

# EW-650B

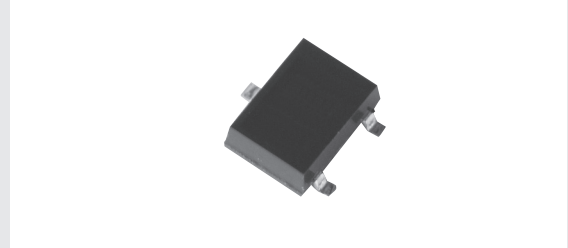
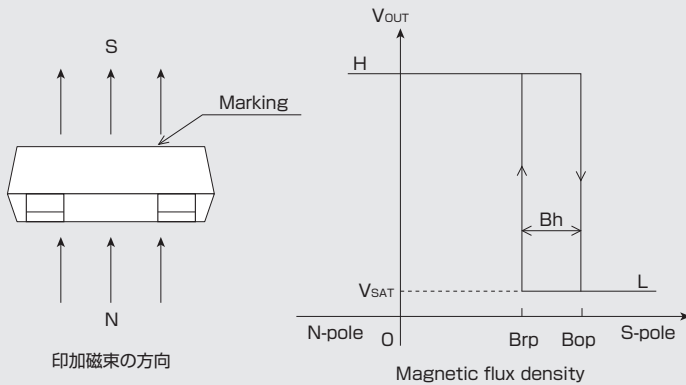
Shipped in packet-tape reel(3000pcs/Reel)

EW-650B is composed of a Ultra-high sensitive InSb Hall element and a signal processing IC chip in a package.

Unipolar Hall Effect Switch	Supply Voltage 3~26.4V	Hall Element Continuous Excitation	Standard Sensitivity Bop:6mT	Output Open Collector	SMT
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## ●Operational Characteristics



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

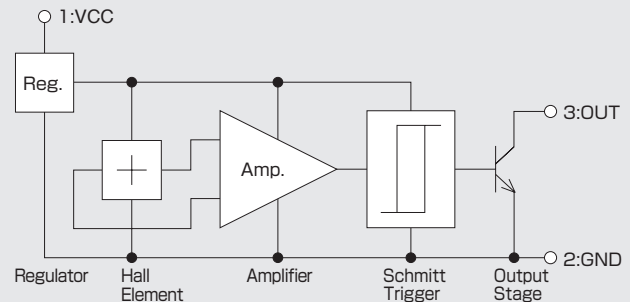
Item	Symbol	Min.	Max.	Unit
Supply Voltage	$V_{CC}$	-0.3	26.4 <sup>(*)</sup>	V
Output H Voltage	$V_{O(off)}$	-0.3	$V_{CC}$	V
Output L Current	$I_{SINK}$	0	10	mA
Storage Temperature Range	$T_{STG}$	-40	+125	°C

(\*) 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-652B). Please contact AKM to obtain the detail information.

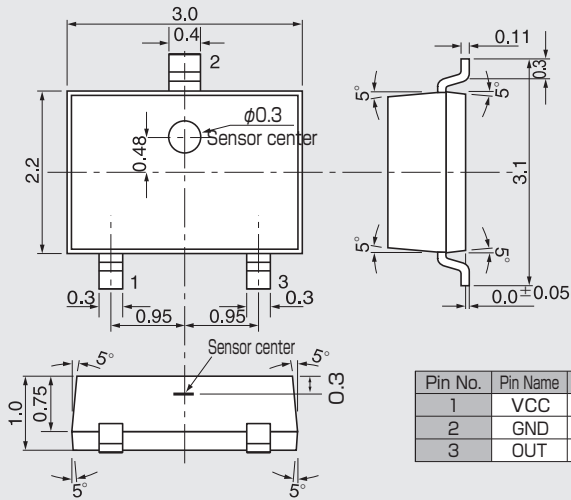
## ●Magnetic and Electrical Characteristics (Ta=25°C)

Item	Symbol	Conditions	Min.	Typ.	Max.	Unit
Operating Point	$B_{op}$	$V_{CC}=12V$	3	6	10	mT
Releasing Point	$B_{rp}$	$V_{CC}=12V$	2.5	5	9.5	mT
Hysteresis	$B_h$	$V_{CC}=12V$	0.5	1.1	2.5	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]

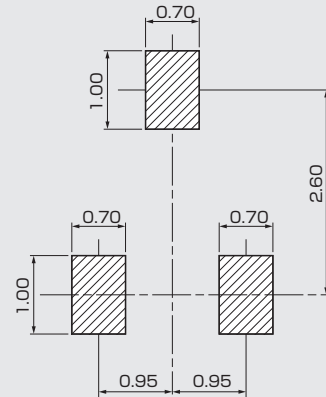
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●Package (Unit:mm)

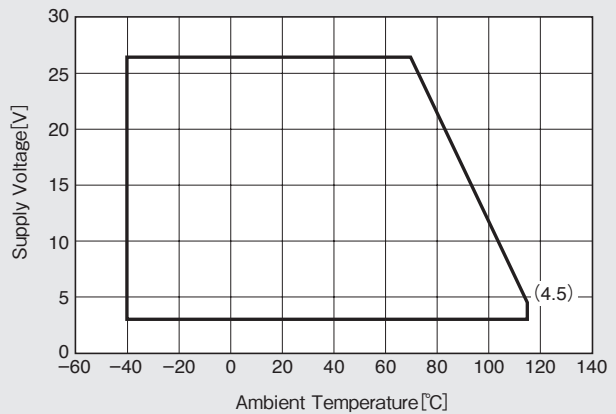


- Note1) The sensor center is located within the  $\phi 0.3$ mm circle.
- Note2) The tolerances of dimensions with no mentions is  $\pm 0.1$ mm.
- Note3) The sensor part is located 0.3mm(typ.) far from marking surface.

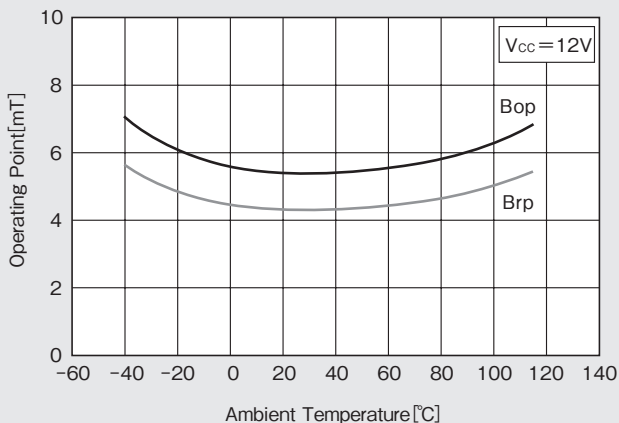
●(For reference only)Land Pattern (Unit:mm)



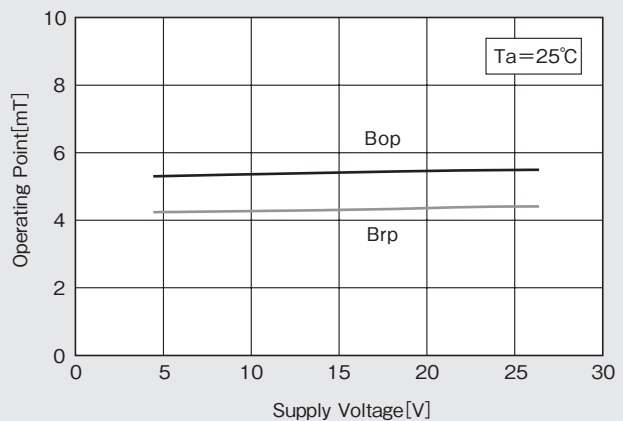
●Supply Voltage



●Temperature Dependence of Bop, Brp



●Supply Voltage Dependence of Bop, Brp



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February 21, 2013

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