



Technical Data Sheet

Infrared LED

ZPTP08C



Descriptions

The ZPTP08C is a phototransistor in miniature package which is molded in a water clear plastic with spherical top view lens. The device is spectrally matched to infrared emitting diode.

Features

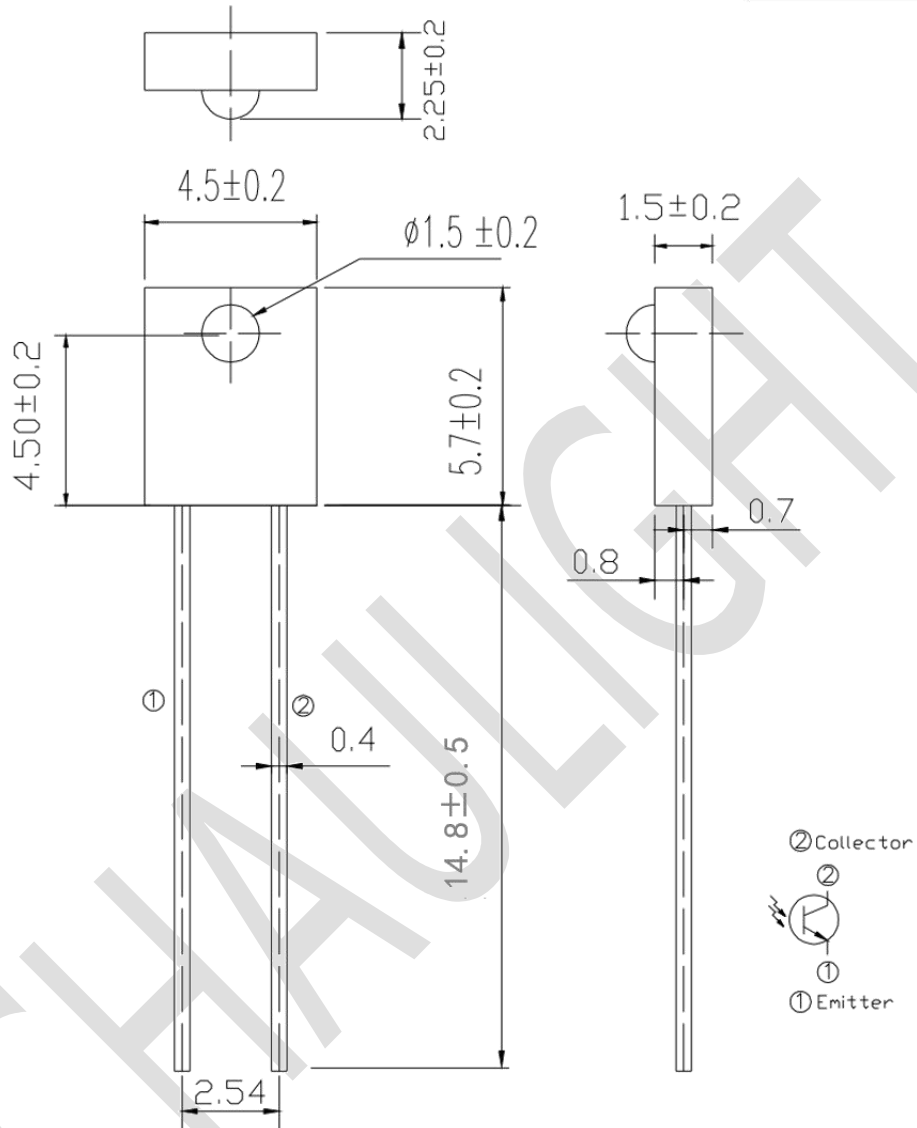
- Fast response time
- High sensitivity
- Small junction capacitance
- Low forward voltage
- Pb.Free
- This product itself will remain within RoHS compliant version.

Applications

- Mouse
- Optoelectronic switch
- Copiers
- Scanners
- Amusement machines



Package Dimension



Notes:

1. All dimensions are in millimeters
2. Tolerances unless dimensions ± 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°C Free Air Temperature | Pc | 75 | mW |
| Collector-Emitter Voltage | V _{CEO} | 30 | V |
| Emitter-Collector-Voltage | V _{ECO} | 5 | V |
| Collector Current | I _C | 40 | mA |
| Operating Temperature | Topr | -40~+100 | °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 |
|---------------------------------------|----------------------|--|------|------|------|-------|
| Collector – Emitter Breakdown Voltage | BV _{CEO} | I _C =100μA E _e =0mW/cm ² | 30 | -- | -- | V |
| Emitter-Collector Breakdown Voltage | BV _{ECO} | I _C =100μA E _e =0mW/cm ² | 5 | -- | -- | V |
| Collector-Emitter Saturation Voltage | V _{CE(sat)} | I _C =100μA E _e =0mW/cm ² | -- | -- | 0.4 | V |
| Rise Time | t _r | V _{CE} =5V I _C =1mA R _L =1000Ω | -- | 15 | -- | μS |
| Fall Time | t _f | V _{CE} =5V I _C =1mA R _L =1000Ω | -- | 15 | -- | μS |
| Collector Dark Current | I _{CEO} | E _e =0mW/cm ² V _{CE} =20V | -- | -- | 100 | nA |
| On State Collector Current | I _{C(ON)} | E _e =0.555mW/cm ² V _{CE} =5V | 0.8 | -- | 5.0 | mA |
| Rang Of Spectral Bandwidth | λ _{0.5} | -- | 400 | -- | 1100 | nm |
| Wavelength of Peak Sensitivity | λ _p | -- | -- | 940 | -- | nm |



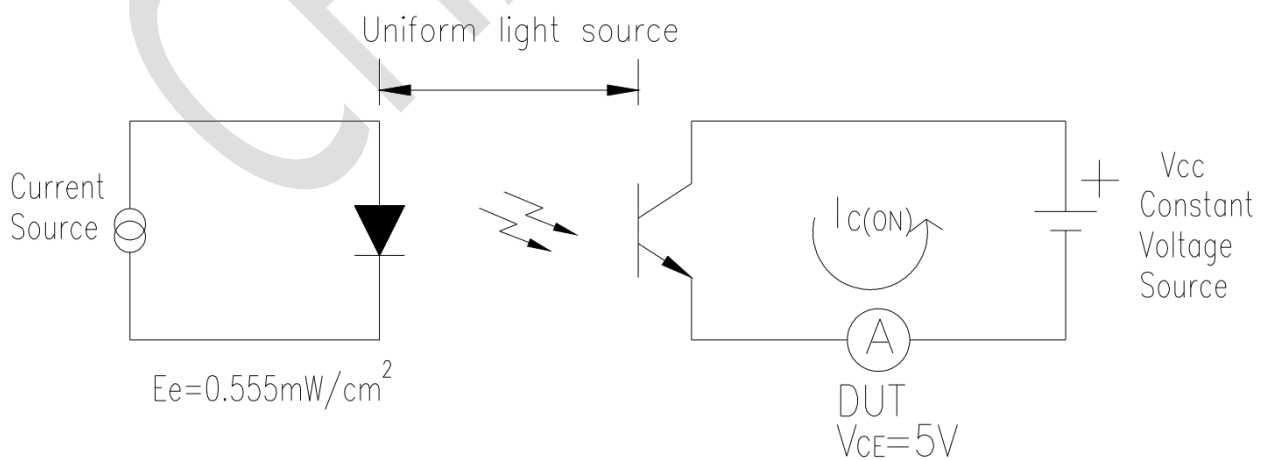
Rank

| Parameter | Symbol | Condition | Min. | Max. | Unit |
|-----------|-----------|-------------------------------|------|------|------|
| BIN4 | $I_c(ON)$ | $V_{CE}=5V, E_e=0.555mW/cm^2$ | 1.56 | 3.12 | mA |

Test Method For $I_c(ON)$:

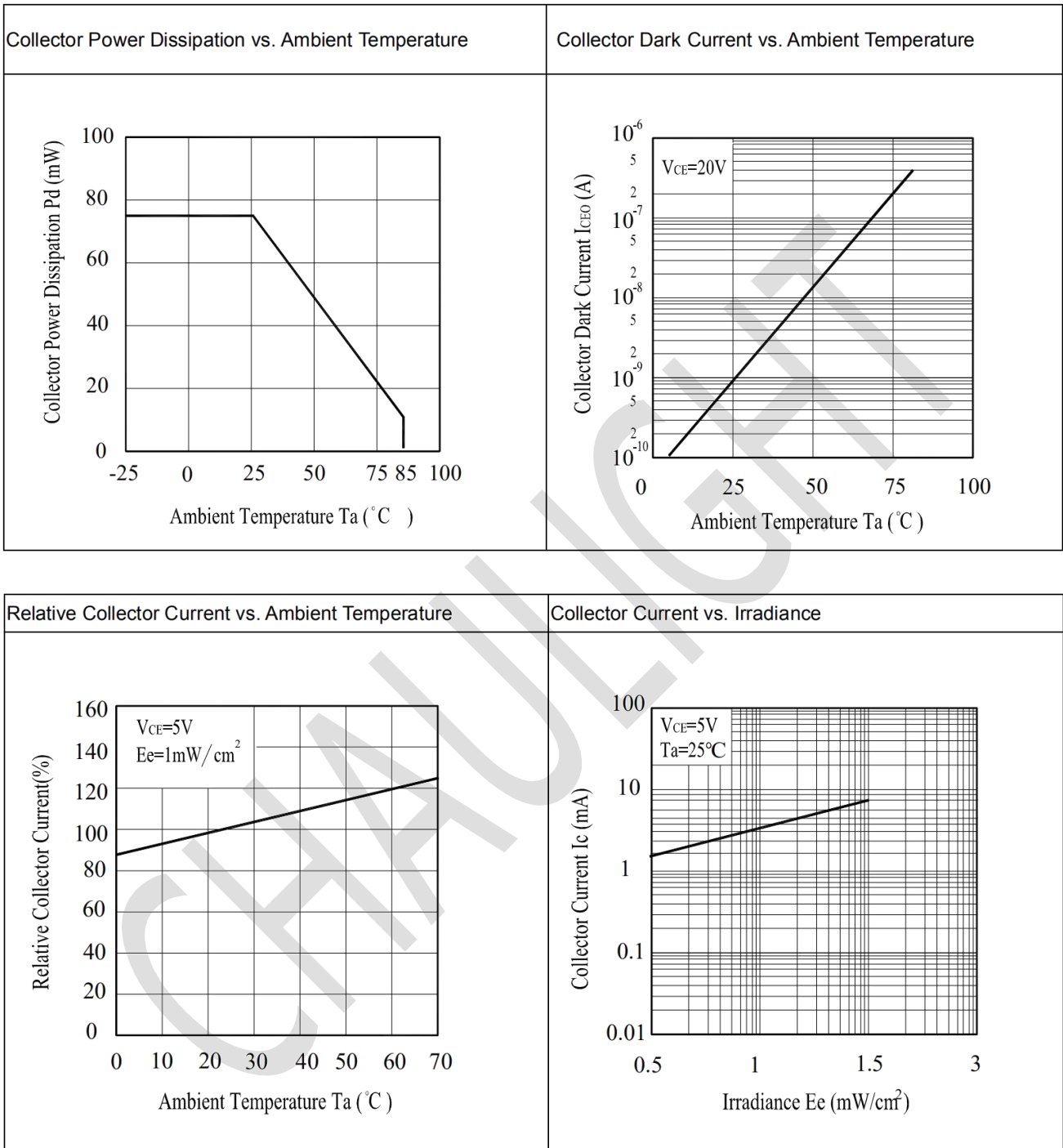
Condition: $V_{CE}=5V, E_e=0.555mW/cm^2$

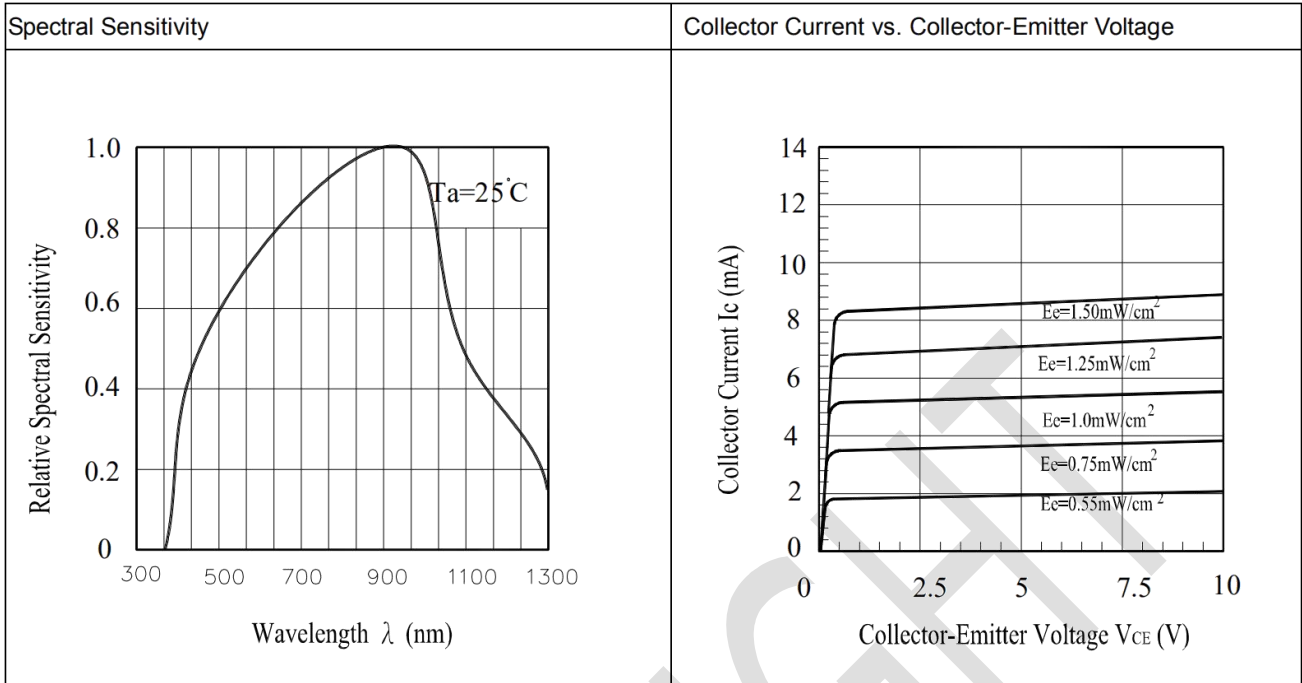
Light current test method for PT:





Typical Electrical/Optical/Characteristics Curves





Packing Quantity Specification

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