

# SH-42C\_(Symmetry)

# GaAs Hall Sensor

Shipped in bulk (800pcs per pack)

Notice : Please check the important points on the back of this catalog when reviewing this product.

### Absolute Maximum Ratings

Parameter	Symbol	Rating	Unit
Maximum Input Current	Vc	10	V
Maximum Input Power	Pd	150	mW
Operating Temp. Range	Topr	-40 ~ +120	°C
Storage Temp. Range	Tstg	-40 ~ +150	°C

### Electrical Specifications

Parameter	Symbol	Conditions	Min.	Max.	Unit
Output Hall Voltage	Vh	Vc=6V, B=50mT	55	75	mV
Input Resistance	Rin	Ic=0.1mA, B=0mT	650	850	Ω
Output Resistance	Rout	Ic=0.1mA, B=0mT	650	850	Ω
Offset Voltage	Vo	Vc=6V, B=0mT	-8	+8	mV
Temp. Coeff. Of Vh	αVh	Ta=25~125°C B=50mT, Ic=5mA		-0.07	%/°C
Temp. Coeff. Of Rin, Rout	αRin	Ta=25~125°C B=0mT, Ic=0.1mA		0.3	%/°C
Linearity	ΔK	B=0.1/0.5T, Ic=5mA	-2	+2	%

※ Note.

1) Vh = Vhm - Vo ( Vhm : measured at 50mT)

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

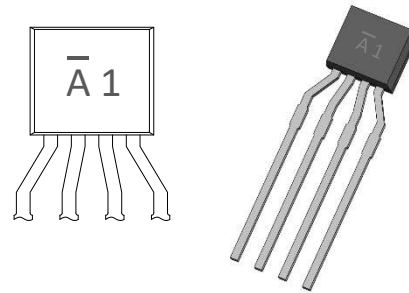
$$3) \alpha Rin = \frac{1}{Rin(T_1)} \times \frac{Rin(T_2) - Rin(T_1)}{(T_2 - T_1)} \times 100\%$$

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

5) T<sub>1</sub> = 25°C, T<sub>2</sub> = 125°C      B<sub>1</sub> = 0.5T, B<sub>2</sub> = 0.1T

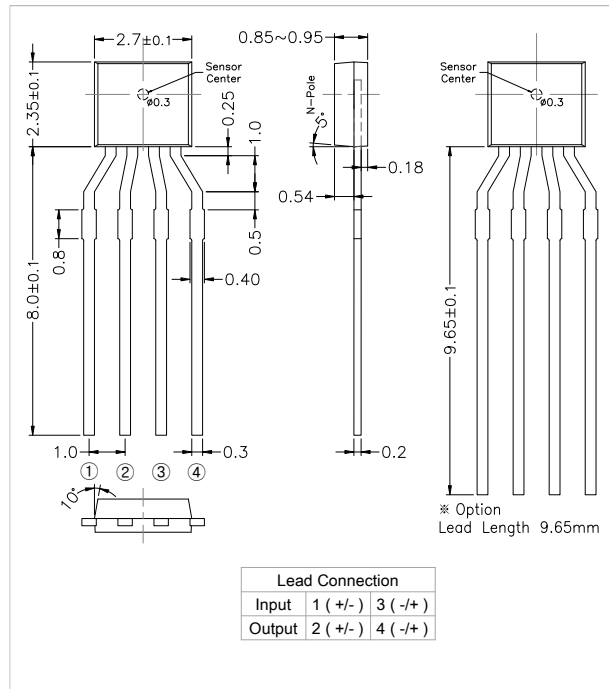
$$K = \frac{Vh}{Ic * B}$$

### Marking (by Laser)



※ 1'st Character & Bar : Production Year/Month  
2'nd Character : Production Date

### Dimension Drawing (Unit : mm)



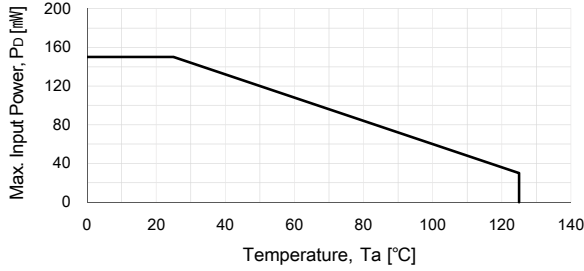
This product is not guaranteed or intended to be used for highly reliable purposes, such as medical, aerospace, transport, traffic signal, combustion, nuclear control, and various safety devices, in which failure or malfunction of the equipment is usually expected to cause serious damage to life, body, property, etc. Therefore, please do not use this product for these purposes unless otherwise authorized by us in writing. In the unlikely event that this product is used for these purposes, we shall not be liable for any damages arising from such use.

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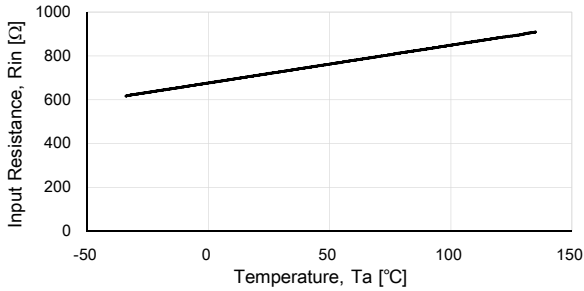
**GaAs Hall Sensor**

Characteristic Curves

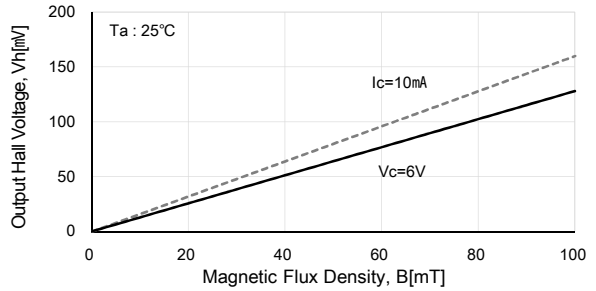
■ Allowable Package Power Dissipation



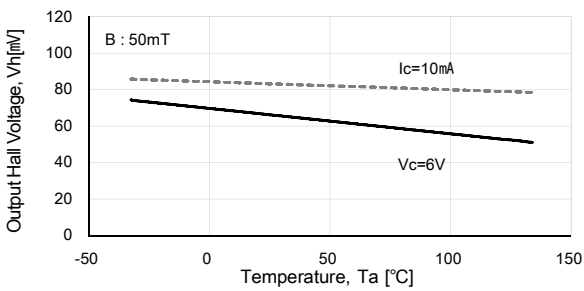
■ Rin-T



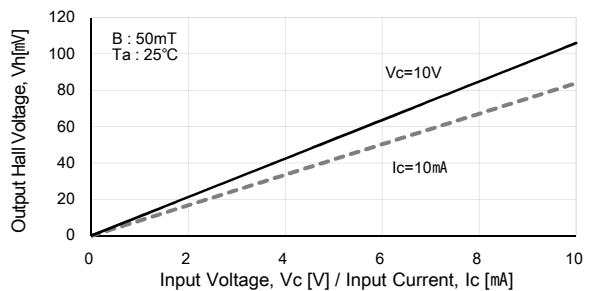
■ Vh-B



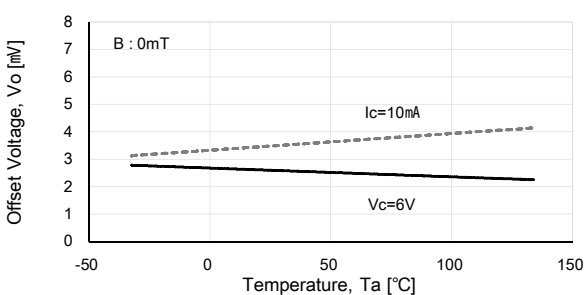
■ Vh-T



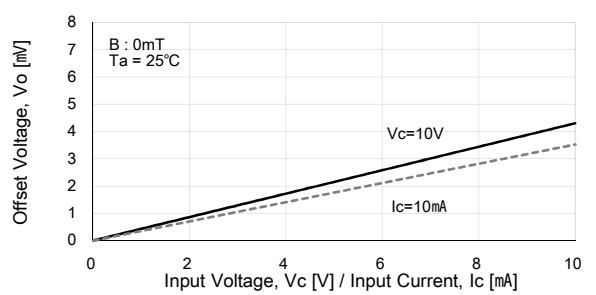
■ Vh-Vc, Vh-Ic



■ Vo-T (Reference)



■ Vo-Vc, Vo-Ic (Reference)



## IMPORTANT NOTICE

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