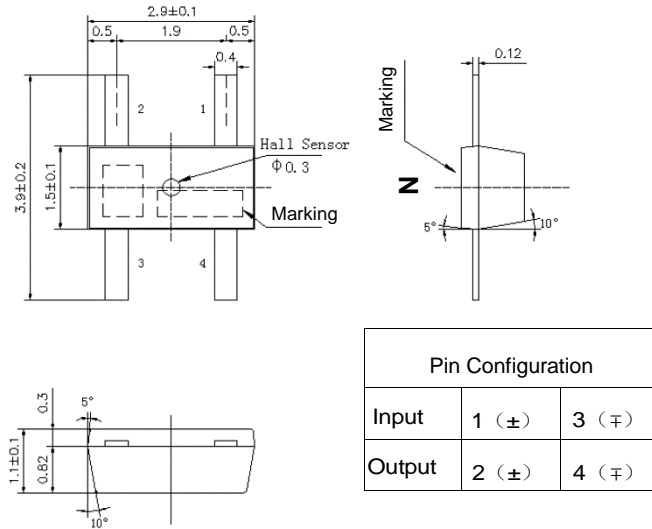


**Features**

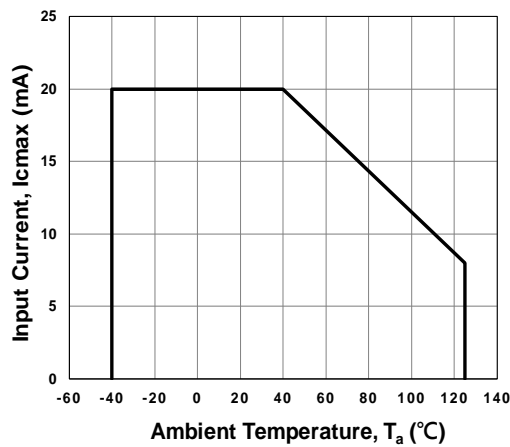
- Ultra High-sensitivity InSb Hall element
- Classic SOT Package
- Shipped in packet-tape reel (3,000pcs per reel)

**Dimensional Drawing (Unit: mm)**



**Absolute Maximum Rating**

Symbol	Parameter	Rating	Units
T <sub>STG</sub>	Storage Temperature Range	-55 to 150	°C
T <sub>opr</sub>	Operating Temperature Range	-40 to 125	°C
I <sub>C</sub>	Maximum Input Current	20	mA



**Input current Detraing**

**Table 1. Electrical Characteristics ( T<sub>a</sub> = 25°C )**

Item	Symbol	Test Conditions.	Min.	Typ.	Max.	Unit
Hall Voltage	V <sub>H</sub>	B = 50mT, V <sub>C</sub> =1V	168	---	516	mV
Input Resistance	R <sub>in</sub>	B = 0mT, I <sub>C</sub> = 0.1mA	240	---	550	Ω
Output Resistance	R <sub>out</sub>	B = 0mT, I <sub>C</sub> = 0.1mA	240	---	550	Ω
Offset Voltage	V <sub>os</sub>	B = 0mT, V <sub>C</sub> = 1V	-5	---	+5	mV
Temp. Coeffi. of V <sub>H</sub>	αV <sub>H</sub>	B = 50mT, I <sub>C</sub> = 5mA, T <sub>a</sub> = 0°C ~ 40°C	---	-1.8	---	%/°C
Temp. Coeffi. of R <sub>in</sub>	αR <sub>in</sub>	B = 0mT, I <sub>C</sub> = 0.1mA, T <sub>a</sub> = 0°C ~ 40°C	---	-1.8	---	%/°C
Dielectric strength		100V D.C	1.0	---	---	MΩ

Note:

$$1. \quad V_H = V_{H-M} - V_{os}$$

In which V<sub>H-M</sub> is the Output Hall Voltage, V<sub>H</sub> is the Hall Voltage and V<sub>os</sub> is the offset Voltage under the identical electrical stimuli.

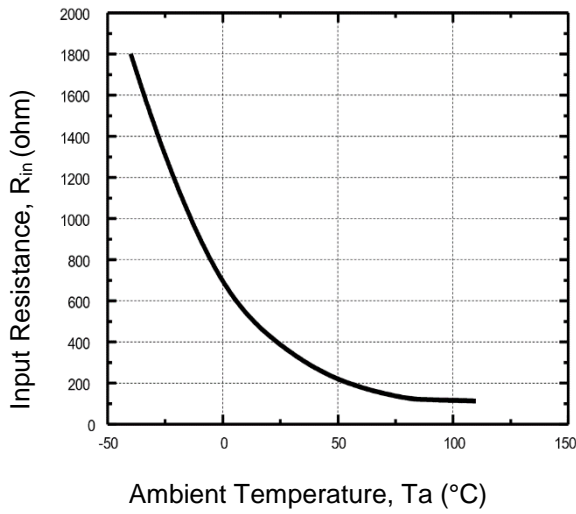
$$2. \quad \alpha V_H = \frac{1}{V_H(T_1)} \times \frac{V_H(T_3) - V_H(T_2)}{(T_3 - T_2)} \times 100$$

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

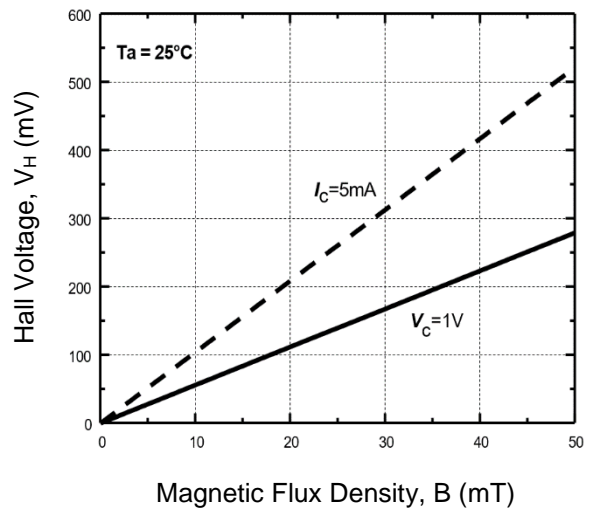
$$T_1 = 20^\circ\text{C}, T_2 = 0^\circ\text{C}, T_3 = 40^\circ\text{C}$$

**Table 2. Classification of Hall Voltage (V<sub>H</sub>)**

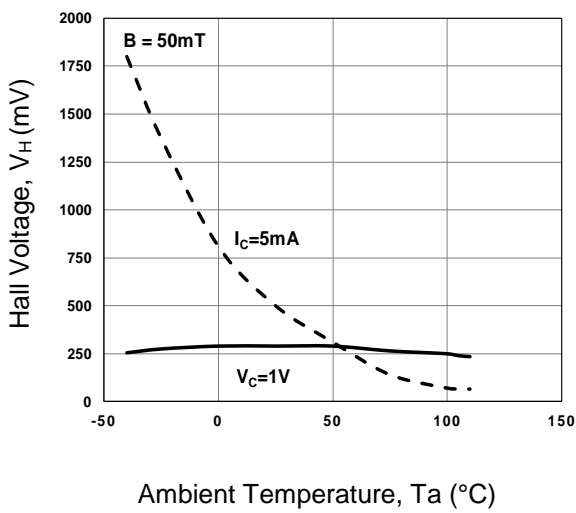
Rank	V <sub>H</sub> [mV]	Conditions
C	168 ~ 204	B=50mT, V <sub>C</sub> =1V
D	196 ~ 236	
E	228 ~ 274	
F	266 ~ 320	
G	310 ~ 370	
H	360 ~ 415	



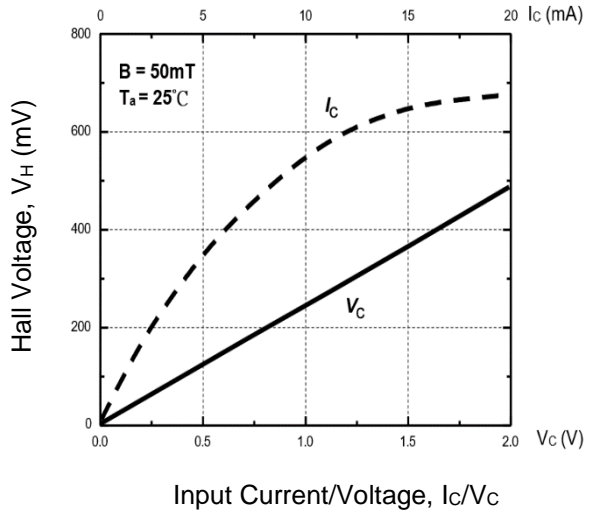
**Fig.1  $R_{in}$ - $T_a$**



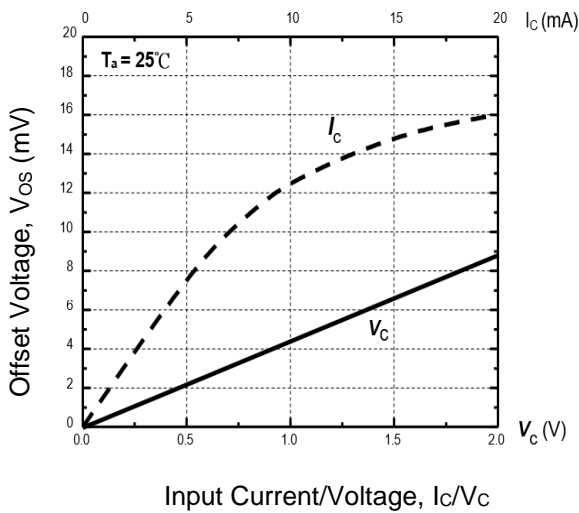
**Fig.2  $V_H$ - $B$**



**Fig.3  $V_H$ - $T_a$**



**Fig.4  $V_H$ - $I_c$ ,  $V_H$ - $V_c$**



**Fig.5  $V_{os}$ - $I_c$ ,  $V_{os}$ - $V_c$**