



SHENZHEN GUOYEXING OPTOELECTRONICS CO., LTD.

SPECIFICATION FOR APPROVAL

Customer: _____

Description: LED LAMP

Model: GL-5A0UGFC

Sample No: _____

No.: _____

Date: 2008-08-06

Enclosure is the specification

SHENZHEN GUOYEXING OPTOELECTRONICS CO., LTD.			
Production Dept.	Quality Dept.	Engineering Dept.	Marketing Dept.

APPROVED SIGNATURES			

Add: 6/F, Block C, Dongjiaotou Industrial Zone, Houhai Avenue, Shekou, Shenzhen,

电话 Tel: 0086-755-26895486, 26895484

传真 Fax: 0086-755-26895481

Email: gyx@gyx-led.com

Website: www.Gyx-led.com

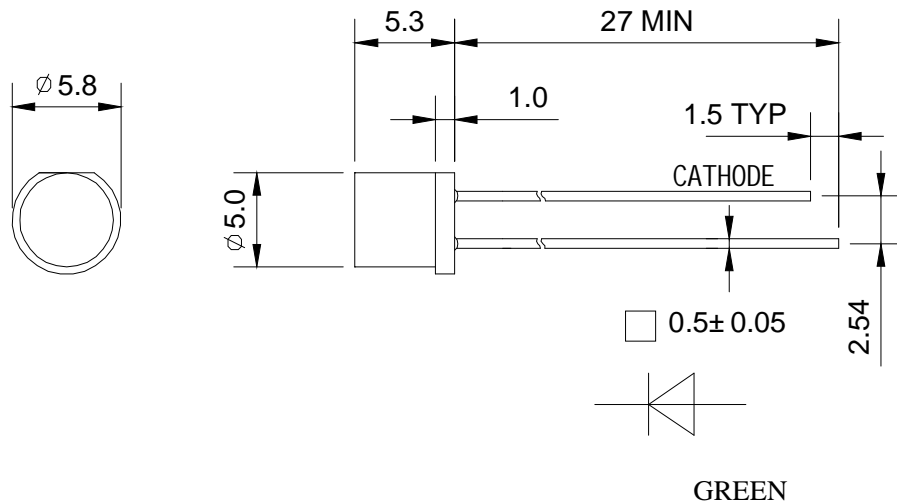


GL-5A0UGFC GREEN

1. Features

- 1) 5mm DIAMETER LAMP
- 2) LOW CURRENT REQUIREMENT
- 3) LOW POWER CONSUMPTION
- 4) VERSATILE MOUNTING ON P.C. BOARD PANEL
- 5) LONG LIFE-SOLID STATE RELIABILITY

2. Package Dimensions



Notes:

- 1) All dimensions are in millimeters.
- 2) Tolerance is ± 0.25 unless otherwise noted.
- 3) Specifications are subject to change without notice.



3.

Part No.	Chip Material	Emitting Color	Lens Type	Iv(mcd)@20mA			Viewing Angle
				Min.	Typ.	Max	2 θ 1/2
GL-5A0UGFC	GaN	Green	Water Clear	1400	1820	2366	53°

Note:

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

4. Electrical / Optical Characteristics at T_A=25° C

Parameter	Symbol	Min.	Typ.	Max.	Units	TestConditions
Forward Voltage	V _F	2.8	3.1	3.6	V	I _F =20mA
Peak Wavelength	λ _p	516	518	520	nm	I _F =20mA
Dominate Wavelength	λ _D	521	523	525	nm	I _F =20mA
Spectral Line Half-width	Δ λ	-	30	-	nm	I _F =20mA
Reverse Current	I _R	-	-	10	uA	V _R =5V

5. Absolute Maximum Ratings at T_A=25° C (在 25° C 环境下之最大绝对额定值)

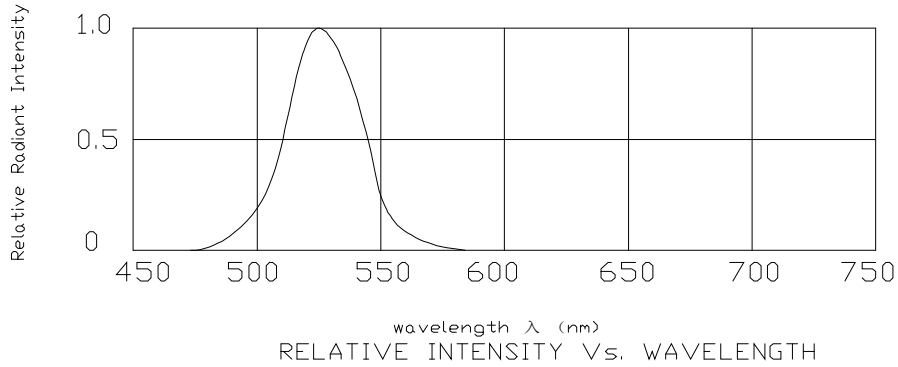
Parameter	Symbo	Maximum Rating	Units
Power dissipation	Pd	95	mW
Forward Current	I _F	25	mA
Peak Forward Current (1)	I _F (Peak)	130	mA
Reverse Voltage	V _R	5	V
Operating Temperature	Topr	-40° C To +80° C	
Storage Temperature	Tstg	-40° C To +80° C	
Lead Solder Temperature(2)	Tsol	260° C for 3 seconds	

Note:

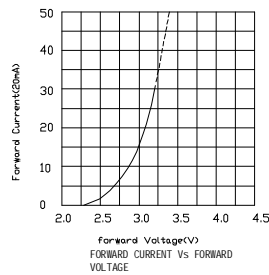
- 1) 1/10 Duty Cycle, 0.1ms Pulse Width.
- 2) 3mm below package base.
- 3) The production accord with the demand of ROHS.
- 4).ESD(HMB: 2000V 以上; MM: 200V 以上).



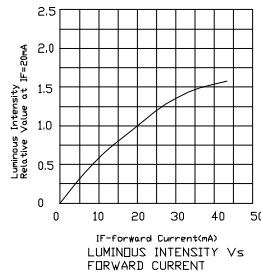
Relative Intensity Vs Wavelength Chart



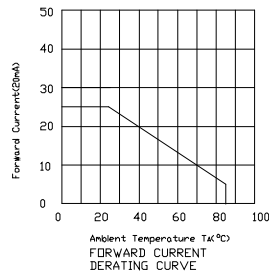
(GL-5A0UGFC)



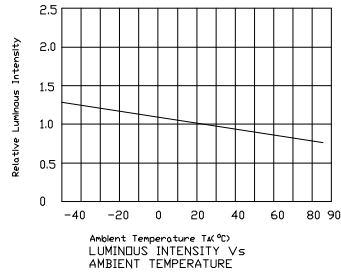
正向电流与正向电压关系曲线图



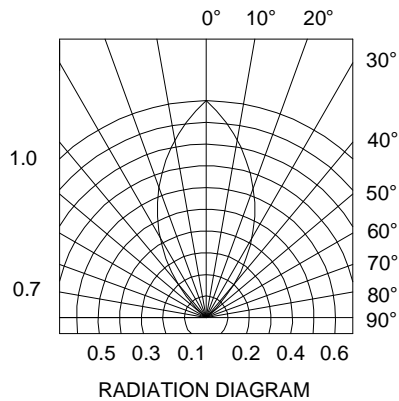
亮度与正向电流关系曲线图



正向电流递减曲线图



亮度与环境温度关系曲线图





RELIABILITY

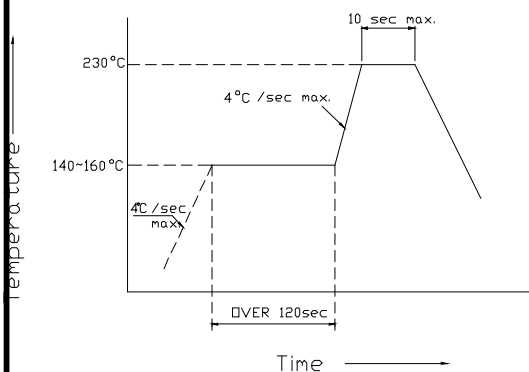
(1) TEST ITEMS AND RESULTS

Type	Test Item	Test condition		Note	Sample size	Accept
		Test condition	Test condition			
(Environments Sequence)	Thermal shock	-20°C~80°C 15min, 10s, 15min	-40°C~100°C 15min, 10s, 15min	100 cycles	20~560	0
		190°C~240°C 5min		1 cycles	20~560	0
		240°C~260°C 5sec		1 cycles	20~560	0
(Operation Sequence)	Life test	Ta=25°C If=20mA	Ta=25°C If=20mA	1000Hrs	20~560	0
(Destructive Sequence)		Ta=100°C		60 minutes	10-20	0

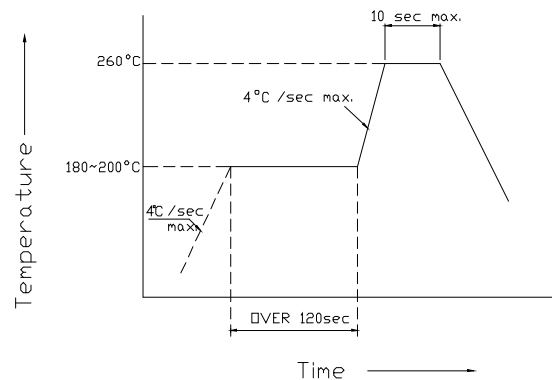
Reflow Soldering Instructions

Number of reflow process shall be less than 2 times and cooling process to normal temperature is required between first and Second soldering process.

1>Lead Solder



2>Lead-Free Solder





Intensity And Color Bin Limits

(1) Intensity Bin Limits (If=20mA)

SELECTION CODE FOR SUPER BRIGHT LEDS		
Group	Light intensity in mcd(20mA) Super Bright GREEN	
	Min.	Max.
U	1190	2045
V	2045	2005
W	2005	2605

Tolerance for each Bin limit is $\pm 10\%$

(2) Color Bin Limits (If=20mA)

COLOR CODE FOR RED LEDS + DISPLAYS		
Group	Dom. WaveLength (nm)	
	min.	max.
F1	520	522
G1	522	524
H1	524	526

Tolerance for each Bin limit is ± 1 nm.

Forward Voltage Bin limits(If=20mA)

Grade (等级)	G3	H3	I3	J3	K3
Range (范围)	2.8-3.0	3.0-3.2	3.2-3.4	3.4-3.6	3.6-3.8

Tolerance for each Bin limit is ± 0.05 v.