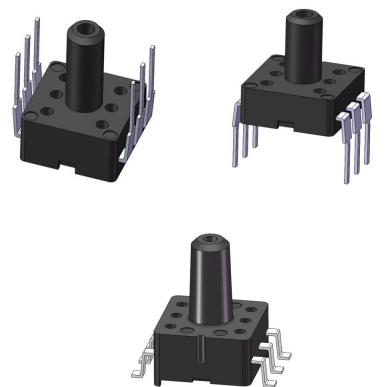




BANNING

PRESSURE SENSOR

BLWP2XXX



BANNING

DESCRIPTION

BLWP2XXX series pressure sensor is a MEMS pressure sensor with all-silicon structure. The external ambient temperature is $-45 \sim 125$, which can achieve accurate pressure measurement and show a good linear relationship with the output voltage. This series of pressure sensor adopts open loop detection, SOP6, DIP6 package, broaden the product application way.

CHARACTERISTICS

- Measuring range: -10~10kPa, -100~100kPa, -100~200kPa, -100~1000kPa
- Type of pressure: gauge pressure
- High sensitivity
- High reliability
- High stability
- Constant voltage source or constant current source
- Low cost

PERFORMANCE

Parameter	Minimum	Typical	Maximum	Unit	Note
Supply voltage	-	5	10	Vdc	
Working current		1		mAdc	
Bridge arm resistance	4.5	5	5.5	k	
Zero bias	-10	0	+10	mV	
Full scale output	30	50	70	mV	@10/1000kpa
Full scale output	50	70	110	mV	@100/200kpa
Non linearity	-	0.1	0.2	%FS	
Zero output temperature coefficient TCO	-0.08	-0.03	0.08	%FS/	Constant pressure mode
	-0.08	-0.04	0.08	%FS/	Constant current mode
Full scale output temperature coefficient TCS	-0.27	-0.22	-0.17	%FS/	Constant pressure mode
	-0.03	± 0.02	0.03	%FS/	Constant current mode
Resistance temperature coefficient	1500	2000	2500	ppm/	
Hysteresis	-	0.05	0.1	%FS	
Operating temperature	-30	-	125		
Temperature of storage	-55	-	150		
Stability of	0.2			%FS/Y	
Over load capacity	3 times the reference range				

Note : Unless otherwise specified, all values in this table are tested at a voltage of 5Vdc and a temperature of 25 ± 3

APPLICATION

- Medical equipment
- Industrial control
- Household electronics
- Automotive electronics

SCHEMATIC DIAGRAM

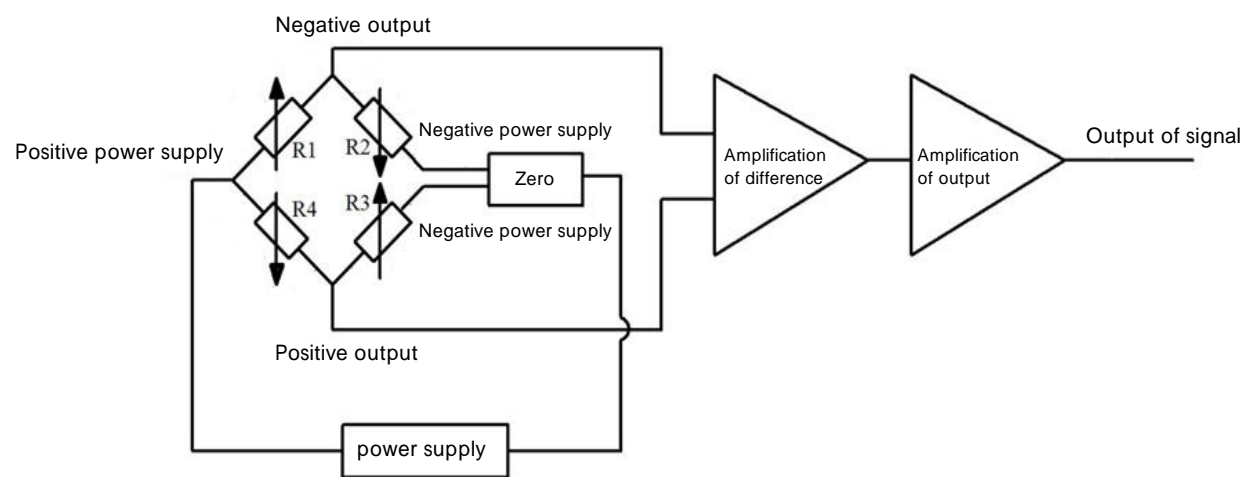


Figure.1 Pressure sensor circuit (dual power supply with negative input)

PIN DEFINITION

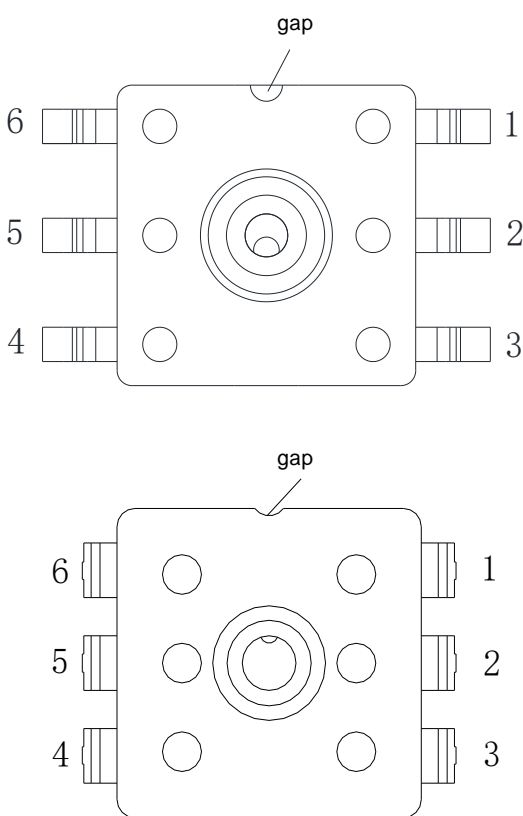
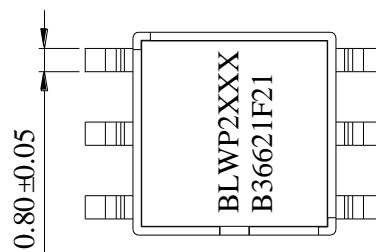
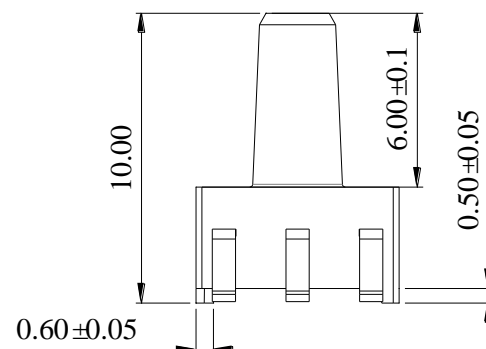


Figure.2 Top view

- SOP6 package size



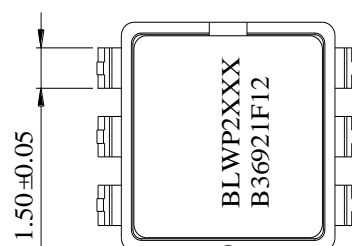
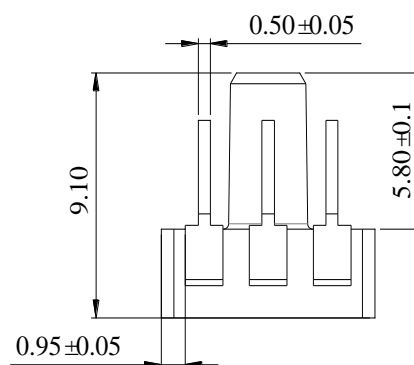
Technical drawing of a mechanical part, showing front and top views with dimensions.

Front View Dimensions:

- Overall width: 10.60 ± 0.75
- Overall height: 1.80 ± 0.1
- Top flange width: 3.00
- Top flange thickness: 0.26 ± 0.05
- Internal feature width: 3.10

Top View Dimensions:

- Overall width: 8.50
- Overall height: 8.50
- Central feature diameter: $R0.75 \pm 0.05$
- Distance from top edge to central feature: 2.54 ± 0.1



BANNING

ORDER

Pressure transducer	Range	Method of packing	Minimum packing quantity
BLWP2010S	-10~10kPa	Roll loading/Tube loading	P:600PCS ; L:1400PCS
BLWP2010R		Tube loading	L:1120PCS
BLWP2010F		Tube loading	L:1120PCS
BLWP2100S	-100~100kPa	Roll loading/Tube loading	P:600PCS ; L:1400PCS
BLWP2100R		Tube loading	L:1120PCS
BLWP2100F		Tube loading	L:1120PCS
BLWP2200S	-100~200kPa	Roll loading/Tube loading	P:600PCS ; L:1400PCS
BLWP2200R		Tube loading	L:1120PCS
BLWP2200F		Tube loading	L:1120PCS
BLWP21000S	-100~1000kPa	Roll loading/Tube loading	P:600PCS ; L:1400PCS
BLWP21000R		Tube loading	L:1120PCS
BLWP21000F		Tube loading	L:1120PCS

NOTE : • S: SOP6 package;

R: DIP6-R encapsulation;

F: DIP6-F encapsulation

• P: roll;

L: material pipe loading;

METHOD OF PACKING

1、SOP6 products adopt two packaging methods: tape and material tube:

(1) Roll packing: 600PCS/ roll;

(2) Material tube packaging: 1400PCS/ box (20 tubes per box, 70PCS per tube)

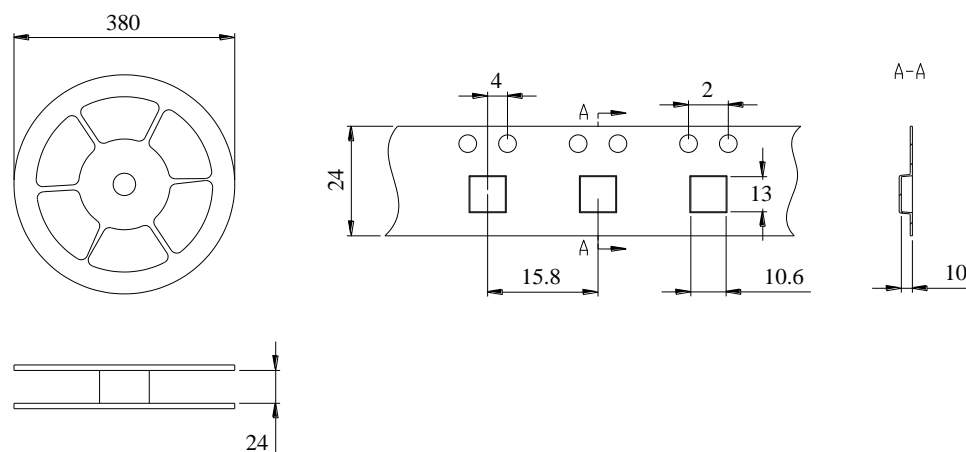


Figure 1. SOP6 tape packing diagram

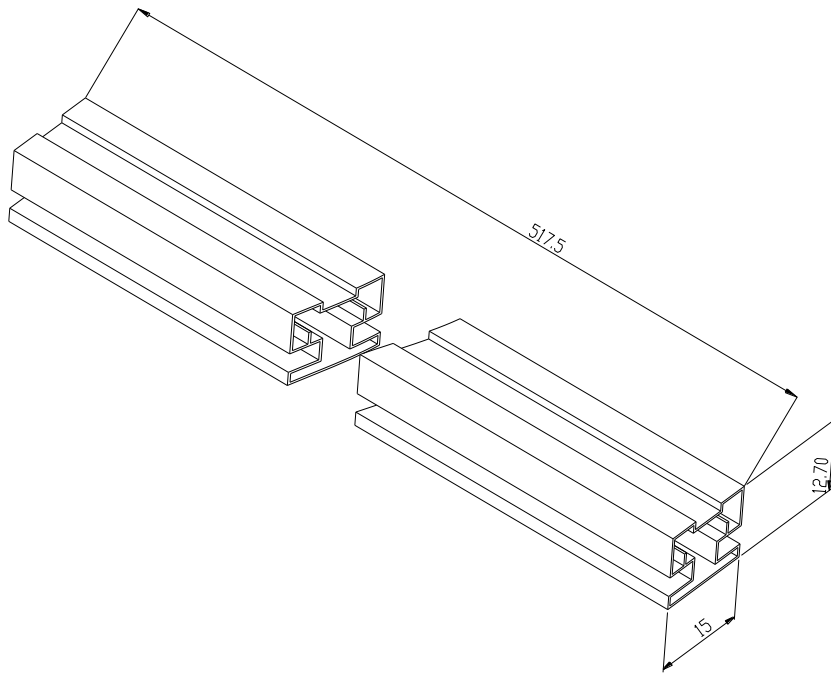


Figure 2. Schematic diagram of SOP6 single tube packaging

2、DIP6 products are packed with material tubes: 1220PCS/ box (20 tubes per box, 56PCS per tube).

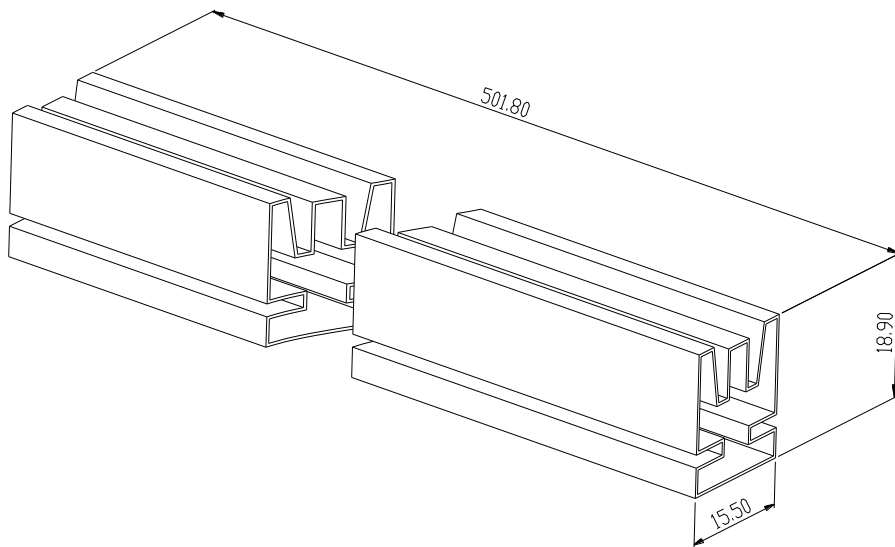


Figure 3. DIP6 single pipe packing diagram

PRECAUTIONS FOR USE

Requirements for reflow welding

The maximum welding temperature of BLWLP7xxxXV series is not higher than 235℃, which can be set by referring to Figure 4

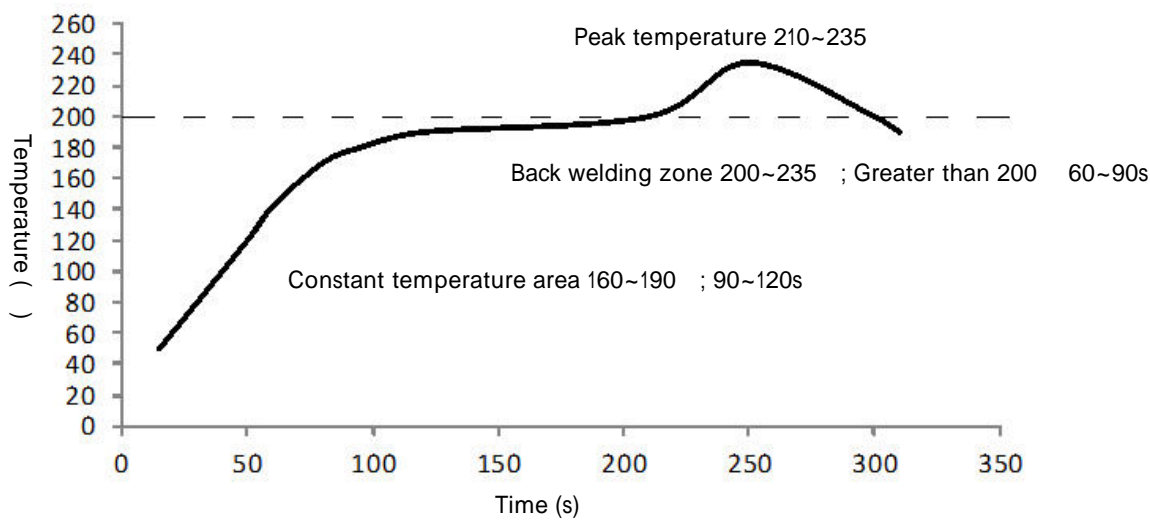
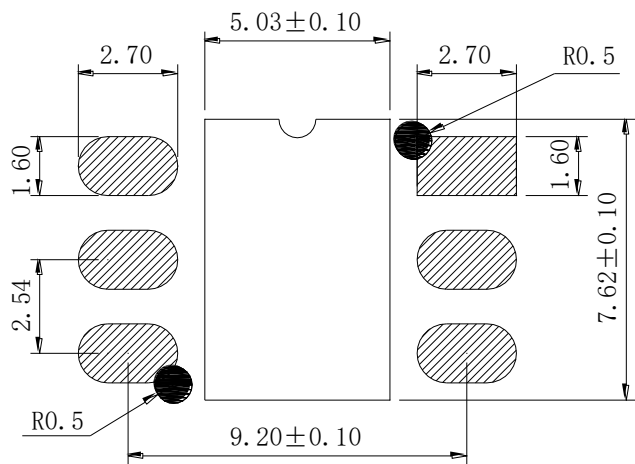


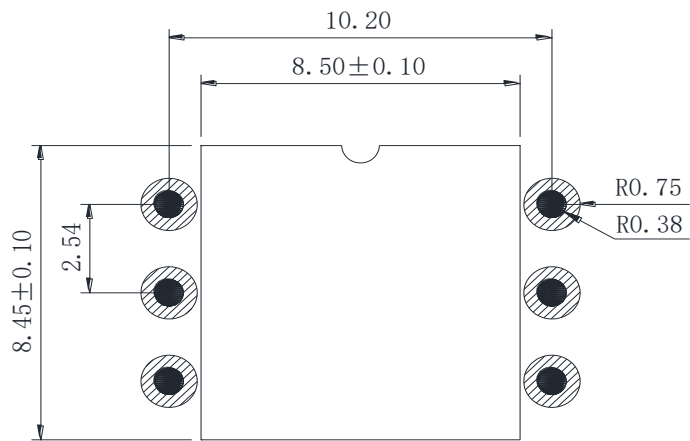
Figure 4. Welding temperature curve

INSTALLATION

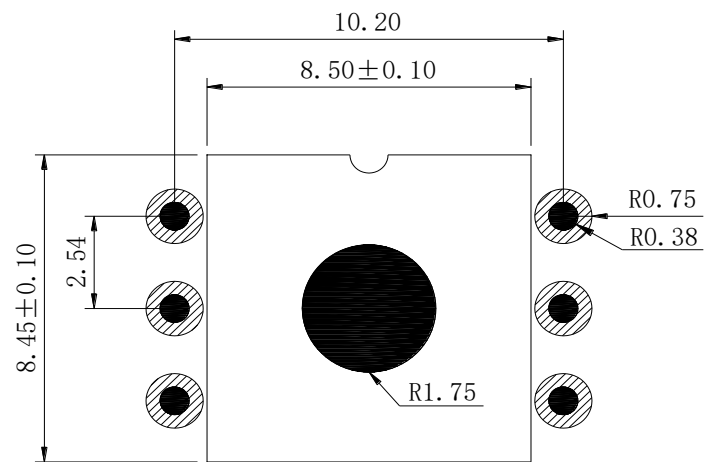
The surface mount layout is a key part of the overall design. Use the correct liner geometry to ensure safe and reliable welding connections to avoid Bridges and short circuits between weld points.




SOP6 Circuit Pad Layout Recommended drawing (mm)



DIP6-F Circuit Pad Layout Recommended drawing (mm)



DIP6-R Circuit Pad Layout Recommended drawing (mm)

Note:  stands for perforation

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.

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