LUCKY LIGHT

Preliminary

LL-309YGC3Q-001

DATA SHEET

RoHS Compliant

QC:何 遠 花　　ENG:鄭 文 斌　　Prepared By: 賓娟

佳光電子(台山)有限公司 受控文件

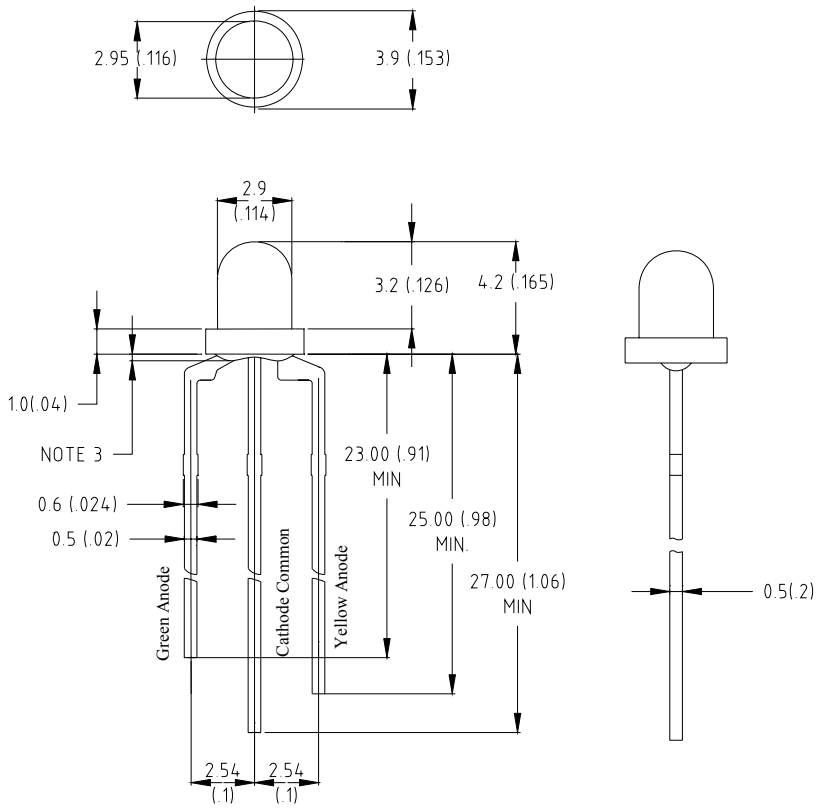
Part No.	LL-309YGC3Q-001	Spec No.	S/N-08091807	Page	1 of 5

Version:1.0

Features:

- Normal 3mm diameter package
- General purpose leads
- Pb-free

Package Dimensions:



Part NO.	Chip Material		Lens Color	Emission Color
LL-309YGC3Q-001	Yellow GaAsP	Green GaP	Water Clear	Yellow & Green

Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.2 mm 5(.010") unless otherwise noted.
3. Protruded resin under flange is 1.0mm(.04") max
4. Lead spacing is measured where the leads emerge from the package.
5. Specifications are subject to change without notice.
6. This data-sheet only valid for six months.

Absolute Maximum Ratings at Ta=25℃

Parameter	MAX		Unit
Power Dissipation	Green	130	mW
	Yellow	90	
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	Green	50	mA
	Yellow	35	
Continuous Forward Current	35		mA
Debating Linear From 50℃	0.4		mA/℃
Reverse Voltage	5		V
Operating Temperature Range	-30℃ to +80℃		
Storage Temperature Range	-40℃ to +100℃		
Lead Soldering Temperature [4mm(.157") From Body]	280℃ for 5 Seconds		

Electrical Optical Characteristics at Ta=25℃

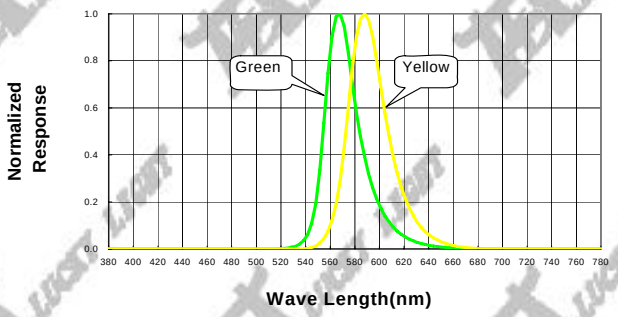
Parameter	Symbol	Emitting Color	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	I_V	Green	14	30		mcd	I_F=20mA Note 1
		Yellow	6	14			
Viewing Angle	$2\theta_{1/2}$	Green	120	130	140	Deg	Note 2
		Yellow	120	130	140		
Peak Emission Wavelength	λp	Green	563	568	573	nm	Measurement @Peak
		Yellow	583	588	593		
Dominant Wavelength	λd	Green	565	570	575	nm	Note 3
		Yellow	585	590	595		
Spectral Line Half-Width	△λ	Green	25	30	35	nm	
		Yellow	30	35	40		
Forward Voltage	V_F	Green	1.7	2.2	2.6	V	I_F=20mA
		Yellow	1.6	2.1	2.5		
Reverse Current	I_R	Green			10	μA	V_R=5V
		Yellow					

Notes:

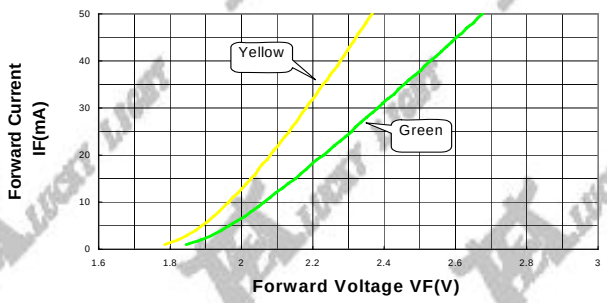
1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
2. $\theta_{1/2}$ is the off-axis angle at which the luminous intensity is half the axial luminous intensity.
3. The dominant wavelength (λd) is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.
4. Forward voltage measurement allowance is ±0.1V
5. Luminous Intensity Measurement Allowance is ±10%

Typical Electrical / Optical Characteristics Curves
(25℃ Ambient Temperature Unless Otherwise Noted)

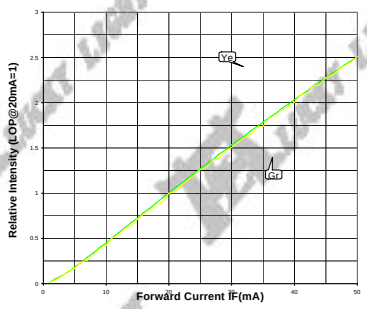
Spectral Radiance Green Peak @ 568nm
Yellow Peak @ 588nm



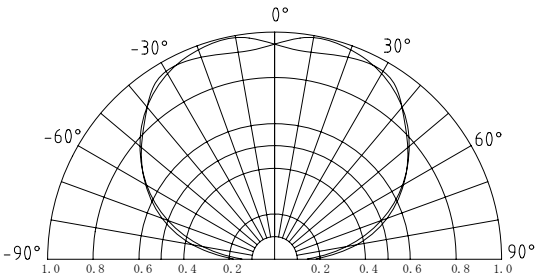
Forward Current vs Forward Voltage



Relative Luminous Intensity vs Forward Current



Beam Pattern



Forward Cureent Derating Curve