

DATA SHEET/产品规格书

Part No./型号: LG-234YG7DT-629D-IR
(RJE45258588H)

SPEC. NO./规格书编号: SZ20072503

DATE/发行日期: 2020/07/25

REV./版本: A/0

Approved By/核对:

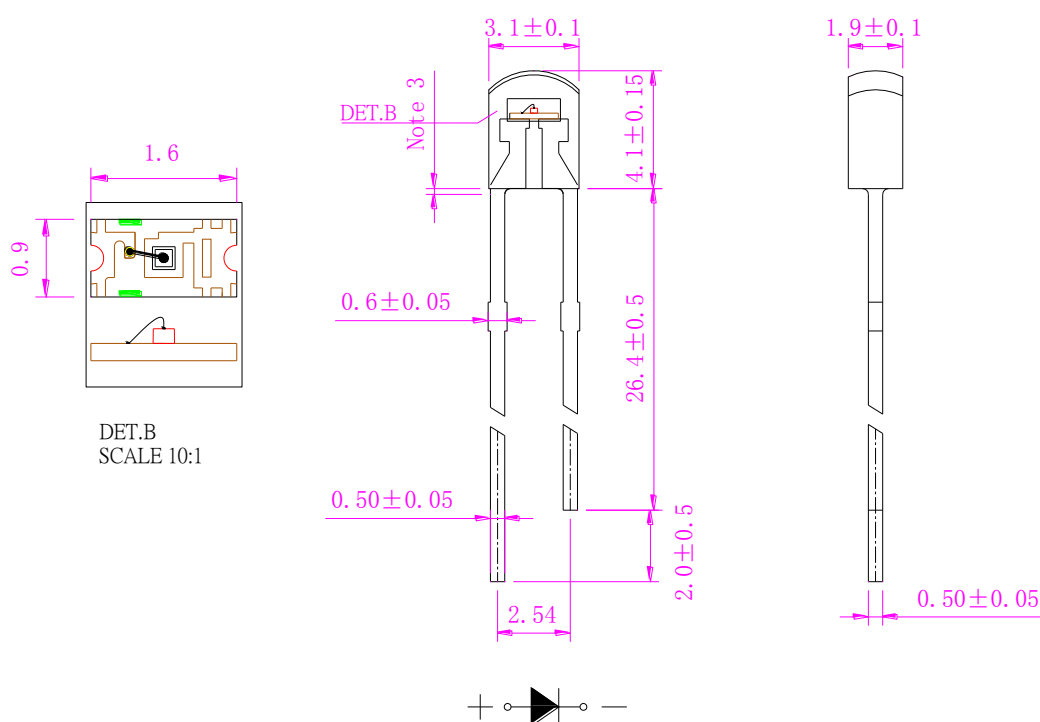
Checked By/审核:

Prepared By/制作:

Feature/产品特性

- ◆ Pb free product – RoHS compliant/无铅产品—符合 RoHS 标准
- ◆ Single color/单色
- ◆ Include SMD LED inside /内含贴片型高温灯
- ◆ Low power consumption, High efficiency/低功耗、高效率
- ◆ Reliable and rugged/可靠性好、坚固
- ◆ Long life – solid state reliability/长寿命—固态光源

Package Dimensions/产品外形尺寸



Part No. 型号	Lens Color 胶体颜色	Emitting Color 发光颜色	Dice Material 芯片材质
LG-234YG7DT-629D-IR	Green Diffused 绿色雾状	Green 绿色	GaP

Notes/注释:

1. All dimensions are in millimeters/单位: mm.
2. Tolerance is ± 0.25 mm unless otherwise noted/没有标注的公差均为 ± 0.25 mm.
3. An epoxy meniscus may extend about 1.5mm max/胶体沿支架延伸不超过 1.5mm.
4. Protruded resin under flange is 1.0mm max/多胶不超过 1.0mm.
5. Lead spacing is measured where the leads emerge from the package/引脚间距是从封装中引出引线的位置测量的。

Absolute Maximum Ratings/极限参数 (Ta=25 ℃)

Item/项目	Max./最大值	Unit/单位
Power Dissipation/功耗	80	mW
Peak Forward Current/正向峰值电流 (Pulse Width ≤0.1msec, Duty Cycle ≤1/10) [脉冲宽度≤0.1msec, 占空比≤1/10]	100	mA
Forward Current/正向电流	30	mA
Reverse Voltage/反向电压	5	V
Operating Temperature Range/工作温度	-40 ℃ to + 85 ℃	
Storage Temperature Range/储存温度	-40 ℃ to + 85 ℃	
Lead Soldering Temperature/支架焊接温度 [2mm From Body]/距离胶体 2mm	260 ℃ for 3 Seconds	
Lead Soldering Temperature/支架焊接温度 [5mm From Body]/距离胶体 5mm	260 ℃ for 5 Seconds	

Electrical Optical Characteristics/产品光电特性 (Ta=25 ℃)

Parameter 参数	Symbol 符号	Min. 最小值	Typ. 典型值	Max. 最大值	Unit 单位	Test Condition 测试条件
Luminous Intensity 发光强度	I _v	---	5.5	---	mcd	I _F =20mA
Viewing Angle 发光角度	2θ _{1/2}	---	160	---	Deg.	I _F =20mA
Peak Emission Wavelength 峰值波长	λ _p	---	568	---	nm	I _F =20mA
Dominant Wavelength 主波长	λ _d	565	570	575	nm	I _F =20mA
Spectral Line Half-Width 半波长宽度	Δλ	---	30	---	nm	I _F =20mA
Forward Voltage 正向电压	V _F	1.8	2.2	2.6	V	I _F =20mA
Reverse Current 反向电流	I _R	---	---	50	μA	V _R =5V

Typical Electrical / Optical Characteristics Curves/光电特性曲线

Fig.1 相对亮度 Vs. 波长

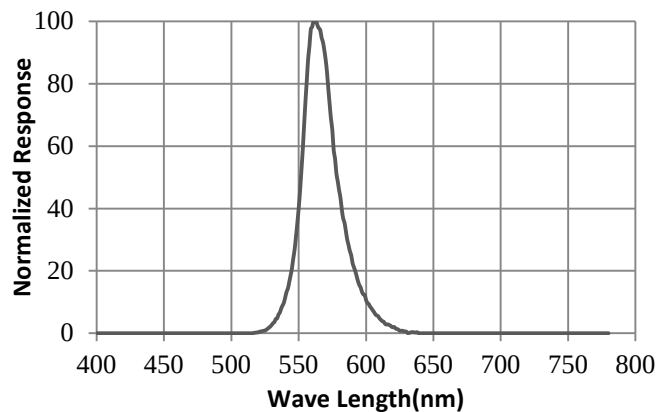


Fig.2 正向电流 Vs. 正向电压

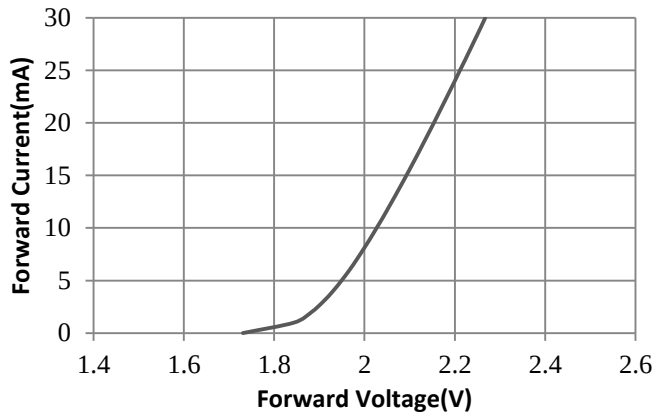


Fig.3 光形图

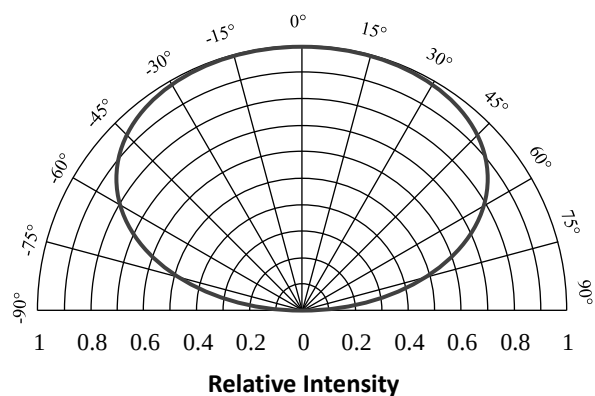


Fig.4 相对亮度 Vs. 正向电流

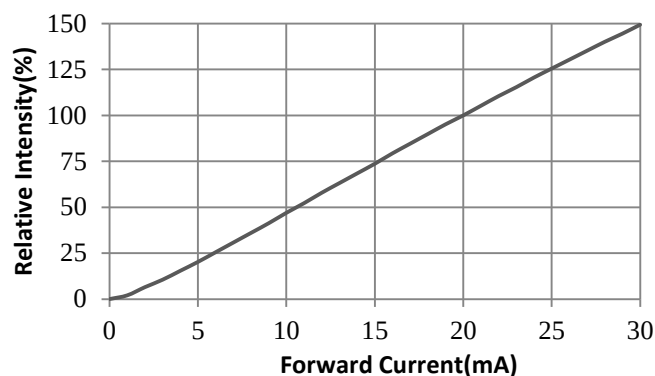
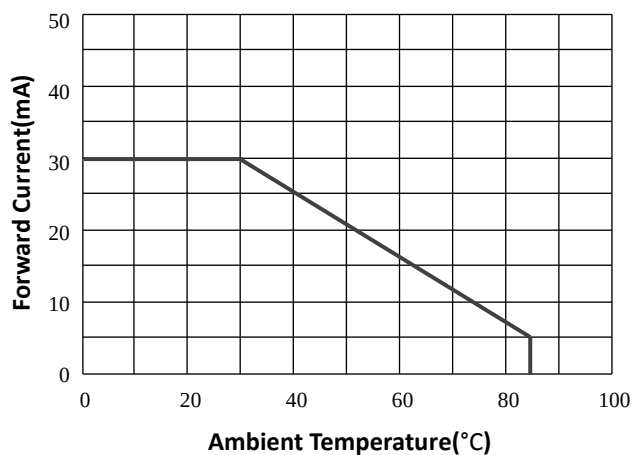


Fig.5 环境温度 Vs. 正向电流



CAUTIONS/注意事项**Storage/储存**

1. Environmental temperature: $-40^{\circ}\text{C}\sim 85^{\circ}\text{C}$, Recommended: $-20^{\circ}\text{C}\sim 50^{\circ}\text{C}$.
环境温度: $-40^{\circ}\text{C}\sim 85^{\circ}\text{C}$, 推荐使用: $-20^{\circ}\text{C}\sim 50^{\circ}\text{C}$ 。
2. Environmental humidity: 30%~70%, Recommended: 40%~60%.
环境湿度: 30%~70%, 推荐使用: 40%~60%。
3. It is recommended that the LEDs out of their original packaging are used within three months.
建议 LED 拆开包装后三个月内使用完。

Lead Forming/支架成形

1. Lead forming must be done before soldering, at normal temperature.
支架成形必须在焊接前完成 (常温下)。
2. During lead forming, the leads should be bent at a point at least 3mm from the base of LED lens.
必须离 LED 胶体 3 毫米才能弯折支架。
3. Avoid bending the leads at the same point more than once.
避免在引脚同一位置两次或多次弯折。

Electric Static Discharge(ESD) Protection/静电放电防护

1. ESD or voltage surge will damage the LED.
静电放电或电压浪涌将损害 LED。
2. It is recommended that a wrist band or anti-electrostatic glove be used when handling the LEDs.
使用 LED 时建议佩戴静电环或静电手套。
3. All production machinery and test instruments must be electrically grounded.
所有的生产机器和检测仪器必须接地。
4. Maintain a humidity level of 50% or higher in production areas.
生产现场湿度必须保持在 50%或更高。

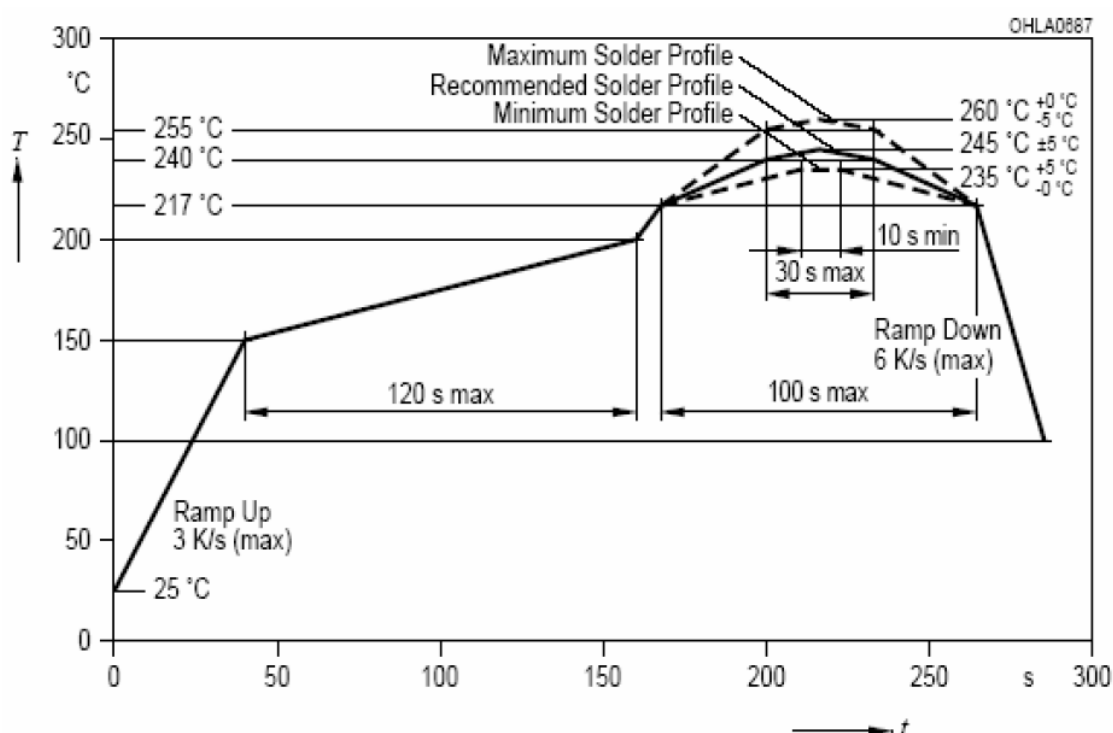
Soldering Condition/焊接条件

1. Careful attention should be paid during soldering process. When soldering, leave a minimum of 2mm clearance from the base of the lens to the soldering point.

焊接时请特别注意，焊接点距离 LED 胶体底部 2mm 以上。

2. Do not apply any external stress to the lead frame during soldering while the LED is at high temperature.

当 LED 处于高温焊接时，应避免对支架施加压力。

Recommended IR Reflow Profile For Lead Free/推荐回流焊接曲线（无铅）:**Notes/备注:**

1. This datasheet will be update regularly, if there comes out any changes, please confirmed by the last datasheet.

规格书会定期进行更新，如有改动，以最新规格书为准。

2. When using this product, please observe the absolute maximum ratings and the instructions for using outlined in these specification sheets. LIGHT assumes no responsibility for any damage resulting from use of the product which does not comply with the absolute maximum ratings and the instructions included in these specification sheets.

在使用本产品时，请注意参考规格书中的最大额定值和使用说明，如果没有遵照产品规格书中的最大额定值以及使用说明而产生的不良后果，不在莱特承诺范围之内。

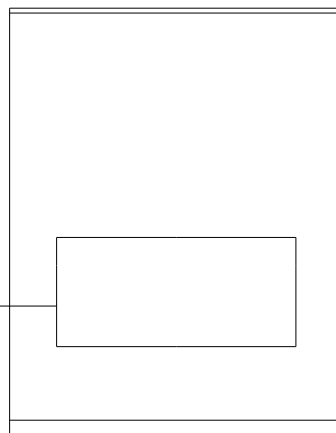
Packaging Specification/包装规格

LIGHT 深圳莱特光电股份有限公司
Light Electronics CO., LTD.

RoHS

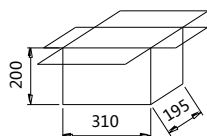
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 REMARKS: _____

LOT NO.: _____

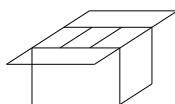



Bag

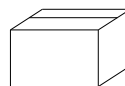
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BIN./分光等级	DATE CODE/生产日期
REMARKS/客户料号	LOT NO./生产批号



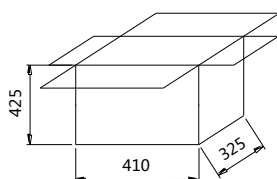
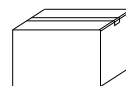
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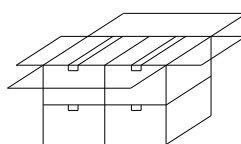
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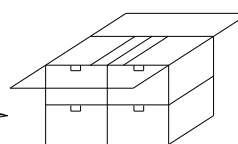
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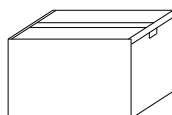
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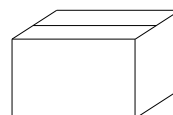
2



4



3



Bag minimum volume (pcs / Bag)	Bag volume (pcs / Bag)	Inner carton volume (Bags / carton)	Outer carton volume (Boxes / Carton)
250	1000	20	4

Reliability Test/信赖性试验

Classification 类别	Test Item 试验项目	Test Condition 试验条件	Sample Size 取样数量	AC/RE 接收标准
Life Test 寿命试验	Operation Life 常温寿命试验	Ta=25 ℃ IF=20mA Test Time=1000HRS	22	0/1
Environment Test 环境试验	High Temperature High Humidity Storage 高温高湿储存	Ta=65 ℃ RH=90~95% Test Time=500HRS	22	0/1
	High Temperature Storage 高温储存	Ta=100 ℃ Test Time=1000HRS	22	0/1
	Low Temperature Storage 低温储存	Ta=-40 ℃ Test Time=1000HRS	22	0/1
	Temperature Cycling 温度循环	100 ℃ ~ 25 ℃ ~ -40 ℃ ~ 25 ℃ 15min 5min 15min 5min 100Cycles	22	0/1
	Thermal Shock 冷热冲击	100 ℃ ~ -40 ℃ 15min 15min 100Cycles	22	0/1
Destructive Test 破坏性试验	Solder Resistance 焊锡耐热性	T.sol=260 ±5 ℃ Dwell Time=5sec.Max.	22	0/1
	Solderability 焊锡附着性	T.sol=230 ±5 ℃ Dwell Time=5 ±1sec	22	0/1

The Judgement Criteria for Reliability Test Result

信赖性试验结果判断标准

Test item 试验项目	Symbol 符号	Test Condition 测试条件	Criteria for Judgement 判断标准
Forward Voltage 正向电压	V _F (V)	I _F =20mA 正向电流=20mA	% of shift < 10% 改变量<10%
Dominant Wavelength 主波长	λ _d (nm)	I _F =20mA 正向电流=20mA	±5nm (>600nm) ±2nm (<600nm)
Reverse Current 反向电流	I _R (μA)	V _R =5V 反向电压=5V	Max=10μA (InGaN) 50μA (Others)
Luminous Intensity 发光强度	I _v (mcd)	I _F =20mA 正向电流=20mA	% of shift < 50% 改变量<50%