


ΤΟΥ ΠΡΟΤΥΠΟΥ ΕΛΛΗΝΙΚΗΣ ΚΑΤΑΣΤΑΣΗΣ

ΣΕ ΟΡΘΟΓΩΝΙΑΚΗ ΚΑΤΑΣΤΑΣΗ

## SPECIFICATION of PYROELECTRIC PASSIVE INFRARED SENSOR

ΤΟΥ ΣΤΑΘΕΡΟΥ ΚΑΙ ΔΙΓΙΤΑΛΟΥ

ΑΡΙΘΜΟΣ ΤΥΠΟΥ	ΟΡΟΛΟΓΙΑΚΟ ΤΥΠΟ	ΑΡΙΘΜΟΣ ΤΥΠΟΥ

ΤΥΠΟΣ ΕΛΛΗΝΙΚΗΣ ΔΙΓΙΤΑΛΗΣ ΣΤΑΘΕΡΗΣ :	ΑΡΙΘΜΟΣ ΤΥΠΟΥ	ΤΥΠΟΣ :	ΤΥΠΟΣ	 SHANGHAI NICERA SENSOR CO.,LTD.
		ΚΑΤΑΣΤΑΣΗ	ΠΑΡΑΓΩΓΗ	

### 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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**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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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.

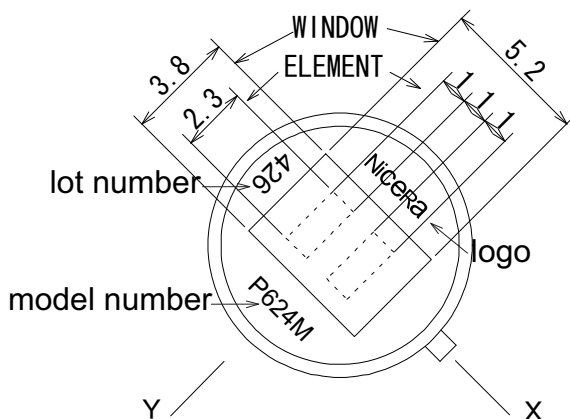
Sensor troubles resulting from misuse, inappropriate handling or storage are not the manufacturer's responsibility.

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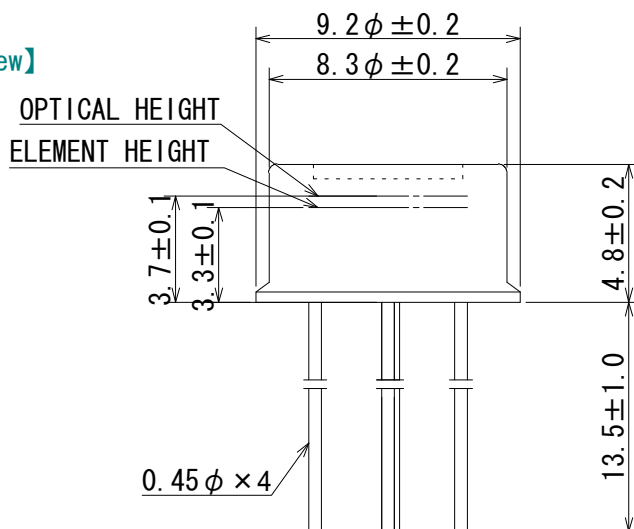
【F.O.V.】



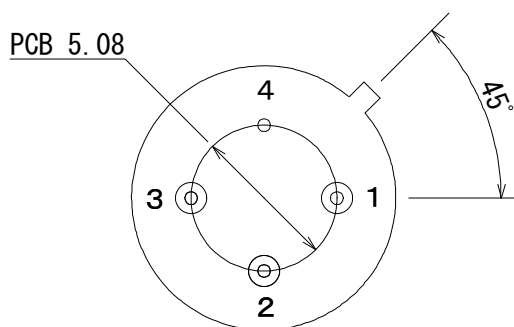
【Top View】



【Side View】



【Bottom View】




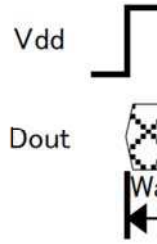
- 1 : INT/Dout
- 2 : Vdd
- 3 : Serial\_In
- 4 : GND

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

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

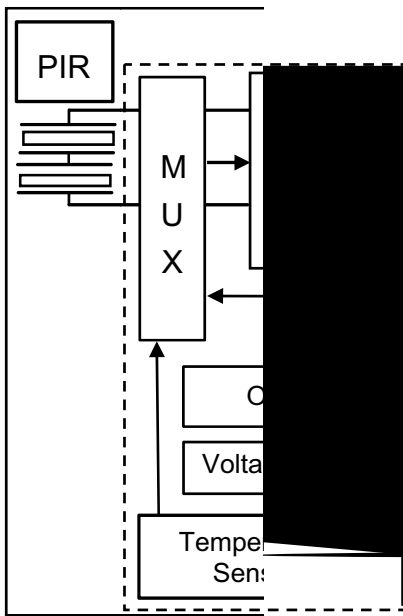
Fig.1 : Dimensions

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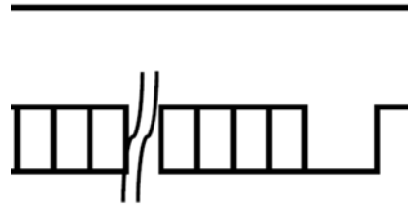


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Fig



Max. 30 sec.  
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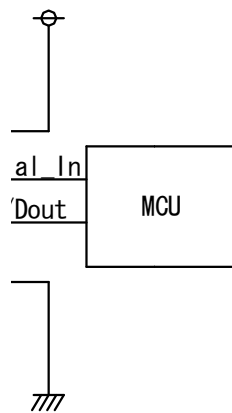
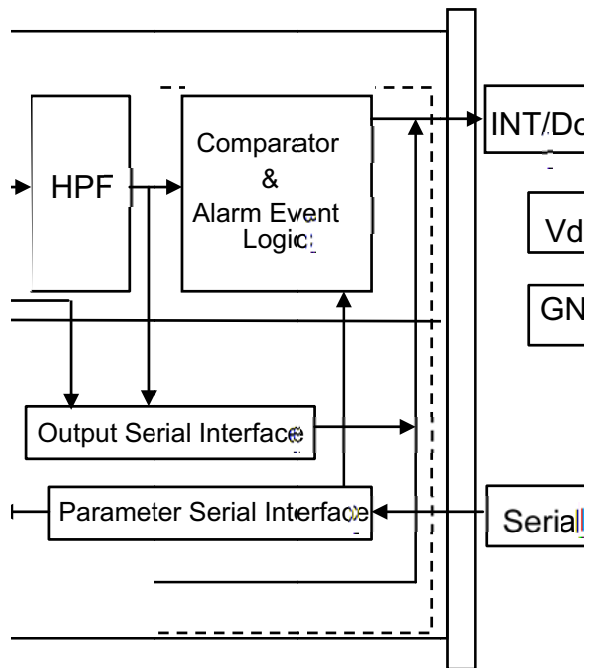


Fig.4

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