

# EW-610B

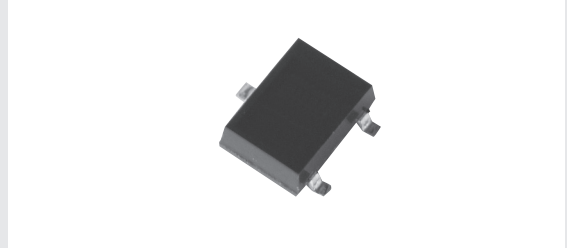
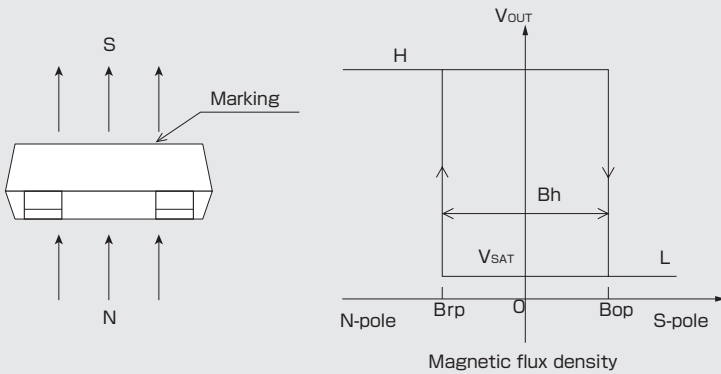
Shipped in packet-tape reel(3000pcs/Reel)

EW-610B is composed of a Ultra-high sensitive InSb Hall element and a signal processing IC chip in a package.

Bipolar Hall Effect Latch	Supply Voltage 3~26.4V	Hall Element Continuous Excitation	High Sensitivity Bop:3mT	Output Open Collector	SMT
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## ●Operational Characteristics



## ●Absolute Maximum Ratings (Ta=25°C)

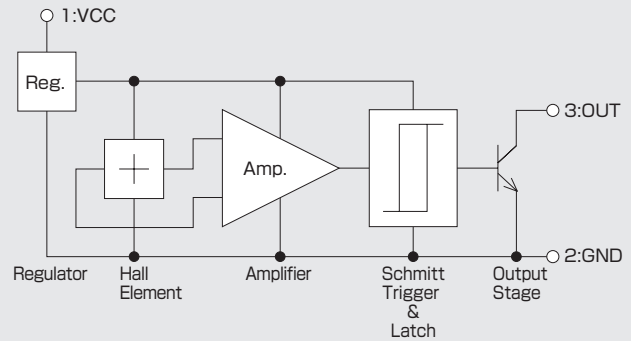
Item	Symbol	Min.	Max.	Unit
Supply Voltage	$V_{CC}$	-0.3	26.4 (*)	V
Output H Voltage	$V_{O(off)}$	-0.3	$V_{CC}$	V
Output L Current	$I_{SINK}$	0	10	mA
Storage Temperature Range	$T_{STG}$	-40	+125	°C

(\*) Please refer to Supply Voltage Derating Curve.

## ●Recommended Operating Conditions

Item	Symbol	Min.	Typ.	Max.	Unit
Supply Voltage	$V_{CC}$	3	12	26.4	V
Operating Temperature Range	$T_{opr}$	-40	+25	+115	°C

## ●Functional Block Diagram



Another product type with pulled-up resistor (EW-612B). Please contact AKM to obtain the detail information.

## ●Magnetic and Electrical Characteristics (Ta=25°C)

Item	Symbol	Conditions	Min.	Typ.	Max.	Unit
Operating Point	Bop	$V_{CC}=12V$	1	3	6	mT
Releasing Point	Brp	$V_{CC}=12V$	-6	-3	-1	mT
Hysteresis	Bh	$V_{CC}=12V$	2	6		mT
Output Saturation Voltage	$V_{SAT}$	$V_{CC}=12V, OUT="L", I_{SINK}=10mA$			0.4	V
Output Leakage Current	$I_{LEAK}$	$V_{CC}=12V, OUT="H", V_{OUT}=12V$			1	$\mu A$
Supply Current	$I_{CC}$	$V_{CC}=12V, OUT="H"$		5	6	mA

1 [mT] = 10 [Gauss]

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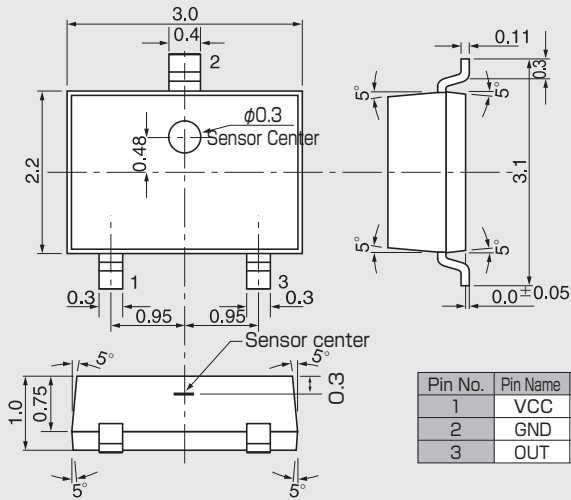
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邮编：518033 E-mail:[szss20@163.com](mailto:szss20@163.com) QQ: 195847376

技术支持：0755-83394033 13501568376

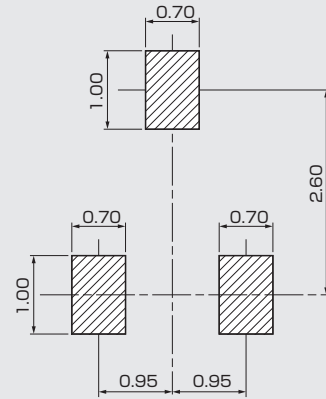
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●Package (Unit:mm)

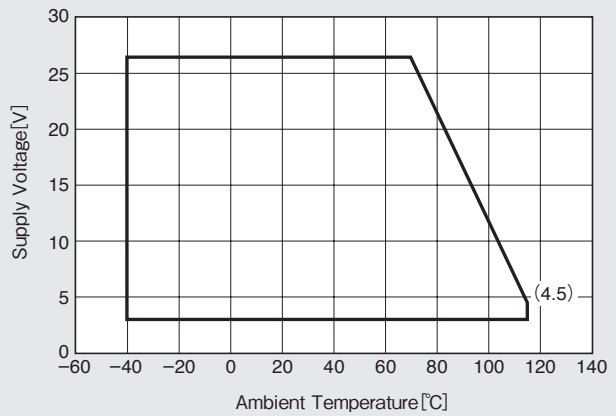


- Note1) The sensor center is located within the  $\phi 0.3$ mm circle.
- Note2) The tolerances of dimensions with no mentions is  $\pm 0.1$  mm.
- Note3) The sensor part is located 0.3mm (typ.) far from marking surface.

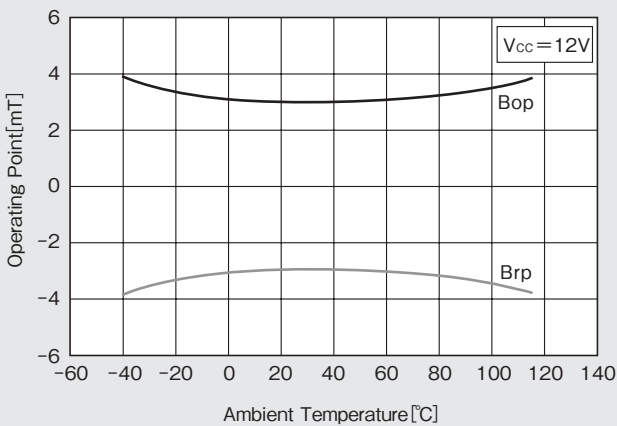
●(For reference only)Land Pattern (Unit:mm)



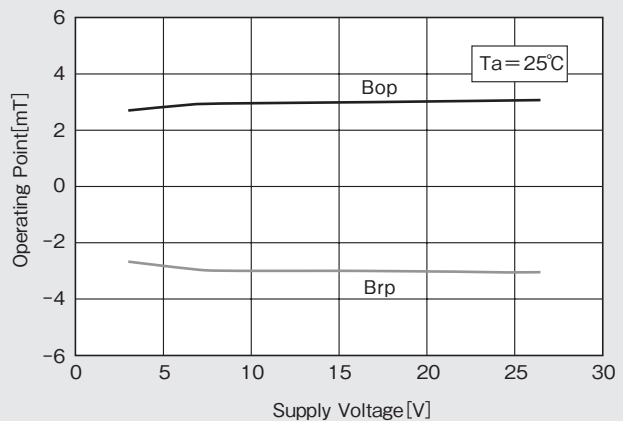
●Supply Voltage



●Temperature Dependence of Bop, Brp



●Supply Voltage Dependence of Bop, Brp



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February 21, 2013

# EW-612B

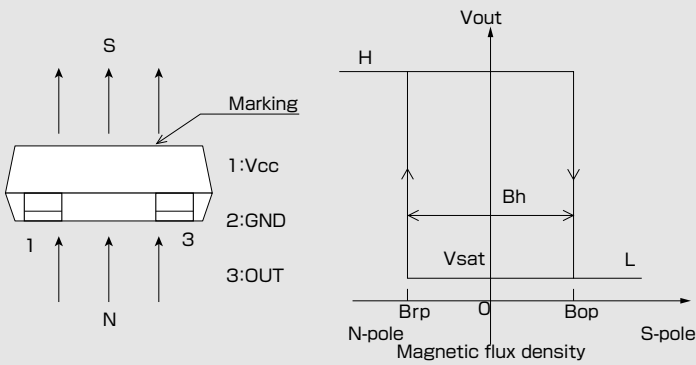
Shipped in packet-tape reel(3000pcs/Reel)

EW-612B is composed of a Ultra-high sensitive InSb Hall element and a signal processing IC chip in a package.

Bipolar Hall Effect Latch	Supply Voltage 3~26.4V	Hall Element Continuous Excitation	High Sensitivity Bop:3mT	Output With Pull-up Resistor	SMT
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## ●Operational Characteristics

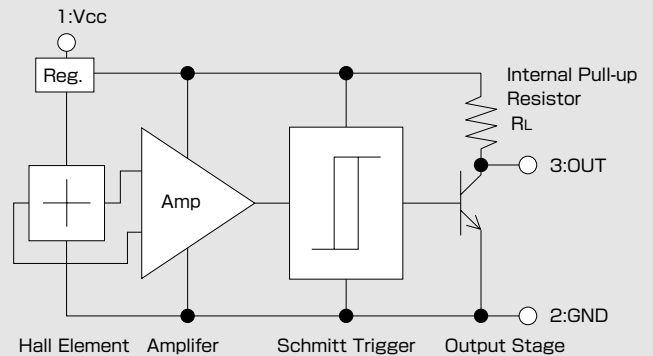


## ●Absolute Maximum Ratings (Ta=25°C)

Item	Symbol	Limit	Unit
Supply Voltage	$V_{CC}$	26.4 <sup>(*)</sup>	V
Output H Voltage	$V_{O(off)}$	$V_{CC}$	V
Output L Current	$I_{sink}$	10	mA
Operating Temperature Range	$T_{opr}$	-40 ~ 115	°C
Storage Temperature Range	$T_{stg}$	-40 ~ 125	°C

(\*) Please refer to Supply Voltage Derating Curve.

## ●Functional Block Diagram



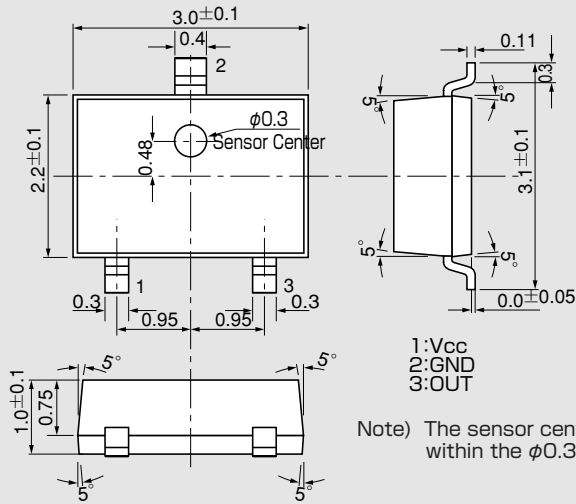
## ●Magnetic and Electrical Characteristics (Ta=25°C)

Item	Symbol	Conditions	Min.	Typ.	Max.	Unit
Supply Voltage	$V_{CC}$		3	12	26.4	V
Operating Point	$B_{OP}$	$V_{CC}=12V$	1	3	6	mT
Release Point	$B_{rp}$	$V_{CC}=12V$	-6	-3	-1	mT
Hysteresis	$B_h$	$V_{CC}=12V$	2	6		mT
Output Saturation Voltage	$V_{sat}$	$V_{CC}=12V, OUT="L"$			0.4	V
Supply Current	$I_{CC}$	$V_{CC}=12V, OUT="H"$		5	6	mA
Output Down Voltage	$V_d$	$V_{CC}=12V, OUT="H"$			20	mV
Internal Load Resistance	$R_L$		7	10	13	kΩ

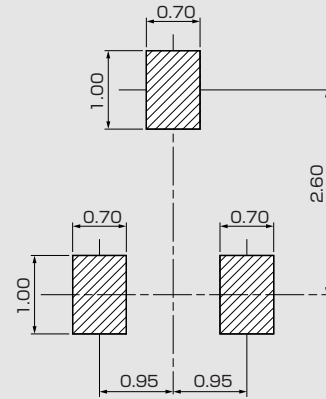
1 [mT]=10 [Gauss]

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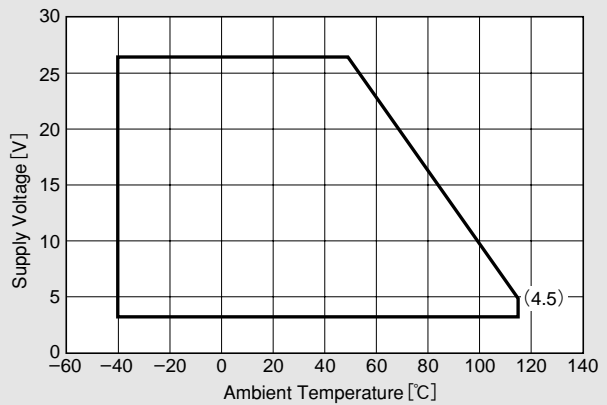
●Package (Unit:mm)



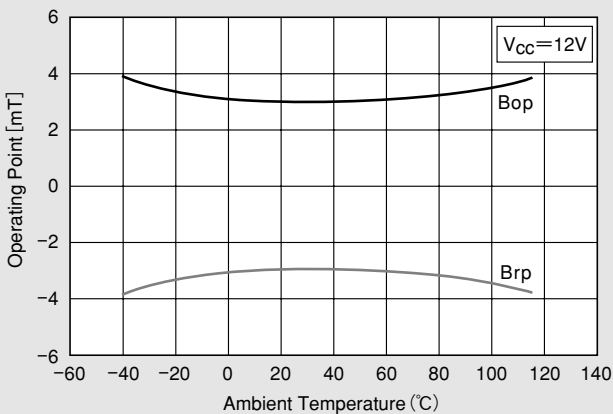
●(For reference only)Land Pattern (Unit:mm)



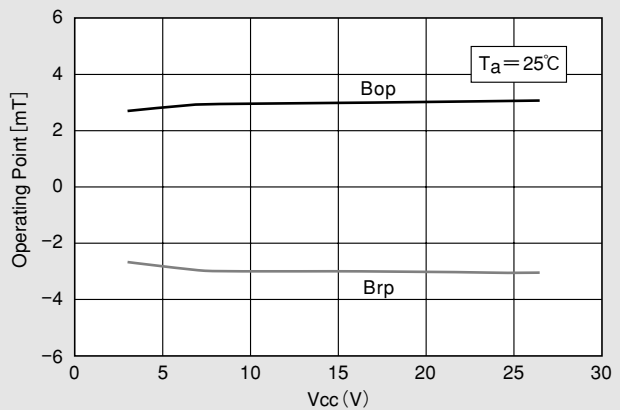
●Supply Voltage



●Temperature Dependence of Bop, Brp



●Supply Voltage Dependence of Bop, Brp



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