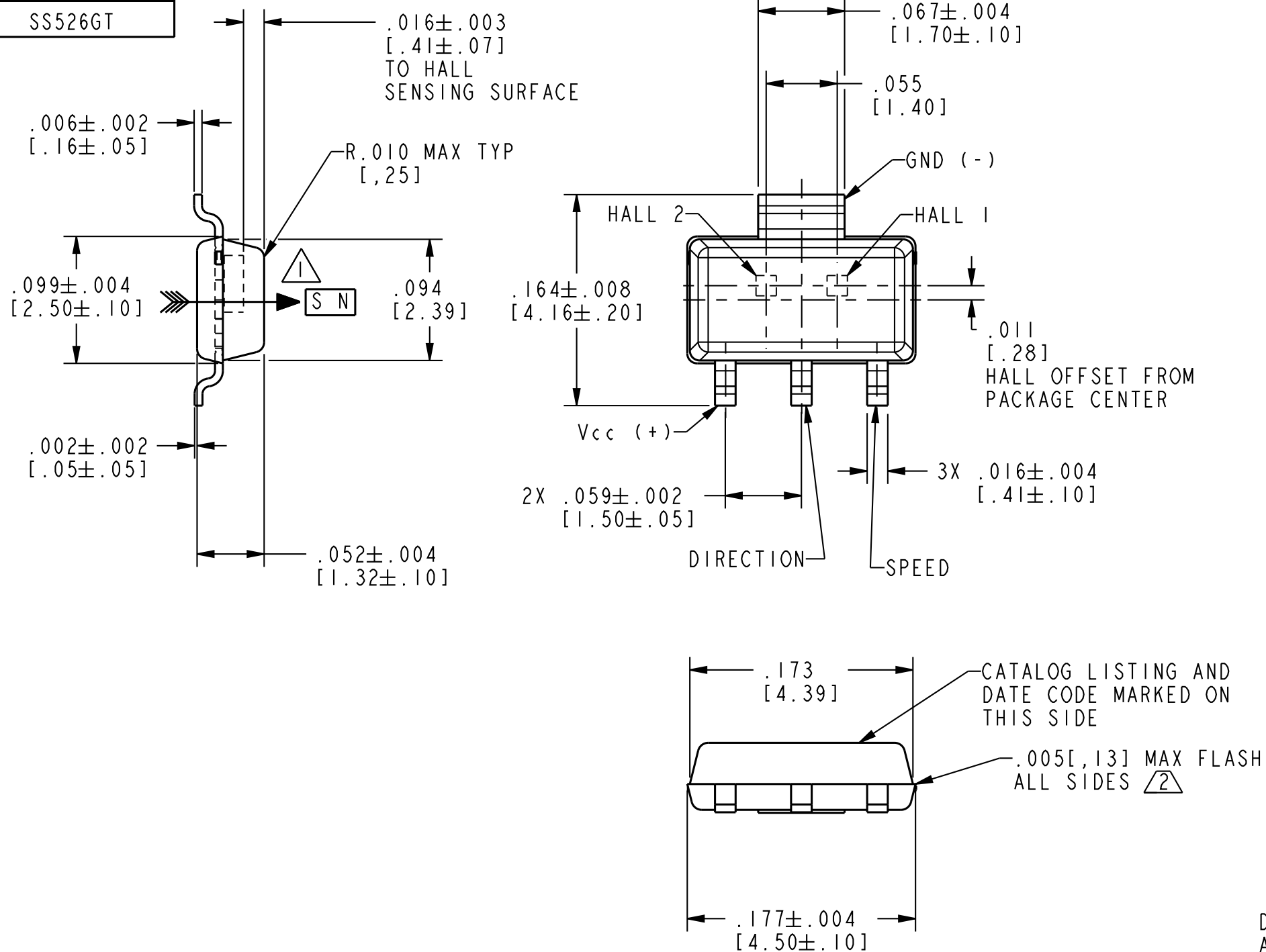


HONEYWELL
PART NUMBER

SS526GT

REV	DOCUMENT	CHANGED BY	CHECK
D	0089528	PMH 17MAY12	RS

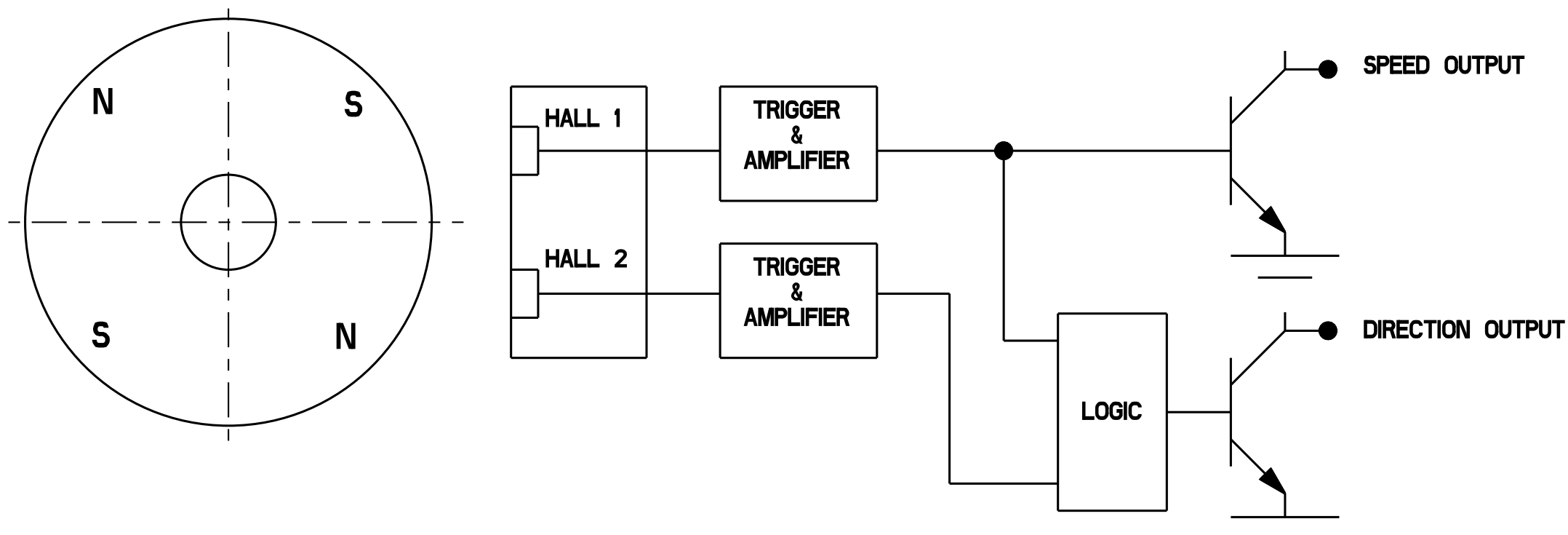


NOTES

- THE MAGNETIC FLUX APPLIED TO OPERATE THE SENSOR MUST BE 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)
- GATE VESTIGE OF .008[.20] MAXIMUM IS PERMITTED AT PACKAGE ENDS. UNDERFLUSH BREAKOUT IS LIMITED TO .007[.18] MAXIMUM
- THIS PRODUCT IS SUPPLIED ONLY IN TAPE AND REEL FORM PER EIA STD 481
- SOLDERING TEMPERATURE EXPOSURE MUST BE LIMITED TO 245°C FOR NOT MORE THAN 10 SECONDS. INFRARED REFLOW IS RECOMMENDED. EXPOSURE TO WAVE SOLDERING TECHNIQUES OR SOLDERING TEMPERATURES OUTSIDE THE RECOMMENDATION CONDITIONS ARE LIKELY TO DEGRADE SENSOR PERFORMANCE AND RELIABILITY, AND WILL VOID ANY WARRANTY
- ABSOLUTE MAXIMUM RATINGS ARE THE EXTREME LIMITS THE SENSOR WILL MOMENTARILY WITHSTAND WITHOUT DAMAGE. ELECTRICAL AND MAGNETIC PERFORMANCE LIMITS ARE NOT GUARANTEED IF THE ABSOLUTE MAXIMUM LIMITS ARE EXCEEDED, NOR WILL THE SENSOR NECESSARILY OPERATE AT THE ABSOLUTE MAXIMUM LIMITS
- THE LISTED RATING IS FOR TESTING AT 25°C PER IEC 801-2, LEVEL 1, WHEN TESTED PER MIL-STD-883, METHOD 3015.7 THE SENSOR WILL MEET CLASS 3 (4KV MIN)
- LIMIT APPLIES TO EACH OUTPUT
- ALL DIMENSIONS : MM
- INCH
- DESIGN UNITS : INCH (METRIC DIMENSIONS ARE FOR REFERENCE ONLY)
- WHEN THE CHANGE IN MAGNETIC FLUX AT H1 LEADS THE CHANGE AT H2, THE DIRECTION OUTPUT IS HIGH; WHEN H1 FOLLOWS H2, THE DIRECTION OUTPUT IS LOW
- OPEN COLLECTOR OUTPUTS CAPABLE OF SWITCHING 50 mA WITHOUT DAMAGE. DEVICE WILL NOT PERFORM WITHIN SPECIFICATION WHILE SWITCHING 50 mA

DESCRIPTION :

A HALL EFFECT BASED SPEED AND DIRECTION SENSOR WITH TWO SEPARATE OUTPUTS. TWO ACTIVE HALL LATCHES PROVIDE INDICATION OF THE SPEED AND DIRECTION OF MAGNETIC GRADIENT ACROSS THE PACKAGE FACE, SUCH AS THE GRADIENT FROM A ROTATING RING MAGNET



SENSOR FUNCTION DIAGRAM WITH CUSTOMER SUPPLIED RING MAGNET



DESIGN UNITS: INCH TOLERANCES UNLESS NOTED:	DRAWN JLH 05MAY08	Honeywell		
NO PLACES .X ± 0.400 ONE PLACE .X ± 0.03 TWO PLACE .XX ± 0.015 THREE PLACE .XXX ± 0.005 ANGLES X ± 3.0°	CHECK JLH 05MAY08			
THIRD ANGLE PROJECTION		TITLE SOLID STATE SENSOR		
		SIZE C	TYPE I	REV D
		CAGE CODE -	DRAWING NAME SS526GT	
		SCALE 10:1	SHEET 1 OF 2	

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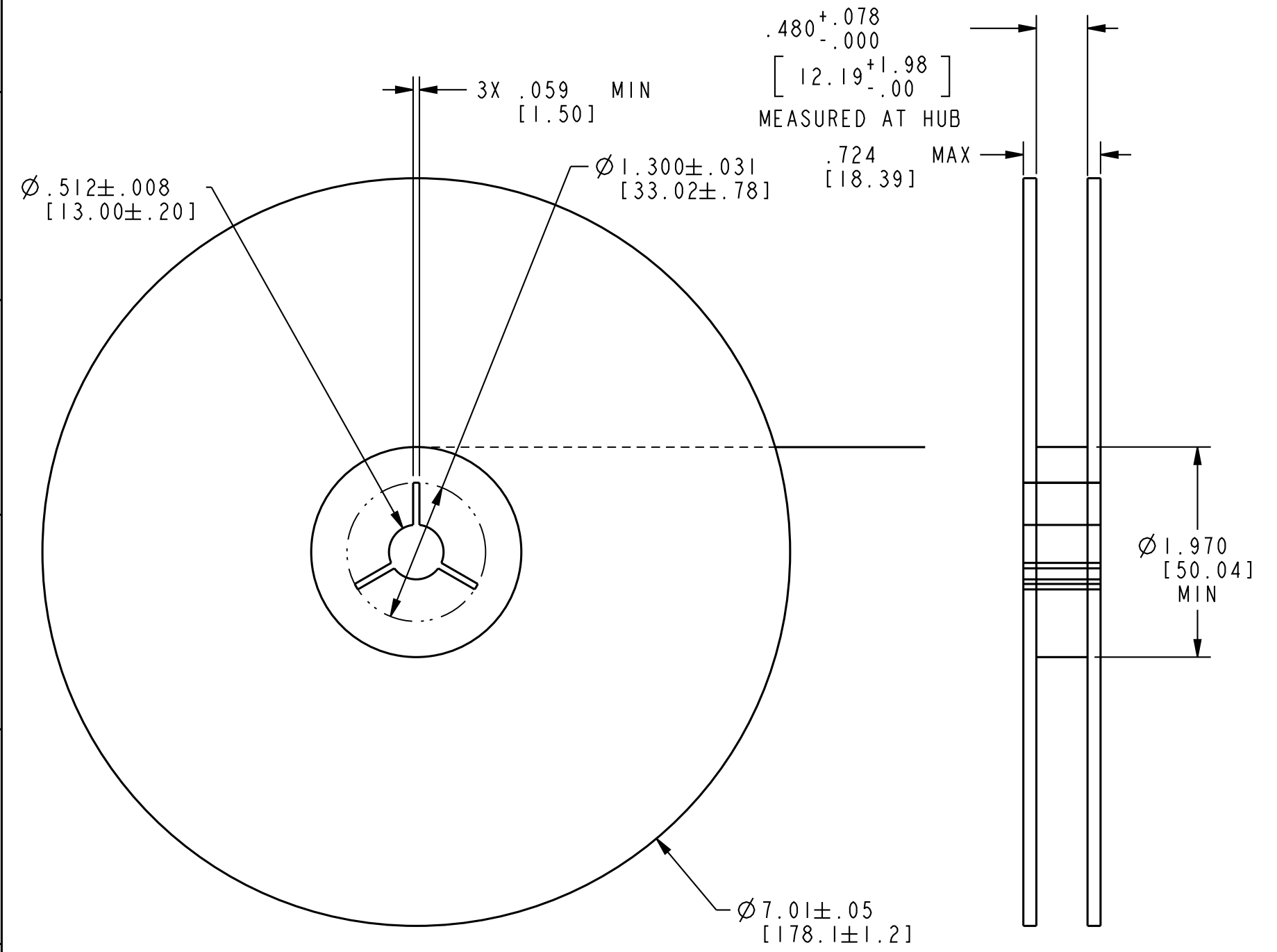
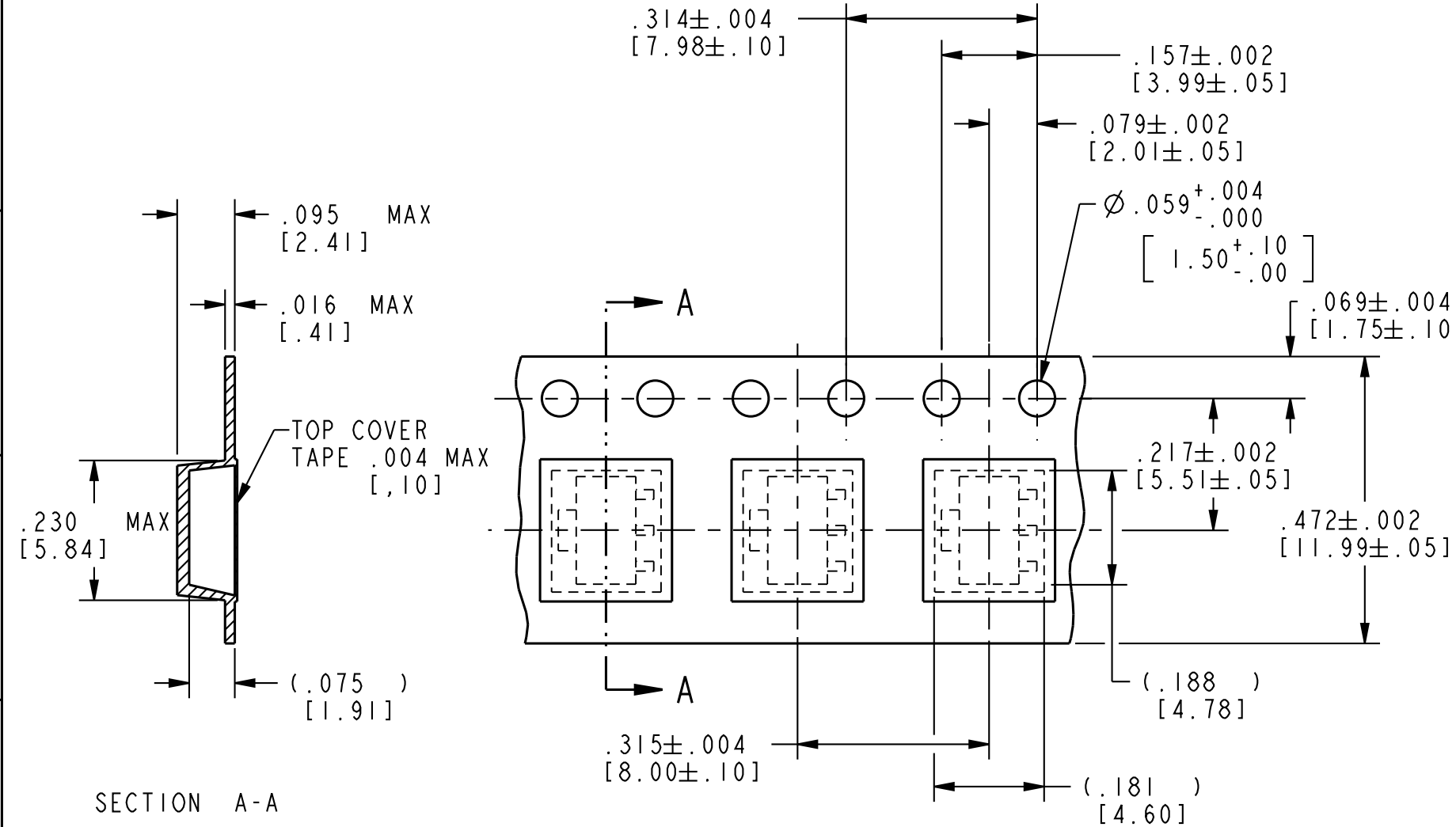
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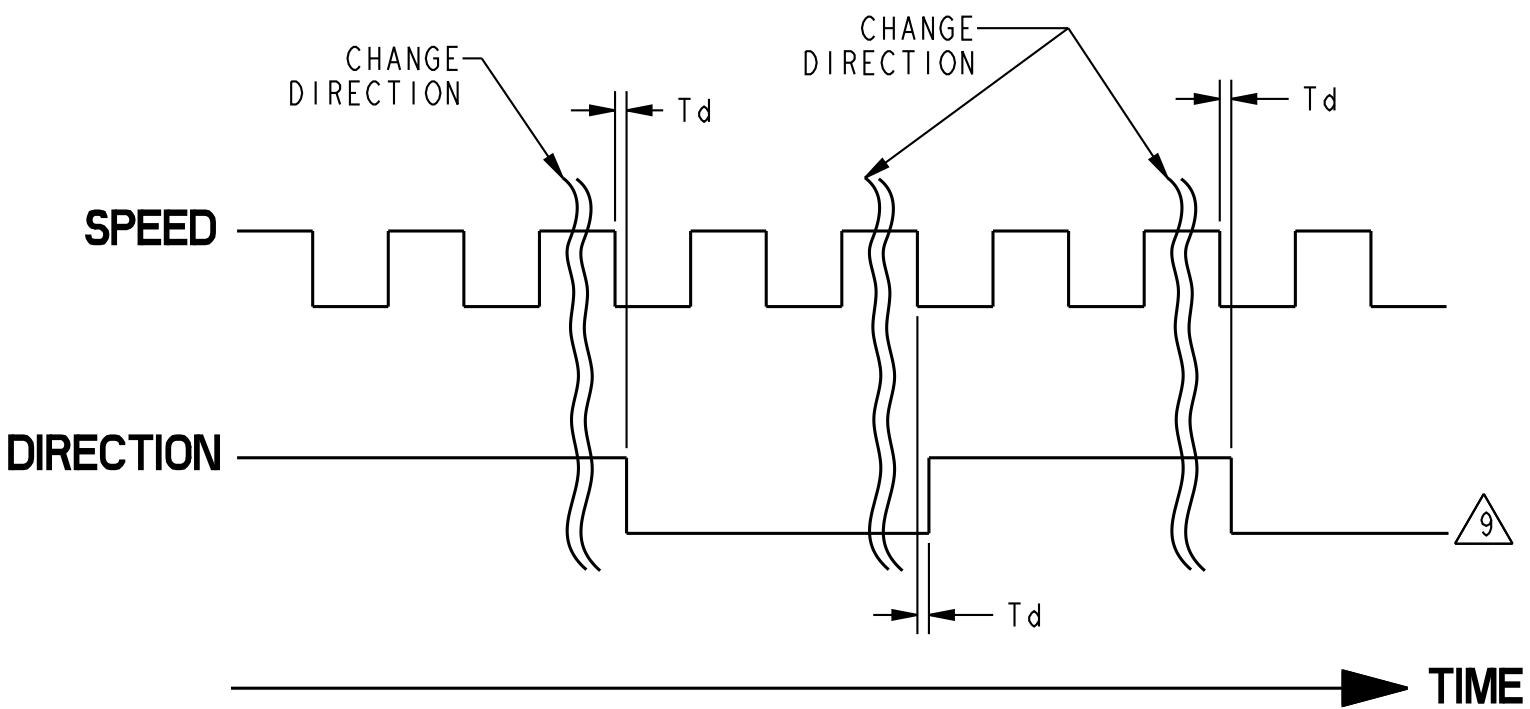


ABSOLUTE MAXIMUM RATING $\triangle 5$				
CHARACTERISTIC	SYMBOL	MIN	MAX	UNITS
POWER SUPPLY	Vcc	-0.5	30	V
OUTPUT VOLTAGE (OFF)	Vout	-0.5	30	V
OUTPUT ON CURRENT	Iout	-	10	mA
STORAGE TEMPERATURE	Ts	-65	160	C
OPERATING TEMPERATURE	T	-40	150	C
ELECTROSTATIC DISCHARGE $\triangle 6$	ESD	2	-	KV
MAGNETIC FLUX	B	NO LIMIT		

ELECTRICAL SPECIFICATIONS						
CHARACTERISTIC	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
SUPPLY VOLTAGE	Vcc		3.4	-	24	V
SUPPLY CURRENT OFF	Ioff	Vcc=24V, -40<T<125°C, Vout=24V, B<MIN REL	-	-	12	mA
SUPPLY CURRENT ON	Ion	Vcc=24V, -40<T<125°C, Isink=5mA, B>MAX OP	-	-	14	mA
LOAD CURRENT $\triangle 7$	Isink	Vcc=24V, -40<T<125°C, Isink=5mA, B>MAX OP	-	-	5	mA
OUTPUT SATURATION $\triangle 7$	Vsat	Vcc=24V, -40<T<125°C, Isink=5mA, B>MAX OP	-	-	0.4	V
LEAKAGE CURRENT $\triangle 7$	Ileak	Vcc=24V, -40<T<125°C, Vout=24V, B<MIN REL	-	-	10	μ A
CIRCUIT SPEED TO DIR DELAY	Td	Vcc=12V, RL=1.6K OHM, CL=20pF	-	-	5	μ S
RISE TIME $\triangle 7$	Tr	Vcc=12V, RL=1.6K OHM, CL=20pF	-	-	1.5	μ S
FALL TIME $\triangle 7$	Tf	Vcc=12V, RL=1.6K OHM, CL=20pF	-	-	1.5	μ S
FREQUENCY	Top	Vcc=12V, RL=1.6K OHM, CL=20pF	<1	-	>1000	Hz

MAGNETIC SPECIFICATIONS $\triangle 1$ $\triangle 7$						
CHARACTERISTIC	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
OPERATE POINT	Bop	T=25°C	-	130	-	GAUSS
	Bop	-40<T<125°C	60	-	200	GAUSS
RELEASE POINT	Brel	T=25°C	-	-130	-	GAUSS
	Brel	-40<T<125°C	-60	-	-200	GAUSS
DIFFERENTIAL (OP-REL)	Diff	T=25°C	-	260	-	GAUSS
	Diff	-40<T<125°C	200	-	320	GAUSS
SYMMETRY [(OP+REL)/2]	Sym	T=25°C	-	0	-	GAUSS
	Sym	-40<T<125°C	-65	-	65	GAUSS

ESD SPECIFICATIONS			
CHARACTERISTIC	TEST CONDITIONS	VOLTAGE	CLASS
ESD SENSITIVITY RATING	HUMAN MODEL PER AEC-Q100-002	4000V	H3A
	CHARGED DEVICE MODEL PER AEC-Q100-011	1250V	C5



OUTPUT TIMING DIAGRAM

Honeywell

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SIZE	DWG TYPE	DRAWING NAME	REV
C	I	SS526GT	D
SCALE	10:1		2 OF 2

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