

# SL-T3528PTB120-L140

## PHOTO TRANSISTOR

### DATA SHEET

SPEC. NO. : SZ20050801  
DATE : 2020/05/08  
REV. : A/3

Approved By:

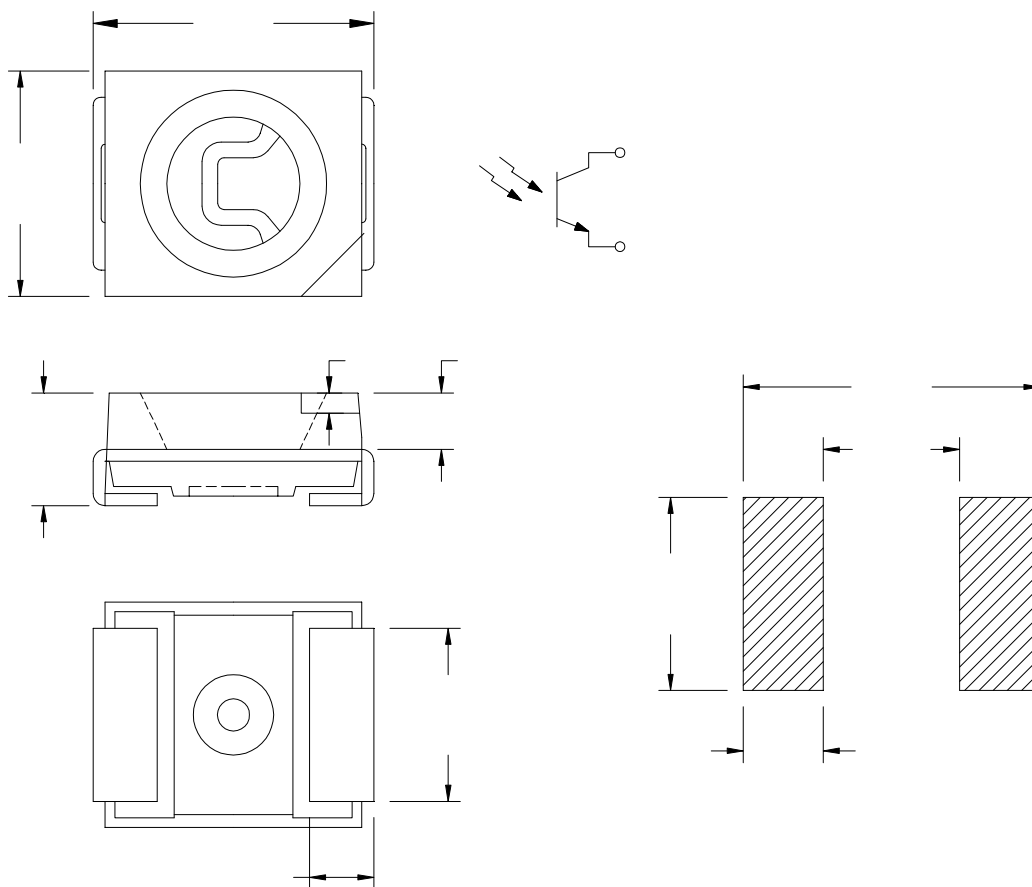
Checked By:

Prepared By:

## Features

Pb free product—RoHS compliant  
 High Photo Sensitivity  
 Reliable and rugged  
 Long life – solid state reliability  
 Sensitivity angle: 120°

## Package Dimension



Part NO.	Chip Material	Lens Color
SL-T3528PTB120-L140	Silicon	Deep Blue

### Notes:

1. All dimensions are in millimeters.
2. Tolerance is  $\pm 0.10\text{mm}$  unless otherwise noted.
3. 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
Moisture Sensitivity Level <sup>*1</sup>	5a	
Operating Temperature	-40 to + 85	
Storage Temperature	-40 to + 100	
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 24 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: 30 days. If it's over 30 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.

### Electrical Optical Characteristics at Ta=25

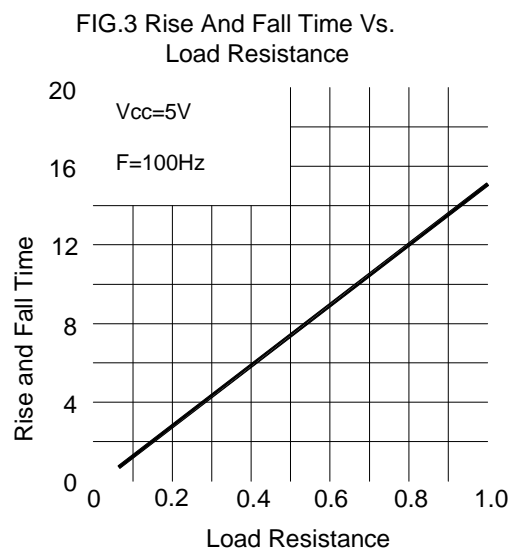
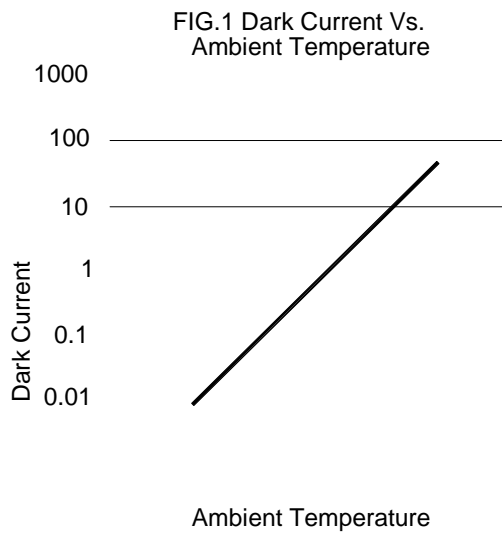
Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Collector-Emitter Breakdown Voltage	$BV_{CEO}$	30	---	---	V	$I_C=0.1mA$ $E_e=0mW/cm^2$
Emitter-Collector Breakdown Voltage	$BV_{ECO}$	5	---	---	V	$I_E=0.1mA$ $E_e=0mW/cm^2$
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	---	---	0.4	V	$I_C=0.1mA$ $E_e=1mW/cm^2$
Rise Time	$T_r$	---	15	---	$\mu s$	$V_{CE}=5V$ $R_L=1K$ $I_C=1mA$
Fall Time	$T_f$	---	15	---	$\mu s$	
Collector Dark Current	$I_{CEO}$	---	---	100	nA	$V_{CE}=10V$ $E_e=0mW/cm^2$
On State Collector Current	$I_{C(ON)}$	1.5	2.2	---	mA	$V_{CE}=5V$ $E_e=1mW/cm^2$ $p=940nm$

#### Note:

- $2_{1/2}$  is the off-axis angle at which the  $I_{C(ON)}$  is half the axial  $I_{C(ON)}$ .
- The  $I_{C(ON)}$  guarantee should be added  $\pm 15\%$  tolerance.

### Typical Electrical / Optical Characteristics Curves

(25 Ambient Temperature Unless Otherwise Noted)







Label Explanation

LIGHT Universal Label

LIGHT

Light Electronics CO., LTD.

RoHS

MODEL NAME: \_\_\_\_\_

QUANTITY: \_\_\_\_\_

BIN \_\_\_\_\_

PACKING DATE: \_\_\_\_\_

REMARKS: \_\_\_\_\_

LOT NO.:

Customer Defined Label

RoHS





