

LL-503HD2E

DATA SHEET

QC:

ENG:

Prepared By:

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

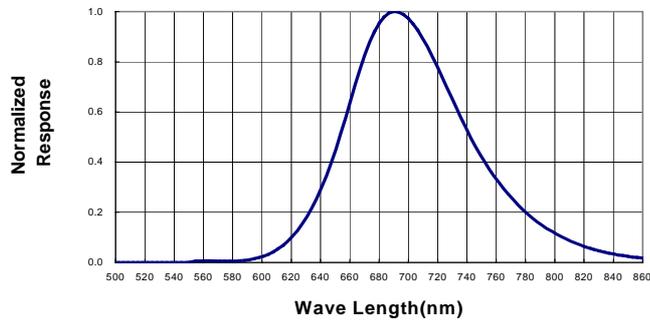
Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	I _v		2.0	---	mcd	I _F =20mA (Note 1)
Viewing Angle	2θ _{1/2}	---	35	---	Deg	(Note 2)
Peak Emission Wavelength	λ _p	---	700		nm	I _F =20mA
Dominant Wavelength	λ _d		697		nm	I _F =20mA (Note 3)
Spectral Line Half-Width	Δλ	---	90	---	nm	I _F =20mA
Forward Voltage	V _F	1.7	2.1	2.80	V	I _F =20mA
Reverse Current	I _R	---	---	100	μA	V _R =5V

Note:

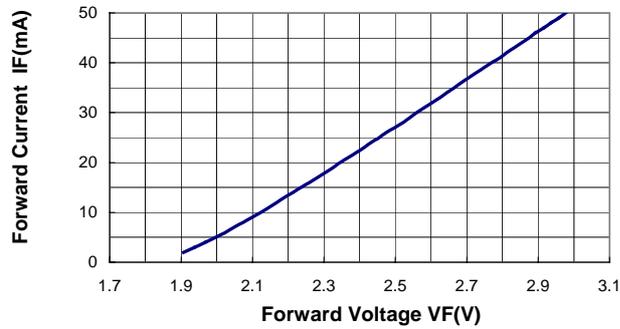
- Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
- θ_{1/2} is the off-axis angle at which the luminous intensity is half the axial luminous intensity.
- The dominant wavelength (λ_d) is derived from the CIE chromaticity diagram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

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

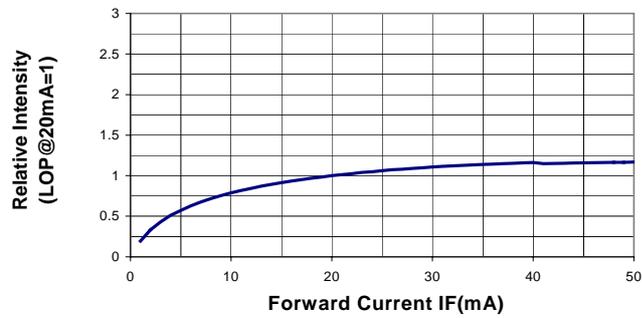
Spectral Radiance (Peak @ 700nm)



Forward Current vs Forward Voltage



Relative Luminous Intensity vs Forward Current



Beam Pattern

