

HG-0111

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	10	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^*	$B=50\text{mT}, V_C=6\text{V}$	55		75	mV
Input Resistance	R_{in}	$B=0\text{mT}, I_C=0.1\text{mA}$	650		850	Ω
Output Resistance	R_{out}	$B=0\text{mT}, I_C=0.1\text{mA}$	650		850	Ω
Offset Voltage	$V_{os}(V_o)$	$B=0\text{mT}, V_C=6\text{V}$	-11		+11	mV
Temp. Coefficient of V_H	αV_H^*	$B=50\text{mT}, I_C=5\text{mA}$ $T_a=25\sim 125^\circ\text{C}$			-0.06	%/°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^*	$B=0.1/0.5\text{T}, I_C=5\text{mA}$			2	%

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

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

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

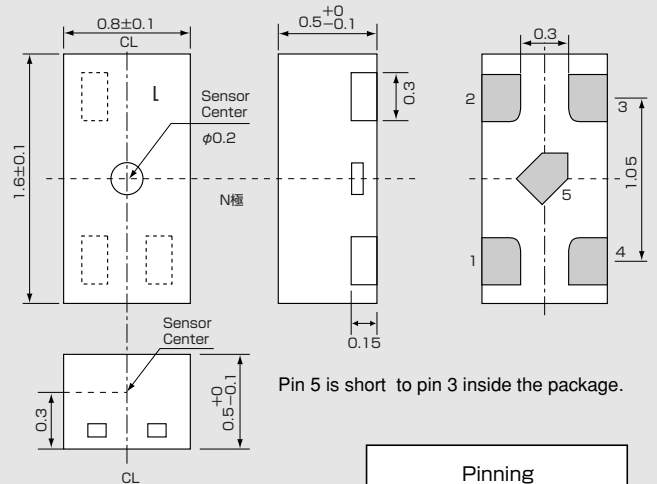
$$4. \Delta K = \frac{K(B_1) - K(B_2)}{[K(B_1) + K(B_2)]/2} \times 100$$

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

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

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

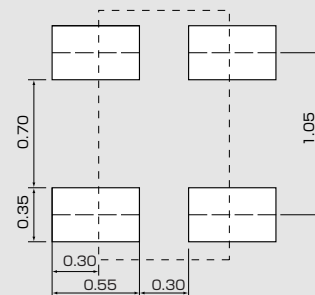
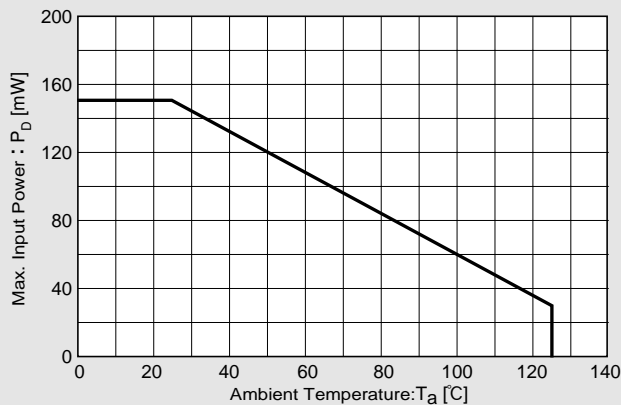
●Dimensional Drawing(Unit : mm)



Pinning		
Input	1 (±)	3 (∓)
Output	2 (±)	4 (∓)

●Characteristic Curves

Allowable Package Power Dissipation



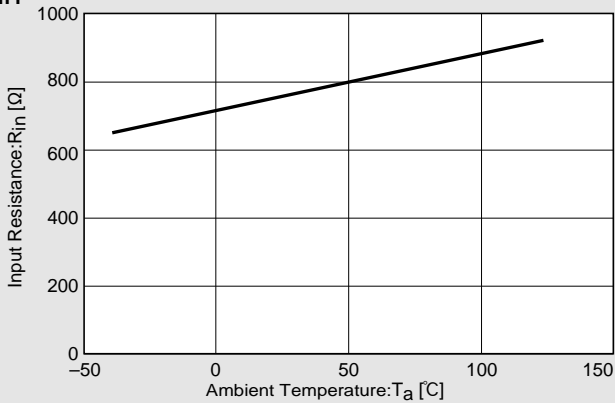
•Please be aware that our products are not intended for use in life support equipment, devices, or systems. Use of our products in such applications requires the advance written approval of our sales staff.
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•Handling precautions required for preventing electrostatic discharge.

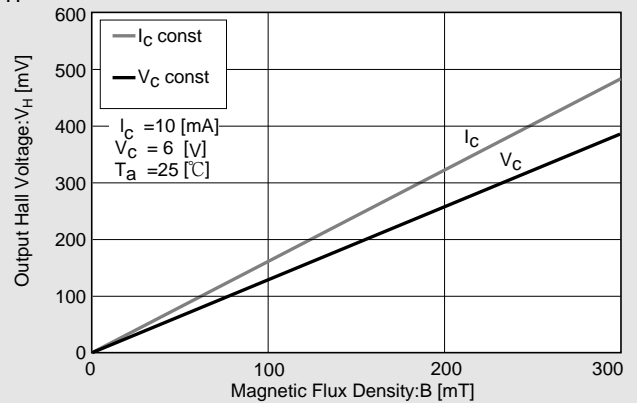
•This product contains gallium arsenide (GaAs). Handling and discarding precautions required.

●Characteristic Curves

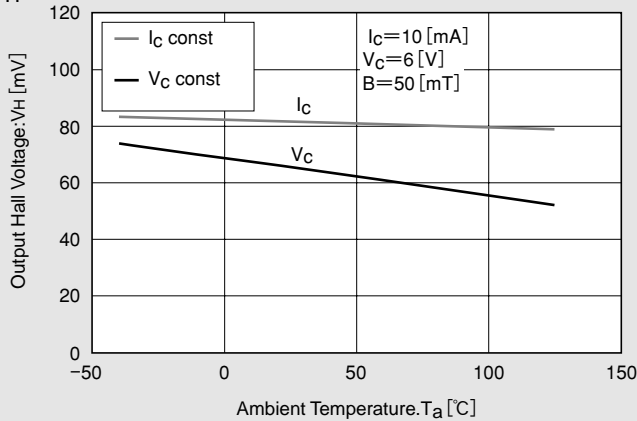
$R_{in}-T$



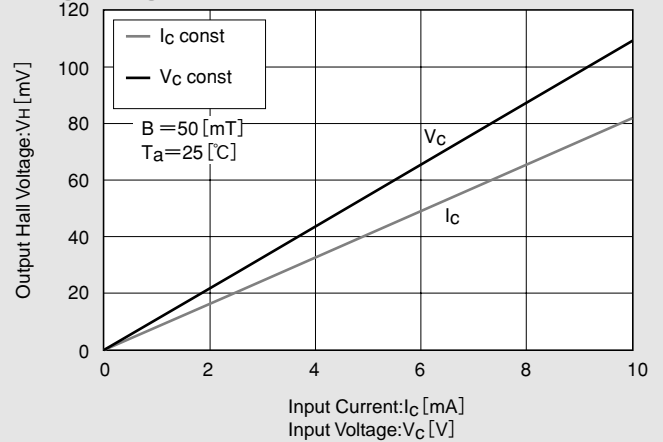
V_H-B



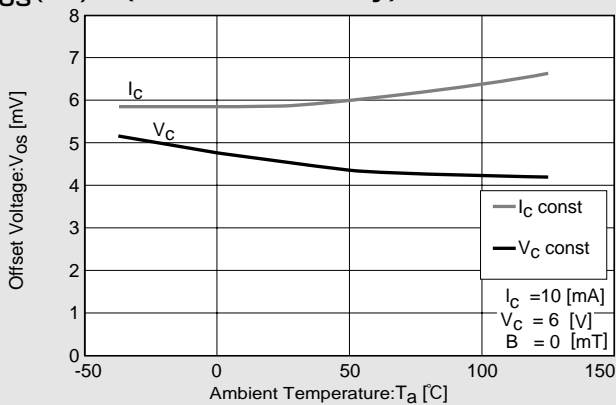
V_H-T



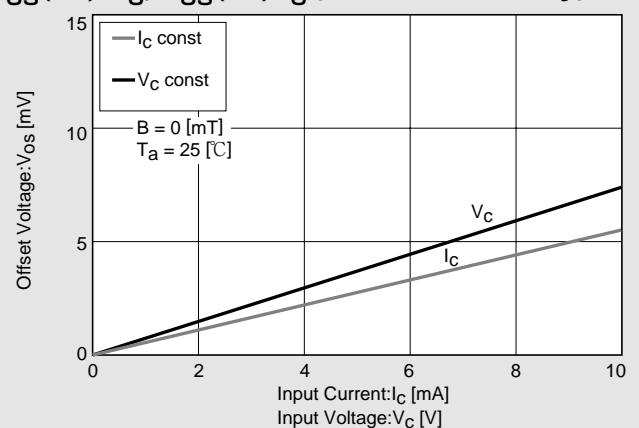
V_H-V_C, V_H-I_C



$V_{OS}(V_u)-T$ (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 : $R_{in}=750$ [Ω], $V_{OS}=4.6$ [mV], [$V_C=6$ (V)]



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June 2, 2010

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