

**Introduction**

Electric heat scattering infrared sensor detects the infrared radiation by using the temperature-dependent feature. It suppresses the interference caused by temperature change adopting the method of two sensitive elements complementary which improves the stability of the sensor. The sensors can be widely used in safety device, burglar alarm, automatic door, automatic lighting, intelligent toys, etc.

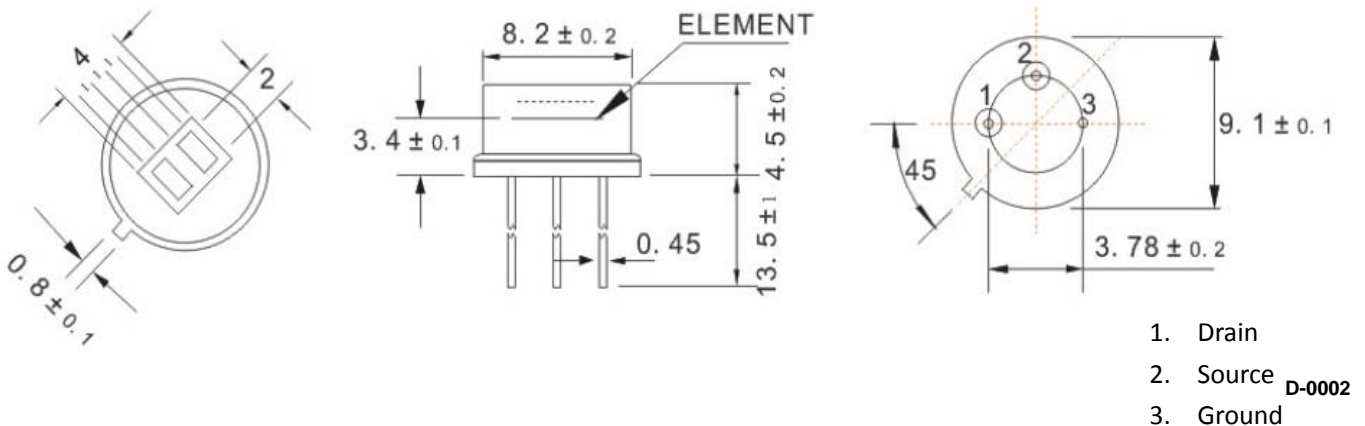
**Application**

- Safety
- Electricity Lighting
- House-hold and other fields

**Features**

- High sensitivity and excellent signal to noise ratio
- High temperature-dependent stability
- Strong anti-jamming ability (e.g.vibration, radio-frequency interference etc.)
- High value with competitive price

**Component Structure**

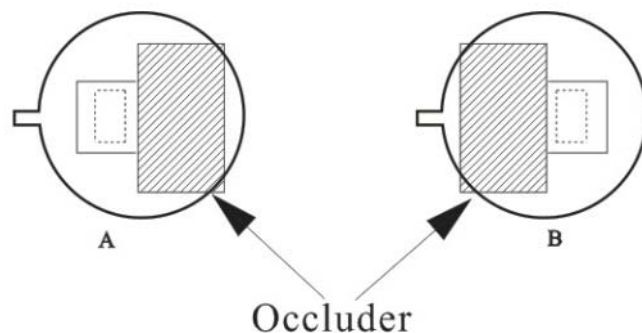


Dual sensor sensitivity can be got by detecting each cell's sensitivity and calculate in following formula:

$$\text{Balance degree} = |V_A - V_B| / (V_A + V_B) \times 100\%$$

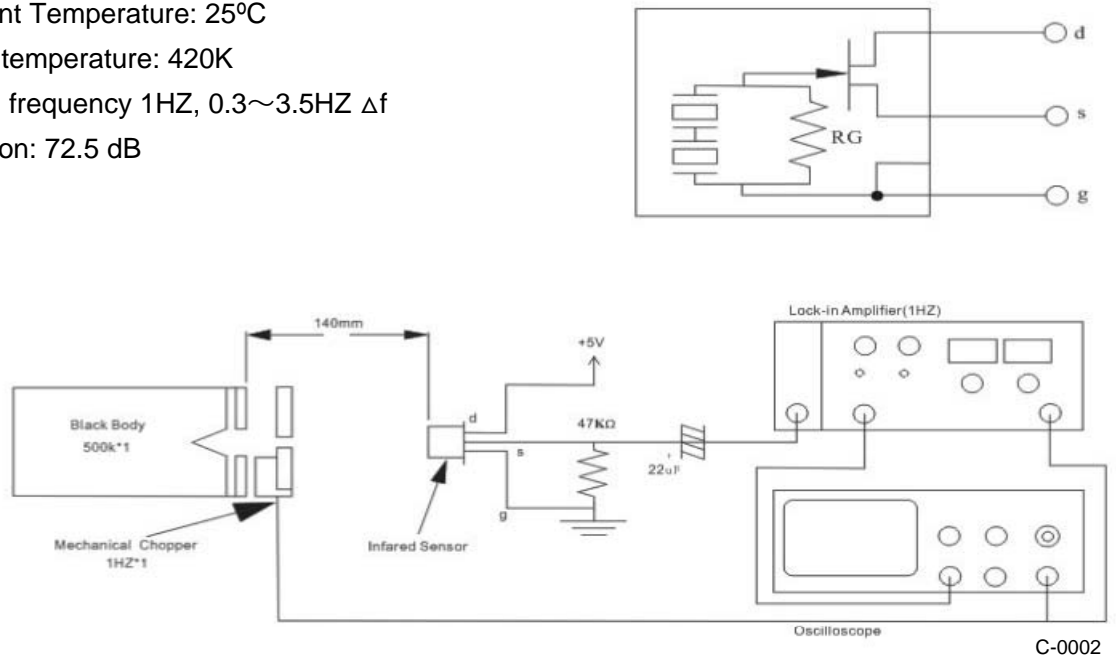
$V_A$  = Surface A sensitivity ( mVp-p )

$V_B$  = Surface B sensitivity ( mVp-p )



**Testing Condition (Circuit &Manner)**

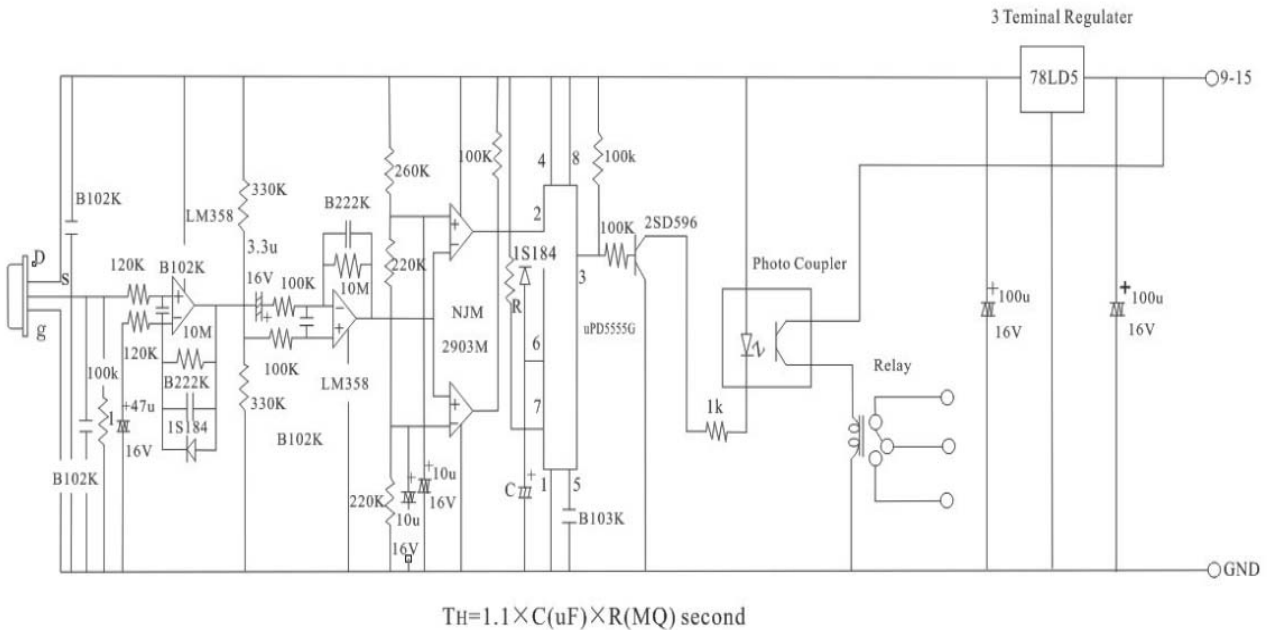
- Environment Temperature: 25°C
- Blackbody temperature: 420K
- Modulation frequency 1HZ, 0.3~3.5HZ Δf
- Magnification: 72.5 dB



**Specification**

Parameter	Symbol	Typ	Units
Sensor Type		GW-P623 series	
Standard Encapsulation		T0-5	
Infrared receiving Electrode		2x1	mm <sup>2</sup>
Window Size		3.8x5	mm <sup>2</sup>
Receiving Wavelength	$\lambda$	7~14	um
Transmittance		>75	%
Output signal peak	Vp-p	3500	mV
Sensitivity		3200	V/W
Detection Rate	D*	1.4x10 <sup>8</sup>	cmHZ <sup>1/2</sup> /W
Noise peak	Vp-p	<70	mV
Output balance degree		<10	%
Source Voltage	Vss	0.2~1.5	V
Working Voltage	VDD	2-15	V
Working temperature	Tamb	-30-70	°C
Storage temperature	Tstg	-40-80	°C
Incidence angle map			o

## Typical application circuit



## The receiving wavelength of the window material

