

ВЫВОДНОЙ СВЕТОДИОД КРУГЛЫЙ

ARL-3014UGD-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	
ARL-3014UGD-B	InGaN	Green	Diffused



3 mm



DIFFUSED



GREEN



USAGE NOTES:

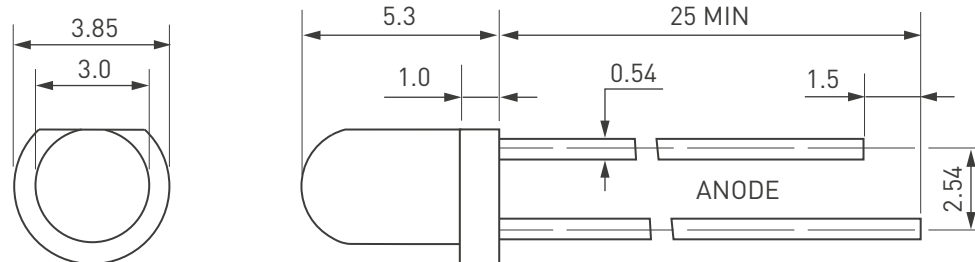
Surge will damage the LED.

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}	70	mA
Forward Current	I_{FM}	30	mA
Reverse Voltage	V_R	5	V
Power Dissipation	P_D	100	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	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	I_v	2000	—	3000	mcd	$I_f=20\text{mA}$ (Note 1)
Viewing Angle	$2\theta_{1/2}$	—	40	—	Deg	Note 2
Peak Emission Wavelength	λ_P	520	525	530	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	μA	$V_R=5\text{V}$

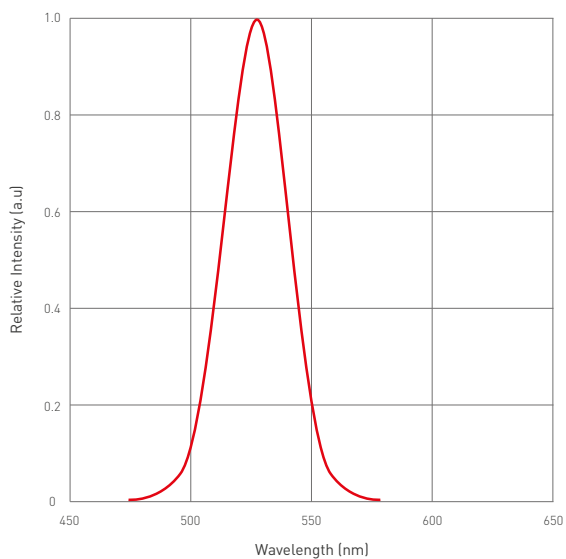
Note:

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

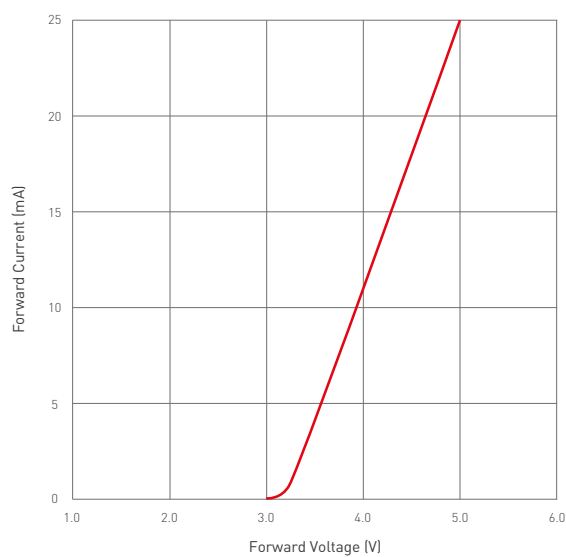
2. $\theta_{1/2}$ is the off-axis angle at which the luminous intensity is half the axial luminous intensity.

TYPICAL ELECTRO-OPTICAL CHARACTERISTICS CURVES

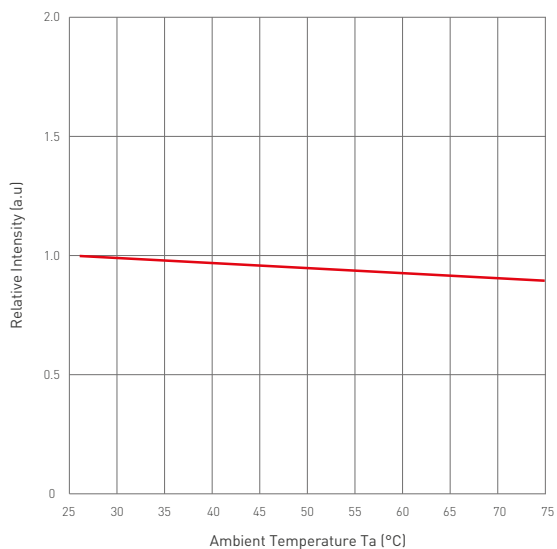
Relative Intensity VS Wavelength



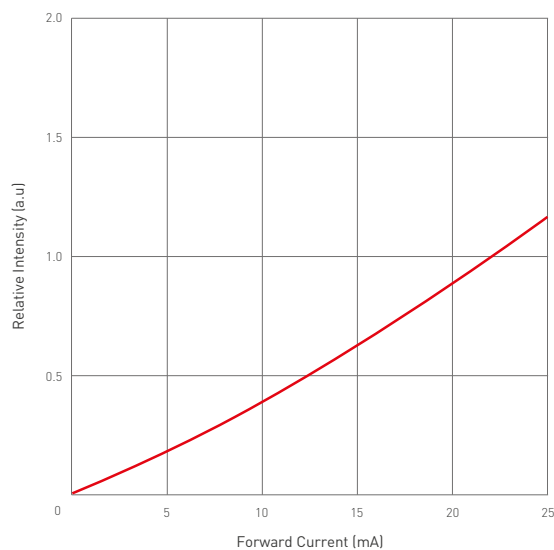
Forward Current VS Forward Voltage



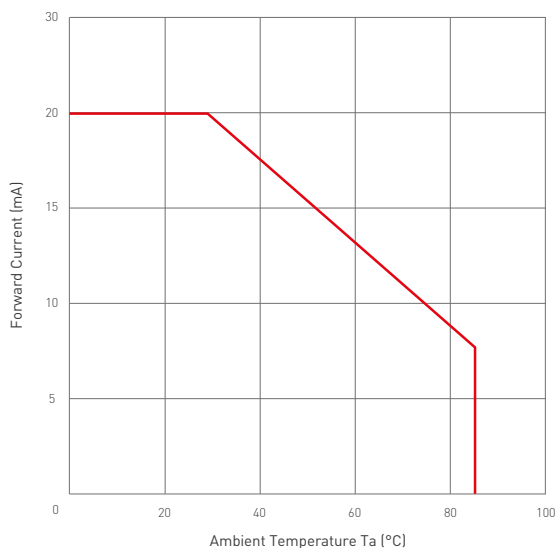
Relative Intensity VS Ambient Temp



Forward Current VS Relative Intensity



Forward Current VS Ambient Temp



Radiation Characteristics

