



Pyroelectric Infrared Sensor

Model: S01-C A0

• Management No.

• Current Mode

• Single Channel

• Point Detection

■ Features :

Thermal Compensation

High Sensitivity

Anti-Infrared Interference

■ Applications :

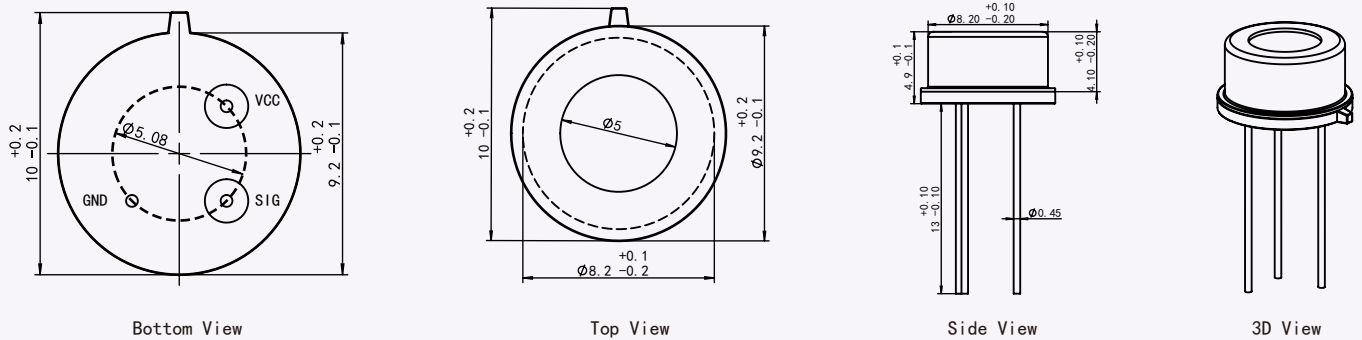
Flame Detection

1. Instruction

The S01-C A0 flame detector is based on the pyroelectric effect of LiTaO3 single crystal, combined with ultra-low noise current amplifier circuit and sapphire substrate narrow band filter. The detector have good anti-interference ability and high sensitivity at the same time. This type of detector can be used in long distance flame detection.

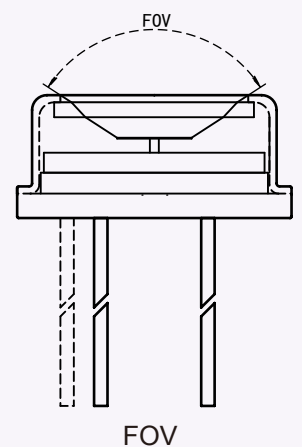
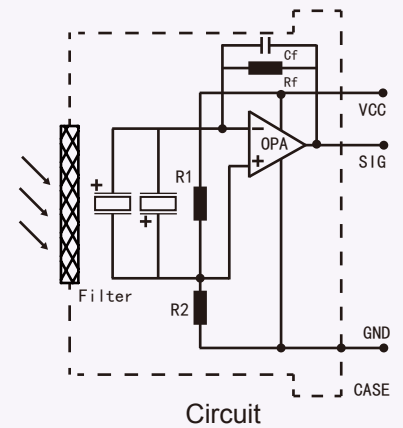


2. Dimensions (mm)

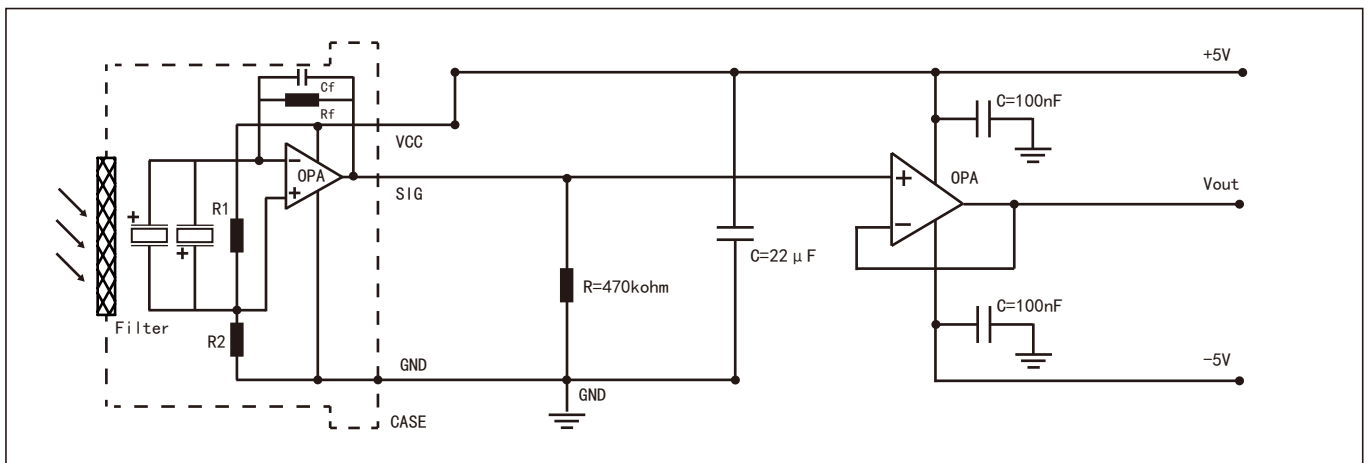


3. Parameters

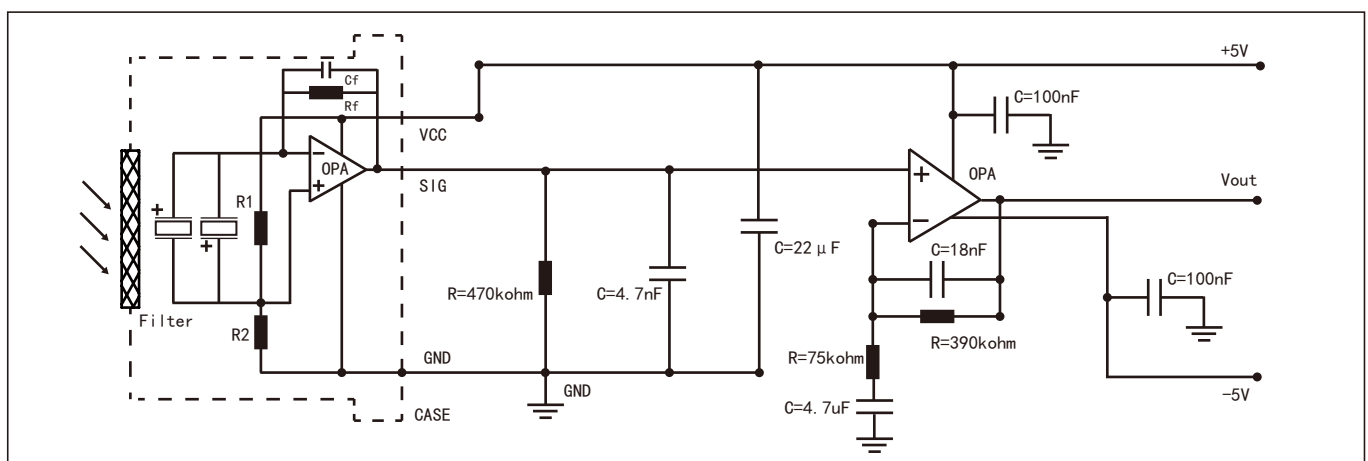
Aperture Size	nom	φ5 mm
Parameters of Filter (Can be Customized)	nom	3.8um-180nm, 4.3um-600nm, 5.0um-240nm, etc.
Element Size	nom	2.5*2.5 mm ²
Field of View	min	100°
Polarity	-	Negative signal by positive IR flux
Voltage Responsivity (500K、10Hz、25°C、without filter)	typ	84,000 V/W
Noise (10 Hz, BW 1Hz, 25°C, without filter)	max	35 uV/√Hz
Specific Detectivity (500K、10Hz、25°C、without filter/window)	typ	6E+08 cm ² /Hz/W
Thermal Time Constant	typ	200 ms
Electrical Time Constant	typ	10 ms
Supply Voltage	-	2 ~ 5.5 V
Operating/Storage Temp	nom	-30 °C ~ +80 °C



4. Test Circuit



5. Application Circuit



6. Cautions

- (1) The operating environment should be kept clean and tidy, and the filter shall not be touched directly by hands or hard objects;
- (2) It is recommended to keep the welding time as short as possible, and distance of 4mm between the detector and the PCB;
- (3) Pay attention to the electrostatic protection during the use of the detector.