



Digital Intelligent Pyroelectric 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.

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



