

|            |                |
|------------|----------------|
| Model. No. | FYL-5013IRAT1C |
| Rev.       | A              |

# PRODUCT SPECIFICATION

## Model No.: FYL-5013IRAT1C

| Descriptions:                      |
|------------------------------------|
| ■ Dice material: AlGaAs.           |
| ■ Emitting Color: Infrared.        |
| ■ Device Outline: Φ5mm round type. |
| ■ Lens Type: Blue transparent.     |



| CUSTOMER APPROVED SIGNATURES | APPROVED BY | CHECKED BY | PREPARED BY |
|------------------------------|-------------|------------|-------------|
|                              |             |            |             |

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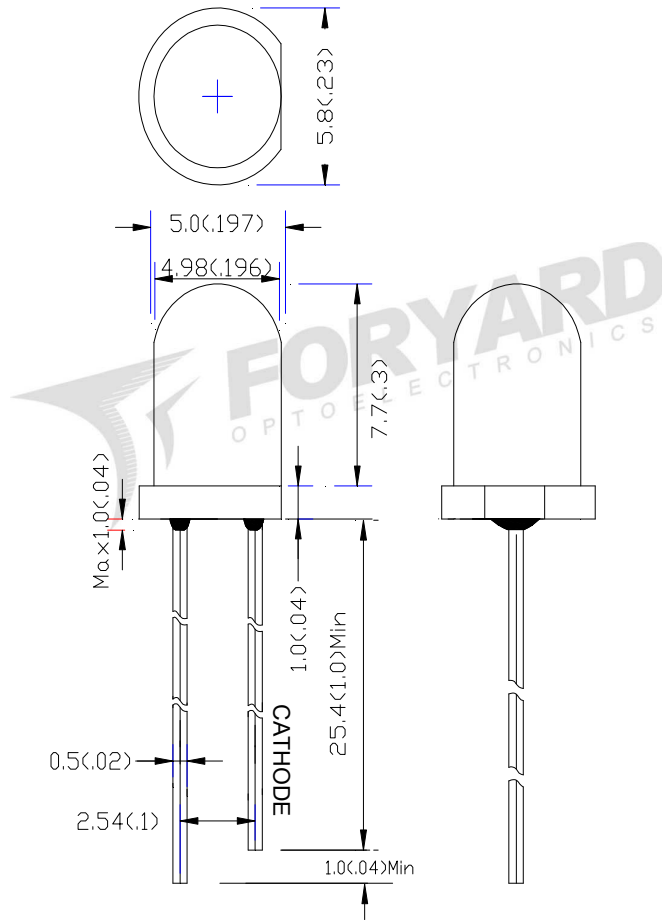
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## ■ Applications

1. PCB mounted infrared sensor.
2. Infrared emitting for miniature light barrier.
3. Floppy disk drive.
4. Optoelectronic switch.
5. Smoke detector.

## ■ Package configuration



### Notes:

1. All dimensions are millimeters (inches)
2. Tolerance is  $\pm 0.25\text{mm} (.010\text{'})$  unless otherwise noted.
3. The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.

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■ Absolute maximum ratings(Ta=25 ° c)

| Parameter  | Symbol | Test Condition      | MAX. | Unit |
|--|--------|---------------------|------|------|
| Power Dissipation                                | pd     | -                   | 100  | mW   |
| Forward Current                                  | IFM    | Duty=0.01ms 1khz    | 1000 | mA   |
| Reverse Voltage                                  | VR     | IR=10UA             | 9    | V    |
| Operating Temperature Range                      |        | -40°C to +85°C      |      |      |
| Storage Temperature Range                        |        | -40°C to +100°C     |      |      |
| Lead Soldering Temperature[4mm(.157") From Body] |        | 260°C for 5 Seconds |      |      |

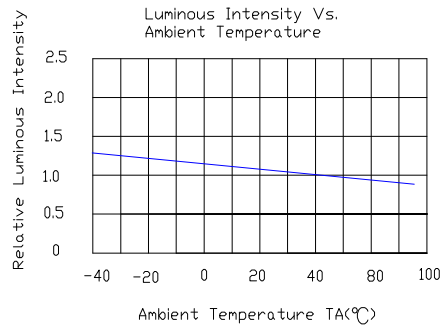
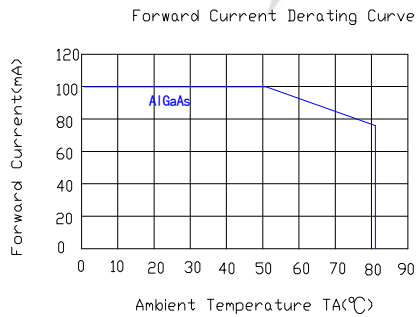
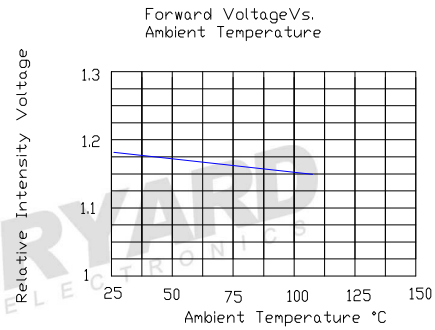
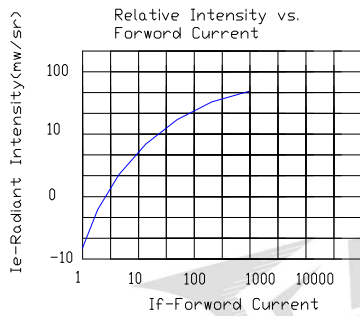
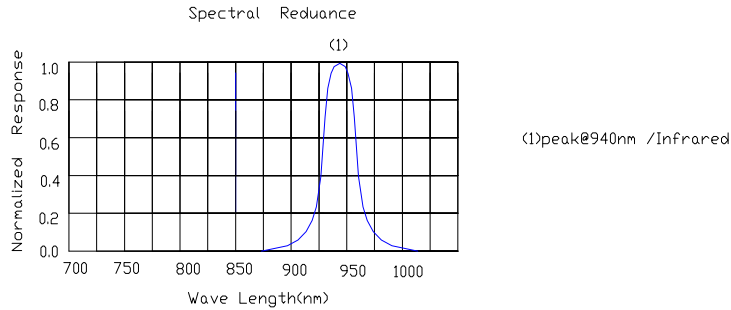
■ Electrical and optical characteristics(Ta= 25 ° c)

| Parameter                | Symbol | Min. | Typ. | Max. | Unit  | Test Condition |
|--------------------------|--------|------|------|------|-------|----------------|
| Radiant Intensity        | Ee     | 25   | 60   | -    | mW/sr | IF=50mA        |
| Viewing Angle            | 2θ1/2  | -    | 25   | -    | Deg   |                |
| Peak Emission Wavelength | λp     | -    | 940  | -    | nm    |                |
| Spectral Line Half-Width | Δλ     | 40   | 45   | 50   | nm    |                |
| Forward Voltage          | VF     | -    | 1.3  | 1.5  | V     |                |
| Reverse Current          |        |      |      | 10   | uA    | 5 V            |

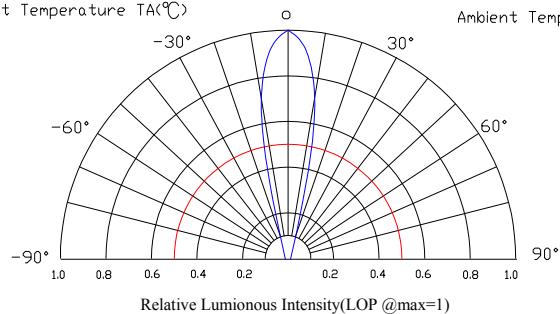
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## ■ Typical Electrical Characteristics Curves

(25 °c Ambient Temperature Unless Otherwise Noted)

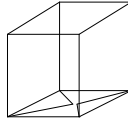


## Radiation pattern.

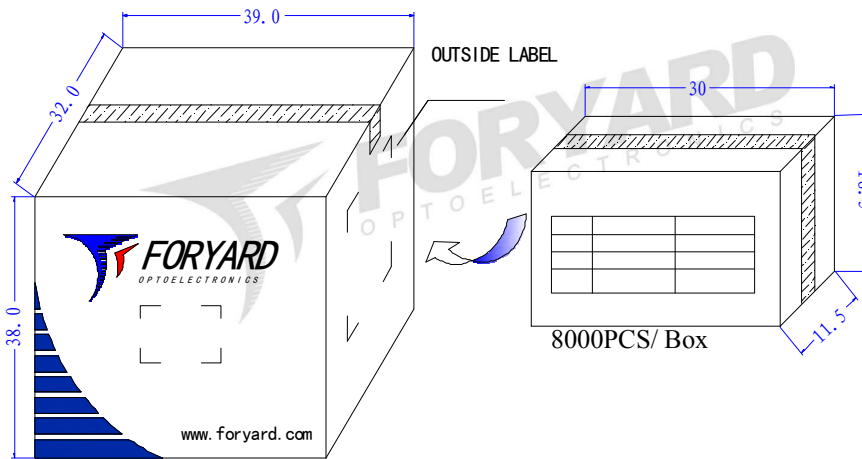


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■ LAMP PACKING.



5mm 1000PCS/Polybag



48000PCS/ Carton



OUTSIDE LABEL