


ΤΟΥΣ ΠΡΟΒΛΕΠΟΜΕΝΕΣ ΚΑΤΑΛΟΓΟΥΣ

ΣΕ ΟΡΘΟΓΩΝΙΑΣ ΚΑΙ ΚΑΤΑΛΟΓΟΥΣ

SPECIFICATION of PYROELECTRIC PASSIVE INFRARED SENSOR

ΤΟΥΣ ΠΡΟΒΛΕΠΟΜΕΝΕΣ ΚΑΙ ΔΙΓΙΤΑΛΕΣ

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| ΤΟΥΣ ΠΡΟΒΛΕΠΟΜΕΝΕΣ ΔΙΓΙΤΑΛΕΣ ΣΕ ΟΡΘΟΓΩΝΙΑΣ : | ΠΡΟΒΛΕΠΟΜΕΝΕΣ | ΜΟΝΑΔΕΣ : | ΠΡΟΒΛΕΠΟΜΕΝΕΣ ΣΕ ΟΡΘΟΓΩΝΙΑΣ |  SHANGHAI NICERA SENSOR CO.,LTD. |
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1. SCOPE

This specification describes a Pyroelectric Passive Infrared Sensor supplied by SHANGHAI NICERA SENSOR CO.,LTD. for passive infrared sensor device.

2. TYPE of SENSOR

2.1. TYPE NAME

Pyroelectric Passive Infrared Sensor

2.2. MODEL NO.

P624M

3. PHYSICAL CONFIGURATION AND DIMENSIONS

3.1. APPEARANCE

There are not remarkable wounds, spots, rust and etc.

3.2. DIMENSIONS

TO-5 Package : See Fig.1.

3.3. MARKING

Lot number and model number are marked on top surface of detector. (Figure.1)


【Model number】

“ P624M” is marked.

4. GENERAL CHARACTERISTICS

Table.1

| PARAMETER | | SPECIFICATION |
|-----------|--------------------------------------|--|
| 4.1. | Pyroelectric Passive Infrared Sensor | Balanced differential type (Series opposed type) |
| 4.2. | Block Diagram | See Fig.3 |

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|----------------------|-------------|------------|----------------|--|
| MODEL NO. : P624M | DRAWING NO. | REV : A | PAGE 2 / 10 |  SHANGHAI NICERA SENSOR CO.,LTD. |
| PART NO. : | | | | |

IV

ns

ns

μ s

CLOAD=10 pF

7.2

2¹⁴

50

90

720

2¹⁴-511

counts

80

Counts/K

2¹⁴-511

counts

6700

8200

9900

counts

7

Hz

0.44

Hz

FCLK

32

Hz

A

3 / 10

6. OPTICAL CHARACTERISTICS

Table.3

| PARAMETER | | SPECIFICATION |
|-----------|-------------------|--|
| 6.1. | Field of view | X-axis : 134 deg. Y-axis : 120 deg. |
| 6.2. | Filter substrate | Silicon |
| 6.3. | Cut on (5 %T ABS) | 5 (+/-) 1 micron |
| 6.4. | Transmission | ≥ 70 % average 8 to 13 micron |

7. ENVIROMENTAL REQUIREMENTS

Table.4

| PARAMETER | | SPECIFICATION |
|-----------|-----------------------|---|
| 7.1. | Operating Temperature | -20 to +70 deg. C |
| 7.2. | Storage Temperature | -30 to +80 deg. C |
| 7.3. | Relative Humidity | The Sensor shall operate without increase in Noise Output when exposed to 90 to 95 % RH at 30 deg. C continuously |
| 7.4. | Hermeticity | The Sensor shall be sealed to withstand a vacuum level of 21.28 kPa. |

8. RoHS COMPLIANCE

This product conforms to the RoHS Directive in force at the date of issuance of this Specification Sheet.

9. REVISION

Any revision of this specification should be made in writing by discussion.

10. NOTES

10.1. Design restrictions/precautions


If used for outdoor applications, be sure to apply suitable supplementary optical filter, drip-proof and anti-dew construction. This sensor is designed for indoor use.

In cases where secondary accidents due to operation failure or malfunctions can be anticipated, add a fail safe function to the design.

10.2. Usage restrictions/precautions

To prevent sensor malfunctions, operational failure or any deterioration of its characteristics, do not use this sensor in the following, or similar, conditions.

- A. In rapid environmental temperature changes.
- B. In strong shock or vibration.
- C. In a place where there are obstructing materials (Glass, Fog, etc.) through which infrared rays cannot pass within detection area.
- D. In fluid, corrosive gases and sea breeze.
- E. Continual use in high humidity atmosphere.
- F. Exposed to direct sun light or headlights of automobiles.
- G. Exposed to direct wind from a heater or air conditioner.

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| PART NO. : | | | | |

10.3. Assembly restrictions/precautions

Soldering

- A. Use soldering irons when soldering.
- B. Avoid keeping pins of this sensor hot for a long time as excessive heat may cause deterioration of its quality. (Ex. Within 5 sec. at 350 deg.C)

Washing

- A. Be sure to wash out all flux after soldering as remainder may cause malfunctions.
- B. Use a brush when washing. Washing with an ultrasonic cleaner may cause operational failure.

10.4. Handling and storage restrictions/precautions


To prevent sensor malfunctions, operational failure, appearance damage or any deterioration of its characteristics, do not expose this sensor to the following or similar, handling and storage conditions.

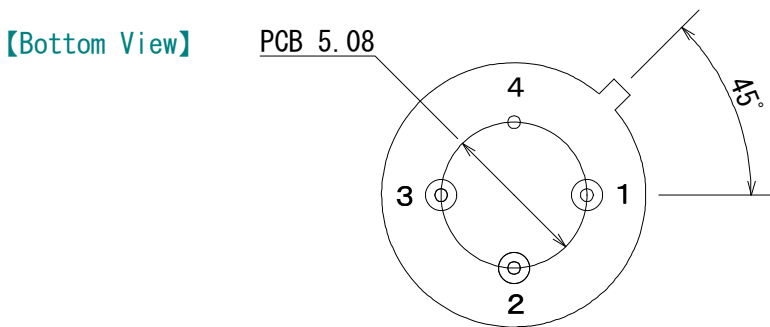
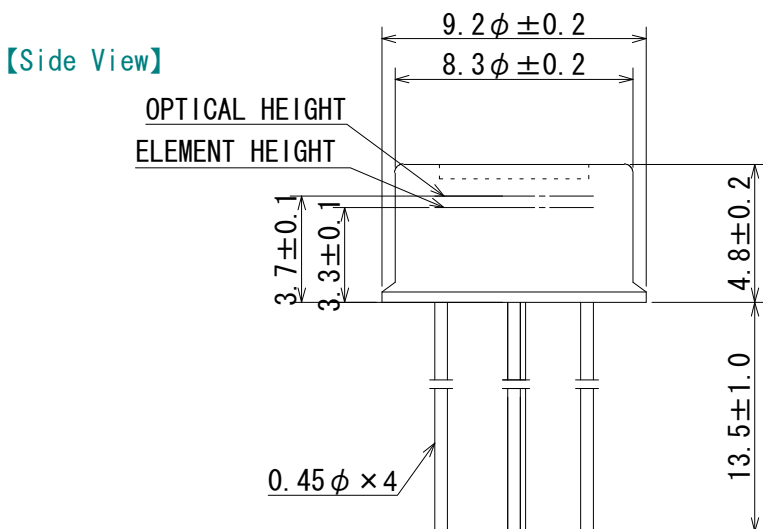
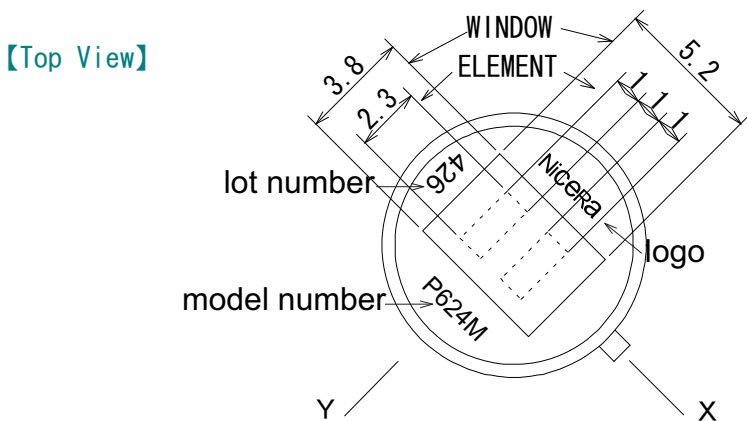
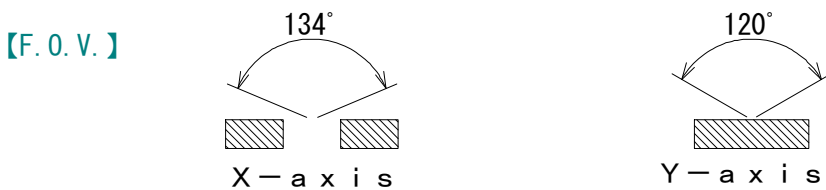
- A. Vibration for a long time.
- B. Strong shock.
- C. Static electricity or strong electromagnetic waves.
- D. High or Low temperature and humidity for a long time.
- E. Corrosive gases or sea breeze.
- F. Dirty and dusty environments that may contaminate the optical lens.

10.5. Restrictions on product use

The product described in this document shall not be used or embedded to any downstream products of which manufacture, use and / or sales are prohibited under any applicable laws and regulations.

Sensor troubles resulting from misuse, inappropriate handling or storage are not the manufacturer's responsibility.

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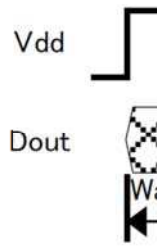
- 1 : INT/Dout
- 2 : Vdd
- 3 : Serial_In
- 4 : GND

Tolerance without instruction: (+ / -) 0.2
Unit : [mm]

(*)The sensor conforms to the standard for RoHS.

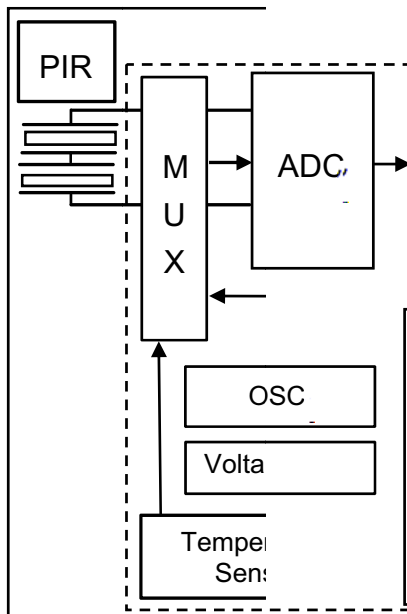
Fig.1 : Dimensions

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Fig

Fig.4

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| MODEL NO. : P624M | DRAWING NO |
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