

# Gallium Arsenide GH Series

## **Description**

The GH Series Hall sensors are four-terminal solid-state devices that produce an output voltage,  $V_H$ , proportional to the product of the input current,  $I_C$ , and the magnetic flux density, B. The GH-600 Hall sensor uses a lead strip which is composed of DuPon'ts Kapton. The lead strip is terminated with tin plated copper alloy contacts spaced  $0.100^{\circ}$  (2.54 mm) on center. The Model GH-601 utilizes a specially designed lead strip which allows operation up to 50 kHz. The GH-700 is an ion implanted planar device encased in an epoxy surface-mount package. The GH-820 is a leaded device designed for through hole mounting to a PCB.

#### **Features**

- Low Cost
- Gallium Arsenide
- Extended Frequency Range
- High Sensitivity
- Choice of Mounting Configurations
- Flexible Leadstrip
- Extended Temperature Range

### **Models**

- 1. GH-600
- 2. GH-601
- 3. GH-700
- 4. GH-820

		1.	2.	3.	4.
SPECIFICATIONS	UNITS	GH-600	GH-601	GH-700	GH-820
Input resistance, R <sub>in</sub>	ohms	450 to 900	450 to 900	450 to 900	450 to 900
Output resistance, R out	ohms	580 to 1,700	580 to 1,700	approx. 1,000	3,200 max.
Magnetic sensitivity, V <sub>H</sub> (1)	mV/kG	50 to 140	50 to 140	50 to 140	80 to 190
Max. resistive residual voltage, V <sub>M</sub> @ B=0 (1)	±mV	14	14	14	20
Max. control current @ 25 C, static air	m A	10	10	10	10
Nominal control current, I <sub>cn</sub>	mA	5	5	5	5
Max. linearity error, (-10 kG to +10 kG)	±% of RDG	2	2	2	2
Mean temperature coefficient of V <sub>H</sub> (-10 C to +80 C)	%/ C	-0.07 (2)	-0.07 (2)	-0.07 (2)	-0.06 (1)
Mean temperature coefficient of resistance (-10 C to +80 C)	%/ C	0.15 Typical (2)	0.15 Typical (2)	0.15 Typical (2)	0.15 Typical (1)
Temperature dependence of resistive residual voltage (-10 C to +80 C)	±μV/ C	1 Typical (2)	1 Typical (2)	1 Typical (2)	1 Typical (2)
Operating temperature range	С	-55 to +125	-55 to +125	-55 to +125	-55 to +125
Storage temperature range	С	-55 to +150	-55 to +150	-55 to +150	-55 to +150

#### Notes

- (1) Nominal Control Current,  $I_{cn}=5mA$
- (2) Control Current=1 mA

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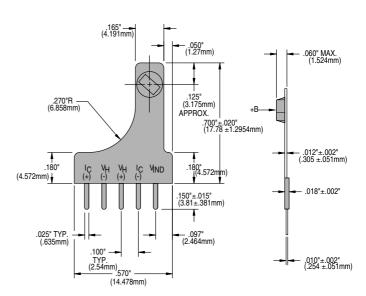
All dimensions are in inches (millimeters).

#### 1. Model GH-600

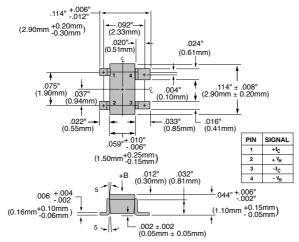
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Unless otherwise noted, all tolerances are ±0.010 (±0.25)

### 2. Model GH-601



#### 3. Model GH-700



#### 4. Model G H-820

