



## ZIR034C

### Technical Data Sheet

### 3mm Infrared LED



### Descriptions

The ZIR034C is a high intensity diode , molded in a water clean plastic package. The device is spectrally matched with phototransistor , photodiode and infrared receiver module.

### Features

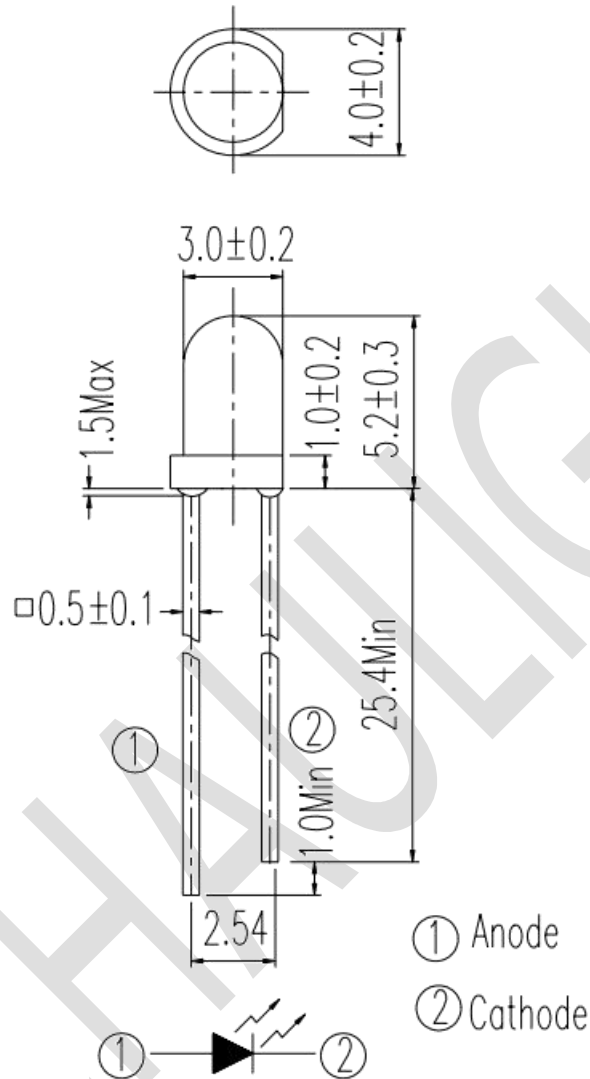
- High reliability
- High radiant intensity
- Peak wavelength  $\lambda_p=940\text{nm}$
- Low forward voltage
- Pb.Free
- This product itself will remain within RoHS compliant version.

### Applications

- Mouse
- 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              | 150      | mW   |
| Reverse Voltage  | V <sub>R</sub>  | 5        | V    |
| Forward Current  | I <sub>F</sub>  | 100      | mA   |
| Peak Forward Current Pulse width ≤ 100μs,Duty cycle= 1%  | I <sub>FP</sub> | 1        | A    |
| Operating Temperature                                    | Topr            | -40~+85  | °C   |
| Storage Temperature                                      | Tstg            | -40~+100 | °C   |
| Lead Soldering Temperature (2mm form body for 5 seconds) | Tsol            | 260      | °C   |

## Electro-Optical Characteristics

| Parameter (Ta=25°C) | Symbol         | Condition   | Min. | Typ. | Max. | Units |
|---------------------|----------------|---|------|------|------|-------|
| Radiant Intensity   | E <sub>e</sub> | I <sub>F</sub> =20mA  | 7.8  | 10.0 | --   | mW/sr |
| Radiant Intensity   | E <sub>e</sub> | I <sub>F</sub> =100mA<br>Pulse Width ≤ 100μs ,Duty cycle ≤ 1% | --   | 38   | --   | mW/sr |
| Radiant Intensity   | E <sub>e</sub> | I <sub>F</sub> =1A<br>Pulse Width ≤ 100μs ,Duty cycle ≤ 1%.   | --   | 450  | --   | mW/sr |
| Peak Wavelength     | λ <sub>p</sub> | I <sub>F</sub> =20mA  | --   | 940  | --   | nm    |
| Spectral Bandwidth  | Δλ             | I <sub>F</sub> =20mA  | --   | 45   | --   | nm    |
| 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    |
| View Angle          | 2θ1/2          | I <sub>F</sub> =20mA  | --   | 35   | --   | deg   |



## Rank

| Parameter | Symbol | Condition            | Min. | Max. | Unit  |
|-----------|--------|----------------------|------|------|-------|
| M         | Ee     | I <sub>F</sub> =20mA | 7.8  | 12.5 | mW/sr |

Note:

\*Measurement Uncertainty of Forward Voltage:  $\pm 0.1V$

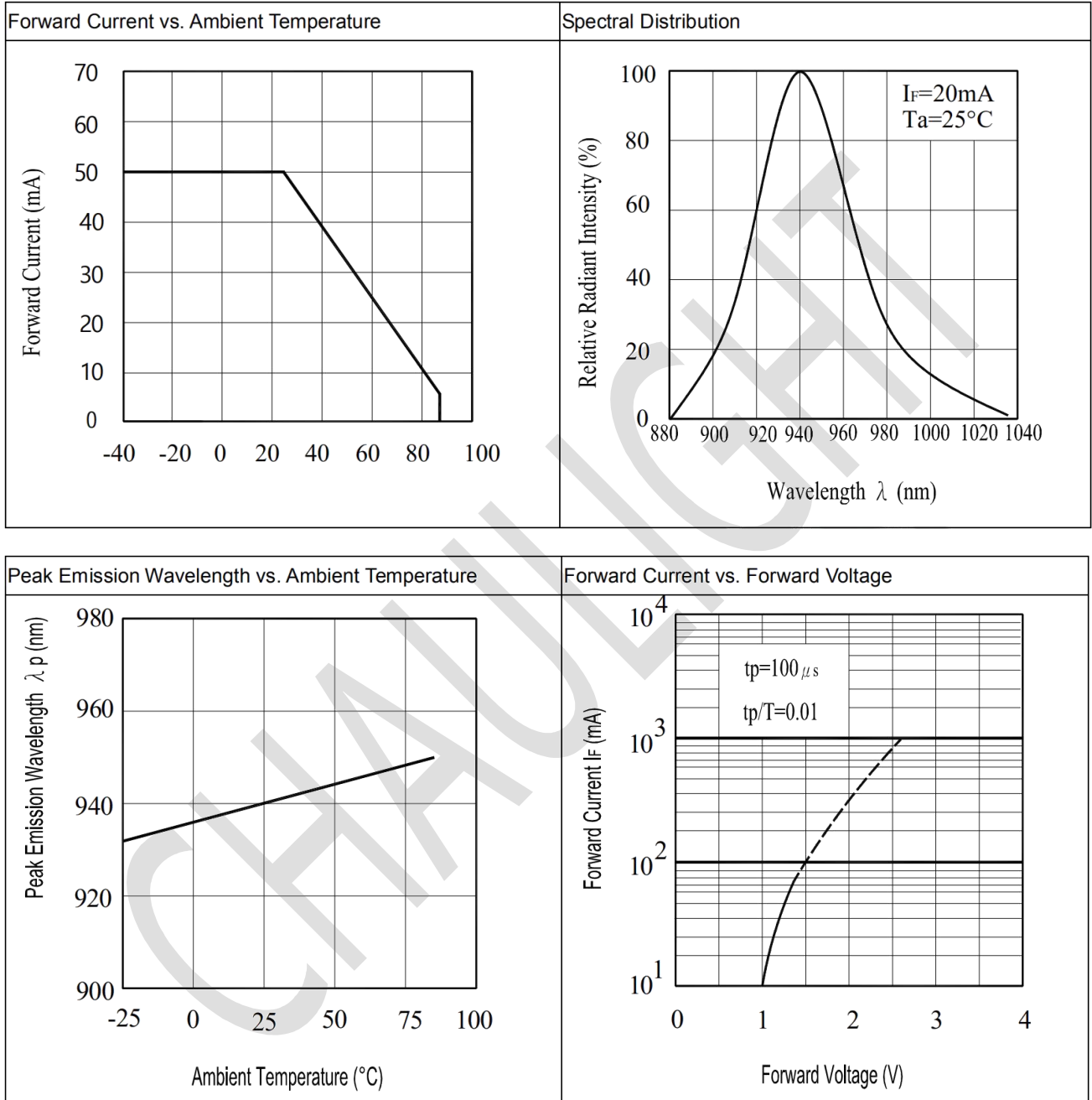
\*Measurement Uncertainty of Luminous Intensity:  $\pm 10\%$

\*Measurement Uncertainty of Dominant Wavelength  $\pm 1.0nm$

CHAU LIGHT

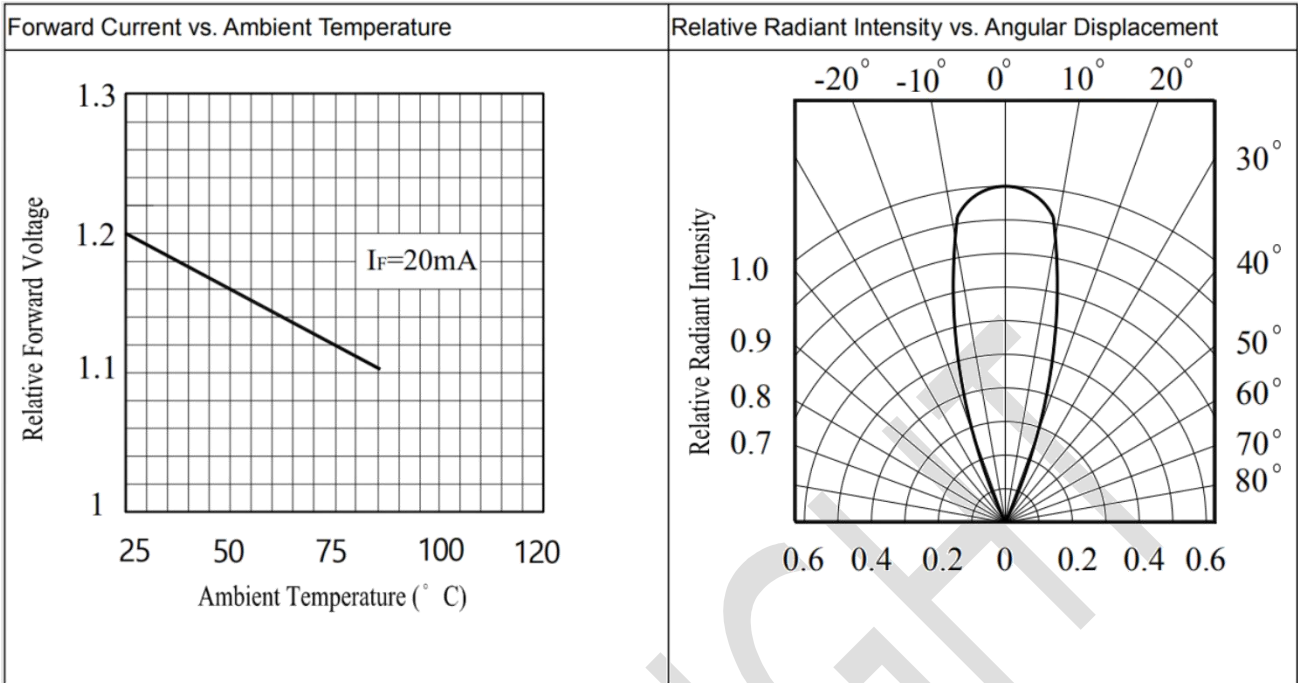


## Typical Electrical/Optical/Characteristics Curves





# CHAU LIGHT Technical Data Sheet





## Packing Quantity Specification

- 1.1000PCS/1bag, 4bags/1 Box
2. 10BOXES/1 Carton

## Notes

1. Above specification may be changed without notice. CHAU LIGHT will reserve authority on material change for above specification.
2. When using this product, please observe the absolute maximum ratings and the instruction for using outlined in these specification sheets. CHAU LIGHT assumes no responsibility for any damage resulting from use of the product which does not comply with the absolute maximum ratings and the instructions included in these specification sheets.
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