

LL-S110UC

DATA SHEET

QC:

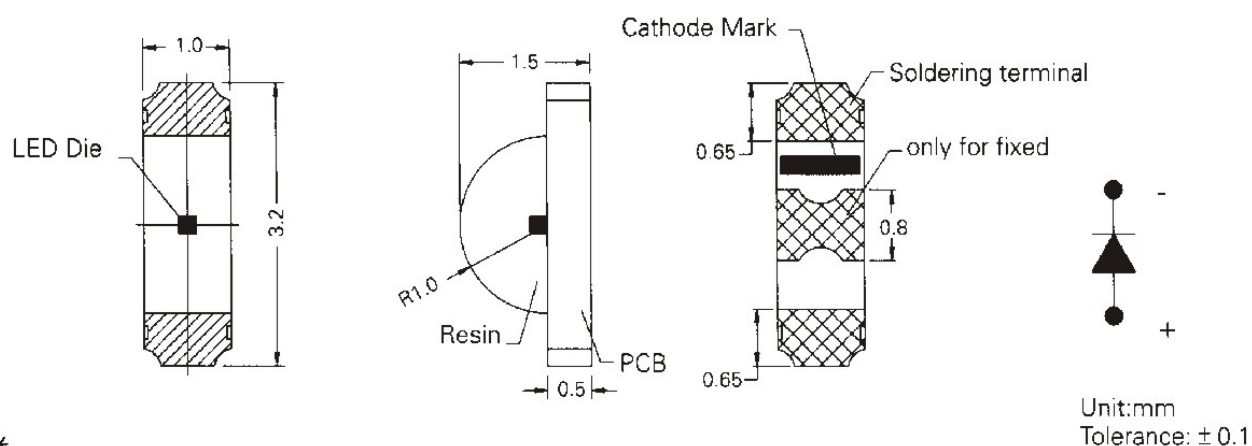
ENG:

Prepared By:

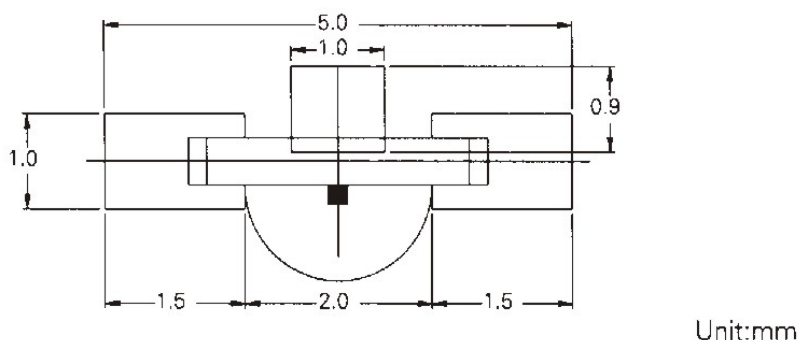
Features

- ◆ Compatible with automatic placement equipment.
- ◆ Compatible with infrared and vapor phase reflow solder process
- ◆ Mono-color type
- ◆ General purpose leads
- ◆ Reliable and rugged

Package Dimension:



* Polarity referring onto the cathode mark is reversed on the UR/HR/SR



Part NO.	Chip Material	Lens Color	Source Color
LL-S110UC	AlGaGs	Water Clear	Super Red

Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.10(0.004")$ 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	30	48	---	mcd	I _F =20mA (Note 1)
Viewing Angle	2 $\theta_{1/2}$	---	140	---	Deg	(Note 2)
Peak Emission Wavelength	λ_p	655	660	665	Nm	I _F =20mA
Dominant Wavelength	λ_d	633	643	653	Nm	I _F =20mA (Note 3)
Spectral Line Half-Width	$\triangle \lambda$	35	40	45	Nm	I _F =20mA
Forward Voltage	V _F	---	1.85	2.5	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.

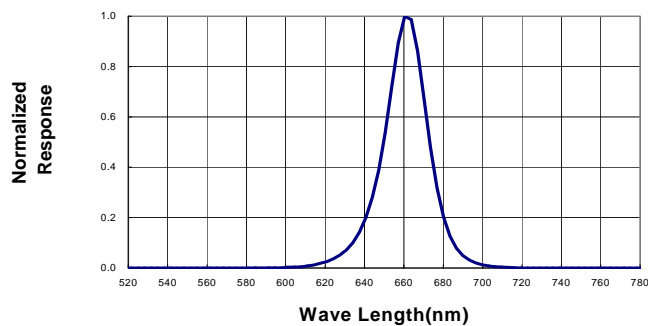


LUCKY LIGHT

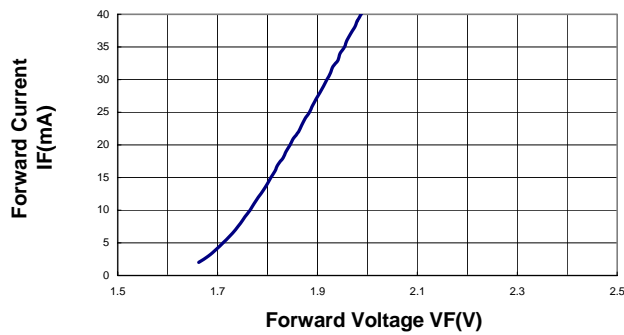
Typical Electrical / Optical Characteristics Curves

25°C Ambient Temperature Unless Otherwise Noted)

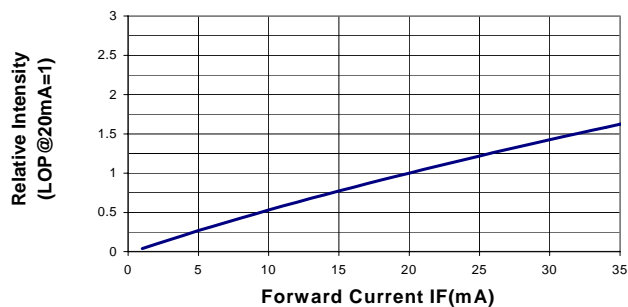
Spectral Radiance (Peak @ 660nm)



Forward Current vs Forward Voltage



Relative Luminous Intensity vs Forward Current



Beam Pattern

