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-308S9VC

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：		

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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

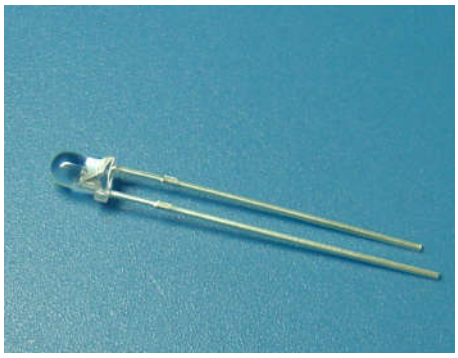
注:

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

No	REV No.	Item	Prepared By	Issue Date
1	Preliminary	Created	Hu jianhong	2018.3.29
2	A1	Added Comment	Zhong yacheng	2018.8.08

ATTENTION 注意
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES



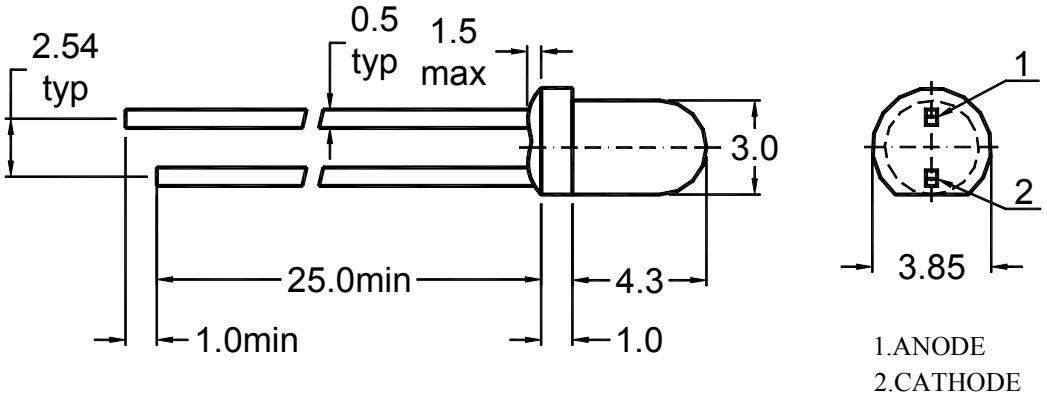
Features（特征）

- φ3 LAMP LED 直插φ3 LED
- LOW POWER CONSUMPTION.低功耗
- CABINED VIEWING ANGLE.小角度
- IDEAL FOR BACKLIGHT AND INDICATOR.
用于背光和指示

Description/描述

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

Package Dimensions 封装尺寸



1.ANODE
2.CATHODE

Tolerance Grade 公差等级	Dimension Tolerance (UNIT:mm) 尺寸误差 (单位:mm)			
	0.5~3	3~6	6~30	30~120
	±0.1	±0.2	±0.3	±0.5

Chip 晶片		Lens Color 透镜颜色
Material 材料	Emitting Color 发光颜色	Water Clear 无色透明
GaN	Violet 紫	

■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	-30∽+80	℃
Storage Temperature（储存温度）	Tstg	-40∽+80	℃
Lead Soldering Temperature*（引脚焊接温度）	Tsol	Max. 260℃ for 5sec Max.	

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

*T_{sol} Conditions：3mm from the base of the epoxy bulb

（Tsol 焊接条件：焊接位置离胶体底部 3 毫米）

■ The percentage of ESD approved is 90%(ESD 的通过率为 90%)

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

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		--	50	--	mcd
Forward Voltage（正向电压）	VF			2.8	3.2	3.6	V
Viewing Angle（角度）	2θ 1/2			--	25	--	deg
DominantWavelength（主波长）	λ_D			430	--	440	nm
RecommendForwardCurrent（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， λd±2 nm，IV(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%

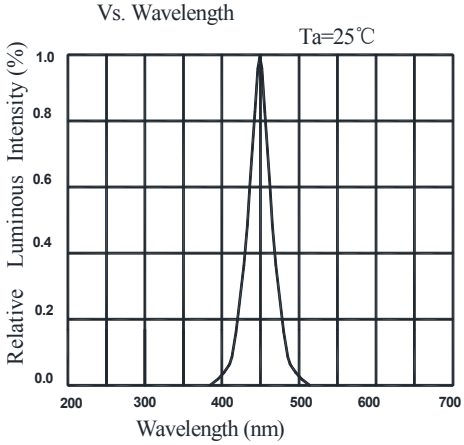
■ Reliability Performance 可靠性

Test Items And Result 测试项目和判定

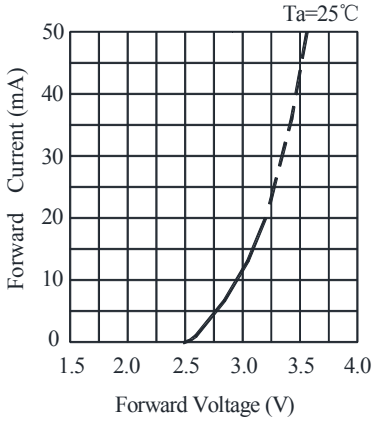
Test Classification 测试类别	Test Item 测试项目	Test Conditions 测试条件	Test Duration 测试持续时间	Sample Size 样品数量	AC/RE 接受/拒收
Life Test 寿命测试	Room Temperature DC Operating Life Test 室温直流寿命测试	Ta=25℃±5℃，I_F=20mA	1000 hrs	22 pcs	0/1
Environment Test 环境模拟实验	Thermal Shock Test 冷热冲击	100℃±5℃ 5min ↑ ↓ -40℃±5℃ 5min.	100 cycles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

●Typical Electro-Optical Characteristics Curves:

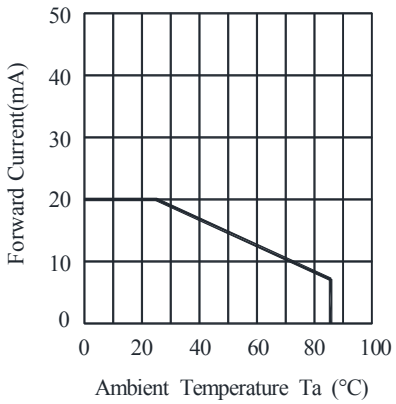
Relative Luminous Intensity
Vs. Wavelength



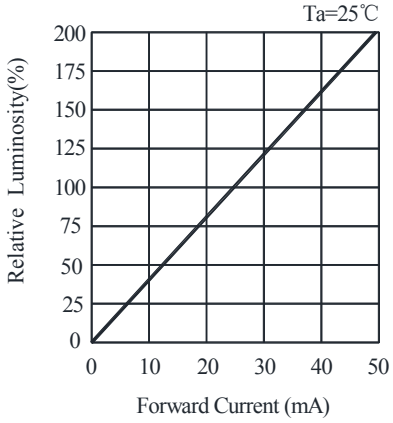
Forward Current Vs.
Forward Voltage



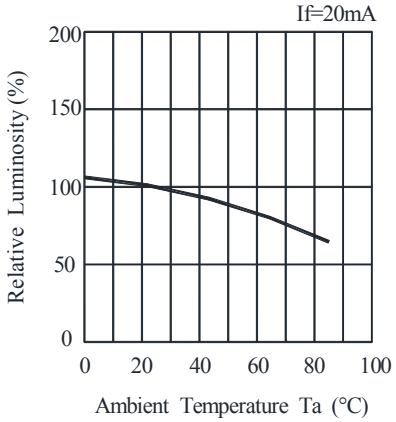
Forward Current Vs.
Ambient Temperature

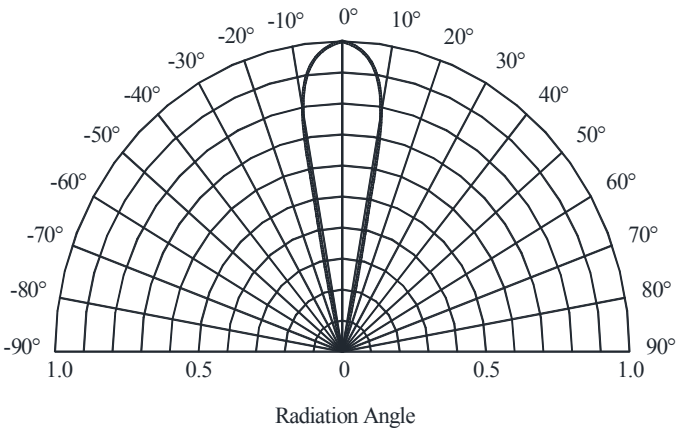


Forward Current Vs.
Relative Luminosity

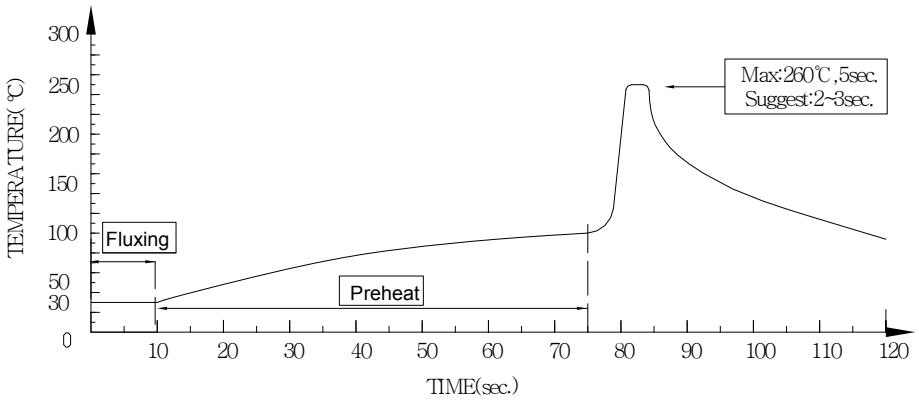


Relative Luminosity Vs.
Ambient Temperature





● Dip Soldering



1. Please avoid any external stress applied to the lead-frames and epoxy while the LEDs are at high temperature,especially during soldering
2. DIP soldering and hand soldering should not be done more than one time.
3. After soldering, avoid the epoxy lens from mechanical shock or vibration until the LEDs are back to room temerature.
4. Avoid rapid cooling during temperature ramp-down process
5. Although the soldering condition is recommended above, soldering at the lowest possible temperature is feasible for the LEDs

● IRON Soldering

300℃ Within 3 sec.,One time only.