

HG-302A

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 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

注) 制限抵抗がない場合は、最大入力電圧の範囲以内でご使用下さい。

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

Item	Symbol	Conditions	Min.	Typ.	Max.	Unit
Output Hall Voltage	V_H^{**}	$B=50\text{mT}, V_C=6\text{V}$	75		95	mV
Input Resistance	R_{in}	$B=0\text{mT}, I_C=0.1\text{mA}$	450		750	Ω
Output Resistance	R_{out}	$B=0\text{mT}, I_C=0.1\text{mA}$	1,000		2,000	Ω
Offset Voltage	$V_{os}(V_U)$	$B=0\text{mT}, V_C=6\text{V}$	-16		+16	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. $V_H = V_{HM} - V_{os}(V_U)$ (V_{HM} :meter indication)

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

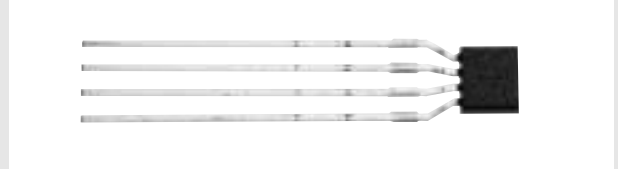
$$3. \alpha R_{in} = \frac{1}{R_{in}(T_1)} \times \frac{R_{in}(T_2) - R_{in}(T_1)}{(T_2 - T_1)} \times 100$$

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

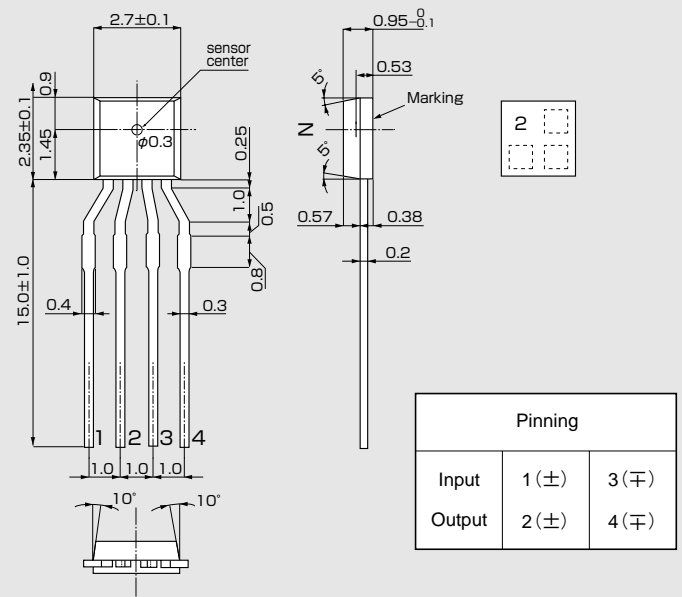
$$T_1 = 25^\circ\text{C}, T_2 = 125^\circ\text{C}$$

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

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

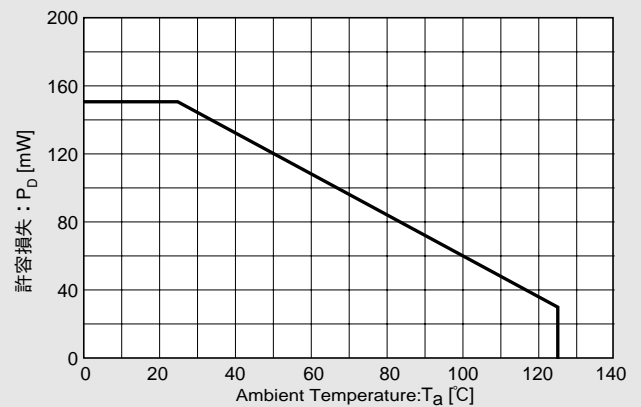


●Dimensional Drawing(Unit : mm)



●Characteristic Curves

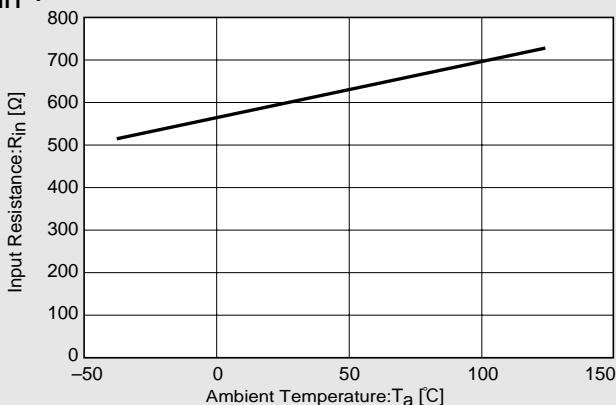
Allowable Package Power Dissipation



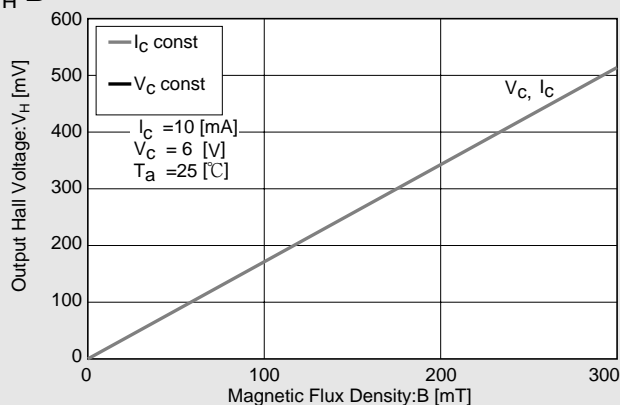
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Certain applications using semiconductor devices may involve potential risks of personal injury, property damage, or loss of life. In order to minimize these risks, adequate design and operating safeguards should be provided by the customer to minimize inherent or procedural hazards. Inclusion of our products in such applications is understood to be fully at the risk of the customer using our devices or systems.
- Handling precautions required for preventing electrostatic discharge.
- This product contains gallium arsenide (GaAs) .Handling and discarding precautions required.

●Characteristic Curves

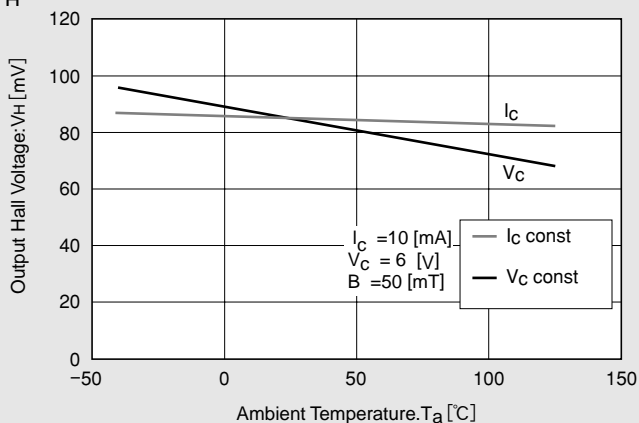
$R_{in}-T$



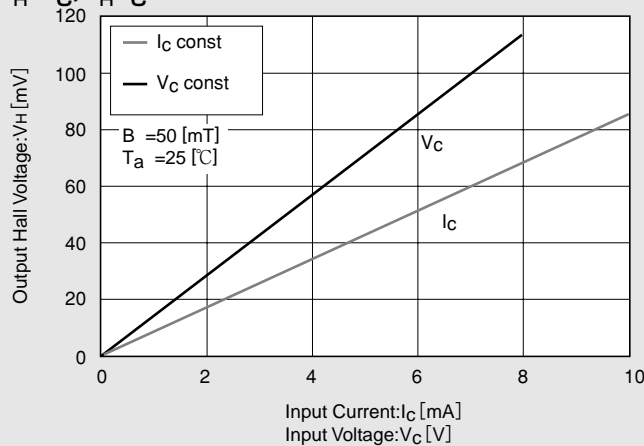
V_H-B



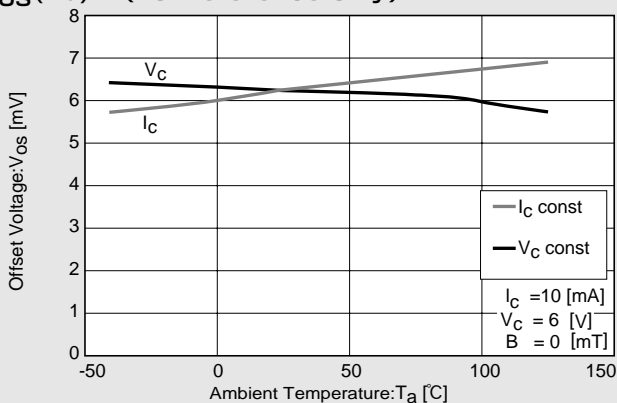
V_H-T



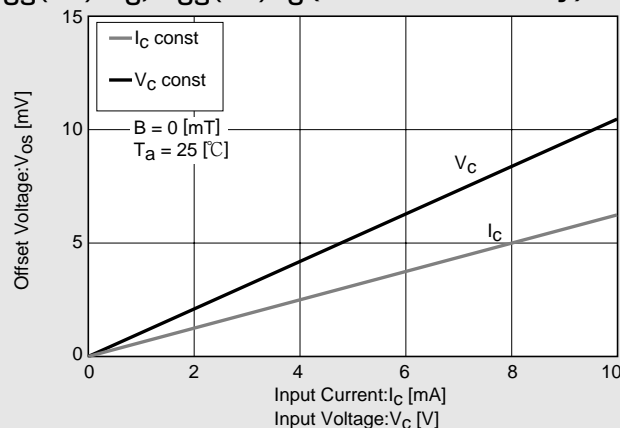
V_H-V_C, V_H-I_C



$V_{OS}(V_u)-T$ (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 : $R_{in}=600[\Omega]$, $V_{OS}=6.3[mV]$, $[V_c=6[V]]$

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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