMPERATURE



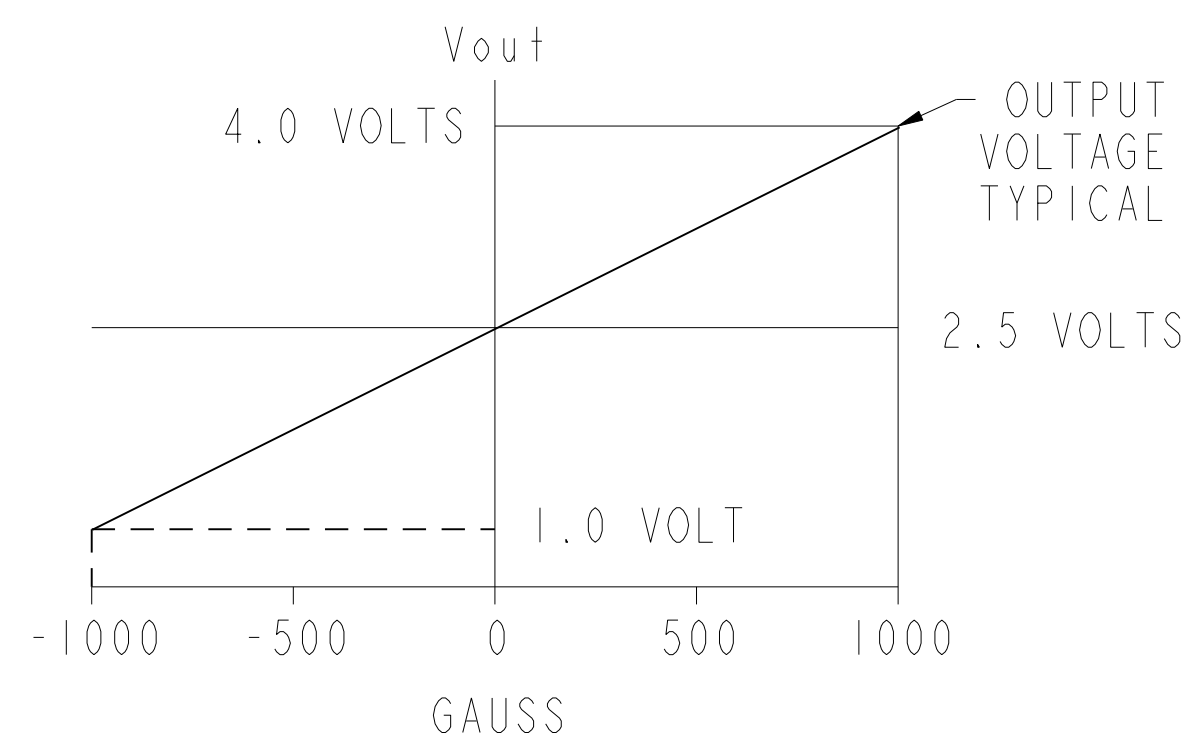
RATIO OF V_{null} TO V_s



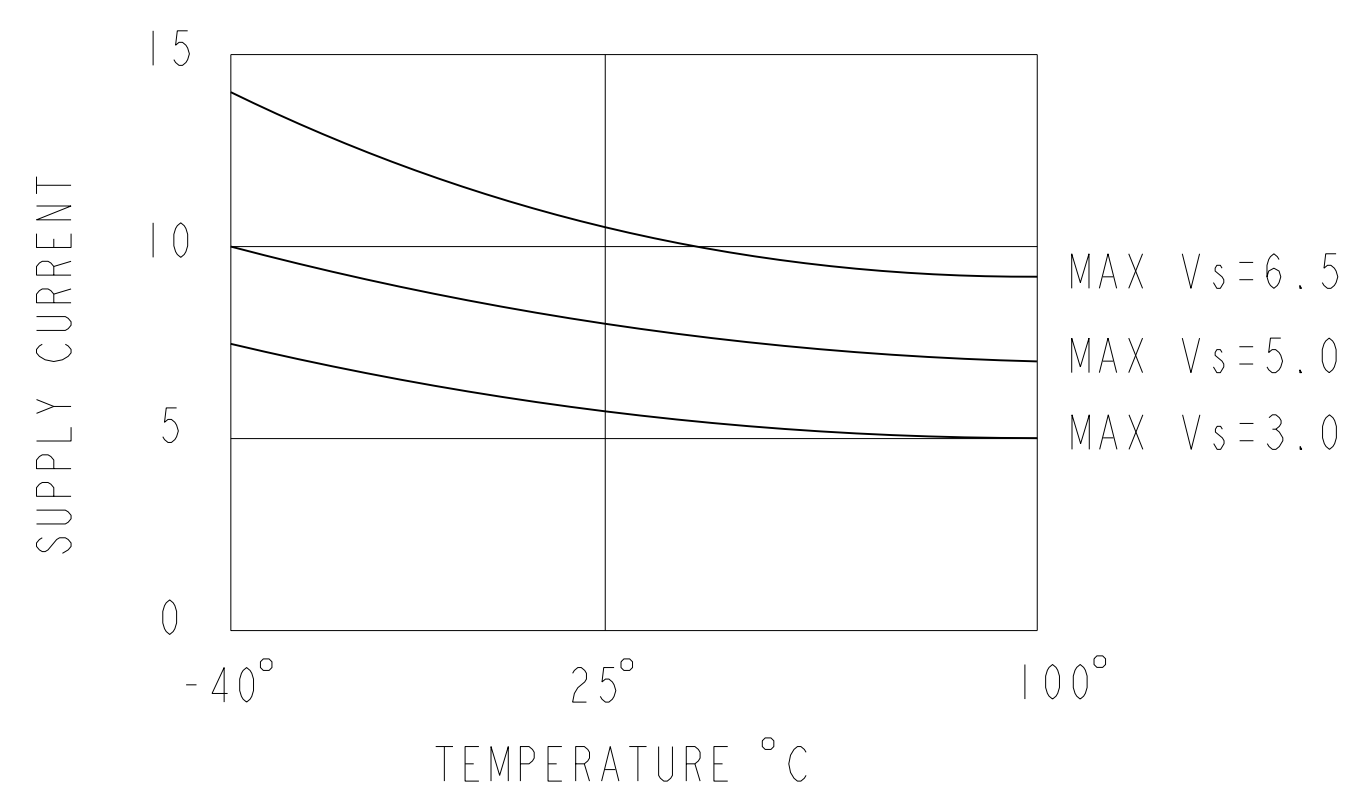
SENSITIVITY/V VERSUS V_s
(mV/Gauss/Volt)



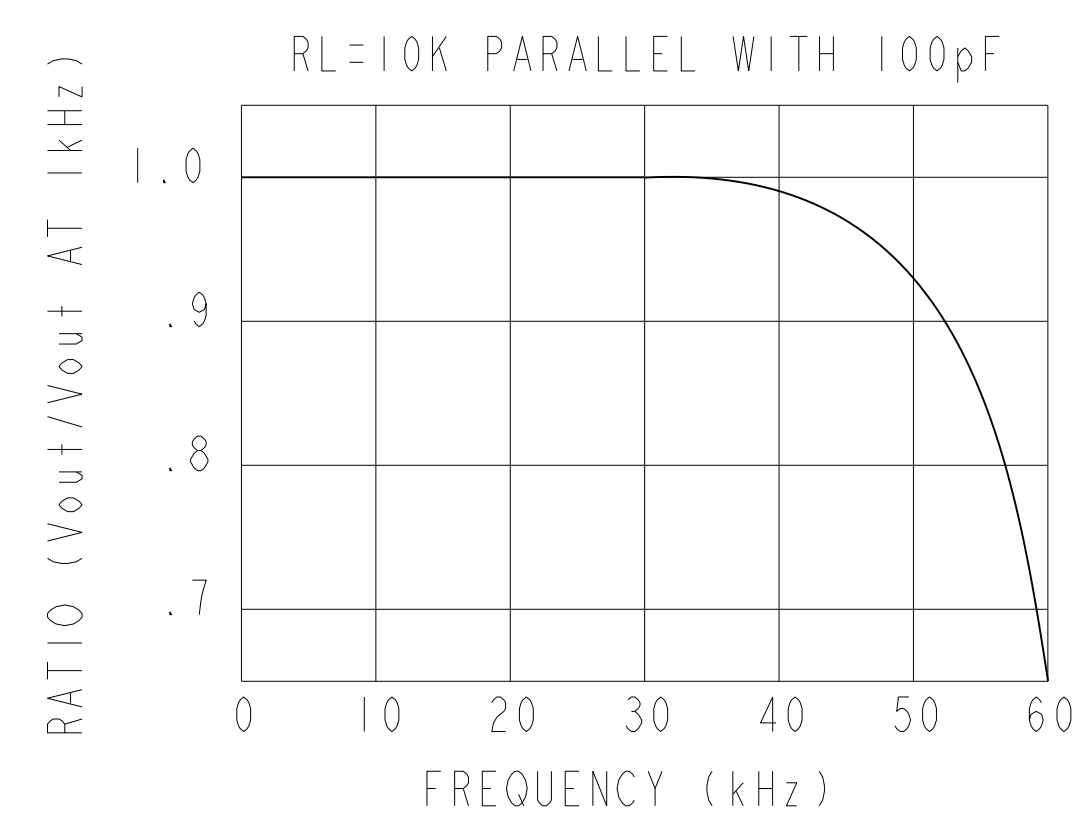
TRANSFER CHARACTERISTICS
AT $V_s=5.0$ VDC



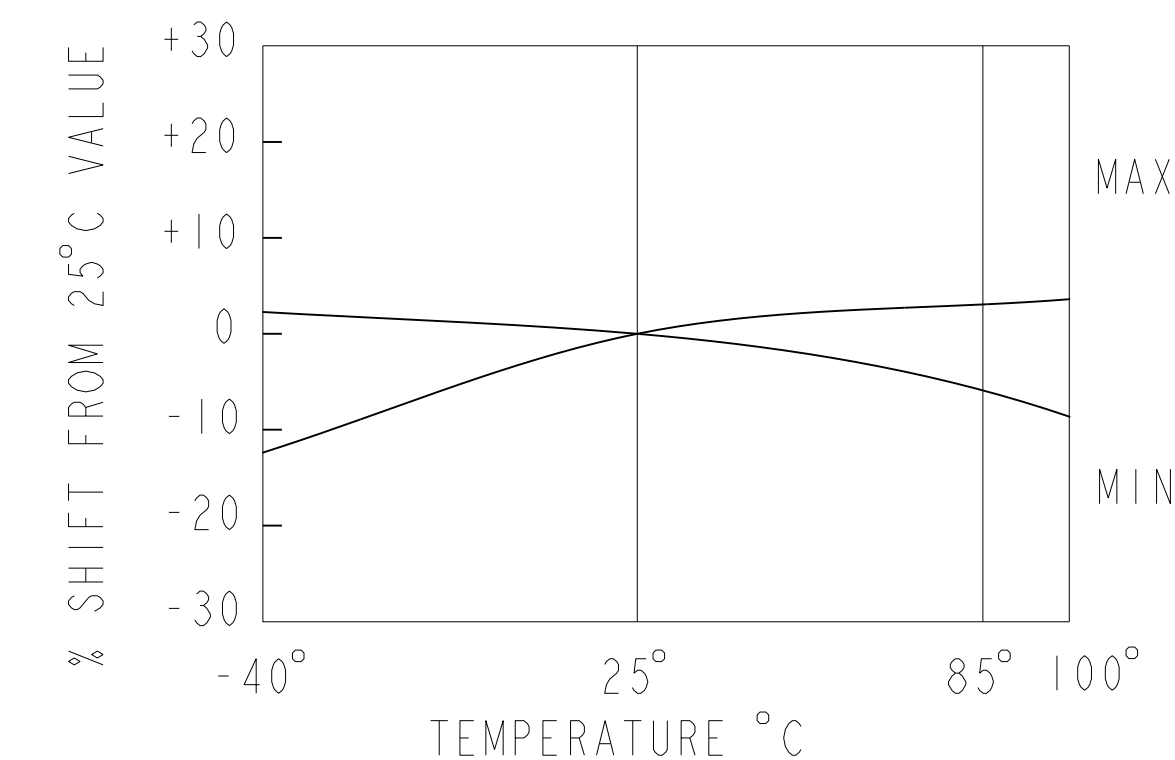
SUPPLY CURRENT
VERSUS TEMPERATURE



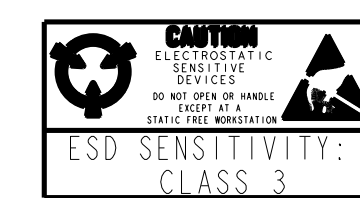
TYPICAL FREQUENCY RESPONSE



SENSITIVITY
SHIFT VERSUS TEMPERATURE



ISSUE 67
 DRAWING NUMBER 24APR03
 RELEASE NO. 0000168
 REVISIONS
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 2 24APR03
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LINEAR HALL EFFECT SENSOR

SS49E SERIES CHART 1

ONE PLACE (.0) +.030
TWO PLACE (.00) +.015
THREE PLACE (.000) +.005
ANGLES +
WEIGHT

THIRD ANGLE PROJECTION

SCALE NONE

DO NOT SCALE PRINT

UNLESS OTHERWISE SPECIFIED TOLERANCES ARE