

# Preliminary

## LL-U45A1C-001

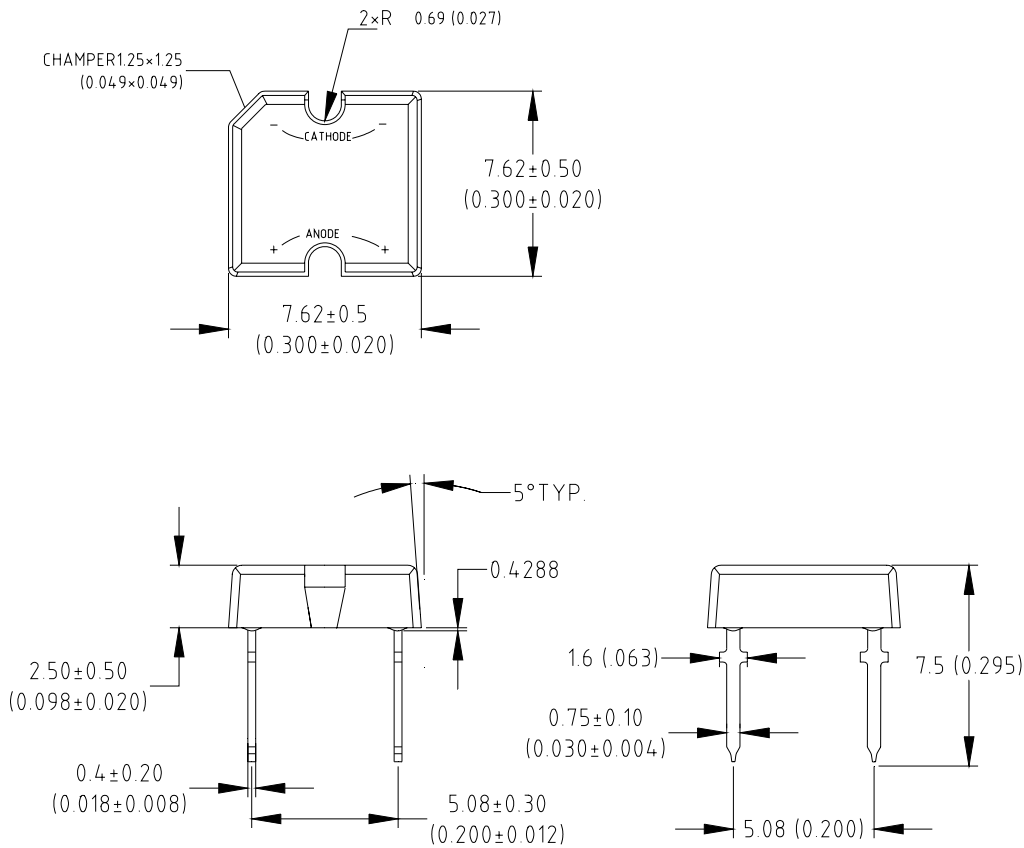
### DATA SHEET

QC :

ENG :

Prepared By:

## Package Dimensions:



Part NO.	Chip Material	Lens Color	Source Color
LL-U45A1C-001	AlGaInP	Water Clear	Super Bright Amber

### Notes:

- All dimensions are in millimeters (inches).
- Tolerance is  $\pm 0.25\text{mm}$  (.010") unless otherwise noted.
- Protruded resin under flange is 1.0mm (.04") max.
- Lead spacing is measured where the leads emerge from the package.
- Specifications are subject to change without notice.
- Precautions for ESD:  
 STATIC SHIELD Electricity and surge damages the LED. It is recommended to use a wrist band or anti-electrostatic glove when handling the LED. All devices, equipment and machinery must be properly grounded.
- This data-sheet only valid for six months.

### Absolute Maximum Ratings at Ta=25

Parameter	MAX.	Unit
Power Dissipation	90	mW
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	100	mA
Continuous Forward Current	30	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

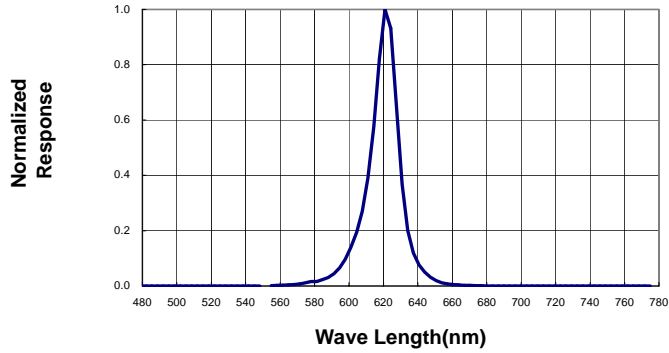
Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	$I_v$	150	350	750	mcd	$I_f=20mA$ (Note 1)
Viewing Angle	$2_{1/2}$	125	135	145	Deg	(Note 2)
Peak Emission Wavelength	$\lambda_p$	615	620	625	nm	$I_f=20mA$
Dominant Wavelength	$\lambda_d$	610	615	620	nm	$I_f=20mA$ (Note 3)
Spectral Line Half-Width		15	20	25	nm	$I_f=20mA$
Forward Voltage	$V_f$	1.8	2.1	2.5	V	$I_f=20mA$
Reverse Current	$I_R$	---	---	100	$\mu A$	$V_R=5V$

#### Notes:

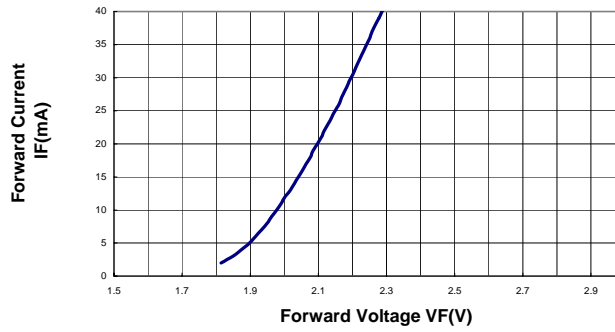
- 1.Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
2.  $_{1/2}$  is the off-axis angle at which the luminous intensity is half the axial luminous intensity
- 3.The dominant wavelength ( $\lambda_d$ ) is derived from the CIE chromaticity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

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

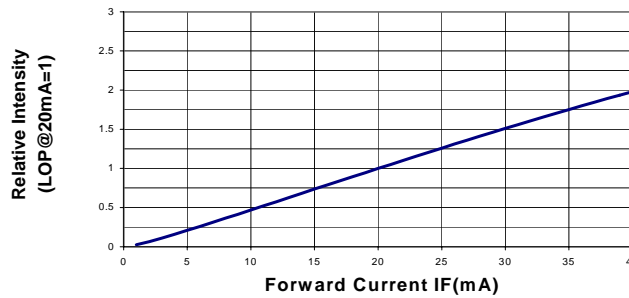
**Spectral Radiance (Peak @ 620 nm)**



**Forward Current vs Forward Voltage**



**Relative Luminous Intensity vs Forward Current**



**Beam Pattern**

