

Absolute Pressure Sensor (0-1 BAR)

2012-3-22

Version: 1.3



- 0 to 100kPa pressure range (1 bar or 15 PSI)
- Absolute pressure sensor
- Silicon/Grass Bonding wafer, high stability
- Miniature surface mount
- RoHS-compatible & Pb-free
- Provide the other gage pressure range sensor

DESCRIPTION

The Series of pressure sensor is a silicon micro-machined membrane, piezo-resistive sensor. They were designed for extremely cost sensitive applications where the sensing element is to be integral to the OEM equipment, and are intended for use with non-corrosive, non-ionic media. They also may be packaged with application specific sensor die so that the performance characteristics and output range also can be identified.

FEATURES

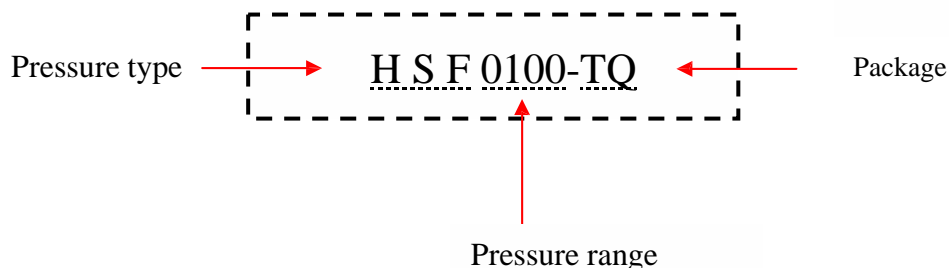
- Uncompensated pressure sensor
- Temperature Range -40°C ~ +125°C
- Linearity 1% (typical)
- Low Cost, High reliability

APPLICATION

- For high resolution absolute sensor systems
- Engine Controls
- Barometers, Altimeters, Variometers

Full Scale Pressure

| kPa | bar | mbar | PSI | atm | mmHg | mmH ₂ O | kg/cm ² |
|-----|-----|------|-----|-----|------|--------------------|--------------------|
| 100 | 1 | 1000 | 15 | 1 | 750 | 10207 | 1 |

Part number System

Absolute Pressure Sensor (0-1 BAR)

2012-3-22

Version: 1.3

Characteristics

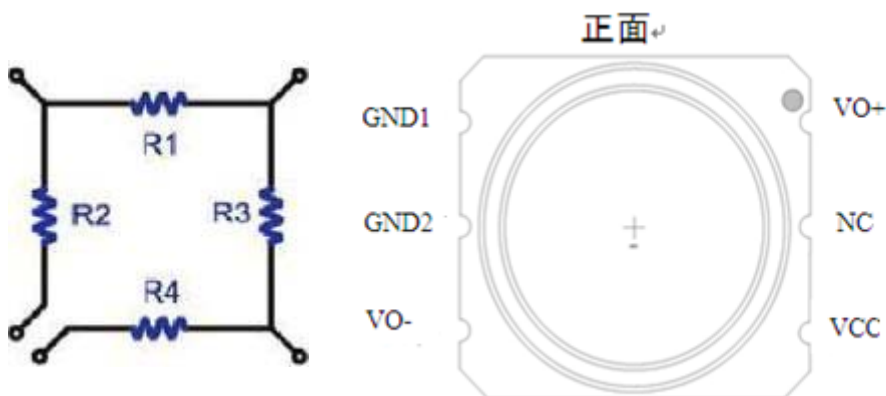
Working conditions:

DC@5v, Pressure 100KP, temperature 25°C, humidity at 30% -90%

| Item | Min | Typical | Max. | Unit |
|---------------------------------|------|---------|------|-----------|
| Pressure Range | | 15PSI | | |
| Supply voltage | 0 | 5.0 | 10.0 | Volts |
| currency | 0 | 1.5 | 3.0 | mA |
| Span | 80 | 100 | 130 | mV |
| Offset | -25 | 0 | 25 | mV |
| Temperature coefficient | -16 | -22 | -28 | %FS/100°C |
| Temperature coefficient of Zero | -2 | -4 | -6 | %FS/100°C |
| Nonlinearity | -0.3 | ±0.1 | +0.3 | %F.S |
| Bridge resistance | 4.5 | 5 | 5.5 | K Ω |
| Proof pressure | | | 2× | Rated FS |
| Operating temperature | -40 | | 125 | °C |
| Storage temperature | -40 | | 125 | °C |

WAFER ELECTRICAL CONNECTIONS

1. Best fit straight line.
2. Coefficients are typical values between -10°C and 40°C.



Absolute Pressure Sensor (0-1 BAR)

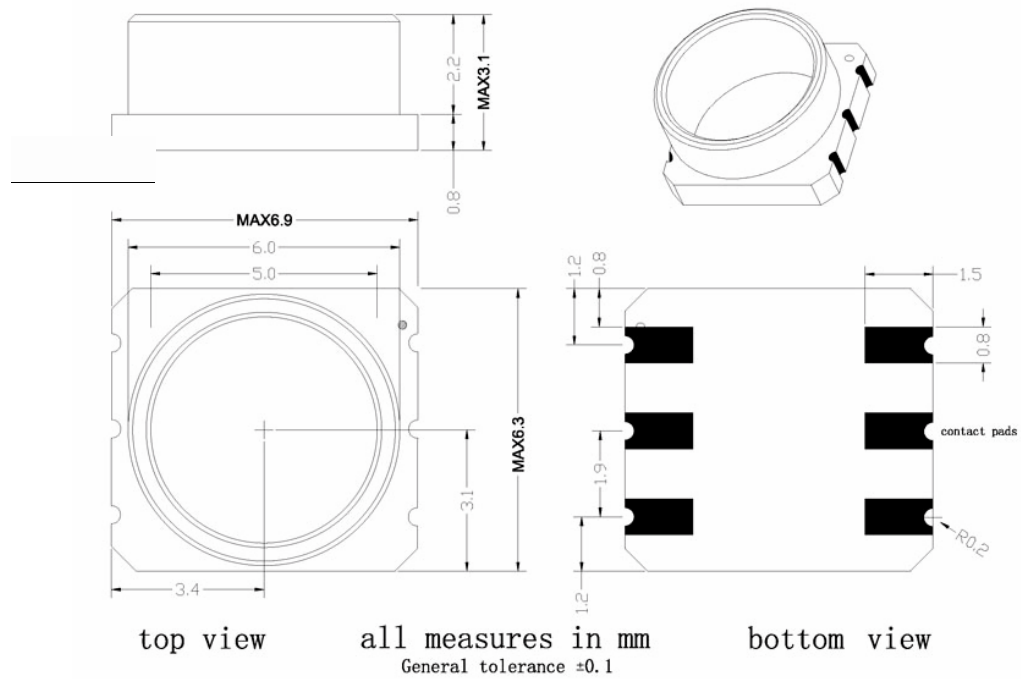
2012-3-22

Version: 1.3

Pin Configuration

| PAD | 1 | 2 | 3 | 4 | 5 | 6 |
|------------|-----|------|------|-----|-----|----|
| Definition | Vo+ | GND1 | GND2 | VO- | VCC | NC |

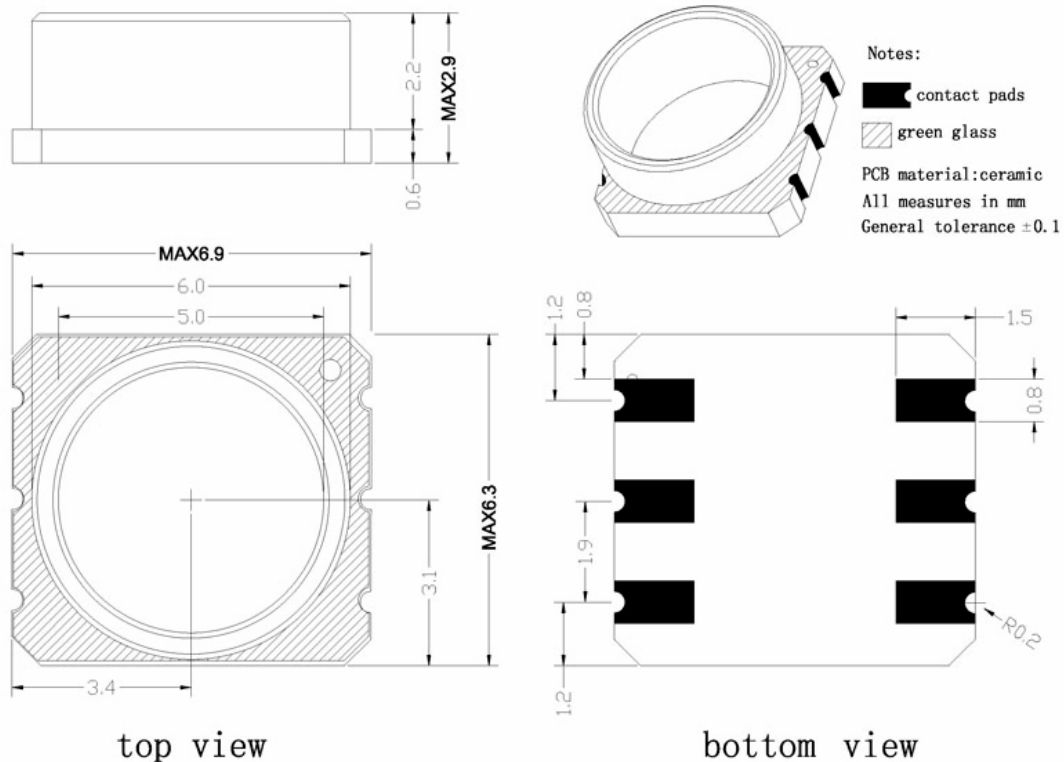
FR4 Package Outlines



Absolute Pressure Sensor (0-1 BAR)

2012-3-22

Version: 1.3

Ceramic Package Outlines**ORDERING INFORMATION****HOPE MICROELECTRONICSCO.,LTD**

2/F, Build 3, Pingshan

Private Enterprise Science and
Technology Park, Xili Town,

Nanshan District, Shenzhen, China

Tel: 86-755-82973805

Fax: 86-755-82973550

Email: sales@hoperf.comWebsite: <http://www.hoperf.com><http://www.hoperf.cn><http://hoperf.en.alibaba.com>

This document may contain preliminary information and is subject to change by Hope Microelectronics without notice. Hope Microelectronics assumes no responsibility or liability for any use of the information contained herein. Nothing in this document shall operate as an express or implied license or indemnity under the intellectual property rights of Hope Microelectronics or third parties. The products described in this document are not intended for use in implantation or other direct life support applications where malfunction may result in the direct physical harm or injury to persons. NO WARRANTIES OF ANY KIND, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE OFFERED IN THIS DOCUMENT.

©2006, HOPE MICROELECTRONICSCO.,LTD. All rights reserved.