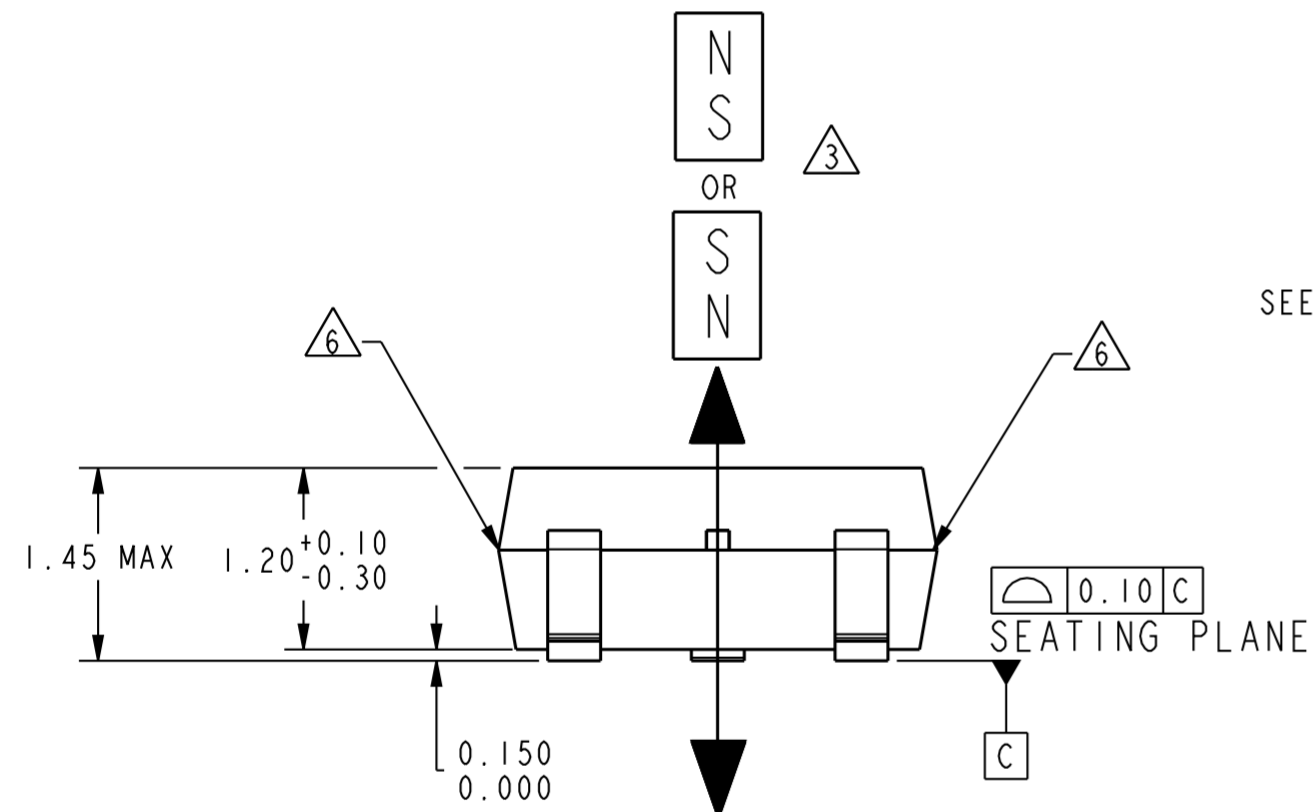
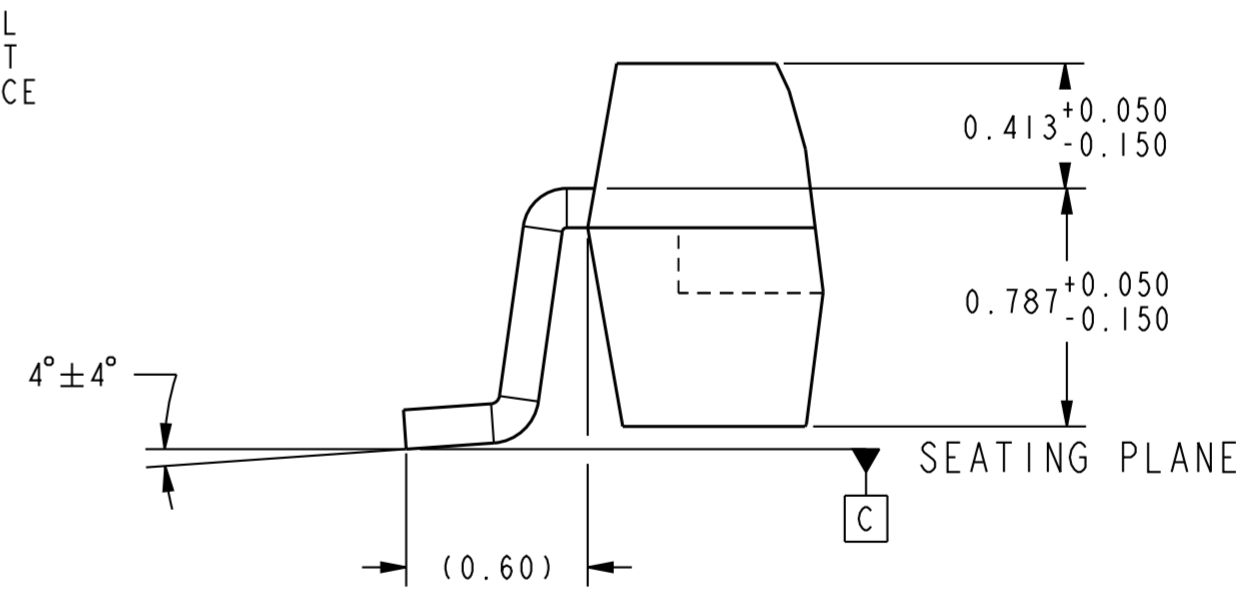
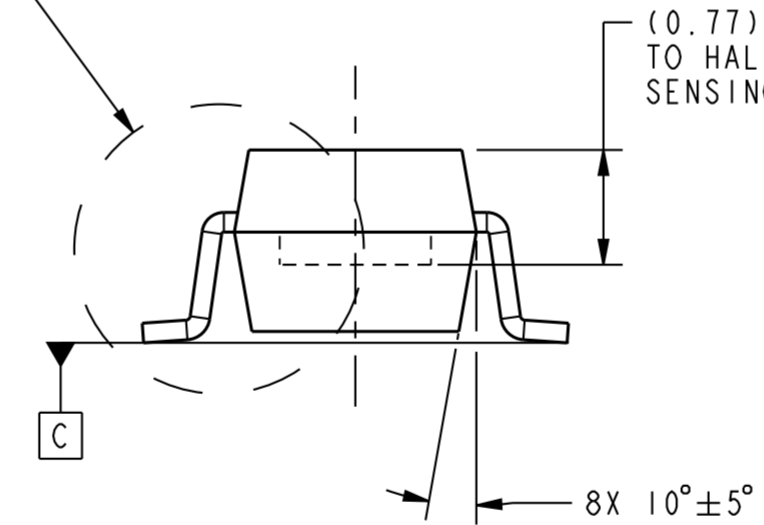


NOTES:

- 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 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 HONEYWELL'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 BOTH DIRECTION AND LOCATION SHOWN. THIS IS OMNI POLAR DEVICE SENSITIVE TO EITHER POLE.
- 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 - THIS PRODUCT WILL BE SUPPLIED IN TAPE AND REEL FORM PER EIA STD 481.
- 6 - GATE VESTAGE PERMITTED IN THESE AREAS. UNDERFLUSH BREAKOUT LIMITED TO .007.
- 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 > B_{rp} AND < B_{op}). HONEYWELL RECOMMENDS THAT THE APPLICATION CIRCUIT DESIGNER ALLOW 10 MICROSECONDS AFTER SUPPLY VOLTAGE HAS REACHED V_s FOR THE OUTPUT VOLTAGE TO STABILIZE.

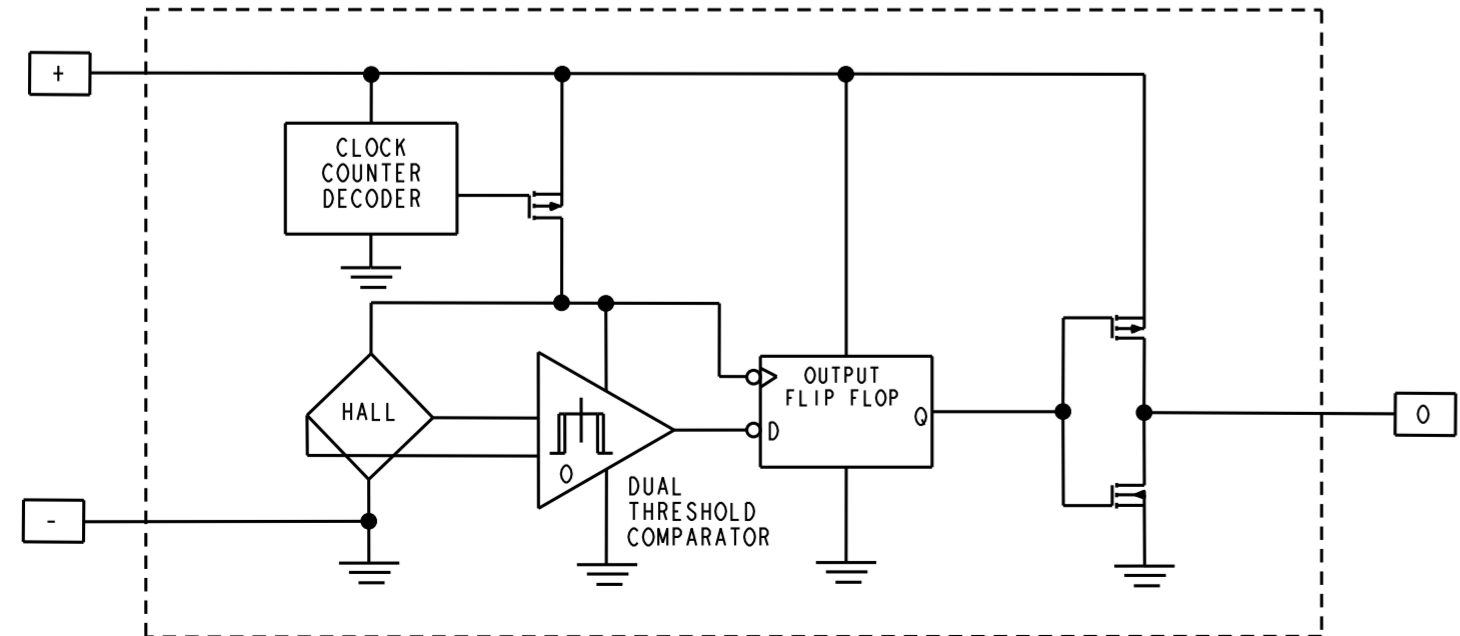


SEE DETAIL A



DETAIL A
SCALE 40:1

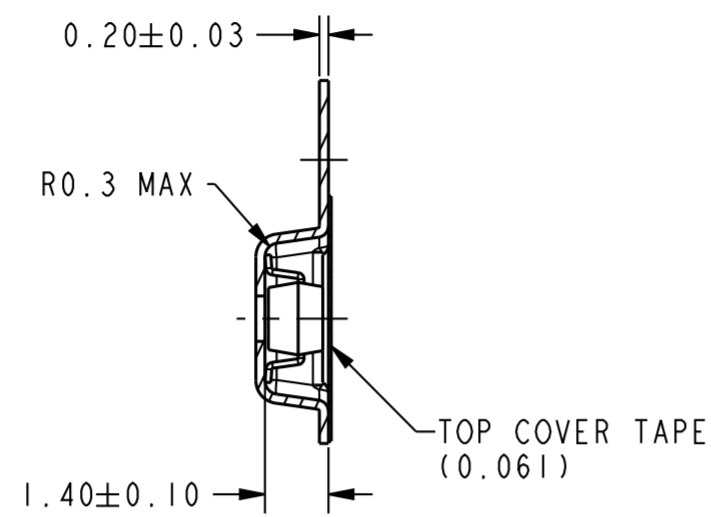
1547 LOW POWER HALL SIMPLIFIED BLOCK DIAGRAM



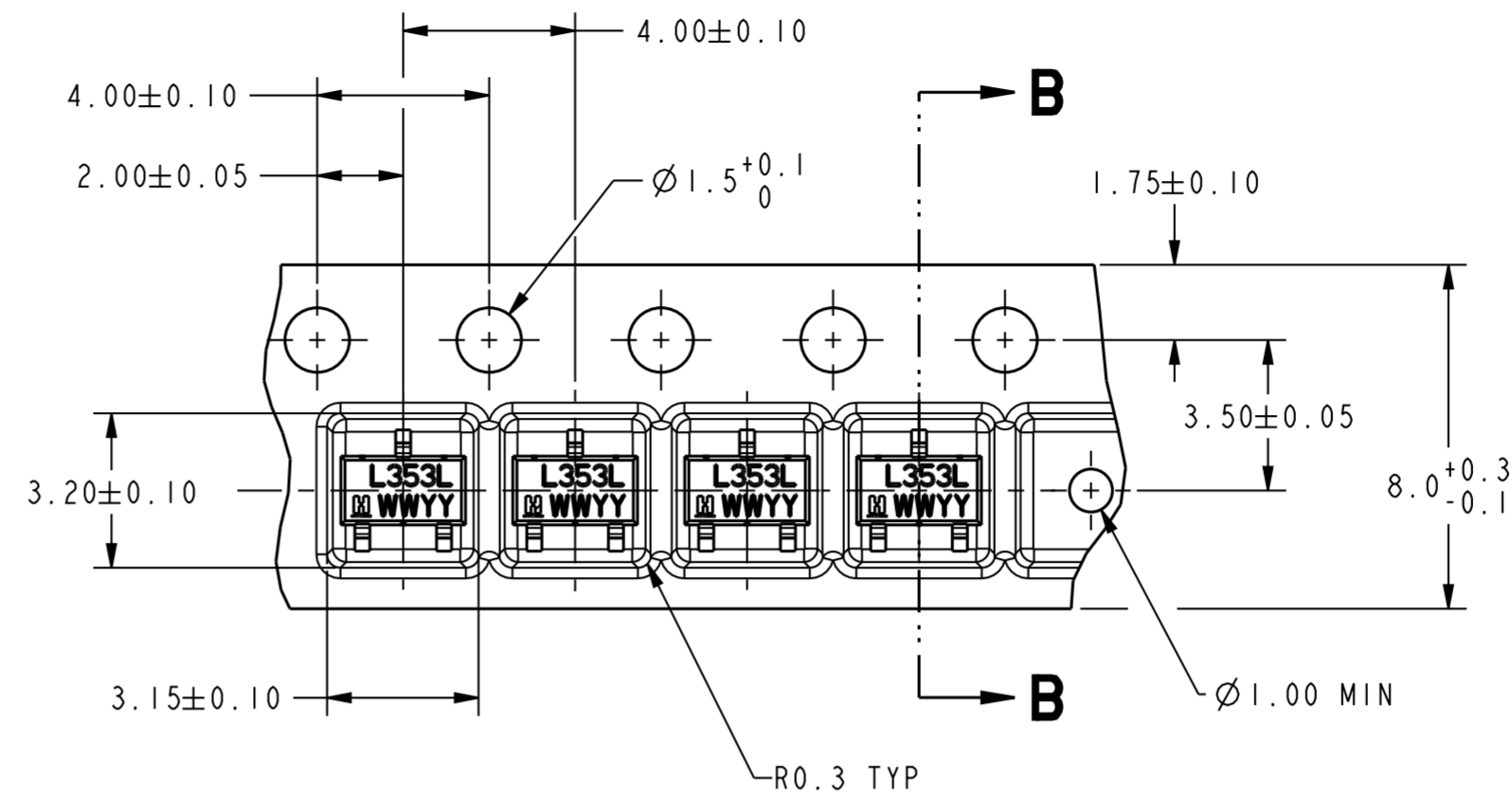
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ONE PLACE	.x ±	INTERPRET PER ASME Y14.5M-1994 OTHER HONEYWELL ENGINEERING STANDARDS MAY APPLY		
TWO PLACE	.xx ±	Pro/ENGINEER 3D SCALE NONE		
THREE PLACE	.xxx ±	SHEET 1 OF 4		
ANGLES	x ±			

THIRD ANGLE PROJECTION		Honeywell	
		TITLE	
		LOW POWER SOLID STATE SENSOR, IC	
		SIZE TYPE PACKAGE CODE DRAWING NAME	
		A2 I - SL353LT	
		REV	
		C	

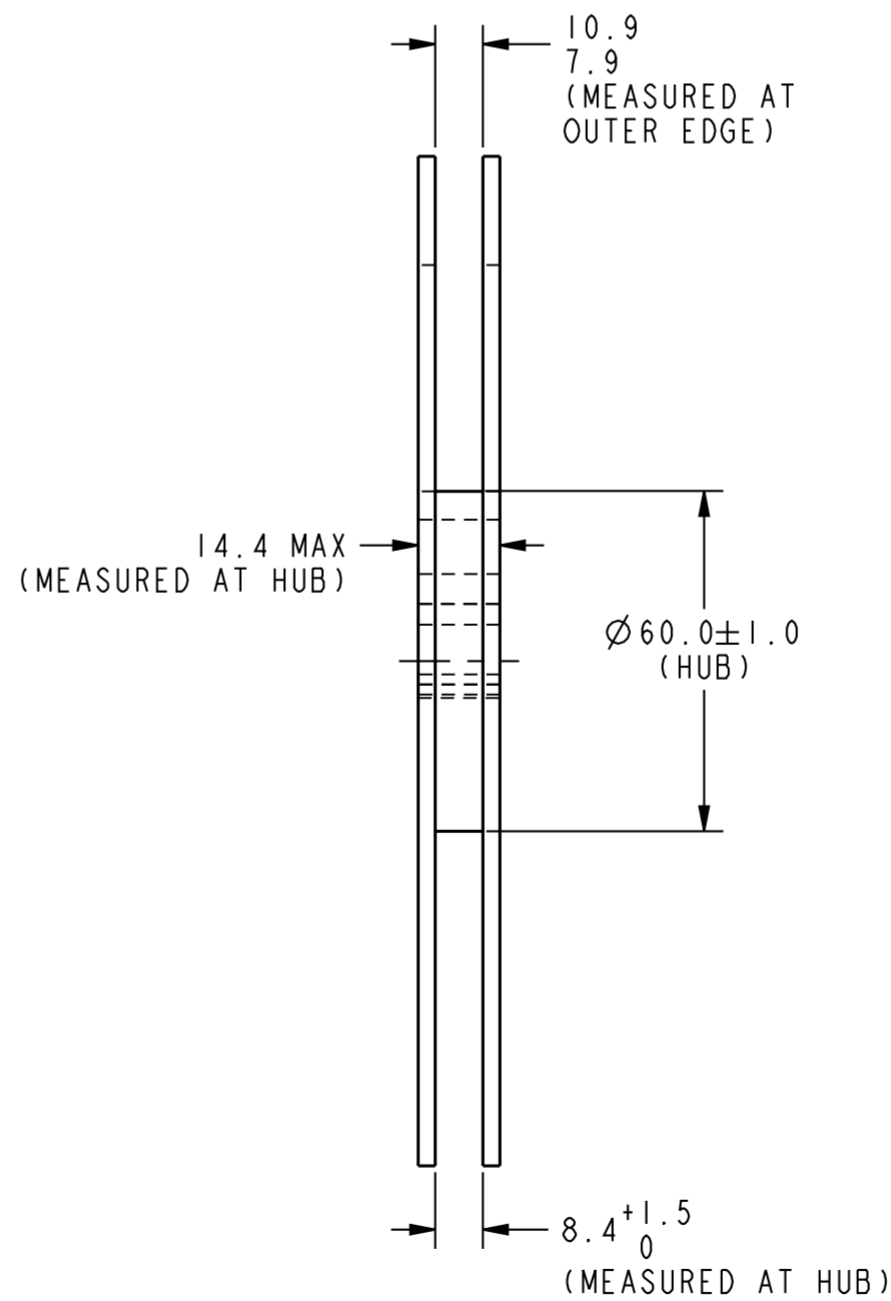
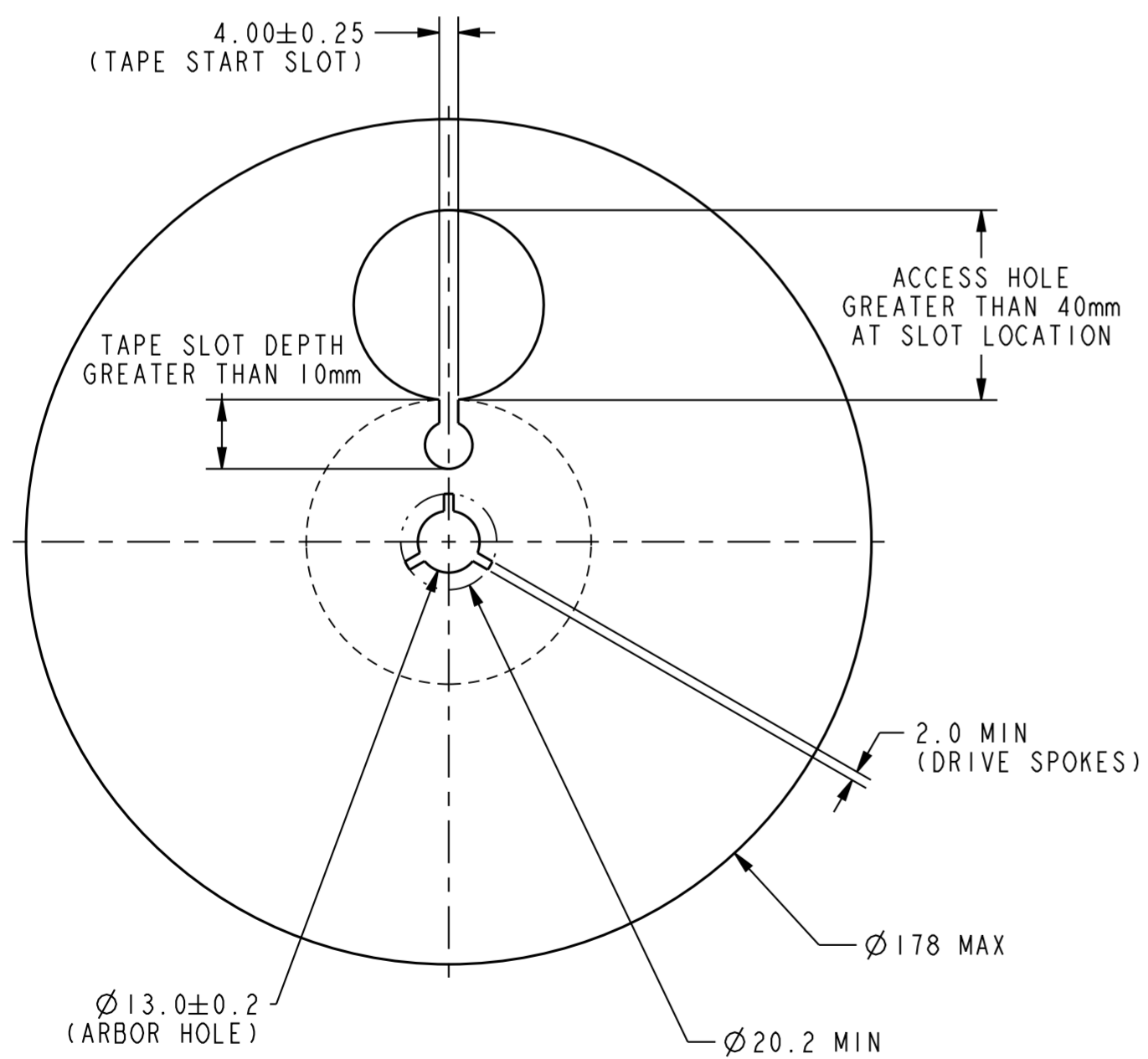
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ONE PLACE	.x ±	INTERPRET PER ASME Y14.5M-1994 OTHER HONEYWELL ENGINEERING STANDARDS MAY APPLY		
TWO PLACE	.xx ±	Pro/ENGINEER 3D SCALE NONE		
THREE PLACE	.xxx ±	SHEET 1 OF 4		
ANGLES	x ±			



SECTION B-B



TAPE AND REEL DIMENSIONS 5



DIRECTION OF FEED FROM REEL



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SIZE	TYPE	PACKAGE CODE	DRAWING NAME	REV	
A2	I	-	SL353LT	C	
SCALE NONE			SHEET 2 OF 4		

MAGNETIC CHARACTERISTICS (2.2V ≤ V_s ≤ 5.5V, -40°C ≤ T_a ≤ 85°C)

CHARACTERISTICS	CONDITIONS	MIN	TYP	MAX	UNIT
OPERATE (POSITIVE)		20	60	110	GAUSS
OPERATE (NEGATIVE)		-110	-60	-20	GAUSS
RELEASE (POSITIVE)		5	45	95	GAUSS
RELEASE (NEGATIVE)		-95	-45	-5	GAUSS
DIFFERENTIAL		3	15	60	GAUSS

ELECTRICAL CHARACTERISTICS (2.2V ≤ V_s ≤ 5.5V, -40°C ≤ T_a ≤ 85°C UNLESS OTHERWISE SPECIFIED)

CHARACTERISTIC	CONDITIONS	MIN	TYP	MAX	UNIT
SUPPLY VOLTAGE		2.2	2.8	5.5	VOLTS
ACTIVE MODE CURRENT			2.5	9	mA
SLEEP MODE CURRENT			1.5	8	μA
AVERAGE CURRENT			1.8	9	μA
ACTIVE MODE TIME		3	6	30	μS
PERIOD		20	45	150	mS
DUTY CYCLE		0.005	0.013	0.025	%
V _{OL}	LOAD CURRENT = 100μA		0.11	0.25	VOLTS
V _{OH}	LOAD CURRENT = 100μA	V _s - 0.25	V _s - 0.11		VOLTS
OPERATING TEMPERATURE		-40		85	°C
STORAGE TEMPERATURE		-40		150	°C

ELECTRICAL CHARACTERISTICS (V_s = 2.8V, T_a = 25°C)

CHARACTERISTIC	CONDITIONS	MIN	TYP	MAX	UNIT
ACTIVE MODE CURRENT			2.5	4	mA
SLEEP MODE CURRENT			1.5	2.5	μA
AVERAGE CURRENT			1.8	3	μA
ACTIVE MODE TIME		3	6	9	μS
PERIOD		30	45	80	mS
DUTY CYCLE		0.01	0.013	0.016	%
V _{OL}	LOAD CURRENT = 100μA		0.11	0.15	VOLTS
V _{OH}	LOAD CURRENT = 100μA	V _s - 0.15	V _s - 0.11		VOLTS

ABSOLUTE MAXIMUM RATINGS

CHARACTERISTIC	CONDITIONS	MIN	TYP	MAX	UNIT
SUPPLY VOLTAGE		-0.5		6	VOLTS
OPERATING TEMPERATURE	AMBIENT	-40		150	°C
SOLDERING TEMPERATURE	APPLIED FOR < 10 SECONDS			265	°C
LOAD CURRENT				5	mA

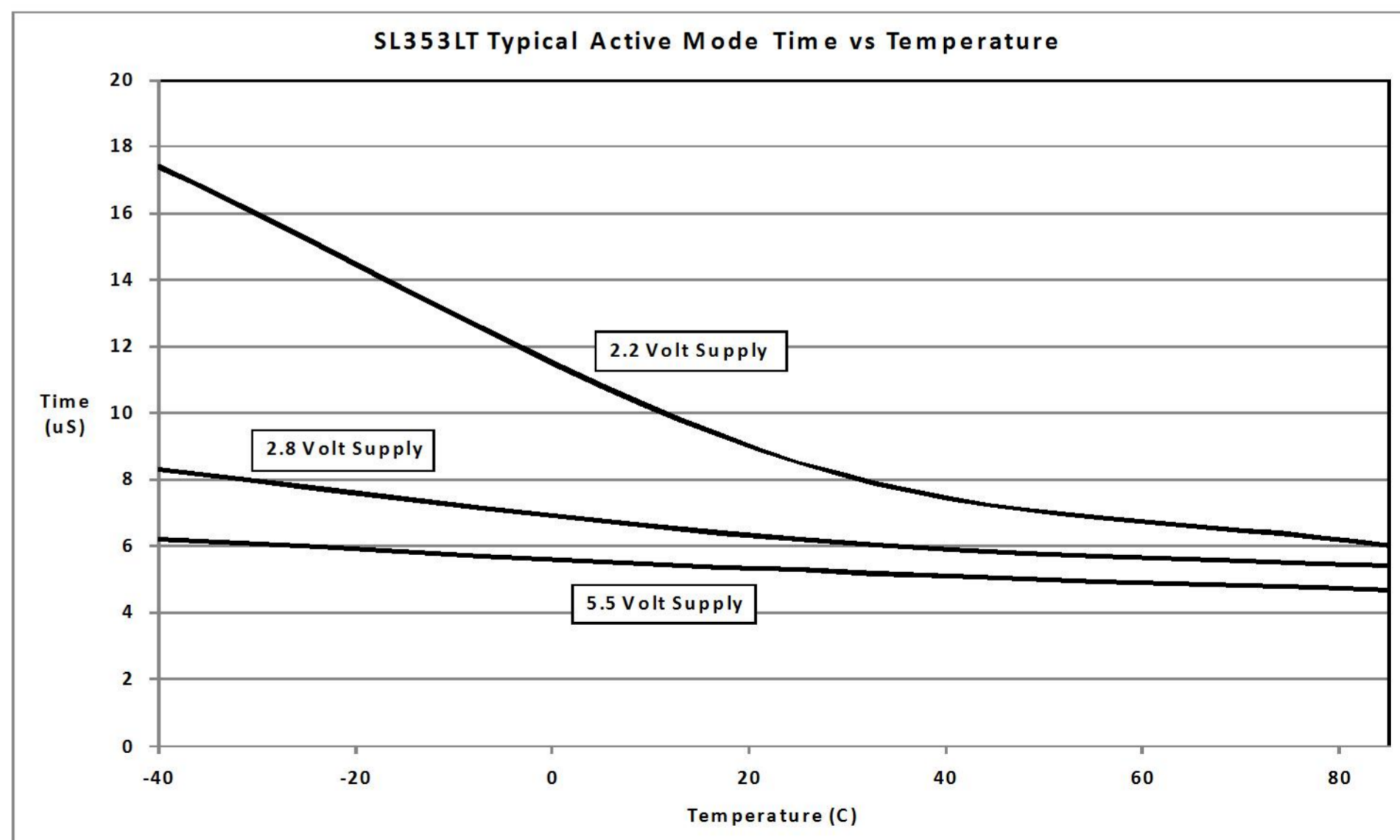
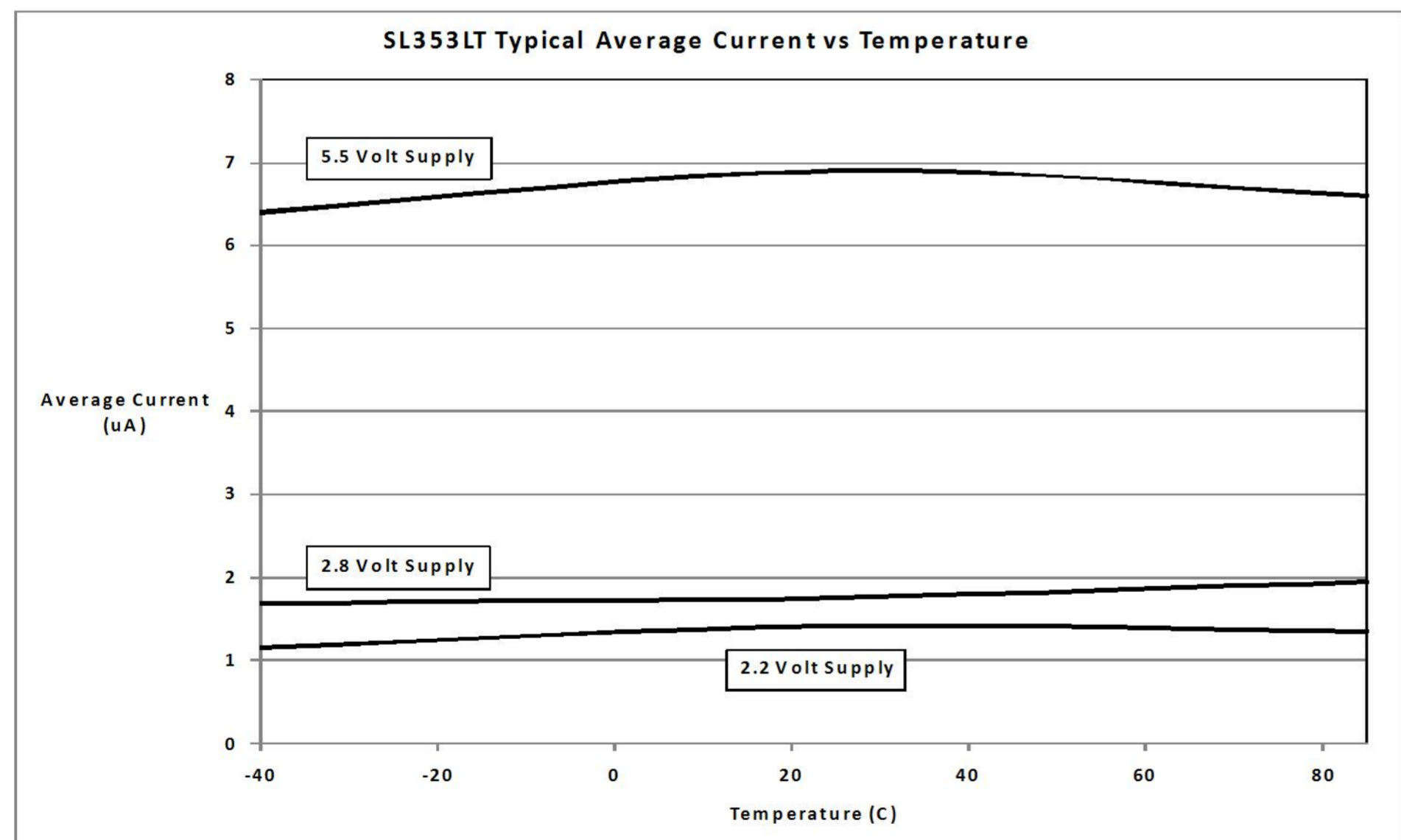
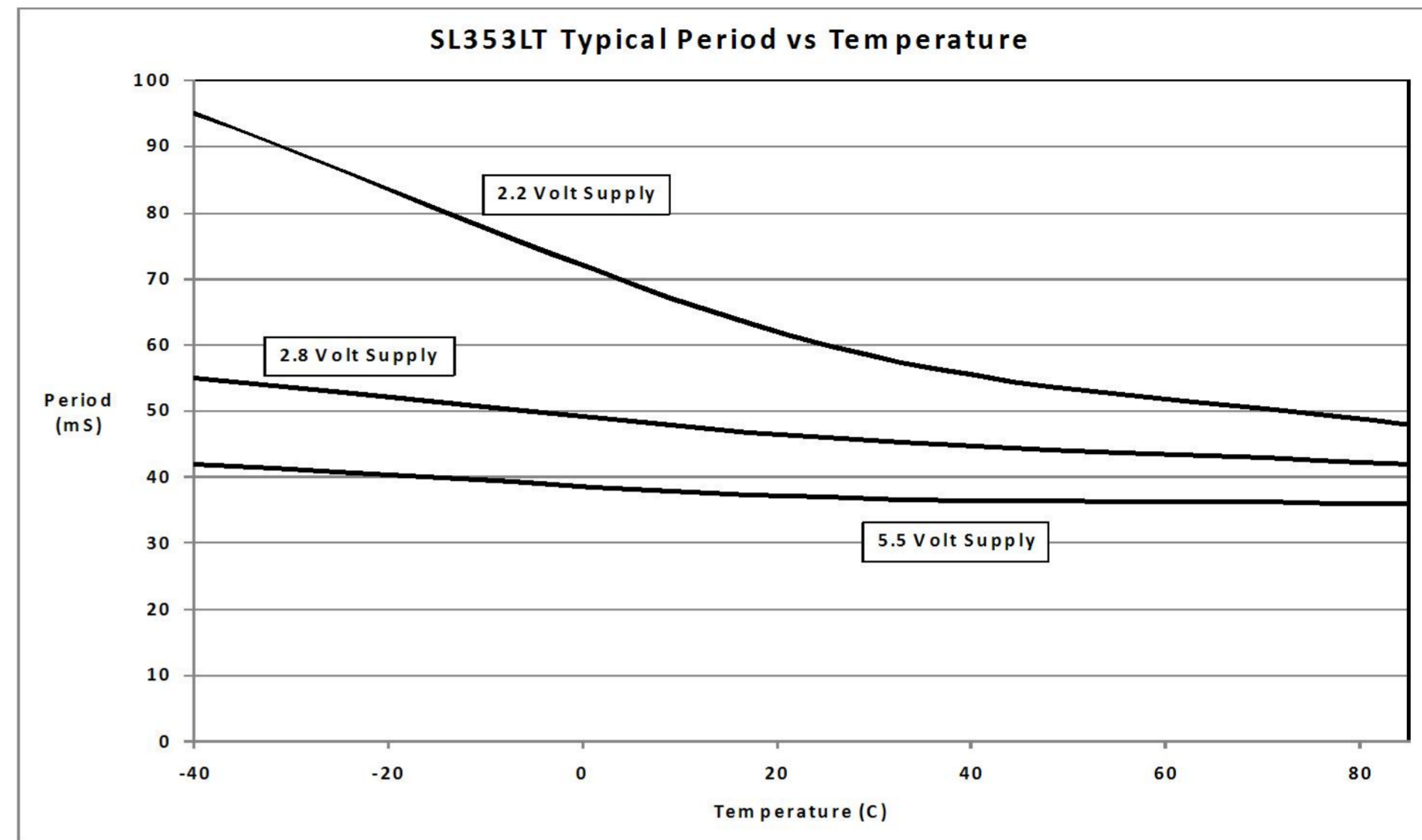
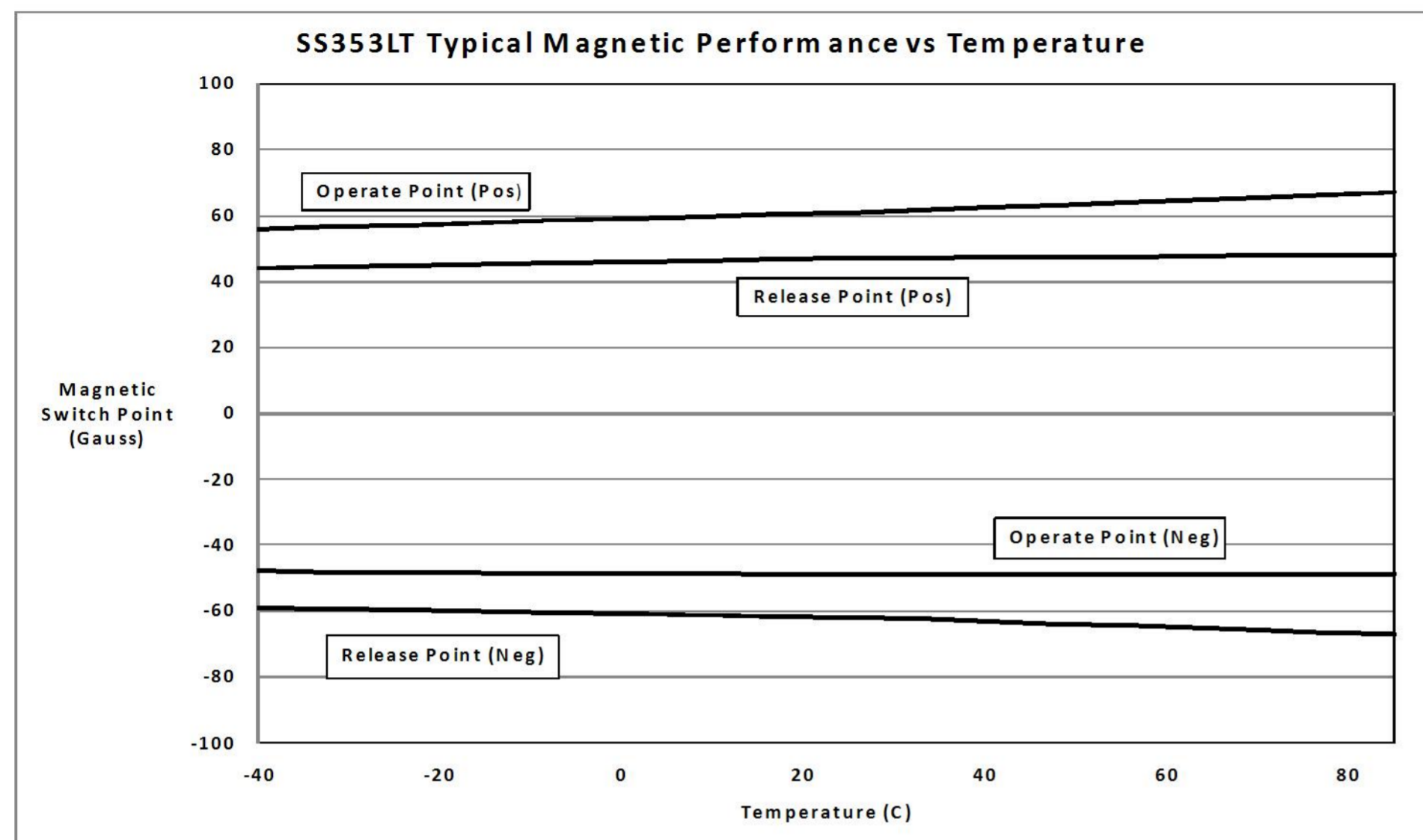
NOTE: "ABSOLUTE MAXIMUM RATINGS" ARE THOSE VALUES BEYOND WHICH THE SAFETY OF THE DEVICE CANNOT BE GUARANTEED. THIS IS A STRESS RATING ONLY AND FUNCTIONAL OPERATION OF THE DEVICE AT THESE OR ANY OTHER CONDITIONS ABOVE THOSE INDICATED IN THE OPERATIONAL SECTIONS OF THIS SPECIFICATION IS NOT IMPLIED. EXPOSURE TO ABSOLUTE MAXIMUM RATINGS FOR EXTENDED PERIODS MAY AFFECT RELIABILITY.



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SIZE	TYPE	PACKAGE CODE	DRAWING NAME	REV
A2	I	-	SL353LT	C
SCALE NONE			SHEET 3 OF 4	



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Honeywell			
SIZE	TYPE	CAGE CODE	DRAWING NAME
A2	I	-	SL353LT
SCALE	NONE	SHEET	4 OF 4
REV	C		