

LL-503ID2E

DATA SHEET

QC:

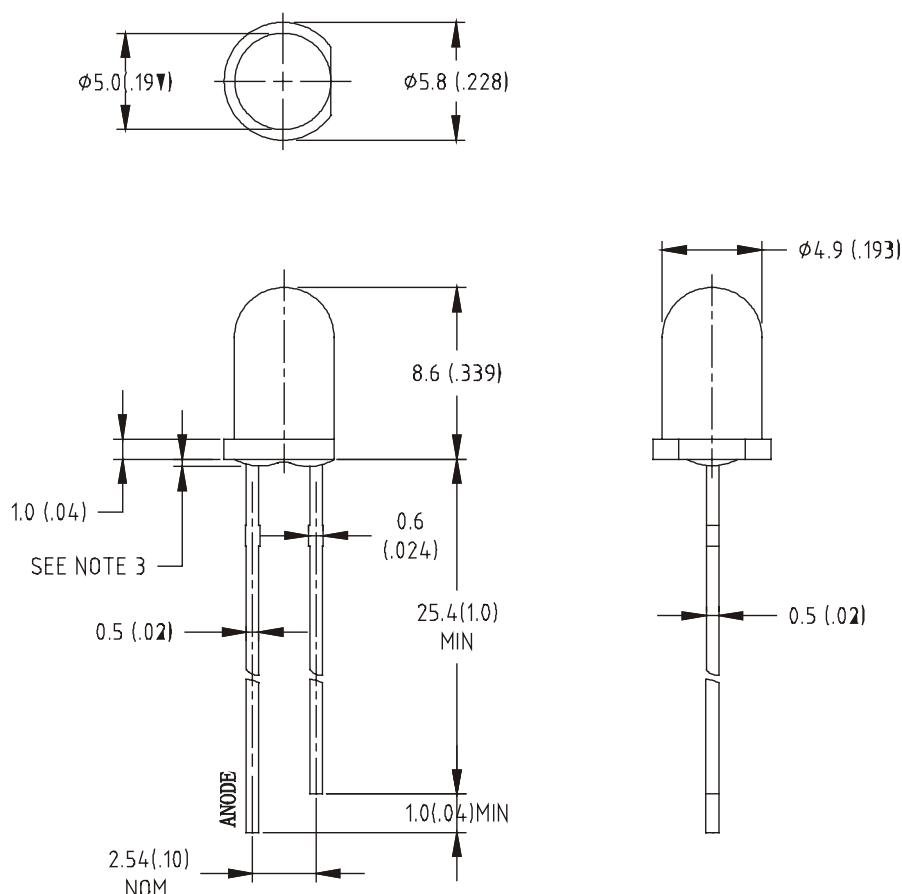
ENG:

Prepared By:

Features

- ◆ 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-503ID2E	Orange Diffused	Orange

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

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	50	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

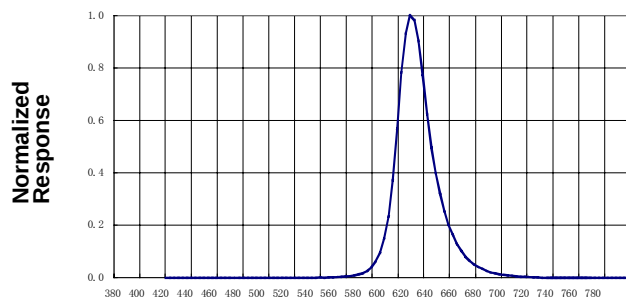
Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	I _v	40	45	---	mcd	I _F =20mA (Note 1)
Viewing Angle	2 $\theta_{1/2}$	---	50	---	Deg	(Note 2)
Peak Emission Wavelength	λ_p	---	630	---	nm	I _F =20mA
Dominant Wavelength	λ_d	---	631	---	nm	I _F =20mA (Note 3)
Spectral Line Half-Width	$\Delta \lambda$	---	42	---	nm	I _F =20mA
Forward Voltage	V _F	---	2.0	2.8	V	I _F =20mA
Reverse Current	I _R	---	---	100	μA	V _R =5V

Note:

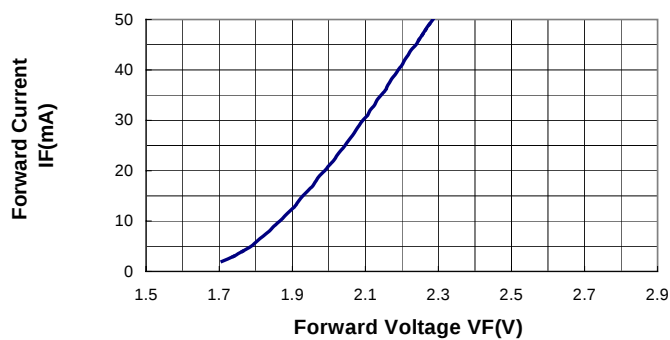
1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
2. $\theta_{1/2}$ is the off-axis angle at which the luminous intensity is half the axial luminous intensity.
3. The dominant wavelength (λ_d) is derived from the CIE chromaticity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

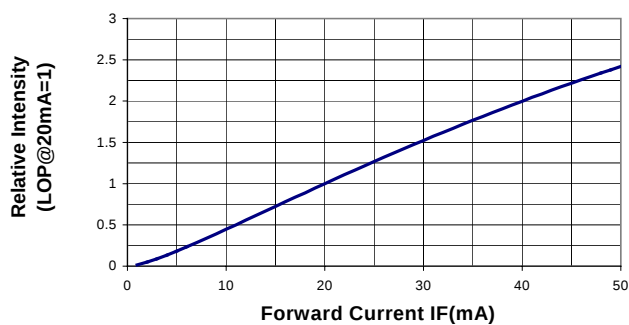
Spectral Radiance (Peak @ 630nm)



**Wave Length(nm)
Forward Current
vs Forward Voltage**



**Relative Luminous Intensity
vs Forward Current**



Beam Pattern

