



## Technical Data Sheet

### Infrared LED

### ZPTP68C

## Descriptions

The ZPTP68C is a high speed and high sensitive NPN silicon phototransistor molded in a standard  $\phi 5$  mm package. Due to its clear epoxy the device is sensitive to visible and near infrared radiation.

## Features

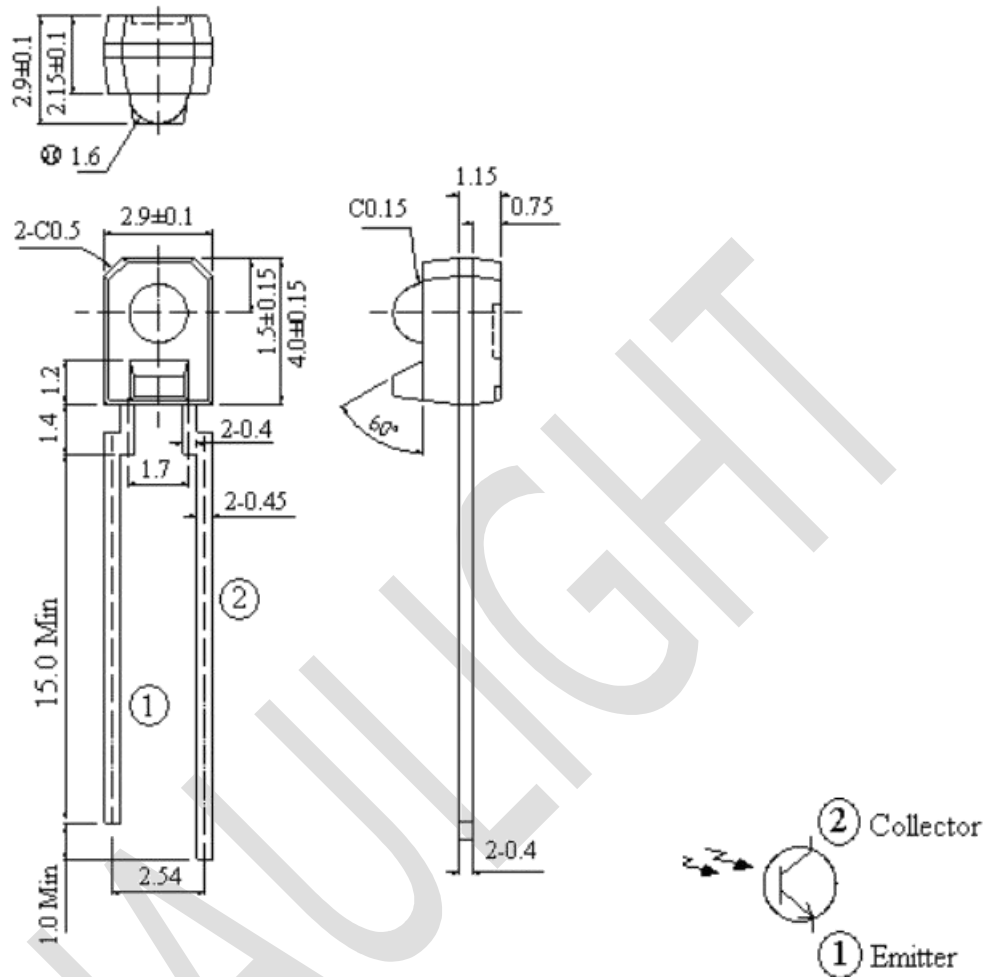
- Fast response time
- High photo sensitivity
- Pb.Free
- This product itself will remain within RoHS compliant version.

## Applications

- Infrared applied system
- Optoelectronic switch
- Copiers
- Scanners
- Amusement machines



## Package Dimension



### Notes:

1. All dimensions are in millimeters
2. Tolerances unless dimensions  $\pm 0.3$  mm
3. Lead spacing is measured where the lead emerge from the package



## Absolute Maximum Ratings

| Parameter (Ta=25°C)                                      | Symbol           | Ratings  | Unit |
|--|------------------|----------|------|
| Power Dissipation at(or below) 25 Free Air Temperature   | Pd               | 75       | mW   |
| Collector-Emitter Voltage                                | V <sub>CEO</sub> | 30       | V    |
| Emitter-Collector-Voltage                                | V <sub>ECO</sub> | 5        | V    |
| Operating Temperature                                    | T <sub>opr</sub> | -25~+85  | °C   |
| Storage Temperature                                      | T <sub>stg</sub> | -40~+100 | °C   |
| Lead Soldering Temperature (2mm form body for 5 seconds) | T <sub>sol</sub> | 260      | °C   |

## Electro-Optical Characteristics

| Parameter (Ta=25°C)                   | Symbol               | Condition  | Min.  | Typ. | Max.  | Units |
|---------------------------------------|----------------------|--|-------|------|-------|-------|
| Collector – Emitter Breakdown Voltage | BV <sub>CEO</sub>    | I <sub>C</sub> =100μA<br>E <sub>e</sub> =0mW/cm <sup>2</sup>     | 30    | --   | --    | V     |
| Emitter-Collector Breakdown Voltage   | BV <sub>ECO</sub>    | I <sub>C</sub> =100μA<br>E <sub>e</sub> =0mW/cm <sup>2</sup>     | 5     | --   | --    | V     |
| Collector-Emitter Saturation Voltage  | V <sub>CE(sat)</sub> | I <sub>C</sub> =100μA<br>E <sub>e</sub> =0mW/cm <sup>2</sup>     | --    | --   | 0.4   | V     |
| Rise Time                             | t <sub>r</sub>       | V <sub>CE</sub> =5V I <sub>C</sub> =1mA<br>R <sub>L</sub> =1000Ω | --    | 15   | --    | μS    |
| Fall Time                             | t <sub>f</sub>       | V <sub>CE</sub> =5V I <sub>C</sub> =1mA<br>R <sub>L</sub> =1000Ω | --    | 15   | --    | μS    |
| Collector Dark Current                | I <sub>CEO</sub>     | E <sub>e</sub> =0mW/cm <sup>2</sup><br>V <sub>CE</sub> =20V      | --    | --   | 100   | nA    |
| On State Collector Current            | I <sub>c(ON)</sub>   | E <sub>e</sub> =0.555mW/cm <sup>2</sup><br>V <sub>CE</sub> =5V   | 0.513 |      | 3.443 | mA    |
| Rang Of Spectral Bandwidth            | λ <sub>0.5</sub>     | --   | 400   | --   | 1100  | nm    |
| Wavelength of Peak Sensitivity        | λ <sub>p</sub>       | --   | --    | 940  | --    | nm    |



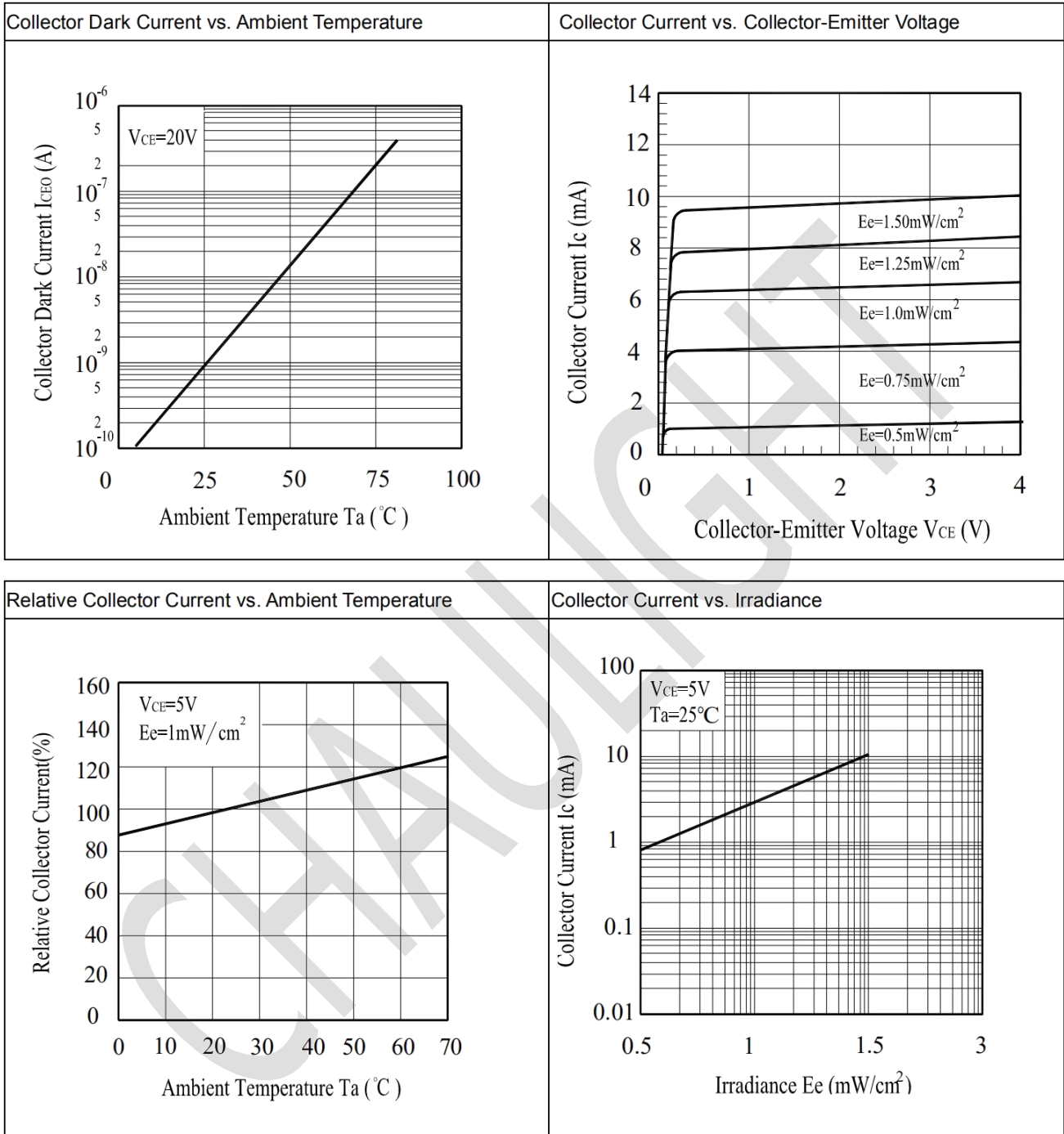
## Rank

| Parameter | Symbol              | Condition  | Min.  | Max.  | Unit |
|-----------|---------------------|--|-------|-------|------|
| 6-1       | I <sub>c</sub> (ON) | E <sub>e</sub> =0.555mW/cm <sup>2</sup><br>V <sub>CE</sub> =5V | 2.115 | 3.443 | mA   |

CHAU LIGHT



## Typical Electrical/Optical/Characteristics Curves



## Packing Quantity

1. 1000PCS/1Bag, 8Bags/1Box
2. 10Boxes/1Carton