

# ВЫВОДНОЙ СВЕТОДИОД КРУГЛЫЙ ARL-3014UYD-B

## FEATURES

- Electricity control IC embedded.
- Fancy, fun, hottest in the market.
- Lens size with 5/8/10 mm options.
- Viewing angle: 45°.
- Operating voltage range: DC 3–5 V.
- Blinking frequency: 1.5 Hz.
- Frequency tolerance:  $\pm 20\%$ .
- 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-3014UYD-B</b>	<b>AlGaInP</b>	<b>Yellow</b>	<b>Yellow Diffused</b>



3 mm



DIFFUSED



YELLOW



### USAGE NOTES:

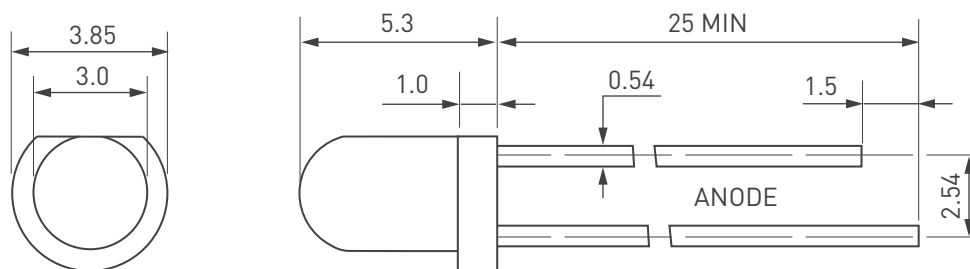
Surge will damage the LED.

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.

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

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

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

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	$I_v$	800	—	1000	mcd	$I_f = 20\text{mA}$ (Note 1)
Viewing Angle	$2\theta_{1/2}$	—	45	—	Deg	Note 2
Peak Emission Wavelength	$\lambda_P$	585	588	592	nm	$I_f = 20\text{mA}$
Spectral Line Half-Width	$\Delta\lambda$	15	20	25	nm	$I_f = 20\text{mA}$
Turn on Time	Duty	—	1/20	—	ms	$I_f = 20\text{mA}$
Blinking Frequency	$F_{led}$	—	1.5	—	Hz	$I_f = 20\text{mA}$
Forward Voltage	$V_F$	3.0	—	5.0	V	$I_f = 20\text{mA}$
Reverse Current	$I_R$	—	—	10	$\mu\text{A}$	$V_R = 5\text{V}$

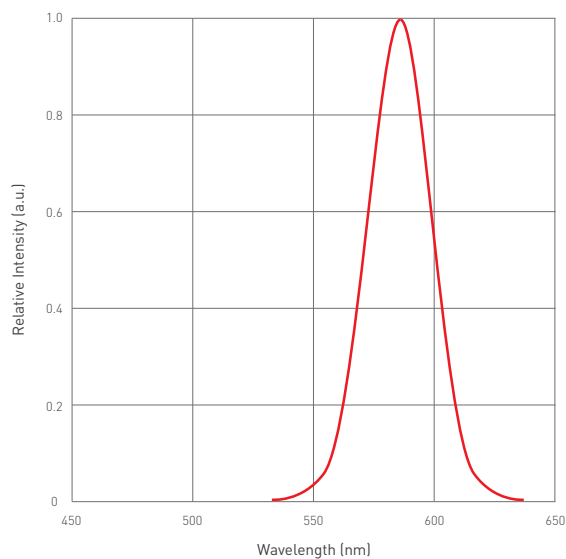
### Note:

1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.

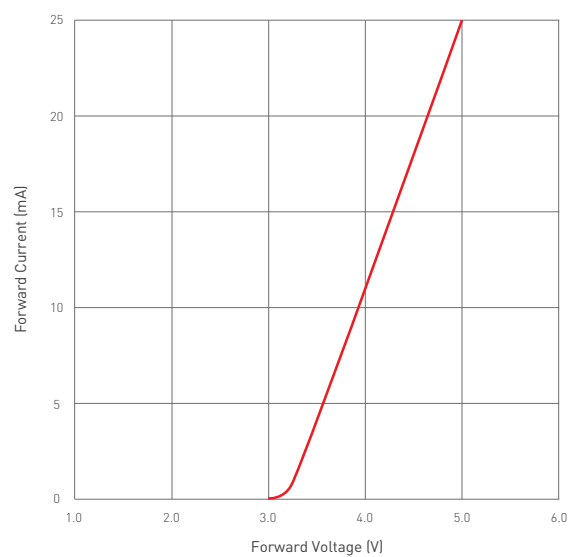
2.  $\theta_{1/2}$  is the off-axis angle at which the luminous intensity is half the axial luminous intensity.

# TYPICAL ELECTRO-OPTICAL CHARACTERISTICS CURVES

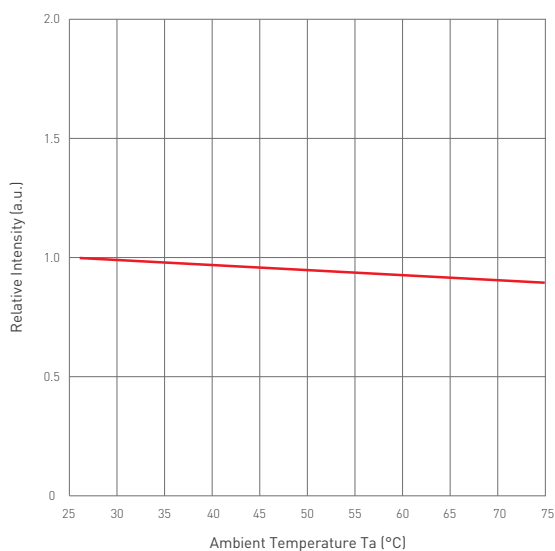
Relative Intensity VS Wavelength



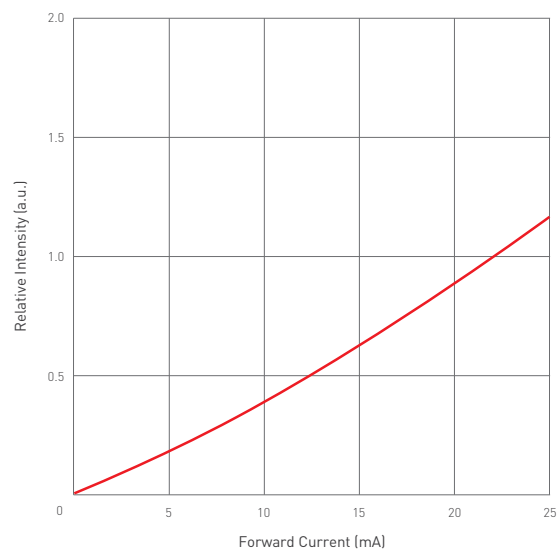
Forward Current VS Forward Voltage



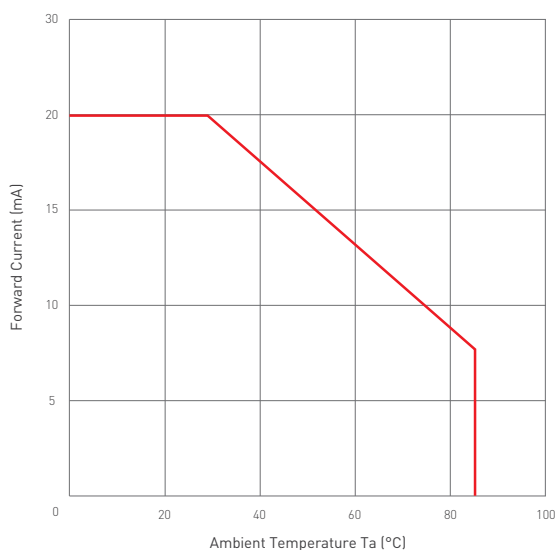
Relative Intensity VS Ambient Temp



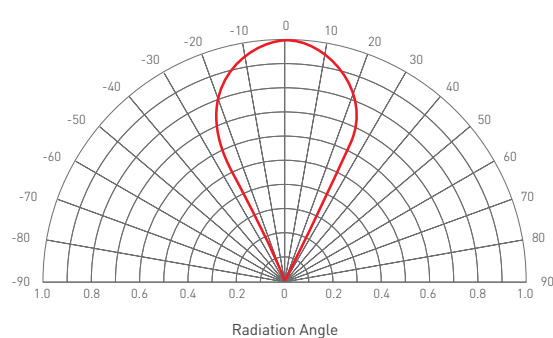
Relative Intensity VS Forward Current



Forward Current VS Ambient Temp



Radiation Characteristics



## NOTES

1. Above specification may be changed without notice. Hyled will reserve authority on material change for above specification.
2. When using this product, please observe the absolute maximum ratings and the instructions for using outlined in these specification sheets. Hyled assumes no responsibility for any damage resulting from use of the product which does not comply with the absolute maximum ratings and the instructions included in these specification sheets.
3. These specification sheets include materials protected under copyright of Hyled corporation. Please don't reproduce or cause anyone to reproduce them without Hyled's consent.