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Linear Hall Effect Sensor IC

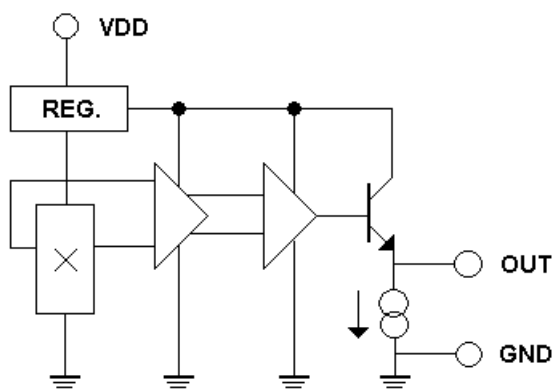
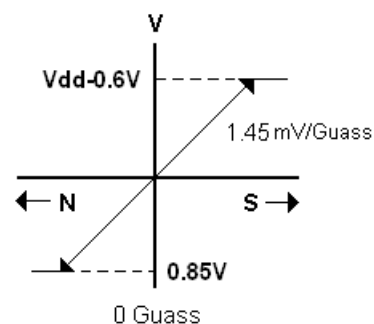
**Features:**

- 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.

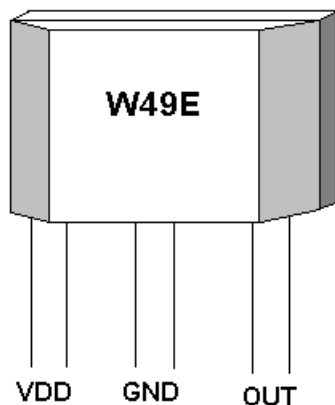
**Functional Description :**

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.

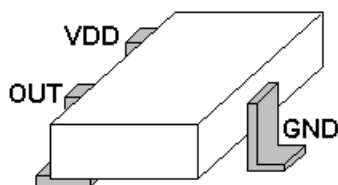
**OUT vs. Magnetic Flux**

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



### ABSOLUTE MAXIMUM RATING

Supply Voltage, Vdd ----- 7V  
 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	$\Delta V_{out}$	B= 0 to $\pm 800$ G	1.0	1.45	1.7	mV/G
Bandwidth	BW		—	23	—	kHz
Measurable Guass Range	MGR	Vdd=5V	—	$\pm 900$	—	Guass
			—		—	

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

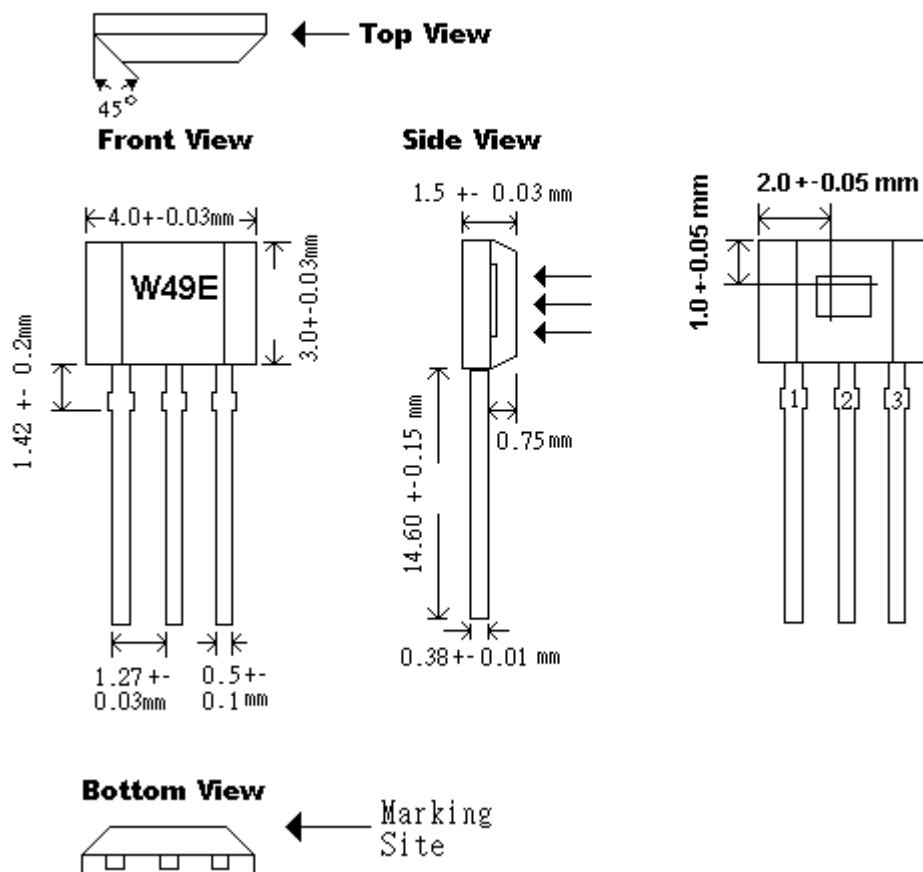
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Package Information:

TO92S:

**Package Dimension**

**Hall Sensor Location**



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