

HW-108C

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 Current	I_C	Const. Current Drive	20	mA
Operating Temp. Range	Topr.		-40 ~ +110	°C
Storage Temp. Range	Tstg.		-40 ~ +125	°C

Note : For constant-voltage drive, stay within this input voltage derating curve envelope.

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

Item	Symbol	Conditions	Min.	Typ.	Max.	Unit
Output Hall Voltage	V_H^*	Const. Voltage Drive B=50mT, $V_C=1\text{V}$	41		74	mV
Input Resistance	R_{in}	B=0mT, $I_C=0.1\text{mA}$	250		450	Ω
Output Resistance	R_{out}	B=0mT, $I_C=0.1\text{mA}$	250		450	Ω
Offset Voltage	$V_{os}(V_u)$	B=0mT, $V_C=1\text{V}$	-7		+7	mV
Temp. Coefficient of V_H	αV_H^*	Average on 0~40°C B=50mT, $I_C=5\text{mA}$		-1.8		%/°C
Temp. Coefficient of R_{in}	αR_{in}^*	Average on 0~40°C B=0mT, $I_C=0.1\text{mA}$		-1.8		%/°C
Dielectric Strength		100V D.C	1.0			M Ω

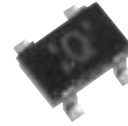
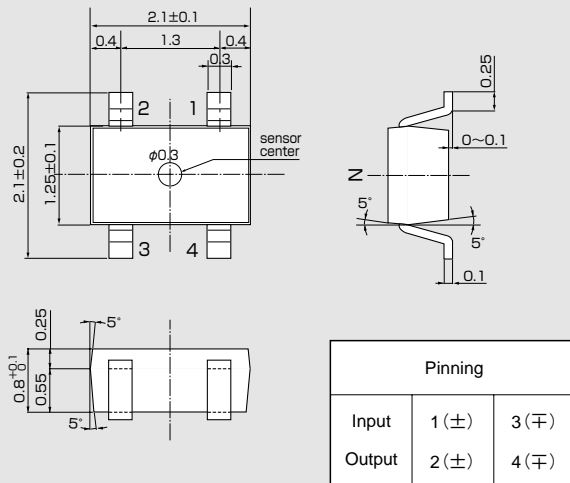
Notes : 1. $V_H = V_{HM} - V_{os}(V_u)$ (V_{HM} :meter indication)

$$2. \alpha V_H = \frac{1}{V_H(T_1)} \times \frac{V_H(T_3) - V_H(T_2)}{(T_3 - T_2)} \times 100$$

$$3. \alpha R_{in} = \frac{1}{R_{in}(T_1)} \times \frac{R_{in}(T_3) - R_{in}(T_2)}{(T_3 - T_2)} \times 100$$

$$T_1 = 20^\circ\text{C}, T_2 = 0^\circ\text{C}, T_3 = 40^\circ\text{C}$$

●Dimensional Drawing(Unit : mm)

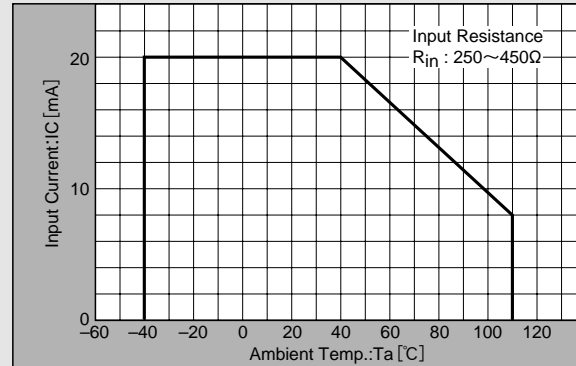


●Classification of Output Hall Voltage (V_H)

Rank	V_H [mV]	Conditions
Q	41 ~ 57	B=50mT, $V_C=1\text{V}$ Constant Voltage Drive
R	51 ~ 74	

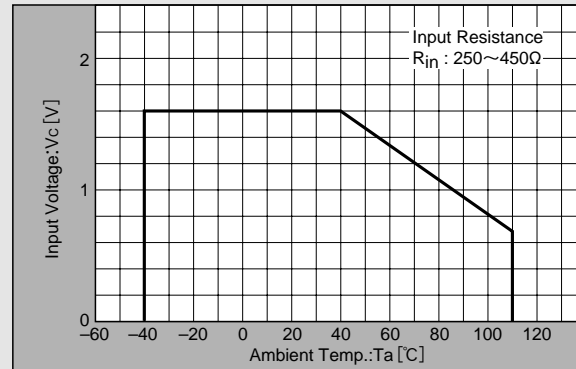
Note : When ordering, specify both Q and R rank.

●Input Current Derating Curve



Note : R_{in} of Hall element decreases rapidly as ambient temperature increases. Ensure compliance with input current derating curve envelope, throughout the operating temperature range.

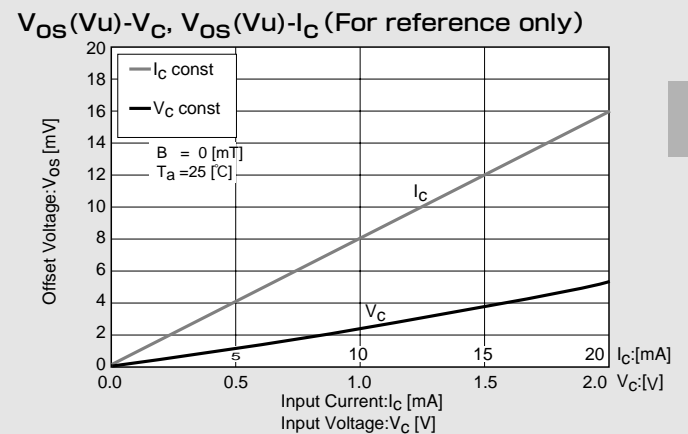
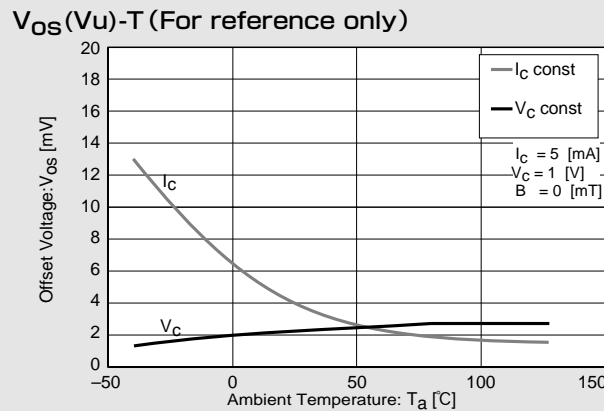
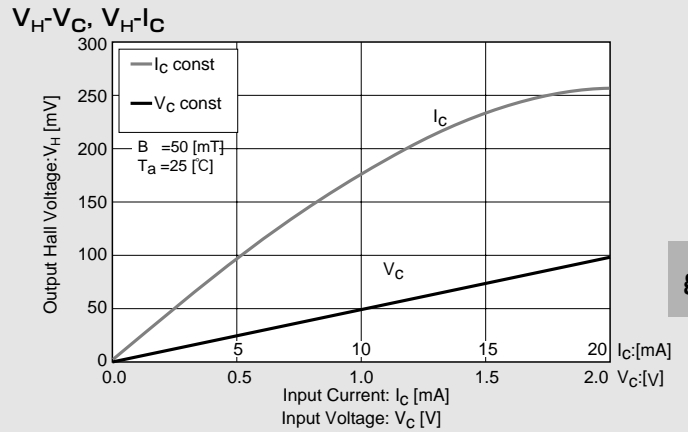
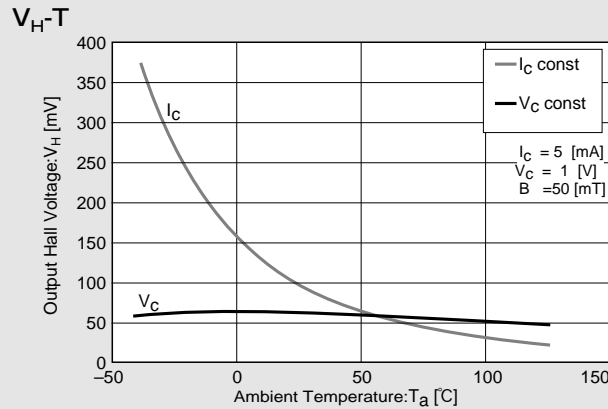
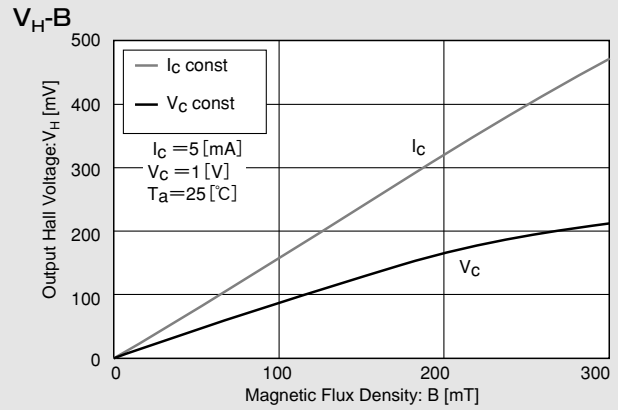
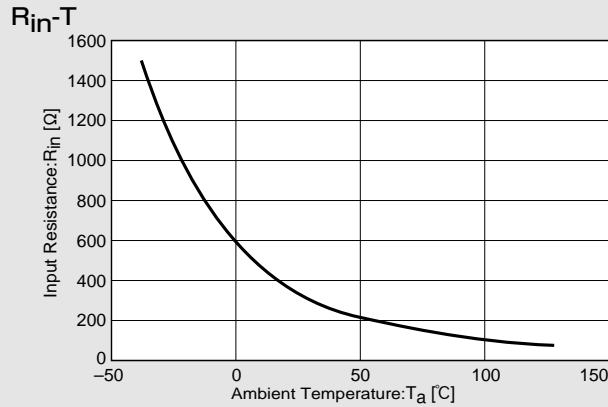
●Input Voltage Derating Curve



Note : For constant-voltage drive, stay within this input voltage derating curve envelope.

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●Characteristic Curves



※Magnetic Flux Density
 1[mT]=10[G]

In This Example : $R_{in}=340$ [Ω], $V_{OS}=2.4$ [mV], $[V_C=1$ [V]]

b

c

00

j

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ASAHI KASEI EMD CORPORATION

Headquarters

1-23-7 Nishi-Shinjuku, Shinjuku-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
URL <http://www.asahi-kasei.co.jp/ake/en/>

Europe Office

Market House, 19/21 Market Place, Wokingham, Berkshire, RG40 1AP, U.K.
TEL : +44-118-979-5777 FAX : +44-118-979-7885
URL <http://www.akm.com/>

Shanghai Office

Room2321, Shanghai Central Plaza, 381 Huaihai Zhong Road, Shanghai 200020, China
TEL. +86-21-6391-6111 FAX. +86-21-6391-6686
URL <http://www.akm.com/>

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 Drive Suite 500 San Jose, CA95110, 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.akm.com/>

March 1 2008