

# LG-03PT4D94H-302C

## PHOTO TRANSISTOR

### DATA SHEET

SPEC. NO. : SZ20022102  
DATE : 2021/08/12  
REV. : A/1

Approved By:

Checked By:

Prepared By:



## Absolute Maximum Ratings at Ta=25°C

Parameter	Maximum Rating	Unit
Power Dissipation	100	mW
Collector- Emitter Voltage	30	V
Emitter- Collector Voltage	5	V
Operating Temperature	-40°C ~+85°C	
Storage Temperature Range	-45°C ~+100°C	
Lead Soldering Temperature	260°C for 5 seconds	

### 1. Storage

The storage ambient for the LEDs should not exceed 30 °C temperature or 70% relative humidity.

It is recommended that LEDs out of their original packaging are used within three months.

For extended storage out of their original packaging, it is recommended that the LEDs be stored in a sealed container with appropriate desiccant or in desiccators with nitrogen ambient.

### 2. Precautions in handling:

- When soldering, leave 2mm of minimum clearance from the resin to the soldering point.
- Dipping the resin to solder must be avoided.
- Correcting the soldered position after soldering must be avoided.
- In soldering, do not apply any stress to the lead frame particularly when heated.
- When forming a lead, make sure not to apply any stress inside the resin.
- Lead forming must be done before soldering.
- It is necessary to cut the lead frame at normal temperature.

### 3. 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°C

PARAMETER	SYMBOL	MIN	TYP	MAX	UNITS	TEST CONDITIONS
Range of Spectral Bandwidth	$\lambda_{0.5}$	840	---	1100	nm	---
Wavelength of Peak Sensitivity	$\lambda_P$	---	940	---	nm	---
Collector- Emitter Breakdown Voltage	$V_{(BR)CEO}$	30	---	---	V	$I_C=0.1mA$ $E_e=0mW/cm^2$
Emitter-Collector Breakdown Voltage	$V_{(BR)ECO}$	5	---	---	V	$I_R=0.1mA$ $E_e=0 mW/cm^2$
Collector- Emitter Saturation Voltage	$V_{CE(SAT)}$	---	---	0.5	V	$I_C=0.1 mA$ $E_e=1.0mW/cm^2$
Rise Time	$T_r$	---	15	---		$V_{CC}=5V$ $R_L=1K\Omega$ $I_C=1mA$
Fall Time	$T_f$	---	15	---		$V_{CC}=5V$ $R_L=1K\Omega$ $I_C=1mA$
Viewing Angle	$2\theta_{1/2}$	---	50	---	Deg.	
Collector Dark Current	$I_{CEO}$	---	---	100	nA	$V_{CE}=10V$ $E_e=0 mW/cm^2$
On State Collector Current	$I_{C(ON)}$	---	9.0	---	mA	$V_{CE}=5V$ $E_e=1.0mW/cm^2$ $\lambda_P=940nm$

### 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.

## PHOTO TRANSISTOR Specification

●Commodity: PHOTO TRANSISTOR

●Ic(on) Bin Limits

BIN CODE	Min. (mA)	Max. (mA)
63	4.5	6
64	6	8
65	8	10
66	10	12.5
67	12.5	15.6

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

## Recommended Wave Soldering Profile











