

Features(特征)

- PLCC-2 Package.(PLCC-2 封装)
- Suitable for all SMT assembly and solder process. (适用于所有的 SMT 组装和焊接工艺)
- Available on tape and reel. (适用于载带及卷轴)
- Moisture sensitivity level: Level 4. (防潮等级 Level 4)
- Package:2000pcs/reel..(包装每卷 2000PCS)
- RoHS compliant. (RoHS 认证)



注意：操作时应注意静电敏感

Applications (应用)

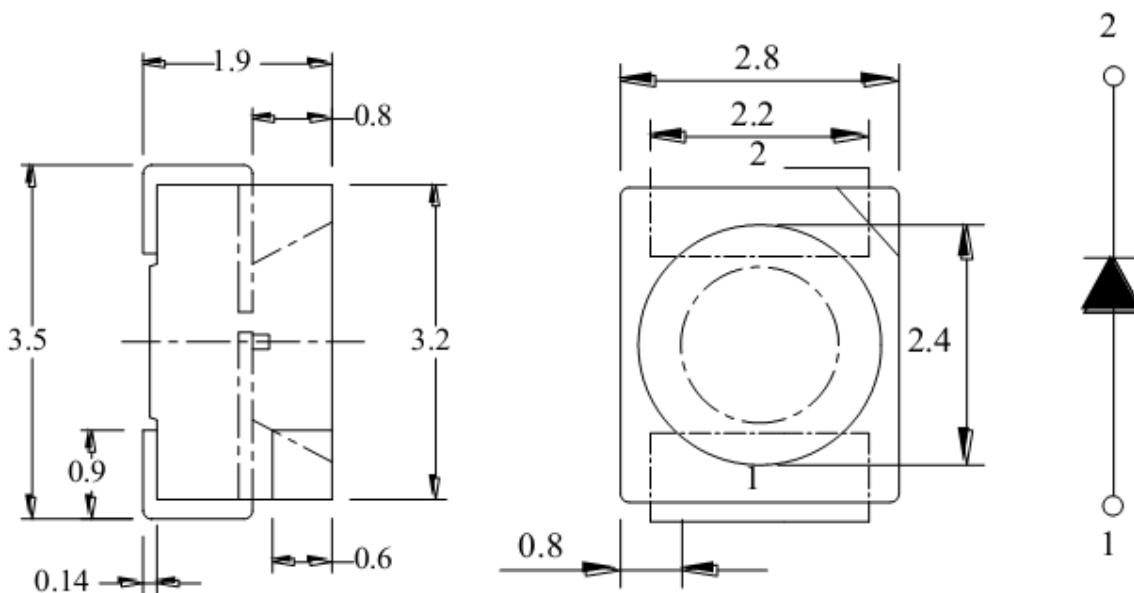
PCB mounted infrared sensor PCB 安装红外传感器

Infrared remote control units with high power requirement 高功率要求的红外遥控器

Scanner 扫描器

Infrared applied system 红外应用系统

Package Dimensions (封装尺寸)



Notes: (备注)

1. All dimension units are millimeters. (所有标注尺寸单位为毫米)

2.All dimension tolerance is $\pm 0.15\text{mm}$ unless otherwise noted. (除特别标注外, 所有尺寸允许公差 $\pm 0.15\text{mm}$)

Selection Guide (选择指南)

Part No. 型号	Dice	Lens Type 胶体类型	Luminous intensity(mW/sr) 光强@ 20mA		Viewing Angle 角度
			Min	Typ	2q1/2
BH-3528IRC-3T-850	infrared	Water Clear	18	25	45°

Note:(备注)

1. 201/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

201/2 是半值角, 指光强是光学中心线光强的 1/2 处到光学中心线的角度

2. The above luminous intensity measurement allowance tolerance is ±10%.

上述发光强度的测试允许公差为±10%

Electrical / Optical Characteristics at Ta=25°C 电性与光学特性

Parameter (参数)	Symbol (符号)	Min. (最小)	Typ. (平均)	Max. (最大)	Units (单位)	Test Conditions 测试条件
Forward Voltage 正向电压	VF	---	1.5	---	V	IF=20mA
Reverse Current 反向电流	IR	---	---	5	uA	VR = 5V
Dominate Wavelength 主波长	λd	---	850	---	nm	IF=20mA

Absolute Maximum Ratings at Ta=25°C 绝对最大额定值

Parameter (参数)	Symbol (符号)	Rating (值)	Units (单位)
Power Dissipation (功耗)	Pd	30	mW
Forward Current (正向电流)	IF	150	mA
Peak Forward Current [1] (峰值正向电流)	IFP	100	mA
Reverse Voltage (反向电压)	VR	5	V
Electrostatic Discharge (HBM) (静电)	ESD	1000	V
Operating Temperature (操作温度)	Topr	-40 ~ +85	°C
Storage Temperature (保存温度)	Tstg	-40 ~ +100	°C

Note: (备注)

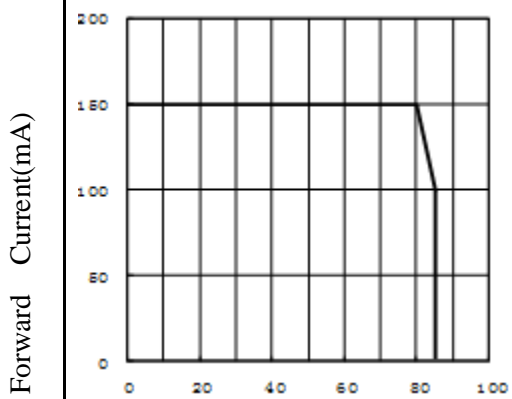
1. 1/10 Duty cycle, 0.1ms pulse width. (脉宽 0.1ms, 周期 1/10)

2. The above forward voltage measurement allowance tolerance is ±0.1V. (以上所示电压测量误差±0.1V)

3. The above dominate wavelength measurement allowance tolerance is ±1nm. (以上所示波长测量误差±1nm)

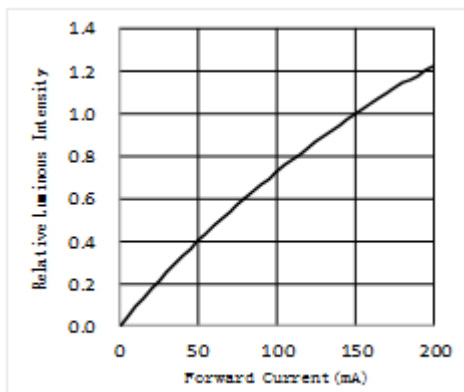
Typical optical characteristics curves 典型光学特性曲线

Ambient Temperature vs. Forward Current
环境温度与正向电流特性曲线



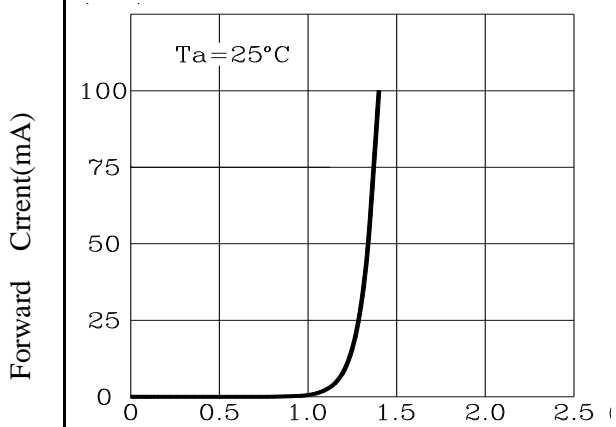
Soldering Temperature °C

Forward Current VS. Relative Intensity
正向电流与相对光强特性曲线



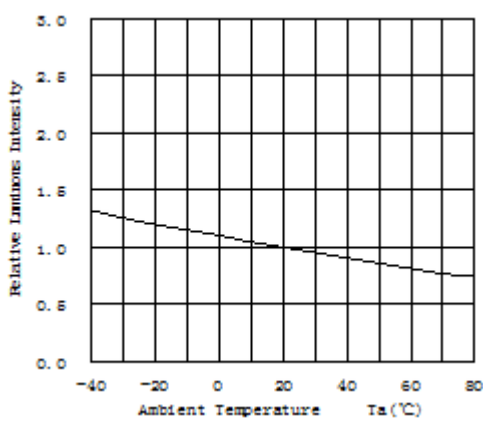
Forward Current(mA)

Forward Voltage VS. Forward Current
正向电压与正向电流特性曲线



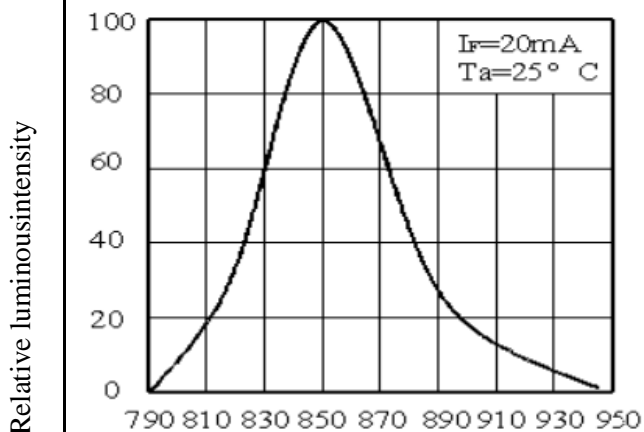
Forward Voltage(V)

Ambient Temperature VS. Relative Intensity
环境温度与相对光强特性曲线



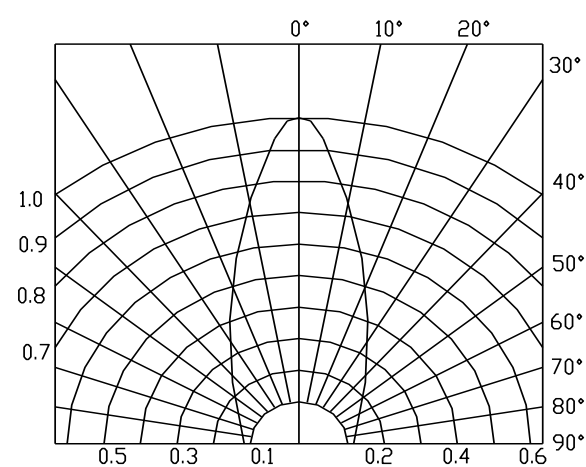
Ambient Temperature ta °C

Relative spectral emission
相对光谱分布特性曲线



Wavelength(nm)

Radiation diagram
辐射图特性曲线



SPATIA DISTRIBUTION

Reliability Test Items And Conditions 信赖性测试项目及条件

Test Items 项目	Ref. Standard 参考标准	Test Condition 测试条件	Time 时间	Quantity 数量	Ac/Re 接收/拒收
Reflow 回流焊	JESD22-B106	Temp:260℃ max T=10 sec	3 times.	22Pcs.	0/1
Temperature Cycle 温度循环	JESD22-A104	100℃ ±5℃ 30 min. ↑↓5 min -40℃ ±5℃ 30 min.	100 Cycles	22Pcs.	0/1
High Temperature Storage 高温保存	JESD22-A103	Temp:100℃ ±5℃	1000Hrs.	22Pcs.	0/1
Low Temperature Storage 低温保存	JESD22-A119	Temp:-40℃ ±5℃	1000Hrs.	22Pcs.	0/1
Life Test 常温通电	JESD22-A108	Ta=25℃ ±5℃ IF=20mA	1000Hrs.	22Pcs.	0/1
High Temperature High Humidity Life Test 高温高湿通电	JESD22-A101	85℃ ±5℃ / 85%RH IF=100mA	1000Hrs.	22Pcs.	0/1

Failure Criteria 失效判定标准

Test Items 项目	Symbol 符号	Test Condition 测试条件	Failure Criteria 判定标准	
			Min. 最小	Max. 最大
Forward Voltage 正向电压	VF	IF=20mA	--	U.S.L*)x1.1
Reverse Current 反向电流	IR	VR = 5V	--	U.S.L*)x2.0
Luminous Flux 光通量	Im	IF=20mA	L.S.L*)x0.7	--

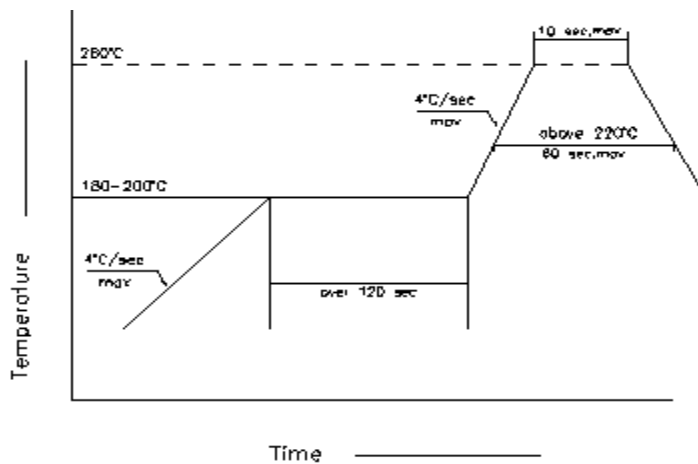
U.S.L: Upper Specification Limit 规格上限

L.S.L: Lower Specification Limit 规格下限

*The technical information shown in the data sheets is limited to the typical characteristics and circuit examples of the referenced products. It does not constitute the warranting of industrial property nor the granting of any license.

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SMT Reflow Soldering Instructions SMT 回流焊说明



1.Reflow soldering should not be done more than two times. 回流焊不可以做两次以上

2.When soldering , do not put stress on the LEDs during heating

当焊接时, 不要在材料受热时用力压胶体表面

Soldering iron 烙铁焊接

1.When hand soldering, keep the temperature of iron below less 300°C less than 3 seconds

当手工焊接时, 烙铁的温度必须小于 300°C, 时间不可超过 3 秒

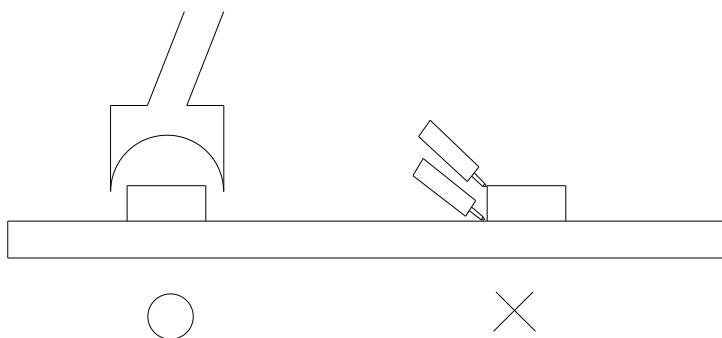
2.The hand solder should be done only one times

手工焊接只可焊接一次

Repairing 修补

Repair should not be done after the LEDs have been soldered. When repairing is unavoidable, a double-head soldering iron should be used (as below figure). It should be confirmed in advance whether the characteristics of LEDs will or will not be damaged by repairing.

LED 回流焊后不应该修复, 当修复是不可避免时, 必须使用双头烙铁 (如下图), 但必须事先确认此种方式会或不会损坏 LED 本身的特性。



Cautions 注意事项

The encapsulated material of the LEDs is silicone. Therefore the LEDs have a soft surface on the top of package. The pressure to the top surface will be influence to the reliability of the LEDs. Precautions should be taken to avoid the strong pressure on the encapsulated part. So when use the picking up nozzle, the pressure on the silicone resin should be proper.

LED 封装为硅胶, 故 LED 胶体表面较软, 用力按压胶体表面会影响 LED 可靠性, 因此应有预防措施避免在封装的零件上的强大压力,

当使用吸嘴时，胶体表面的压力应是恰当的。

7.Other points for attention, please refer to our LED user manual.

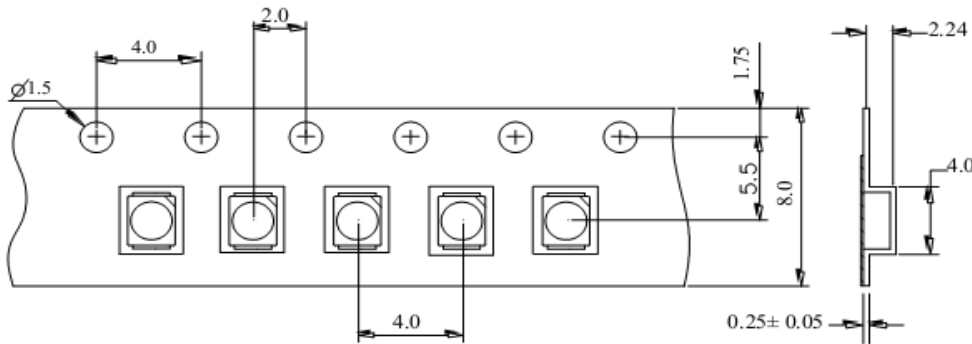
其它注意事项请参照我们的 LED 使用手册

Label 标签

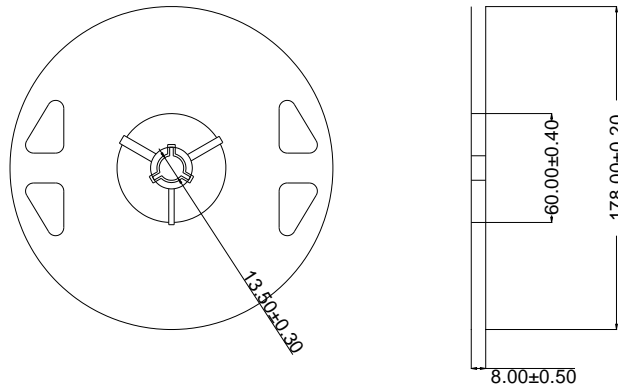
- IV: Luminous intensity rank** 亮度等级
- WD: Dominate Wavelength** 波长等级
- VF: Forward voltage rank** 电压等级



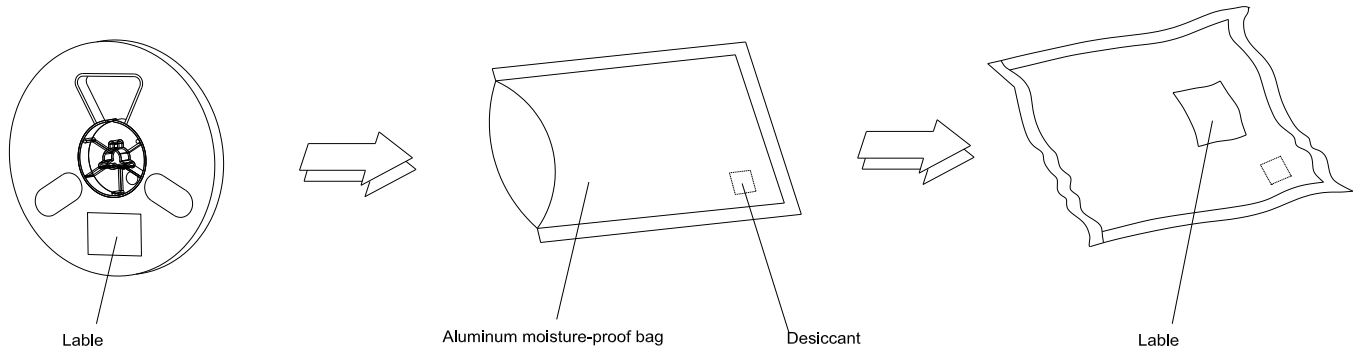
Tape Specifications (Units : mm) 载带规格 (单位: mm)



Reel Dimensions 卷轴尺寸



Moisture Resistant Packaging 防潮带包装



Note: The tolerances unless mentioned is $\pm 0.1\text{mm}$, Unit: mm

注: 标注公差为 $\pm 0.1\text{mm}$, 单位: mm