

Linear Hall Effect Sensor IC

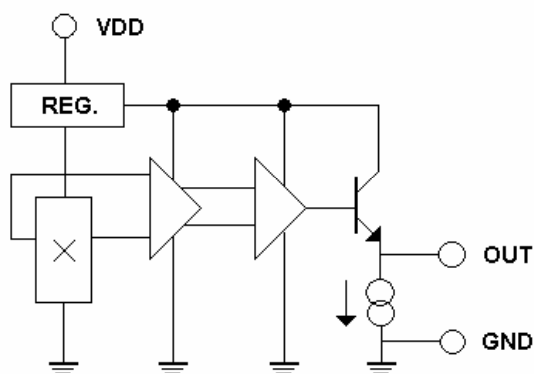
Features:

- Wide operating range 3.0~12V, -20°C~85°C
- Flat Response to 23kHz
- Low noise output
- Wide sensible magnetic field range on different supplied voltage
 $\pm 1,500$ Guass on 5V supplied voltage
 $\pm 4,500$ Guass on 12V supplied voltage.
- Low operating current 3mA
- Two package styles TO-92S/SOT-23 available.

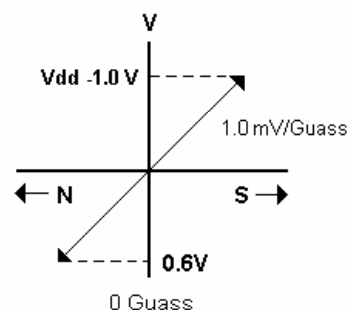
Functional Description :

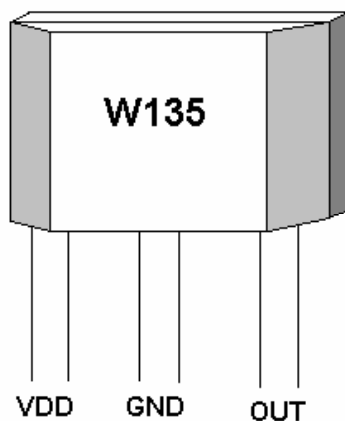
The WSH135 integrates Hall sensing element, linear amplifier, sensitivity controller and emitter follower output stage. It accurately tracks extremely small change in magnetic flux density –generally too small to operate Hall effect switch.

WSH135 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.



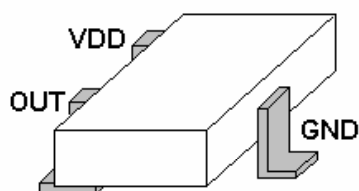
OUT vs. Magnetic Flux





ABSOLUTE MAXIMUM RATING

Supply Voltage, Vdd	14V
Magnetic Flux Density, B	Unlimited
Output Driving Current, Iout	2 mA
Operating Temperature Range	
Ta	-20°C to +85°C
Storage Temperature Range	
Ts	-65°C to +150 °C
Power Dissipation Pd	
TO-92S	450mW
SOT-23	350mW



ORDER INFORMATION

WSH135-XPAN	TO-92S
WSH135-XPCN	SOT-23

Electrical Characteristics:

(T=+25°C, Vdd=5.0V)

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Units
Supply Voltage	Vcc	—	3.0	—	12	V
Supply Current	Isupply	B=0 Guass	—	3.5	6.0	mA
Quiescent Vout	Vout	B=0 Guass	2.3	2.5	2.7	V
Sensitivity	ΔV_{out}	B= 0 to ± 1200 G	0.7	1.0	1.3	mV/G
Bandwidth	BW		—	23	—	kHz
Measurable Guass Range	MGR	Vdd=5V	—	± 1500	—	Guass
		Vdd=12V	—	± 4500	—	

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

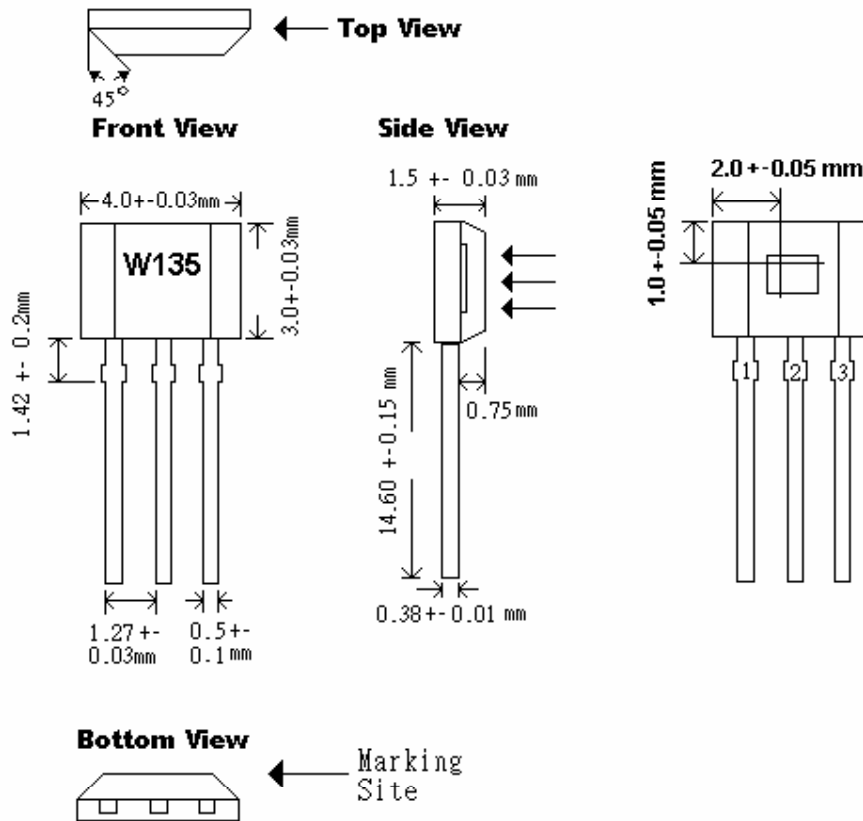
Winson reserves the right to make changes to improve reliability or manufacturability.

Package Information:

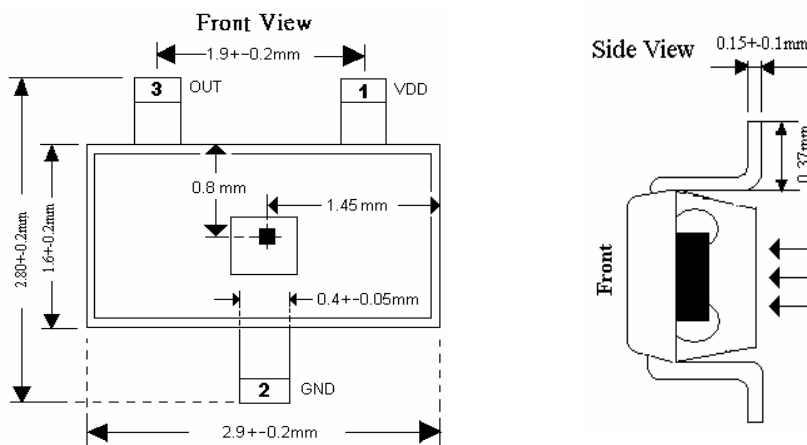
TO92S:

Package Dimension

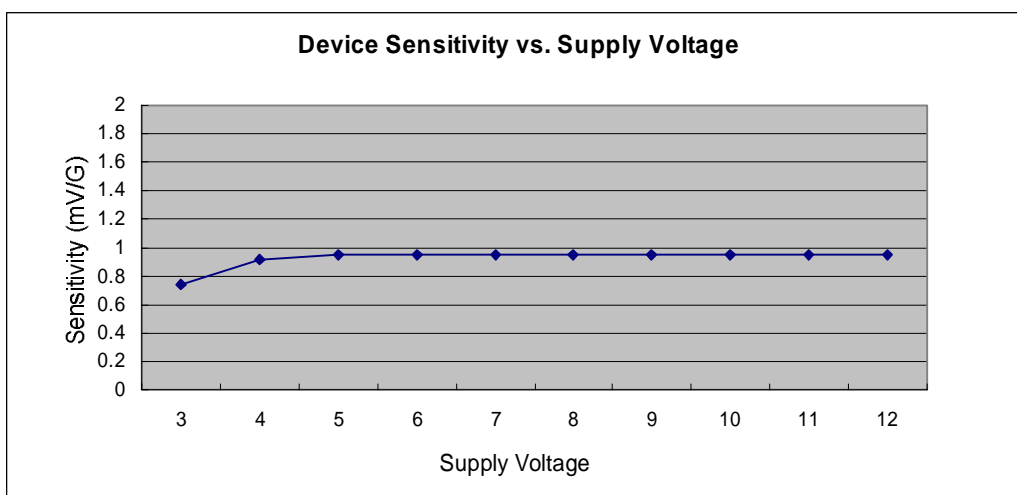
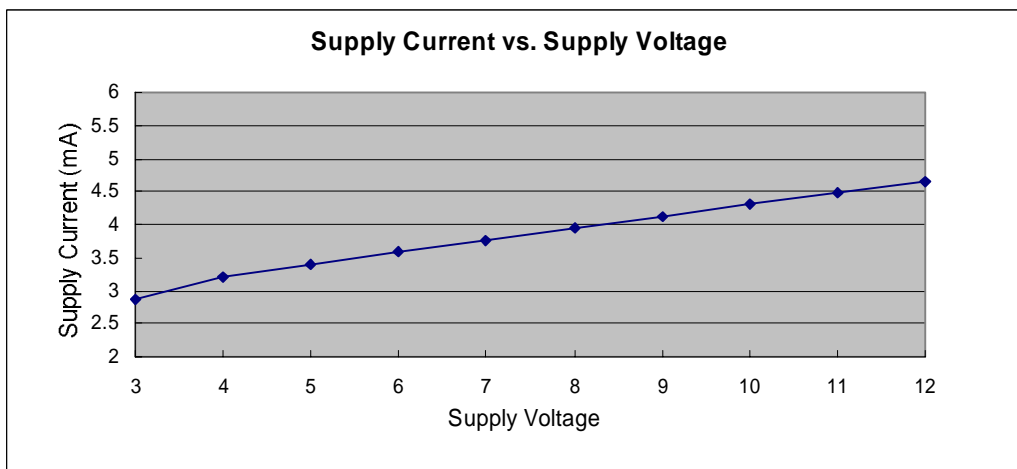
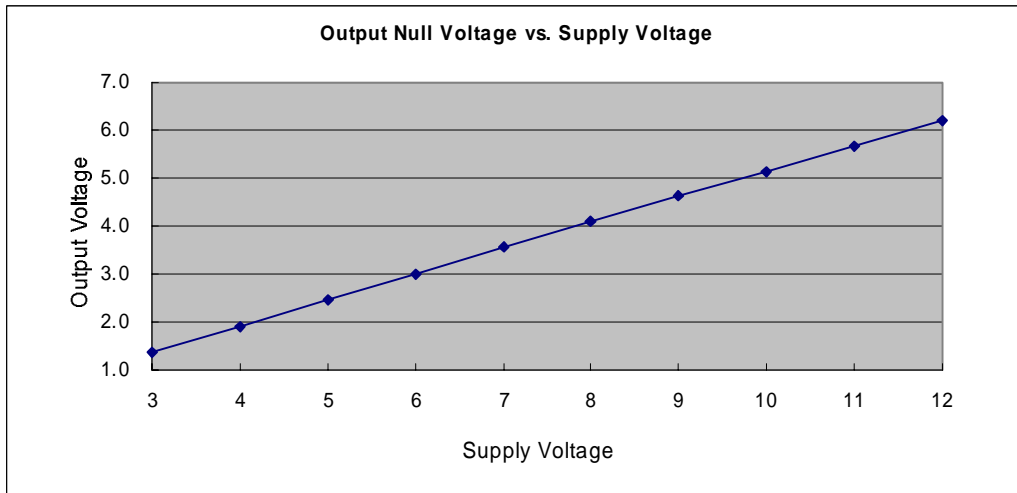
Hall Sensor Location



SOT23:



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