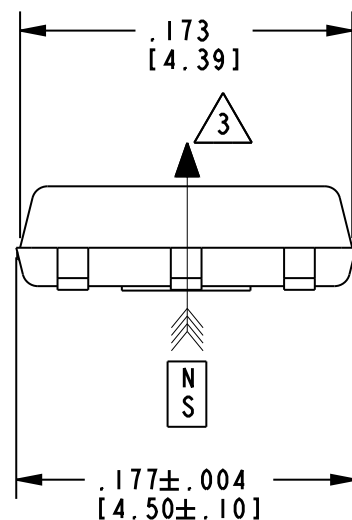
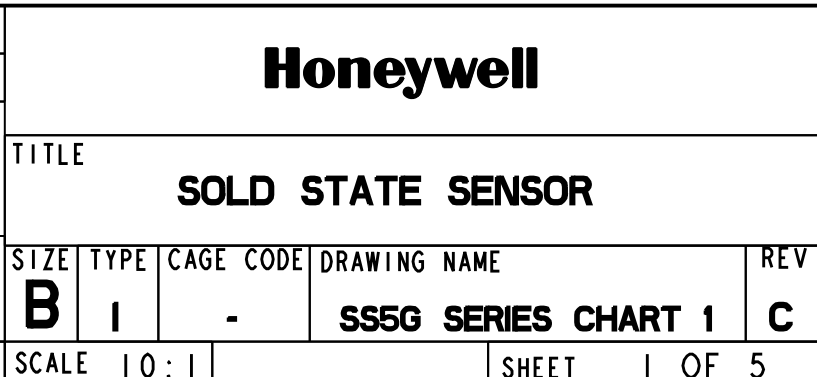


REV	DOCUMENT	CHANGED BY	CHECK
C	0049652	SSK 06MAR09	RS



- 1 - SOLDERING INSTRUCTIONS: EXPOSURE TO HIGH TEMPERATURES SHOULD BE KEPT AT A MINIMUM HONEYWELL RECOMMENDS AN INFRARED REFLOW PROCESS WITH PEAK TEMPERATURES NOT EXCEEDING 245°C (473°F) FOR 10 SECONDS MAXIMUM. DO NOT WAVE SOLDER THIS PRODUCT, AS THIS PROCESS MAY NEGATIVELY AFFECT THE SENSOR'S PERFORMANCE AND RELIABILITY. SUBJECTING THESE PRODUCTS TO WAVE SOLDERING WILL VOID MICRO SWITCH'S WARRANTY
- 2 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 SPECIFIED VOLTAGE AND/OR CURRENTS ARE EXCEEDED NOR WILL THE DEVICE NECESSARILY OPERATE AT ABSOLUTE MAXIMUM RATING
- 3 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)
- 4 THE MAGNETIC FIELD STRENGTH (GAUSS) REQUIRED TO CAUSE THE SWITCH TO CHANGE STATE (OPERATE AND RELEASE) WILL BE AS SPECIFIED IN THE MAGNETIC CHARACTERISTICS. TO TEST THE SWITCH AGAINST THE SPECIFIED MAGNETIC CHARACTERISTICS, THE SWITCH MUST BE PLACED IN A UNIFORM MAGNETIC FIELD
- 5 A "T" SUFFIX ON ANY CATALOG LISTING DESIGNATES THE PRODUCT WILL BE SUPPLIED IN TAPE AND REEL FORM PER EIA STD 481. SS5G SERIES SOLD IN TAPE AND REEL ONLY. SOME BASIC LISTINGS MAY NOT BE AVAILABLE
- 6 GATE VESAGE PERMITTED IN THESE AREAS. UNDERFLUSH BREAKOUT LIMITED TO .007[0,18]
- 7 THESE HALL EFFECT SENSORS MAY HAVE AN INITIAL OUTPUT 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). HONEYWELL RECOMMENDS THAT THE APPLICATION CIRCUIT DESIGNER ALLOW 10 MICROSECONDS AFTER SUPPLY VOLTAGE HAS REACHED 5 VOLTS FOR THE OUTPUT VOLTAGE TO STABILIZE





5



2

5

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

SS5=PACKAGE STYLE-

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



SIZE B	TYPE I	CAGE CODE -	DRAWING NAME SS5G SERIES CHART 1	REV C
SCALE 10:1		SHEET 2 OF 5		

TABLE 1 - MAGNETIC SPECIFICATIONS 47

LISTING	-40°C	0°C	25°C	85°C	125°C	150°C
MIN OPERATE GAUSS						
SS51GT	NS	NS	NS	NS	NS	NS
SS511GT	NS	NS	NS	NS	NS	NS
SS513GT	NS	NS	NS	NS	NS	NS
SS541GT	50	53	55	45	40	35
SS543GT	110	110	110	90	80	65
SS549GT	285	305	310	290	270	260
SS561GT	5	5	10	10	5	5
SS566GT	100	100	100	95	80	70
MAX OPERATE GAUSS						
SS51GT	145	145	140	150	200	250
SS511GT	70	65	60	60	65	70
SS513GT	140	140	140	140	140	140
SS541GT	135	117	115	120	123	125
SS543GT	215	190	180	180	190	200
SS549GT	435	400	390	400	410	420
SS561GT	110	90	85	85	100	110
SS566GT	200	185	180	180	180	185
MIN RELEASE GAUSS						
SS51GT	-145	-145	-140	-150	-200	-250
SS511GT	-70	-65	-60	-60	-65	-70
SS513GT	-140	-140	-140	-140	-140	-140
SS541GT	20	20	20	15	15	10
SS543GT	80	80	75	70	60	55
SS549GT	210	230	235	215	200	185
SS561GT	-110	-90	-85	-85	-100	-110
SS566GT	-200	-185	-180	-180	-180	-185
MAX RELEASE GAUSS						
SS51GT	NS	NS	NS	NS	NS	NS
SS511GT	NS	NS	NS	NS	NS	NS
SS513GT	NS	NS	NS	NS	NS	NS
SS541GT	120	99	95	105	115	120
SS543GT	190	165	155	165	180	195
SS549GT	360	325	315	325	340	345
SS561GT	-5	-5	-10	-10	-5	-5
SS566GT	-100	-100	-100	-95	-80	-70
MIN DIFF GAUSS						
SS51GT	40	50	50	50	60	NS
SS511GT	15	15	15	12	12	10
SS513GT	20	20	20	20	20	20
SS541GT	15	15	20	15	8	5
SS543GT	25	25	25	15	10	5
SS549GT	30	30	30	30	30	30
SS561GT	50	50	50	50	50	50
SS566GT	200	200	200	190	160	140

SS51GT ELECTRICAL SPECIFICATIONS

CHARACTERISTIC	TEST CONDITIONS		UNITS
VOLTAGE RANGE		4.5 TO 24	VOLTS
MAX I _{on}	V _{cc} = 24V, -40°C < T < 150°C, B > MAX OP	10.0	mA
MAX I _{off}	V _{cc} = 24V, V _{out} = 24V, -40°C < T < 150°C, B < MIN REL	11.3	mA
SINK CURRENT		20	mA
MAX V _{sat}	V _{cc} = 4.5V TO 24V, T = 25°C, B > MAX OP	0.4	VOLTS
MAX LEAKAGE		10	μA
RISE TIME 10% TO 90%	V _{cc} = 12V, R _L = 1.6KΩ, C _L = 20pF	1.5	μS
FALL TIME 90% TO 10%	V _{cc} = 12V, R _L = 1.6KΩ, C _L = 20pF	1.5	μS

ABSOLUTE MAXIMUM RATINGS SS51GT 2	
TEMPERATURE	-40°C TO +150°C
SUPPLY VOLTAGE	-28 VDC 28 VDC
VOLTAGE EXTERNALLY APPLIED TO OUPUT	28.0 VDC MAX WITH SWITCH IN OFF COND. ONLY -0.5 VDC WITH SWITCH IN ON OR OFF COND.
OUTPUT CURRENT	20 mA
MAGNETIC FLUX	NO LIMIT

SS5XXGT ELECTRICAL SPECIFICATIONS

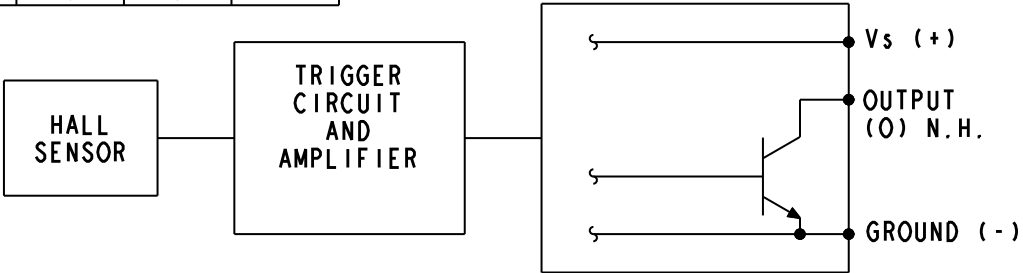
CHARACTERISTIC	TEST CONDITIONS		UNITS
VOLTAGE RANGE		3.8 TO 30	VOLTS
MAX I _{on}	V _{cc} = 30V, -40°C < T < 150°C, B > MAX OP	10.0	mA
MAX I _{off}	V _{cc} = 30V, V _{out} = 30V, -40°C < T < 150°C, B < MIN REL	10.0	mA
SINK CURRENT		20	mA
MAX V _{sat}	V _{cc} = 3.8V, B > MAX OP	0.4	VOLTS
MAX LEAKAGE		10	μA
RISE TIME 10% TO 90%	V _{cc} = 12V, R _L = 1.6KΩ, C _L = 20pF	1.5	μS
FALL TIME 90% TO 10%	V _{cc} = 12V, R _L = 1.6KΩ, C _L = 20pF	1.5	μS

ABSOLUTE MAXIMUM RATING SS5XXGT 2				
CHARACTERISTIC	SYMBOL	MIN	MAX	UNITS
POWER SUPPLY	VCC	-1	30	VOLTS
OUTPUT VOLTAGE (OFF)	VOU		30	VOLTS
OUTPUT ON CURRENT	I SINK		SEE TABLE 2	mA
OPERATING TEMPERATURE	T	-40	150	°C
STORAGE TEMPERATURE	T _s	-65	160	°C
MAGNETIC FLUX	NO LIMIT			

LISTING	TYPE	BRAND
SS51GT	BIPOLAR	SS51G
SS511GT	BIPOLAR	S511G
SS513GT	BIPOLAR	S513G
SS541GT	UNIPOLAR	S541G
SS543GT	UNIPOLAR	S543G
SS549GT	UNIPOLAR	S549G
SS561GT	LATCH	S561G
SS566GT	LATCH	S566G



TABLE 2 SS5GXX 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

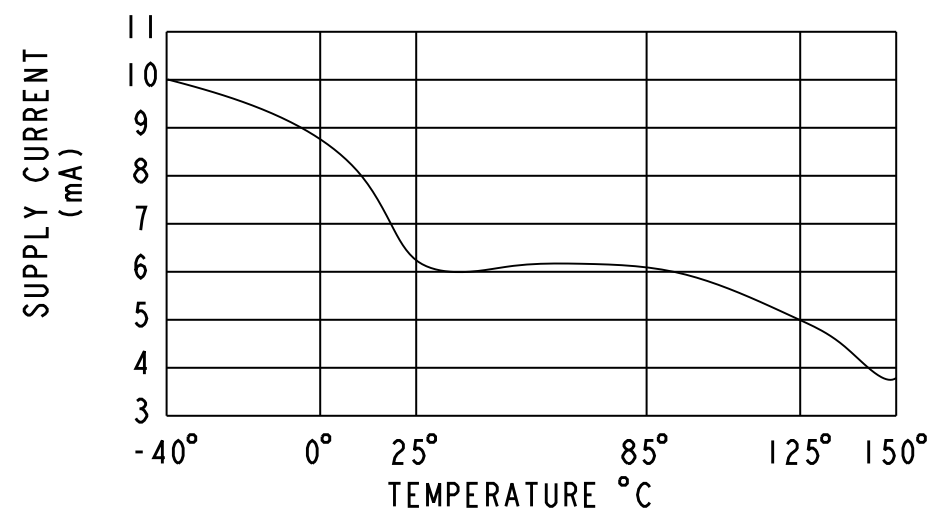


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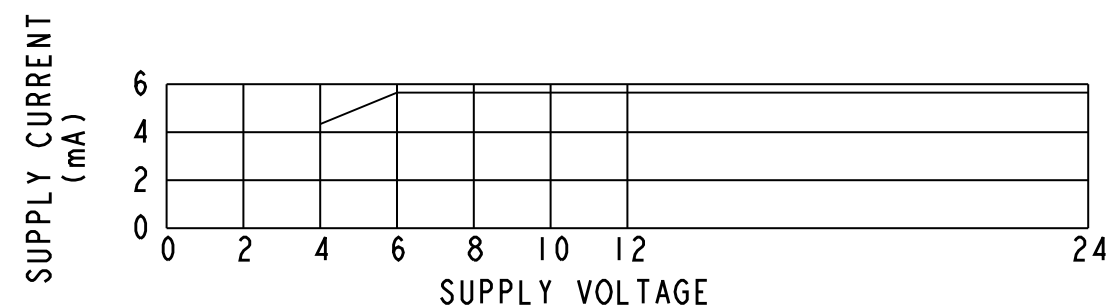
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SIZE	TYPE	CAGE CODE	DRAWING NAME	REV
B	I	-	SS5G SERIES CHART 1	C
SCALE 10:1			SHEET 3 OF 5	

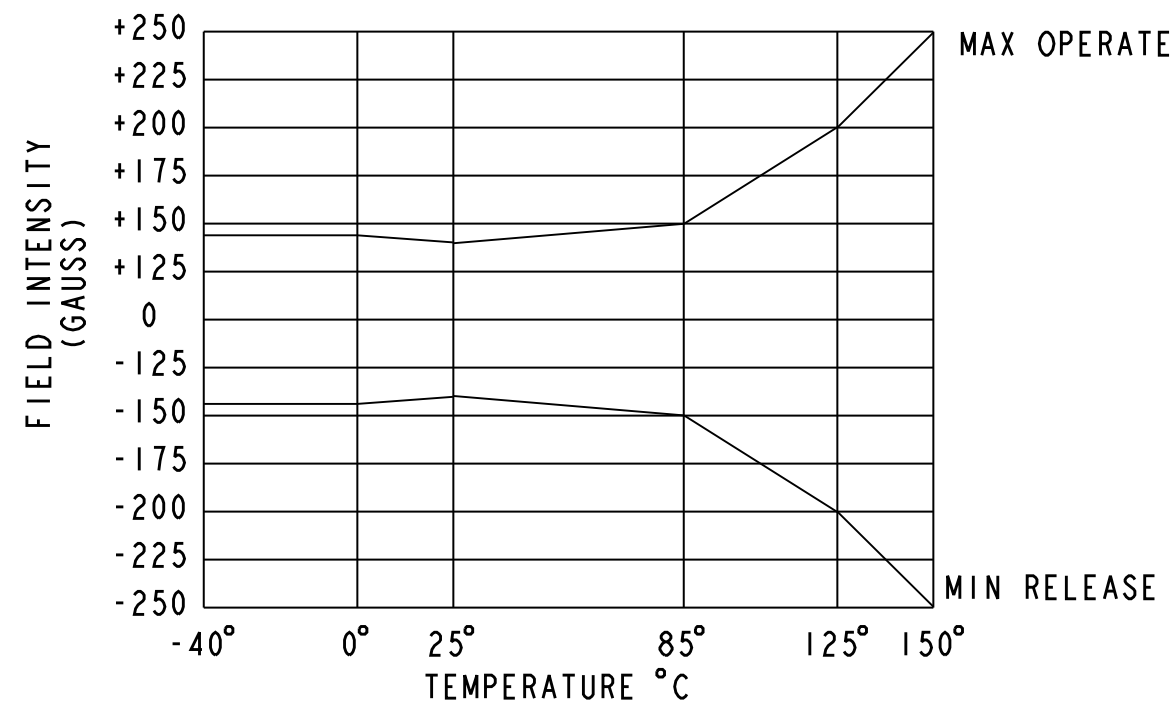
SS51GT



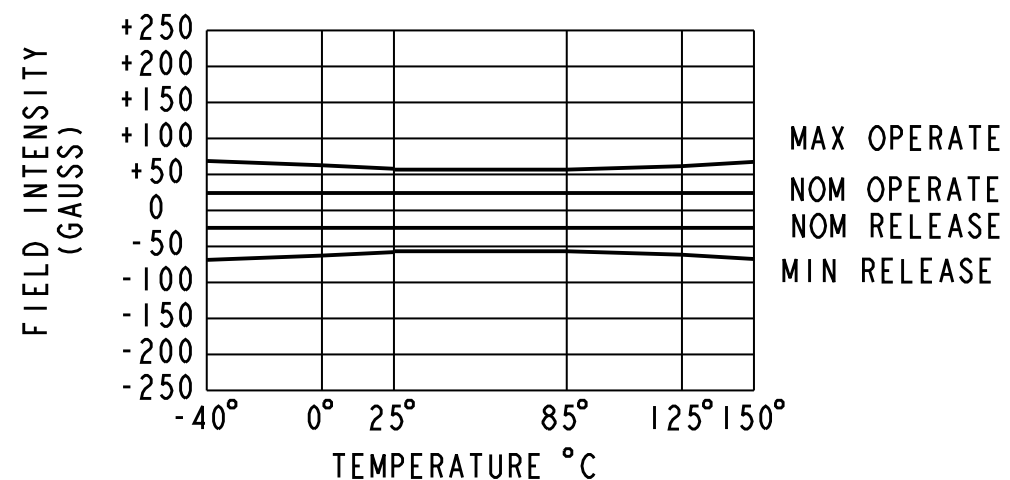
MAXIMUM SUPPLY CURRENT VS TEMPERATURE (OFF)



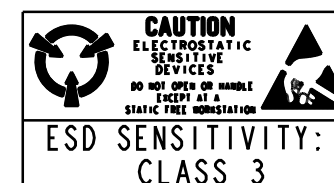
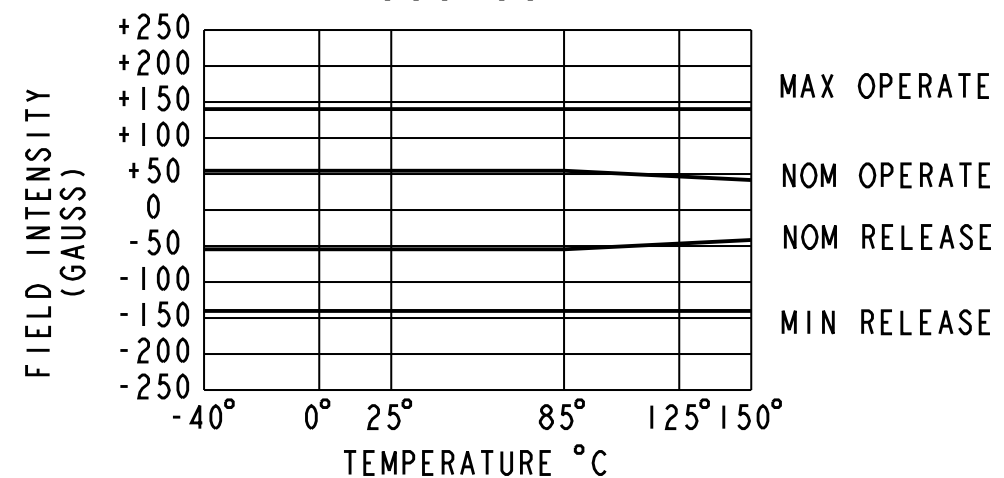
TYPICAL SUPPLY CURRENT (DEVICE OFF) AT 25°C



SS511GT



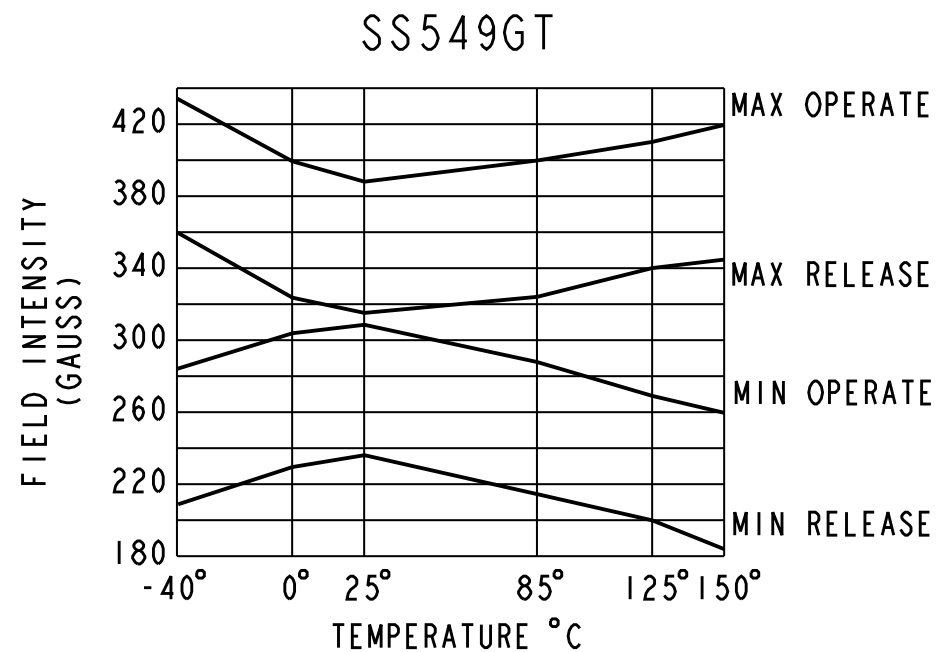
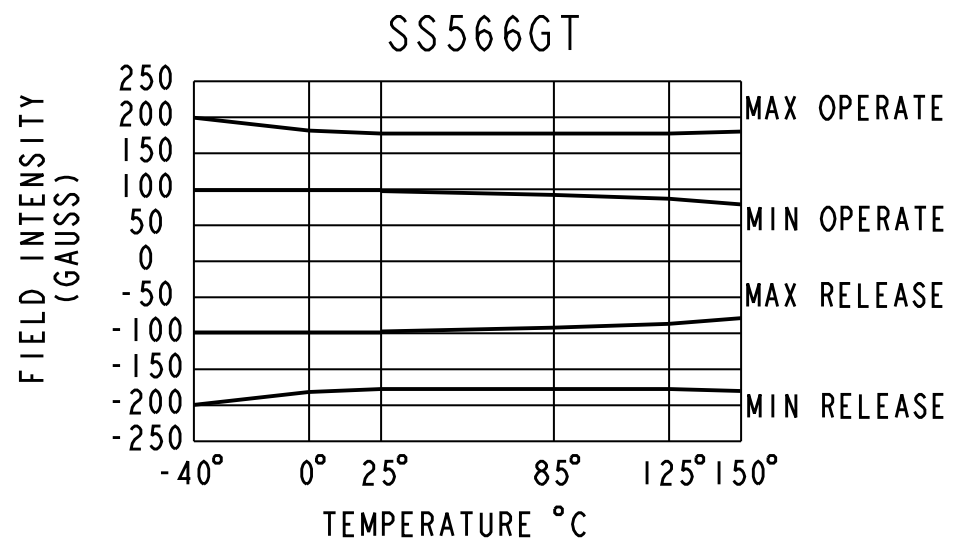
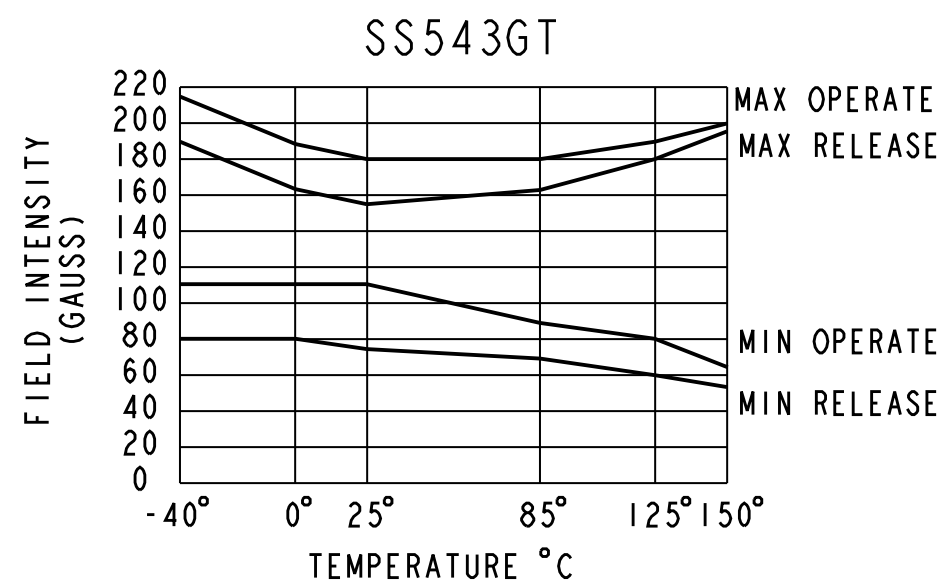
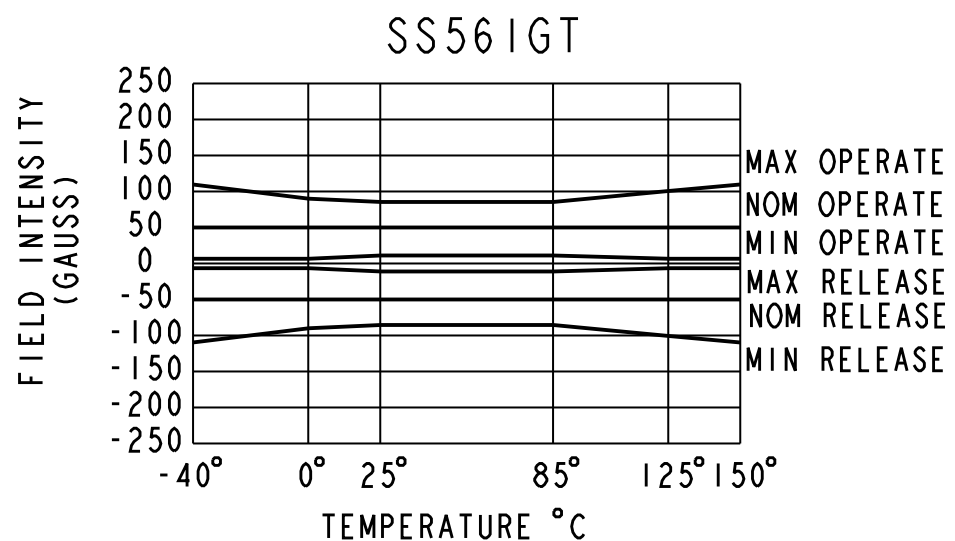
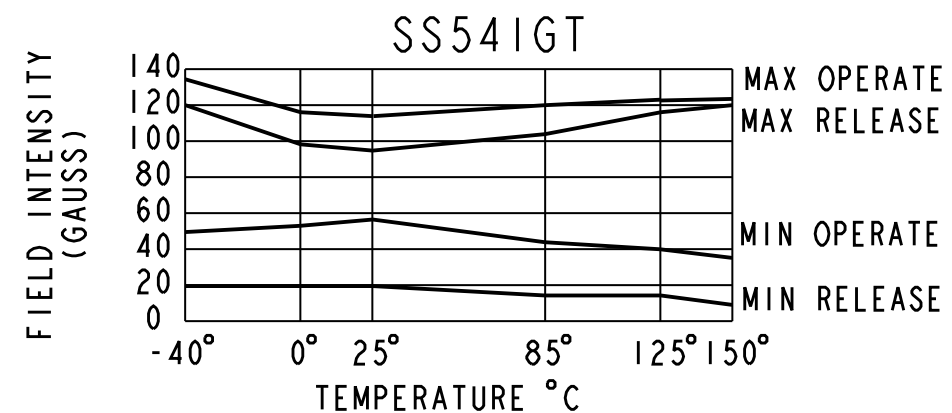
SS513GT



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SIZE	TYPE	CAGE CODE	DRAWING NAME	REV
B	I	-	SS5G SERIES CHART 1	C
SCALE 10:1			SHEET 4 OF 5	



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SIZE	TYPE	CAGE CODE	DRAWING NAME	REV
B	I	-	SS5G SERIES CHART 1	C
SCALE 10:1			SHEET 5 OF 5	