

# EZ-471

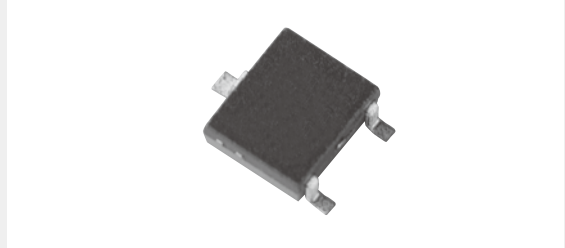
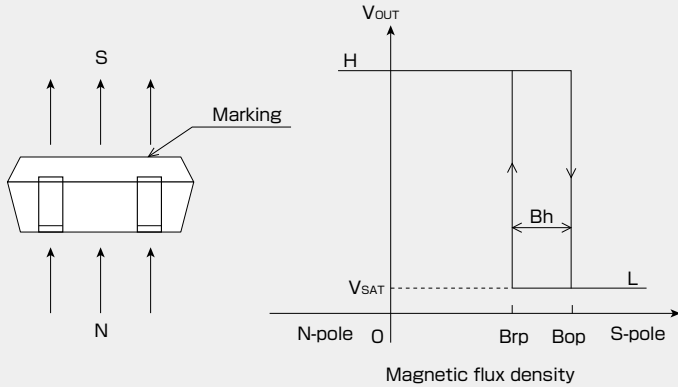
Shipped in packet-tape reel(5000pcs/Reel)

EZ-471 is composed of an InAs Hall Element and a signal processing IC chip in a package

|                             |                      |                                    |                                |                       |     |
|-----------------------------|----------------------|------------------------------------|--------------------------------|-----------------------|-----|
| Unipolar Hall Effect Switch | Supply Voltage 2~24V | Hall Element Continuous Excitation | Ultra Low Sensitivity Bop:26mT | Output Open Collector | 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              | Min. | Max.              | Unit |
|---------------------------|---------------------|------|-------------------|------|
| Supply Voltage            | V <sub>CC</sub>     | -0.3 | 28 <sup>(*)</sup> | V    |
| Output H Voltage          | V <sub>O(off)</sub> | -0.3 | V <sub>CC</sub>   | V    |
| Output L Current          | I <sub>SINK</sub>   | 0    | 10                | mA   |
| Storage Temperature Range | T <sub>STG</sub>    | -40  | +150              | °C   |

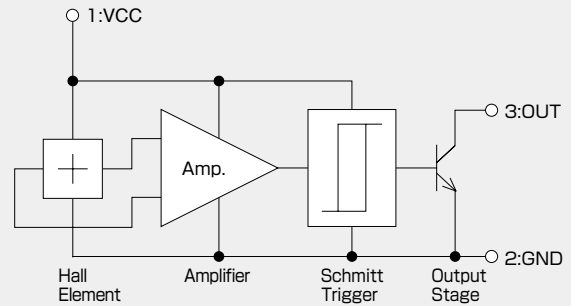
(\*) Please refer to Supply Voltage Derating Curve.

## ●Recommended Operating Conditions

| Item                        | Symbol           | Min. | Typ. | Max.              | Unit |
|-----------------------------|------------------|------|------|-------------------|------|
| Supply Voltage              | V <sub>CC</sub>  | 2    | 12   | 24 <sup>(*)</sup> | V    |
| Operating Temperature Range | T <sub>opr</sub> | -40  | +25  | +125              | °C   |

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

## ●Functional Block Diagram



## ●Electrical Characteristics (Ta=-40~+125°C, V<sub>CC</sub>=2~24V)

| Item                      | Symbol            | Conditions                      | Min. | Typ. | Max. | Unit |
|---------------------------|-------------------|---------------------------------|------|------|------|------|
| Supply Current            | I <sub>LEAK</sub> | OUT="H"                         |      |      | 10   | μA   |
| Output Saturation Voltage | V <sub>SAT</sub>  | OUT="L", I <sub>OUT</sub> =10mA |      |      | 0.8  | V    |
| Supply Current            | I <sub>CC</sub>   | OUT="H"                         |      | 3    | 6    | mA   |

## ●Magnetic Characteristics (Ta=-40~+85°C, V<sub>CC</sub>=2~24V)

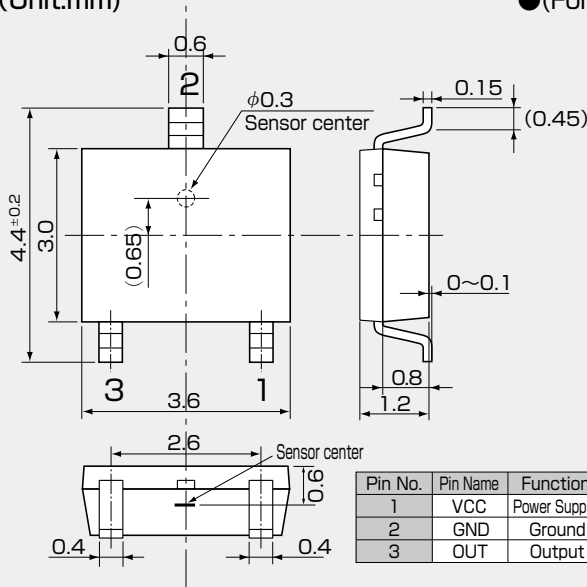
| Item            | Symbol          | Conditions | Min. | Typ. | Max. | Unit |
|-----------------|-----------------|------------|------|------|------|------|
| Operating Point | B <sub>op</sub> |            | 21   | 26   | 33   | mT   |
| Releasing Point | B <sub>rp</sub> |            | 14   | 20   | 25   | mT   |
| Hysteresis      | B <sub>h</sub>  |            | 4    | 6    | 11   | mT   |

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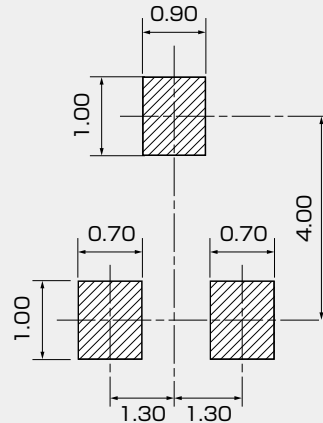
•This product contains gallium arsenide(GaAs).Handling and discarding precautions required.

a

●Package (Unit:mm)



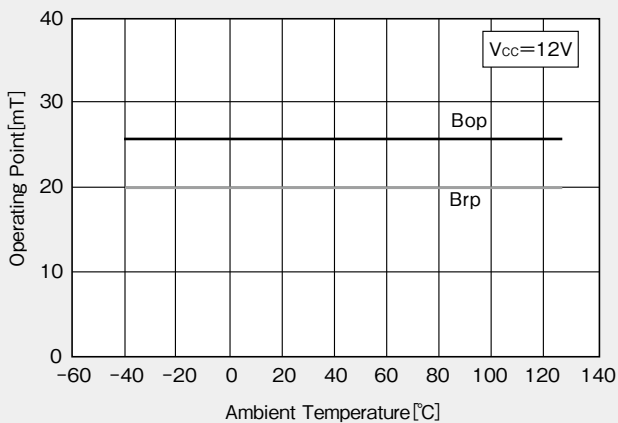
●(For reference only)Land Pattern (Unit:mm)



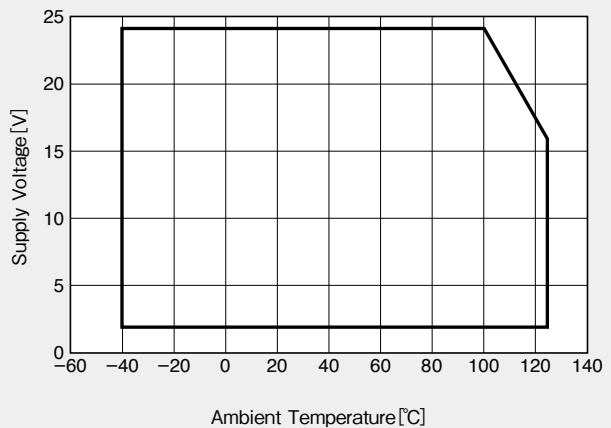
- Note1) The sensor center is located within the  $\phi 0.3\text{mm}$  circle.
- Note2) The tolerances of dimensions with no mentions is  $\pm 0.1\text{mm}$ .
- Note3) The sensor part is located  $0.6\text{mm}$ (typ.) far from marking surface.

h

●Temperature Dependence of Bop, Brp



●Supply Voltage Derating Curve



o

p

q

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