HOKURIKU

For your reference

Product Specifications

Product Name: Pressure Sensor

Model Name : HPD-100G-R03

Date: 13/Feb./2026

HOKURIKU ELECTRIC INDUSTRY CO., LTD.

1. Application

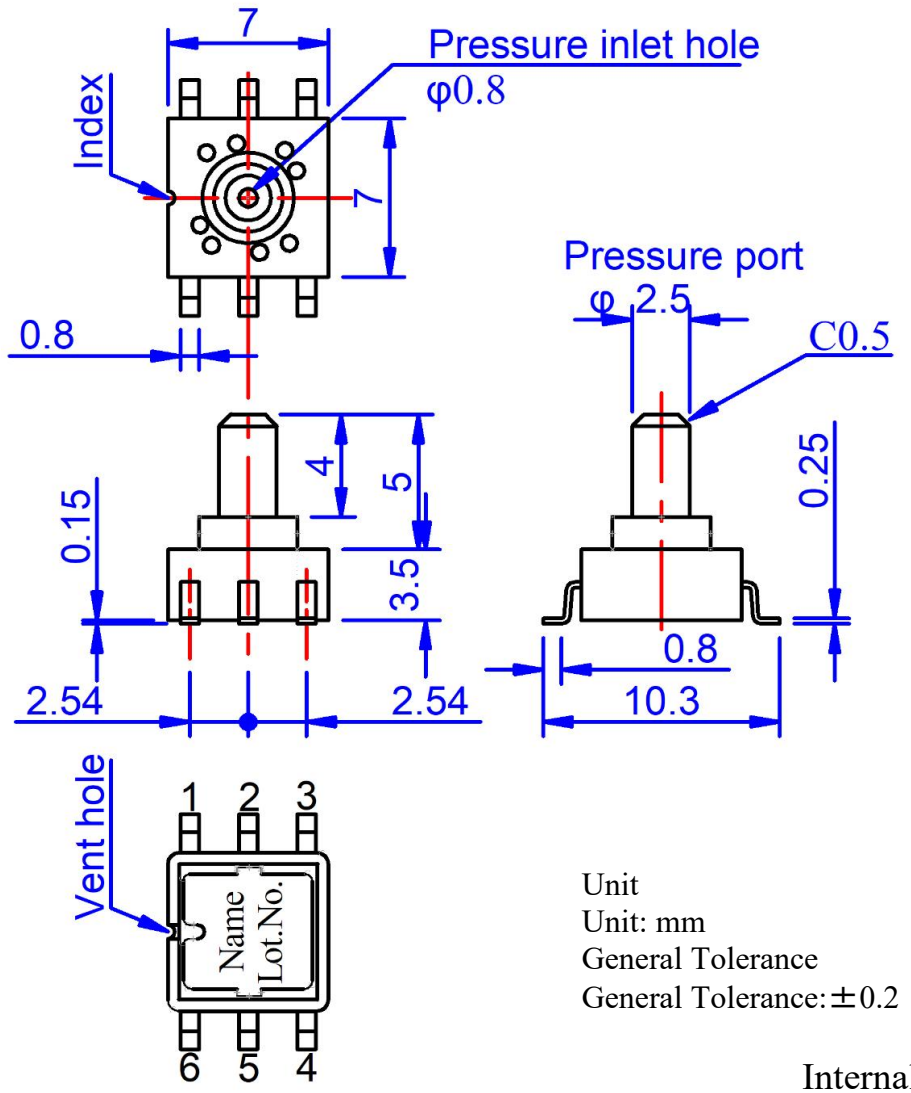
This specification applies to semiconductor pressure sensors used with non-corrosive gases.

2. General description

Product Name	Measuring Pressure	Drive Current	Shape
HPD-100G-R03	0 to 100 kPa	1.5 mA	SMD 6-pin

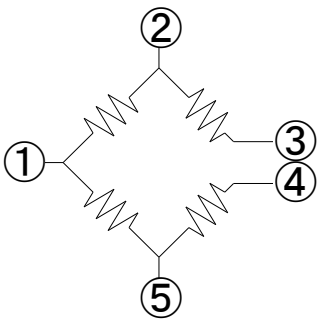
3. Outline dimension and Construction

■External Dimensions



Unit
Unit: mm
General Tolerance
General Tolerance:±0.2

Internal connection



Pin number	Name
1	+Input(Power+)
2	+Out
3	-Input (power-)
4	-Input(power-)
5	-Out
6	NC

4. Rating

-1. Absolute Maximum Rating

Item	Rating			Unit	Remarks
	MIN	TYP	MAX		
Pressure Type	Gauge pressure			—	
Pressure medium	Non-corrosive gas			—	
Maximum Applied Pressure			500	kPa	
Maximum Drive Current	—	—	3	mA	
Operating Temperature Ran	-20	～	120	℃	
Storage Temperature Range	-40	～	120	℃	

-2. Rating (Icc=1.5mA,Ta=25℃)

Item	Rating			Unit	Remarks
	MIN	TYP	MAX		
Rated Pressure Range	0	～	100	kPa	
Rated Drive Current	—	1.5	—	mA	
Bridge Resistance	4	5	6	kΩ	
Offset Voltage	-20	0	20	mV	at 0 kPa
Span voltage	60	100	140	mV	
Pressure Linearity	-0.3		0.3	%FS	
Pressure hysteresis	-0.2		0.2	%FS	
Offset Temperature Charac	-5.0		5.0	%FS	at 0 to 50°C
Span voltage temperature c	-2.5		2.5	%FS	at 0to50° C

＜Definition ＞ If Pressure＝P、Temp.＝T , Output voltage＝V(P,T)

Offset Voltage: Voffset = V(0.25)

Span voltage: Vspan = V(100,25) − V(0,25)

Pressure Linearity: PLIN = (V(50,25) − (Vspan/2 + V(0,25))) / Vspan × 100

Pressure hysteresis: PHYS = (Voff2 - Voff1) / Vspan × 100

Offset Temperature Characteristics:
TCO1 = (V(0, 0) — V(0.25)) / Vspan × 100
TCO2 = (V(0.50) − V(0.25)) / Vspan × 100

Span Temperature Characteristics:
Vspan(0) = V(100,0) − V(0,0)
Vspan(50) = V(100,50) − V(0,50)
TCS1 = (Vspan(0) − Vspan) / Vspan × 100
TCS2 = (Vspan(50) − Vspan) / Vspan × 100

5. Reliability Test

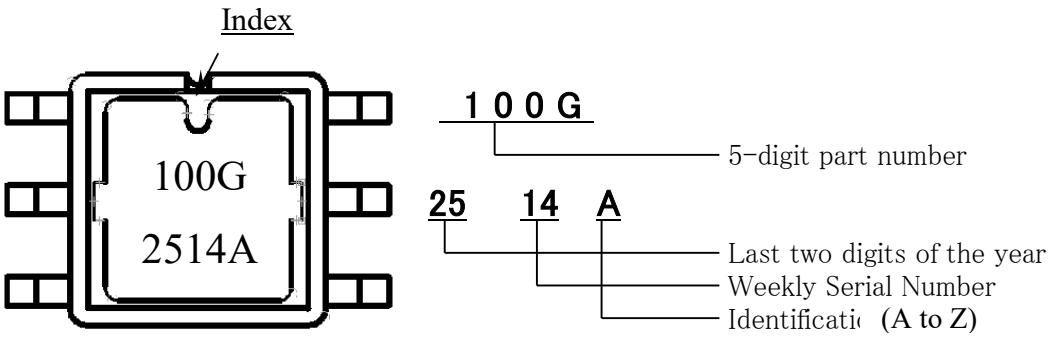
No.	Test Item	Test Conditions	Test Duration
1	High Temperature Storage Test	120° C	300 hr
2	Low Temperature Storage Test	-40° C (provided no ice forms)	300 hr
3	Humidity Storage Test	40° C,90%RH	300 hr
4	Temperature Cycle Test	-40° C ⇔ 120° C for 30minutes	100 cycles
5	Drop Test	Dropped from100cm high to the P tile on concrete grounding	Random 3 times

・Measurement: Drive current 1.5mA, temperature 25° C

・Evaluation Criteria: Must satisfy electrical characteristics

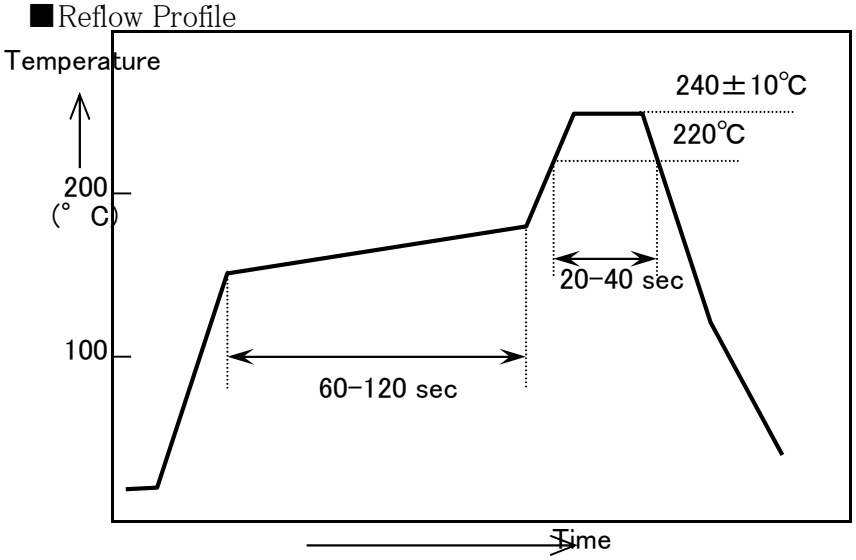
(and output change rate must be within ±5% FS)

6. Imprint



7. Recommended Soldering

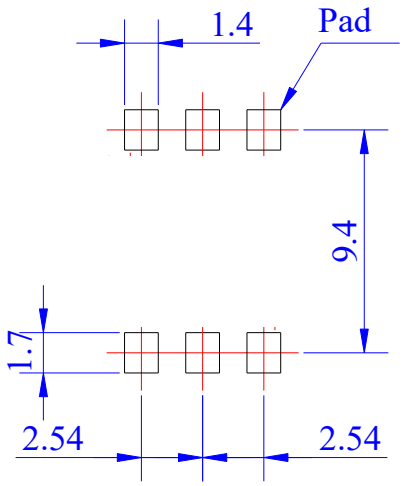
■Reflow Profile



Main Heating
Peak 250℃ MAX, 10 sec or less
220℃ or higher, 20-40 sec

Preheat
150-180℃, 60-120 sec

■Soldering pads



This footprint and Temperature profile do not guarantee of soldering quality.

Please check in advance at your factory before use.

8. Notes

* Please use this product within the range of absolute maximum ratings. There is fear of damage and the breakdown when used outside the range of absolute maximum ratings.
* There are possibilities of abnormalities or inferior performances, when irregular objects are put inside a pressure conductive hole.
* These sensors are not of drip-proof construction. When they are sprayed with water, etc., or dew drops are produced, there are possibilities where specified performances are not satisfied.
* These sensors do not correspond to washing. Please use it by no washing.
* If this product touches corrosive gas (organic solvent, sulfurous acid gas, hydrogen sulfide gas, etc.), it may have bad influence on performance.

9. Others

This product is intended to be used for general electrical equipment.
Please contact us in advance in case of the following application to be used;
Extremely-high reliability demanding applications, such as medical equipment, safety device, aerospace instrument, nuclear energy control equipment, combustion control apparatus and so on, which failure and/or malfunction could do serious damage to human life, body, property and so on, directly or indirectly.

* Details are subject to change without notice.