

GaAs Type Hall Element



MODEL

NHG501



Features

- NHG501 is a linear type hall element using GaAs.
- The hall voltage changes linearly according to the magnetic flux density, and the linearity is excellent.
- SIP type package is adopted.
- Operating temperature range is wide, output variation due to temperature change is small.

Applications

- Brushless motors
- Current sensors
- Non-contacting magnetic sensors
- Position sensors, rotation sensors
- Other various magnetic sensors

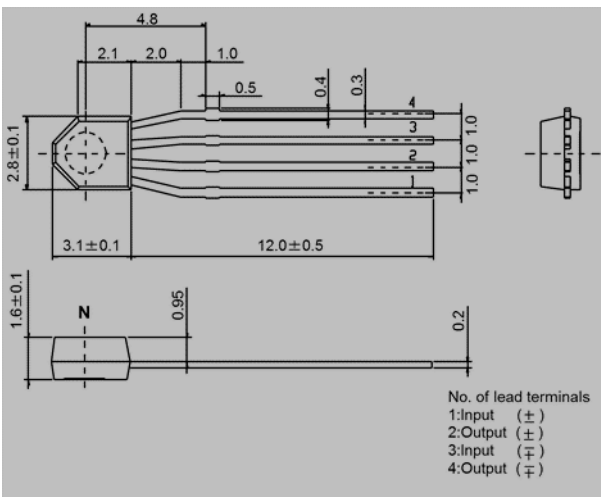
Specification

◆ Pb-Free product ◆

It corresponds to the Pb-free.

◆ Dimensional Drawing ◆

(UNIT: mm)



◆ Absolute Maximum Rating ◆

Item	Symbol	Limit	Unit
Max. Input Current	I_{cmax}	10(at25°C)	mA
Power dissipation	P_d	150	mW
Operating Temp. Range	T_{opr}	-40~125	°C
Storage Temp. Range	T_{stg}	-55~150	°C

◆ Electrical Characteristics (T=25°C) ◆

Item	Symbol	Conditions	Min.	Max.	Unit
Output Voltage	V_H^{*1}	$V_c=1V$ $B=100mT$	25	33	mV
Offset Voltage	V_o	$V_c=1V$ $B=0mT$	-2.7	2.7	mV
Input Resistance	R_{in}	$I=1mA$, $B=0mT$	400	700	Ω
Output Resistance	R_{out}	$I=1mA$, $B=0mT$		2000	Ω
Temp. Coefficient of V_H	α	$B=100mT$ $I_c=1mA$ $T_a=-40\sim80^\circ C$		-0.06	%/°C
Temp. Coefficient of R_{in}	β	$B=0mT$ $I_c=1mA$ $T_a=-40\sim80^\circ C$		0.3	%/°C

※1: $V_H = V_{HM} - V_o$ (V_{HM} = Hall output voltage measured value)

◆ Packaging ◆

Model	Packaging	Bag Max. (pcs)	Carton Max. (pcs)
NHG501	Plastic bag (shipped in bulk)	100	4,000

◆ Characteristics Curve ◆

