

# ВЫВОДНОЙ СВЕТОДИОД КРУГЛЫЙ

**ARL-3014URBC-B**

## FEATURES

- Electricity control IC embedded.
- Fancy, fun, hottest in the market.
- Lens size with 5/8/10 mm options.
- Viewing angles 40°.
- Operating voltage range: DC 3–5 V.
- Blinking frequency: 1.8 Hz.
- Frequency tolerance: ±20%.
- RoHS compliant.

## DESCRIPTIONS

- New trend creations.
- Low energy consumptions.
- Low maintenance costs.
- High application design flexibility.
- High reliability.

## APPLICATIONS

- Toys / sports utilities.
- Miniature key chains.
- Effect lights.
- Display / decoration lights.
- Electronic displays and signals.
- Interior decoration lights.
- Indicator lights.
- Solar energy lights / garden lights.

## DEVICE SELECTION GUIDE

LED Part No.	CHIP		Lens Color
	Material	Emitted Color	
<b>ARL-3014URBC-B</b>	<b>AlGaInP</b>	<b>Red</b>	<b>Water clear</b>
	<b>InGaN</b>	<b>Blue</b>	



3 mm



CLEAR



### USAGE NOTES:

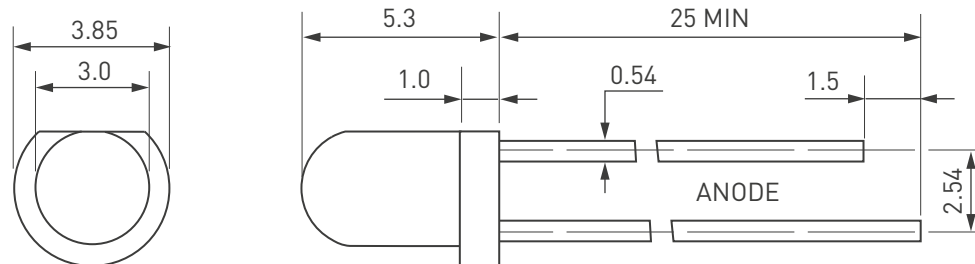
Surge will damage the LED.

When using LED, it must use a protective resistor in series with DC current about 20 mA.



**ATTENTION!**  
ELECTROSTATIC SENSITIVE DEVICES.  
OBSERVE PRECAUTIONS FOR HANDLING.

## PACKAGE DIMENSIONS



Unit: mm.

### Notes:

Other dimensions are in millimeters, tolerance is 0.25 mm except being specified.

Protruded resin under flange is 1.5 mm Max LED.

Bare copper alloy is exposed at tie-bar portion after cutting.

## ABSOLUTE MAXIMUM RATING ( $T_A = +25^\circ\text{C}$ )

Parameter	Symbol	Absolute Maximum Rating	Unit
Forward Pulse Current	$I_{FPM}$	100	mA
Forward Current	$I_{FM}$	30	mA
Reverse Voltage	$V_R$	5	V
Power Dissipation	$P_D$	140	mW
Operating Temperature	$T_{opr}$	-40... +80	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-40... +100	$^\circ\text{C}$
Soldering Heat (5s)	$T_{sol}$	260	$^\circ\text{C}$

## ELECTRO-OPTICAL CHARACTERISTICS ( $T_A = +25^\circ\text{C}$ )

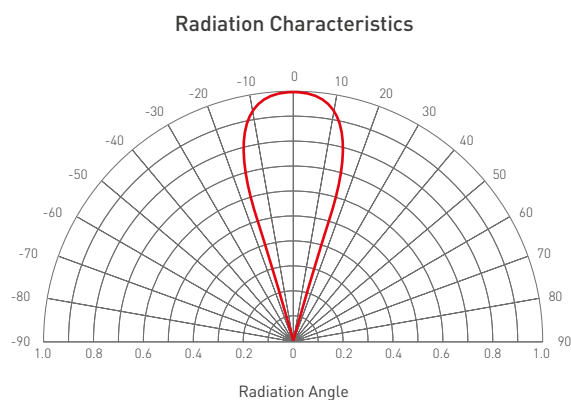
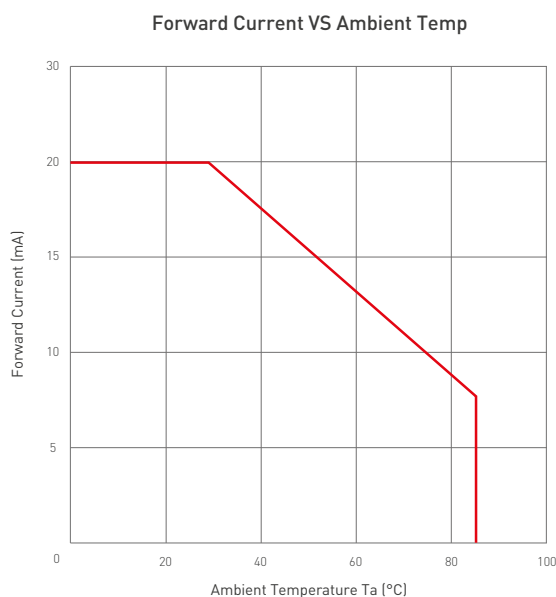
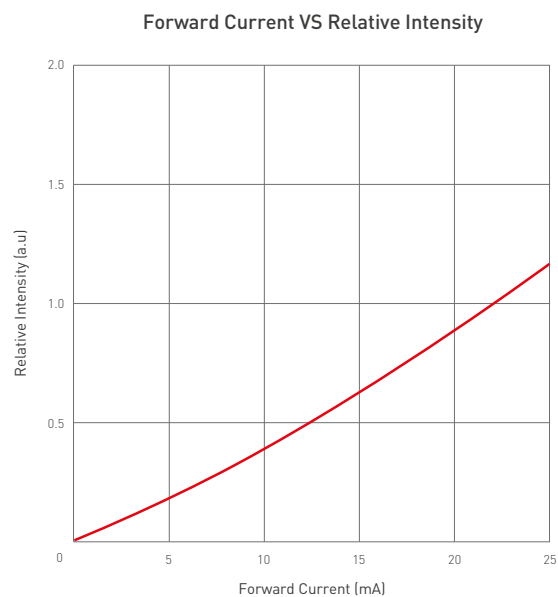
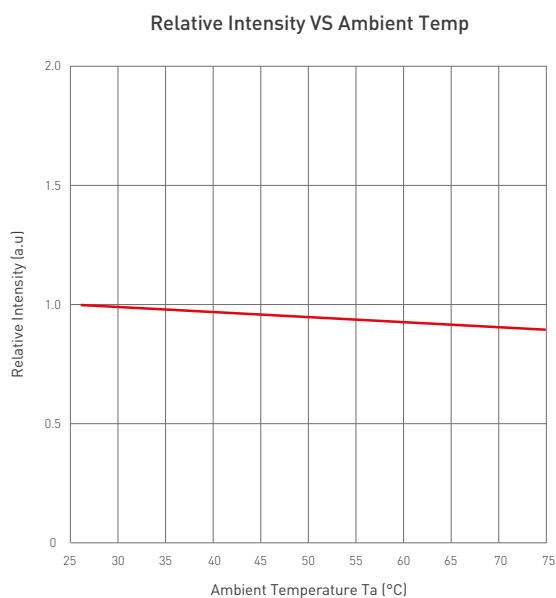
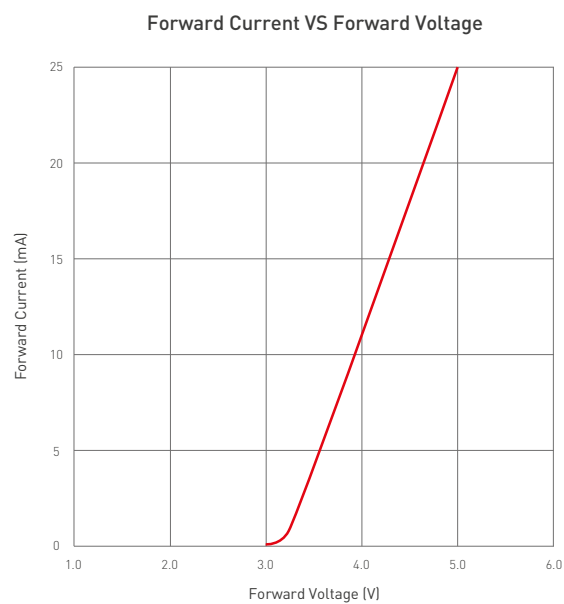
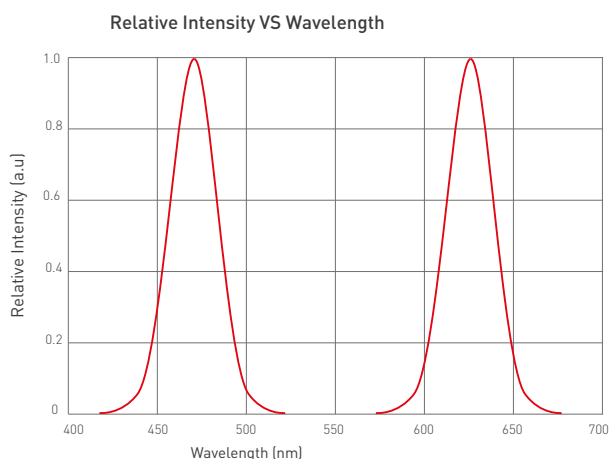
Parameter	Symbol	Device	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	$I_v$	Red	1000	—	2500	mcd	$I_f=20\text{mA}$
		Blue	1000	—	2000		
Viewing Angle	$2\theta_{1/2}$	Red	—	40	—	Deg	(Note 1)
		Blue	—	40	—		
Peak Emission Wavelength	$\lambda_p$	Red	620	625	630	nm	$I_f=20\text{mA}$
		Blue	460	465	470		
Spectral Line Half-Width	$\Delta\lambda$	Red	25	30	35	nm	$I_f=20\text{mA}$
		Blue	30	35	40		
Forward Voltage	$V_F$	Red	3.0	—	5.0	V	$I_f=20\text{mA}$
		Blue					
Reverse Current	$I_R$	Red	—	—	10	$\mu\text{A}$	$V_R=5\text{V}$
		Blue					
Blinking Frequency				1.8		Hz	$V_R=5\text{V}$

### 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.

# TYPICAL ELECTRO-OPTICAL CHARACTERISTICS CURVES



## NOTES

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