LL-503SGM2E-001

5Ø Bi-color (Red & Green), 2 pin, White Diffused

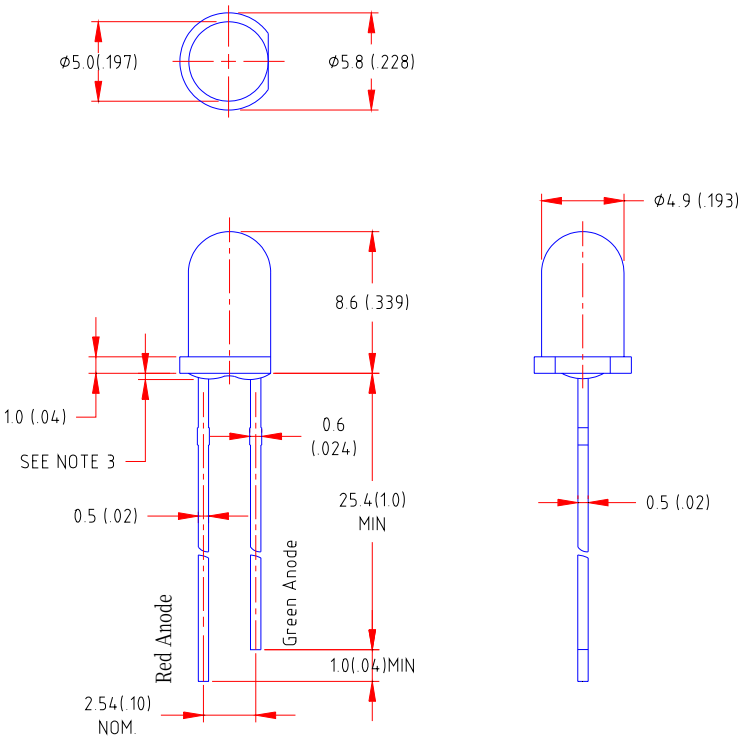
DATA SHEET

QC: ENG: Prepared By:

Features

- High intensity
- Standard T-1 3/4 diameter package
- Wide viewing angle
- General purpose leads
- Reliable and rugged

Package Dimension:



Part NO.	Lens Color	Source Color
LL-503SGM2E-001	White Diffused	Red & Green

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

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	40	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℃

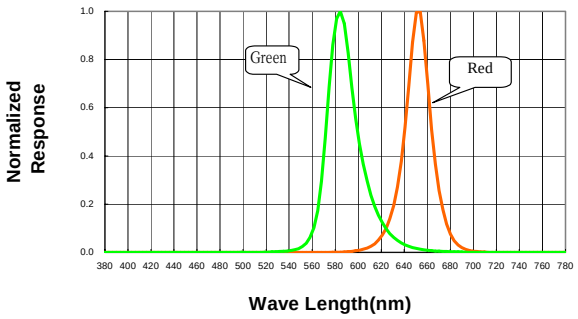
Parameter	Symbol	Emitting Color	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	Iv	Green	23	60	110	mcd	I_f=20mA Note 1
		Red	23	60	110		
Viewing Angle	$2\theta_{1/2}$	Green	40	50	60	Deg	Note 2
		Red	40	50	60		
Peak Emission Wavelength	λp	Green	560	564	564	nm	I_F=20mA
		Red	656	660	664		
Dominant Wavelength	λd	Green	564	571	576	nm	I_F=20mA Note 3
		Red	630	635	640		
Spectral Line Half-Width	$\triangle\lambda$	Green	25	30	35	nm	I_F=20mA
		Red	20	25	30		
Forward Voltage	V_F	Green	1.7	2.2	2.6	V	I_F=20mA
		Red	1.5	1.85	2.4		
Reverse Current	I_R	Green	---	---	100	μA	V_R=5V
		Red					

Note:

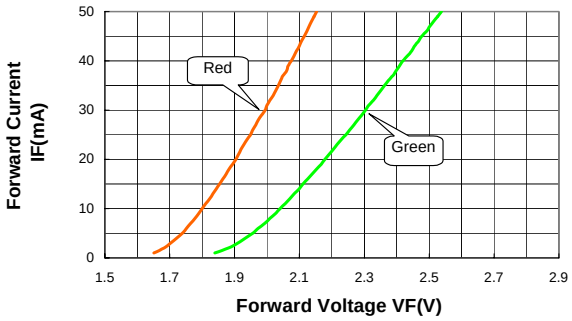
1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
2. $\theta_{1/2}$ is the off-axis angle at which the luminous intensity is half the axial luminous intensity.
3. The dominant wavelength (λd) is derived from the CIE chromaticity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

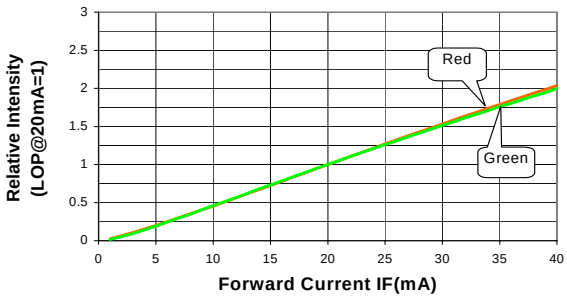
Spectral Radiance Green Peak @ 568nm
Red Peak @ 660nm



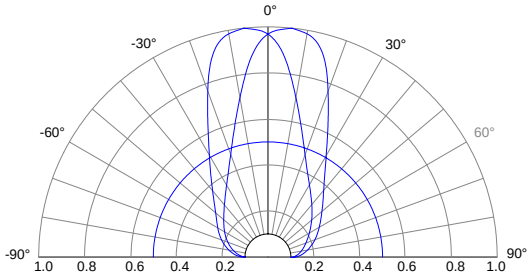
Forward Current
vs Forward Voltage



Relative Luminous Intensity
vs Forward Current



Beam Pattern



Relative Intensity (LOP@MAX=1)