LL-309UBC2E-001

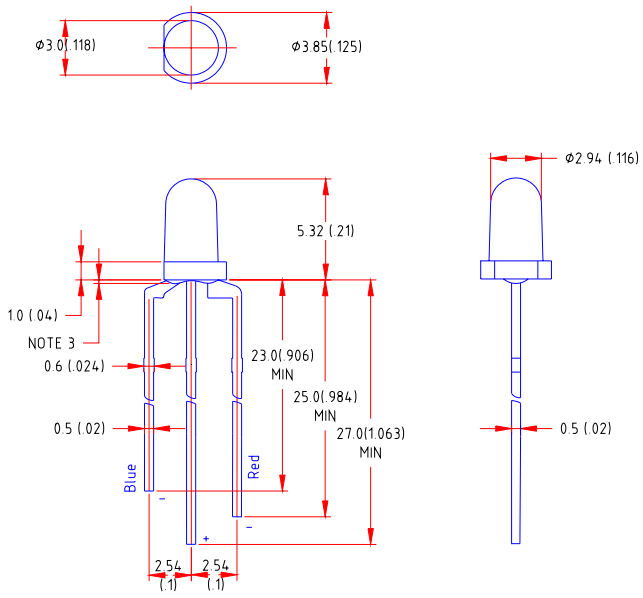
DATA SHEET

QC: ENG: Prepared By:

Features

- ♦ High intensity
- ♦ Standard T-1diameter package
- ♦ Wide viewing angle
- ♦ General purpose leads
- ♦ Reliable and rugged

Package Dimension:



Part NO.	Lens Color	Source Color
LL-309UBC2E-001	Water Clear	Red & Blue

Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.25(.010”)mm 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. Caution in ESD:

   Siatic Electricity and surge damages the LED. lt is recommend 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℃

Parameter	MAX.	Unit
Power Dissipation	100	mW
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	100	mA
Continuous Forward Current	35	mA
Derating Linear From 50℃	0.4	mA/℃
Reverse Voltage	5	V
Operating Temperature Range	-40℃ to +80℃	
Storage Temperature Range	-40℃ to +80℃	
Lead Soldering Temperature [4mm(.157") From Body]	260℃ for 5 Seconds	

Electrical Optical Characteristics at Ta=25℃

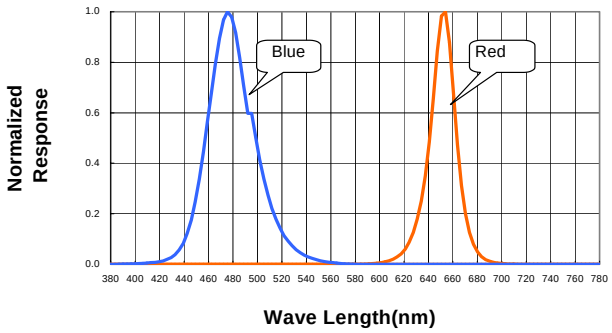
Parameter	Symbol	Emitting Color	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	Iv	010UR		220		mcd	I_f=20mA Note 1
		Blue		240			
Viewing Angle	$2\theta_{1/2}$	010UR		42		Deg	Note 2
		Blue		42			
Peak Emission Wavelength	λp	010UR		652		nm	I_F=20mA
		Blue		468			
Dominant Wavelength	λd	010UR		639		nm	I_F=20mA Note 3
		Blue		470			
Spectral Line Half-Width	$\triangle\lambda$	010UR		23		nm	I_F=20mA
		Blue		25			
Forward Voltage	V_F	010UR		2.0	2.6	V	I_F=20mA
		Blue		3.6	4.5		
Reverse Current	I_R	010UR			100	μA	V_R=5V
		Blue					

Note:

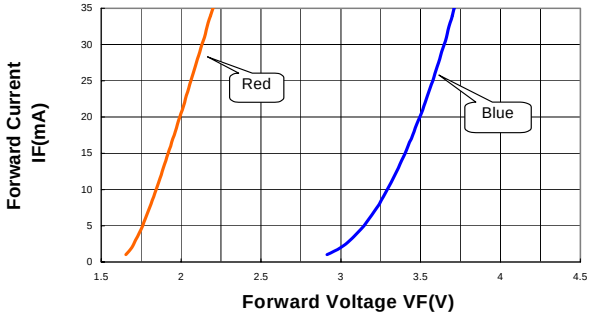
1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
2. $\theta_{1/2}$ is the off-axis angle at which the luminous intensity is half the axial luminous intensity.
3. The dominant wavelength (λ) is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.

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

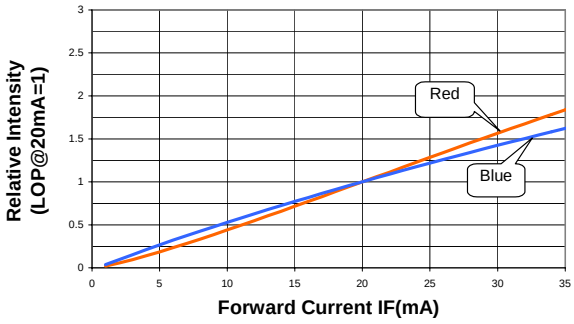
Spectral Radiance Red Peak @ 652nm
Blue Peak @ 468nm



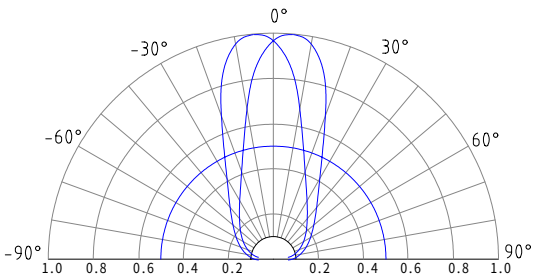
Forward Current
vs Forward Voltage



Relative Luminous Intensity
vs Forward Current



Beam Pattern



Relative Intensity (LOP @ MAX=1)