

# Preliminary

## LL-U46B1C-012

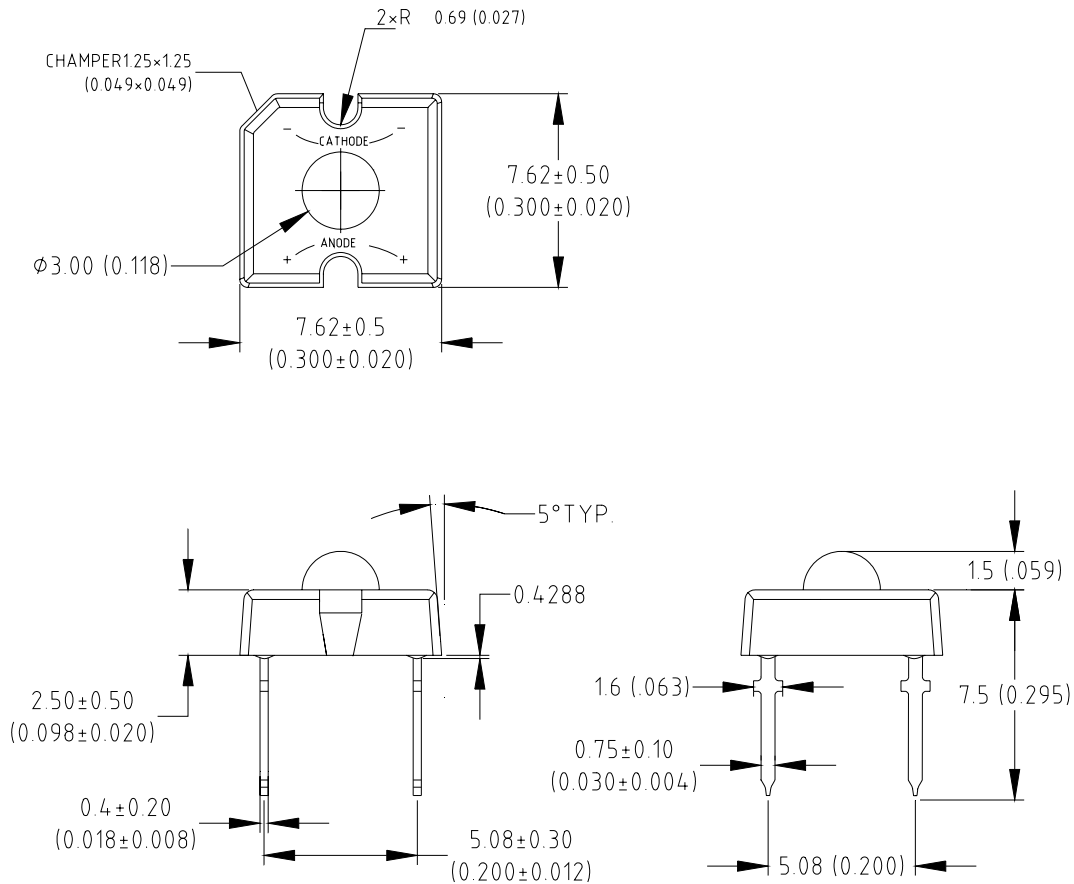
### DATA SHEET

QC :

ENG :

Prepared By:

## Package Dimension:



Part NO.	Chip Material	Lens Color	Source Color
LL-U46B1C-012	GaInN	Water Clear	Super Bright Blue

### 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 $T_a=25$

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Parameter	MAX.	Unit
Power Dissipation	120	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	

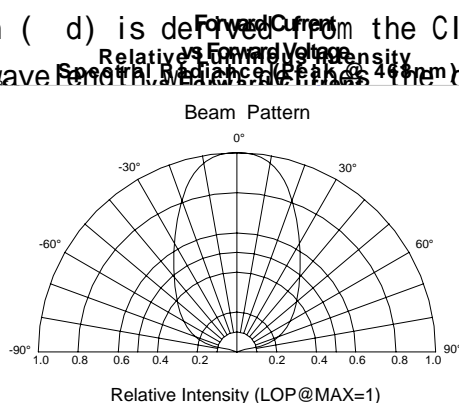
### Electrical Optical Characteristics at Ta=25

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	$I_v$	160	350	700	mcd	$I_f=20\text{mA}$ (Note 1)
Viewing Angle	$2_{1/2}$	70	80	90	Deg	(Note 2)
Peak Emission Wavelength	$\rho$	463	468	473	nm	$I_f=20\text{mA}$
Dominant Wavelength	$d$	460	470	480	nm	$I_f=20\text{mA}$ (Note 3)
Spectral Line Half-Width		20	25	30	nm	$I_f=20\text{mA}$
Forward Voltage	$V_f$	2.8	3.5	4.0	V	$I_f=20\text{mA}$
Reverse Current	$I_R$	---	---	100	$\mu\text{A}$	$V_R=5\text{V}$

#### Notes:

- 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
- The dominant wavelength ( $d$ ) is derived from the CIE chromaticity diagram and represents the single wavelength that has the same color as the device.

Typical Electrical / Optical Characteristics  
(25 Ambient Temperature)



Part No. LL-U46B1

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Version:1.0