

SH-12B

InSb Hall Sensor

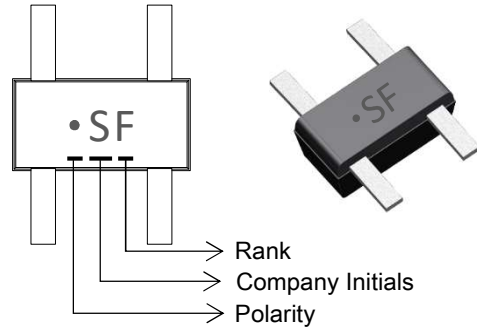
Shipped in packet-tape reel (3,000pcs per reel)

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)



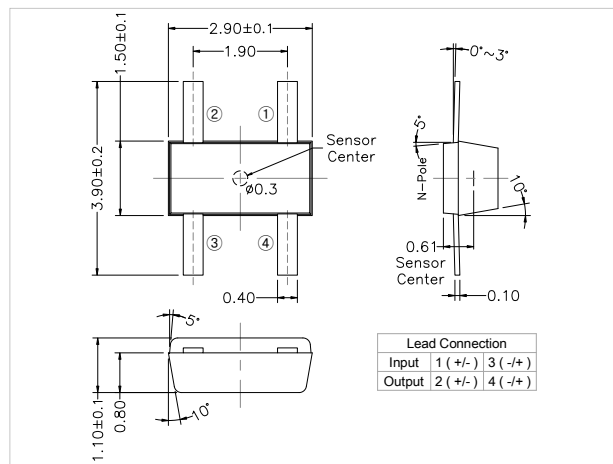
Electrical Specifications

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. on 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

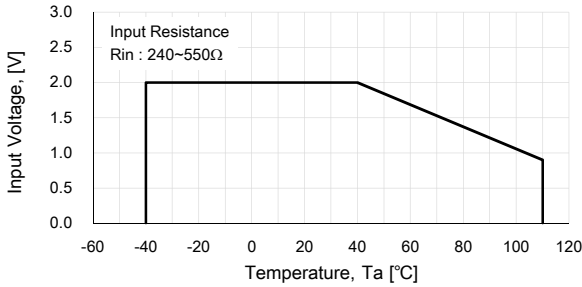
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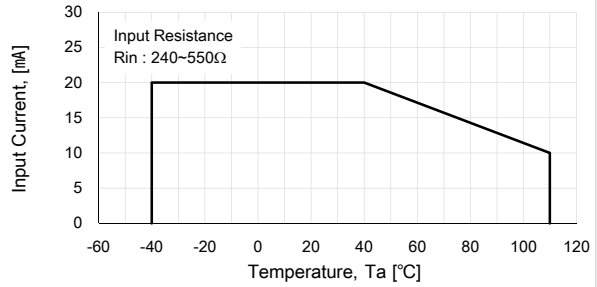
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Characteristic Curves

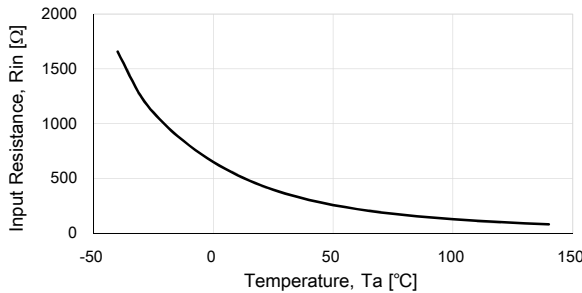
■ Input Voltage Derating Curve



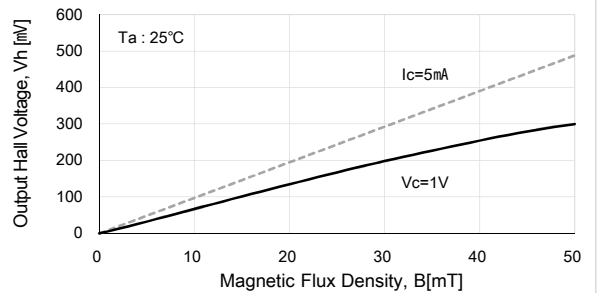
■ Input Current Derating Curve



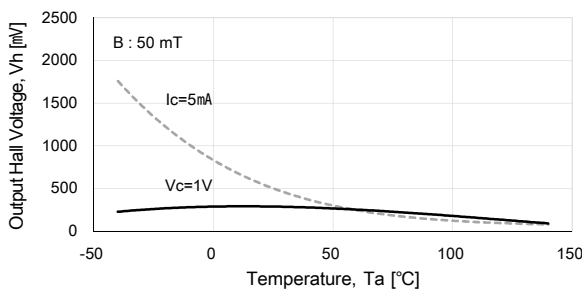
■ Rin-T



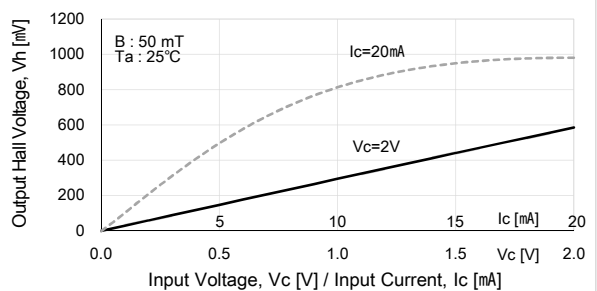
■ Vh-B



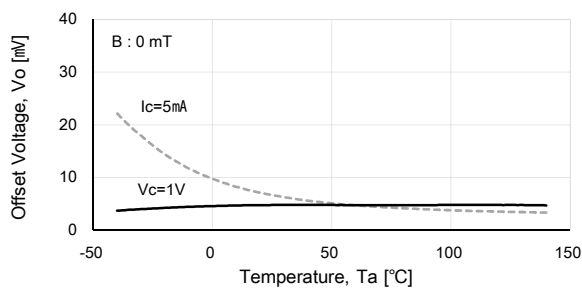
■ Vh-T



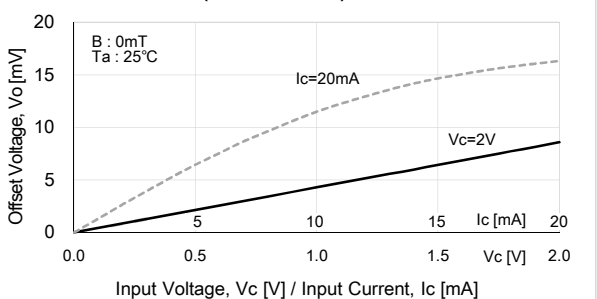
■ Vh-Vc, Vh-Ic



■ Vo-T (Reference)



■ Vo-Vc, Vo-Ic (Reference)



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