

LL-803WC2C-W2-2B

DATA SHEET

QC:

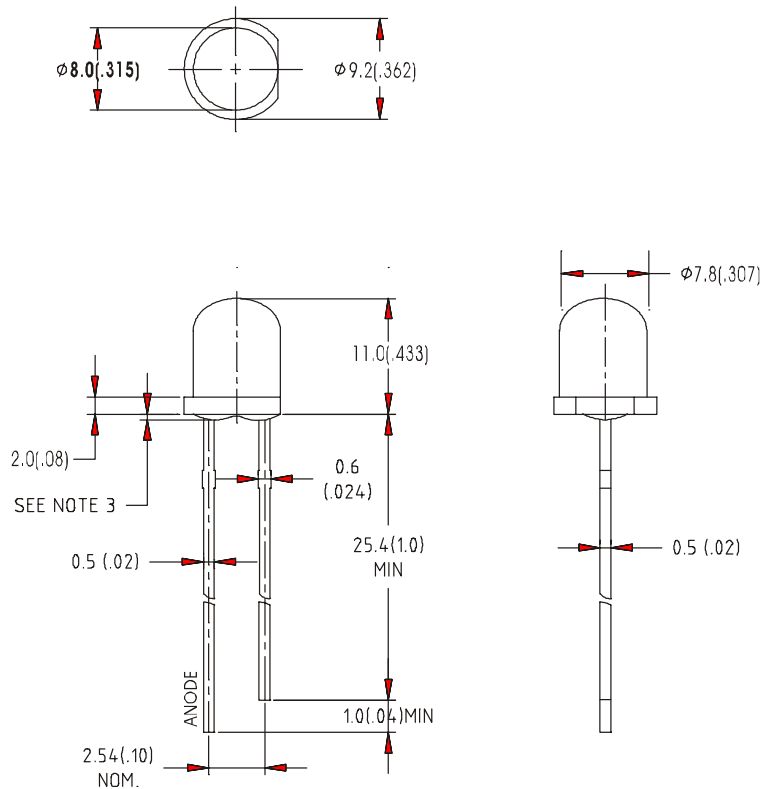
ENG:

Prepared By:

Features:

- ◆ High intensity
- ◆ Normal 8mm diameter package
- ◆ Small viewing angle
- ◆ General purpose leads
- ◆ Reliable and rugged

Package Dimensions:



Part NO.	Chip Material	Lens Color	Source Color
LL-803WC2C-W2-2B	GaInN	Water Clear	White

Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.25\text{mm} (.010\text{'})$ unless otherwise noted.
3. Protruded resin under flange is $1.0\text{mm} (.04\text{'})$ 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 SHIELD Electricity and surge 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.
7. This data-sheet only valid for six months.

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	25	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	

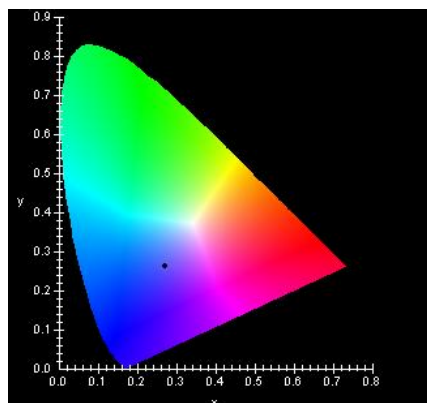
Electrical Optical Characteristics at Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	I _v	4000	4500	5000	mcd	I _F =20mA (Note 1)
Viewing Angle	2θ _{1/2}	10	15	20	Deg	(Note 2)
$x = \frac{X}{X+Y+Z} = \frac{Red}{Red+Green+Blue}$	x	0.24	0.28	0.34	---	I _F =20mA (Note 3)
$y = \frac{Y}{X+Y+Z} = \frac{Green}{Red+Green+Blue}$	y	0.24	0.28	0.34	---	I _F =20mA (Note 3)
Forward Voltage	V _F	3.0	3.6	4.0	V	I _F =20mA
Reverse Current	I _R	---	---	100	μA	V _R =5V

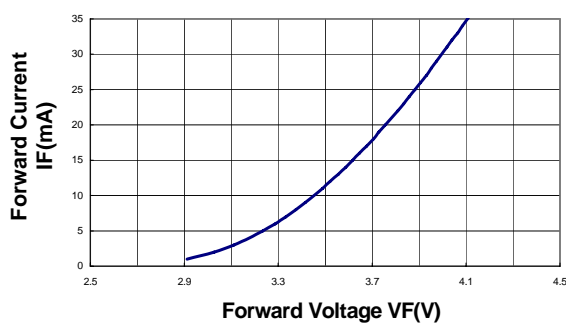
Notes:

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

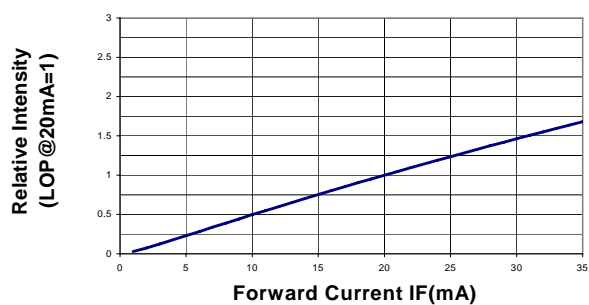
Typical Electrical / Optical Characteristics Curves
 (25°C Ambient Temperature Unless Otherwise Noted)



Forward Current vs Forward Voltage



Relative Luminous Intensity vs Forward Current



Beam Pattern

