

THERMAL IR SENSOR

P/N: RDI-9615-S000



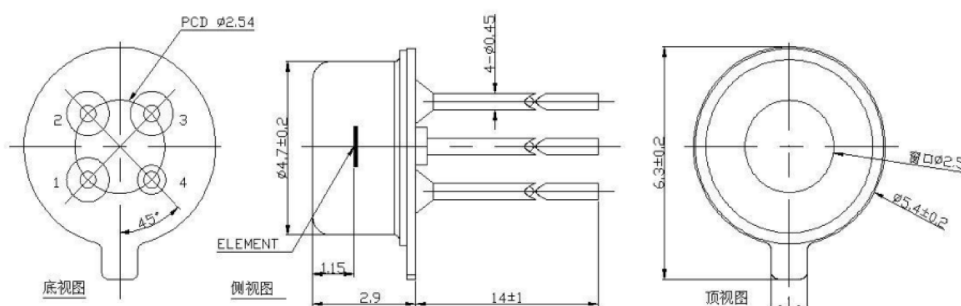
General Description

Infrared Thermopile Sensor is a non-contact infrared temperature measurement detector. And the higher the temperature, the more infrared energy is produced. Thermopile sensing elements consist of small thermocouples on silicon chips that absorb energy and produce output signals.

It is widely used in non-contact temperature measurement. The sensor is packaged by the TO-46 metal socket, and the electronic components such as infrared filter and thermistor are integrated inside, which has high reliability and high sensitivity.

Features

TO-46 housing
High sensitivity
NTC thermistor compensation
Fast response time
5μm Long-wavelength pass filter



Unit: mm

- 1.THERMOPILE(+)
- 2.THERMISTOR
- 3.THERMOPILE(-)
- 4.GROUND



Technical Data

Parameter	Min.	Typ.	Max.	Unit	Conditions
Chip size		1.1×1.1		mm ²	
Sensitive area		0.35×0.35		mm ²	
Detection angle		90		°	
Thermopile resistance	80	98	115	KΩ	Temp=25°C
NEP		0.23		nW/Hz ^{1/2}	Blackbody=500K,1Hz@25°C
Voltage Response		20.11		Vmm ² /w	Blackbody=500K,1Hz@25°C
Responsivity	134	164	194	V/w	Blackbody=500K,1Hz@25°C
Temp. coefficient of resistance		0.06		%/°C	Temp=25°C ~ 75°C
Time constant		≤ 13		ms	
Specific detectivity		1.51×10 ⁸		cmHz ^{1/2} /w	Blackbody=500K,1Hz@25°C
NTC Resistance		100±3%		KΩ	25°C
NTC β		3950±1%		K	25/50°C

