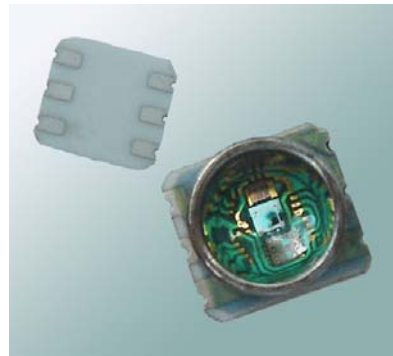


### SMD PRESSURE SENSOR



#### Description

The HSSXX SMD pressure sensor series is designed for pressure sensor systems with highest demands on resolution and accuracy. The device consists of Hope's pressure sensor die mounted on a 6.3 x 6.9 mm FR4 or ceramic carrier protected by a metal cap. The HSSXX can be delivered in differential pressure range mode.

#### Features

- Solid, MEMS technique, high reliability
- Low cost SMD FR4 carrier or ceramic package
- -40°C to +125 °C operation range
- Standard overpressure range: 15psi; 100psi; 200psi
- Gel protection against humidity and water
- Small size
- High reliability, low drift

#### Application

- Absolute pressure sensor systems
- Engine controls
- High resolution altimeters, variometers
- Water proof watches and diver's computers
- Barometers
- Tire pressure monitoring systems (TPMS)

#### Full Scale Pressure

kPa	bar	mbar	PSI	atm	mmHg	mmH <sub>2</sub> O	kg/cm <sup>2</sup>
100	1	1000	15	1	750	10207	1
700	7	7000	100	7	5250	71451	7
1700	17	17000	250	17	12754	173524	17

### Electrical Characteristics

(Reference conditions: Supply Voltage VS+ = 5 Vdc; Ambient Temperature Ta = 23°C )

		Min	Typ	Max	Unit	Remarks
Supply voltage			5.0		V	
Supply current			1		mA	
Output range (FS range)	100KPa	60	80	100	mV	
	150KPa	80	100	120	mV	
	200KPa	70	100	150	mV	
	350KPa	70	100	150	mV	
	700KPa	70	100	150	mV	
	1000KPa	70	100	150	mV	
	1.7MPa	80	120	180	mV	
	3.5MPa	100	150	200	mV	
Zero bit output		-35		35	mV	remark
Full temperature parame		-24	-19	-15.5	%FS/100°C	Stable input voltage
0temperature parameter		-7		+7	%FS/100°C	
Resistive temperature parameter		+24	+27.5	+33	%FS/100°C	
Linearity		-0.45	-0.15	+0.45	%FS	
Bridge impedance			5		K Ω	
Overfreight pressure		2X			Fixed FS	
Breach pressure		4X			Fixed FS	
Operation temperature		-40		+125	°C	
Storage temperature		-55		+150	°C	

#### Notes:

1. The Zero bit output voltage is  $\pm 50\text{mV}$  for 100KPa
2. Hope mainly produce the sensor pressure range: 100kpa, 700kpa, 1700kpa
3. Maximum difference in offset after one thermal cycle from  $-40^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$ .
4. Hope also provide the other pressure range sensor, please contact with Hope Microelectronics

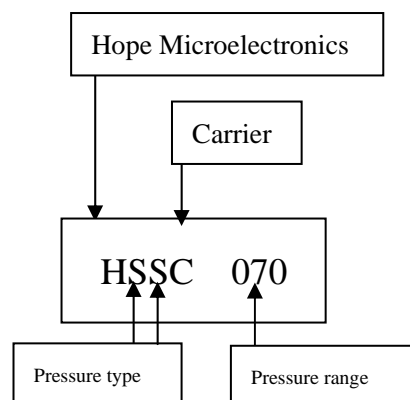
#### Pressure Ranges

KPa	HSS
100	010
200	020
350	035
700	070
1000	100
1700	170
3500	350

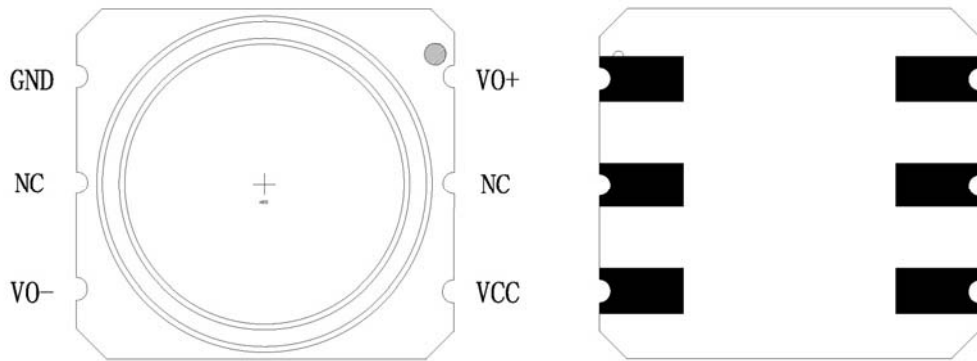
**F:** mounted on FR4 carrier

**C:** mounted on ceramic carrier

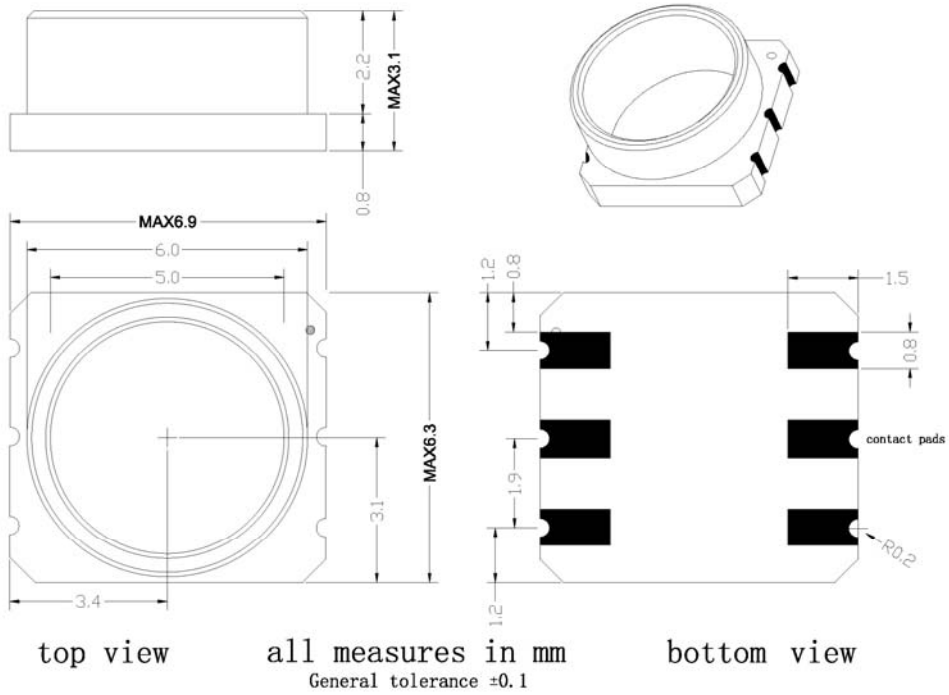
#### Part number System



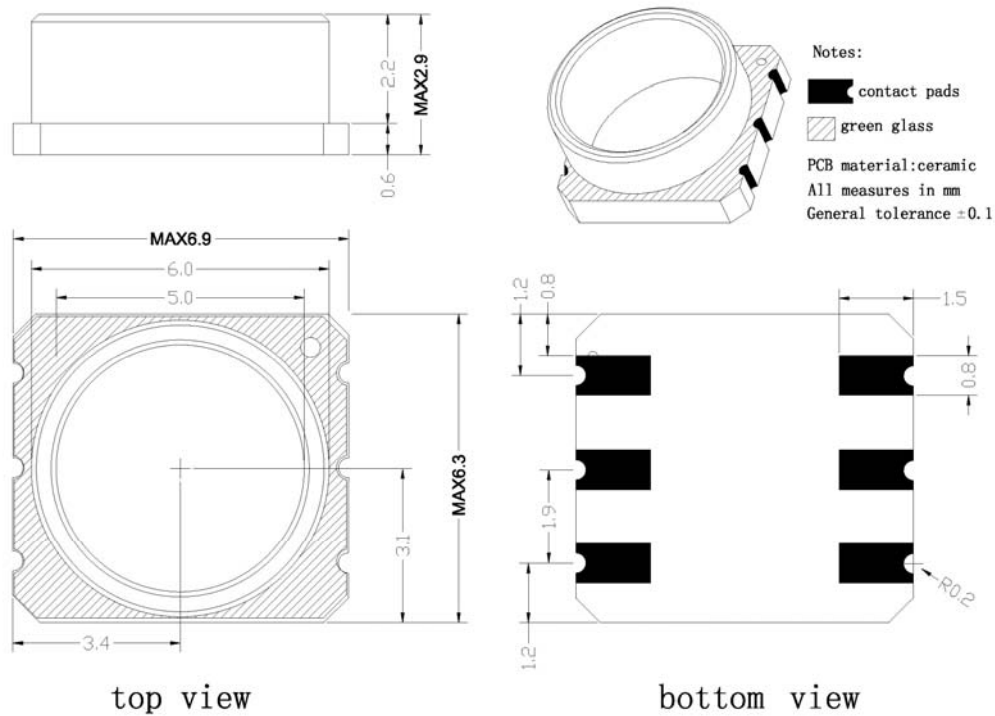
### Pin Configuration



### FR4 PACKAGE OUTLINES



### CEREMIC PACKAGE OUTLINES



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