

RoHS

Specification

规格书

Customer Name :

客户名称 : _____

Customer P/N :

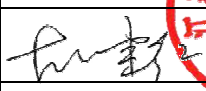
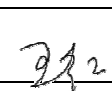
客户品号 : _____

Factory P/N :

公司品号 : HL-304S45FC

Sending Date :

送样日期 : _____

Client approval 客户审核			Goozo approval 鸿利国泽审核		
Approval 核准	Audit 确认	Confirmation 制作	Approval 核准	Audit 确认	Confirmation 制作
					
☐ Qualified 接受		☐ Disqualified 不接受	DATE: 日期 :		

Address : Dangui Road NO. 1 Dantu Area Zhenjiang City Jiangsu Province

地址 : 江苏省镇江市丹徒区丹桂路 1 号

Tel/电话 : 0511-88786599 Fax/传真 : 0511-88786599 Web/网址 : www.goozo.com.cn

注:

- 1.此规格书以中英文方式书写,若有冲突以中文版本为准文本.
- 2.此规格书的最终解释权归属江苏鸿利国泽光电科技有限公司



ATTENTION 注意
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES



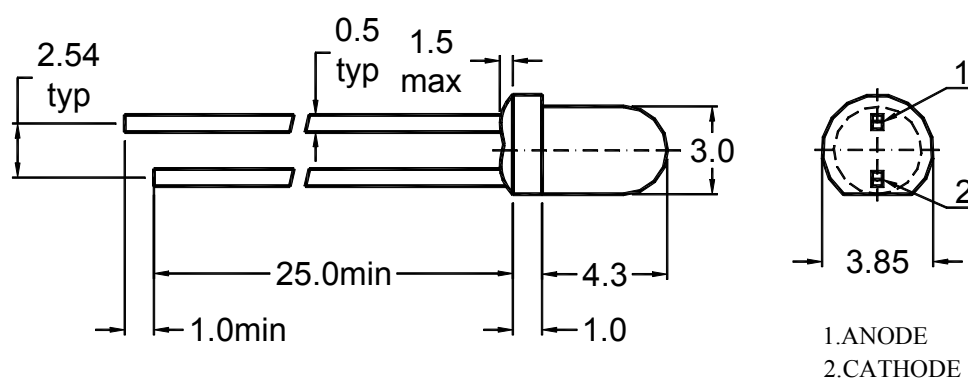
Features (特征)

- $\phi 3$ LAMP LED 直插 $\phi 3$ LED 灯
- LOW POWER CONSUMPTION. 低功耗
- IDEAL FOR BACKLIGHT AND INDICATOR.
用于背光和指示

Description/描述

This devices are made with AlGaInP.
LED 芯片组成元素为 AlGaInP.

Package Dimensions



Tolerance Grade/公差等级	Dimension Tolerance/尺寸 (Unit:mm)			
	0.5~3	3~6	6~30	30~120
	±0.1	±0.2	±0.3	±0.5
Chip/晶片		Lens Color/胶体颜色		
Material/材质	Emitting Color/ 发光颜色	Water Clear /无色透明		
AlGaInP.	Red/红色			

■ Absolute Maximum Rating 最大数值

Item 项目	Symbol 符号	Value 数值	Unit 单位
Forward Current 正向电压	IF	30	mA
Peak Forward Current* 峰值正向电流	IFP	100	mA
Reverse Voltage 反向电压	VR	5	V
Power Dissipation 功耗	PD	80	mW
Electrostatic discharge(HBM)抗静电能力	ESD	2	KV
Operation Temperature 操作温度	Topr	-40~+80	°C
Storage Temperature 储存温度	Tstg	-40~+80	°C
Lead Soldering Temperature*引脚焊接温度	Tsol	Max. 260°C for 5sec Max.	

* IFP Conditions: Pulse Width≤10msec (IFP 正向峰值电流使用条件: 脉冲宽度≤10 毫秒)

*Tsol Conditions: 1.6mm from the base of the epoxy bulb (Tsol 焊接条件: 焊接位置离胶体底部 1.6 毫米)

■ Typical Optical/ Electrical Characteristics Ta=25°C (光电参数 环境温度 25°C)

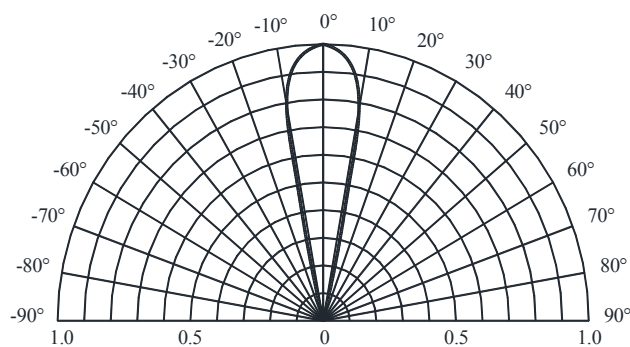
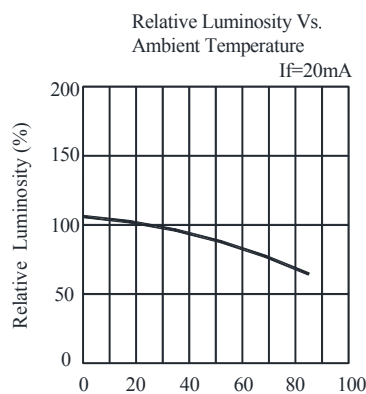
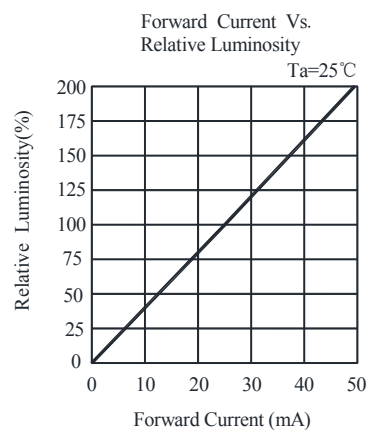
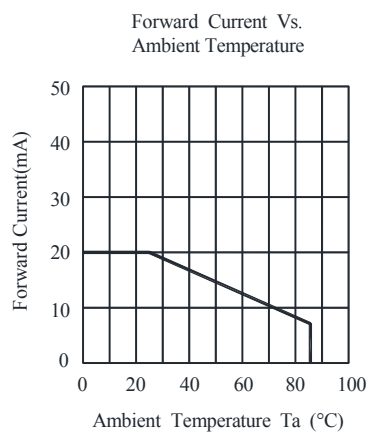
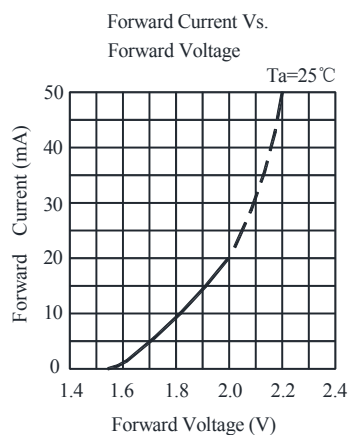
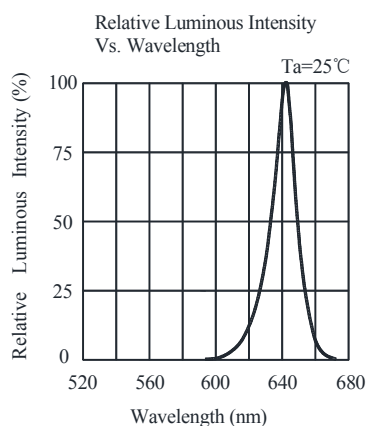
Item 项目	Symbol 符号	Condition 条件	Rank 档次	Min. 最小值	Typ. 典型值	Max. 最大值	Unit 单位
Luminous Intensity (光强)	I _v	IF=20mA	U	1715	--	2230	mcd
			V	2230	--	2900	mcd
			W	2900	--	3770	mcd
Forward Voltage (正向电压)	VF			1.8	2.2	2.6	V
Viewing Angle (角度)	2θ 1/2			--	25	--	deg
Dominant Wavelength (主波长)	λ _D			618	--	624	nm
Recommend Forward Current (推荐使用正向电流)	IF(rec)	--		--	--	20	mA
Reverse Current (反向电流)	IR	Vr=5V		--	--	10	uA

Notes (注释):

Tolerance : VF±0.1V, λ_D±2 nm, I_V(φV) ±15%, 2θ 1/2±15%

公差: 正向电压±0.1V, 主波长±2 nm, 光强 (光通量) ±15%, 角度±15%

● Typical Electro-Optical Characteristics Curves:

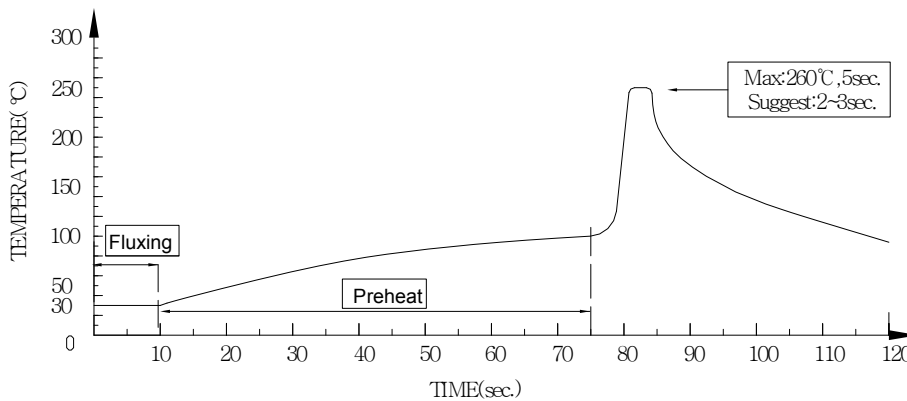


■ Reliability Performance 可靠性

Test Items And Result 测试项目和判定

Test Classification 测试类别	Test Item 测试项目	Test Conditions 测试条件	Test Duration 测试持续时间	Sample Size 样品数量	AC/RE 接受/拒收
Life Test 寿命测试	Room Temperature DC Operating Life Test 室温直流寿命测试	$T_a=25^{\circ}\text{C}\pm 5^{\circ}\text{C}$, $I_f=20\text{mA}$	1000 hrs	22 pcs	0/1
Environment Test 环境模拟 实验	Thermal Shock Test 冷热冲击	$100^{\circ}\text{C}\pm 5^{\circ}\text{C}$ 5min $\updownarrow$ $-40^{\circ}\text{C}\pm 5^{\circ}\text{C}$ 5min.	100 cycles	22 pcs	0/1
	Temperature Cycle Test 高低温循环实验	$100^{\circ}\text{C}\pm 5^{\circ}\text{C}$ 30min $\updownarrow$ 5min $-40^{\circ}\text{C}\pm 5^{\circ}\text{C}$ 30min.	100 cycles	22 pcs	0/1
	High Temperature & High Humidity Test 高温高湿实验	$85^{\circ}\text{C}\pm 5^{\circ}\text{C}/85\% \text{ RH}$ $I_F=5\text{mA}$	1000 hrs	22 pcs	0/1
	High Temperature Storage 高温储存	$T_a=100^{\circ}\text{C}\pm 5^{\circ}\text{C}$	1000 hrs	22 pcs	0/1
	Low Temperature Storage 低温储存	$T_a=-40^{\circ}\text{C}\pm 5^{\circ}\text{C}$	1000 hrs	22 pcs	0/1
Mechanica Test 机械测试	Resistance to Soldering Heat 耐焊接实验	Temp= 260°C max T=5sec max	1times	22 pcs	0/1
	Lead Integrity 引脚折弯实验	Load 2.5N(0.25kgf) $0^{\circ} \sim 90^{\circ} \sim 0^{\circ}$	3times	22 pcs	0/1

■ Dip Soldering/焊接



1. Please avoid any external stress applied to the lead-frames and epoxy while the LEDs are at high temperature, especially during soldering/在高温焊接过程中，不可有任何外力施加在 LED 的引脚、环氧上；
2. DIP soldering and hand soldering should not be done more than one time/浸焊、手工焊接次数不可超过 1 次；
3. After soldering, avoid the epoxy lens from mechanical shock or vibration until the LEDs are back to room temperature/焊接后，在 LED 温度恢复到室温的过程中，不可受到震动或其它外力的冲击；
4. Avoid rapid cooling during temperature ramp-down process/在 LED 降温过程中，避免急剧的冷却；
5. Although the soldering condition is recommended above, soldering at the lowest possible temperature is feasible for the LEDs/LED 在焊接过程中，应尽可能的降低焊接温度，以减少高温对 LED 的损伤；

■ IRON Soldering/手动焊接

300°C Within 3 sec., One time only/300°C，3 秒，1 次；