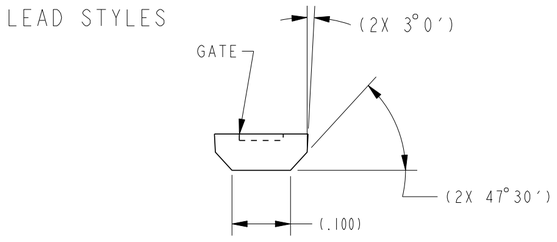
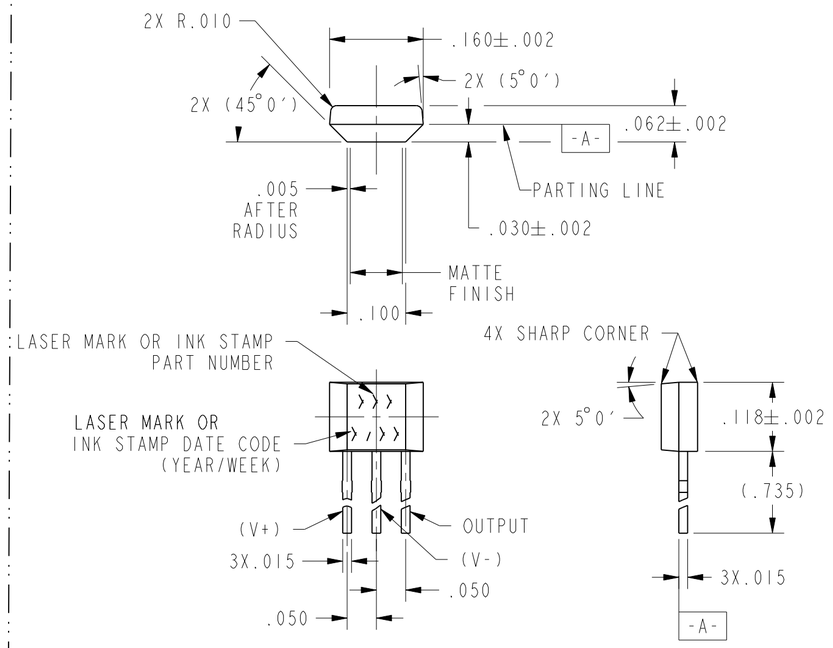
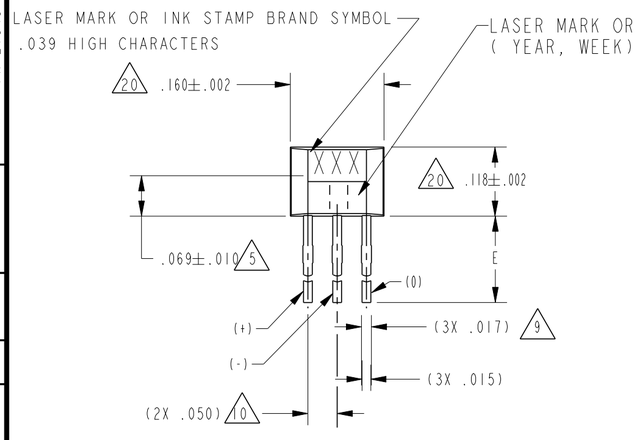
LEAD STYLES

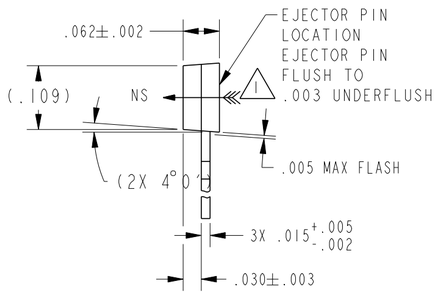


ALL EXCEPT "L" LEAD STYLES

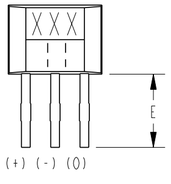


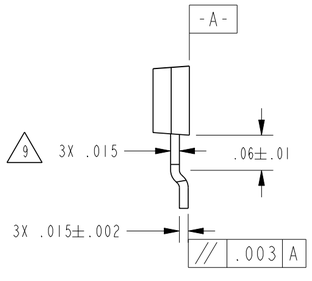
DIMENSIONS APPLY TO "L" LEAD STYLE ONLY





LEAD STYLES "STD", "R", "RP"





LEAD STYLES "S" & "SP" 11

NOTES

1. THE MAGNETIC FLUX USED TO OPERATE THE SWITCH MUST BE IN THE DIRECTION AND LOCATION 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)
2. THE MAGNETIC FIELD STRENGTH (GAUSS) REQUIRED TO CAUSE THE SWITCH TO CHANGE STATE (OPERATE AND RELEASE) WILL BE AS TABULATED. TO TEST THE SWITCH AGAINST THE SPECIFIED LIMITS, THE SWITCH MUST BE PLACED IN A UNIFORM MAGNETIC FIELD
3. ABSOLUTE MAXIMUM RATINGS ARE THE EXTREME LIMITS THE DEVICE WILL MOMENTARILY WITHSTAND WITHOUT DAMAGE TO THE DEVICE. ELECTRICAL AND MAGNETIC CHARACTERIISTICS ARE NOT GUARANTEED IF THE RATED VOLTAGE AND/OR CURRENTS ARE EXCEEDED NOR WILL THE DEVICE NECESSARILY OPERATE AT ABSOLUTE MAXIMUM RATINGS
4. TEST CONDITIONS: Vcc=12V, R2=1.6K OHMS, C2=20pf
5. APPROXIMATE HALL ELEMENT LOCATION
6. LEADS MUST BE ADEQUATELY SUPPORTED DURING ANY FORMING/ SHEERING OPERATION TO ASSURE THAT THE LEADS ARE NOT STRESSED WITHIN THE PLASTIC
7. PCB WAVE SOLDERING GUIDELINES ARE AS FOLLOWS: 250°C PEAK FOR 10 S MAX OR 260°C PEAK FOR 5S MAX SOLDERING TIME
8. Vcc=12V, R_L=1.6K, C_L=20pf
9. BURRS ARE ALLOWED ONLY IF FULL LENGTH OF LEADS WILL PASS THROUGH Ø.023 HOLE. LEAD REFERENCE DIMENSIONS DO NOT INCLUDE SOLDER THICKNESS
10. DIMENSION REFERS TO THE LOCATION OF LEAD CENTERLINES AS THEY EXIT THE PLASTIC PACKAGE
11. TYPICAL DIMENSIONS NOT SHOWN IN LEAD STYLE "S" AND "SP"
12. SOME COMBINATIONS OF BASIC LISTING AND PACKING OPTIONS ARE NOT AVAILABLE
13. TAPE AND AMMOPACK PER EIA-468-A-1990
14. POCKET TAPE AND REEL PER EIA-481-A-1986
15. Vcc=30V, Isink=20mA, -40°C<T<150°C, B>MAX OP GAUSS FOR SPECIFIC LISTING
16. Vcc=3.8V, Isink=20mA, B>MAX OP GAUSS FOR SPECIFIC LISTING
17. Vout=30V, Vcc=24V, B<MIN RELEASE GAUSS FOR SPECIFIC LISTING
18. AMMOPACK STYLE "T2" AND "T3". 24 SWITCHES BETWEEN FOLDS, SKIP 1 SPACE AT FOLD. MAY BE REFERRED TO AS "FAN FOLD"
19. LEAD STRAIGHTNESS MAY BE DETERIORATED ON SOME UNITS BY BULK PACKAGING. APPLICATIONS HAVING A CRITICAL LEAD STRAIGHTNESS REQUIREMENT SHOULD USE A TAPE PACKAGING OPTION
20. MOLDED PART DIMENSIONS DO NOT INCLUDE FLASH. FLASH IS LIMITED TO .005 MAX
21. THESE HALL EFFECT SENSORS MAY HAVE AN INITIAL OUPUT IN EITHER THE ON OR OFF STATE IF POWERED UP WITH AN APPLIED MAGNETIC FIELD IN THE DIFFERENTIAL ZONE (APPLIED MAGNETIC FIELD > Brp AND < Bop). MICRO SWITCH RECOMMENDS THAT THE APPLICATION CIRCUIT DESIGNER ALLOW 10 MICROSECONDS AFTER SUPPLY VOLTAGE HAS REACHED 5 VOLTS FOR THE OUTPUT VOLTAGE TO STABILIZE

CAUTION
ELECTROSTATIC SENSITIVE DEVICES
DO NOT OPEN OR HANDLE EXCEPT AT A STATIC FREE WORKSTATION

ESD SENSITIVITY: CLASS 3

ANSI Y14.5M-1982 APPLIES

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SOLID STATE SENSOR

CATALOG LISTING
SS400 SERIES CHART 1

THIRD ANGLE PROJECTION
SCALE 5 : 1
DO NOT SCALE PRINT

TOLERANCES
APPLY TO DESIGN UNITS. CONVERSIONS ARE ONLY FOR REFERENCE. UNLESS NOTED, TOLERANCES ARE ±

	DIM. mm	TOL mm/in	DIM. in	TOL mm/in
NO PLACES	X	1/.04	X.X	0.8/.03
ONE PLACE	X.X	0.4/.016	X.XX	0.38/.015
TWO PLACES	X.XX	0.15/.006	X.XXX	0.13/.005
THREE PLACES				
ANGLES				

DESIGN UNITS: SI METRIC ☐ US CUSTOMARY ☒ (X)

WEIGHT

DRAWN GRT 26 MAR 02
CHECK SAV 26 MAR 02
CHECK
CHECK
PTC/CAD 3D
DRAWING NUMBER 16
ISSUE
RELEASE NO. PR-21345
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SS400 SERIES CHART 1
REPLACES -

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CATALOG LISTING
SS400 SERIES CHART 1

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CATALOGING SYSTEM /12

PREFIX	SUFFIX
BASIC CATALOG LISTING: PACKAGE STYLE, MAGNETIC TYPE, ELECTRICAL/MAGNETIC SPECS	LEAD & PACKAGING OPTIONS: BULK, TAPE & REEL, POCKET TAPE & REEL

CHARACTERS IN THESE POSITIONS OF THE LISTING ARE BRANDED ON THE PRODUCT

SS441A1-__ (OPTIONS)

SS4=PACKAGE STYLE

/13 /18

MAGNETIC TYPE
1=BIPOLAR
4=UNIPOLAR
6=LATCH
9=LINEAR

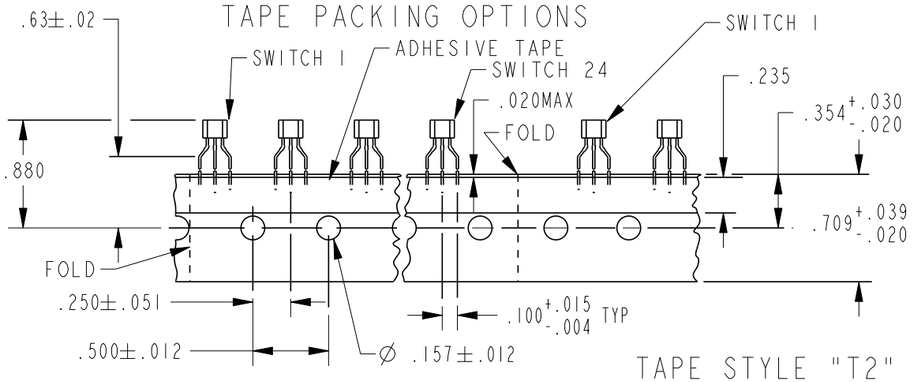
RELATIVE GAUSS OPERATING RANGE (0-9, 9=HIGH GAUSS)#

ELECTRICAL/MAGNETIC OPTIONS (A-K, & U-Z)
A=STANDARD
B-K & U-Z=SPECIALS

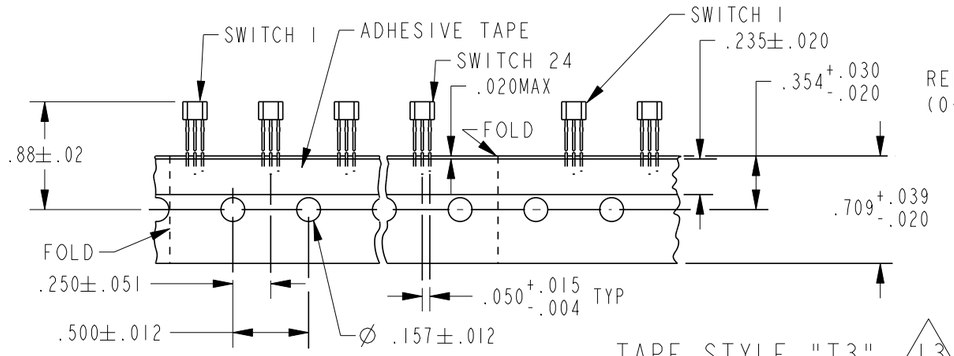
SPECIAL FEATURE (BLANK, 1-9)
BLANK=STANDARD
1-9=SPECIALS

	DESCRIPTION	NOMINAL LEAD SPACING	NOMINAL "E" DIM LENGTH ±015	PARTS PER CONTAINER
-	STANDARD, BULK PACK /19	.050	.590	1000/BAG
-T2	TAPE, AMMOPACK	.100	.590	5000/BOX
-T3	TAPE, AMMOPACK	.050	.590	5000/BOX
-S	SURFACE MOUNT, BULK PACK	.050	.125	1000/BAG
-SP	SURFACE MOUNT, POCKET TAPE	.050	.125	1000/REEL
-R	REDUCED LENGTH, BULK PACK	.050	.130	1000/BAG
-RP	REDUCED LENGTH, POCKET TAPE	.050	.130	1000/REEL
-L	LONG LEADS, BULK PACK	.050	.735	1000/BAG

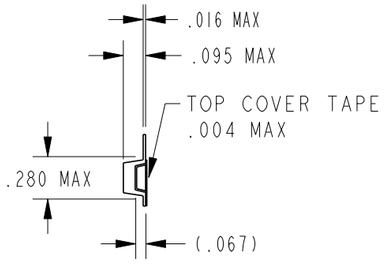
TAPE PACKING OPTIONS

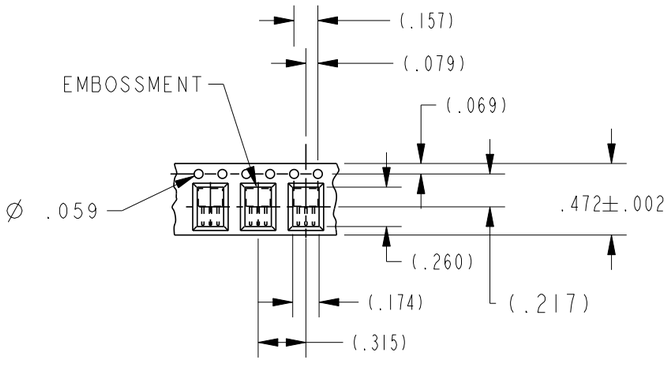


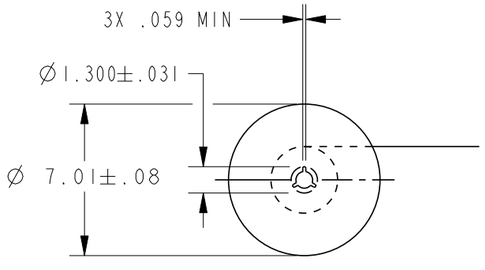
TAPE STYLE "T2" /13 /18



TAPE STYLE "T3" /13 /18







DIRECTION OF FEED FROM REEL

TAPE STYLE "SP" & "RP" /14

CAUTION
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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

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REVISIONS
E 0034535 PRS 26 OCT 07

	DRAWN	CHECK	CHECK	CHECK	CHECK
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CATALOG LISTING
SS400 SERIES CHART 1

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TABLE I - MAGNETIC AND ELECTRICAL SPECIFICATIONS 2 21

	-40° C	0° C	25° C	85° C	125°C	150°C
MIN OPERATE GAUSS						
SS411A	NS	NS	NS	NS	NS	NS
SS413A	NS	NS	NS	NS	NS	NS
SS441A	50	53	55	45	40	35
SS443A	110	110	110	90	80	65
SS449A	285	305	310	290	270	260
SS461A	5	5	10	10	5	5
SS466A	100	100	100	95	80	70
MAX OPERATE GAUSS						
SS411A	70	65	60	60	65	70
SS413A	140	140	140	140	140	140
SS441A	135	117	115	120	123	125
SS443A	215	190	180	180	190	200
SS449A	435	400	390	400	410	420
SS461A	110	90	85	85	100	110
SS466A	200	185	180	180	180	185
MIN RELEASE GAUSS						
SS411A	-70	-65	-60	-60	-65	-70
SS413A	-140	-140	-140	-140	-140	-140
SS441A	20	20	20	15	15	10
SS443A	80	80	75	70	60	55
SS449A	210	230	235	215	200	185
SS461A	-110	-90	-85	-85	-100	-110
SS466A	-200	-185	-180	-180	-100	-185
MAX RELEASE GAUSS						
SS411A	NS	NS	NS	NS	NS	NS
SS413A	NS	NS	NS	NS	NS	NS
SS441A	120	99	95	105	115	120
SS443A	190	165	155	165	180	195
SS449A	360	325	315	325	340	345
SS461A	-5	-5	-10	-10	-5	-5
SS466A	-100	-100	-100	-95	-80	-70
MIN DIFF GAUSS						
SS411A	15	15	15	12	12	10
SS413A	20	20	20	20	20	20
SS441A	15	15	20	15	8	5
SS443A	25	25	25	15	10	5
SS449A	30	30	30	30	30	30
SS461A	50	50	50	50	50	50
SS466A	200	200	200	190	160	140

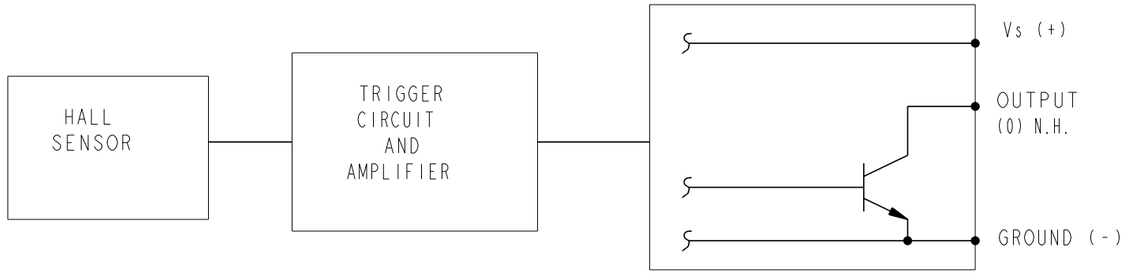

TABLE 2

PACKING	BAG
SPECIFIED VOLTAGE RANGE	3.8 - 30
MAX Ioff milliamp 15	9.0
MAX Ion milliamp 15	10.0
RATED SINK CURRENT Ma	20
MAX Vsat VOLTS 16	0.4
MAX LEAKAGE AT 24V, UA 17	10
RISE TIME AT 25° C 10% TO 90% µS 4	1.5
FALL TIME AT 25° C 90% TO 10% µS 4	1.5
STORAGE TEMP ° C	-65 TO +160
OPERATING TEMP ° C	-55 TO +160

ABSOLUTE LIMITS 3 TABLE 3

SUPPLY VOLTAGE	-1 TO +30
APPLIED OUTPUT VOLTAGE	-0.5 TO +30
OUTPUT CURRENT mA	SEE TABLE 5
MAGNETIC FLUX GAUSS	NO LIMIT

CAUTION
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TABLE 4

CATALOG LISTING	MAGNETIC TYPE	BRAND SYMBOL
SS411A	BIPOLAR	11A
SS413A	BIPOLAR	13A
SS441A	UNIPOLAR	41A
SS443A	UNIPOLAR	43A
SS449A	UNIPOLAR	49A
SS461A	LATCH	61A
SS466A	LATCH	66A

TABLE 5

OUTPUT CURRENT ABSOLUTE LIMITS	
SUPPLY VOLTAGE	OUTPUT CURRENT MAX, MA
-1 TO 24	50
24 TO 25	37
25 TO 26	33
26 TO 27	28
27 TO 28	24
28 TO 29	19
29 TO 30	15

THIRD ANGLE PROJECTION

SCALE NONE

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UNLESS OTHERWISE SPECIFIED TOLERANCES ARE

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

WEIGHT

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CATALOG LISTING
SS400 SERIES CHART 1

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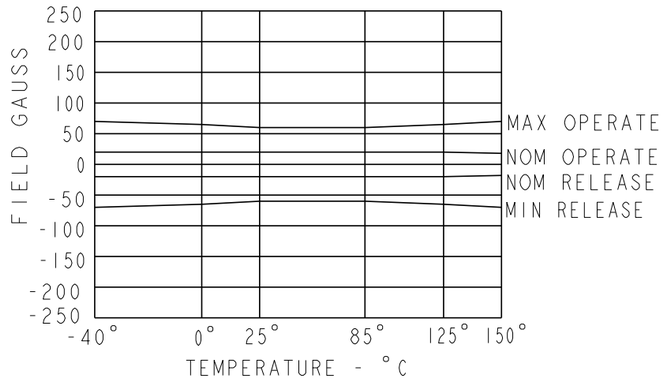
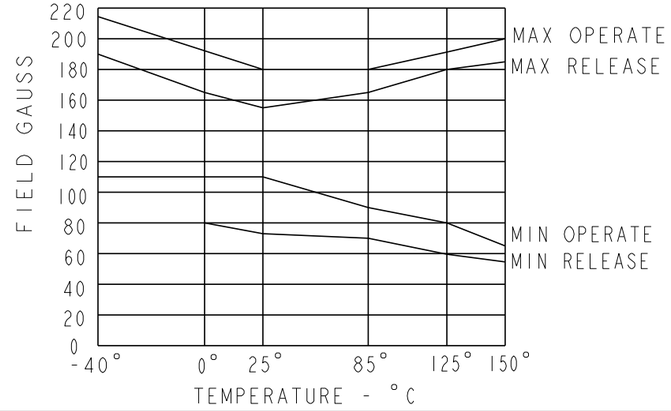
SS411A



SS443A



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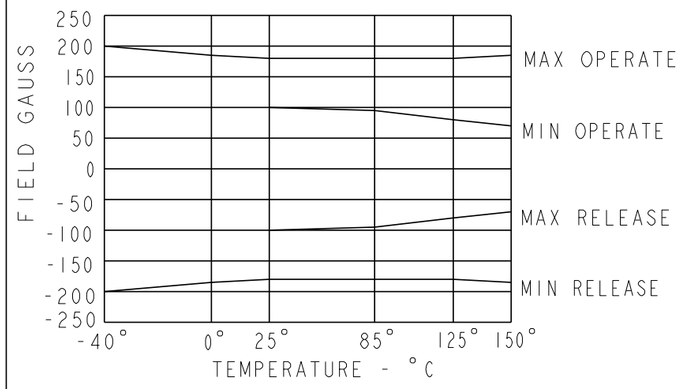
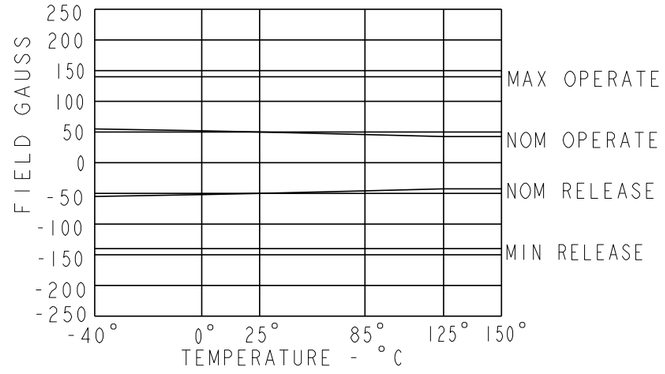
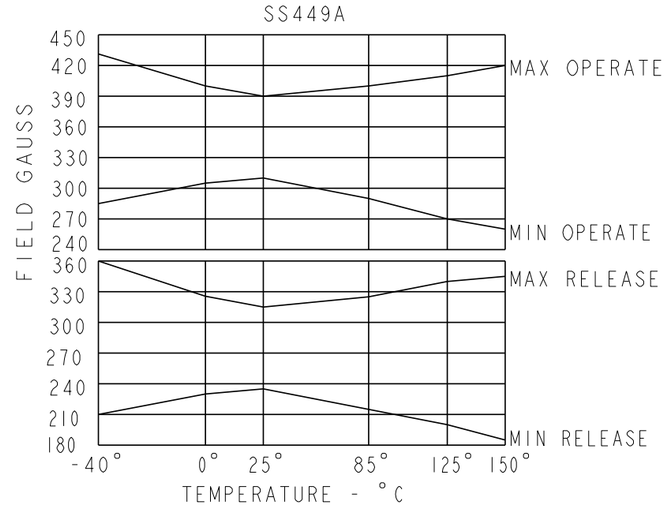


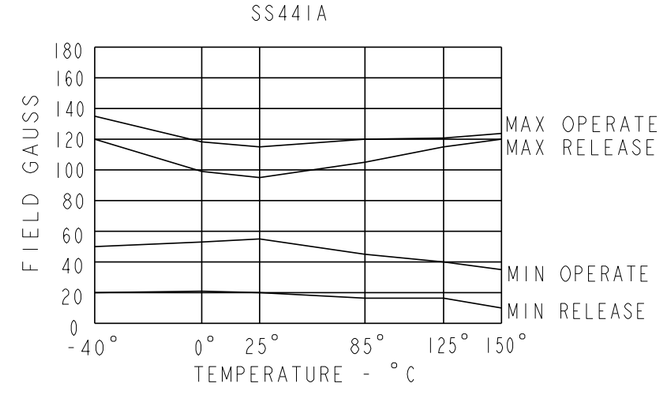
SS413A



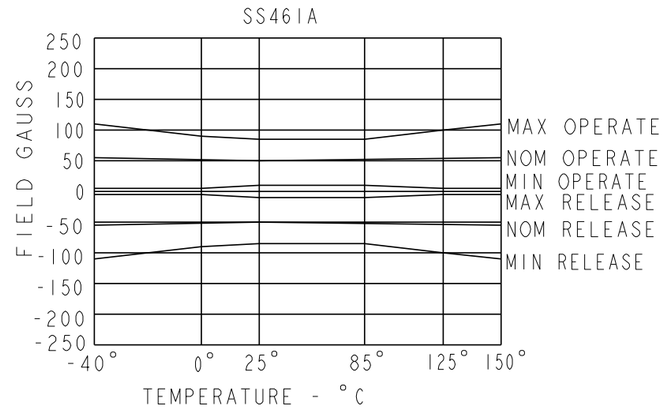
SS449A



SS441A



SS461A



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

WEIGHT

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OCEAN CHIPS
Океан Электроники
Поставка электронных компонентов

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- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
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- При необходимости вся продукция военного и аэрокосмического назначения проходит испытания и сертификацию в лаборатории (по согласованию с заказчиком);
- Поставка специализированных компонентов военного и аэрокосмического уровня качества (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Actel, Aeroflex, Peregrine, VPT, Syfer, Eurofarad, Texas Instruments, MS Kennedy, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

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AVIC JONHON

«JONHON» (основан в 1970 г.)

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