LL-309UZC2E-001

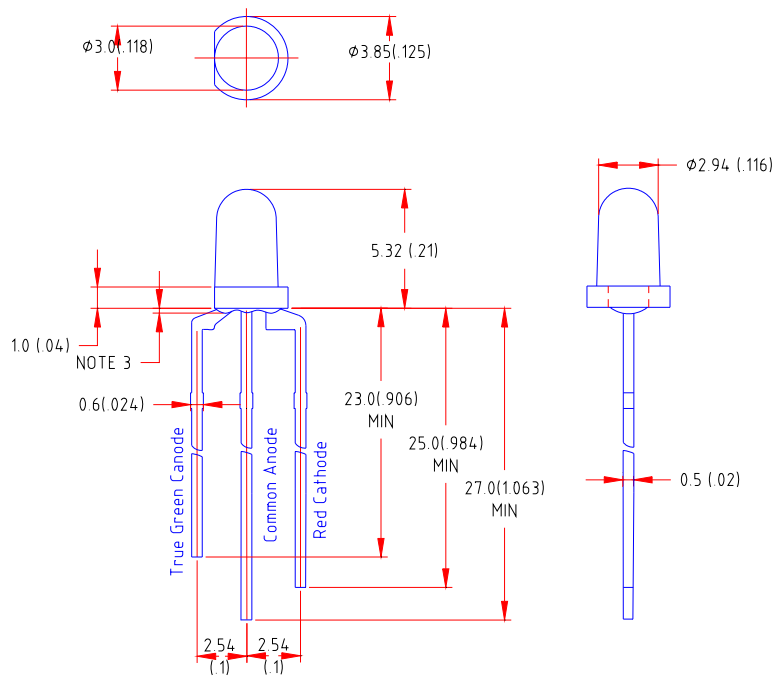
DATA SHEET

QC: ENG: Prepared By:

Features:

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

Package Dimensions:



Part NO.	Chip Material		Lens Color	Source Color
LL-309UZC2E-001	Red	True Green	Water Clear	Red & True Green
	AlGaAs	GaInN		

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 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℃

Parameter	MAX.	Unit
Power Dissipation	100	mW
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	100	mA
Continuous Forward Current	30	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℃

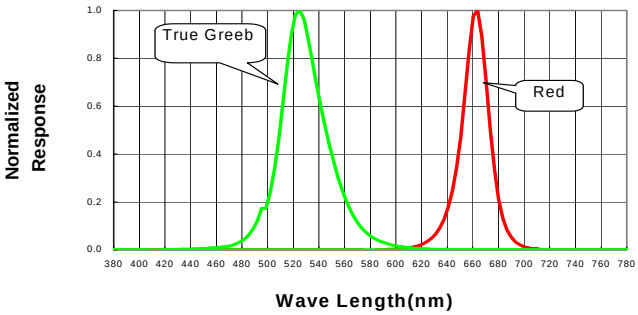
Parameter	Symbol	Emitting Color	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	I_v	Red	70	150	300	mcd	I_f=20mA Note 1
		True Green	1200	2500	5000		
Viewing Angle	$2\theta_{1/2}$	Red	30	35	40	Deg	Note 2
		True Green	30	35	40		
Peak Emission Wavelength	λp	Red	655	660	665	nm	I_f=20mA
		True Green	520	525	530		
Dominant Wavelength	λd	Red	635	640	645	nm	I_f=20mA Note 3
		True Green	530	535	540		
Spectral Line Half-Width	$\triangle\lambda$	Red	20	25	30	nm	I_f=20mA
		True Green	25	35	40		
Forward Voltage	V_f	Red	1.6	2.0	2.6	V	I_f=20mA
		True Green	2.8	3.2	4.0		
Reverse Current	I_R	Red	---	---	100	μA	V_R=5V
		True Green					

Notes:

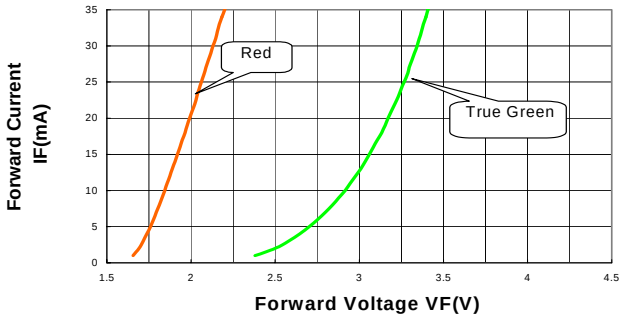
1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
2. $\theta_{1/2}$ is the off-axis angle at which the luminous intensity is half the axial luminous intensity.
3. The dominant wavelength (λ) is derived from the CIE chromaticity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

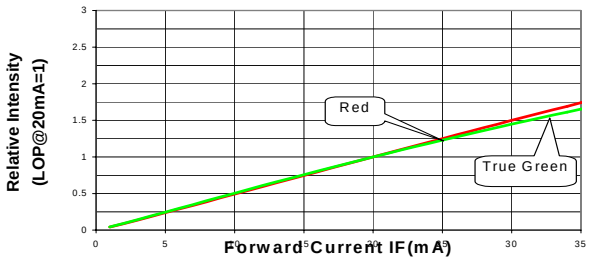
Spectral Radiance Red Peak @ 660nm
True Green Peak @ 525nm



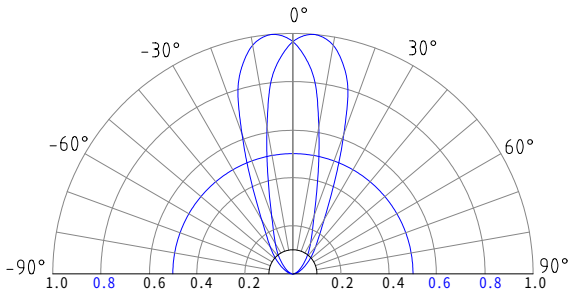
Forward Current
vs Forward Voltage



Relative Luminous Intensity
vs Forward Current



Beam Pattern



Relative Intensity (LOP @ MAX=1)