

SH-12AL

InSb Hall Sensor

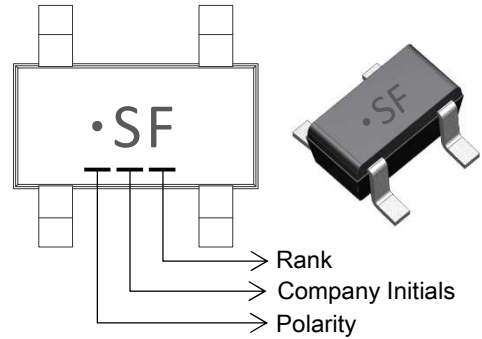
Shipped in packet-tape reel (3,000pcs per reel)

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	I _{max}	20 (at 25°C)	mA
Operating Temp. Range	T _{opr}	-40 ~ +120	°C
Storage Temp. Range	T _{stg}	-40 ~ +150	°C

Marking (by Laser)



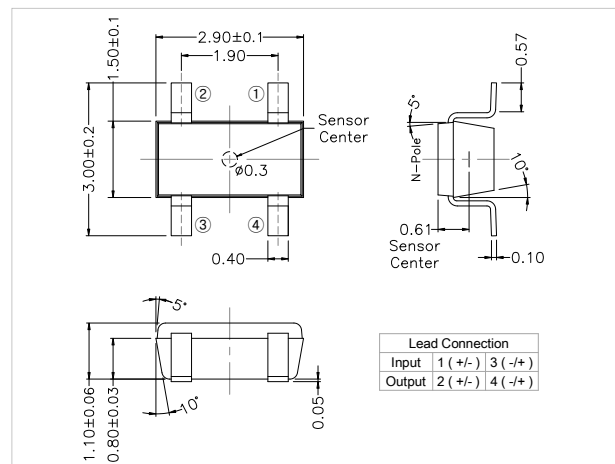
Electrical Specifications

Parameter	Symbol	Conditions	Min.	Max.	Unit
Output Hall Voltage	V _h	V _{in} =1V, B=50mT	196	370	mV
Input Resistance	R _{in}	I _c =0.1mA, B=0mT	240	550	Ω
Output Resistance	R _{out}	I _c =0.1mA, B=0mT	240	550	Ω
Offset Voltage	V _o	V _{in} =1V, B=0mT	-7	+7	mV
Temp. Coeff. Of V _h	αV _h	Avg. on 0~40°C, B=50mT, I=5mA	Typ. -1.8		%/°C
Temp. Coeff. Of R _{in} , R _{out}	αR _{in}	Avg. 0~40°C, B=0mT, I=0.1mA	Typ. -1.8		%/°C

Rank (by Output Hall Voltage)

Output Hall Voltage	Rank	Conditions
196 ~ 236	D	V _{in} =1V, B=50mT (Constant Voltage)
228 ~ 274	E	
266 ~ 320	F	
310 ~ 370	G	

Dimension Drawing (Unit : mm)



※ Note.

- V_h = V_{hm} - V_o (V_{hm} : measured at 50mT)
- $$\alpha V_h = \frac{1}{V_h(T_1)} \times \frac{V_h(T_3) - V_h(T_2)}{(T_3 - T_2)} \times 100\%$$
- $$\alpha R_{in} = \frac{1}{R_{in}(T_1)} \times \frac{R_{in}(T_3) - R_{in}(T_2)}{(T_3 - T_2)} \times 100\%$$
- T₁ = 20°C, T₂ = 0°C, T₃ = 40°C

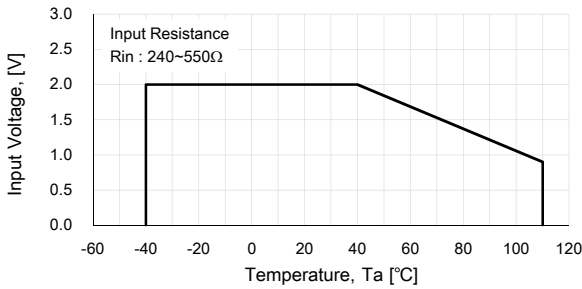
This product is not guaranteed or intended to be used for highly reliable purposes, such as medical, aerospace, transport, traffic signal, combustion, nuclear control, and various safety devices, in which failure or malfunction of the equipment is usually expected to cause serious damage to life, body, 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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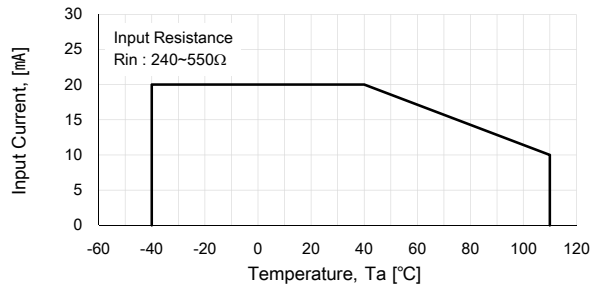
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Characteristic Curves

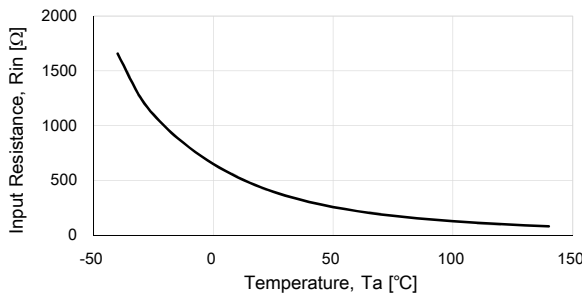
■ Input Voltage Derating Curve



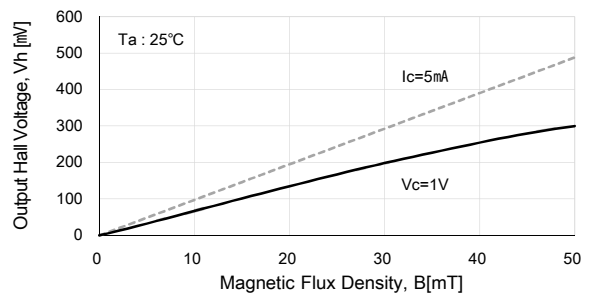
■ Input Current Derating Curve



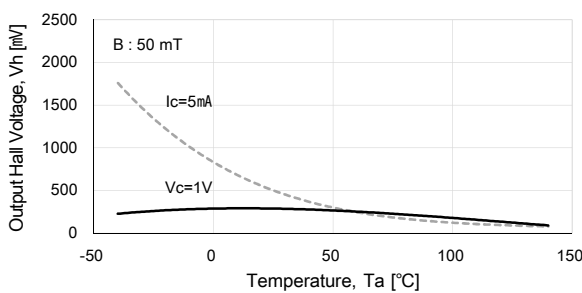
■ Rin-T



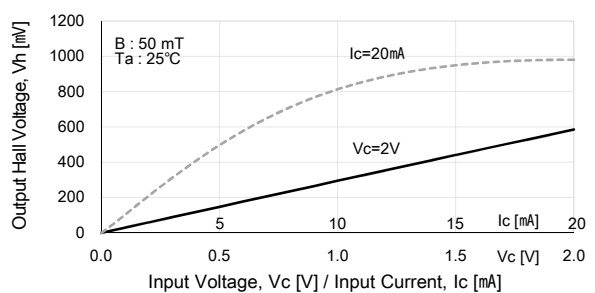
■ Vh-B



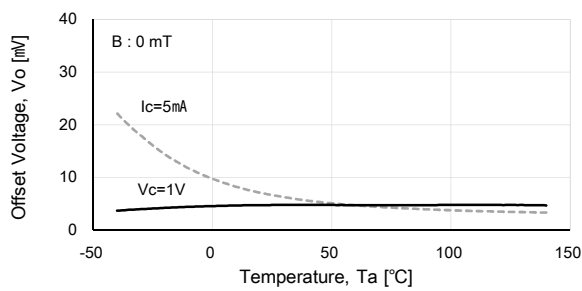
■ Vh-T



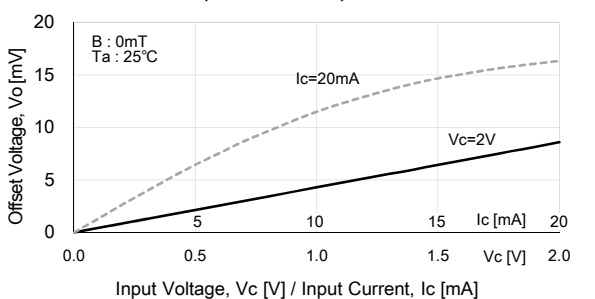
■ Vh-Vc, Vh-Ic



■ Vo-T (Reference)



■ Vo-Vc, Vo-Ic (Reference)



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