

# SMD SPECIFICATION

Part No./型号: PLCC2KYCT

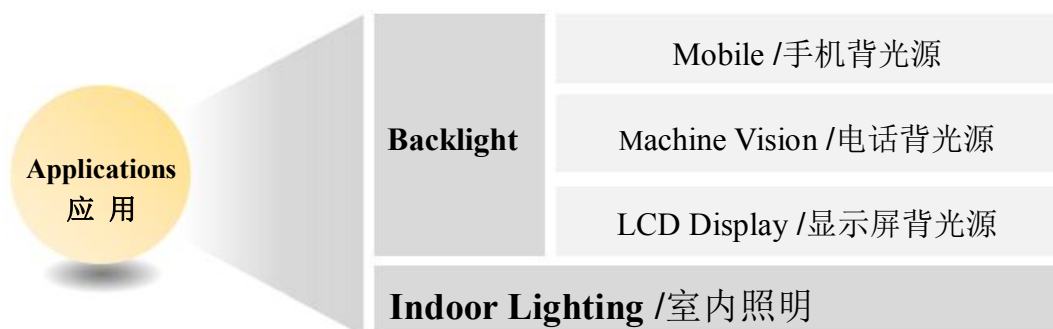


**ATTENTION**  
OBSERVE PRECAUTIONS  
FOR HANDLING  
ELECTROSTATIC  
DISCHARGE  
SENSITIVE  
DEVICES

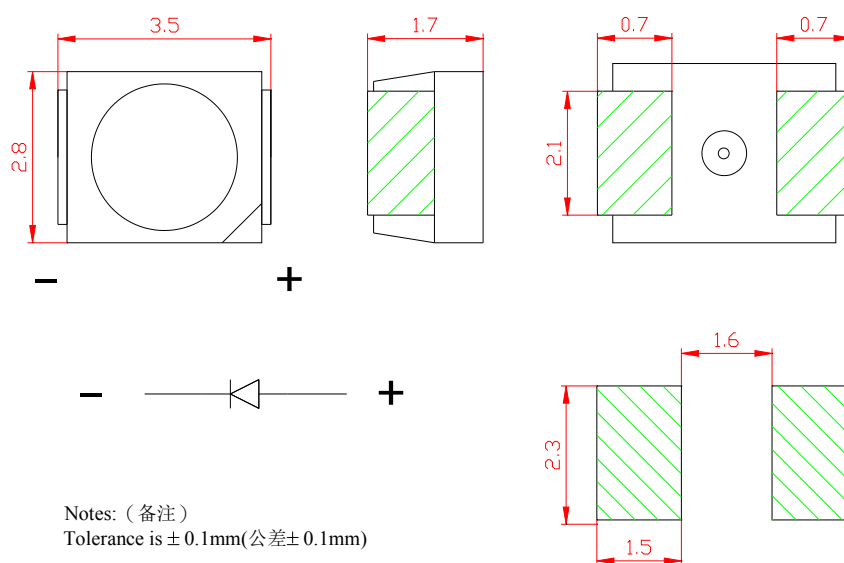
## 1、Features/特征:

- Emitting Color/发光颜色: Yellow/黄色
- Lens Type/封装特性: Water Clear/无色透明
- Device Outline/外形特征: 3.5×2.8×1.7mm
- RoHS compliant/符合 RoHS 标准

## 2、Applications/应用:



## 3、Outline Dimensions/产品外形尺寸:



参考焊盘尺寸

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## 4、Absolute maximum ratings/极限参数 (Ta = 25°C):

Parameter 参数	Symbol 符号	Value 参数	Unit 单位
Power Dissipation 损耗功率	Pd	60	mW
Reverse Voltage 反向电压	VR	5	V
Pulse Current 正向峰值电流 <sup>[1]</sup>	IFp	100	mA
Forward Current 正向工作电流	IFm	25	mA
Operating Temperature 工作温度范围	Topr	- 40 ~ +85	°C
Storage Temperature 储存温度范围	Tstr	- 40 ~ +100	°C

Notes/备注: [1]. 0.1ms pulse width, 1/10 Duty. / [1] 脉冲宽度0.1ms, 占空比1/10。

## 5、Electrical and optical characteristics/光电参数 (Ta = 25°C):

Parameter 参数	Symbol 符号	Test Condition 测试条件	Value 参数 <sup>[1]</sup>			Unit 单位
			Min.	Typ.	Max.	
Forward Voltage 正向电压	VF	IF = 20mA	—	2.0	2.4	V
Reverse Current 反向电流	IR	VR = 5V	—	—	10	μA
Dominate Wavelength 主波长	λ d	IF = 20mA	584	591	594	nm
Peak Wavelength 峰值波长	λ p	IF = 20mA	—	593	—	nm
Spectral Line half-width 半波宽度	Δ λ	IF = 20mA	—	15	—	nm
Luminous Intensity 发光强度	IV	IF = 20mA	320	600	—	mcd
Viewing Angle 发光指向角	2 θ 1/2	IF = 20mA	—	120	—	Deg.

Notes/备注: [1] Tolerance 误差: VF: ±0.10V, IV: ±15%, 其它: ±5%

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## 6、Product Rank/产品分档

### Luminous Intensity / 发光强度 (mcd)

(Ta=25°C)

Rank	Q	R	S
Iv	390-550	550-770	770-1100

### Wavelength / 波长 (nm)

(Ta=25°C)

Rank	Y2	Y3	Y4	Y5
WLD	585-588	588-591	591-594	594-597

### Voltage / 电压 (V)

(Ta=25°C)

Rank	C	D	E	F	G	H
Vf	1.8-1.9	1.9-2.0	2.0-2.1	2.1-2.2	2.2-2.3	2.3-2.4

**Notes/备注:** Rank error/分档误差: Iv:  $\pm 15\%$ ,  $\lambda d$ :  $\pm 1\text{nm}$ , Vf:  $\pm 0.10\text{v}$

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## 7、Typical electrical/optical characteristic curves/光电特性曲线:

Fig.1 正向电流 Vs. 正向电压

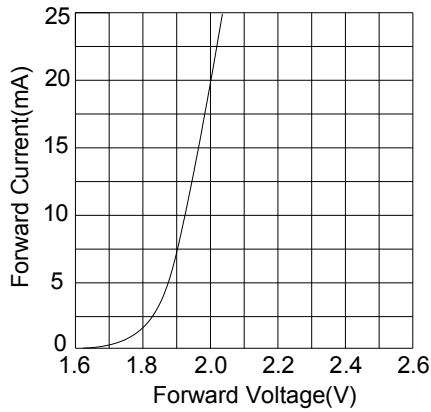


Fig.2 相对亮度 Vs. 正向电流

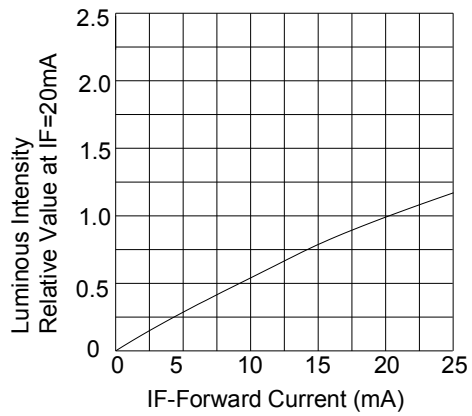


Fig.3 正向电流 Vs. 环境温度

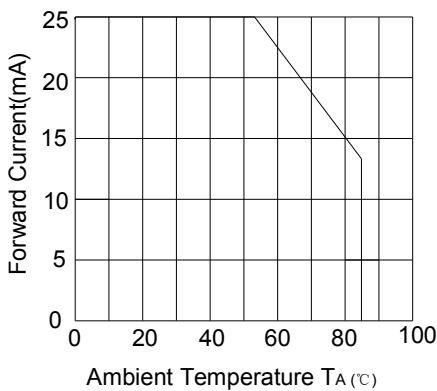


Fig.4 相对亮度 Vs. 环境温度

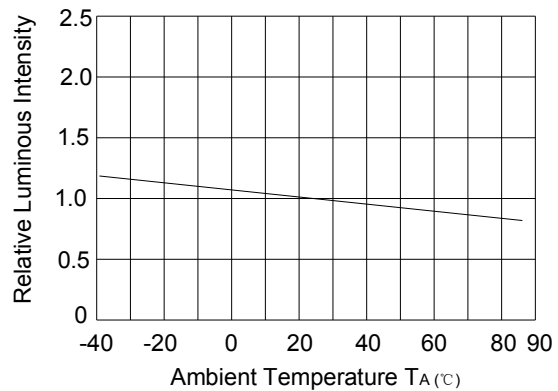
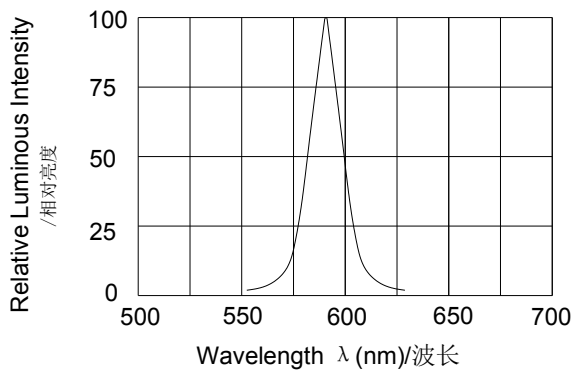
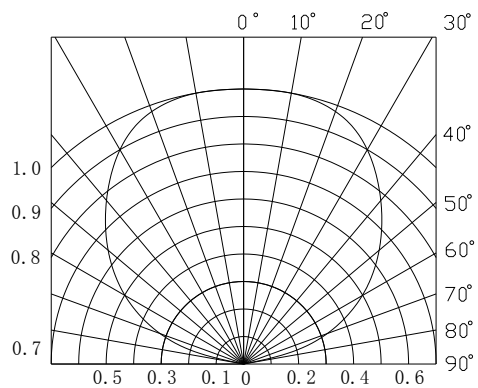


Fig.5 相对亮度 Vs. 波长



SPATIAL DISTRIBUTION



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## 8、Reliability Analysis/可靠性试验

### 8.1 Test Items And Results/测试项目和判据

No.	Item/项目	Test Condition/测试条件	Spec. / 引用标准	Q'ty/数量	Time/时间	Standard/判定
1	IR Reflow (Reflow Soldering) 回流焊接	Tsld=260°C T=10sec	JESD22-B106	20	3times	ALL PASS
2	Solder ability 可焊性	Tsld=235±5°C, 3sec	JESD22-B102	20	1times Over 95%	ALL PASS
3	Temperature Cycle 高低温循环	100°C 30mins ↑ ↓ 5mins -40°C 30mins	JESD22-A104	20	100cycles	ALL PASS
4	High Temperature High Humidity 高温高湿	85°C/85%RH	JESD22-A118	20	168hrs	ALL PASS
5	High Temperature Storage 高温储存	Ta=100°C(-0/+10°C)	JESD22-A103	20	1000hrs	ALL PASS
6	Low Temperature Storage 低温储存	Ta=-40°C(-10°C/+0)	JESD22-A119	20	1000hrs	ALL PASS
7	Steady State perating Life 电耐久性	Ta=25°C±5°C IF=20mA	JESD22-A108	20	1000hrs	ALL PASS

### 8.2 Criteria For Judging Damage/判断标准

Item/项目	Symbol/符号	Test conditions /测试条件	Criteria for Judgement /判断标准	
			Min./最小值	Max./最大值
Luminous Intensity/亮度	Iv	IF=20mA	L.S.L *0.7	/
Forward Voltage/正向电压	VF	IF=20mA	/	U.S.L*1.1
Reverse current/反向电流	IR	VR=5v	/	U.S.L*2

\*U.S.L.: Upper Standard Level / 上限

\*L.S.L.: Lower Standard Level / 下限