

# GMPB01 Silicon Pressure Sensor

## General Introduction

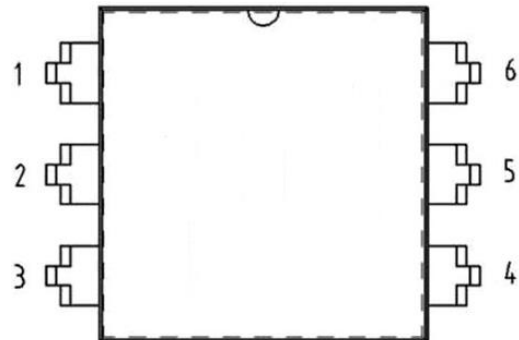
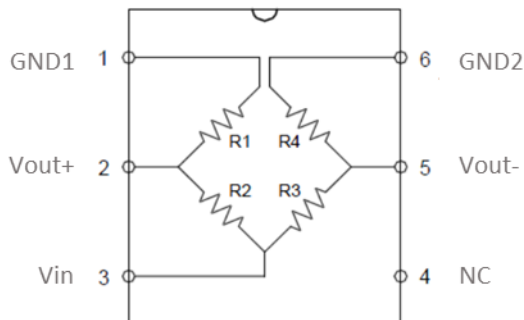
GMPB01 is a gauge type silicon pressure sensor especially designed for applications requiring highly-precision pressure measurement from 0 to 40kPa. The pressure sensor is based on the industry-recognized piezo-resistive technology featuring long-term stability and EMC robustness. Both DIP or SOP type of packages are available.

## Features

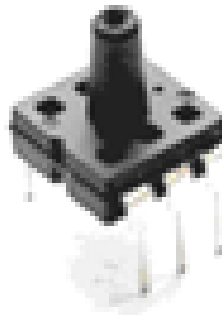
- Operation range: 0~40kPa
- Gauge type sensor
- SOP6 or DIP6 package
- Low cost

## Applications

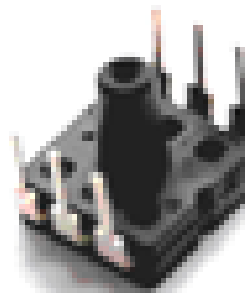
- Medical instrumentation
- Industrial sensor
- Pressure gauge
- Home appliance



GMPB01-0S



GMPB01-0P



GMPB01-0B

### Pin Descriptions

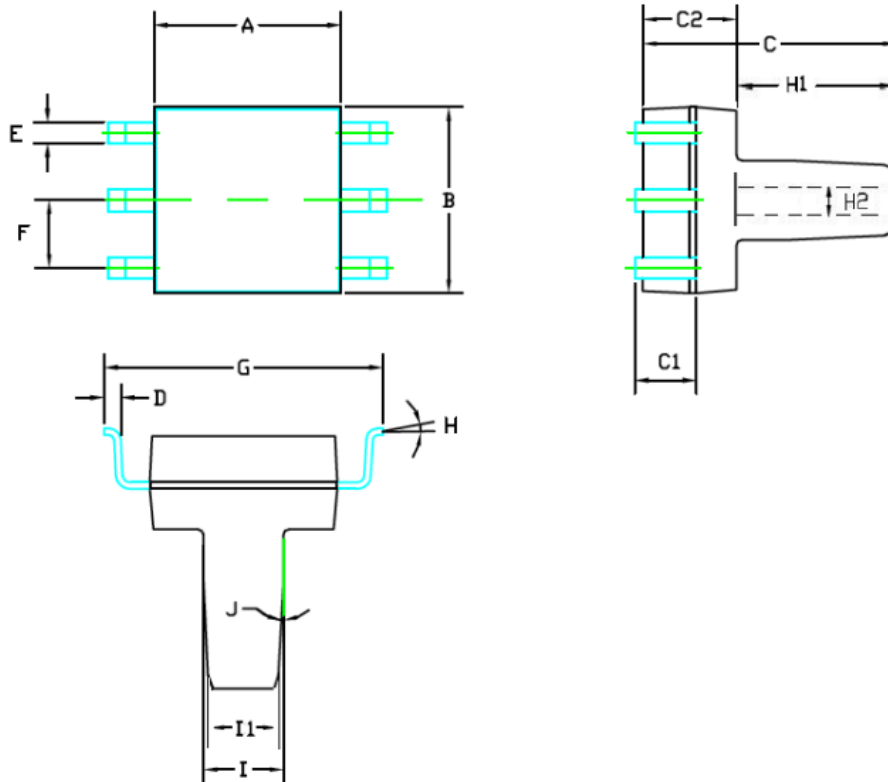
Pin#	Name	Description
1	GND1	Ground pin 1
2	Vout+	Signal out +
3	Vin	Power supply in
4	NC	No connection
5	Vout-	Signal out -
6	GND2	Ground pin 2

### Specifications

Parameter	Condition	Min.	Typ.	Max.	Unit
Excitation voltage		—	5	10	V
Bridge impedance		4	5	6	kΩ
Span		0	—	40	kPa
Full scale span	Vin=5V	60	75	90	mV
Offset	Vin=5V	-15	0	15	mV
TC resistance		1600	2000	2400	ppm/°C
TC span	Constant voltage	-0.27	-0.22	-0.17	%V <sub>FS</sub> /°C
	Constant current	-0.03	—	0.03	%V <sub>FS</sub> /°C
TC offset		-0.08	—	0.08	%V <sub>FS</sub>
Linearity	Best fit straight line	-0.3	—	0.3	%V <sub>FS</sub>
Pressure hysteresis		-0.1	0.05	0.1	%V <sub>FS</sub>
Temperature hysteresis		-0.3	—	0.3	%V <sub>FS</sub>
Proof pressure				2X	FS
Burst pressure				3X	FS
Operating temperature		-20		+85	°C
Storage temperature		-40		+125	°C

## Package

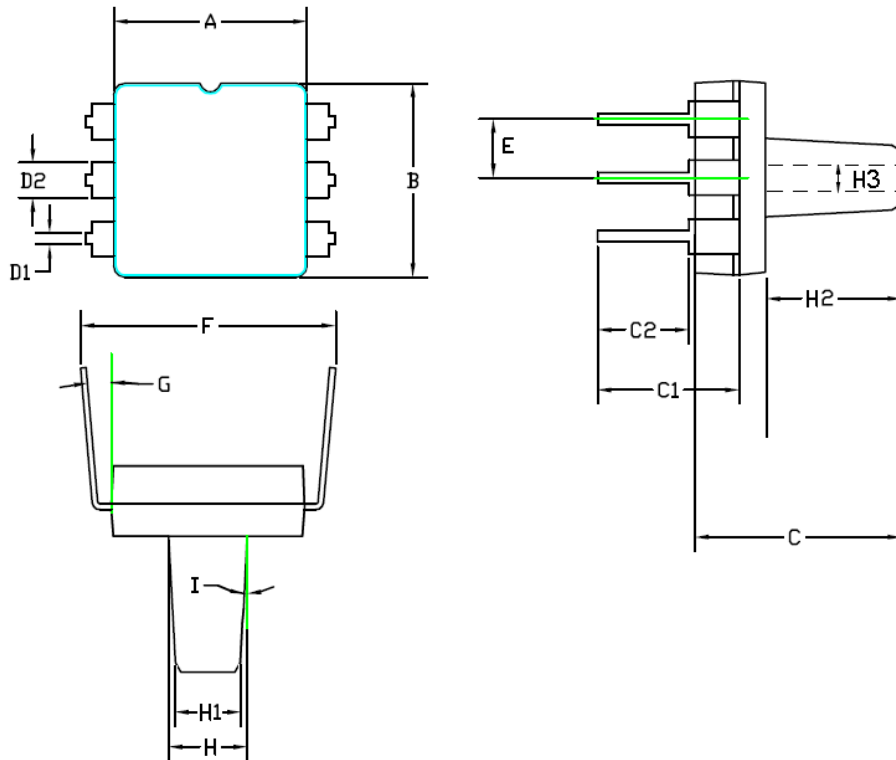
### GMPB01-0S (SOP6 Tube)



Symbol	Dimension (mm)	Symbol	Dimension (mm)
A	7.0	G	10.3
B	7.0	H	0-8°
C	9.5	H1	6.0
C1	2.1-2.4	H2	1.2
C2	3.5	I	3.2
D	0.7	I1	2.6
E	0.8	J	0-3°
F	2.54		

## Package

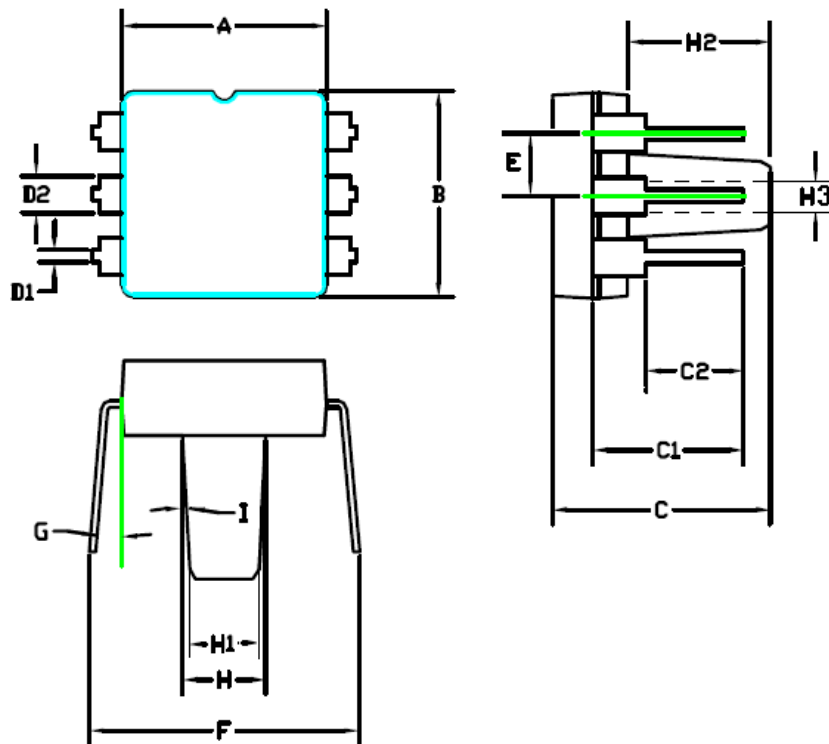
### GMPB01-0P (DIP Top Tube)



Symbol	Dimension (mm)	Symbol	Dimension (mm)
A	8.4	F	10.25~11.75
B	8.4	G	0-9°
C	9.0	H	3.4
C1	6.2	H1	2.8
C2	4.0	H2	5.88
D1	0.42-0.56	H3	1.2
D2	1.5	I	3°
E	2.54		

## Package

### GMPB01-0B (DIP Bottom Tube)



Symbol	Dimension (mm)	Symbol	Dimension (mm)
A	8.4	F	10.25~11.75
B	8.4	G	0-9°
C	9.0	H	3.4
C1	6.2	H1	2.8
C2	4.0	H2	5.88
D1	0.42-0.56	H3	1.2
D2	1.5	I	3°
E	2.54		

## Document History and Modification

Revision No.	Description	Date
V0.1	Preliminary first release	2018/5/29
V0.2	Modification of the spec and packages	2018/6/29