

HZ-312C

Shipped in bulk (500pcs per pack)

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

●Absolute Maximum Ratings

| Item | Symbol | | Limit | Unit |
|-----------------------|--------|------------------------------|---------|------|
| Max. Input Current | I_c | 25°C Const. Current Drive | 17 | mA |
| Operating Temp. Range | Topr. | | -40~125 | °C |
| Storage Temp. Range | Tstg. | | -40~150 | °C |

注) 制限抵抗がない場合は、最大入力電圧の範囲以内でご利用下さい。



●Electrical Characteristics (T_a=25°C)

| Item | Symbol | Conditions | Min. | Typ. | Max. | Unit |
|--------------------------------------|-----------------------------------|--|-------|------|-------|------|
| Output Hall Voltage | V_H^{**} | Const. Current Drive B=50mT, I _C =5mA | 24 | | 33 | mV |
| Input Resistance | R _{in} | B=0mT, I _C =0.1mA | 240 | | 360 | Ω |
| Output Resistance | R _{out} | B=0mT, I _C =0.1mA | 240 | | 360 | Ω |
| Offset Voltage | V _{os} (V _U) | B=0mT, I _C =5mA | -2.5 | | 2.5 | mV |
| Temp. Coefficient of V _H | αV_H^{**} | B=50mT, I _C =5mA T _a =25~125°C | -0.07 | | -0.11 | %/°C |
| Temp. Coefficient of R _{in} | αR_{in}^{**} | B=0mT, I _C =0.1mA T _a =25~125°C | 0 | | 0.2 | %/°C |

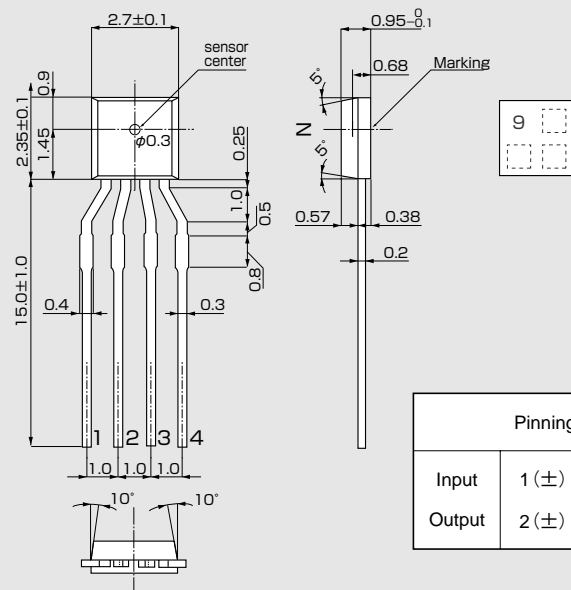
Notes : 1. $V_H = V_{HM} - V_{os}(V_U)$ (VHM: meter indication)

$$2. \alpha V_H = \frac{1}{V_H(T_1)} \times \frac{V_H(T_2) - V_H(T_1)}{(T_2 - T_1)} \times 100$$

$$3. \alpha R_{in} = \frac{1}{R_{in}(T_1)} \times \frac{R_{in}(T_2) - R_{in}(T_1)}{(T_2 - T_1)} \times 100$$

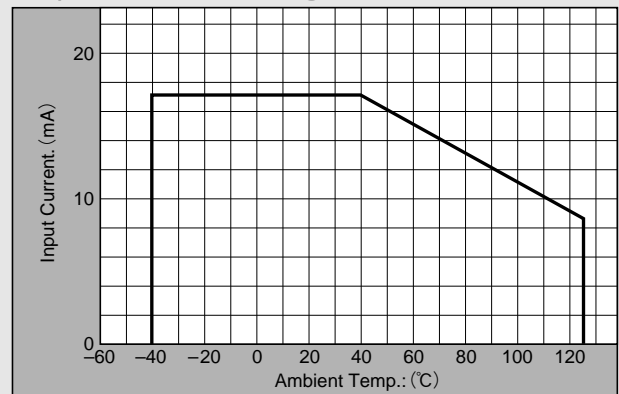
$$T_1 = 25^\circ\text{C}, T_2 = 125^\circ\text{C}$$

●Dimensional Drawing (Unit : mm)



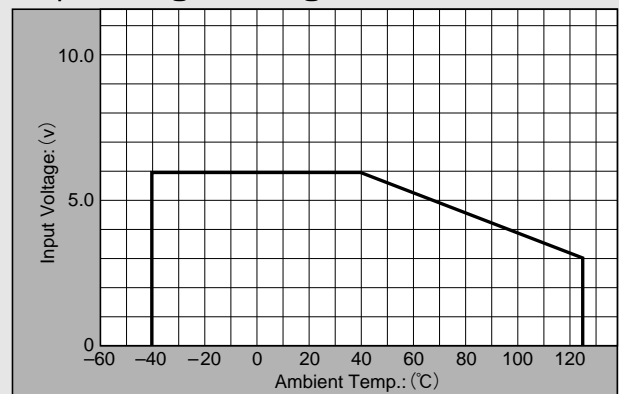
| Pinning | | |
|---------|-------|-------|
| Input | 1 (±) | 3 (〒) |
| Output | 2 (±) | 4 (〒) |

●Input Current Derating Curve



Note : R_{in} of Hall element decreases rapidly as ambient temperature increases. Ensure compliance with input current derating curve envelope, throughout the operating temperature range.

●Input Voltage Derating Curve

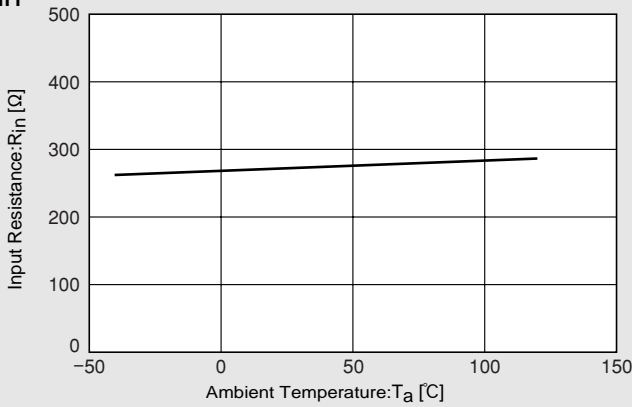


Note : For constant-voltage drive, stay within this input voltage derating curve envelope.

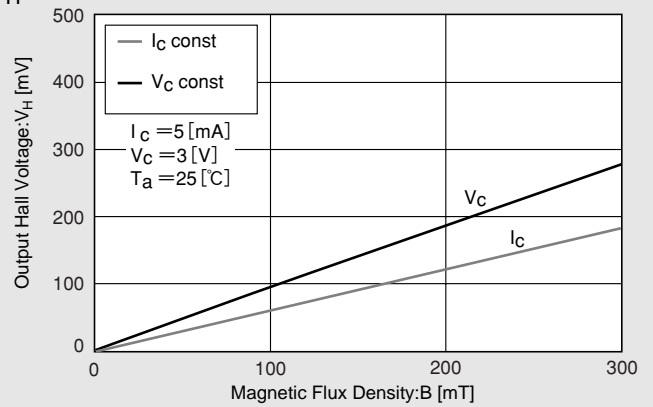
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- Handling precautions required for preventing electrostatic discharge.
- This product contains gallium arsenide (GaAs). Handling and discarding precautions required.

●Characteristic Curves

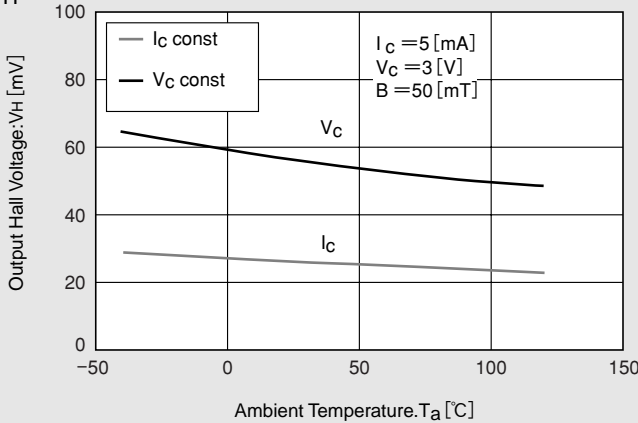
R_{in} -T



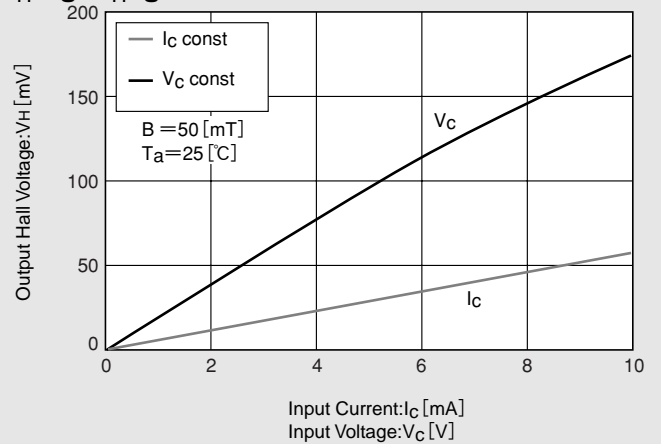
V_H -B



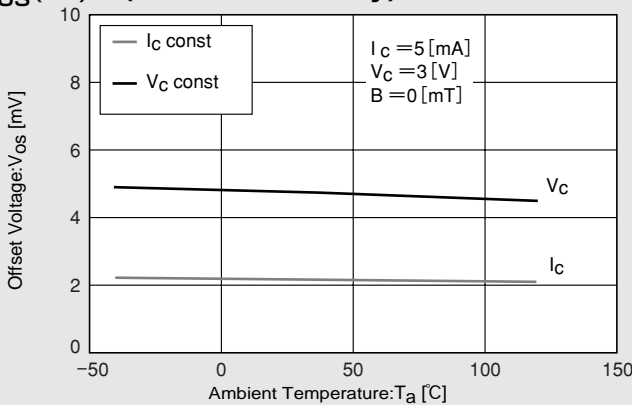
V_H -T



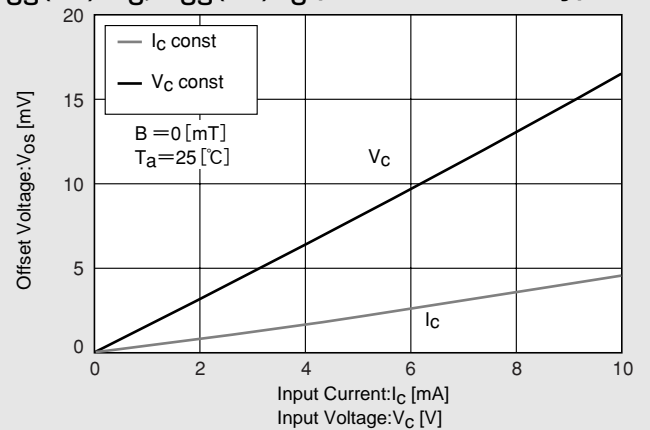
V_H - V_C , V_H - I_C



$V_{OS}(V_u)$ -T (For reference only)



$V_{OS}(V_u)$ - V_C , $V_{OS}(V_u)$ - I_C (For reference only)



※Magnetic Flux Density
1 [mT] = 10 [G]

in This Example: R_{in} = 275 [Ω], V_{OS} = 4.7 [mV] [V_c = 3 [V]]

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ASAHI KASEI EMD CORPORATION

Headquarters

1-23-7 Nishi-Shinjyuku, Shinjyuku-ku, Tokyo 160-0023, Japan

TEL : +81-3-6911-2800 FAX : +81-3-6911-2815

Osaka Office

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

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

Europe Office

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

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

Shanghai Office

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

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

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 Dr 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.akemd.com>

North American Distributor: GMW Associates

955 Industrial Rd, San Carlos, CA 94070, USA

TEL. +1-650-802-8292 FAX. +1-650-802-8298

EMAIL sales@gmw.com WEB www.gmw.com