

## SL-T0602PTB020-L90 DATA SHEET

SPEC. NO. : SZ19051402  
DATE : 2020/12/15  
REV. : A/3

Approved By:

Checked By:

Prepared By:

## Features

- Pb free product—RoHS compliant
- Low power consumption, High efficiency
- Reliable and rugged
- Long life – solid state reliability
- Fast response time
- High photo sensitivity

## Package Dimension



Part NO.	Chip Material	Lens Color
SL-T0602PTB020-L90	Silicon	Black

### Notes:

- All dimensions are in millimeters.
- Tolerance is 0.10mm unless otherwise noted
- Specifications are subject to change without notice.

## Absolute Maximum Ratings at Ta=25

Parameter	MAX.	Unit
Power Dissipation	100	mW
Collector-Emitter Voltage	30	V
Emitter-Collector Voltage	5	V
Collector Current	50	mA
Moisture Sensitivity Level <sup>*1</sup>	4	
Operating Temperature	-40 to + 85	
Storage Temperature	-40 to + 85	
IR Reflow Temperature <sup>*3</sup>	260 for 10 Seconds MAX.	

### 1. Storage

- (1). Storage requirements before vacuum bag opened: Temperature<30 , Humidity<65%RH;
- (2). Check air leakage and vacuum bag damage before opened. If there is any issue found, check the humidity indicator card immediately after bag opened:
  - a. If color changes on “10% circle” of the humidity indicator card only and not the circles of 20% and above, components can be used without additional handling;
  - b. If color changes on both 10% and 20% circles but not the circles of 30% and above, components must be dehumidified according to the conditions of bullet (5);
  - c. If color changes on 10%, 20%, and 30% circle or above, the product should be returned to the supplier for high temperature dehumidification;
- (3). After bag opened, manual soldering or reflow process must follow the following requirements:
  - a. Complete soldering / reflow within 72 hours;
  - b. Requirements of working environment: Temperature<30 , Humidity<60%RH;
- (4). If the working condition is outside (3)a or (3)b requirement, the components must be dehumidified according to the conditions of bullet (5);
- (5). Low temperature dehumidification: temperature 60±5 , 24 hours;
- (6). Shelf life: 180 days. If it’s over 180 days from the production date on the package label, the components must be dehumidified according to the condition of bullet (5). If customer is unable to dehumidify, return components to LIGHT for dehumidification.

### 2. Cleaning:

Use alcohol-based cleaning solvents such as isopropyl alcohol to clean the LED if necessary.

### 3. IR Reflow Temperature:

It is the Plate Temperature.

### 4. Caution in ESD:

Static Electricity and surge damages the LED. It is recommend to use a wrist band or anti-electrostatic glove when handling the LED. All devices, equipment and machinery must be properly grounded.

# LIGHT

## Typical Electrical / Optical Characteristics Curves (25 Ambient Temperature Unless Otherwise Noted)

FIG.5 Collector Dark Current Vs. Ambient Temperature

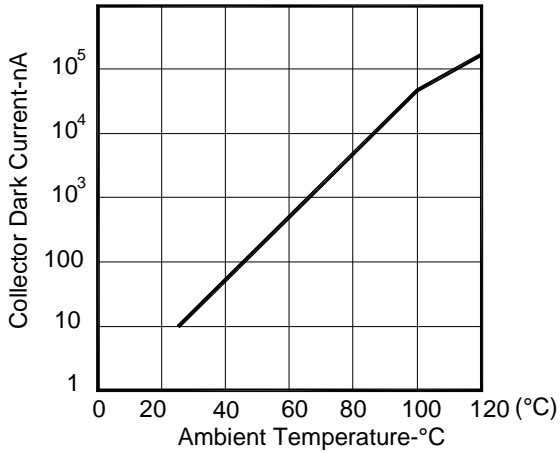


FIG.2 Power Dissipation Vs. Ambient Temperature

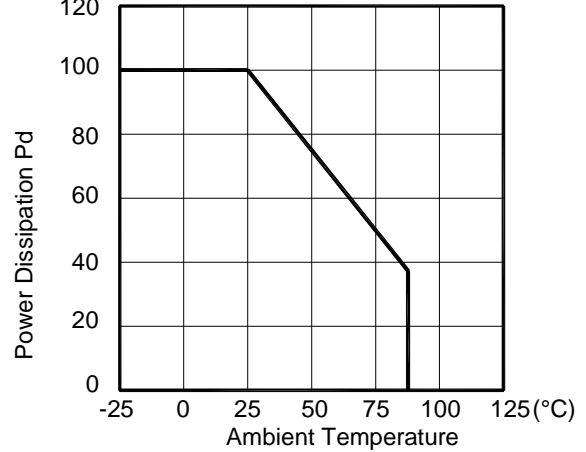


FIG.3 Rise And Fall Time Vs. Load Resistance

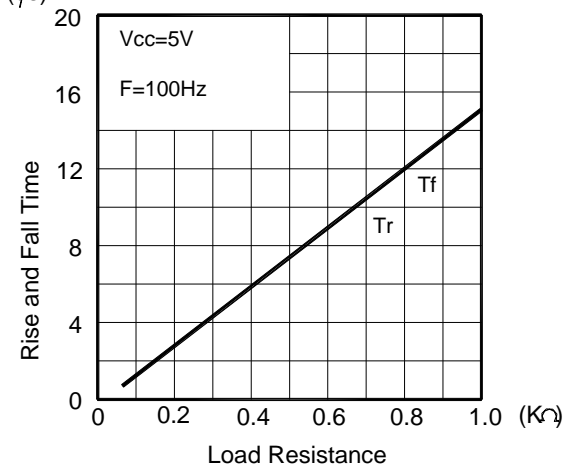


FIG.4 Relative Collector Current Vs. Irradiance

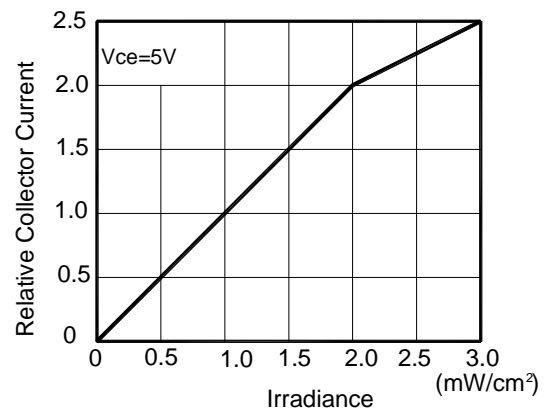


FIG.5 Light Current vs. Angular Displacement

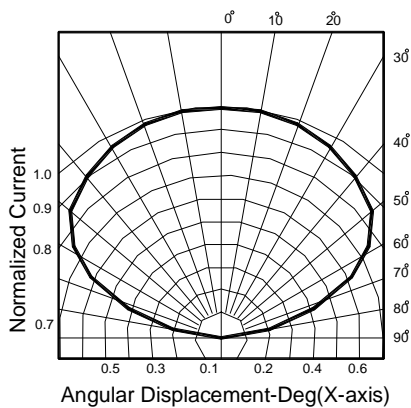
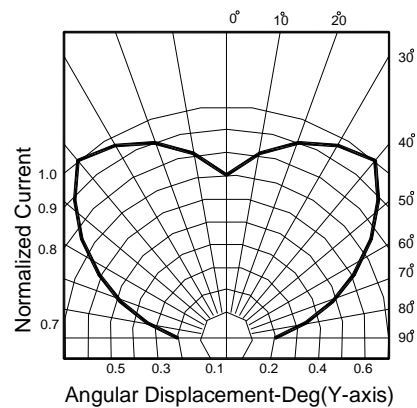


FIG.6 Light Current vs. Angular Displacement



## Photo Transistor Diode Specification

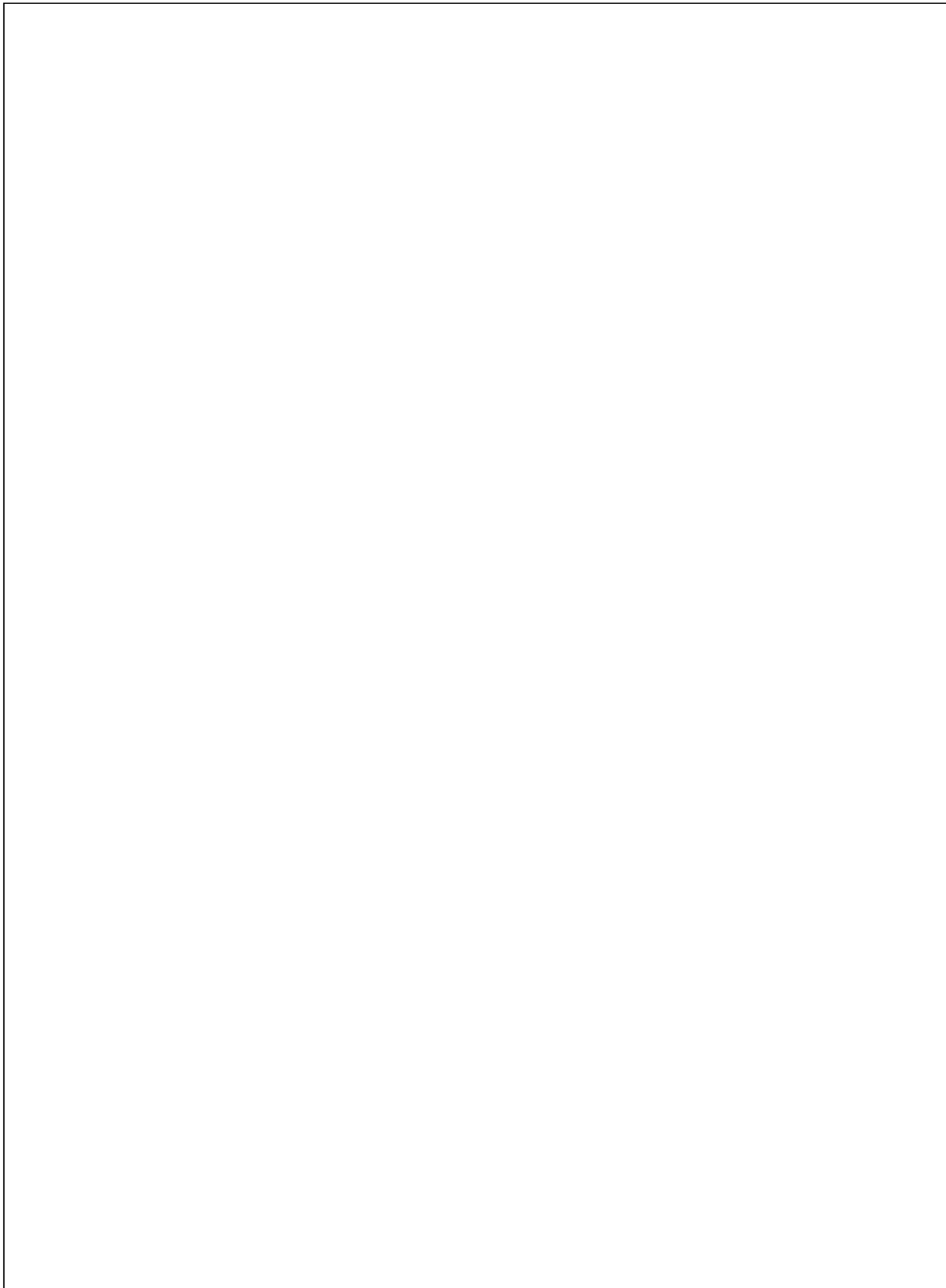
●Commodity: Photo Transistor diode

●Ic(on) Bin Limits ( $V_{CE}=5V$ ,  $E_e=1mW/cm^2$ ,  $p=940nm$ )

BIN CODE	Min. (mA)	Max. (mA)
1	0.20	0.35
2	0.35	0.5
3	0.5	0.65
4	0.65	0.8
5	0.8	1.0

**NOTE:** The Ic(on) guarantee should be added  $\pm 15\%$  tolerance.

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