Specifications for Approval

Customer Part No.:

Inhere Part No.: LPT50341-001

Part Name: 5mm 圆头有边黑色胶体接收管 LED

Spec Issue Date: 2018-07-17

Revision No.: A

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To Customer:

We submit herewith the following information for your approval:

■Sample ☐OQC Inspection Record ■LED Dimension

■Electrical Characteristics Curve ■Internal Circuit Diagram

■Soldering recommendation

Prepared by: Lily	Checked by: Tom	Approved by: Wangxiaojun
Date: 2018-07-17	Date: 2018-07-17	Date: 2018-07-17

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Customer Opinion

☐ Approve and no objection

☐ Reject with the following reason:

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inhere light for your mind 银河光电

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SPECIFICATIONS

Features

- Low power consumption.
- High efficiency and free combinations on the top of LED.
- Good lock and easy to assembly.
- High sensitivity.
- Fast response.
- Versatile mounting on P.C board or panel.
- Stackable and easy to assembly.
- Pb free
- This product doesn't contain restriction Substance, comply RoHS standard

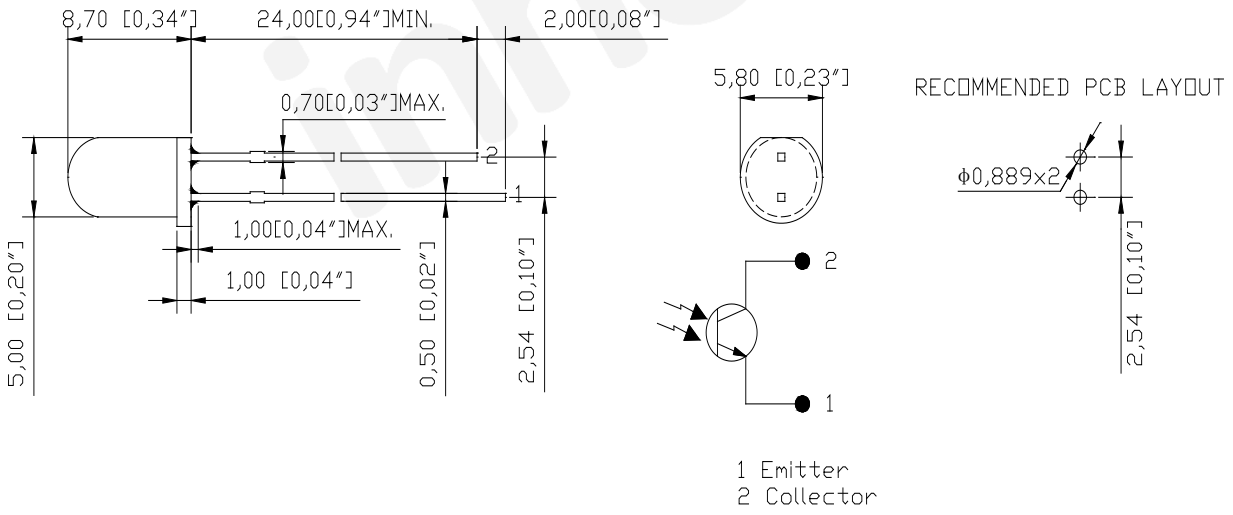
Description

- This product is a photo transistor which can receive light from the LED, and then change the light into the current, especially infrared light.

Applications

- Optoelectronic switch.
- Remote controller, Video camera, Mouse.

Dimensions



Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.25 (0.01") unless otherwise noted.
3. Lead spacing is measured where the leads emerge from the package.
4. Specifications are subject to change without notice.

Selection Guide

Part No.	Dice	Lens Type
LPT50341-001	Silicon	Black

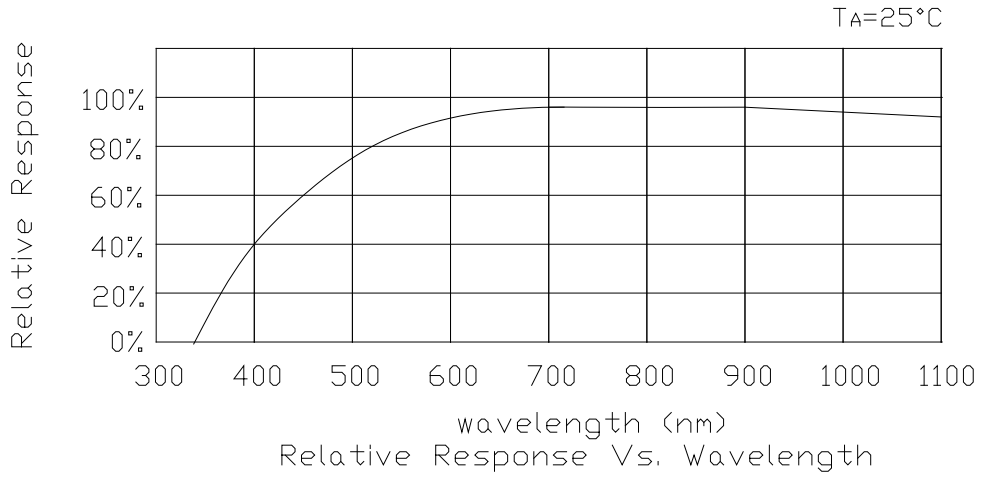
Electrical / Optical Characteristics (at T_a = 25℃)

Parameter	Symbol	Value			Unit	Test Condition
		Min.	Typ.	Max.		
Collector-emitter saturation voltage	VCE (SAT)	--	--	0.4	V	Ice=2mA Ee=1mW/cm2
Light current	IL(1)	--	0.02	--	μA	Vce=5V If=20mA
Collector dark current	Iceo	--	--	0.1	μA	Vce=5V If=20mA
Wavelength of peak sensitivity	λp	--	940	--	nm	--
Range of spectral bandwidth	λ	400	--	1100	nm	--
Angle of half sensitivity	Φ	--	±10	--	deg	--
Rise time / Fall time	tr/ tf	--	15	--	us	Vcc=5V, Ice=1mA, RL=1kΩ

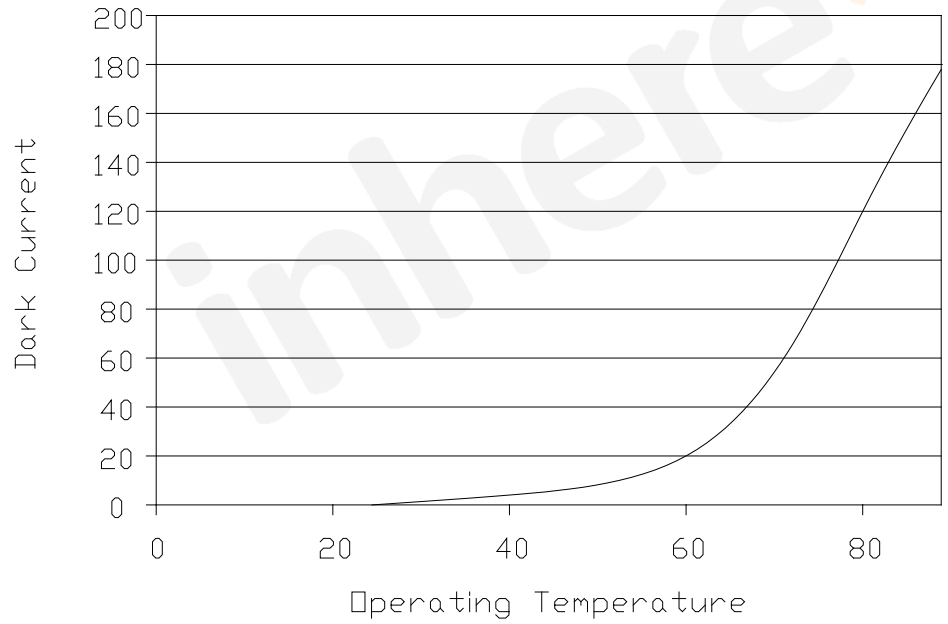
Absolute Maximum Ratings (at T_a = 25℃)

Parameter	Symbol	Value	Unit
Power Dissipation	Pd	70	mW
Collector-emitter voltage	VCEO	30	V
Emitter-collector voltage	VECO	6	V
Operating Temperature Range	Topr	-40～+80	℃
Storage Temperature Range	Tstg	-40～+85	℃
Lead Soldering Temperature	Tsol	260℃for 5 SEC (5mm [0.20”] from body)	

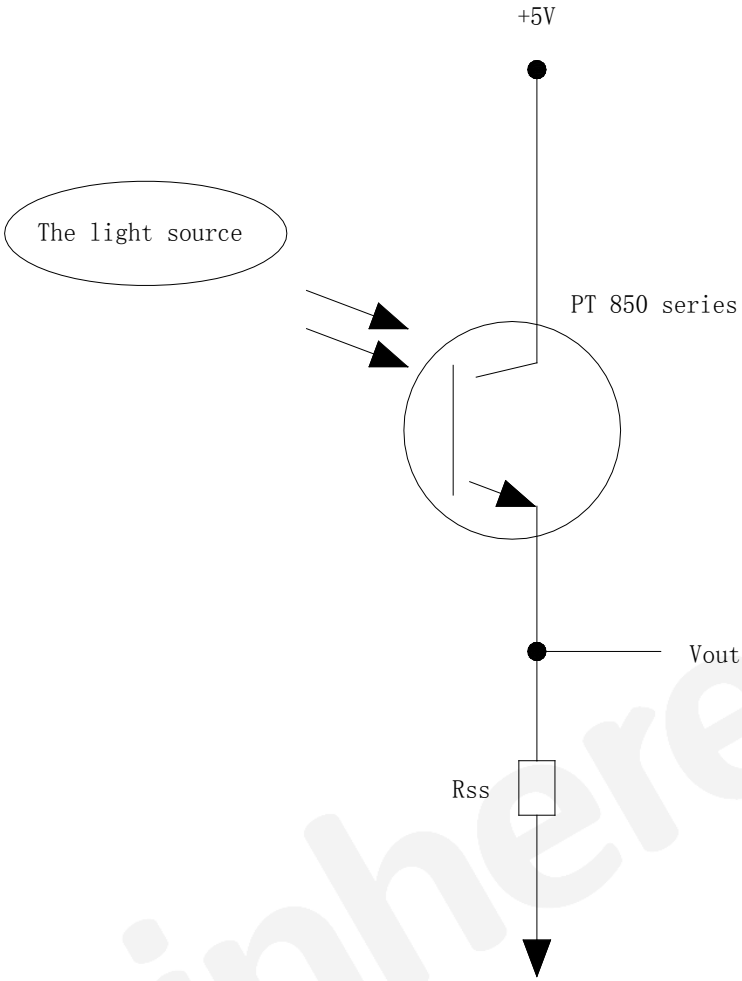
Basic Characteristics (Tamp = 25 ° C, unless otherwise specified)

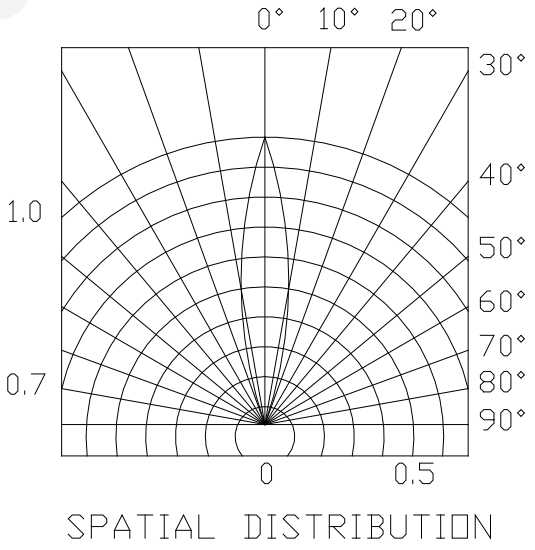


Relative Response Vs. Wavelength



Basic characteristics (Tamp = 25 ℃, unless otherwise specified)





SPATIAL DISTRIBUTION

Precautions in Use

1. Soldering Condition

a. When soldering, leave the minimum clearance between the bottom of the resin and the soldering point.

b. Do not solder closer than 3mm from the base of the epoxy bulb.

c. Maximum allowance soldering conditions are:
Dip Soldering: 260℃ max., 5 sec Max., 1 time.
Soldering iron: 350℃ max., 5 sec Max., 1 time

d. Contact between molten solder and the resin shall be avoided.

e. During soldering, do not put any stress on the lead frame, particularly when heated.

2. Lead frame Forming and Use

a. When forming leads, the leads shall be bent at a point at least 3mm from the base of epoxy bulb. Do not use the base of the lead frame as a fulcrum during lead forming.

b. Lead forming shall be done before soldering.

c. Do not apply any bending stress to the base of the lead. The stress to the base may damage the LED's characteristics or it may break the LED.

d. When mounting the LED onto a printed circuit board, the holes on the PCB shall be exactly aligned with the leads of the LED. If the LED is mounted with stress at the leads, it may cause deterioration of the epoxy resin and this may degrade the LED.

e. Avoid condition which may cause the LED to corrode, tarnish or discolor. This corrosion or discoloration may cause difficulty during soldering operation. It is recommended that the LED be used as soon as possible.

f. Avoid rapid transition in ambient temperature, especially in high humidity environment.

3. Static Electricity

a. The product is sensitive to static electricity charge, and user is required to handle it with care. Particularly, if a current and/or voltage which exceed the Absolute Maximum Rating of the Product is applied, the overflow in energy may cause damage to, or possibly result in electrical destruction of, the LED. The customer is requested to take adequate countermeasure against static electricity charge and surge when handling it.

b. Proper grounding, use of conductive mat, conductive working uniform and shoes, and conductive containers are effective against static electricity and surge.

c. Ground low-resistance area where the product contacts, such as metal surface of the work platform, with a conductive mat (surface resistance $10^6 \sim 10^9$ohm).

d. A tip of soldering iron is requested to be grounded. An ionizer shall also be installed where risk of static generation is high.

Notes:

1. The above specification and dimensions may be modified for product improvement. Inhere reserves the right to change the specification without notice.
2. When using this product, please observe the Absolute Maximum Ratings and the instructions in the specification sheets. Inhere assumes no responsibility for any damage resulting from use of the product that does not comply with the instructions.