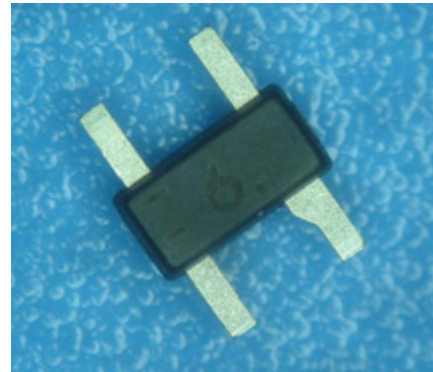


MODEL

NHE520FSR



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.

Applications

Brushless motors

DVD drive, CD-ROM drive, floppy disk drive

Other small precision motors

Non-contacting magnetic sensors

Position sensors, rotation sensors, current sensors

Magnetic flux sensors other than those above

Specification

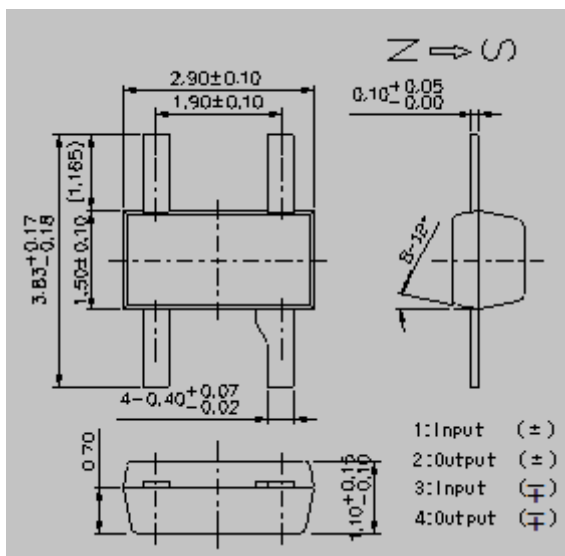
◆ Halogen free products ◆

Nicera supply halogen free products.

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

NHE520FSR-HF

◆ 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	168		428	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 _H	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: $\alpha_H = [1/V_H(T_1)] \times [(V_H(T_3) - V_H(T_2)) / (T_3 - T_2)] \times 100$

※2: $\alpha_R = [1/R_{in}(T_1)] \times [(R_{in}(T_3) - R_{in}(T_2)) / (T_3 - T_2)] \times 100$

T₁=20°C, T₂=0°C, T₃=40°C

◆ Classification of Output Voltage I ◆

Model	Rank	V _H (mV)	Conditions
NHE520FSR	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	Reel Max. (pcs)	Carton Max. (pcs)
NHE520FSR	Taping reel	3,000	72,000

◆ Characteristics Curve ◆

