

Hallogic Hall-Effect Sensor Assembly



Electrical Specifications

Absolute Maximum Ratings ($T_A = 25^\circ\text{C}$ unless otherwise noted)

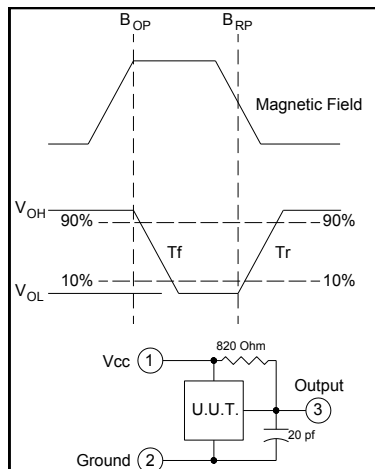
Supply Voltage, V_{CC}	25 V
Storage Temperature Range, T_S	-50°C to $+160^\circ\text{C}$
Operating Temperature Range, T_A	-40°C to $+150^\circ\text{C}$
Lead Soldering Temperature (1/8 in. (3.2 mm) from case for 5 sec. with soldering iron)	260°C
Output ON Current, I_{SINK}	25 mA
Output OFF Voltage, V_{OUT}	25 V
Magnetic Flux Density, B	Unlimited

Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

SYMBOL	PARAMETER	MIN	TYP	MAX	UNITS	TEST CONDITIONS
I_{CC}	Supply Current	-	4	7	mA	$V_{CC} = 24\text{ V}$, Output Off
V_{OL}	Output Saturation Voltage	-	100	400	mV	$V_{CC} = 4.5\text{ V}$, $I_{OL} = 20\text{ mA}$, Slot Open
I_{OH}	Output Leakage Current	-	0.1	10	μA	$V = 4.5\text{ V}$, $V_{OUT} = 24\text{ V}$, Slot Blocked ⁽¹⁾
t_r	Output Rise Time	-	0.21	1	μs	$R_L = 820\ \Omega$, $C_L = 20\text{ pF}$
t_f	Output Fall Time	-	0.1	1	μs	$R_L = 820\ \Omega$, $C_L = 20\text{ pF}$

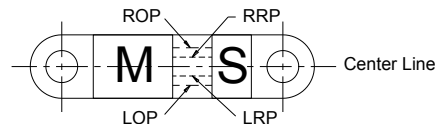
Notes:

- (1) Slot blocked with a ferrous material to interrupt magnetic flux.
- (2) See Hall-effect data sheet OH090 through OHS3100 Series for additional information — for reference only.



	Right Operate Point	Right Release Point	Left Release Point	Left Operate Point
Minimum	0.073" [1.85mm]	0.045" [1.14mm]	-0.045" [-1.14mm]	-0.073" [-1.85mm]
Maximum	0.003" [0.08mm]	-0.005" [-0.127mm]	0.005" [0.127mm]	-0.003" [-0.08mm]

Measurements are referenced to Center Line.



Vane - Material = 1018 Cold Rolled Steel - 0.03" [0.76mm] Thick
Location = 0.50" [12.7mm] from Bottom of Slot

General Note

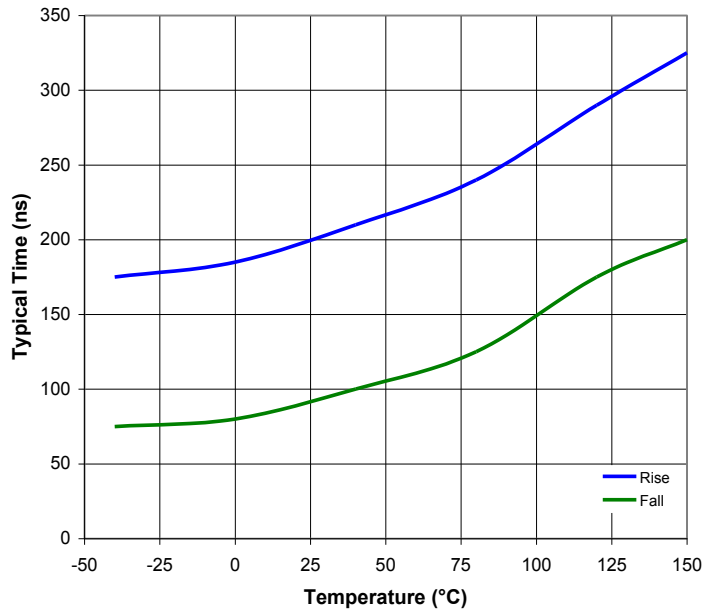
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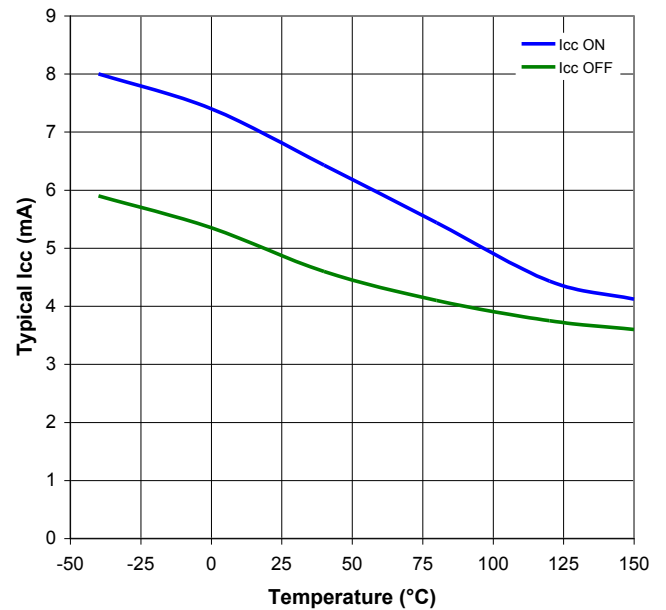


Performance

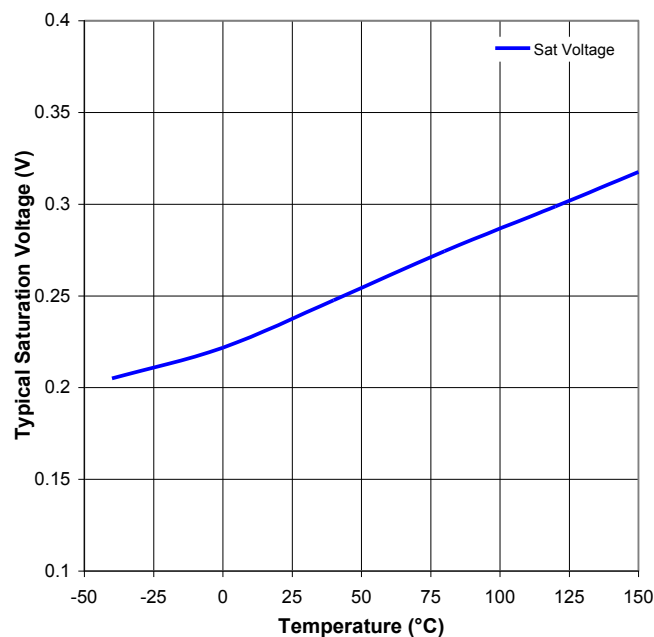
Rise & Fall vs Temperature



Icc vs Temperature



Saturation Voltage vs Temperature



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