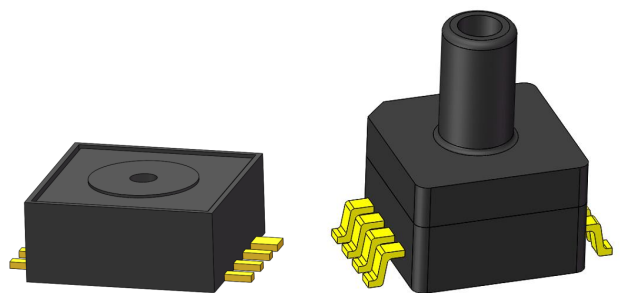


BANNING PRESSURE SENSOR BLWP6XXXAV



BANNING

DESCRIPTION

BLWP6XXXAV is a new type of integrated high precision digital output pressure sensor, with small size, high precision, high reliability. The sensor processing circuit is integrated in the internal noise reduction module to achieve strong anti-interference ability of the sensor performance; At the same time, the sensor integrates the high precision temperature sensor, and adopts the unique algorithm to realize the temperature compensation of the sensor.

This series of pressure sensor adopts LSSOP8 and SSOP8 package two forms, broaden the product application way.

CHARACTERISTICS

- Pressure type: Absolute pressure
- Measuring range: 10~115kPa , 15kPa~130kPa , 20~250kPa , 20~400kPa , etc(The value ranges from 0~700kPa)
- Accuracy higher than 1.5%(0~85 ℃)
- Integrated analog output pressure sensor
- High stability
- Operating temperature: -40~125

PREFORMANCE

Parameter	Minimum	Typical	Maximum	Unit	Note
Supply voltage	4.75	5.0	5.25	Vdc	
Minimum pressure offset (1)		0.500		V	Customizable
Full scale output (2)		4.500		V	Customizable
Full scale range (3)		4.000		V	Customizable
Accuracy	-1.5		1.5	%FS	VS=5.0Volts(0~85 ℃)
hysteresis		0.02	0.05	%FS	
Response time (4)		1	30	ms	@BLWP6XXXAV
Response time		0.25		ms	@BLWP6XXXAV-HF
Voltage rise time (5)	20	20	20	ms	
Output stability (6)	-0.25		0.25	%FS	
Operating temperature	-40	-	+125		
Temperature of storage	-55		+150		

- If not specified, test conditions are 5V supply voltage and 25 ℃ ambient temperature

Instructions

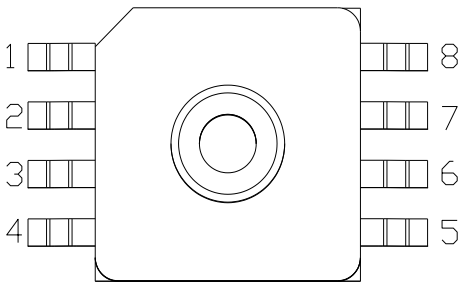
- (1) Minimum pressure bias: within the pressure range, the minimum pressure, the corresponding voltage output;
- (2) Full scale output: maximum output voltage or output voltage under full scale pressure;
- (3) Full scale range: the difference between the output voltage at full scale pressure and the output voltage at minimum pressure;
- (4) Response time: the time required for pressure change from 10% to 90% of pressure change when pressure changes;
- (5) Voltage rise time: after the pressure is stable, the output voltage of the product reaches the specified output time;

- (6) Output stability: variation of product output after 1000 pressure shocks.

APPLICATION

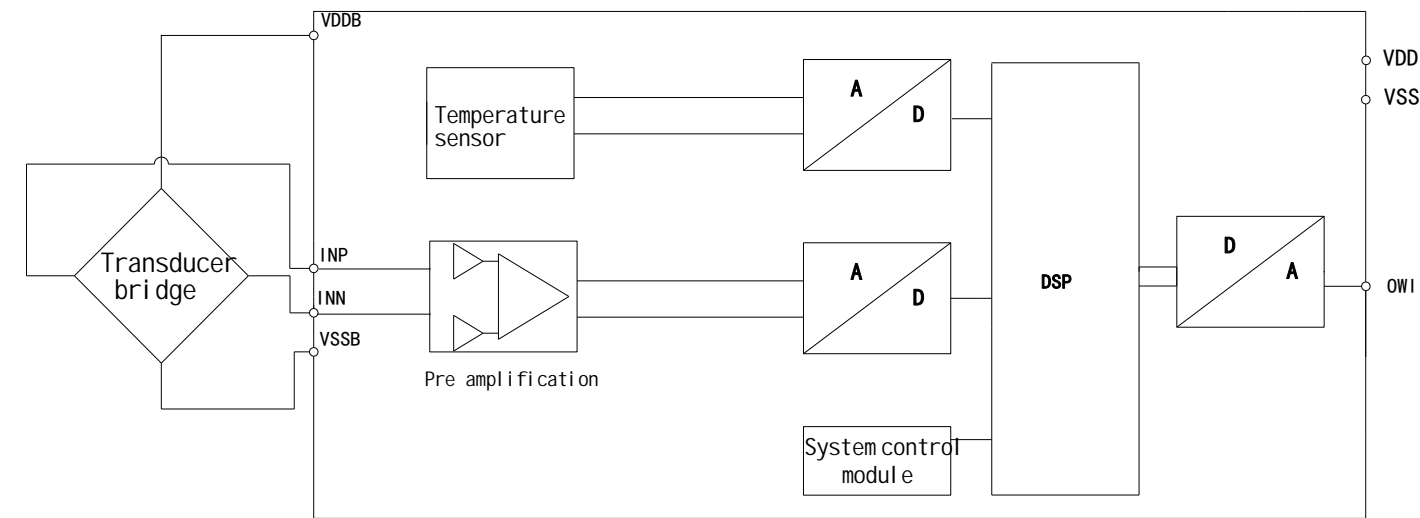
- Automotive Applications
- Industrial control
- Assisted GPS navigation
- Medical monitoring

PIN DEFINITION



Pin number	Pin definition	Instructions
1	VC	-
2	TEST1	Factory test, suspended
3	TEST2	Factory test, suspended
4	Vgate	A gate or suspension connected to aJFET triode
5	VDD	power supply+
6	GND	Ground
7	Vout	Output
8	GND	Ground

MODULE CONNECTION

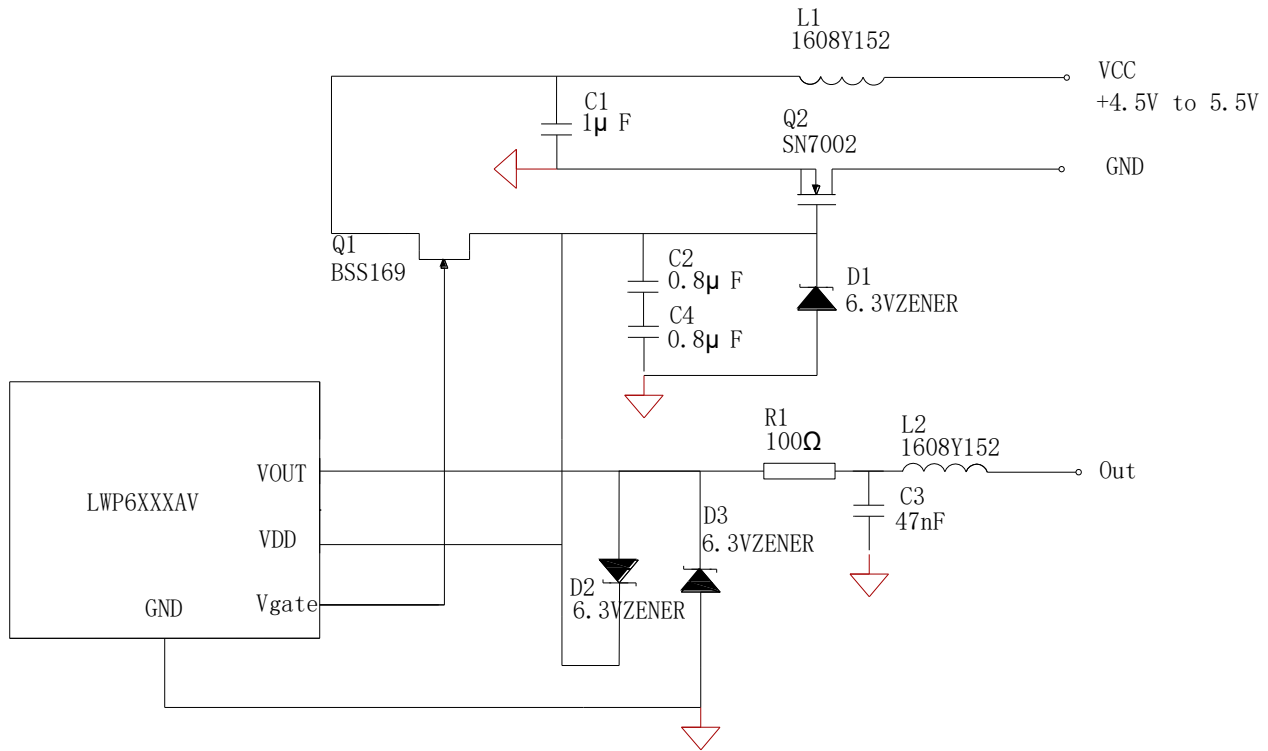


Module connection diagram

CIRCUIT

EMC can refer to the following circuit design.

The circuit has the function of anti-high voltage (33V) and anti-reverse connection. The recommended working voltage is 5V. EMC performance is related to PCB layout and needs to be improved through testing.

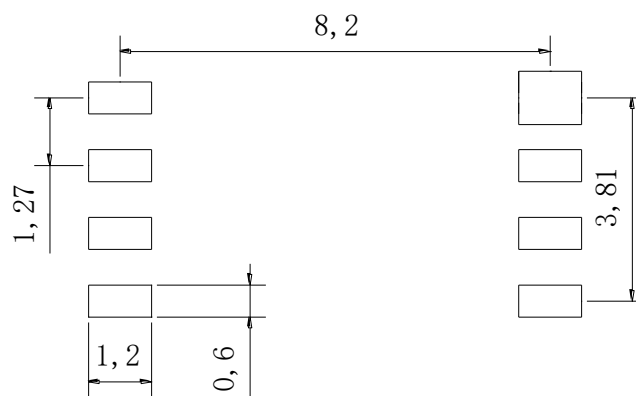


Recommended circuit

PACKAING

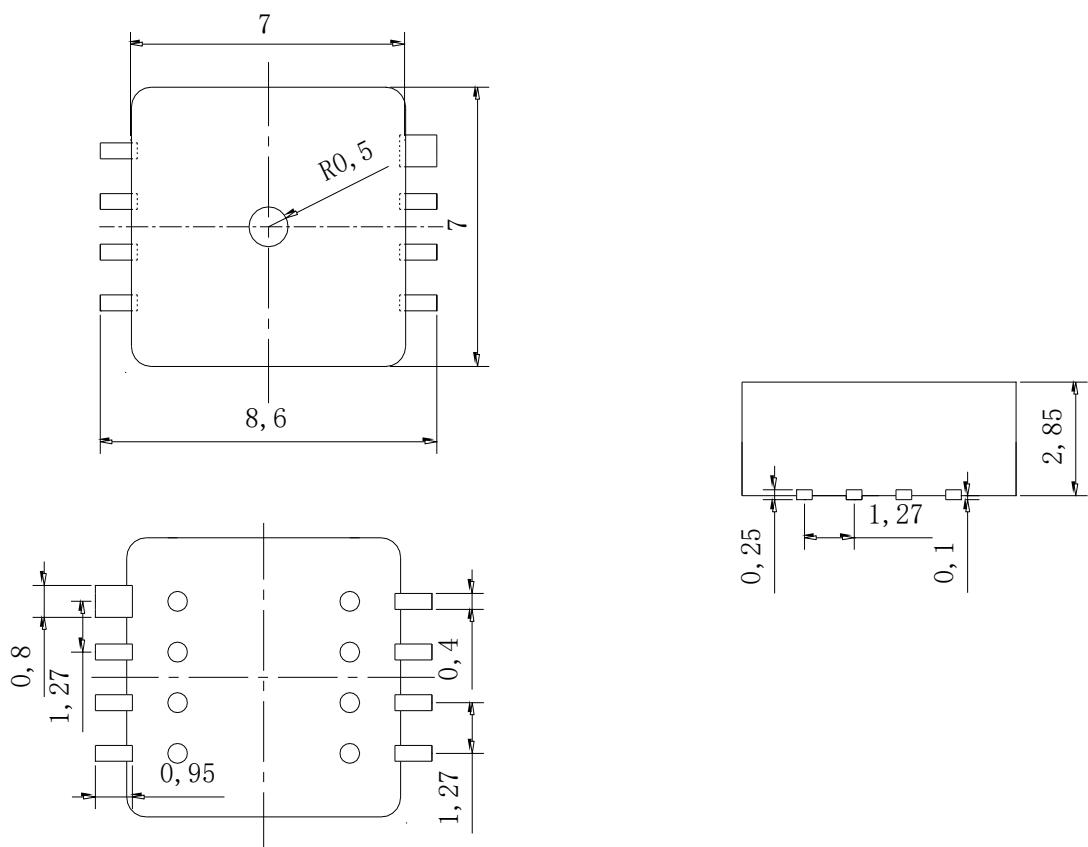
LSSOP8 Installation

The surface mount layout is a key part of the overall design. Use the correct liner geometry to ensure safe and reliable welding connections to avoid Bridges and short circuits between weld points.



Recommended pad layout

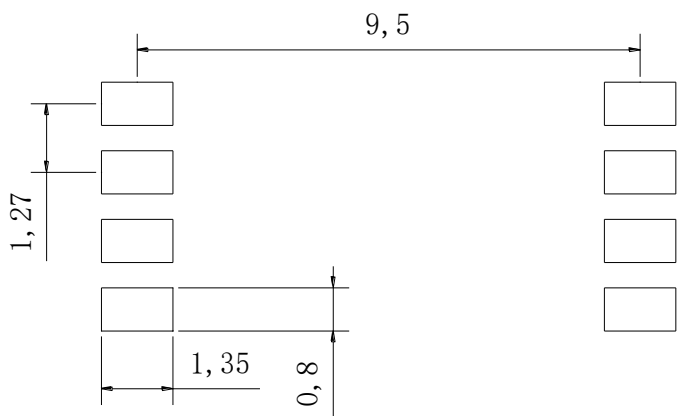
DIMENSIONS (mm)



Package size drawing (without air nozzle)

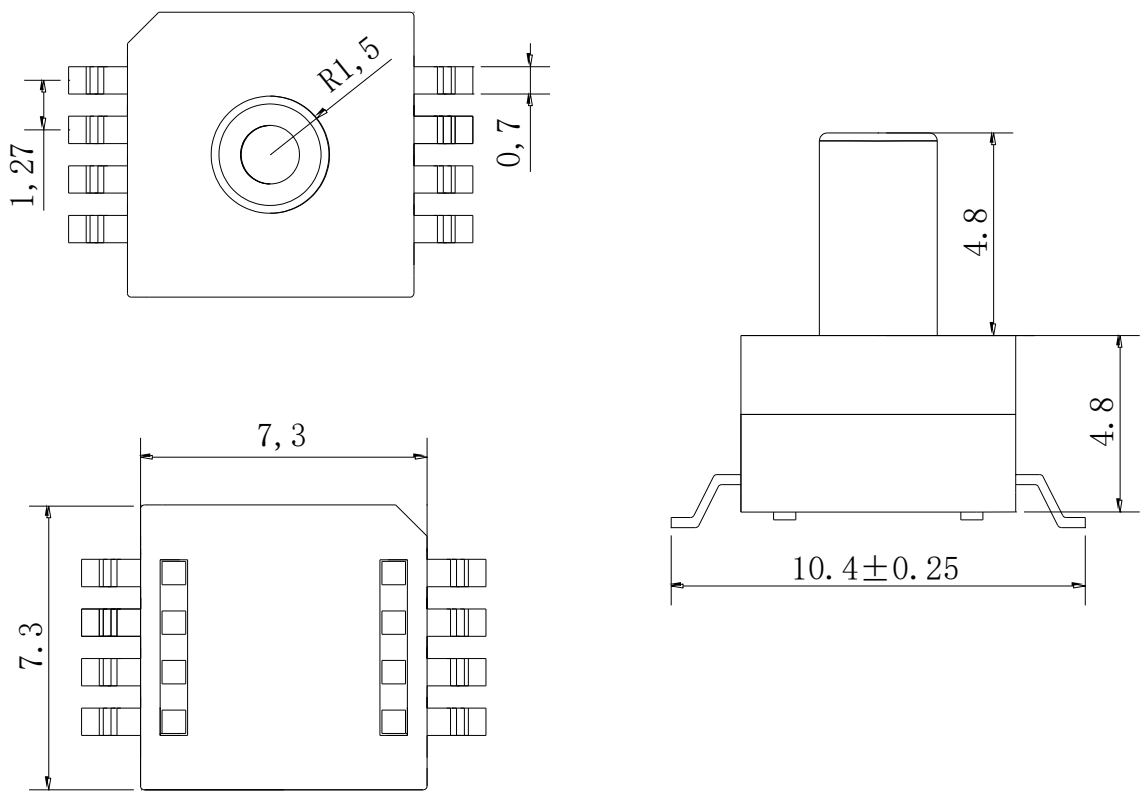
SSOP8 Installation

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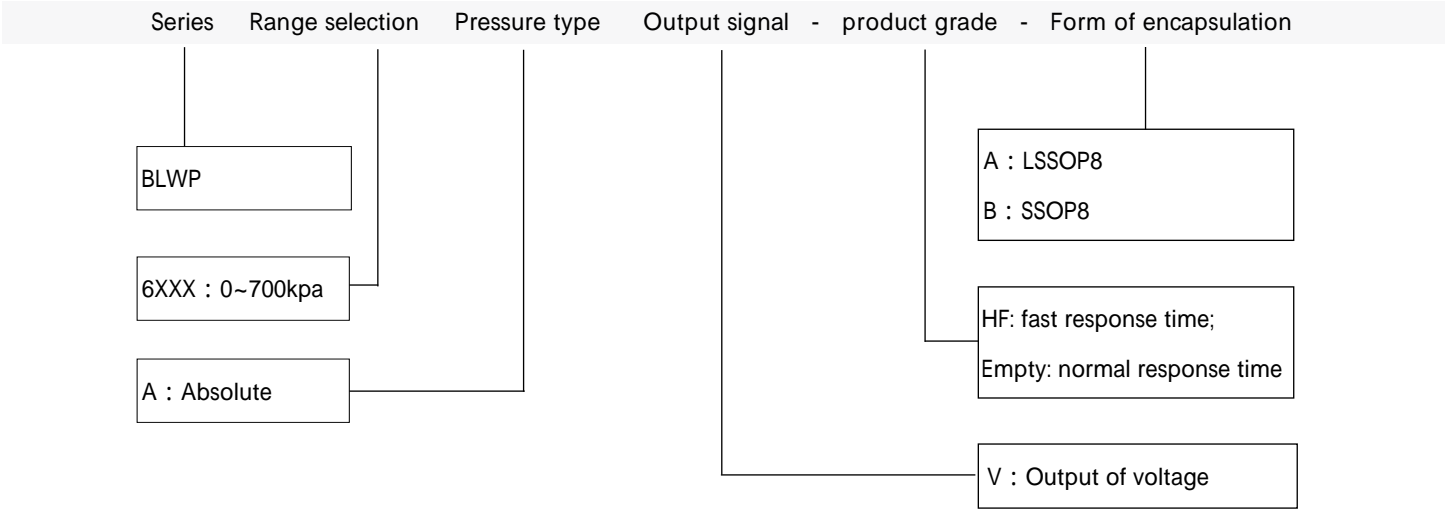
Recommended pad layout

DIMENSIONS (mm)



Package size drawing (with air nozzle)

SELECTION



FOR EXAMPLE : BLWP6200AV-HF-A

The series is BLWP, range is 0 ~ 200kPa, pressure type is absolute pressure, output signal is output of voltage product grade is fast response time , encapsulation form is LSSOP8.

DISCLAIMER

⚠ Warning

LIFE OR PROPERTY RISK

- Please ensure that this product has been designed as part of whole system and already considered related risks, make sure the product has the correct ratings and is designed based on the entire system. It must not be used when applications related to serious life or property damage risks.

Failure to follow this instruction can result in death or serious injury.

⚠ Warning

PERSONAL INJURY

- DO NOT USE these products as safety or emergency stop devices or in any other application where failure of the product could result in personal injury.

Failure to follow this instruction can result in death or serious injury.

⚠ Warning

MISUSE OF DOCUMENTATION

- The information presented in this product sheet is for reference only. Do not use this document as a product installation guide.
- Complete installation, operation, and maintenance information is provided in the instructions supplied with each product.

Failure to follow this instruction can result in death or serious injury.

Warranty/Remedy

Banning warrants goods of its manufacture as being free of defective materials and faulty workmanship during the applicable warranty period. Banning's standard product warranty applies unless agreed to otherwise by Banning in writing; please refer to your order acknowledgment or consult your local sales office for specific warranty details. If warranted goods are returned to Banning during the period of coverage, Banning will repair or replace, at its option, without charge those items that Banning, in its sole discretion, finds defective. The foregoing is buyer's sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose. In no event shall Banning be liable for consequential special, or indirect damages.

While Banning may provide application assistance personally, through our literature and the Banning web site, it is buyer's sole responsibility to determine the suitability of the product in the application.

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