苏州群力欣光电科技有限公司

Suzhou Que-lesion Optoelectronic Technology co.,Ltd

产品规格书

SPECIFICATION

客户名称 Customer		产品名称 Product	1206LED
客户料号 Customer No.		产品型号 Type	QSTEGC3-15-10MA
规格书编号 SPEC No	20141015001	日期 Date	2014.10.15

客　户　确　认 APPROVED　SIGNATURES		

制定(DRAW)：_____ 审核(CHECK)：_____ 批准（APPROVE）：_____

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QSTEGC3-15-10MA

特征 Features

- 宽的发光角度
  Extremely wide viewing angle
- 适合所有 SMT 组装和焊接过程
  Suitable for all SMT assembly and solder process
- 可用在载带及卷轴上
  Available on tape and reel
- 防潮等级:4 级
  Moisture sensitivity level: Level 4
- 包装:3000pcs/卷
  Package:3000pcs/reel
- 符合欧盟 RoHS 标准
  RoHS compliant

描述 Description

该产品为绿光 LED，是由绿光芯片封装形成

The Colour LED which was fabricated by using a red chip

应用（Applications）

光学指示

Optical indicator

室内显示

Indoor display

汽车照明

Automotive lighting

LCD 背光、转换器，开关和标志，显示器等 Backlight for LCD , switch and symbol , display

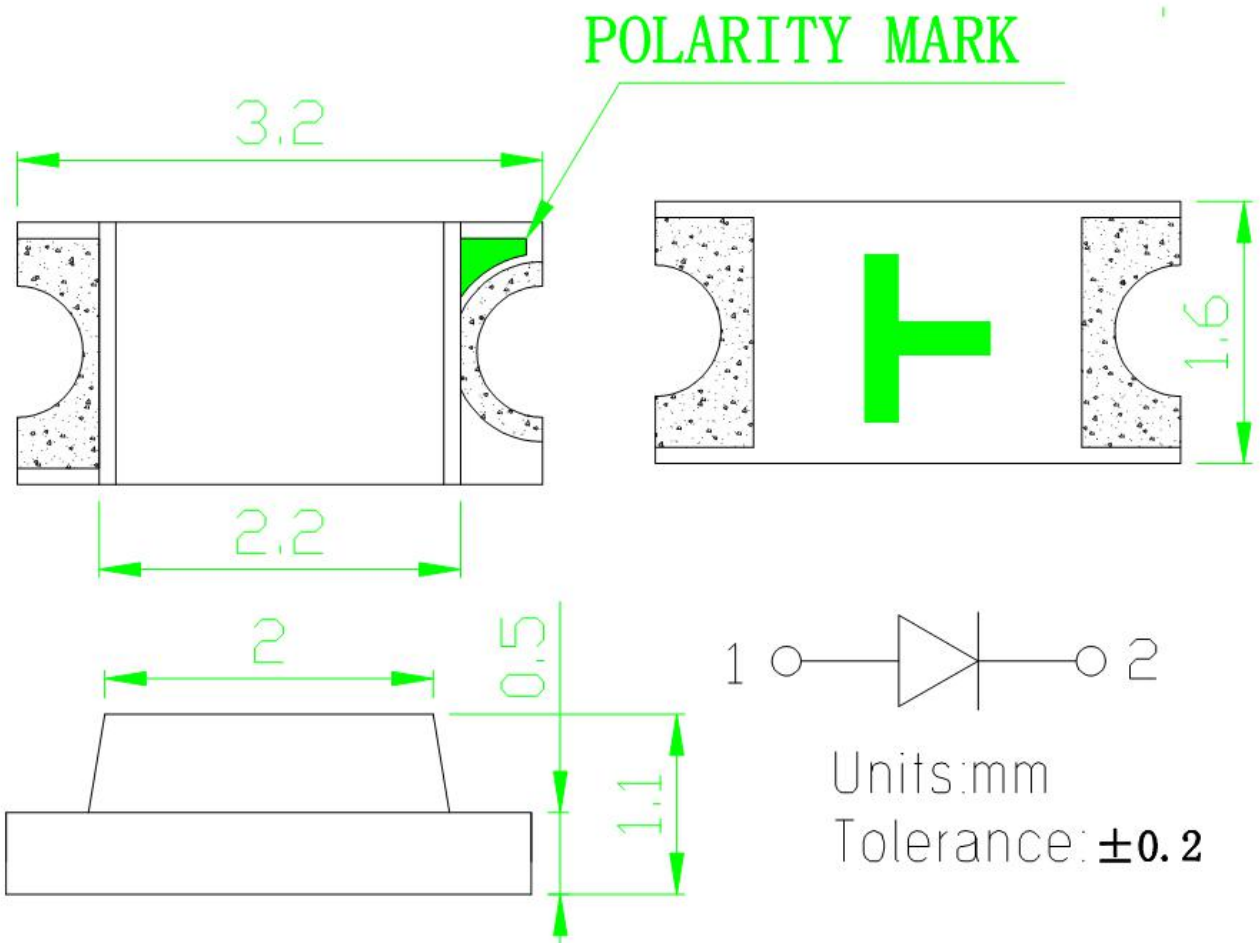
用于日光灯管

Tubular light application

一般应用

General use

QSTEGC3-15-10MA



Notes:

1. All dimensions are in millimeters (inches).

2. Tolerance is ±0.1(0.004") unless otherwise noted.

3.Specifications are subject to change without notice.

Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) @ 10mA		Viewing Angle
			Min.	Typ.	2θ1/2
	GREEN (GaN)	WATER CLEAR	200	350	120

Note:

1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

Electrical / Optical Characteristics at T_A=25°C

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	GREEN	522	530	nm	IF=10mA
λD	Dominant Wavelength	GREEN			nm	IF=10mA
Δλ1/2	Spectral Line Half-width	GREEN	25		nm	IF=10mA
C	Capacitance	GREEN	105		pF	VF=0V;f=1MHz
VF	Forward Voltage	GREEN	2.8	3.2	V	IF=10mA
IR	Reverse Curren	GREEN		2	uA	VR = 7V

Remarks:

If special sorting is required (e.g. binning based on forward voltage, luminous intensity, or wavelength), the typical accuracy of the sorting process is as follows:

1. Wavelength: +/-1nm
2. Luminous Intensity: +/-15%
3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters

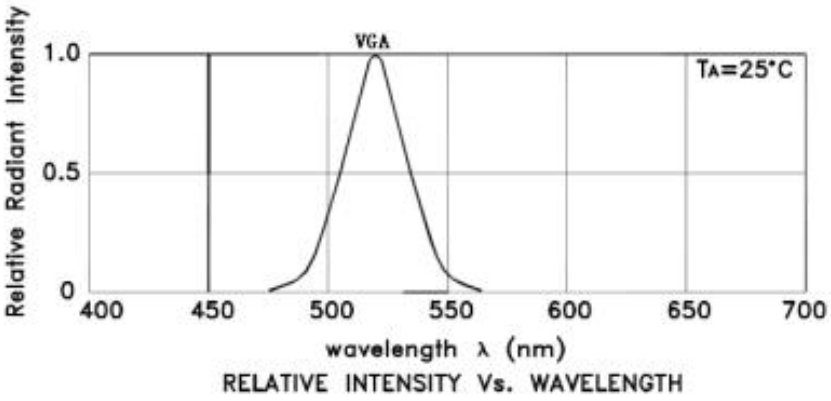
Absolute Maximum Ratings at T_A=25°C

Parameter	GREEN	Units
Power dissipation	135	mW
DC Forward Current	30	mA
Peak Forward Current [1]	140	mA
Reverse Voltage	5	V
Operating/ Storage Temperature	-40°C To +85°C	

Note:

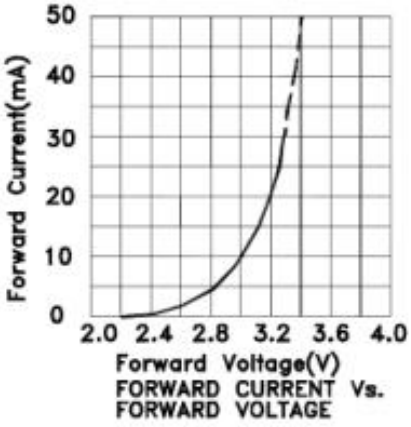
1. 1/10 Duty Cycle, 0.1ms Pulse Width.

QSTEGC3-15-10MA

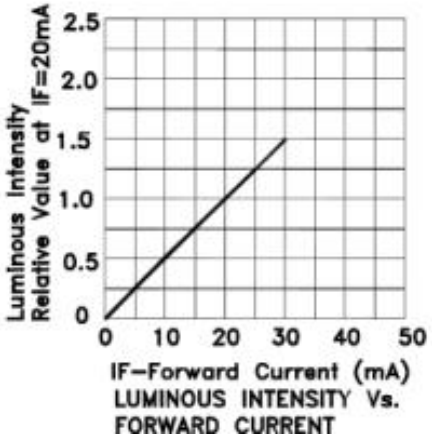


RELATIVE INTENSITY Vs. WAVELENGTH

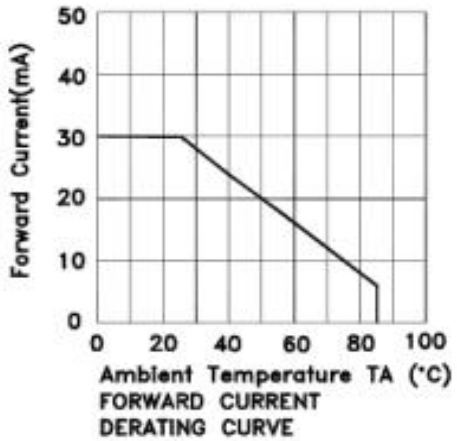
GREEN



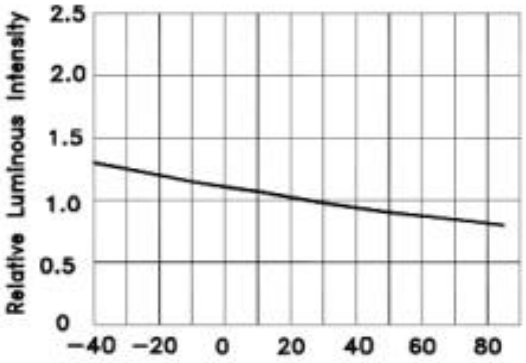
FORWARD CURRENT Vs. FORWARD VOLTAGE



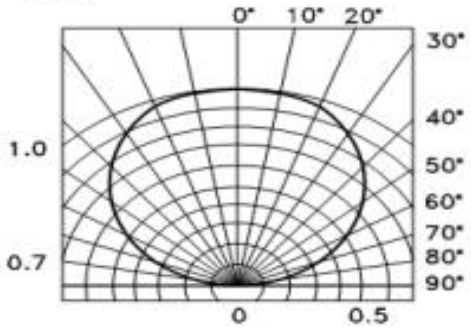
LUMINOUS INTENSITY Vs. FORWARD CURRENT



FORWARD CURRENT DERATING CURVE



LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE



QSTEGC3-15-10MA

可靠性 RELIABILITY

测试项目及结果 Test Items and Results

序号	试验项目	参考标准	试验条件	持续时间	取样数	接收水准(不合格数量/抽样总数)
1	温度循环	JEITA ED-4701	-40℃～25℃～100℃～25℃ 30 分钟 5 分钟 30 分钟 5 分钟	循环 100 回合	50	0/50
2	冷热冲击	MIL-STD-202G	-40℃～100℃ 15 分钟 15 分钟	循环 500 回合	50	0/50
3	高温储存	JEITA ED-4701 200 201	T_s=100℃	1000 小时	50	0/50
4	低温储存	JEITA ED-4701 200 201	T_s=-40℃	1000 小时	50	0/50
5	常温寿命试验		T_a=25±5℃ I_F=20mA	1000 小时	50	0/50
6	高温高湿寿命试验		T_a=60℃ RH=85% I_F=20mA	1000 小时	50	0/50
7	可焊性（回流焊）	JEITA ED-4701 300 303	T_{sd}=235℃±5℃,5 秒 使用助焊剂	焊接一次，5 秒	10	0/10
8	耐焊性（回流焊）	JEITA ED-4701 300 301	T_{sd}=260℃,10 秒 预处理：35℃ 95%RH 96 小时	焊接二次，每次 10 秒	10	0/10
备注	以上试验项目如与客户试验要求存在差异的或者特殊客户特殊要求的可根据实际情况按照客户的要求进行试作,客户未要求的按我司试验标准试作.不同产品使用不同电流进行测试					

QSTEGC3-15-10MA

包装 Packaging

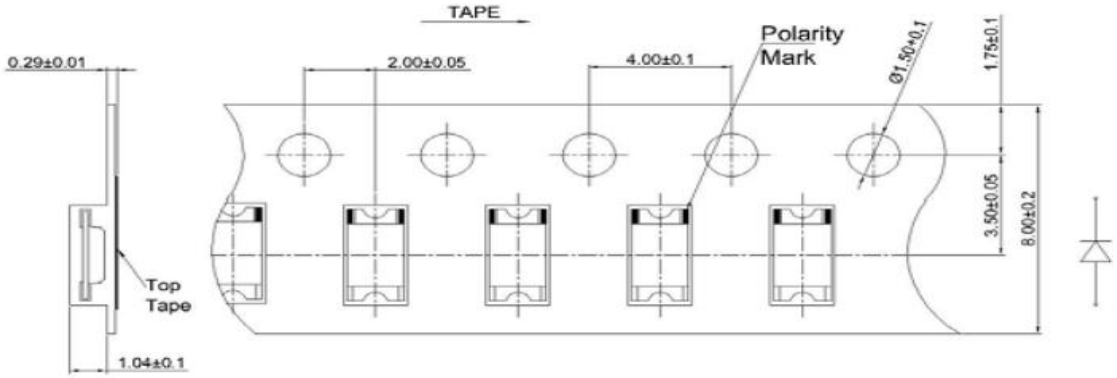
标签 Label

料号 Part No.:*** 批号 Lot No.:*** 数量 O'ty(pcs):***

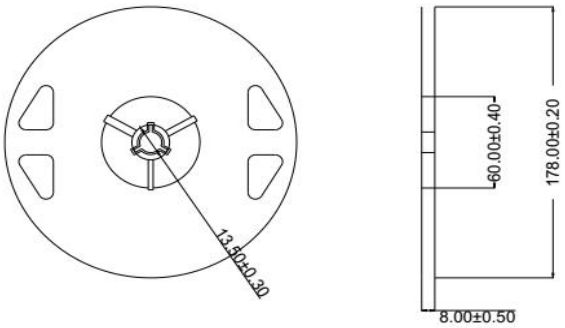
亮度 Iv(mcd):*** 波长（nm）: *** 电压 VF（v）:***

日期 Date:***

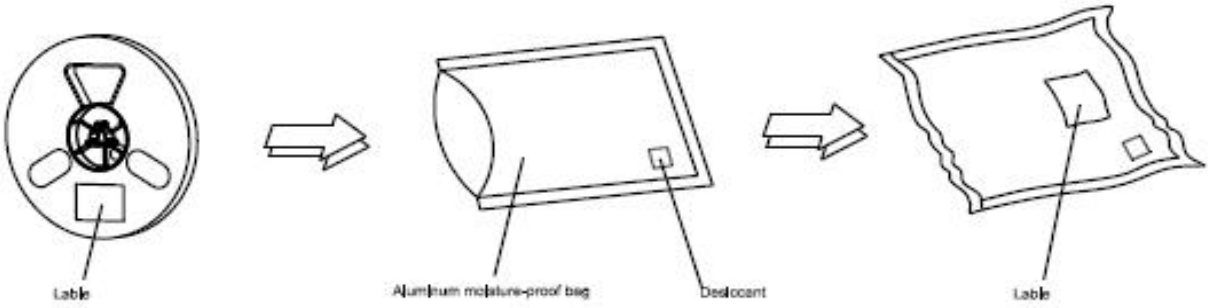
载带规格（单位：mm）Tape Specifications(Units:mm)



卷轴尺寸 Reel Dimensons



防潮袋包装 Moisture Resistant Packaging



备注：标注公差为±0.1mm,单位：mm

Note : The tolerances unless mentioned is ±0.1mm,Unit:mm

焊接指导 Guideline for Soldering

Soldering iron 烙铁焊接

1.When hand soldering, keep the temperature of iron below less 300℃ less than 3 seconds
当手工焊接时，烙铁的温度必须小于300℃，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。

3.Do not stack together assembled PCBs containing LEDs. Impact may scratch the silicone lens or damage the internal circuitry
不可将模组材料堆积在一起，它可能会损坏内部电路

4.Not suitable to operate in acidic environment, PH<7
不可用在PH<7的酸性场所