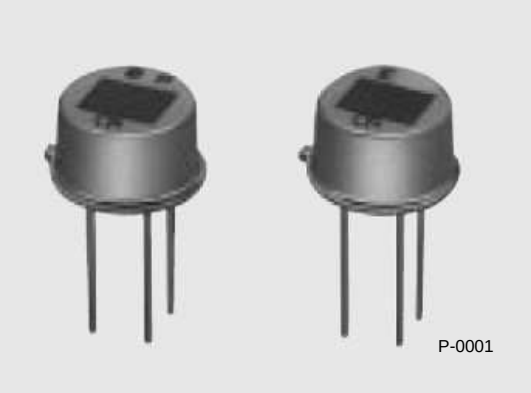


Introduction

Pyroelectric 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

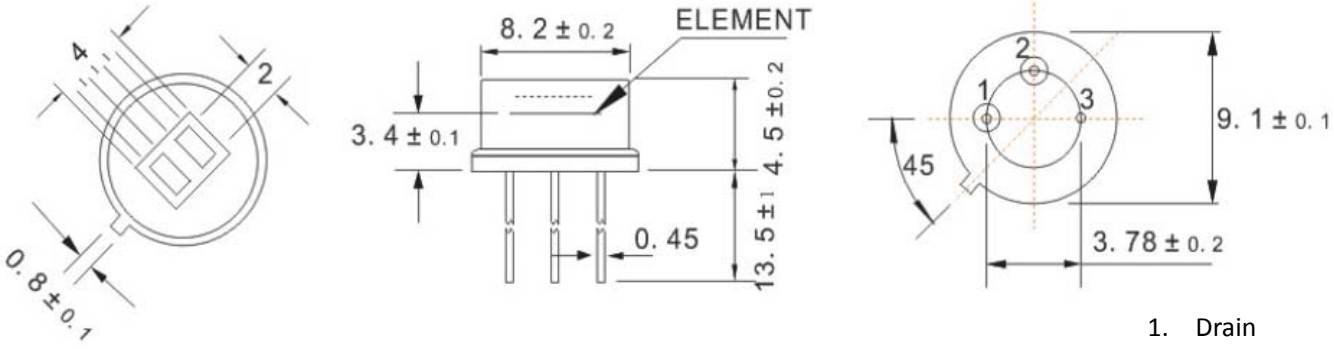
Application

- 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



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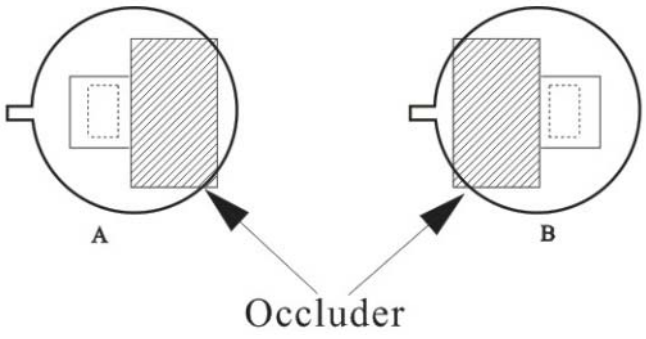
1. Drain
2. Source
3. Ground

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

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

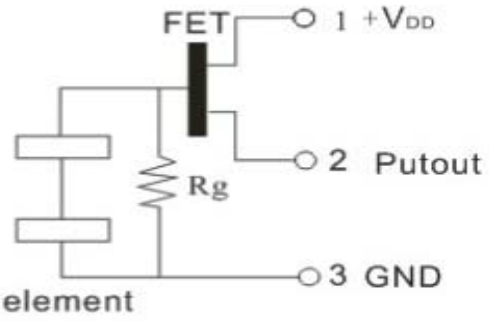
V_A = Surface A sensitivity (mVp-p)

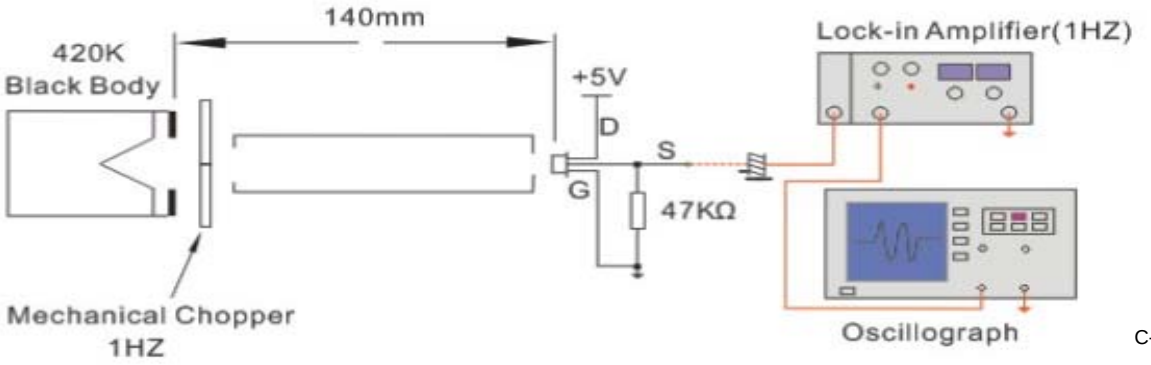
V_B = Surface B sensitivity (mVp-p)



Testing Condition (Circuit &Manner)

- Environment Temperature: 25ºC
- Blackbody temperature: 420K
- Modulation frequency 1HZ, 0.3～3.5HZ ∆f
- Magnification: 72.5 dB





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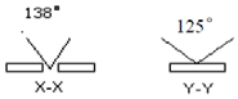
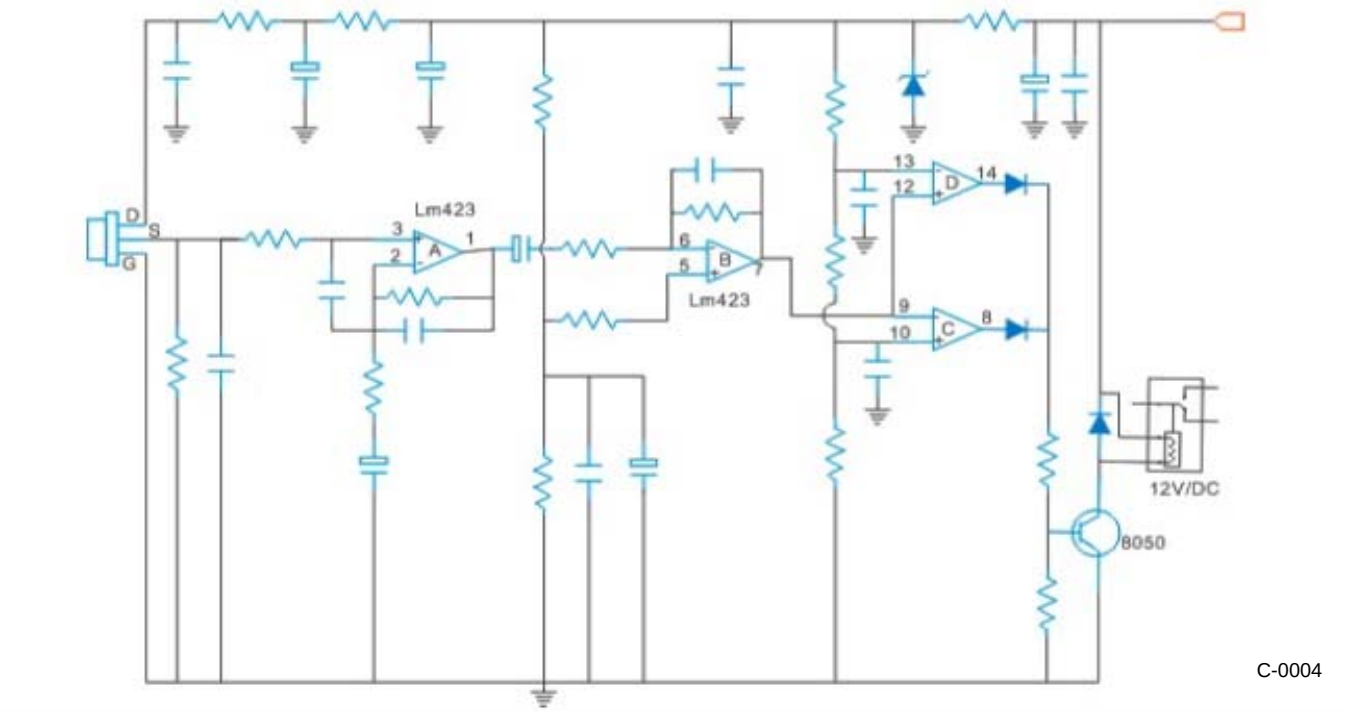
Electrical Specification

Parameter	Symbol	Typ	Units
Standard Encapsulation		T0-5	
Infrared receiving Electrode		2×1	mm²
Window Size		3×4	mm²
Receiving Wavelength	ʎ	7~14	um
Transmittance		>75	%
Output signal peak	Vp-p	3500	mV
Sensitivity		3200	V/W
Detection Rate	D*	1.4×10^{8}	$cmHZ^{1/2}/W$
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	ºC
Storage temperature	Tstg	-40-80	ºC
Incidence angle map			o

Typical application circuit



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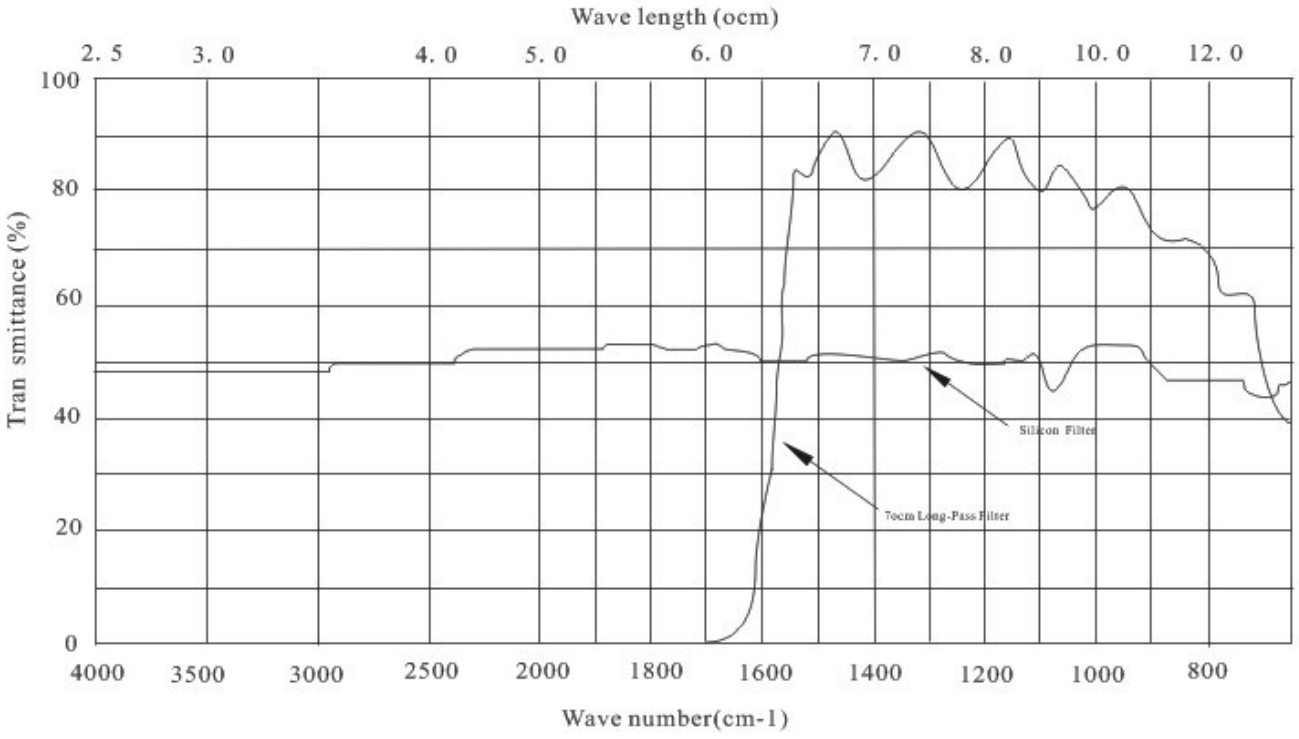
The receiving wavelength of the window material



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