

EW-413

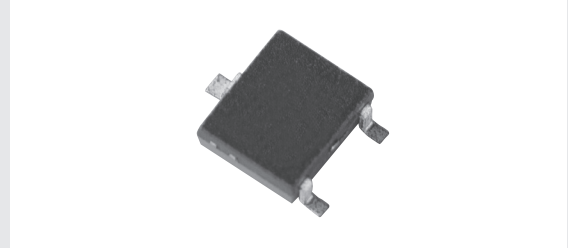
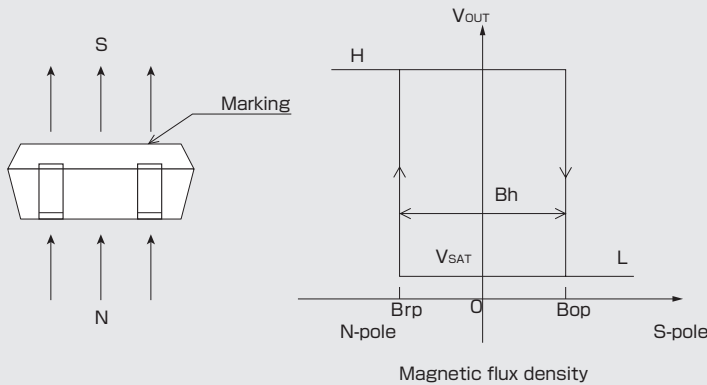
Shipped in packet-tape reel(5000pcs/Reel)

EW-413 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 2.5~5.5V	Hall Element Continuous Excitation	High Sensitivity Bop:3mT	Output Open Collector	SMT
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Operational Characteristics

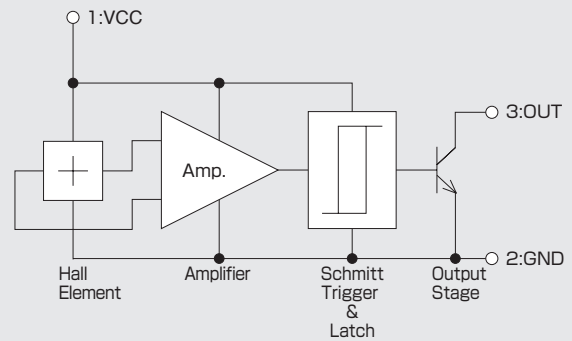


Absolute Maximum Ratings (Ta=25°C)

Item	Symbol	Min.	Max.	Unit
Supply Voltage	V_{CC}	-0.3	5.5 (*)	V
Output H Voltage	$V_{o(off)}$	-0.3	V_{CC}	V
Output L Current	I_{SINK}	0	15	mA
Storage Temperature Range	T_{STG}	-40	+125	°C

(*) Please refer to Supply Voltage Derating Curve.

Functional Block Diagram



Recommended Operating Conditions

Item	Symbol	Min.	Typ.	Max.	Unit
Supply Voltage	V_{CC}	2.5	3	5.5	V
Operating Temperature Range	T_{opr}	-30	+25	+115	°C

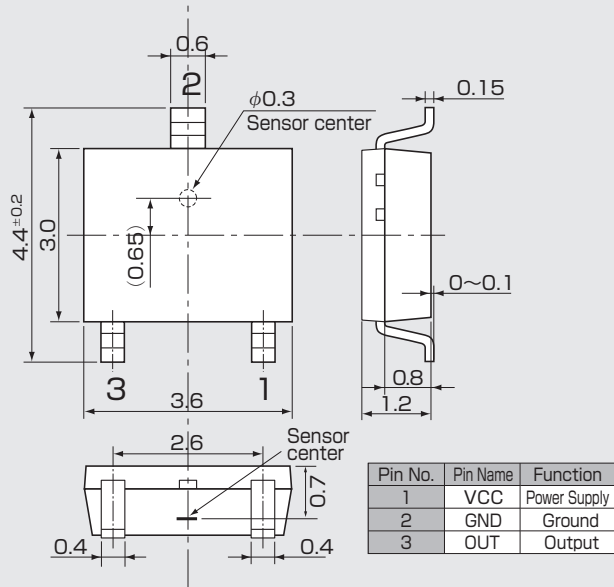
Magnetic and Electrical Characteristics (Ta=25°C)

Item	Symbol	Conditions	Min.	Typ.	Max.	Unit
Operating Point	Bop	$V_{CC}=3V$	1	3	6	mT
Releasing Point	Brp	$V_{CC}=3V$	-6	-3	-1	mT
Hysteresis	Bh	$V_{CC}=3V$	2	6		mT
Output Saturation Voltage	V_{SAT}	$V_{CC}=3V, OUT="L", I_{SINK}=10mA$			0.4	V
Output Leakage Current	I_{LEAK}	$V_{CC}=3V, OUT="H", V_{OUT}=3V$			1	μA
Supply Current	I_{CC}	$V_{CC}=3V, OUT="H"$			8	mA

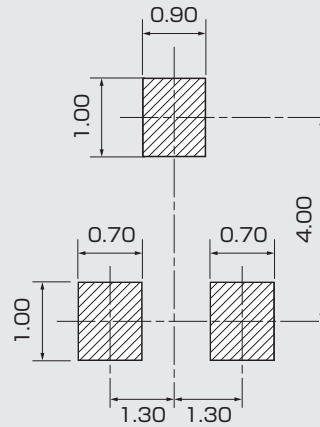
1 [mT] = 10 [Gauss]

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●Package (Unit:mm)

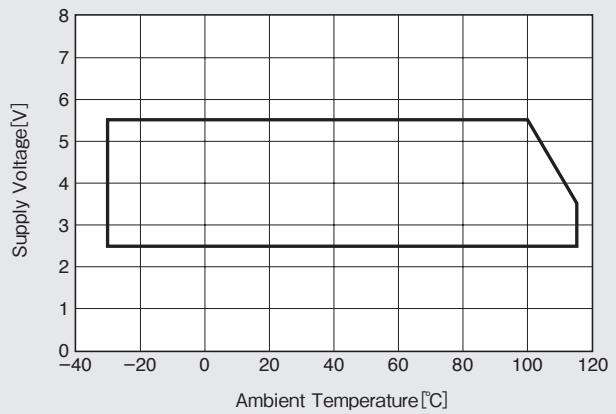


●(For reference only)Land Pattern (Unit:mm)

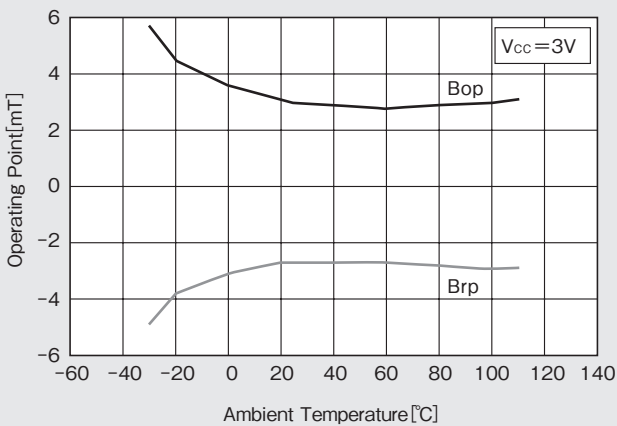


- Note1) The sensor center is located within the $\phi 0.3\text{mm}$ circle.
- Note2) The tolerances of dimensions with no mentions is $\pm 0.1\text{mm}$.
- Note3) The sensor part is located 0.7mm (typ.) far from marking surface.
- Note4) The metal portions on the package side (support lead) are connected to the internal circuits. The support lead should be isolate from the external circuit and the other support lead.

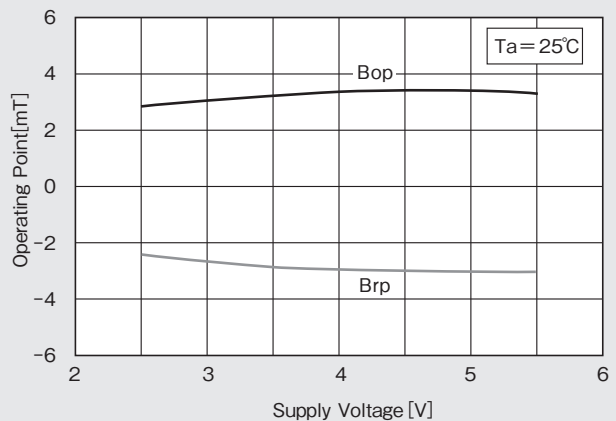
●Supply Voltage



●Temperature Dependence of Bop, Brp



●Supply Voltage Dependence of Bop, Brp



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February 21, 2013

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