

**1. Scope**

This product specification is applied to fresnel lens IML-0669 used to detect infrared ray. Please contact us when using this product for any other applications than described in the above.

**2. Murata Part Number**

IML-0669

**2-1.color**

IML-0669 : Natural white

IML-0669G : Gray

**3. Outline Drawing and Dimensions**

See Figure 1

**4. Material etc.**

## 4-1 Material

High density polyethylene

## 4-2 Refractive Index

1.51

## 4-3 Color

Natural / Gray

**5. Lens**

## 5-1 Field of View

See Figure 3, 4

## 5-2 PCB design

See Figure 2

**6. Operating Temperature**

-25 ~ 60°C

## 7. Reliability

After each one of the test, No transformation, No crack

### 7-1 High temperature

85°C for 500hours

### 7-2 Low temperature

-30°C for 500hours

### 7-3 Humidity

60°C, 95%RH for 500hours

### 7-4 Heat cycle

20 times of the following cycle

-25°C, 30min.⇒ Room temp. 30min.⇒ 55°C, 30min.⇒ Room temp.

## 8. Caution

### 8-1 Limitation of Applications

Please contact us before using our products for the applications listed below which require especially high reliability for the prevention of defects which might directly cause damage to the third party's life, body or property.

1. Aircraft equipment
2. Aerospace equipment
3. Undersea equipment
4. Power plant control equipment
5. Medical equipment
6. Transportation equipment (vehicles, trains, ships, etc.)
7. Traffic signal equipment
8. Disaster prevention / crime prevention equipment
9. Data-processing equipment
10. Application of similar complexity and/or reliability requirement to the applications listed in the above

### 8-2 Fail-safe

Be sure to provide an appropriate fail-safe function on your product to prevent a second damage that may be caused by the abnormal function or the failure of our product.

**9. Caution in use**

## 9-1 Notice in design

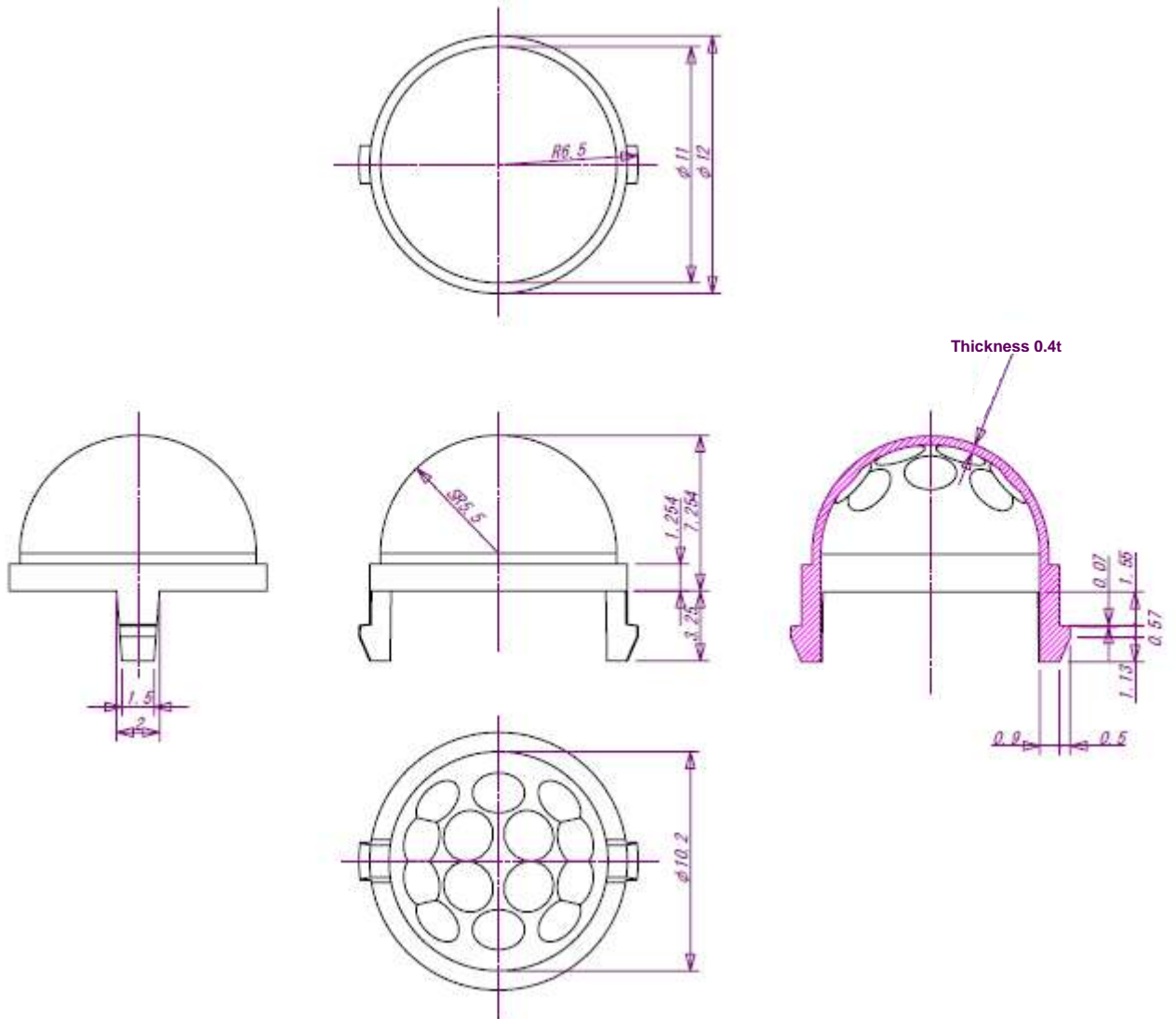
- 1) Please avoid using the fresnel lens in the following conditions because it may cause failure or malfunction;
  - a) In such a fluid as water, alcohol etc. corrosive gas (SO<sub>2</sub>, Cl<sub>2</sub>, NOX etc.) or sea breeze.
  - b) In high humidity.
  - c) In a place exposed directly to sun light or headlight of automobile.
  - d) In a place exposed directly to blow from air-conditioner or heater.
  - e) In such a place where infrared ray is shaded.
  - f) In any other place similar to the above (a) through (e).

## 9-2 Notice in handling and storage

- 1) Strong shock should be avoided.
- 2) High temperature, high humidity, fluid as water or alcohol etc., corrosive gas (SO<sub>2</sub>, Cl<sub>2</sub>, and NOX etc.) and sea breeze should be avoided.
- 3) Use the products within 6 months after receiving.

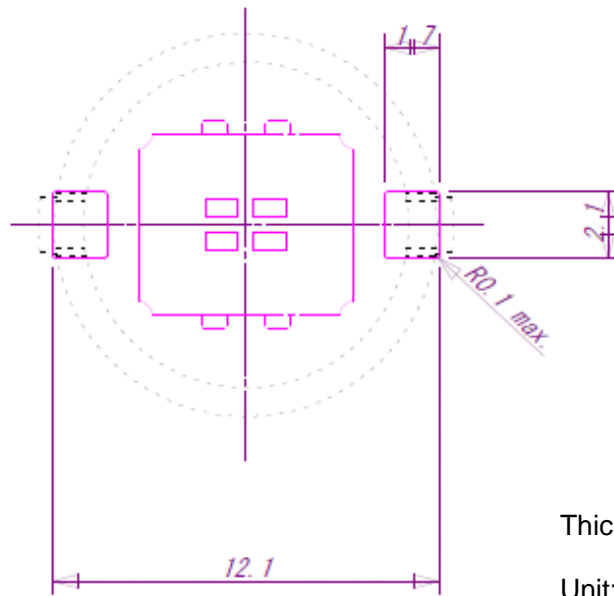
**10. ⚠Note**

- 1) Please make sure that your product has been evaluated in view of your specifications with our product being mounted to your product.
- 2) You are requested not to use our product deviating from the agreed specifications.
- 3) We consider it not to appropriate to include any terms and conditions with regard to the business transaction in the product specifications, drawings or other technical documents. Therefore, if your technical documents as above include such terms and conditions such as warranty clause, product liability clause, or intellectual property infringement liability clause, they will be deemed to be invalid.



Unit: mm  
General tolerance:  $\pm 0.20\text{mm}$

Figure 1 Outline Drawing and Dimensions

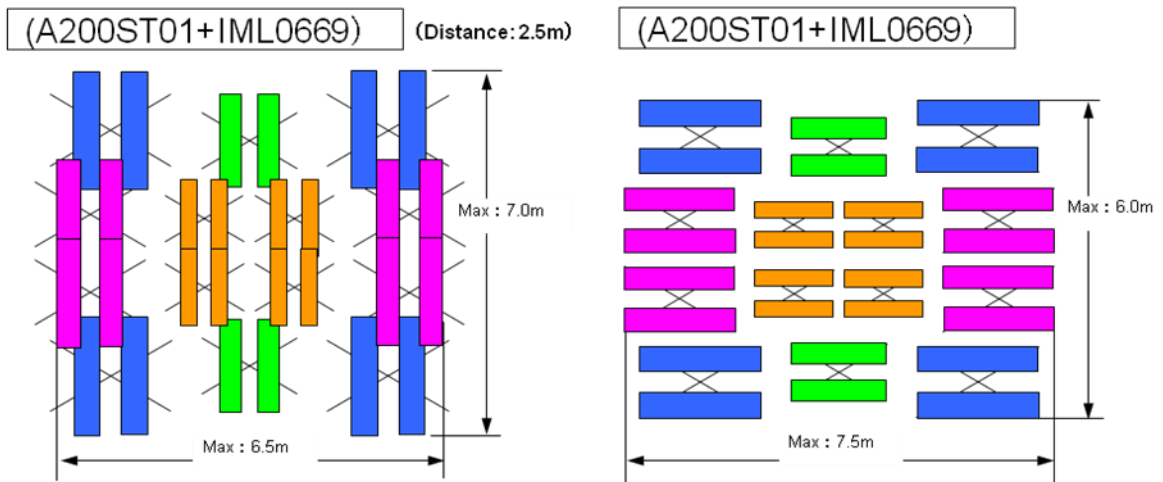


Thickness of PCB: 1.6mm

Unit: mm

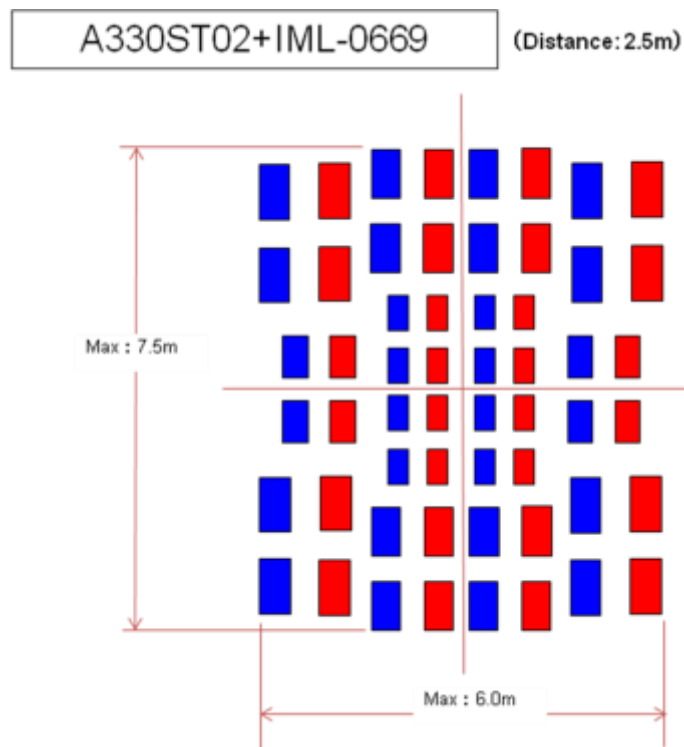
General tolerance:  $\pm 0.2$ mm

**Figure2. A board hole for hook insert**



※Combination with Murata sensor IRS-A200ST01-R1

Figure 3, Field of View



※Combination with Murata sensor IRS-A330ST02-R1

Figure 4, Field of View