



EW-412B

Shipped in packet-tape reel(5000pcs/Reel)

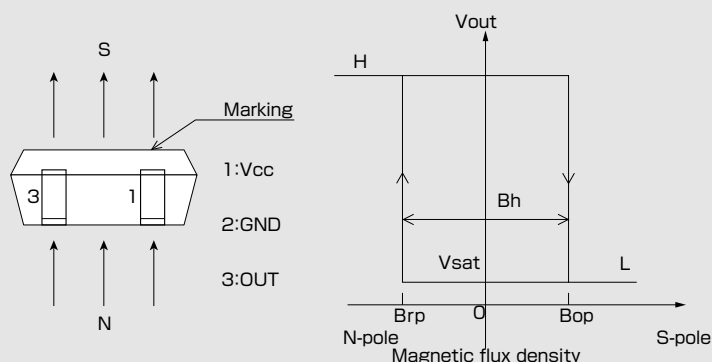
EW-412B is composed of a Ultra-high sensitive InSb Hall element and a signal processing IC chip in a package.

Bipolar Hall
Effect LatchSupply Voltage
3~26.4VHall Element
Continuous
ExcitationHigh Sensitivity
Bop:3mTOutput
With Pull-up
Resistor

SMT

Notice:It is requested to read and accept "IMPORTANT NOTICE" written on the back of the front cover of this catalogue.

●Operational Characteristics

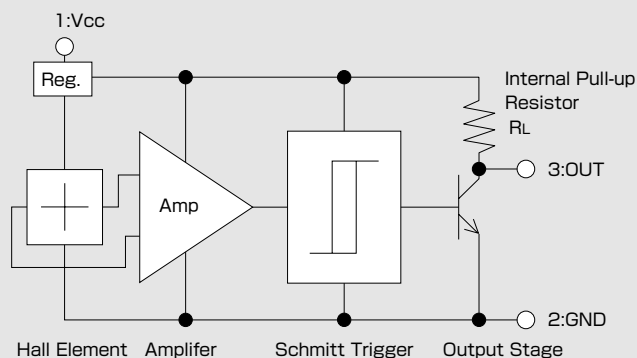


●Absolute Maximum Ratings (Ta=25°C)

Item	Symbol	Limit	Unit
Supply Voltage	V_{CC}	26.4 ^(*)	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



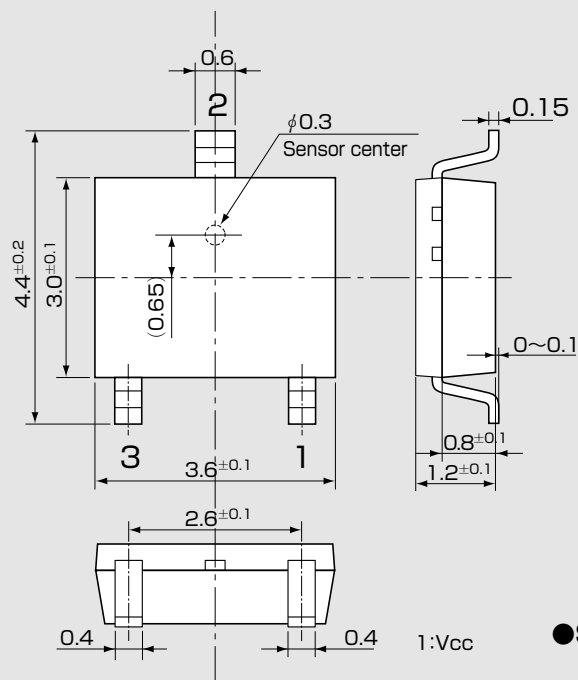
●Magnetic and Electrical Characteristics (Ta=25°C)

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]

•Please be aware that our products are not intended for use in life support equipment, devices, or systems. Use of our products in such applications requires the advance written approval of our sales staff.
 Certain applications using semiconductor devices may involve potential risks of personal injury, property damage, or loss of life. In order to minimize these risks, adequate design and operating safeguards should be provided by the customer to minimize inherent or procedural hazards. Inclusion of our products in such applications is understood to be fully at the risk of the customer using our devices or systems.

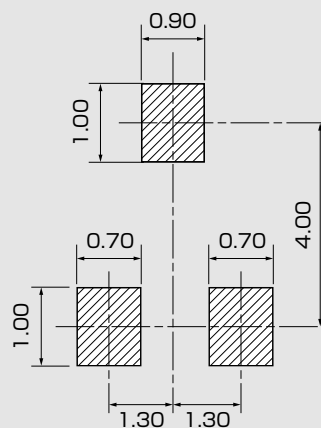
●Package (Unit:mm)



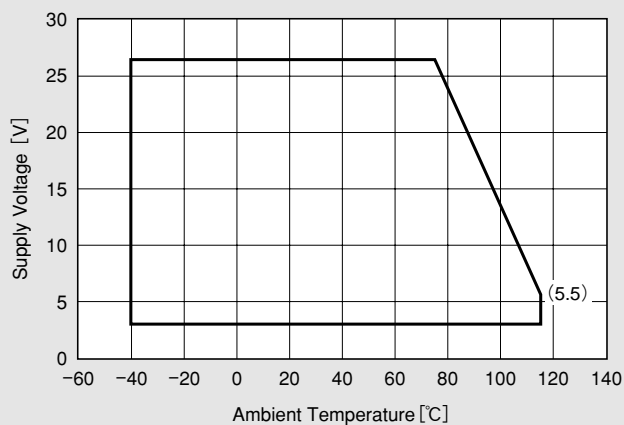
Note) The sensor center is located within the $\phi 0.3\text{mm}$ circle.

1:Vcc
2:GND
3:OUT

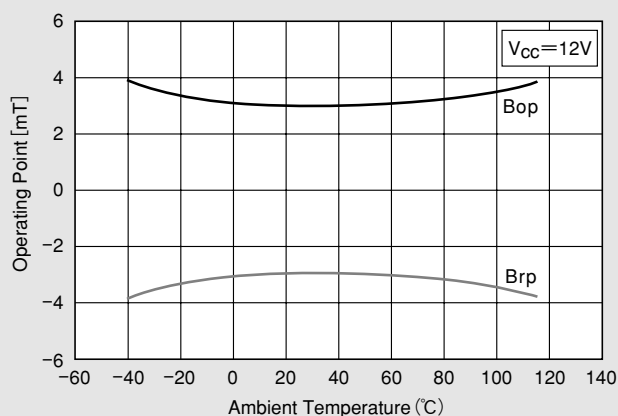
●(For reference only)Land Pattern (Unit:mm)



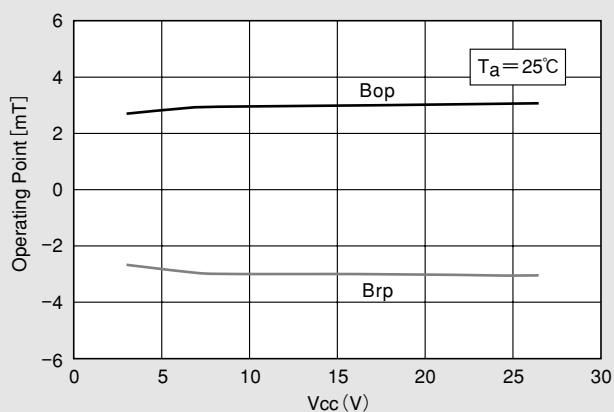
●Supply Voltage



●Temperature Dependence of Bop. Brp



●Supply Voltage Dependence of Bop. Brp



IMPORTANT NOTICE

- These products and their specifications are subject to change without notice.
When you consider any use or application of these products, please make inquiries the sales office of Asahi Kasei EMD Corporation (AKEMD) or authorized distributors as to current status of the products.
- AKEMD assumes no liability for infringement of any patent, intellectual property, or other rights in the application or use of any information contained herein.
- Any export of these products, or devices or systems containing them, may require an export license or other official approval under the law and regulations of the country of export pertaining to customs and tariffs, currency exchange, or strategic materials.
- AKEMD products are neither intended nor authorized for use as critical components^{Note1)} in any safety, life support, or other hazard related device or system^{Note2)}, and AKEMD assumes no responsibility for such use, except for the use approved with the express written consent by AKEMD. As used here:
Note1) A critical component is one whose failure to function or perform may reasonably be expected to result, whether directly or indirectly, in the loss of the safety or effectiveness of the device or system containing it, and which must therefore meet very high standards of performance and reliability.
Note2) A hazard related device or system is one designed or intended for life support or maintenance of safety or for applications in medicine, aerospace, nuclear energy, or other fields, in which its failure to function or perform may reasonably be expected to result in loss of life or in significant injury or damage to person or property.
- It is the responsibility of the buyer or distributor of AKEMD products, who distributes, disposes of, or otherwise places the product with a third party, to notify such third party in advance of the above content and conditions, and the buyer or distributor agrees to assume any and all responsibility and liability for and hold AKEMD harmless from any and all claims arising from the use of said product in the absence of such notification.

ASAHI KASEI EMD CORPORATION

Headquarters

1-105 Kanda, Jinbocho, Chiyoda-ku, Tokyo 101-8101, Japan

TEL : +81-3-3296-3961 FAX : +81-3-3296-3962

Osaka Office

1-2-6 Dojimahama Kita-ku, Osaka 530-8205, Japan

TEL. +81-6-6347-3133 FAX. +81-3-6911-2815

URL <http://www.asahi-kasei.co.jp/ake/en/>

Europe Office

Market House, 19/21 Market Place, Wokingham, Berkshire, RG40 1AP, U.K.

TEL : +44-118-979-5777 FAX : +44-118-979-7885

URL <http://www.akm.com/>

Shanghai Office

Room 2321, Shanghai Central Plaza, 381 Huaihai Zhong Road, Shanghai 200020, China

TEL. +86-21-6391-6111 FAX. +86-21-6391-6686

URL <http://www.akm.com/>

Seoul Office

8th fl., KTP B/D, 27-2 Yoido-dong, Youngdungpo-gu, Seoul 150-742, Korea

TEL. +82-2-3775-0990 FAX. +82-2-3775-1991

AKM Semiconductor, Inc

Western US Sales

1731 Technology Drive Suite 500 San Jose, CA 95110, USA

TEL. +1-408-436-8580 FAX. +1-408-436-7591

Eastern US Sales

629 Bamford Road Cherry Hill, NJ 08003, USA

TEL. +1-856-424-7211 FAX. +1-856-424-7344

URL <http://www.akm.com/>

November 17 2008