

# HG-176A

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

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, $V_C=6V$	78		102	mV
Input Resistance	$R_{in}$	B=0mT, $I_C=0.1mA$	1,600	2,000	2,400	$\Omega$
Output Resistance	$R_{out}$	B=0mT, $I_C=0.1mA$	3,200	4,000	4,800	$\Omega$
Offset Voltage	$V_{os}(V_U)$	B=0mT, $V_C=6V$	-8		8	mV
Temp. Coefficient of $V_H$	$\alpha V_H^*$	B=50mT, $I_C=1mA$ Ta=25~125°C			-0.07	%/°C
Temp. Coefficient of $R_{in}$	$\alpha R_{in}^*$	B=0mT, $I_C=0.1mA$ Ta=25~125°C			0.3	%/°C
Linearity	$\Delta K^*$	B=0.1/0.5T, $I_C=1mA$			2	%

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

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

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

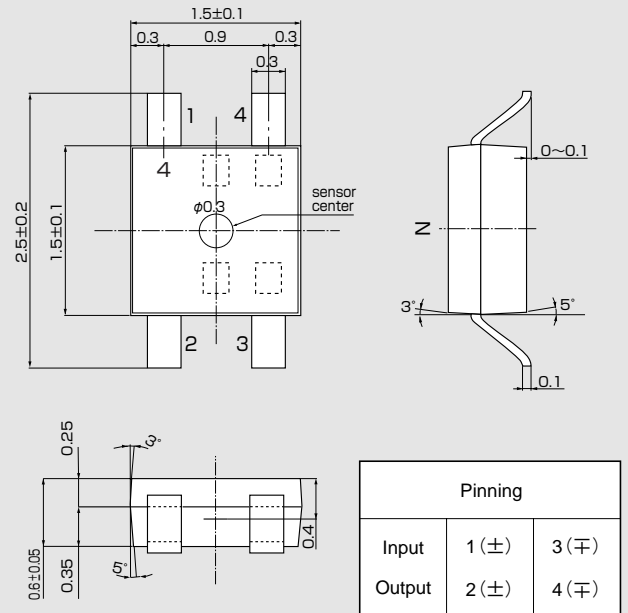
$$4. \Delta K = \frac{K(B_1) - K(B_2)}{[K(B_1) + K(B_2)]/2} \times 100$$

$$T_1 = 25^\circ C, T_2 = 125^\circ C$$

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

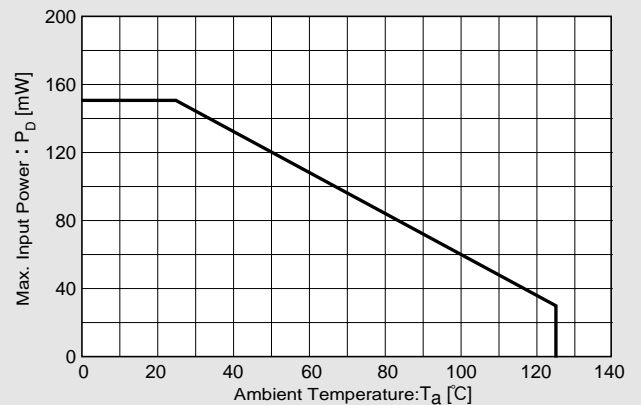
$$B_1 = 0.5T, B_2 = 0.1T$$

## ●Dimensional Drawing (Unit : mm)



## ●Characteristic Curves

### Allowable Package Power Dissipation

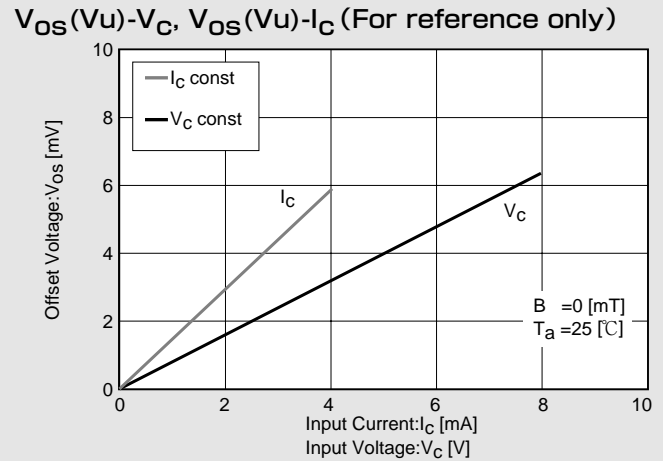
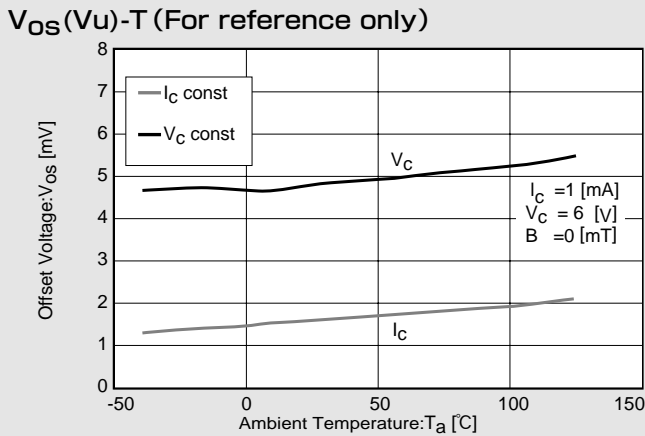
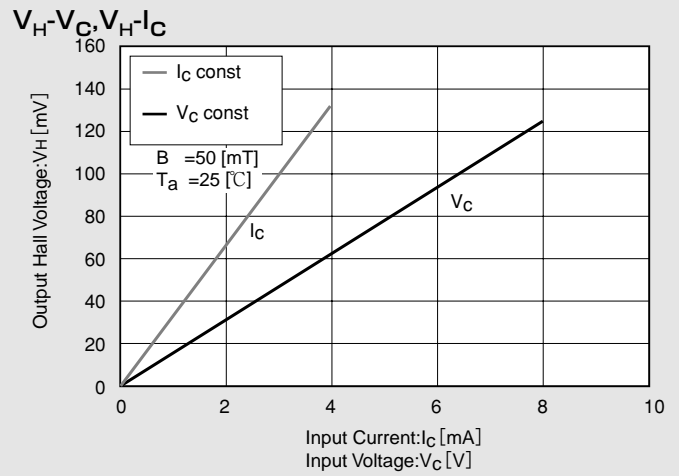
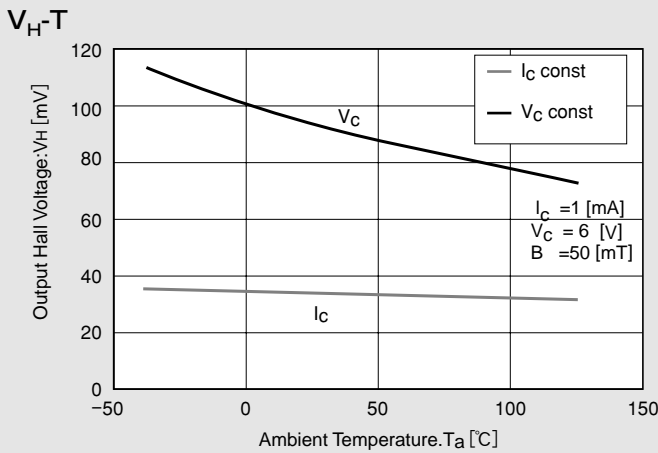
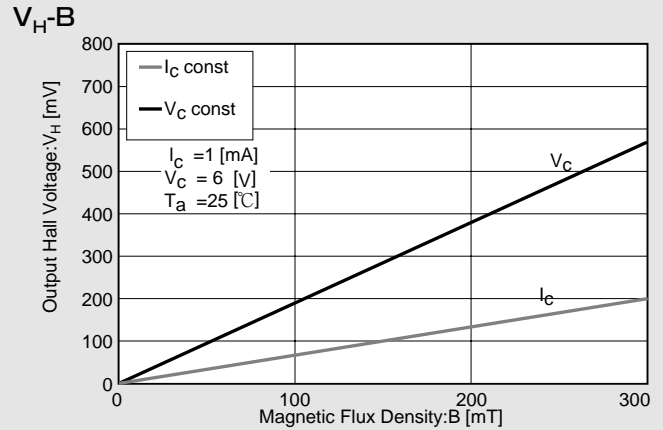
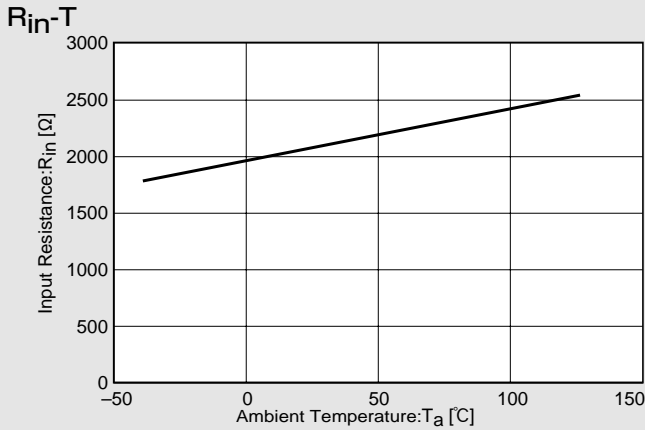


## ●Taping



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

●Characteristic Curves



※Magnetic Flux Density  
1[mT]=10[G]

In This Example :  $R_{in}=2064$  [ $\Omega$ ],  $V_{OS}=4.78$  [mV], [ $V_C=6$  [V]]

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June 2, 2010