

MODEL

NHE313

Features

This is a high sensitivity type of Nicera Hall element using evaporated InSb film.

It performs effectively in low magnetic fields due to the high sensitivity.

The input and output resistance values are suitable for transistor circuits.

Sip type package.

Applications

Brushless motors

Position sensors, rotation sensors, current sensors

Non-contacting magnetic sensors

Current sensors

Magnetic flux sensors other than those above

Specification

◆ Halogen and Pb-free products ◆

Nicera is able to supply halogen and Pb-free products.

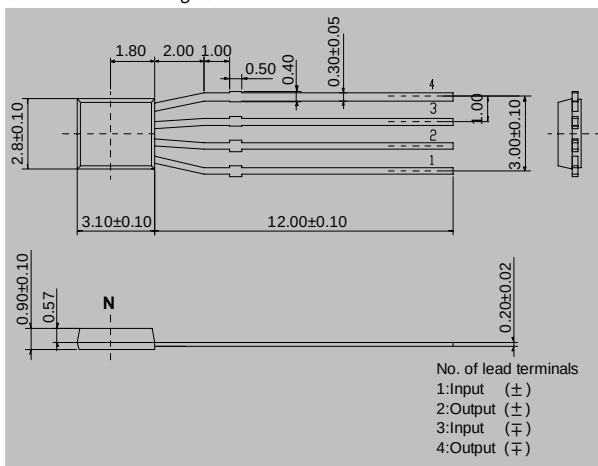
Please let us know your requirement when you make an inquiry.

For these products, "HF" is put at the end of model names as below,

NHE313-HF

※ Conventional products (Pb-free but not halogen-free) are available, which are supplied on built-to-order basis.

◆ Dimensional Drawing ◆



◆ Absolute Maximum Ratings ◆

Item	Symbol	Limit	Unit
Max. Input Current	I _{cmax}	20(at25°C)	mA
Operating Temp. Range	T _{opr}	-40~110	°C
Storage Temp. Range	T _{stg}	-40~125	°C

◆ Electrical Characteristics (T=25°C) ◆

Item	Symbol	Conditions	Min.	Typ.	Max.	Unit
Output Voltage	V _H	V _c =1V B=50mT	196		370	mV
Offset Voltage	V _o	V _c =1V B=0mT	-7		7	mV
Input Resistance	R _{in}	I=1mA	240		550	Ω
Output Resistance	R _{out}	I=1mA	240		550	Ω
Temp. Coefficient of V _H	※1 α _{HI}	Standard 20°C Average 0~40°C B=50mT I _c =5mA		-1.8		%/°C
Temp. Coefficient of R _{in}	※2 α _R	B=0mT I _c =0.1mA		-1.8		%/°C

$$※1: \alpha_{HI} = [1/V_H(T1)] \times [(V_H(T3) - V_H(T2)) / (T3 - T2)] \times 100$$

$$※2: \alpha_R = [1/R_{in}(T1)] \times [(R_{in}(T3) - R_{in}(T2)) / (T3 - T2)] \times 100$$

$$T1=20^\circ\text{C}, T2=0^\circ\text{C}, T3=40^\circ\text{C}$$

◆ Classification of Output Voltage I ◆

Model	Rank	V _H (mV)	Conditions
NHE313	5	196~236	Constant Voltage Drive V _H =V _H M-V _o V _H M=Measured Hall Voltage (at 50mT) V _o =Offset Voltage(at 0 mT)
	6	228~274	
	7	266~320	
	8	310~370	

◆ Packaging ◆

Model	Packaging	Bag Max. (pcs)	Carton Max. (pcs)
NHE313	Bulk	1,000	30,000

◆ Characteristics Curve ◆

