

# LL-504BC2E-021

## DATA SHEET

QC :

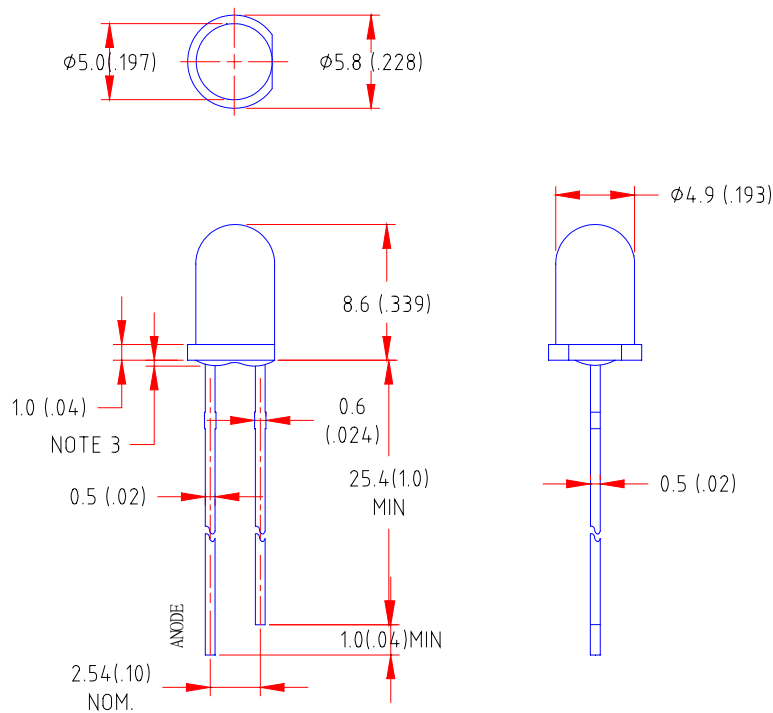
ENG :

Prepared By:

## Features

- ◆ High intensity
- ◆ Standard T-1 3/4 diameter package
- ◆ viewing angle=30°
- ◆ General purpose leads
- ◆ Reliable and rugged

## Package Dimension:



Part NO.	Material	Lens Color	Source Color
LL-504BC2E-021	GaN/SiC	Water Clear	Blue

## Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.25 (.010)$  mm unless otherwise noted.
3. Protruded resin under flange is  $1.0\text{mm} (.04)$  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:  
 Static Electricity and surge damages the LED. It 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°C**

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°C	0.4	mA/°C
Reverse Voltage	5	V
Operating Temperature Range	-40°C to +80°C	
Storage Temperature Range	-40°C to +80°C	
Lead Soldering Temperature [4mm(.157") From Body]	260°C for 5 Seconds	

**Electrical Optical Characteristics at Ta=25°C**

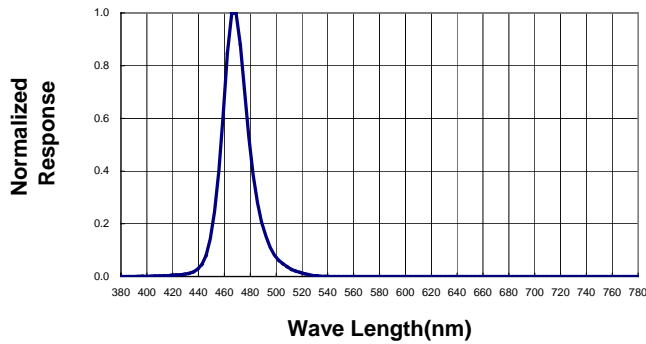
Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	I <sub>v</sub>	3000	5000	7000	mcd	I <sub>F</sub> =20mA (Note 1)
Viewing Angle	2 θ <sub>1/2</sub>	---	30	35	Deg	(Note 2)
Peak Emission Wavelength	λ <sub>p</sub>		465	470	nm	I <sub>F</sub> =20mA I <sub>F</sub> =20mA (Note 3)
Spectral Line Half-Width	Δλ	---	25	---	Nm	I <sub>F</sub> =20mA
Forward Voltage	V <sub>F</sub>	2.8	3.4	3.8	V	I <sub>F</sub> =20mA
Reverse Current	I <sub>R</sub>	---	---	100	μA	V <sub>R</sub> =5V

**Note:**

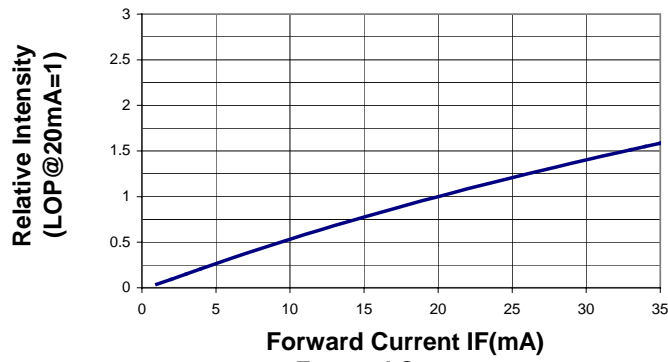
1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
2. θ<sub>1/2</sub> is the off-axis angle at which the luminous intensity is half the axial luminous intensity.
3. The dominant wavelength (λ<sub>p</sub>) is derived from the CIE 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)

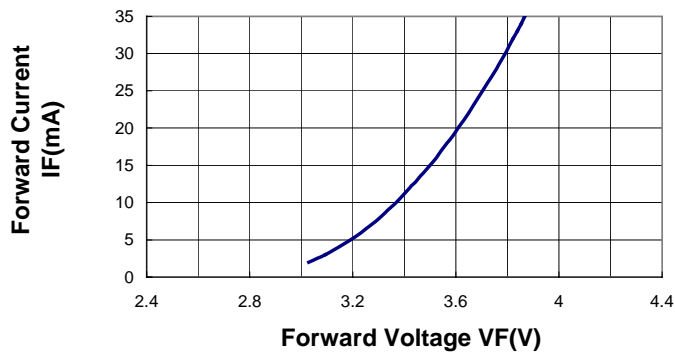
**Spectral Radiance ( Peak @ 470nm)**



**Relative Luminous Intensity vs Forward Current**



**Forward Current vs Forward Voltage**



**Beam Pattern**

