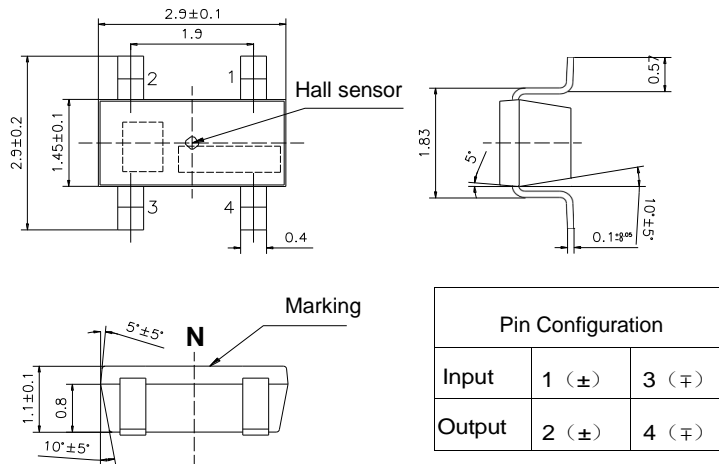


Features

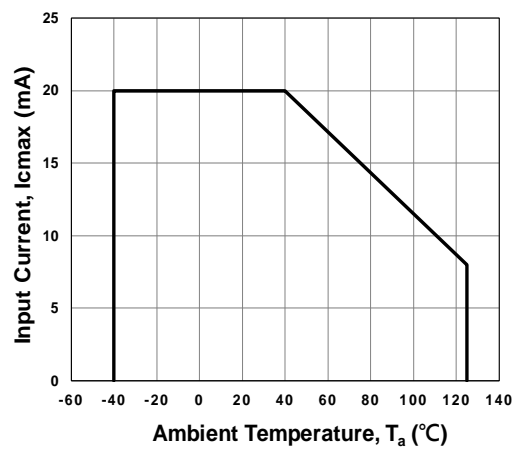
- Ultra High-sensitivity InSb Hall element
- Classic SOT Package
- Shipped in packet-tape reel (3,000pcs per reel)
- Reverse taping of PIH101 , marking side down

Dimensional Drawing (Unit: mm)



Absolute Maximum Rating

Symbol	Parameter	Rating	Units
T _{STG}	Storage Temperature Range	-55 to 150	°C
T _{opr}	Operating Temperature Range	-40 to 125	°C
I _c	Maximum Input Current	20	mA



Input current Detraing

Table 1. Electrical Characteristics (T_a = 25°C)

Item	Symbol	Test Conditions.	Min.	Typ.	Max.	Unit
Hall Voltage	V _H	B = 50mT, V _C =1V	168	---	516	mV
Input Resistance	R _{in}	B = 0mT, I _C = 0.1mA	240	---	550	Ω
Output Resistance	R _{out}	B = 0mT, I _C = 0.1mA	240	---	550	Ω
Offset Voltage	V _{os}	B = 0mT, V _C = 1V	-5	---	+5	mV
Temp. Coeffi. of V _H	αV _H	B = 50mT, I _C = 5mA, T _a = 0°C ~ 40°C	---	-1.8	---	%/°C
Temp. Coeffi. of R _{in}	αR _{in}	B = 0mT, I _C = 0.1mA, T _a = 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_{H-M} is the Output Hall Voltage, V_H is the Hall Voltage and V_{os} 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_H)

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

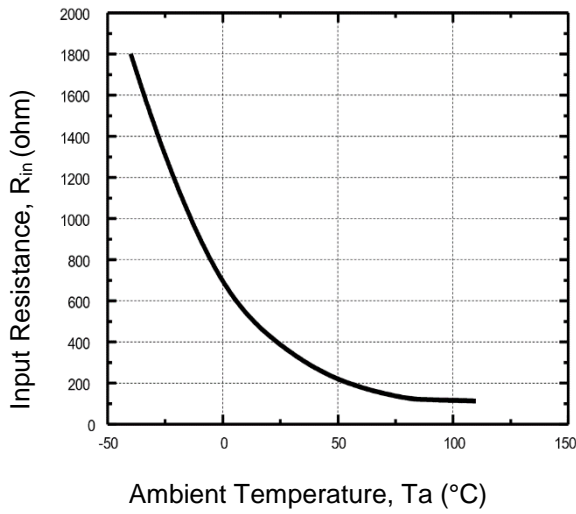


Fig.1 R_{in} - T_a

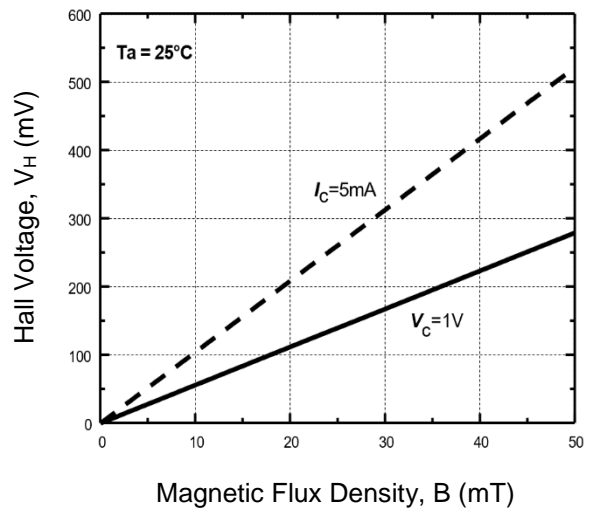


Fig.2 V_H - B

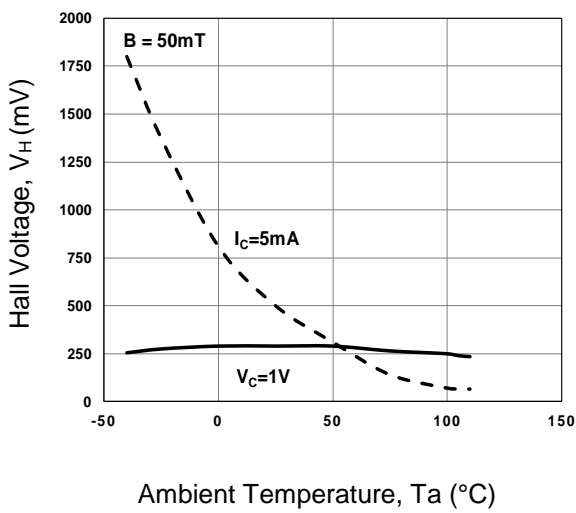


Fig.3 V_H - T_a

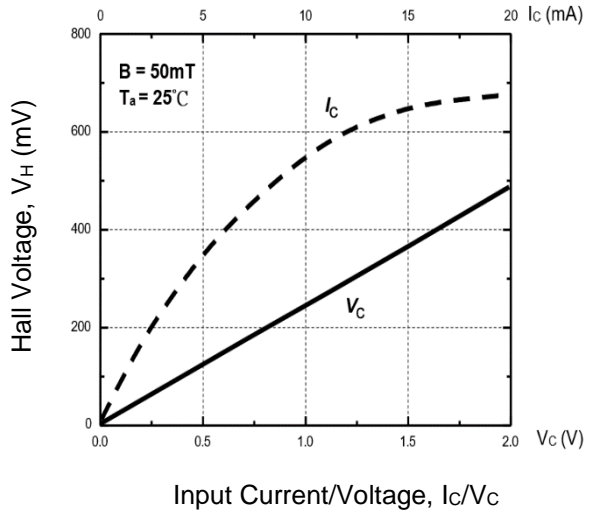


Fig.4 V_H - I_c , V_H - V_c

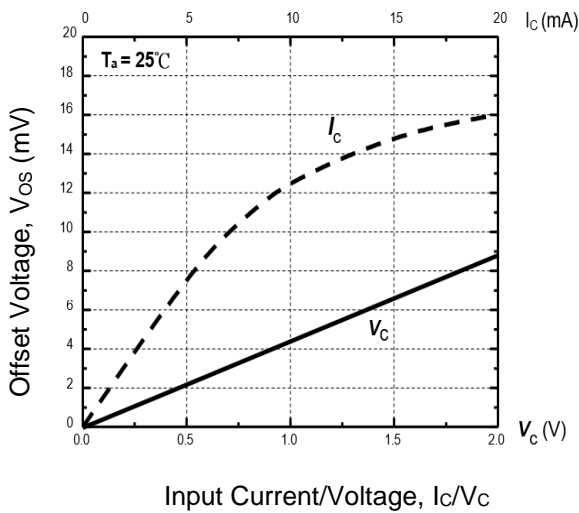


Fig.5 V_{os} - I_c , V_{os} - V_c