

Product Features

- Small size: LGA4 4.3*4.3*2.5mm
- Operating temperature: -40°C to 125°C
- Range : 40KPa
- Linearity: 0.3% (typical value)
- Low cost, high reliability

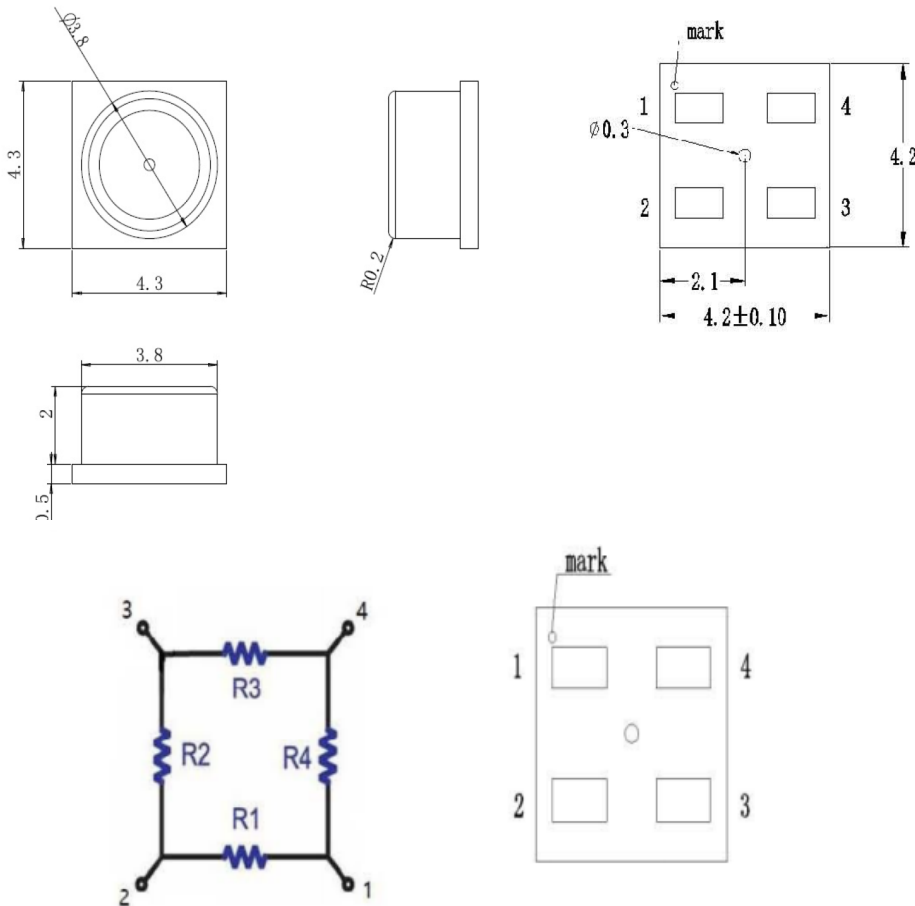
Application

- Medical field
- Consumer electronics
- Industrial control
- Gas pressure sensor system

Product Introduction

WF152 series gauge pressure sensor is an LGA4 packaged diffused silicon piezoresistive pressure sensor. This product is widely used in non-corrosive, non-conductive atmospheric pressure environments and exhibits good repeatability and long-term operational stability.

External dimensions and pin definitions (unit: mm)



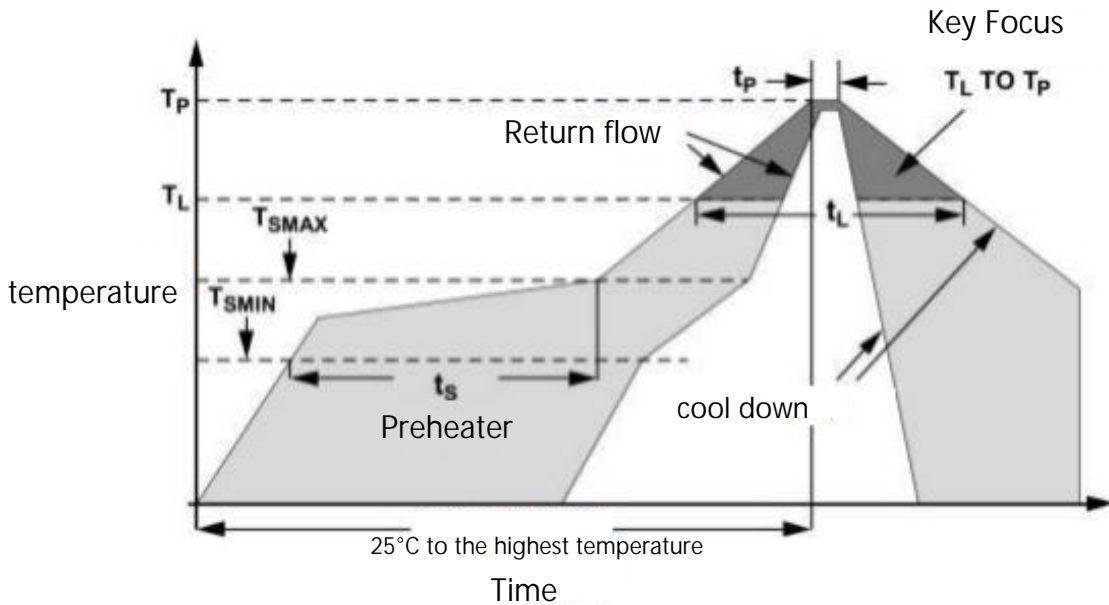
Pin No.	1	2	3	4
Definition (EN)	GND	Vout-	VDD	Vout+

Data Parameters

(Chip working environment: driving voltage VS+=5Vdc; ambient temperature Ta=30°C)

Parameter	Min.	Typical	Max.	Unit	
Constant Voltage Power Supply	-	5	10	V	
Constant Current Power Supply	-	1	2	mA	
Measuring Range	5、10、20、40、100、200、300、700、1000			KPa	
Bridge Arm Resistor	4.5	5	5.5	kΩ	
Zero Point Output Range	-15	0	+15	mV	
Full scale output range 20KPa	35	50	65	mV	
Full scale output range 40, 100, 200, 700KPa	60	80	100	mV	
Full scale output range 1000KPa	65	100	135	mV	
Nonlinear	0.2	0.3	0.5	%FS	
Zero Point Output Temperature Coefficient	-	-	0.5	%FS/°C	
Full-scale output temperature coefficient TCS	Constant Voltage Power Supply	-0.17	-0.22	-0.27	%FS/°C
	Constant Current Power Supply	-0.05	0.025	0.05	%FS/°C
Resistive Temperature Coefficient	1500	2000	2500	ppm/°C	
Stability	-	-	0.2	%FS/Y	
Hysteresis	-	-	0.2	%FS/Y	
Pressure overload 20, 40, 100, 200KPa			3X		
Pressure overload 700, 1000KPa					
Working Temperature	-40	-	125	°C	
Storage Temperature	-40	-	150	°C	

Reflow Soldering Recommendations:



Stage	Guideline Value (Dimensionless)
Ramp-up Rate (T_{SMax} to T_P)	3° C/s
Preheat Minimum Temperature (T_{SMin})	150° C
Preheat Maximum Temperature (T_{SMax})	200° C
Preheat Time (T_s : T_{SMin} to T_{SMax})	60 – 180 s
Reflow Minimum Temperature (T_L)	217° C
Time Above T_L (t_L)	60 – 150 s
Peak Reflow Temperature (T_p)	260° C
Time at Peak Temperature (t_p)	20 – 40 s
Cooling Rate	4° C/s
Time from 25° C to Peak Temperature	Max. 8 min