

LL-S190BC

DATA SHEET

QC:

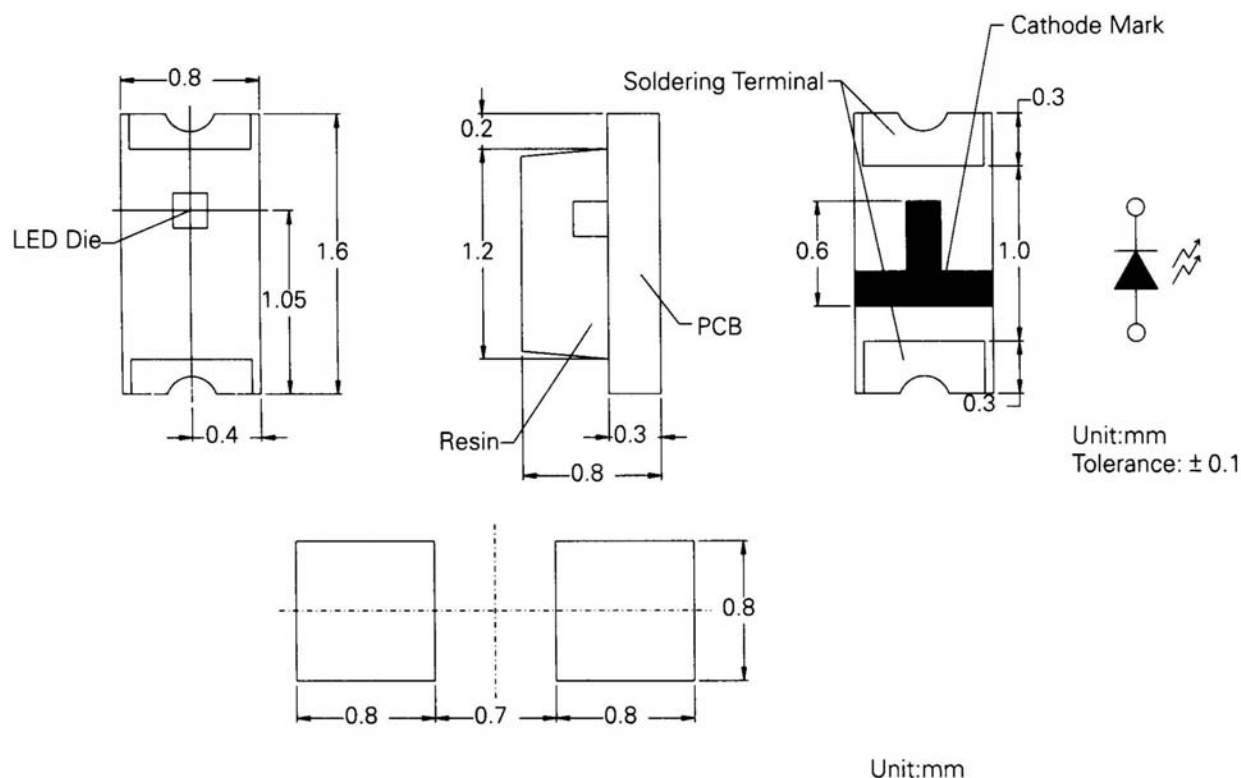
ENG:

Prepared By:

Features

- ◆ High intensity
- ◆ 1.6x0.8x0.8 mm (0603 SMD) package
- ◆ Wide viewing angle
- ◆ General purpose leads
- ◆ Reliable and rugged

Package Dimension:



Part NO.	Lens Color	Source Color
LL-S190BC	Water Clear	Super Bright Blue

Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.10(.004")$ unless otherwise specified.
3. Specifications are subject to change without notice.
4. Caution in ESD:
Static Electricity and surge damages the LED. It is recommend to use a wrist band or anti-electrostatic glove when handling the LED. All devices, equipment and machinery must be properly grounded.

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	35	mA
Derating Linear From 50°C	0.4	mA/°C
Reverse Voltage	5	V
Operating Temperature Range	-30°C to +80°C	
Storage Temperature Range	-40°C to +85°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	15	40	60	mcd	I _F =20mA (Note 1)
Viewing Angle	2 $\theta_{1/2}$	100	120	140	Deg	(Note 2)
Peak Emission Wavelength	λ_p	463	468	473	Nm	I _F =20mA
Dominant Wavelength	λ_d	460	470	480	Nm	I _F =20mA (Note 3)
Spectral Line Half-Width	$\Delta \lambda$	35	40	45	Nm	I _F =20mA
Forward Voltage	V _F	2.8	3.5	4.0	V	I _F =20mA
Reverse Current	I _R	---	---	50	μA	V _R =5V

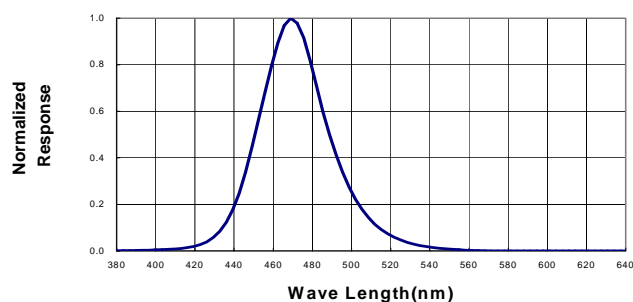
Note:

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.

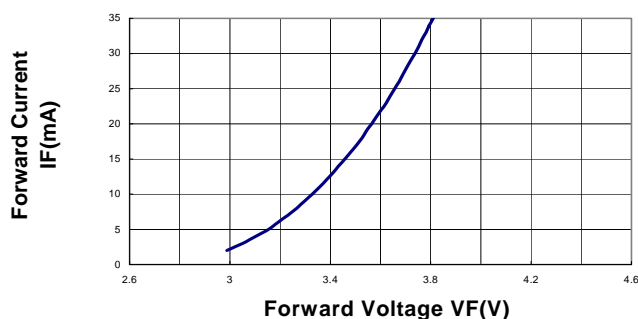
Typical Electrical / Optical Characteristics Curves

25°C Ambient Temperature Unless Otherwise Noted)

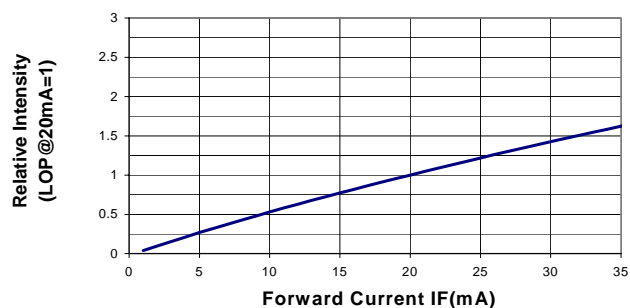
Spectral Radiance (Peak @ 468nm)



Forward Current vs Forward Voltage



Relative Luminous Intensity vs Forward Current



Beam Pattern

