



HOKURIKU

For your reference

Product Specifications

Product Name: Pressure Sensor

Model Name : HPD-1000G-R03

Date: 13/Feb./2026

HOKURIKU ELECTRIC INDUSTRY CO., LTD.

1. Application

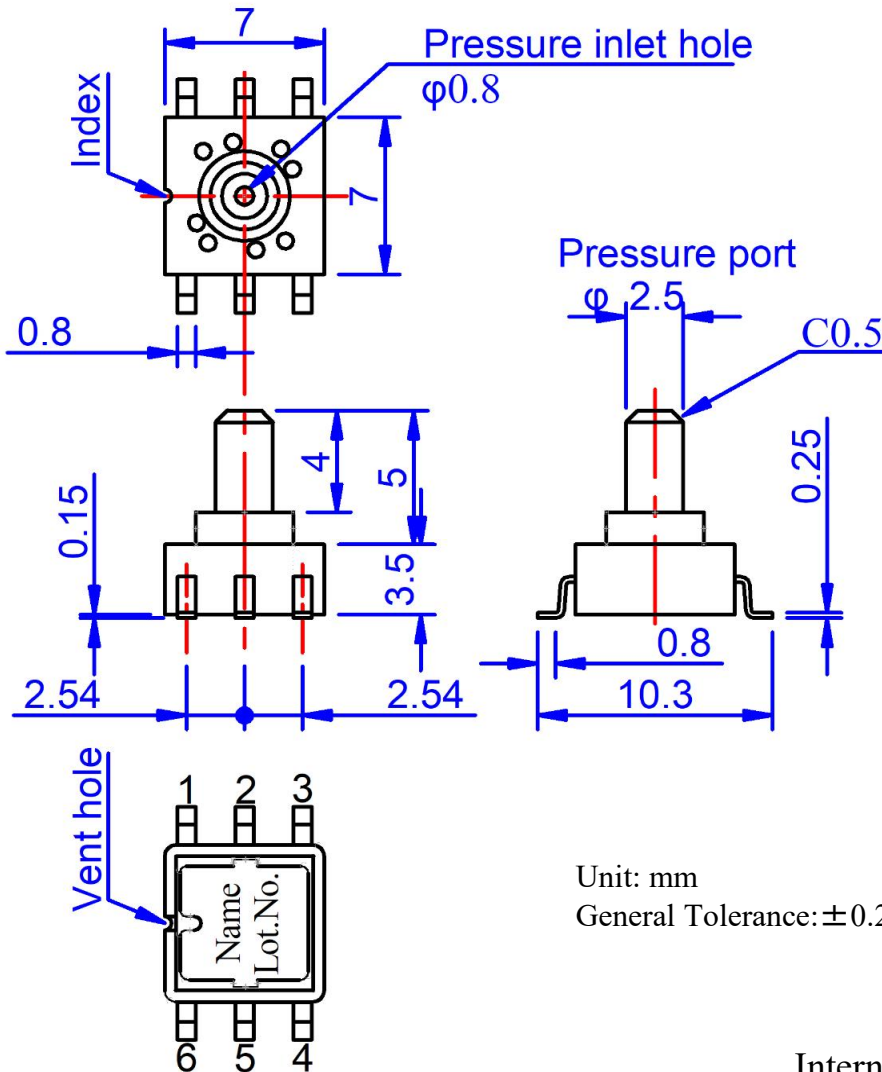
This set of Specifications applies to semiconductor pressure sensors used with non-corrosive gases.

2. Product Name and

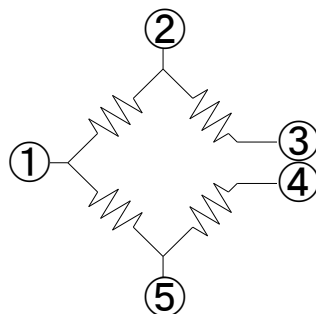
Product Name	Measuring Pressure	Drive Current	Shape
HPD-1000G-R03	0 to 1000 kPa	1.5 mA	SMD 6-pin

3. Outline dimension and Construction

■ Dimensions



Internal connection



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



4. Rated

-1. Absolute Maximum Ratings

Item	Rated			Unit	Remarks
	MIN	TYP	MAX		
Pressure Type	Gauge pressure			—	
Pressure medium	Non-corrosive gas			—	
Maximum Applied Pressure			2,000	kPa	
Maximum Drive Current	—	—	3	mA	
Operating Temperature Range	-20	~	120	°C	
Storage Temperature Range	-40	~	120	°C	

-2. Electrical characteristics (I_{cc}=1.5mA, T_a=25°C)

Item	Rated			Unit	Remarks
	MIN	TYP	MAX		
Rated Pressure Range	0	~	1,000	kPa	
Rated Drive Current	—	1.5	—	mA	
Bridge Resistance	4	5	6	kΩ	
offset voltage	-20	0	20	mV	at 0kPa
Span voltage	60	100	140	mV	
Pressure linearity	-0.6		0.6	%FS	
Pressure hysteresis	-0.4		0.4	%FS	
Offset Temperature Characteristics	-5.0		5.0	%FS	at 0 to 50°C
Span voltage temperature Characteristics	-2.5		2.5	%FS	at 0to50°C

<DEFINITION of Electrical Characteristics>

Let the output voltage at pressure P and temperature T be denoted as V(P,T).

offset voltage $V_{\text{offset}} = V(0.25)$

Span voltage $V_{\text{span}} = V(1000,25) - V(0,25)$

Pressure linearity $PLIN = (V(500,25) - (V_{\text{span}}/2 + V(0,25))) / V_{\text{span}} \times 100$

Pressure hysteresis $PHYS = (V_{\text{off}2} - V_{\text{off}1}) / V_{\text{span}} \times 100$

Offset Temperature Characteristics
 $TCO1 = (V(0, 0) - V(0.25)) / V_{\text{span}} \times 100$
 $TCO2 = (V(0.50) - V(0.25)) / V_{\text{span}} \times 100$

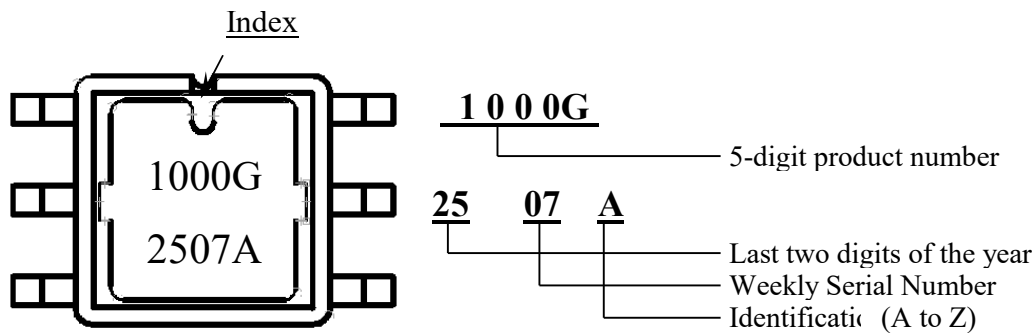
Span Temperature Characteristics
 $V_{\text{span}}(0) = V(1000, 0) - V(0, 0)$
 $V_{\text{span}}(50) = V(1000,50) - V(0,50)$
 $TCS1 = (V_{\text{span}}(0) - V_{\text{span}}) / V_{\text{span}} \times 100$
 $TCS2 = (V_{\text{span}}(50) - V_{\text{span}}) / V_{\text{span}} \times 100$

5. Reliability Test Specification

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

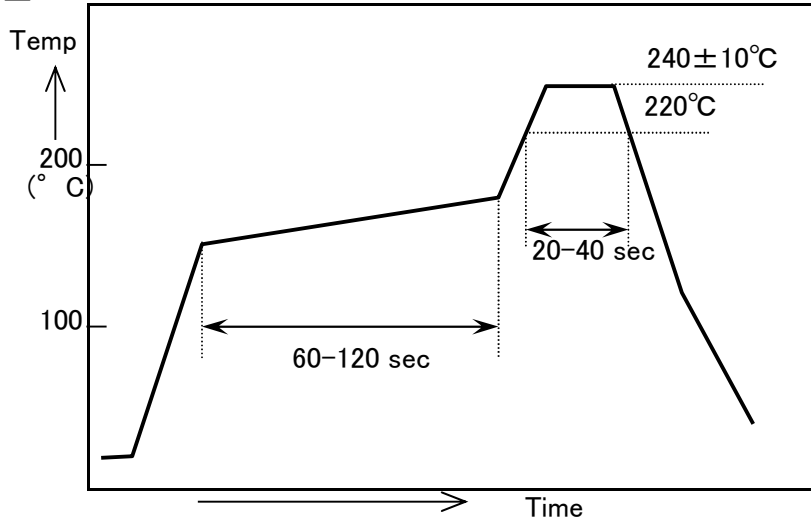
- Measurement: Drive current 1.5mA, temperature 25°C
- Evaluation Criteria: Satisfaction of electrical characteristics (and output change rate within ±5% FS)

6. Marking



7. Recommended Soldering Conditions

■ Reflow Profile



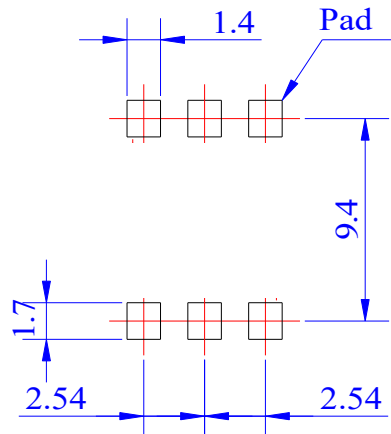
Main Heating

Peak 250°C MAX, 10 sec or less
220°C or more, 20-40 sec

Preheating

150-180°C, 60-120 sec

■ Recommended Land



※ This land shape and temperature profile do not guarantee Soldering quality. Please verify these conditions beforehand at your facility.

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.