

承 认 书

Specification for approval

客户名称:

CUSTOMER NAME: _____

经办者:

职称:

DIRECTOR: _____ TITLE: _____

客户料号:

CUSTOMER PART NO.: _____

品名:

版本:

PART NUMBER: **SMD 1617RGB** REVISION: 新

发件日期:

回文日期:

ISSUE DATE: 2015/11/05 RETURN DATE: / /

一、 谨致执事者：兹提供�公司产品之有关详细规格及图面数据，
敬请给予办理测试认定手续。

同时敬请送返一份附有贵公司签认之测试认定后之样品认定书。

We are please in sending you herewith our specification and drawings for your approval.

Please return to us one copy "For Approval" with your approved signatures.

二、 附件:

ACCESSORY: ☐样品 ☐出货检验记录表 ☐封装尺寸图 ☐电气特性曲线
☐内部线路图 ☐焊性建议 ☐PAD 建议 ☐包装方式

三、 客户意见栏 CUSTOMER'S PROPOSAL

☐ AGREE 同意 (请于认可栏中签名)

☐ DISAGREE 不同意

REASON 原因: _____

客户认可签章:

CUSTOMER SIGNATURE: _____

MODEL[型号]: YY-1617RGB

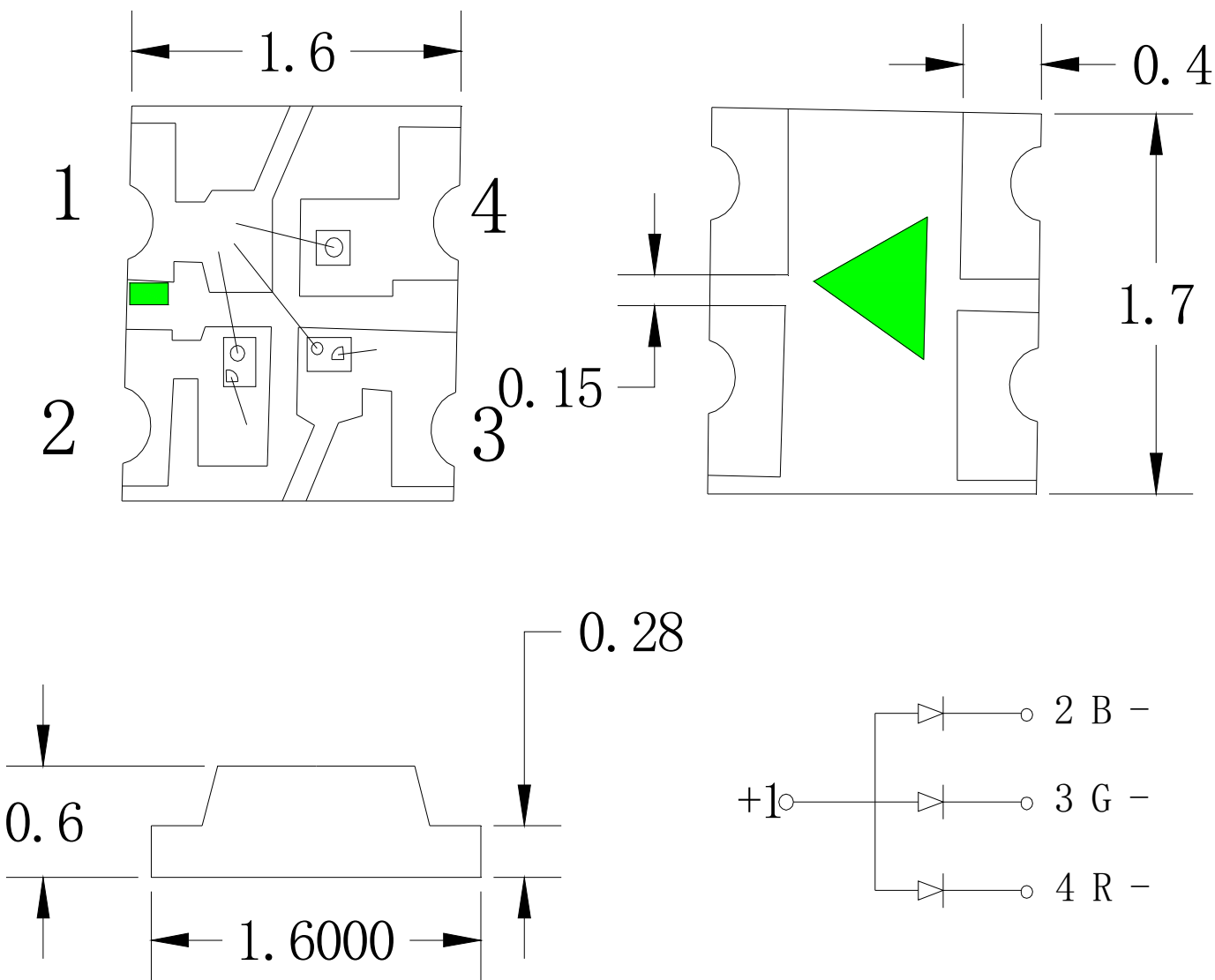
120-degree, 1.6(L)×1.7(W)mm, SMD LED , water color lens.

120 度角, 1.6(长)×1.7(宽)毫米, SMD LED , 胶体颜色为水清透明状。

Applications [应用范围]

- Indoor display screen [户内显示屏]
- Indicator [指示]
- Decoration [装饰]
- Back-light [背光源]
- Others [其它]

Mechanical Dimensions [外形尺寸]



All dimensions are in millimeters and tolerance is $\pm 0.1\text{mm}$ unless otherwise noted.

所有尺寸单位为毫米,允许公差 $\pm 0.1\text{mm}$,有标注除外。

Absolute Maximum Ratings [绝对最大额定值]

Items [项目]	Symbol [符号]	Absolute Maximum Rating [绝对最大额定值]			Unit [单位]
		R	G	B	
Forward Current [正向电流] (TA=25°C)	IF	30	25	25	mA
Peak Forward Current ^{Note} [正向峰值电流 ^注] (TA=25°C)	IF _P	120	100	100	mA
Reverse Voltage [反向电压] (TA=25°C)	VR	10			V
Power Dissipation [功耗](TA=25°C)	P _D	72	95	95	mW
Operation Temperature [工作温度]	T _{opr}	-30~+85			°C
Storage Temperature [贮藏条件]	T _{stg}	-40~+85			°C

Note: Pulse width ≤0.1 msec, duty cycle ≤1/10.
[注: 脉宽 ≤0.1 msec , 占空比≤1/10]

Typical Electrical & Optical Characteristics (TA=25°C)
[典型电性和光学特性 (TA=25°C)]

Characteristics [描述]	Condition [条件]	Symbol [符号]	Values[值]			Unit [单位]
			R	G	B	
Dominant Wavelength [主波长]	IF (R) =20mA IF (G) =20mA IF (B) =20mA	λD _(typ)	622	526	468	nm
Viewing Angle at 50% IV [发光角度]		2θ ^{1/2} _(typ)	150			deg
Forward Voltage [正向电压]		VF _(typ)	2.0	2.9	2.9	V
Luminous Intensity [发光强度]		IV _(typ)	120	350	80	mcd
Reverse Current (max) [反向电流(最大)]	VR=5V	IR	10			uA

- 1. All ranks may be included per delivery; rank ratio will be based on the dice distribution.
- 2. Tolerance of measurement of luminous intensity is ±10%.
- 3. Tolerance of measurement of the dominant wavelength is ±1 nm.
- 4. Tolerance of measurement of VF is ±0.1 V.

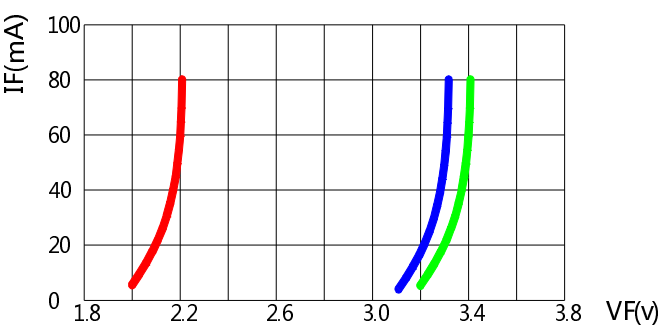
重要说明:

- 1. 每批产品可能会包含以上所有等级; 等级范围是根据晶片参数分布进行设定。
- 2. 亮度范围最大误差±10%.
- 3. 波长范围最大误差±1 nm。
- 4. 电压范围最大误差±0.1V。

Graphs [光电特征图]

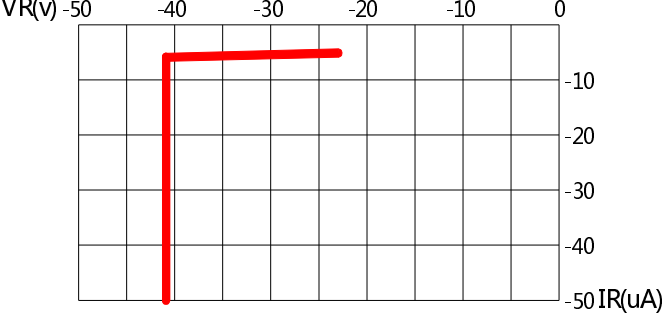
FORWARD CURRENT VS. FORWARD VOLTAGE

正向电流与电压关系曲线图



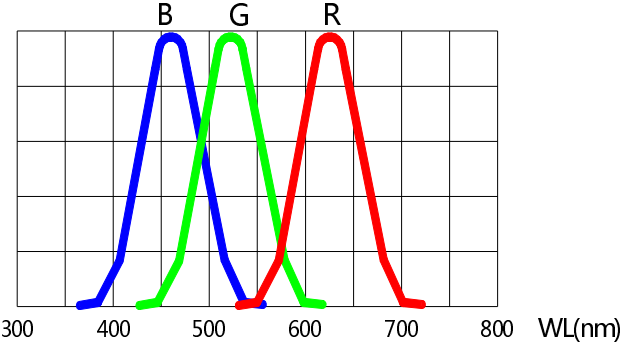
RED REVERSE CURRENT VS. REVERSE VOLTAGE

红色反向电流与反向电压关系曲线图



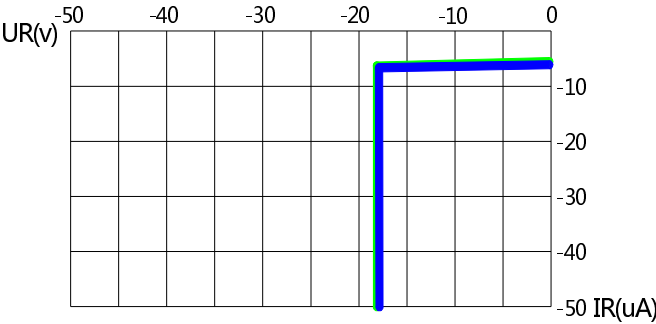
RELATIVE LUMINOUS INTENSITY VS. WAVELENGTH

相对发光强度与波长关系曲线图

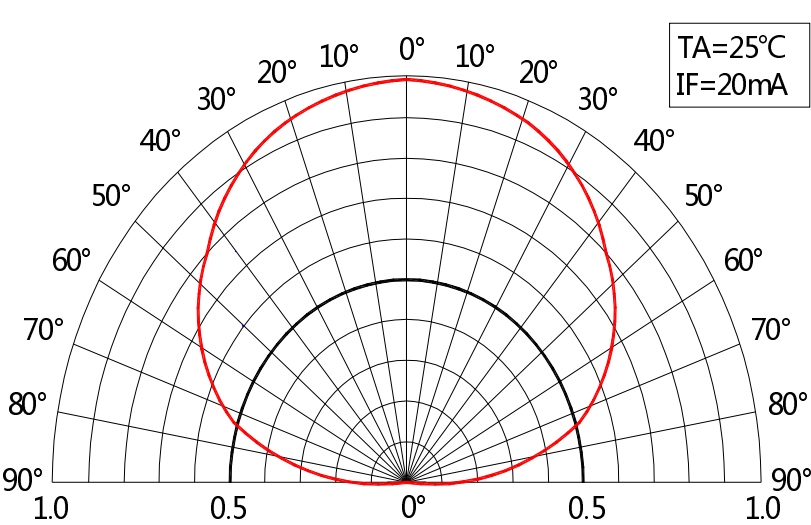


GREEN AND BLUE REVERSE CURRENT VS. REVERSE VOLTAGE

绿色与蓝色反向电流与反向电压关系曲线图



50%POWER ANGLE[50%功率角] 150°

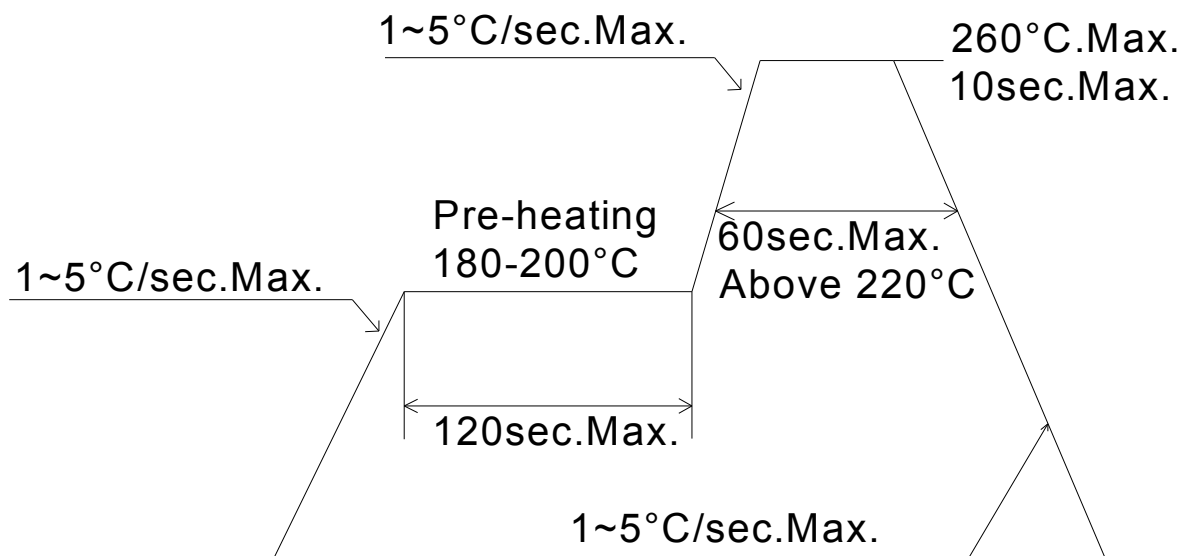


SMT Reflow Soldering Instructions[表面贴装回流焊操作说明]

Reflow soldering process shall be less than twice and cooling process to normal temperature is required between first and second soldering process.

本产品最多只可以回流焊两次,且在首次回流焊后须冷却至室温之后方可进行第二次回流焊。

lead-free solder



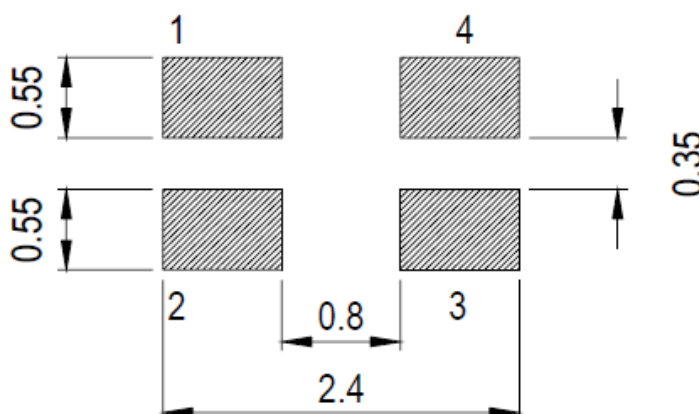
Hand Soldering[人工焊接]

A soldering iron of less than 20W is recommended to be used in Hand Soldering. Please keep the temperature of the soldering iron under 350°C while soldering. The LED can be soldered one time only and the soldering time must be less than 3 seconds. Be careful because the damage of the product may happen in hand soldering process.

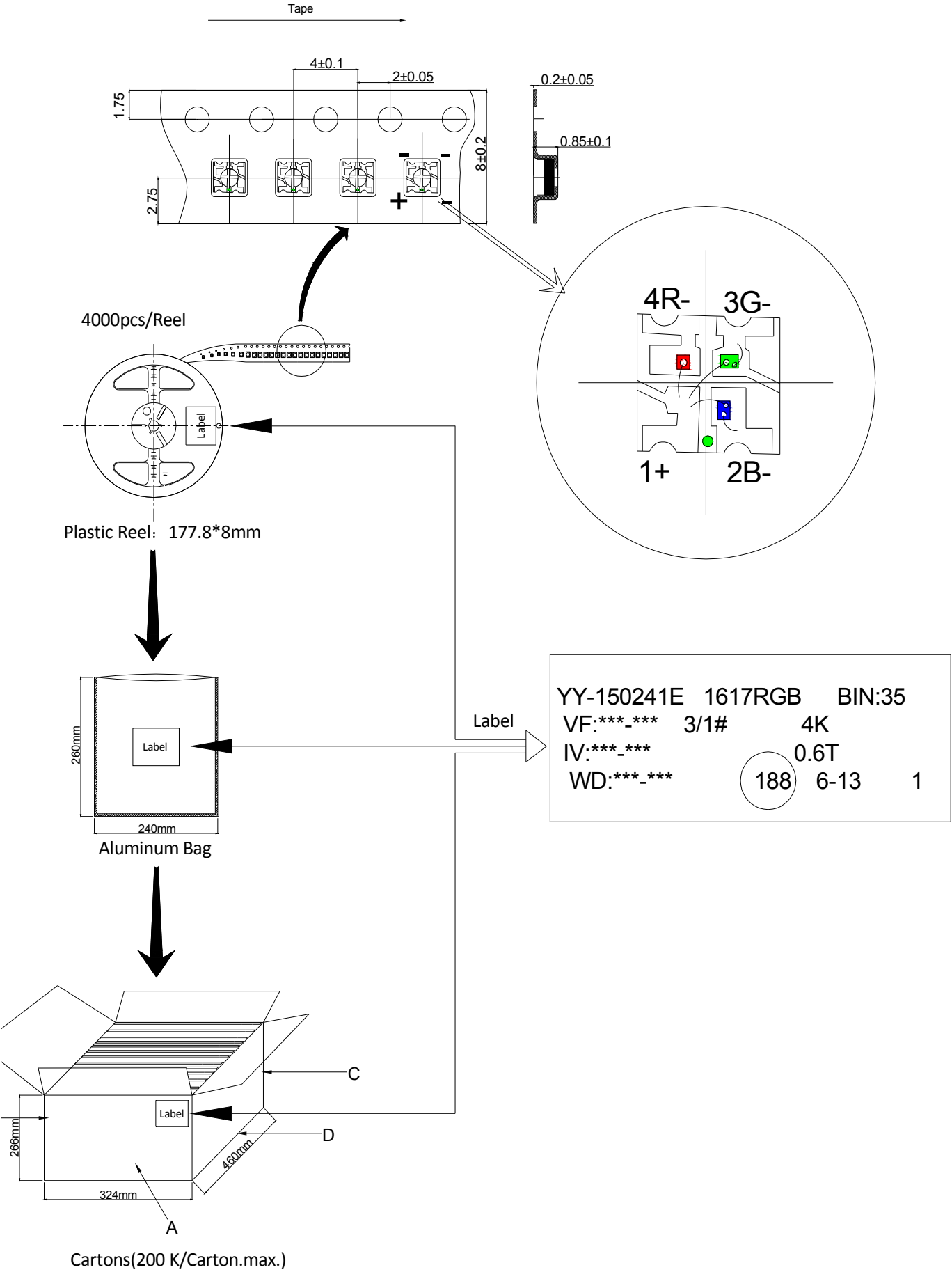
推荐使用功率低于 20W 的烙铁，焊接时烙铁的温度必须保持在 350°C 以下，且每个 LED 只能进行一次焊接，每次焊接的持续时间不得超过 3 秒。人工焊接过程中易引起 LED 产品的损坏，应当小心谨慎。

Recommended Soldering Pad Design [推荐焊盘尺寸]

Units: mm



Packaging [包装规格]



Cautions [警告]

Storage and use

1. Before opening the package , product should be kept at a temperature $\leq 30^{\circ}\text{C}$, relative humidity $\leq 60\%$ environment.
2. Before opening the package ,please check whether bag leak air or not. After opening the package, check the humidity indicator card at first, if the bag leak air or the color of the humidity indicator card is changed from blue to pink at 30%RH, please contact the factory. Shelf life in sealed bag is 3 months since the delivery date from the factory.
3. After opening the package, the product should be kept at a temperature $\leq 30^{\circ}\text{C}$,relative humidity $\leq 10\%$ environment, and all products must be used within 12 hours, otherwise the products should be baked under the following conditions: at $70^{\circ}\text{C}\pm 5^{\circ}\text{C}$ baking temperature more than 24 hours. It is recommended that the product should be operated at the workshop condition of 30°C or less and humidity less than 60%RH.

储存与使用

1. 开封前，产品应保存在温度 $\leq 30^{\circ}\text{C}$ ，相对湿度 $\leq 60\%$ 的条件下。
2. 开封前，请首先确认包装袋有无漏气；开封后检查湿度指示卡 30%RH 标示区有无由蓝色变成粉红色现象，如果漏气或变色，请停止使用并联系本公司。本产品自出厂日期起须 3 个月内使用完。
3. 开封后，所有产品必须在 12 小时内使用完。对于开封后未使用完的产品，应保存在温度 $\leq 30^{\circ}\text{C}$ ，相对湿度 $\leq 10\%$ 的条件下，如果开封超过 12 小时，请将产品按以下条件做烘烤处理后再使用： $70^{\circ}\text{C}\pm 5^{\circ}\text{C}$ 温度烘烤 24 小时以上。建议贴片车间环境为温度 $\leq 30^{\circ}\text{C}$ ，湿度 $\leq 60\%$ RH。

ESD (Electrostatic Discharge)

Surge Static voltage will damage the LED. It is recommended that a wrist band or anti-electrostatic glove should be used when handling these LEDs. All devices, equipment and machinery must be properly grounded.

ESD (静电防护)

静电会损坏发光二极管，接触发光二极管的过程中请使用防静电手腕或戴防静电手套。所有装置、仪器和机器必须完好接地。

Vision Advisory Claim

Users should be cautioned not to stare at the light of this LED product. The bright light can damage the eyes.

注意保护眼睛

用户应注意不要近距离直视该产品,以防过亮的光线损害眼睛。

Others

When handling the product, touching the encapsulant with hands will not only contaminate its surface, but also affect its optical characteristics. Excessive force to the encapsulant might result in catastrophic failure of the LEDs due to die breakage or wire deformation. For this reason, please do not put excessive stress on LEDs, especially when

the LEDs are heated such as during Reflow Soldering. The resin of encapsulant is fragile, so please avoid scratch or friction over the resin.

其他事项：

直接用手拿取产品不仅会污染封装树脂表面，而且还可能影响其光学特性。过度的压力也可能直接影响封装内部的芯片和导线，因此请勿对产品施加过度压力，特别是在产品处于高温状态下，例如在回流焊接过程中。LED 的封装胶体部分相当脆弱，请勿用坚硬、尖锐的物体刮、擦封装树脂部分，在用镊子夹取 LED 的时候也应当小心注意。

