



SHENZHEN GUOYEXING OPTOELECTRONICS CO., LTD.

SPECIFICATION FOR APPROVAL

Customer: _____

Model: _____ GYX-SD-HP312QBC _____

Lot No.: _____ S08082700500 _____

No.: _____ SM-CG-0713 _____

Date: _____ 2008-08-27 _____

Enclosure is the specification

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

APPROVED SIGNATURES			

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GYX-SD-HP312

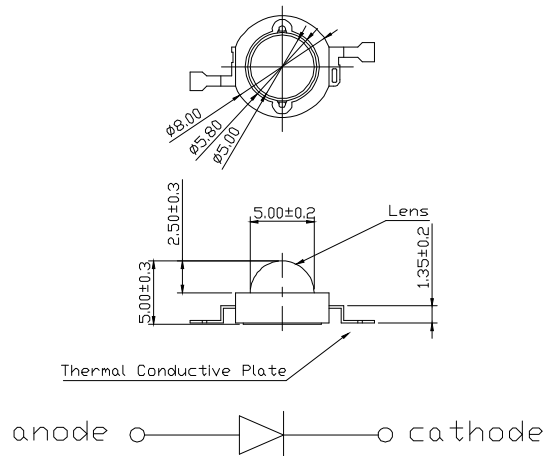
Features And Applications

- 1) 3W High Power LED.
- 2) Low forward voltage operated.
- 3) Wide viewing angle.
- 4) Long operating life(up to 100,000 hours).
- 5) Istant light(less than 100ns).
- 6) More Energy Efficient than incandescent and halogen lamps.
- 7) No UV.
- 8) Ideal for Indoor and Outdoor Commercial lighting、Uplighters and Downlighters、reading lights、LCD Backlights/Light guides、Portable flashlight、Bollards/Security/Garden lighting and general lighting.
- 9) Various colors and lens types available.

Description

The White、Red、Amber、TrueGreen、Blue source color devices are made with InGaN、AlGaInP/GaAs、AlGaInP/GaAs、 InGaN 、InGaN Light Emitting Diode.

Package Dimensions



viewing angle : 140°

Notes:

1. All dimensions are in millimeters.
2. Tolerance is ± 0.1 unless otherwise noted.
3. Specifications are subject to change without notice.



Electrical / Optical Characteristics at $I_F=700\text{mA}$ ($T_A=25^\circ\text{C}$)

Part Number	Color	Symbol	Parameter	Min.	Typ.	Max.	Units
GYX-SD-HP3120BC	Blue	Flux	Luminous Flux	15	18	20	lm
		V_F	Forward Voltage	3.3	3.4	3.5	V
		λ_D	Dominate Wavelength	456	457	459	nm
		$R_{\theta J-B}$	Thermal Resistance Junction to Board	-	20	-	$^\circ\text{C}/\text{W}$
		$\Delta V_F / \Delta T$	Temperature Coefficient Of Forward Voltage	-	-2	-	$\text{mV}/^\circ\text{C}$
		$I_R(V_R=5\text{V})$	Reverse Current	-	-	50	μA

Note:

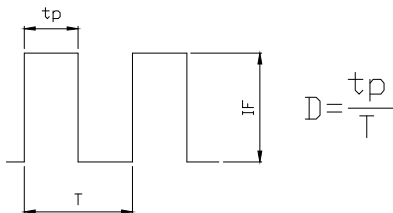
1. Flux is measured with an accuracy of $\pm 15\%$.
2. CCT selection acc. To CCT groups and an accuracy of $\pm 400\text{K}$.
3. forward Voltage is measured with an accuracy of $\pm 0.2\text{V}$.
4. Wavelength is measured with an accuracy of $\pm 3\text{nm}$.

Absolute Maximum Ratings at $T_A=25^\circ\text{C}$

Parameter	Symbol	Rating	Units
DC Forward Current	I_F	1000	mA
Peak pulse current; ($t_p \leq 100\mu\text{s}$, Duty cycle=0.005)*1	I_{pulse}	1000	mA
Reverse Voltage	V_R	5	V
LED junction Temperature(at 1050 mA)	T_j	125	$^\circ\text{C}$
Operating Temperature	T_{opr}	-30~+110	$^\circ\text{C}$
Storage Temperature	T_{stg}	-40~+120	$^\circ\text{C}$
Manual Soldering Time at 260°C (Max.)	T_{sol}	5	seconds

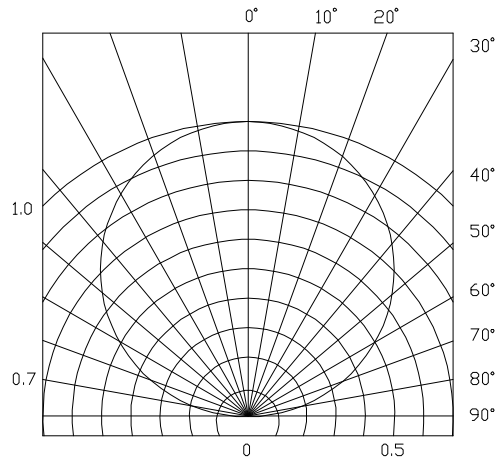
Note:

1. Duty Cycle:



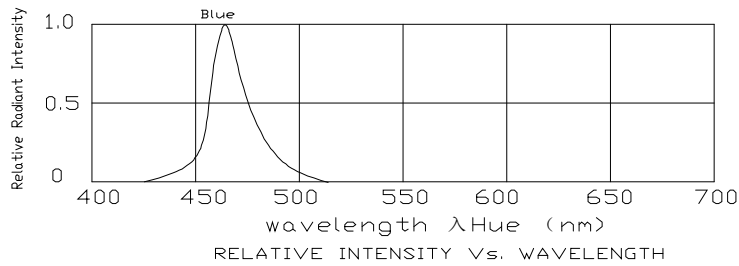


Typical Radiation Pattern for Lambertian

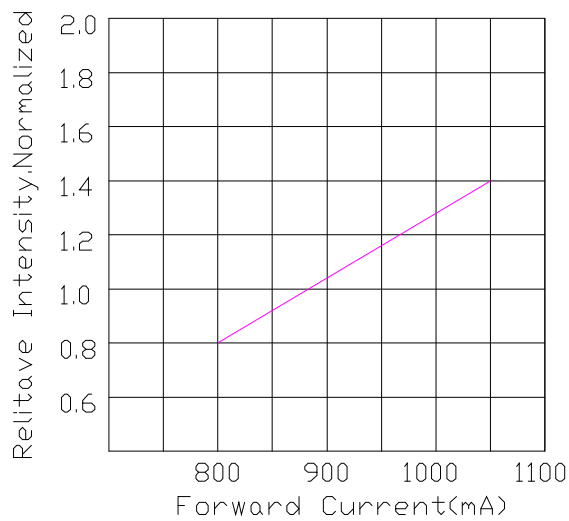


SPATIAL DISTRIBUTION
发光角度图解

Electrical & Optical Curves

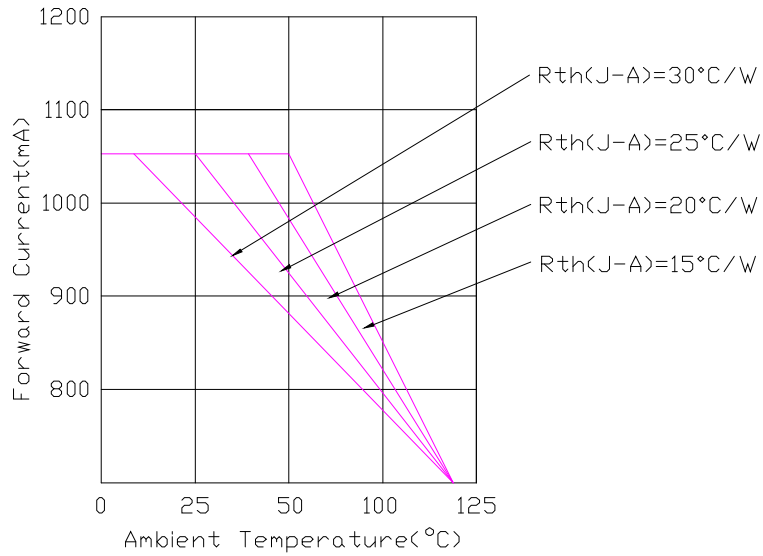


Current & Luminous Flux

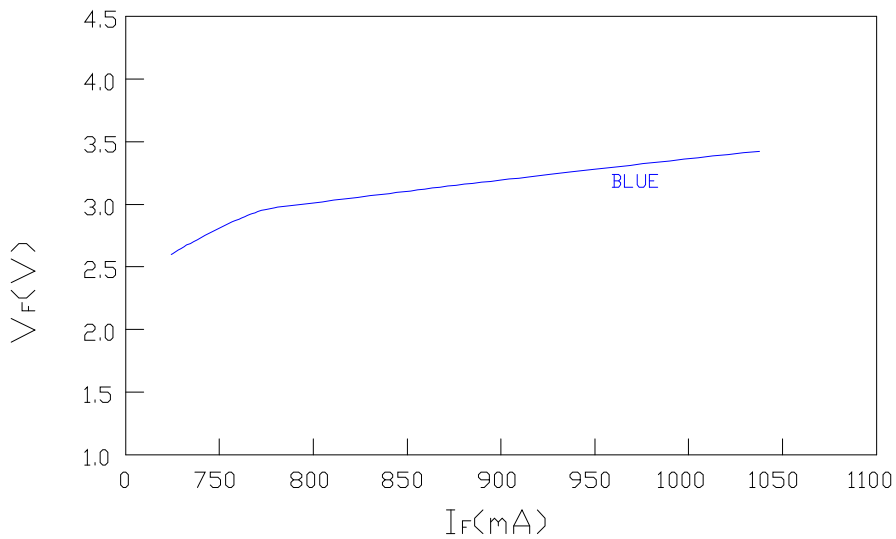




Operating Current & Ambient Temperature



Operating Current & Forward Voltage





Intensity And Color Bin Limits

(1) Intensity Bin Limits ($I_F=700mA$)

SELECTION CODE FOR SUPER BRIGHT LEDES		
Group		
	Blue	
	min.	max.
D	12	20
E	20	30
F	30	45

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

(2) Color Bin Limits ($I_F=700mA$)

COLOR CODE FOR BLUE LEDES + DISPLAYS		
Group	Dom. WaveLength (nm)	
	Blue	
	min.	max.
0	460	462
1	462	465
2	465	468

(3) Tolerance for each Bin limit is $\pm 1NM$.

Forward Voltage Bin limits($I_F=700MA$)< V_F 值等级 >

Grade(等级)	H	I	J	K
Range(范围)	3.1-3.3	3.3-3.5	3.5-3.7	3.7-3.9

Tolerance for each Bin limit is $\pm 0.1v$.