

MODEL

NHE312



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.

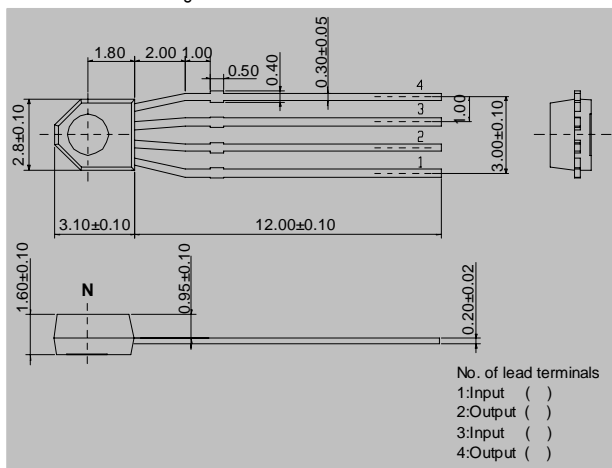
Please let us know your requirement when you make an inquiry.

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

NHE312 - 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 _{cm}	20(at25 °C)	mA
Operating Temp. Range	T _{opr}	-40 ~ 110	
Storage Temp. Range	T _{stg}	-40 ~ 125	

Electrical Characteristics (T=25 °C)

Item	Symbol	Conditions	Min.	Typ.	Max.	Unit
Output Voltage	V _H	V _c =1V B=50mT	196		428	mV
Offset Voltage	V _o	V _c =1V B=0mT	-7		7	mV
Input Resistance	R _{in}	I=1mA	240		550	
Output Resistance	R _{out}	I=1mA	240		550	
Temp. Coefficient of V _H	¹ HI	Standard 20 Average 0 ~ 40 B=50mT I _c =5mA		-1.8		%/°C
Temp. Coefficient of R _{in}	² R	B=0mT I _c =0.1mA		-1.8		%/°C

$$1: HI = [1/VH(T1)] \times [(VH(T3) - VH(T2)) / (T3 - T2)] \times 100$$

$$2: R = [1/Rin(T1)] \times [(Rin(T3) - Rin(T2)) / (T3 - T2)] \times 100$$

$$T1=20 °C, T2=0 °C, T3=40 °C$$

Classification of Output Voltage

Model	Rank	V _H (mV)	Conditions
NHE312	4*	168 ~ 204	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)
	5	196 ~ 236	
	6	228 ~ 274	
	7	266 ~ 320	
	8	310 ~ 370	
9*	360 ~ 428		

* Rank 4&9 need to be discussed individually, according to the production condition.

Please contact us for the details.

Packaging

Model	Packaging	Bag Max. (pcs)	Carton Max. (pcs)
NHE312	Bulk	1,000	30,000

Characteristics Curve

