

GMPB02 Silicon Pressure Sensor

General Introduction

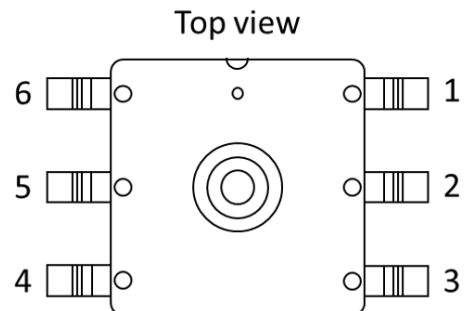
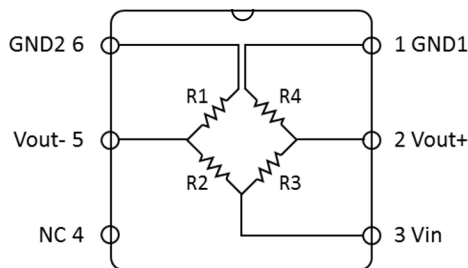
GMPB02 is a gauge type silicon pressure sensor especially designed for applications requiring highly-precision pressure measurement from -100kPa to 200kPa. The pressure sensor is based on the industry-recognized piezo-resistive technology featuring long-term stability and EMC robustness. SOP type of packages is available.

Features

- Operation range: -100~200kPa
- Gauge type sensor
- SOP6 package
- Low cost

Applications

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



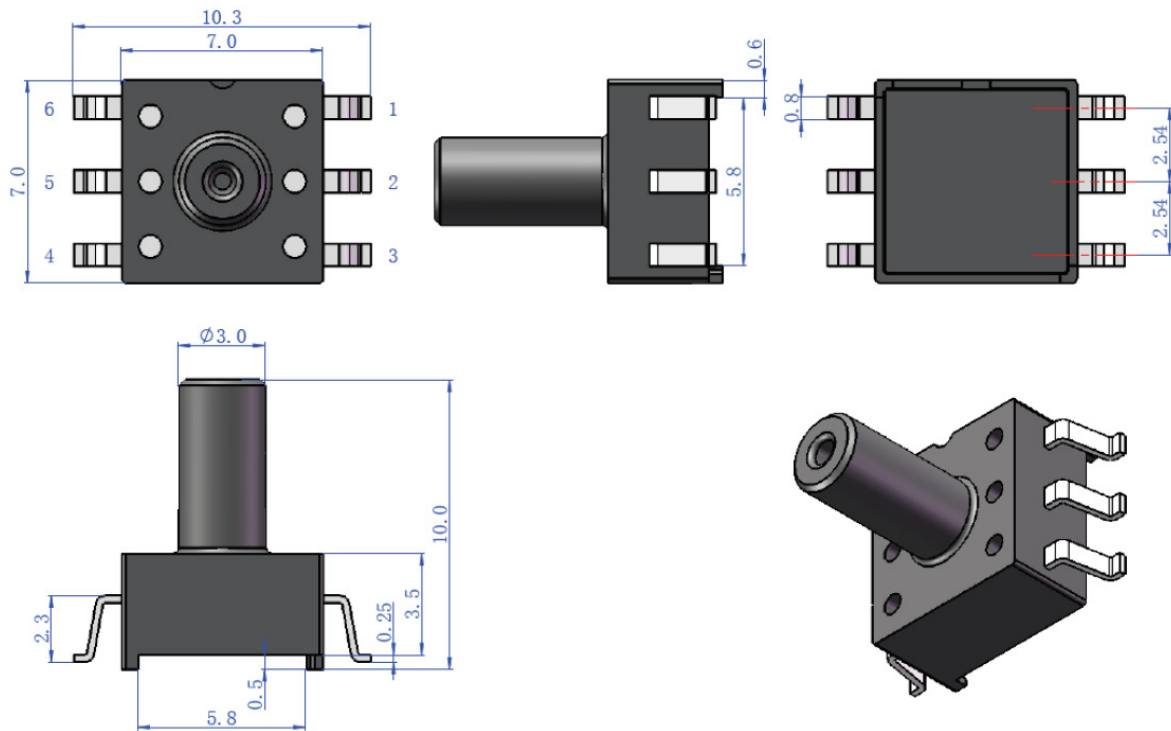
Pin Descriptions

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		5	5.4	6	kΩ
Positive span		0	—	200	kPa
Full span@200kPa	Vin=5V	100	120	140	mV
Negative span		-100	—	0	kPa
Full span@-100kPa	Vin=5V	-70	-60	-50	mV
Offset	Vin=5V	10	20	30	mV
TC resistance		1500	2000	2500	ppm/°C
TC span	Constant voltage	-0.27	-0.22	-0.17	%V _{FS} /°C
	Constant current	-0.08	±0.02	0.08	%V _{FS} /°C
TC offset		-0.08	-0.05	0.08	%V _{FS}
Linearity	Best fit straight line	-0.3	±0.15	0.3	%V _{FS}
Pressure hysteresis		-0.1	0.05	0.1	%V _{FS}
Temperature hysteresis		-0.3	—	0.3	%V _{FS}
Proof pressure				2X	FS
Burst pressure				3X	FS
Operating temperature		-40	25	+85	°C
Storage temperature		-40		+125	°C

Package



Document History and Modification

Revision No.	Description	Date
V0.1	Preliminary first release	2018/11/6
V0.2	Modified the span and package detail	2019/8/2
V0.3	Added negative operation range	2019/8/15
V0.4	Specification of SOP6 Type package	2020/12/10
V0.5	Modified the span and offset specification	2020/12/10