

HG-106R

Shipped in packet-tape reel(4,000pcs 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 (Ta=25°C)

Item	Symbol	Limit	Unit
Max. Input Voltage	V_C	8	V
Max. Input Power	P_D	150	mW
Operating Temp. Range	Topr.	-40 ~ +125	°C
Storage Temp. Range	Tstg.	-40 ~ +150	°C



●Electrical Characteristics (Ta=25°C)

Item	Symbol	Conditions	Min.	Typ.	Max.	Unit
Output Hall Voltage	V_H^*	B=50mT, $V_C=6V$	75		95	mV
Input Resistance	R_{in}	B=0mT, $I_C=0.1mA$	450		750	Ω
Output Resistance	R_{out}	B=0mT, $I_C=0.1mA$	1,000		2,000	Ω
Offset Voltage	$V_{os}(Vu)$	B=0mT, $V_C=6V$	-16		+16	mV
Temp. Coefficient of V_H	αV_H^*	B=50mT, $I_C=5mA$ Ta=25~125°C			-0.06	%/°C
Temp. Coefficient of R_{in}	αR_{in}^*	B=0mT, $I_C=0.1mA$ Ta=25~125°C			0.3	%/°C
Linearity	ΔK^*	B=0.1/0.5T, $I_C=5mA$			2	%

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

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

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

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

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

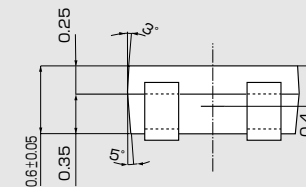
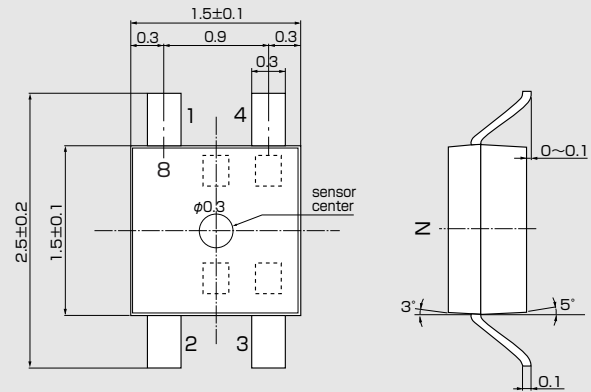
$$K = \frac{V_H}{I_C \cdot B}$$

$$B_1 = 0.5T, B_2 = 0.1T$$

●Taping



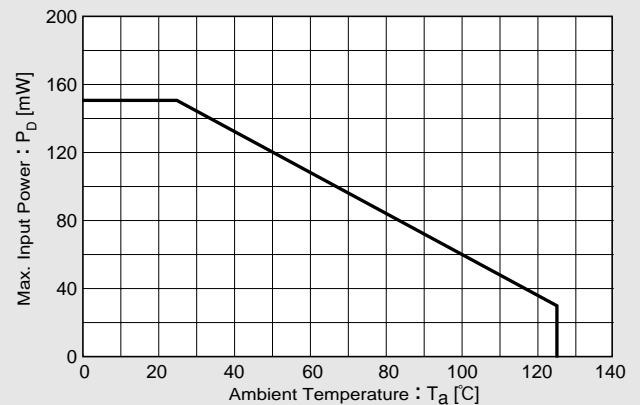
●Dimensional Drawing (Unit : mm)



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

●Characteristic Curves

Allowable Package Power Dissipation



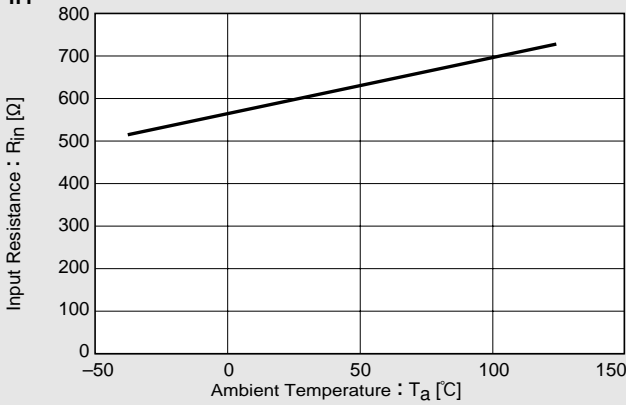
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•Handling precautions required for preventing electrostatic discharge.

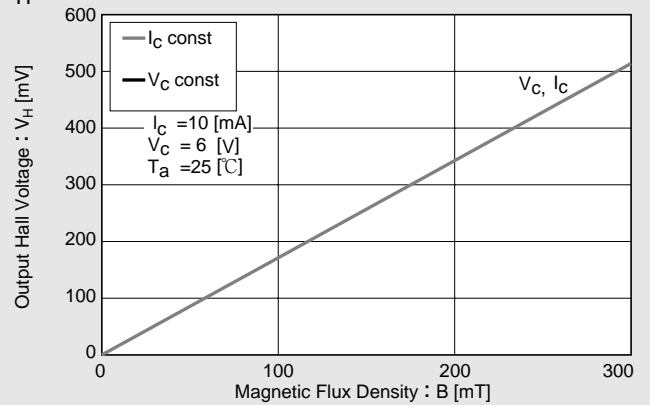
•This product contains gallium arsenide (GaAs) .Handling and discarding precautions required.

●Characteristic Curves

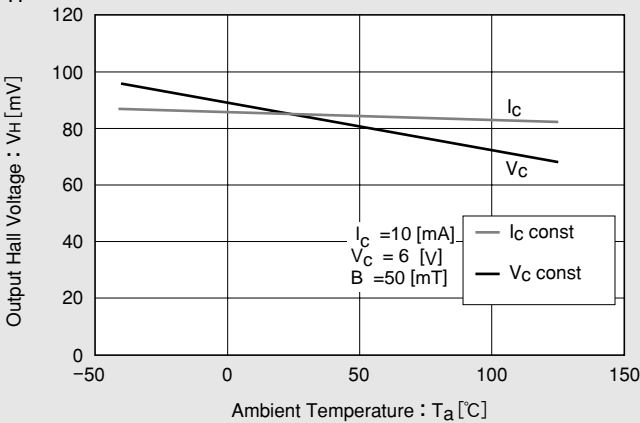
R_{in} -T



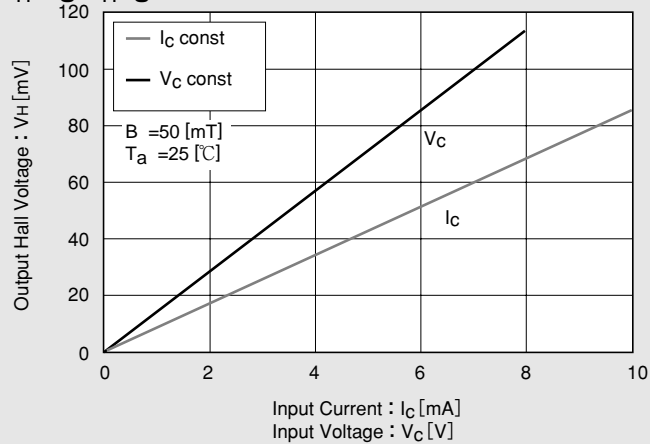
V_H -B



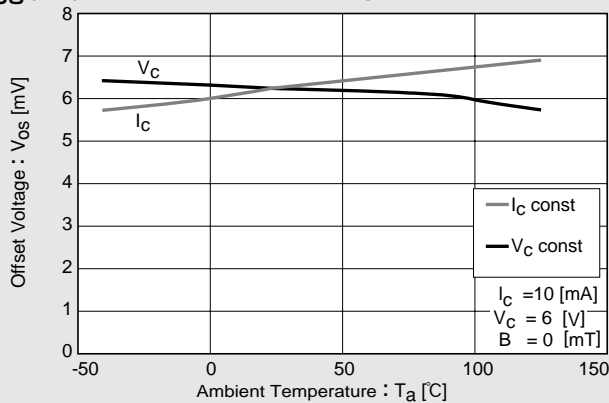
V_H -T



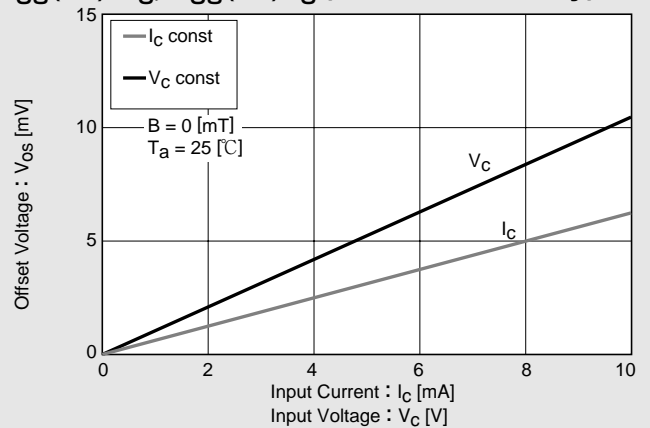
V_H - V_C , V_H - I_C



$V_{OS}(V_u)$ -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} =600 [Ω] , V_{OS} =6.3 [mV] , V_C =6 [V]

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June 2, 2010