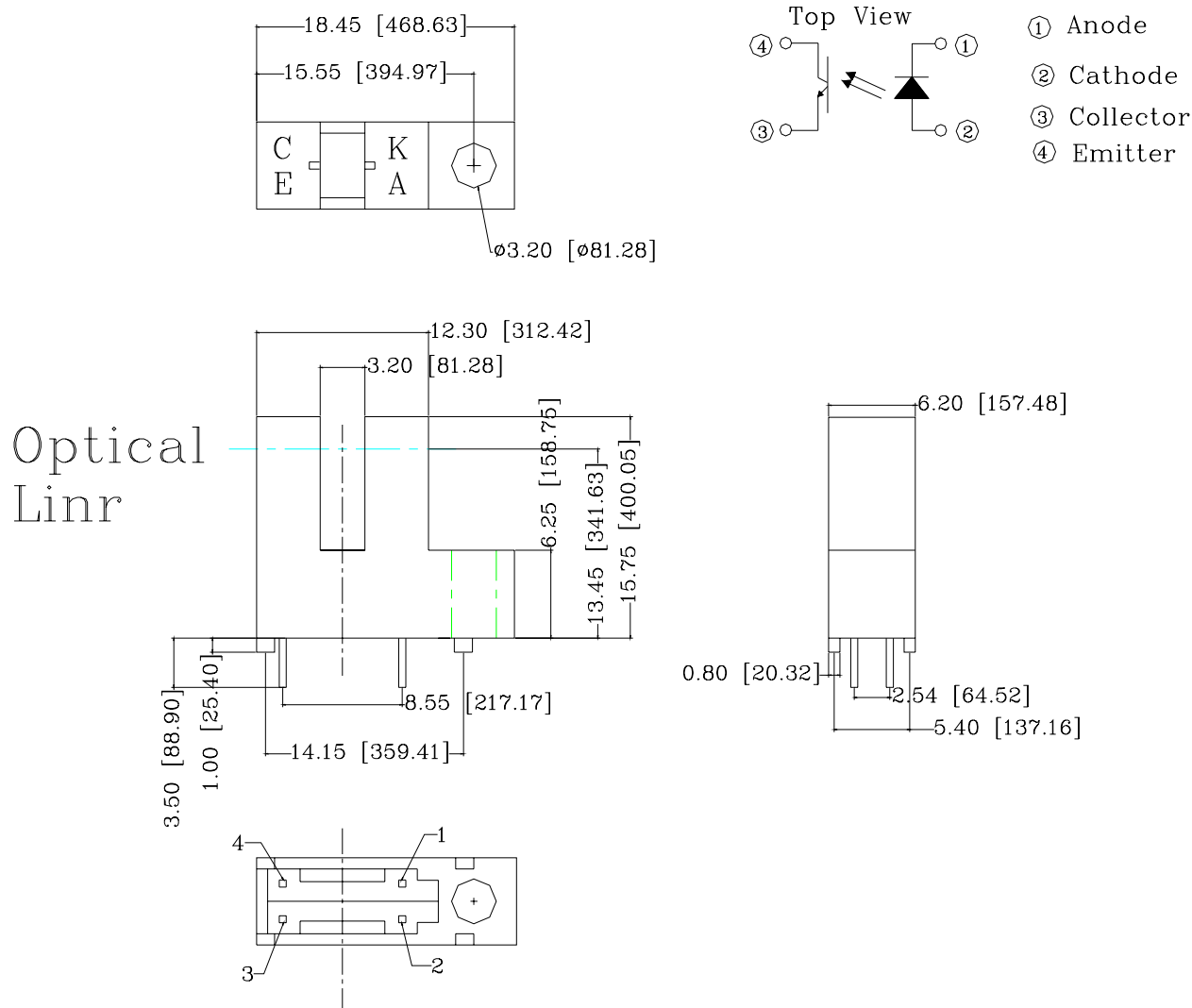


● **Features:**

- \* Non-contact switching.
- \* For direct pc board or dual-in-line socket mounting.
- \* Fast switching speed.
- \* This product doesn't contain restriction substance, comply RoHS standard.

● **Package Dimensions**



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**Notes:**

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.25$  mm unless otherwise specified.
3. Lead spacing is measured where the leads emerge from the package.
4. Specifications are subject to change without notice.

## ● Absolute Maximum Rating (Ta=25°C)

| Item                       |                             | Symbol           | Rating     | Unit |
|----------------------------|-----------------------------|------------------|------------|------|
| Input                      | Power Dissipation           | Pd               | 75         | mW   |
|                            | Reverse Voltage             | V <sub>R</sub>   | 5          | V    |
|                            | Forward Current             | I <sub>F</sub>   | 50         | mA   |
|                            | Peak Forward Current (*1)   | I <sub>FP</sub>  | 1          | A    |
| Output                     | Collector Power Dissipation | P <sub>C</sub>   | 100        | mW   |
|                            | Collector Current           | I <sub>C</sub>   | 20         | mA   |
|                            | C-E Voltage                 | V <sub>CEO</sub> | 30         | V    |
|                            | E-C Voltage                 | V <sub>ECO</sub> | 5          | V    |
| Operating Temperature      |                             | Topr             | -40 ~ +85  | °C   |
| Storage Temperature        |                             | Tstg             | -40 ~ +100 | °C   |
| Soldering Temperature (*2) |                             | Tsol             | 260        | °C   |

(\*1) tw=100 uSec. ∙ T=10 mSec.

(\*2) t=5 Sec

## ● Electrical Optical Characteristics (Ta=25°C)

| Parameter     |                        | Symbol               | Condition                                      | Min. | Typ. | Max. | Unit |
|---------------|------------------------|----------------------|--|------|------|------|------|
| Input         | Forward Voltage        | V <sub>F</sub>       | I <sub>F</sub> =20mA                           | —    | 1.2  | 1.5  | V    |
|               | Reverse Current        | I <sub>R</sub>       | V <sub>R</sub> =5V                             | —    | —    | 10   | μA   |
|               | Peak Wavelength        | λ <sub>p</sub>       | I <sub>F</sub> =10mA                           |      | 940  |      | nm   |
| Output        | Dark Current           | I <sub>D</sub>       | V <sub>CE</sub> =10V                           |      |      | 100  | nA   |
|               | C-E Saturation Voltage | V <sub>CE(sat)</sub> | I <sub>C</sub> =0.25mA<br>I <sub>F</sub> =10mA |      |      | 0.4  | V    |
| Light Current |                        | I <sub>L</sub>       | V <sub>CE</sub> =5V<br>I <sub>F</sub> =10mA    | 0.5  | —    | 5    | mA   |
| Speed         | Rise Time              | T <sub>r</sub>       | I <sub>F</sub> =20mA<br>V <sub>CE</sub> =5V    |      | 15   | —    | μsec |
|               | Fall Time              | T <sub>f</sub>       | R <sub>L</sub> =1000Ω                          | —    | 20   | —    | μsec |

● Typical Electrical / Optical Characteristics Curves (Ta=2°C)

Fig.1 Power Dissipation vs. Ambient Temperature

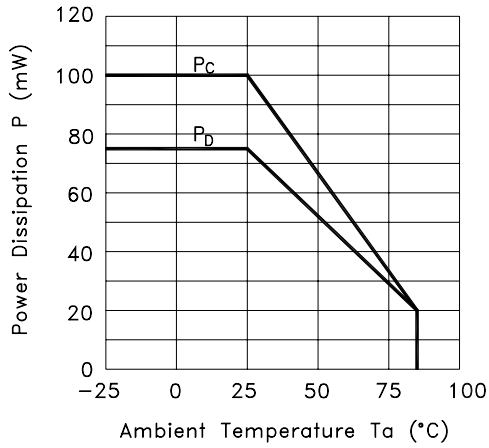


Fig.2 Forward Current vs. Forward Voltage

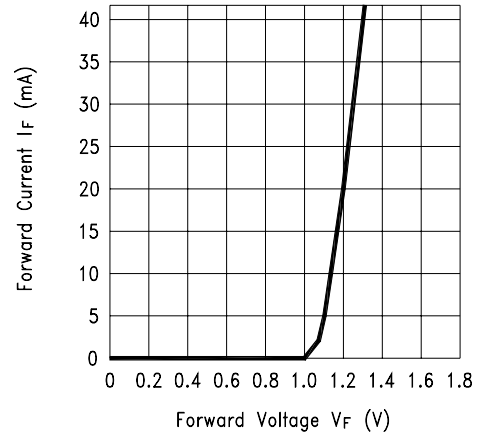


Fig.3 Collector Current vs. Collector-emitter Voltage

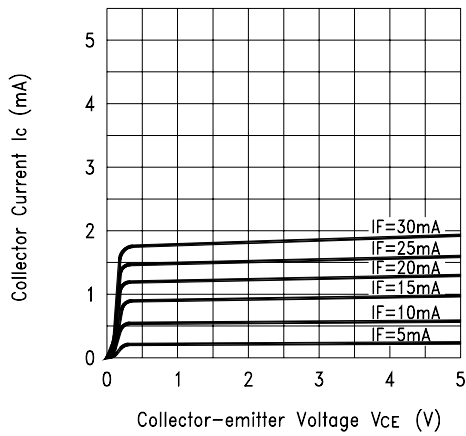
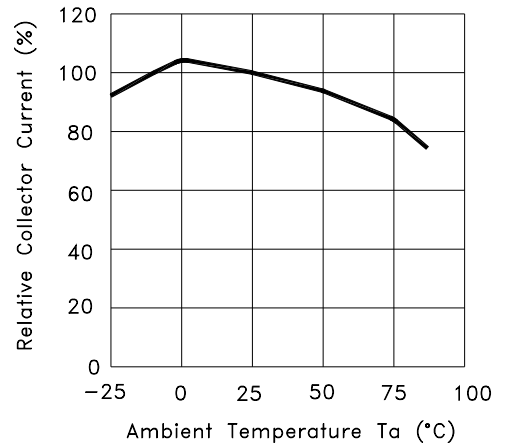


Fig.4 Collector Current vs. Ambient Temperature



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## ● Typical Electrical / Optical Characteristics Curves (Ta=25°C)

Fig.5 Collector-emitter Saturation Voltage vs. Ambient Temperature

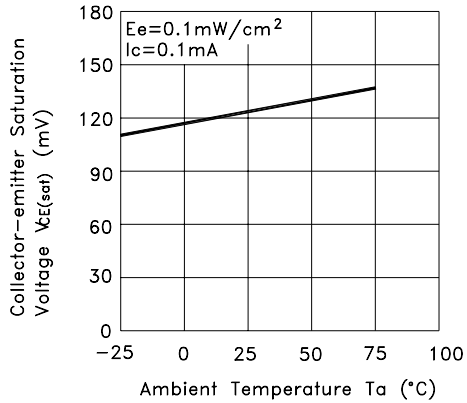


Fig.6 Response Time vs. Load Resistance

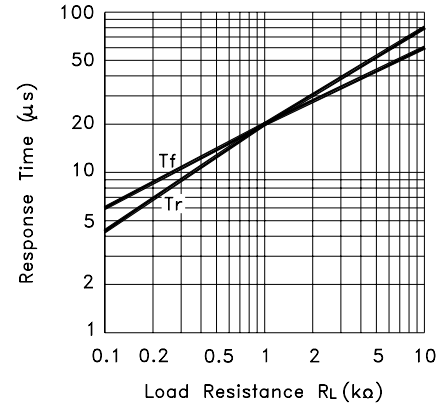
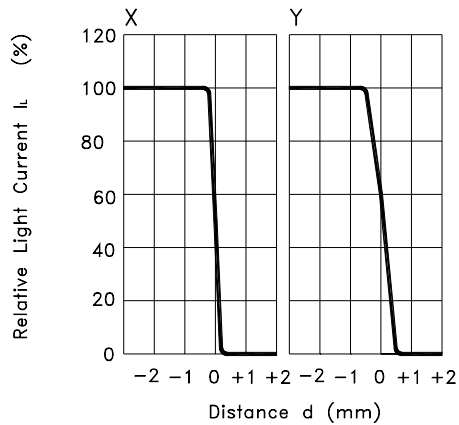
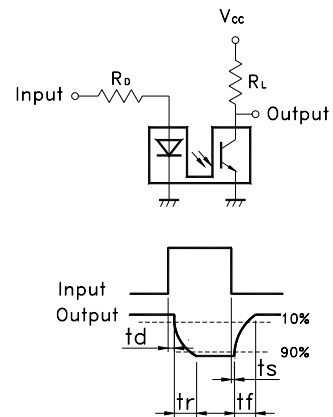


Fig.7 Sensing Position Characteristics (Typical)



(Center of Optical axis)

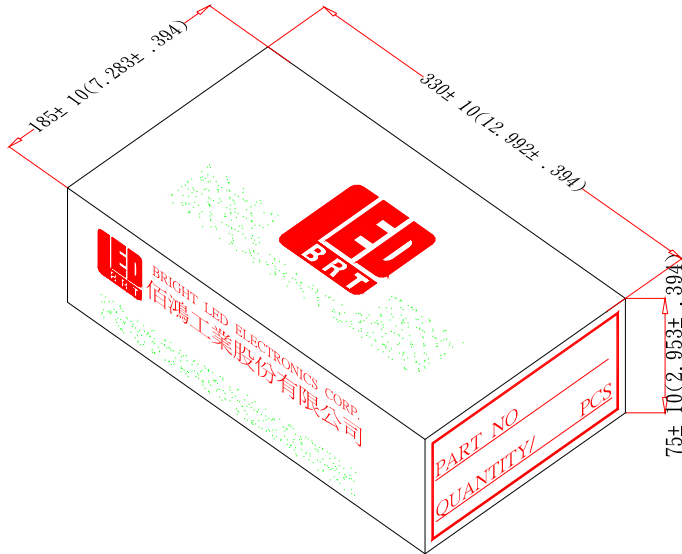
Test Circuit for Response Time



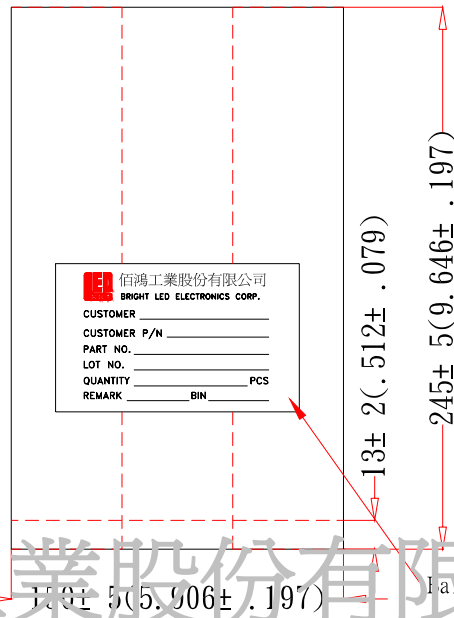
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## ● Packaging Box Dimensions



## ● Packaging Bag Dimensions



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### Notes:

1. 250pcs per bag 1kpcs per box.
2. All Dimensions are in millimeters (inches).
3. Specifications are subject to change without notice.

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