

Preliminary

LL-309BYM2C-001

DATA SHEET



QC: 王士光

ENG: 鄭文斌

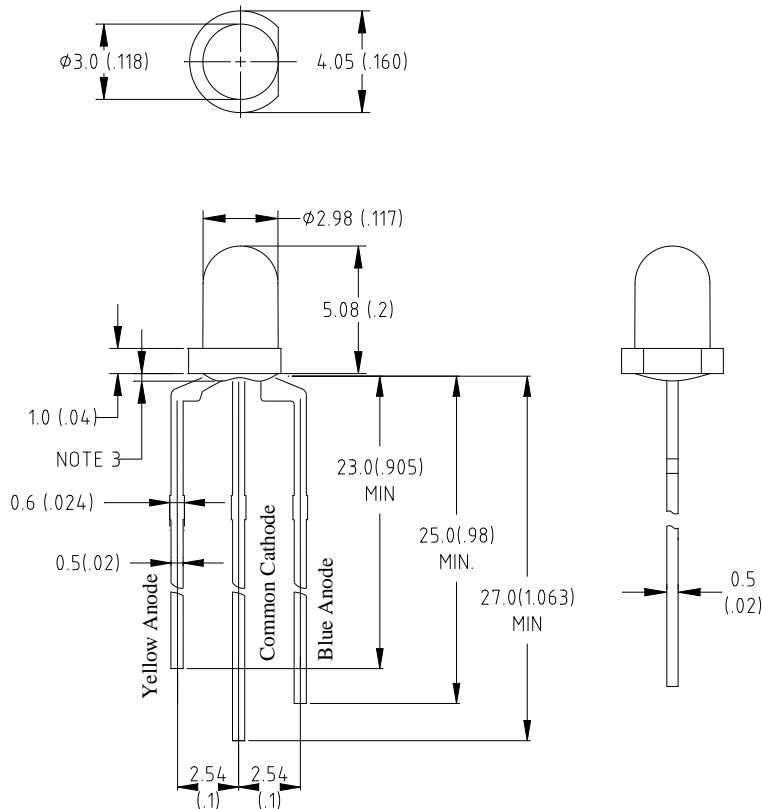
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Part No.	LL-309BYM2C-001	Spec No.	S/N-07102007	Page	1 of 5
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Features:

- ◆ Standard T-1 diameter package
- ◆ General purpose leads
- ◆ Pb-free

Package Dimensions:



Part NO.	Chip Material		Lens Color	Emission Color
LL-309BYM2C-001	Yellow	Blue	White Diffused	Yellow & Blue
	AlGaInP	InGaN		

Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ± 0.25 mm (.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. Precautions for ESD:

Static electricity and surge can damages the LED. It is recommended to use a wrist band or anti-electrostatic glove when handling the LED. All devices, equipment and machinery must be properly grounded.



Absolute Maximum Ratings at Ta=25°C

Parameter	MAX.		Unit
	Power Dissipation	Blue	
	Yellow	90	
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	100		mA
Continuous Forward Current	Blue	20	mA
	Yellow	35	
Derating Linear From 50°C	0.4		mA/°C
Reverse Voltage	5		V
Operating Temperature Range	-30°C to +80°C		
Storage Temperature Range	-40°C to +100°C		
Lead Soldering Temperature [4mm(.157") From Body]	280°C for 5 Seconds		

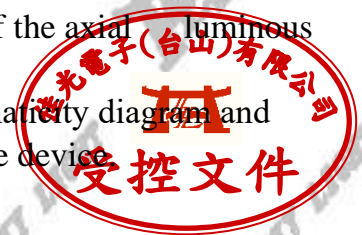


Electrical Optical Characteristics at Ta=25°C

Parameter	Symbol	Emitting Color	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	I _v	Yellow	140	330		mcd	I _f =20mA Note 1
		Blue	120	250			
Viewing Angle	2θ _{1/2}	Yellow	50	60	70	Deg	Note 2
		Blue	50	60	70		
Peak Emission Wavelength	λ _p	Yellow	585	590	595	nm	Measurement @Peak
		Blue	463	468	473		
Dominant Wavelength	λ _d	Yellow	584	590	595	nm	Note 3
		Blue	464	470	476		
Spectral Line Half-Width	Δλ	Yellow	15	20	25	nm	
		Blue	20	25	30		
Forward Voltage	V _f	Yellow	1.6	2.0	2.5	V	I _f =20mA
		Blue	2.8	3.5	4.0		
Reverse Current	I _R	Yellow			10	μA	V _R =5V
		Blue					

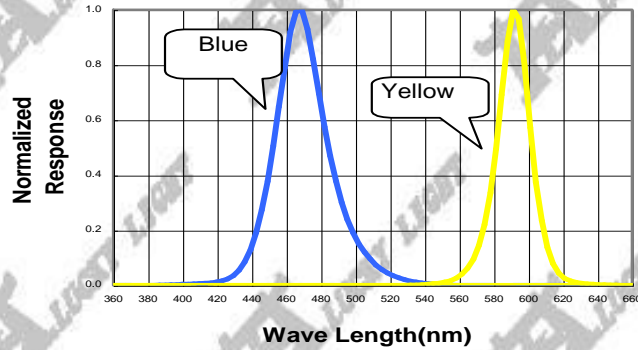
Notes:

1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
2. θ_{1/2} is the off-axis angle at which the luminous intensity is half the axial luminous intensity.
3. The dominant wavelength (λ_d) 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%

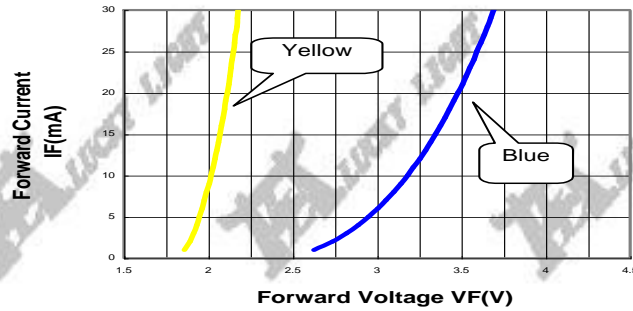


Typical Electrical / Optical Characteristics Curves
 (25°C Ambient Temperature Unless Otherwise Noted)

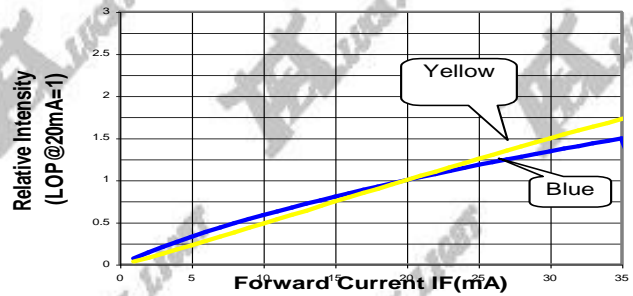
Spectral Radiance Blue Peak @ 468nm
 Yellow Peak @ 590nm



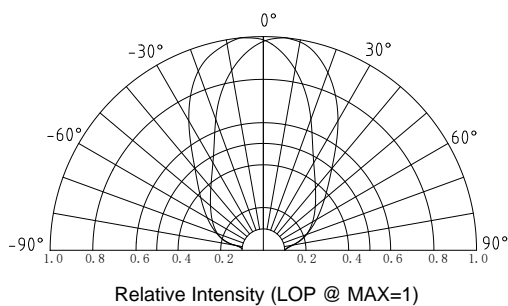
Forward Current vs Forward Voltage



Relative Luminous Intensity vs Forward Current



Beam Pattern



Forward Current Derating Curve

