



[6pins Digital Passive Infrared Sensor BS612](#)

Overview

Senba Pyroelectric Infrared Sensors with high sensitivity, low noise and reliable performance. We have our own research and development department, with international technology and Hybrid IC technique expertise developed more than 15 years. The goods come standard with enhanced immunity to RFI (Radio Frequency Interference) and 2.4G high frequency interference. Senba PIR sensor support delay time, sensitivity adjustable, lighting adjustable.

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- Schmidt REL output
- Low voltage, low power consumption, instantaneous settling after power up

1. Maximum Ratings

Characteristics	Symbol	Min. Value	Max. Value	Unit	Remarks
Supply Voltage	VDD	-0.3	3.6	V	
Working Temperature	TST	-20	85	°C	
Max.current for pin	Into	-100	100	mA	
Storage Temperature	TST	-40	125	°C	

2. Working Conditions (T=25°C, Vdd=3V, Except other requirements)

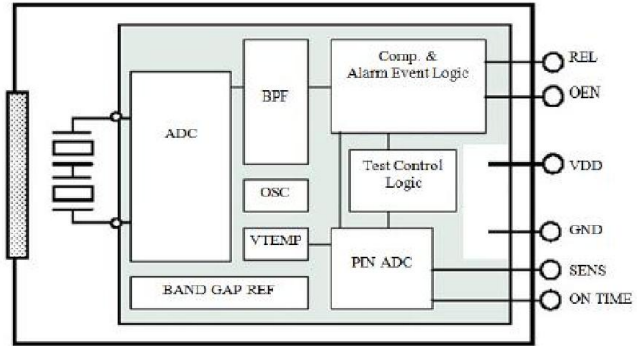
Characteristics	Symbol	Min.	Type	Max.	Unit	Remarks
Supply Voltage	V _{DD}	2.0	3	3.3	V	IR=0.5mA

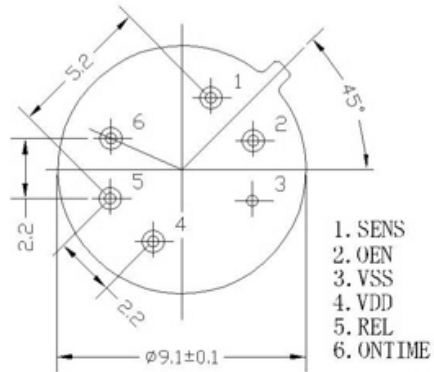
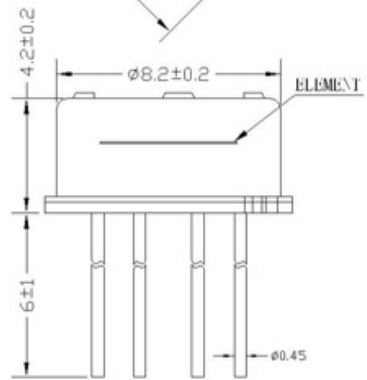
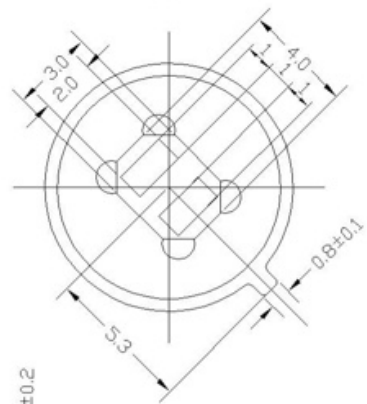
Working Current	I_{DD}	9	9.5	11	μA	
Sensitivity	V_{SENS}	90		2000	μV	
Output REL						
Output Low Current	I_{OL}	10			mA	$V_{OL} < 1V$
Output High Current	I_{OH}			-10	mA	$V_{OL} > (V_{DD} - 1V)$
Lock time	T_{OL}		2		s	
On-time	T_{OH}	2		4793	s	
SENS/ONTIME						
Input voltage		0		V_{DD}	V	0V to $V_{DD}/2$
Input Bias Current		-1		1	μA	
OEN						
Input Low Voltage	V_{IL}	0.8V-1.2V	Enable area	0.8	Vdd	
Input High Voltage	V_{IH}	1.2			Vdd	
Input Current	I_I	-1		1	μA	$V_{SS} < V_{IN} < V_{DD}$

Oscillator & Filter

Low pass filter cut-off frequency			7	Hz	
High pass filter cut-off frequency			0.44	Hz	
Oscillator frequency on Chip	F _{CLK}		64	kHz	

Interior Block Diagram





- 1. SENS
- 2. OEN
- 3. VSS
- 4. VDD
- 5. REL
- 6. ONTIME