

HG-0115

Shipped in packet-tape reel(5,000pcs per reel)

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 Voltage | V_C | 8 | V |
| Max. Input Power | P_D | 150 | mW |
| Operating Temp. Range | $T_{opr.}$ | -40 ~ +125 | °C |
| Storage Temp. Range | $T_{stg.}$ | -40 ~ +150 | °C |



●Electrical Characteristics($T_a=25^\circ\text{C}$)

| Item | Symbol | Conditions | Min. | Typ. | Max. | Unit |
|-------------------------------|-------------------|--|-------|-------|-------|----------|
| Output Hall Voltage | V_H^* | $B=50\text{mT}, V_C=6\text{V}$ | 80 | | 110 | mV |
| Input Resistance | R_{in} | $B=0\text{mT}, I_C=0.1\text{mA}$ | 2,200 | 2,400 | 3,200 | Ω |
| Output Resistance | R_{out} | $B=0\text{mT}, I_C=0.1\text{mA}$ | 4,400 | 4,800 | 6,400 | Ω |
| Offset Voltage | $V_{os}(V_o)$ | $B=0\text{mT}, V_C=6\text{V}$ | -8 | | 8 | mV |
| Temp. Coefficient of V_H | αV_H^* | $B=50\text{mT}, I_C=1\text{mA}$ $T_a=25\sim 125^\circ\text{C}$ | | | -0.08 | %/°C |
| Temp. Coefficient of R_{in} | αR_{in}^* | $B=0\text{mT}, I_C=0.1\text{mA}$ $T_a=25\sim 125^\circ\text{C}$ | | | 0.3 | %/°C |
| Linearity | ΔK^* | $B=0.1/0.5\text{T}, I_C=1\text{mA}$ | | | 2 | % |

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

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

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

$$4. \Delta K = \frac{K(B_1) - K(B_2)}{[K(B_1) + K(B_2)]/2} \times 100$$

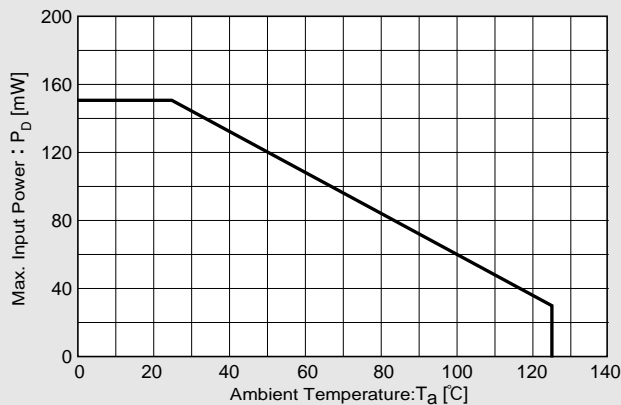
$$T_1 = 25^\circ\text{C}, T_2 = 125^\circ\text{C}$$

$$K = \frac{V_H}{I_C \cdot B}$$

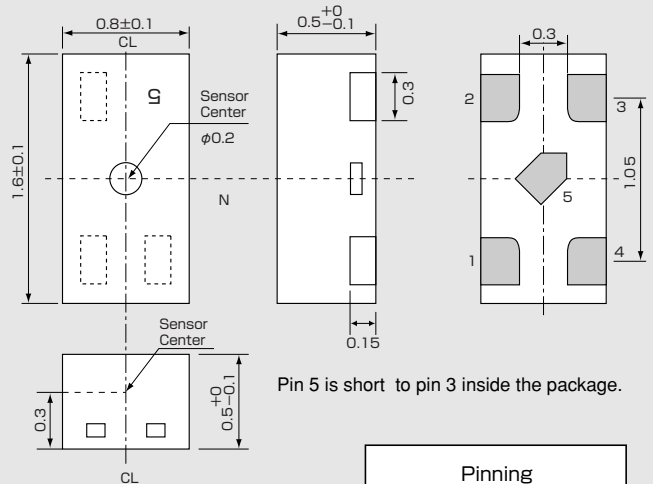
$$B_1 = 0.5\text{T}, B_2 = 0.1\text{T}$$

●Characteristic Curves

Allowable Package Power Dissipation



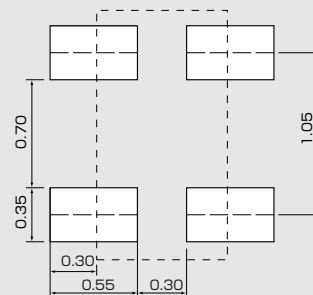
●Dimensional Drawing(Unit : mm)



Pin 5 is short to pin 3 inside the package.

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

●Land pattern (for reference only)(Unit : mm)

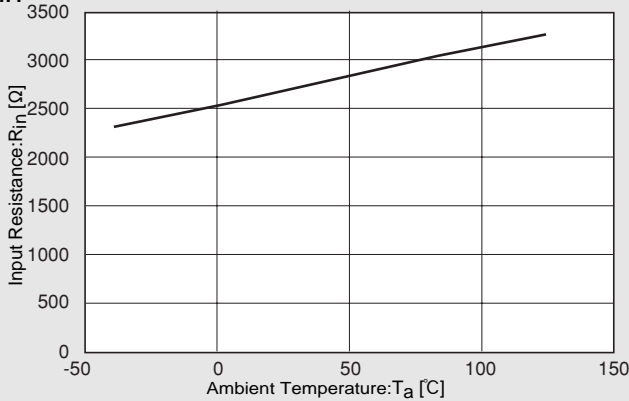


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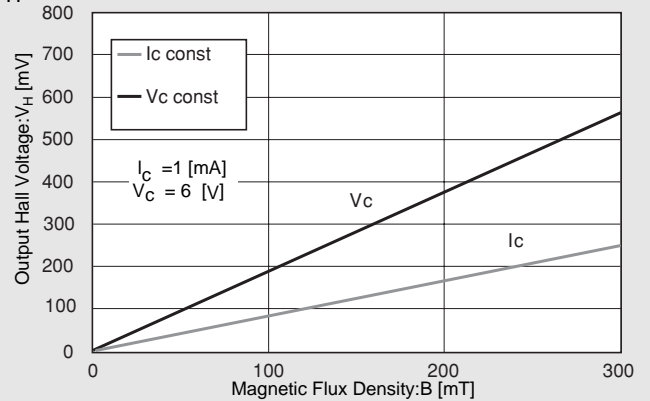
- Handling precautions required for preventing electrostatic discharge.
- This product contains gallium arsenide (GaAs). Handling and discarding precautions required.

●Characteristic Curves

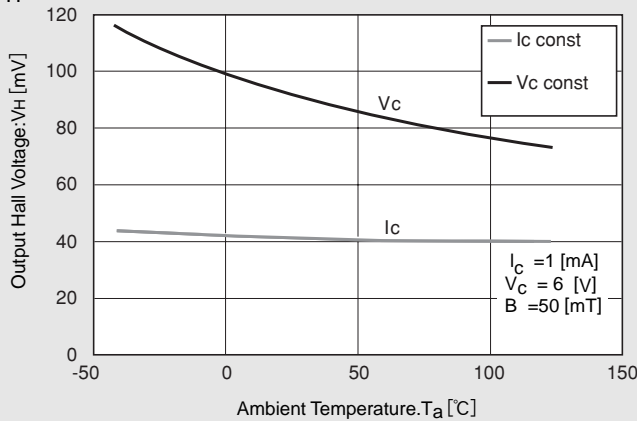
$R_{in}-T$



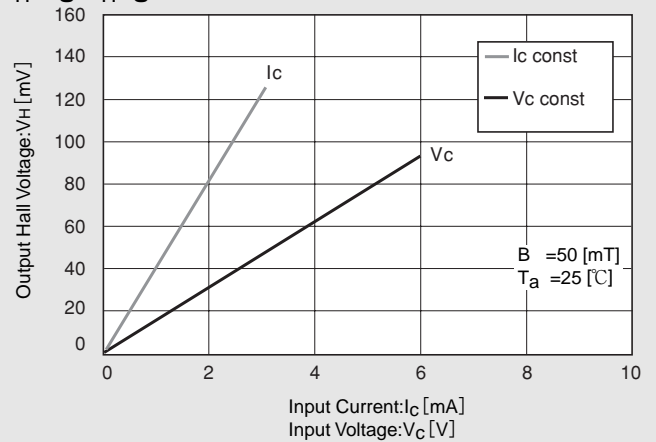
V_H-B



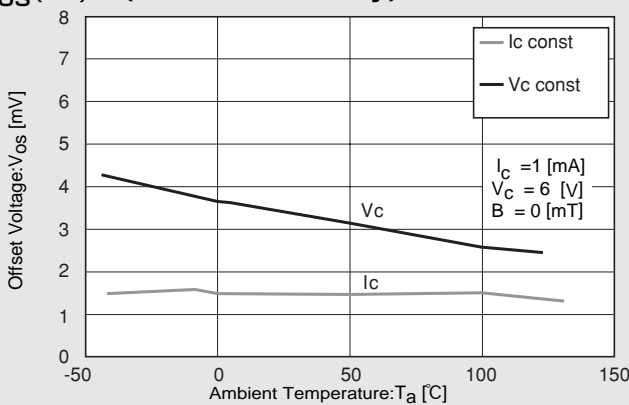
V_H-T



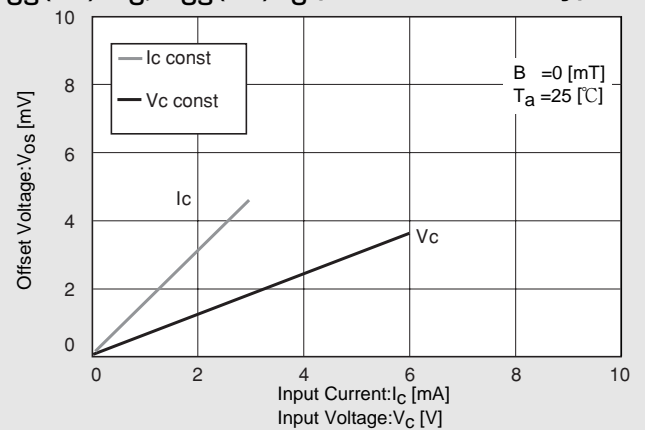
V_H-V_C, V_H-I_C



$V_{OS}(V_u)-T$ (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 : $R_{in}=2659$ [Ω], $V_{OS}=3.44$ [mV], $V_c=6$ [V]

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June 2, 2010