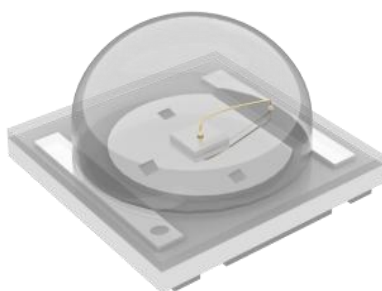


TC 系列 TC series



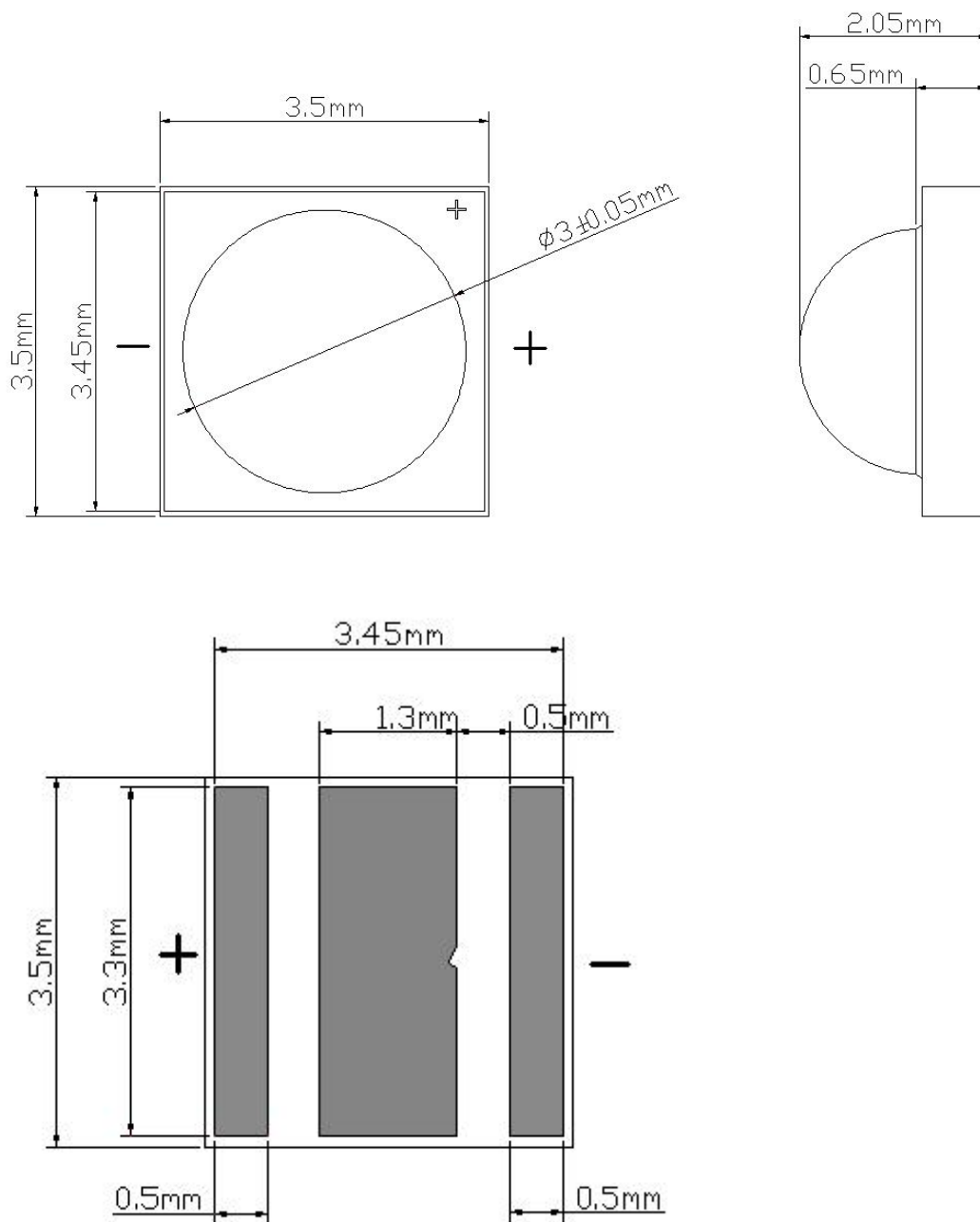
特征 Feature

- Size (mm): 3.5*3.5mm
尺寸 (mm): 3.5*3.5mm
- Suitable for all SMT assembly
And solder process.
适用于所有的 SMT 组装和焊接工艺
- 1-3W High-power LED products
1-3W 大功率 LED 产品
- Moisture sensitivity level:
Level 2a
防潮等级 Level 2a

应用 Applications

- All kinds of lighting applications
各类照明应用

产品尺寸图 Product Structure diagram.



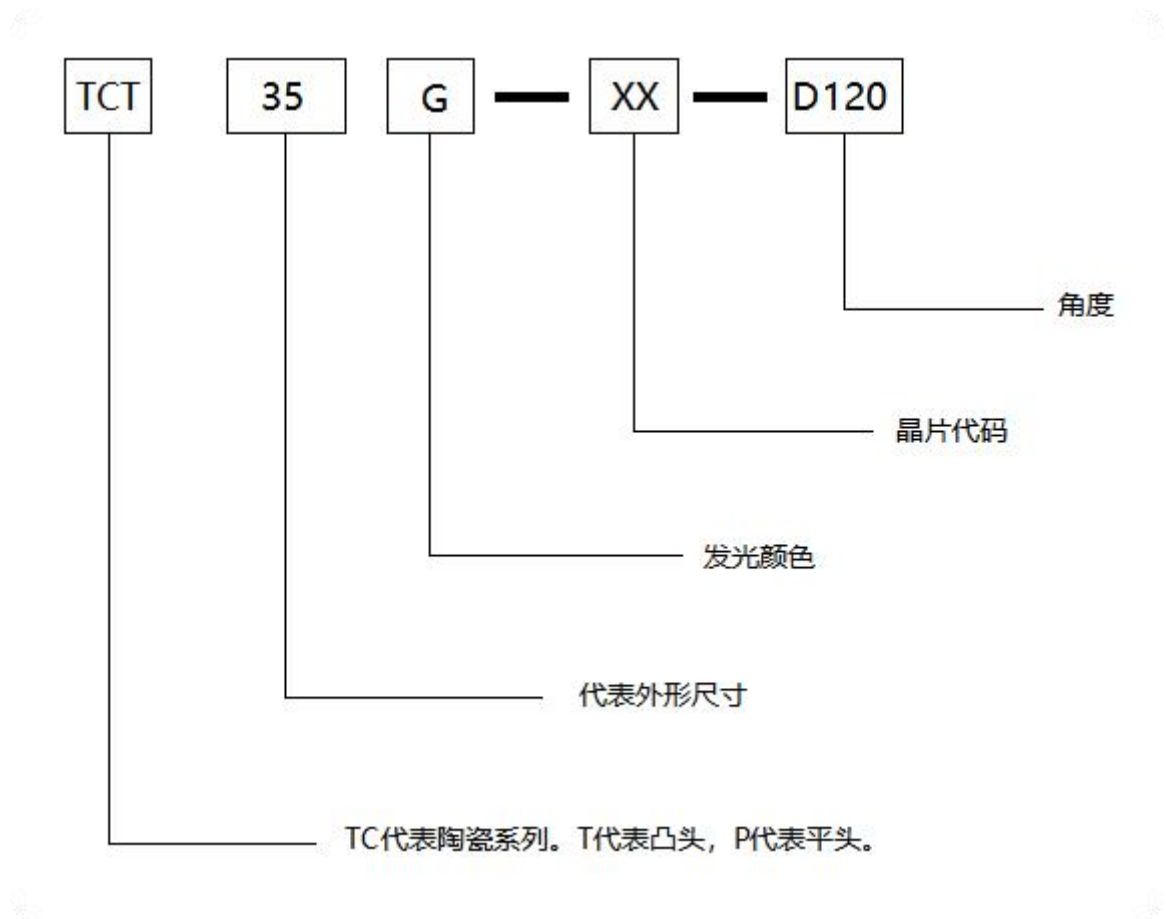
Notes: (备注)

All dimension units are millimeters, The tolerance was $\pm 0.1\text{mm}$

所有标注尺寸单位为毫米, 公差为 $\pm 0.1\text{mm}$

材质说明 Material Description

型号 Part No.	芯片材料 Chip Materials	胶体类型 Lens Type
YLL-TCT35G-xx-D120	InGaN	Transparent colloid 透明胶体



极限参数范围值 Absolute Maximum Ratings at TA=25℃

参数 (Parameter)	符号 (Symbol)	值 (Rating)	单位 (Units)
正向电流(max) forward current (max)	IF	≤1000	mA
顺向脉冲电流 Pulsed Forward Current (1/10Duty Cycle, 0.1ms Pulse width)	IFP	≤1500	mA
测试电流 Test current	IFP	700	mA
消耗功率(max) Power Dissipation(max)	PD	3	W
反向电压 Reverse Voltage	VR	5	V
静电 Electrostatic Discharge (HBM)	ESD	4000	V
操作温度 Operating Temperature	Topr	-40 to +105	℃
存储温度 Storage Temperature	Tstg	-40 to +105	℃
结温 Junction Temperature	Tj	150	℃
热阻 Junction Solder point	RTHJS	20	℃/W

备注 (Note) :

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

光电参数特性 Electrical / Optical Characteristics at TA=25℃

型号 Part Number	波长 Dominant Wavelength(nm)	亮度 Luminous Intensity(lm)	电压 Forward Voltage (V)	测试条件 Test Condition
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G	500-510	150-220	2.8-3.4	IF=700mA
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发光角度 (deg) Luminescence Angle			
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符号 Symbol	最小值 Min	中间值 Type	最大值 Max
2θ1/2	--	120	--

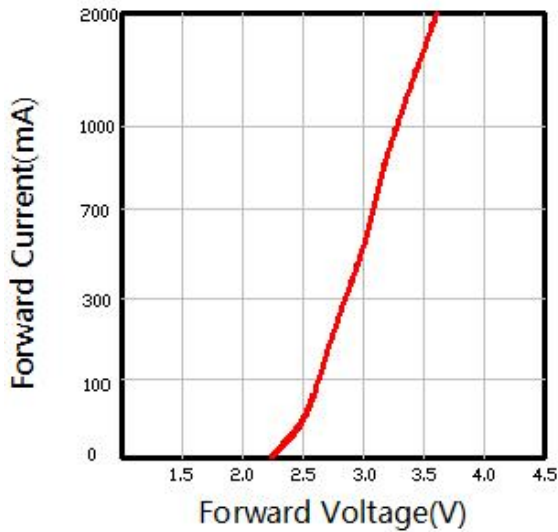
Note (备注) :

- 1/2 is the angle from optical center line where the luminous intensity is 1/2 the optical center line value
1/2 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
- The above luminous flux measurement allowance tolerance is ±15%.
上述发光通量的测试允许公差为±15%
- The above Color Rendering Index measurement allowance tolerance is ±2
以上显色性指数的测试允许公差为±2
- The above forward voltage measurement allowance tolerance is ±0.1V
以上所示电压测量误差±0.1V

典型光学特性曲线 Typical optical characteristics curves

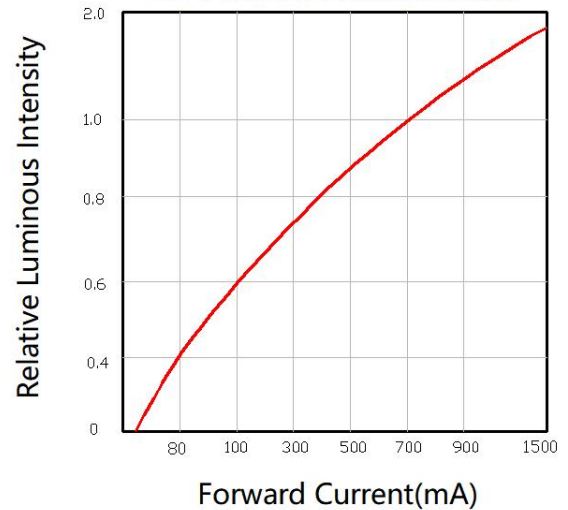
Forward Voltage VS. Forward Current

正向电压与正向电流特性曲线



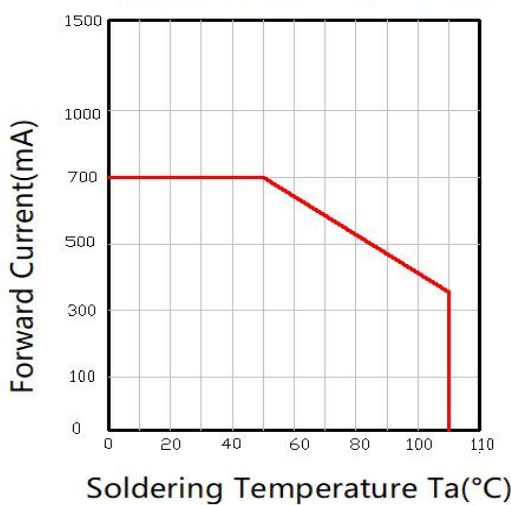
Forward Current VS. Relative Intensity

正向电流与相对光强特性曲线



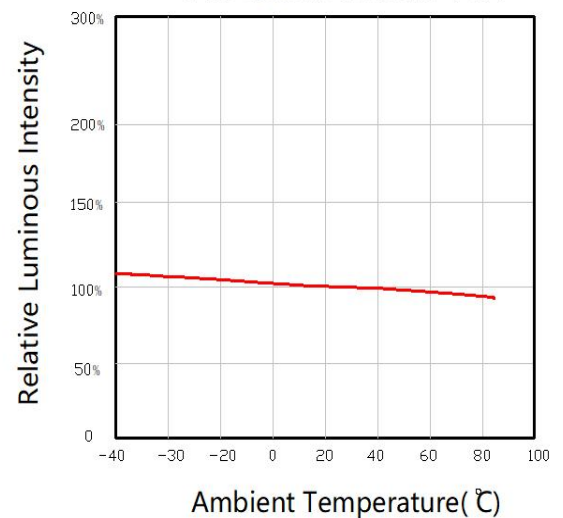
Soldering Temperature VS. Forward Current

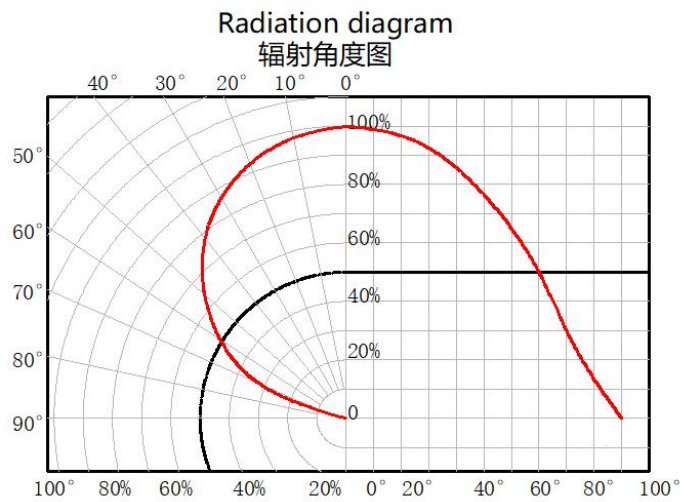
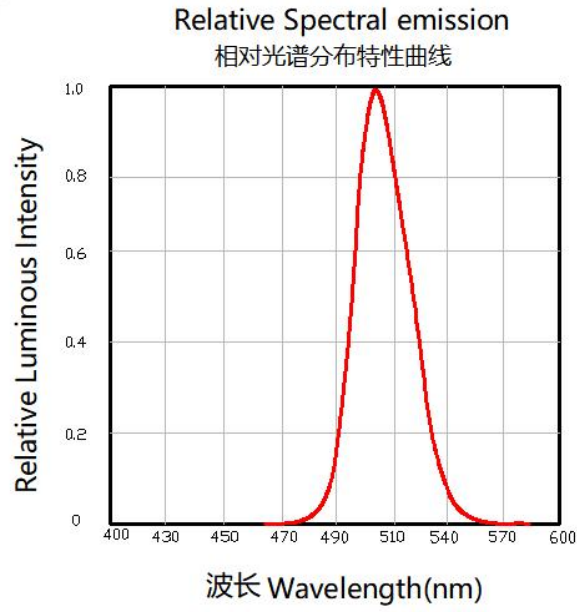
焊盘温度与正向电流特性曲线



Ambient Temperature VS. Relative Intensity

环境温度与相对光强特性曲线





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

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
回流焊 Reflow	IEC/TR 60068-3-12-2014	Temp:260℃ max T=8 sec	3 times	22PCS	0/1
温度循环 Temperature Cycle	IEC60068-2- 14 : 2009	105℃±5℃ 15min ↑↓5 min -40℃±5℃ 15min	300Cycles	22PCS	0/1
高温高湿老化测试 High Humidity Heat Life Test	IEC60068-2-78: 2001	Ta=85℃ RH=85% IF=700mA	500H	22PCS	0/1
高温储存 High Temperature Storage	Tested with yuliang standard	Temp:105℃±5℃	1000H	22PCS	0/1
低温储存 Low Temperature Storage	IEC60068-2-1: 2007	Temp:-40℃±5℃	1000H	22PCS	0/1
常温通电老化 Life Test	Tested with yuliang standard	Ta=25℃±5℃ IF=700mA	1000H	22PCS	0/1

失效判定标准 Failure Criteria

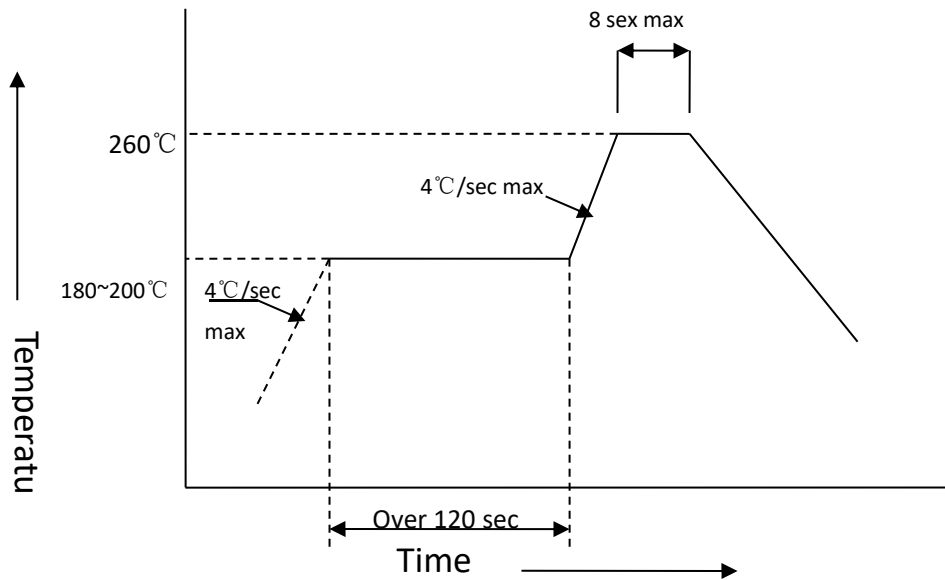
项目 Test Items	符号 (Symbol)	测试条件 Test Condition	判定标准 Failure Criteria	
			最小 (MIN)	最大 (MAX)
正向电压	VF	IF=700mA	--	U.S.L*)x1.1
反向电流	IR	VR = 5V	--	10uA
光通量	Im	IF=700mA	L.S.L*)x0.7	

S.L: Upper Specification Limit 规格上限

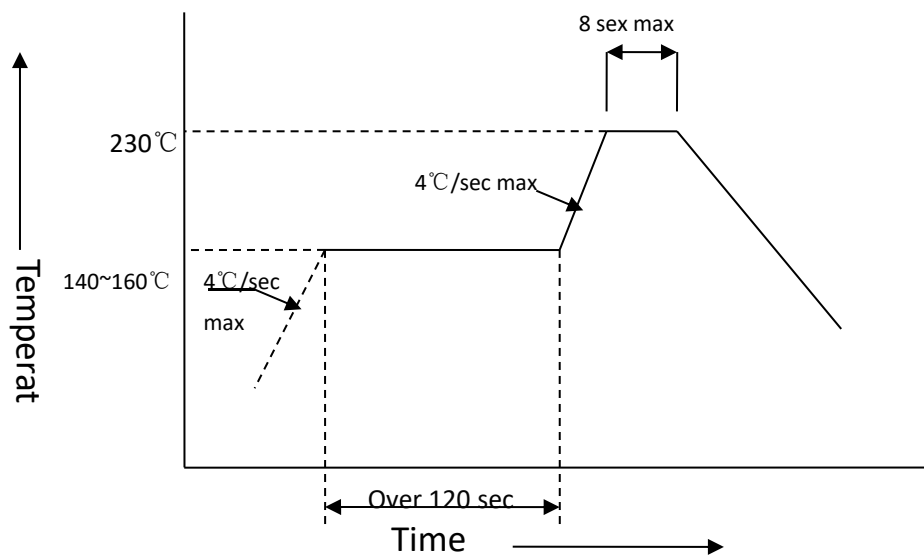
L.S.L: Lower Specification Limit 规格下限

回流焊说明 SMT Reflow Soldering Instructions SMT

有铅回焊 Lead Solder



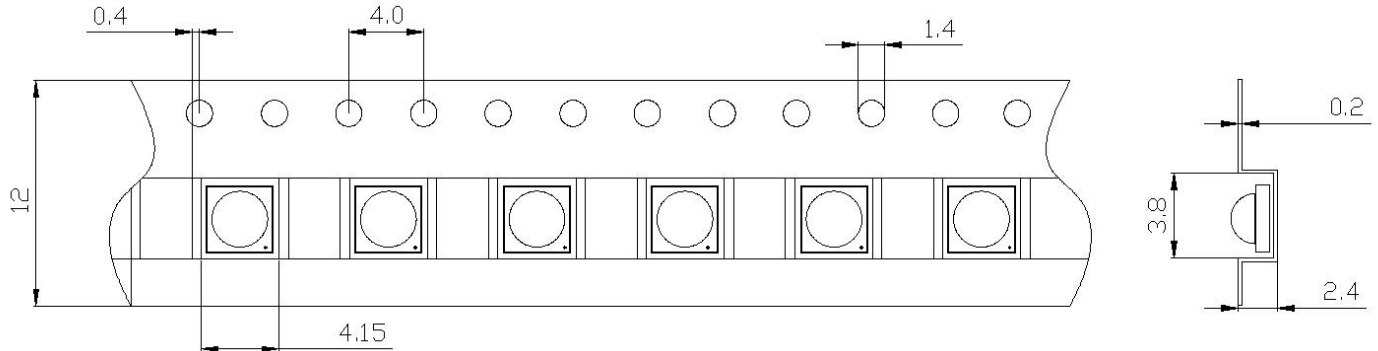
无铅回焊 Lead-Free Solder



包装 Packing

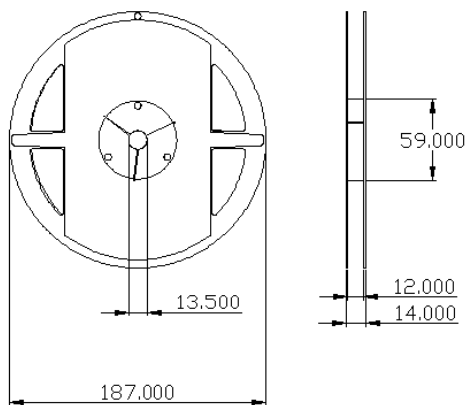
载带规格 (单位: mm) Tape Specifications (Units : mm)

Packing unit 1002PCS/reel

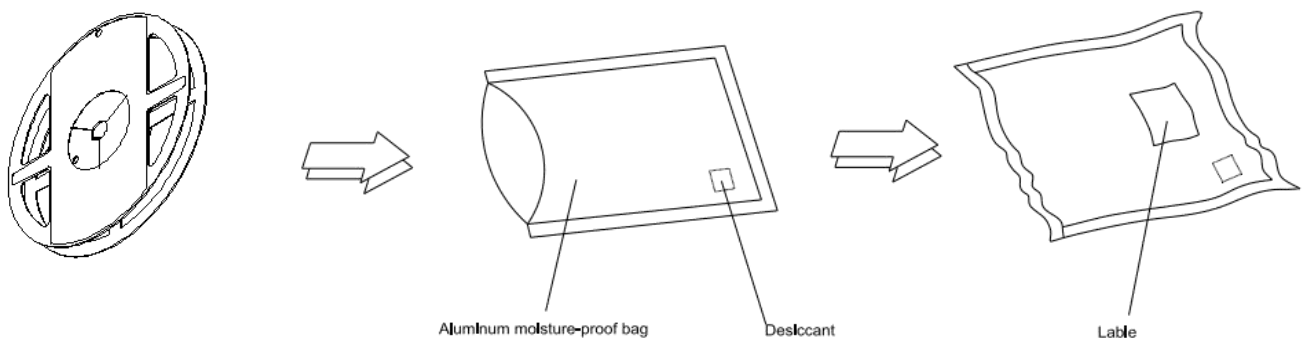


Adhesion Strength of Cover Tape : Adhesion strength to be 0.1 – 0.7N when the cover tape is turned off from the carrier at 10° angle to be the carrier tape. (盖带力度: 当盖带与载带成10度角时力度为0.1 - 0.7N)

卷轴尺寸 Reel Dimensions



防潮带包装 Moisture Resistant Packaging



SMD 贴片灯珠使用操作说明

致：尊敬的合作伙伴！

感谢贵司一直以来对我司的信任与支持。为了增进您对我公司的产品特性的了解，方便您在使用过程中掌握其使用特性，尽量减少或避免因人为因素造成不必要的产品损坏或者性能不匹配。特在此说明。

一 物料确认

请先检查包装是否漏气，是否有其他破损，检查标签是否与贵司的要求吻合。若发现异常请及时联系我司。

二 未开包的灯珠存放

目前不使用的灯珠请勿开包，请整包存放在防潮柜：

防潮柜温度在 0-40 度，60%以内湿度,可以长期（6-12 个月）存放。

无论存放时间是否超期，生产前请务必进行首件测试。如果发现问题请第一时间联系我们。

三 开包装后的预防措施

收到我司灯珠后，请尽快安排生产，由于各家仓库存储环境不同，开包后尽量在 24 小时内将产品用完。

四 不建议将不同批次灯珠进行混用：

生产前按照首检标准进行测试，如果发现灯珠出现异常请联系我司。贵司在生产过程中请不要把不同批次的灯珠混在一起使用。如果避免不了，需要使用上个批次的灯珠，请先确认包装是否正常，再做首件确认。最后将此批灯珠生产的产品进行单独区分。

五 不建议对拆包后的灯珠进行存储，请准确计算好产线的需求量。如果需要存储，请进行密封包装，防止灯珠引脚氧化。

六 贵司在生产过程中，贴片完成后请及时过回流焊，在焊接以及组装过程请检查静电防护措施是否到位。

七 灯具出货前请进行老化 4-8 小时，为了芯片与封装胶材更紧密贴合，增强防护性能。

八 户外已经安装的成品灯具，在调试完成后，如果不能及时使用的，请注意要进行定时老化，老化前期请用小电流将所有芯片点亮，不要进行扫描程序。老化两小时后将电流逐渐放大，不要扫描程序，进行常亮老化 4 小时。每月一次。在使用初期，请将控制器的速度调到最慢，颜色转换速度最慢。

SMD LED Instruction Manual

To: Dear partners! Thank you for your continuous trust and support. In order to enhance your understanding of our company's product characteristics, convenient for you in the use process Master its use characteristics, and minimize or avoid unnecessary product damage or performance mismatch caused by human factors. Here is an explanation.

1. material confirmation Please check whether the package is leaking, whether there is any other damage, and check whether the label coincides with your requirements. If abnormal, please contact us in time.

2 Store the lamp beads without opening the bag Do not open the bag for the lamp beads not used at present. Please store the whole bag in the moisture-proof cabinet: The moisture-proof cabinet temperature is in 0-40 degrees, the humidity within 60%, and can be stored for a long time (6-12 months). No matter whether the storage time is overdue, please perform the first piece test before production. If you find any problems, please contact us immediately.

3.Three preventive measures after opening the packaging After receiving our lamp beads, please arrange the production as soon as possible. Due to the different storage environment of each warehouse, try to use up the product within 24 hours after opening the bag

4 It is not recommended to mix different batches of lamp beads: Carry out the test according to the first inspection standard before production. If any bead is abnormal, please contact us. Please do not handle different batches during production The lamp beads are mixed together for use. If unavoidable, you need to use the last batch of lamp beads, please confirm whether the packaging is normal, and then do the first confirmation. Finally, the products produced by this batch of lamp beads are distinguished separately.

5. It is not recommended to store the lamp beads after unpacking. Please accurately calculate the demand of the production line. If storage is required, seal it to prevent bead guidance Foot oxidation.

6 During the production process, please pass the reflow welding in time after the completion of the patch. Please check whether the electrostatic protection measures are in place during the welding and assembly process.

7 Please age for 4-8 hours before the shipment, in order to fit the chip and the packaging adhesive material more closely, and enhance the protective performance.

8 For the finished lamps that have been installed outdoors, after debugging, if they cannot be used in time, please pay attention to regular aging. Please age in the early stage of aging Light up all the chips with a small current, and do not perform the scanning program. After two hours of aging, gradually enlarge the current, do not scan the program, often Bright aging for 4 hours.once every month. In early use, adjust the controller speed to the slowest and the color conversion speed to the slowest