

# **LG-05PD4D94K-557C-B-T**

## **PHOTO Diode**

### **DATA SHEET**

SPEC. NO. : SZ17082401  
DATE : 2019/12/05  
Version No. : A2

Approved By:

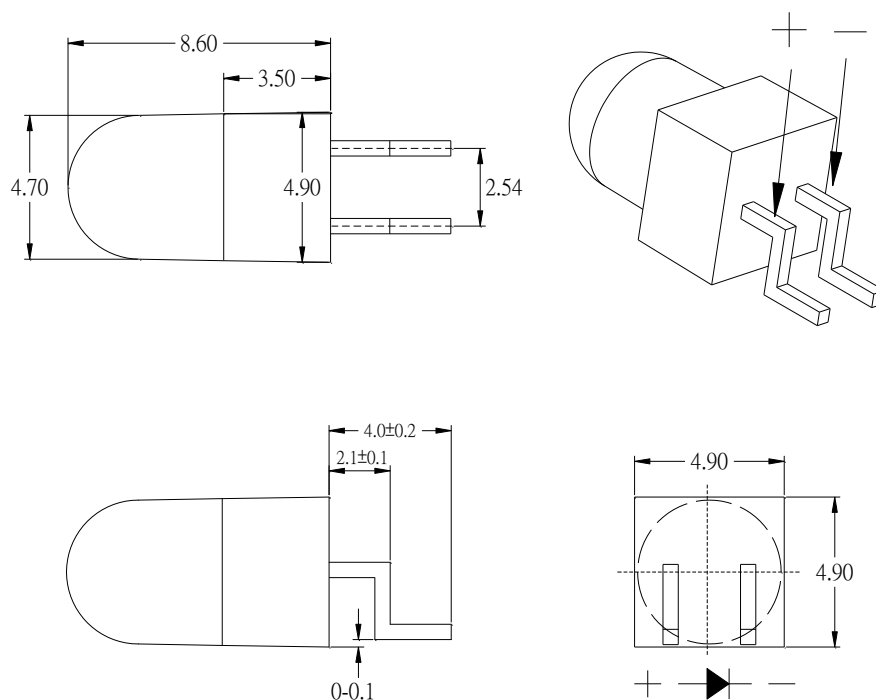
Checked By:

Prepared By:

## Features

- ◆ Pb free product—RoHS compliant 无 Pb 产品，符合 ROHS 要求
- ◆ High Photo Sensitivity 高灵敏度
- ◆ General purpose leads 通用性好
- ◆ Reliable and rugged 可靠性好、坚固
- ◆ Long life – solid state reliability 寿命长

## Package Dimension



Part NO.产品型号	Chip Material 晶片材质	Lens Color 胶体颜色
LG-05PD4D94K-557C-B-T	Silicon	Black

### Notes:

1. All dimensions are in millimeters.  
所有尺寸单位为：毫米
2. Tolerance is  $\pm 0.20\text{mm}$  unless otherwise noted.  
尺寸未标示公差部分的尺寸公差为  $\pm 0.2$  毫米.

## Absolute Maximum Ratings at Ta=25°C

### 常温下最大额定值

Parameter 参数	Maximum Rating 最大值	Unit 单位
Power Dissipation 耗散功率	100	mW
Reverse Voltage 反向电压	30	V
Operating Temperature 操作温度	-40°C~+85°C	
Storage Temperature Range 存储温度	-45°C~+100°C	
IR Reflow Temperature 回流焊温度	245°C for 30 seconds	

### 1. Storage: 存储

The storage ambient for the LEDs should not exceed 70% relative humidity.

LED 灯存储环境湿度不得超过 70%。

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

建议 LED 不开封情况下在三个月内使用

It is recommended that LED be used in 168hrs after opening the package, If extended, use 70±5°C before baking more than 12hrs

建议 LED 在开封后 168hrs 使用完成，若超时，使用前需使用 70±5°C 温度烘烤除湿 12hrs 以上。

### 2. Precautions in handling: 预防措施处理

- When soldering, leave 1mm of minimum clearance from the resin to the soldering point.

焊接时，尽可能使胶体与支架之间的长度不小于 2mm

- Dipping the resin to solder must be avoided.

不得将胶体浸泡在锡炉中

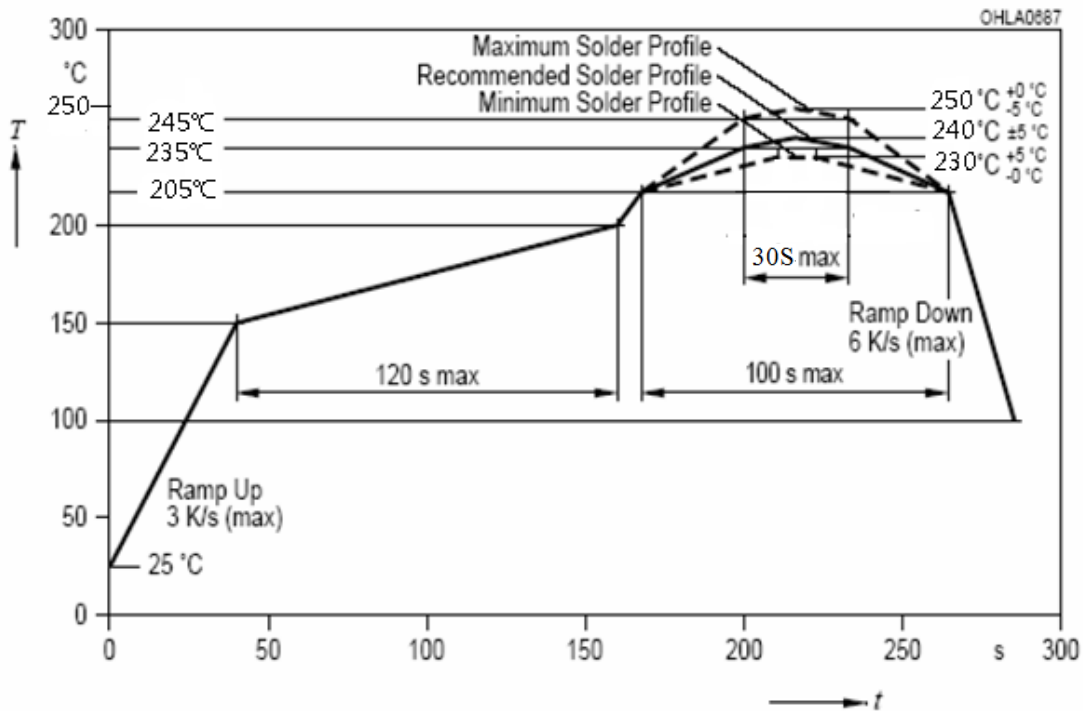
- In soldering, do not apply any stress to the lead frame particularly when heated.

在高温焊接时，避免对支架施加外力

- When forming a lead, make sure not to apply any stress inside the resin.

在高温焊接时，避免对胶体施加外力

## Suggest IR Reflow Condition For Lead Free: 建议使用回流焊曲线图



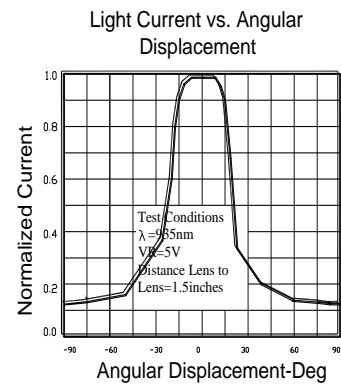
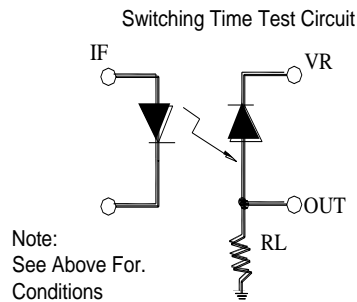
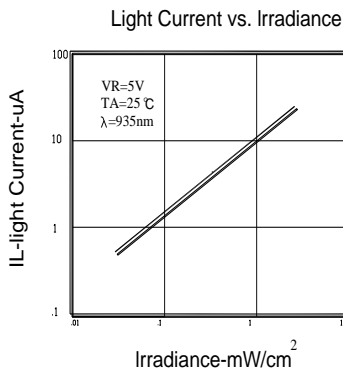
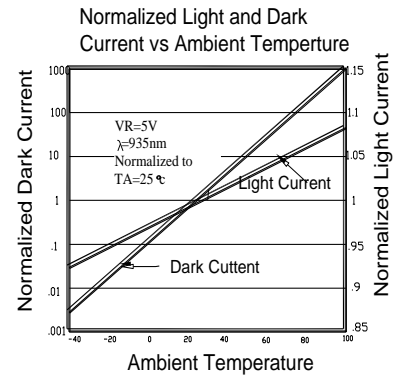
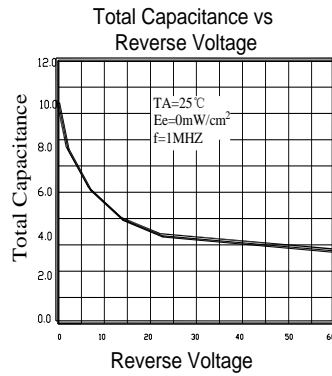
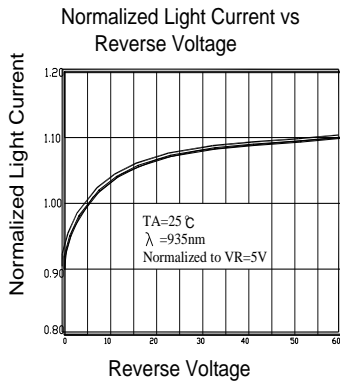
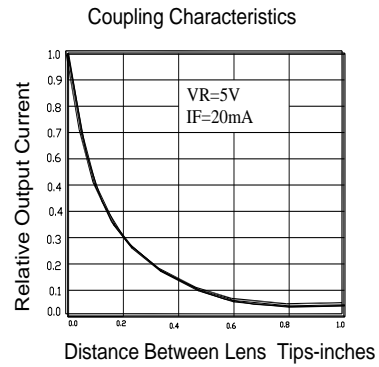
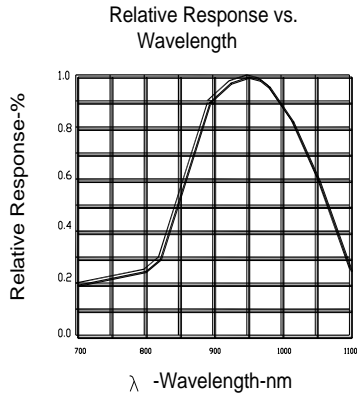
## Electrical Optical Characteristics at Ta=25°C

PARAMETER 参数	SYMBOL 符号	MIN 最小值	TYP 典型值	MAX 最大值	UNITS 单位	TEST CONDITIONS 测试条件
Reverse Light Current 光电流	$I_L$	-	88	-	$\mu A$	$V_R=5V, E_e=1mW/cm^2$
Reverse Dark Current 暗电流	$I_D$	-	-	100	nA	$V_R=10V, E_e=0 mW/cm^2$
Reverse Voltage 反向电压	$V_{(R)}$	30	-	-	V	$I_R=100\mu A$
Forward Voltage 正向电压	$V_F$	-	-	1.3	V	$I_F=1mA$
Rise Time/ Fall Time 响应时间	tr/ tf	-	50	-	ns	$V_R=20V, R_L=50\Omega$
Total Capacitance 结电容	$C_T$	-	9	-	PF	$V_R=5V, E_e=0, f=1.0MHZ$
Viewing Angle 发光角度	2 $\theta$ 1/2	35	40	45	deg	(Note 2)

Note:

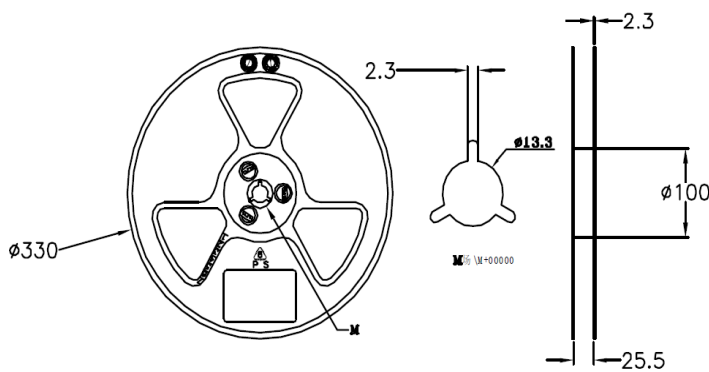
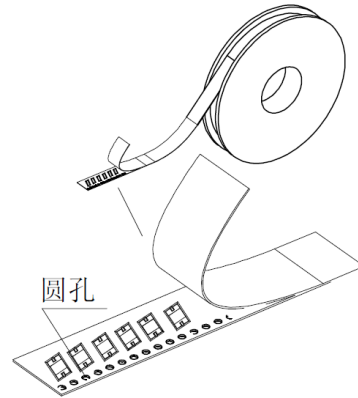
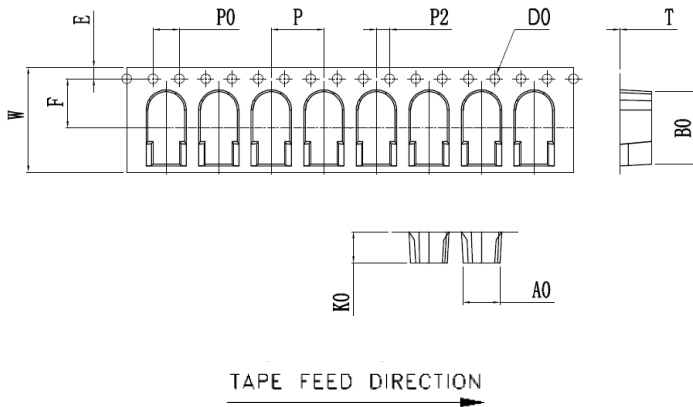
The  $I_L$  test error is based on our test  
光电流测试误差以敝司的测试作为标准。

## Typical Electrical / Optical Characteristics Curves 光电曲线图 (25°C Ambient Temperature Unless Otherwise Noted) 常温条件下



## PACKAGE 包装

### 1. Package Dimensions 包装尺寸



Item	Specification	
	Minum	Maximum
W	15.97	16.3
P	7.9	8.1
E	1.65	1.85
F	7.4	7.6
D	1.5	1.6
P0	3.9	4.1
P0x10	39.8	40.2
P2	1.9	2.1
A0	5.2	5.4
B0	10.6	10.8
K0	4.8	5.0

### Notes:

1. All dimensions in millimeters.
2. All dimensions meet EIA-481-C requirements.
3. Cover tape by a heat sealing manner

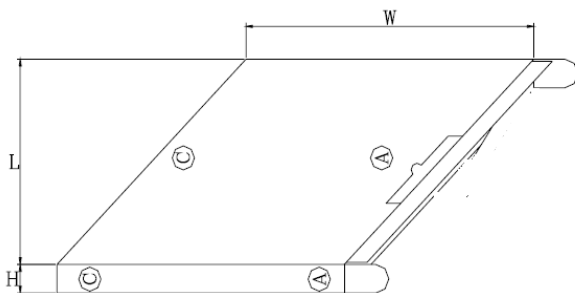
1. 所有尺寸单位为：毫米
2. 所有尺寸均按照 EIA-481-C 标准
3. 胶带封带模式为热封

## 2. Package SPEC: 包装规格

1500pcs per reel 1500pcs/卷

5 reel per inner carton/Total 7500pcs per inner carton

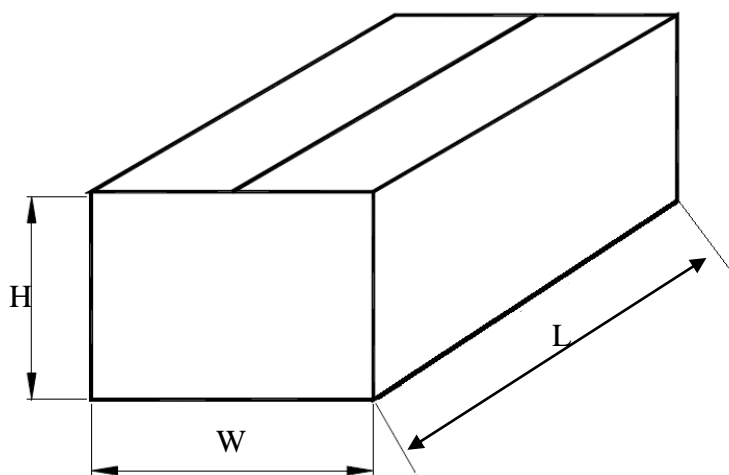
5 卷/盒, 7500pcs/盒



Item	Specification	
	Minmum	Maximum
L	335	345
W	329	339
H	93	103

4 inner carton per outer carton/Total 30000pcs per outer carton

每个外箱装 4 个内盒, 30kcps/箱



Item	Specification	
	Minmum	Maximum
L	435	445
W	355	365
H	355	365

## Infrared Photo Diode Specification

●Commodity: Infrared Photo diode

●Intensity Bin Limits

<b>BIN CODE</b>	<b>Min.(uA)</b>	<b>Max.(uA)</b>
6	70	88
7	88	110