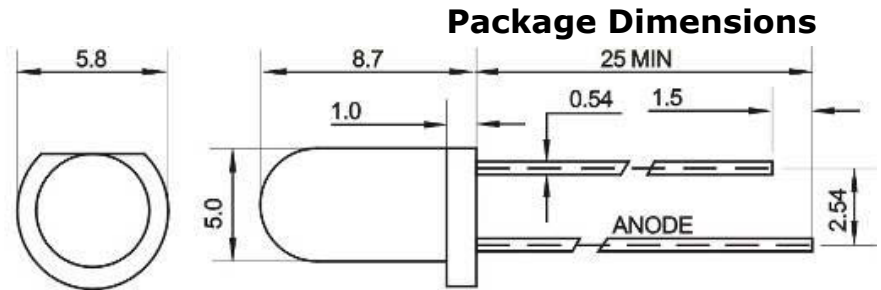




**ATTENTION**  
OBSERVE PRECAUTIONS  
FOR HANDLING  
ELECTROSTATIC  
DISCHARGE  
SENSITIVE  
DEVICES

## ARL-5013UBW-B

UNIT:mm



- Notes:**
1. Other dimensions are in millimeters, tolerance is 0.25mm except being specified.
  2. Protruded resin under flange is 1.5mm Max LED.
  3. Bare copper alloy is exposed at tie-bar portion after cutting

### Features

- Electricity control IC embedded
- Fancy, fun, hottest in the market.
- Lens size with 5mm / 8mm / 10mm options
- Viewing Angles 30°
- Operating voltage range : 3V-5V DC
- Blinking frequency : 1.8Hz
- Frequency tolerance : ±20%
- RoHS compliant

### 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

### Description

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

### Device Selection Guide

Part No.	Chip		Lens Color
	Material	Emitted Color	
ARL-5013UBW-B	InGaN	Blue	White Diffused

### Absolute Maximum Rating ( $T_a = 25^\circ\text{C}$ )

Parameter	Symbol	Absolute Maximum Rating	Units
Peak Forward Current (Duty /10 @ 1KHZ)	$I_{FPM}$	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 ~ +80	°C
Storage Temperature	$T_{stg}$	-40 ~ +100	°C
Soldering Temperature	$T_{sol}$	260	°C

**Electrical / Optical Characteristics at TA=25°C**

Parameter	Symbol	Min	Typ.	Max.	Units	Test Conditions
Luminous Intensity	I <sub>v</sub>	600	---	800	mcd	IF=20mA (Note 1)
Viewing Angle	2θ <sub>1/2</sub>	---	30	---	Deg	(Note 2)
Peak Emission Wavelength	λ <sub>p</sub>	460	465	470	nm	IF=20mA
Spectral Line Half-Width	λ	15	20	25	nm	IF=20mA
Turn on time	Duty		1/20		ms	IF=20mA
Blinking Frequency	Fled		1.8		Hz	IF=20mA
Forward Voltage	V <sub>F</sub>	3.0	---	5.0	V	IF=20mA
Reverse Current	I <sub>R</sub>	---	---	10	μA	VR=5V

- Notes:** 1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.  
2. θ<sub>1/2</sub> is the off-axis angle at which the luminous intensity is half the axial luminous intensity.