

Linear Hall Effect Sensor IC

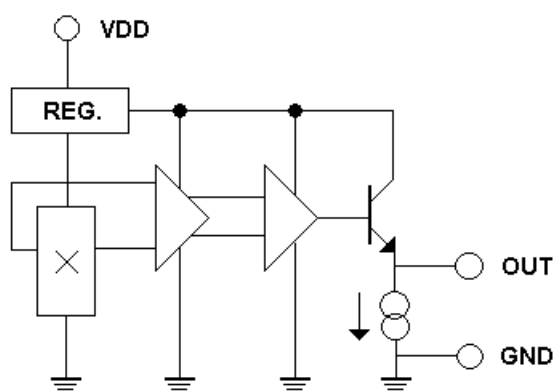
Features:

- Wide operating range 3.0~6.5V, -20°C~100°C
- Flat Response to 23kHz
- Low noise output
- Wide sensible magnetic field range on different supplied voltage
±900 Gauss on 5V supplied voltage
- Small package styles TO-92S available.

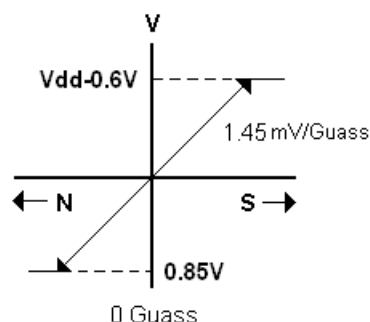
Functional Description :

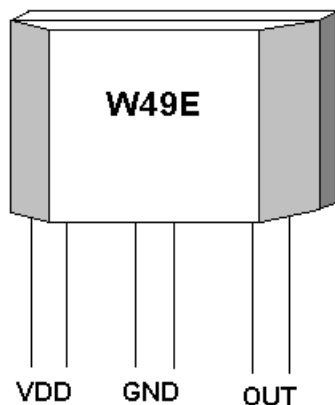
The WSH49E integrates Hall sensing element, linear amplifier, sensitivity controller and emitter follower output stage. It accurately tracks extremely small change in magnetic flux density –generally too small to operate Hall effect switch.

WSH49E can be applied as current sensor, tooth sensor, proximity detectors and motion detectors. As sensitive monitor of magnetic flux, it can effectively measure a system's performance with negligible system loading while providing isolation from contaminated and electrically noisy environments.



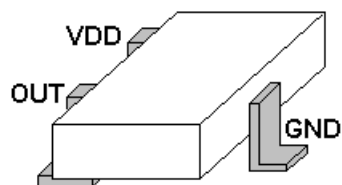
OUT vs. Magnetic Flux





ABSOLUTE MAXIMUM RATING

Supply Voltage, Vdd	7 V
Magnetic Flux Density, B	Unlimited
Output Driving Current, Iout	5mA
Operating Temperature Range	
Ta	-20°C to +100°C
Storage Temperature Range	
Ts	-65°C to +150 °C
Power Dissipation Pd	
TO-92S	450mW
SOT-23	350mW



ORDER INFORMATION

WSH49E-XPAN TO-92S

Electrical Characteristics:

(T=+25°C, Vdd=5.0V)

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Units
Supply Voltage	Vcc	—	3.0	—	6.5	V
Supply Current	Isupply	B=0 Guass	—	3.5	6.0	mA
Quiescent Vout	Vout	B=0 Guass	2.25	2.5	2.75	V
Sensitivity	ΔV_{out}	B= 0 to ± 800 G	1.0	1.45	1.7	mV/G
Bandwidth	BW		—	23	—	kHz
Measurable Guass Range	MGR	Vdd=5V	—	± 900	—	Guass
			—		—	

All output-voltage measurements are made with a voltmeter having an input impedance of at least 100k Ω

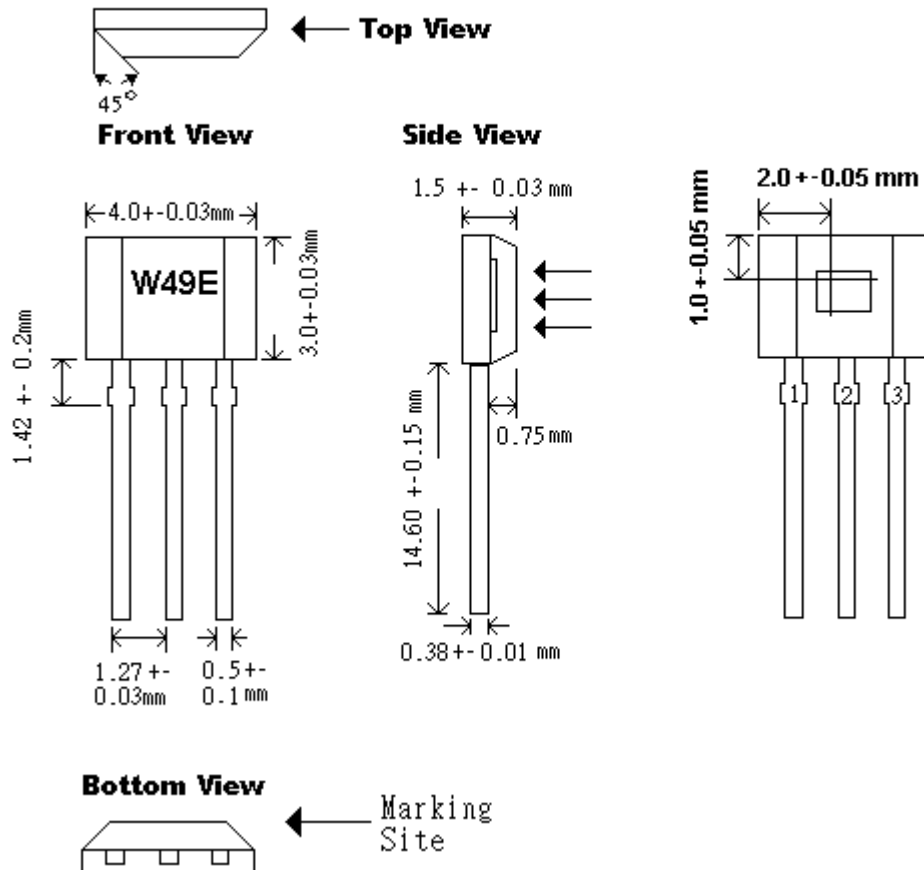
Winson reserves the right to make changes to improve reliability or manufacturability.

Package Information:

TO92S:

Package Dimension

Hall Sensor Location



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