

ARL-5013URC-B (7206R1C-CSB-B)

Features

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

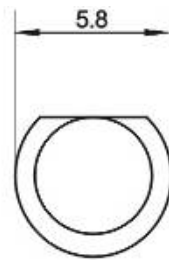
Description

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

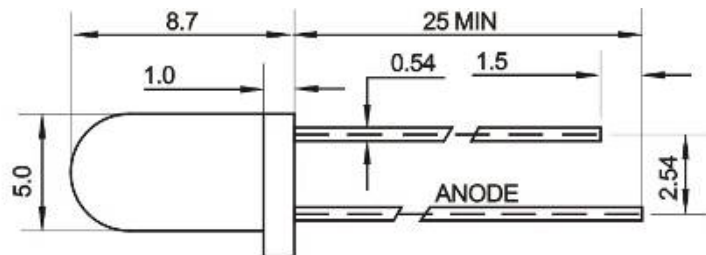
Application

- 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

Package Dimensions



UNIT:mm



Usage Notes:

1. Surge will damage the LED
2. When using LED, it must use a protective resistor in series with DC current about 20mA

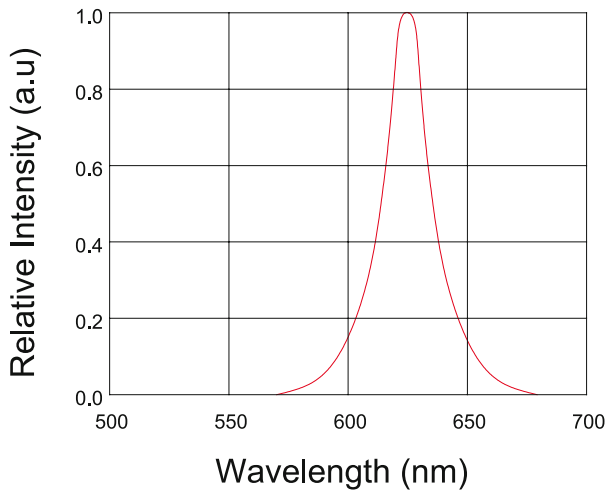
Part No.	Chip		Lens Color
	Material	Emitted Color	
ARL-5013URC-B (7206R1C-CSB-B)	AlGaInP	Red	Water clear

Absolute Maximum Rating at Ta=25°C

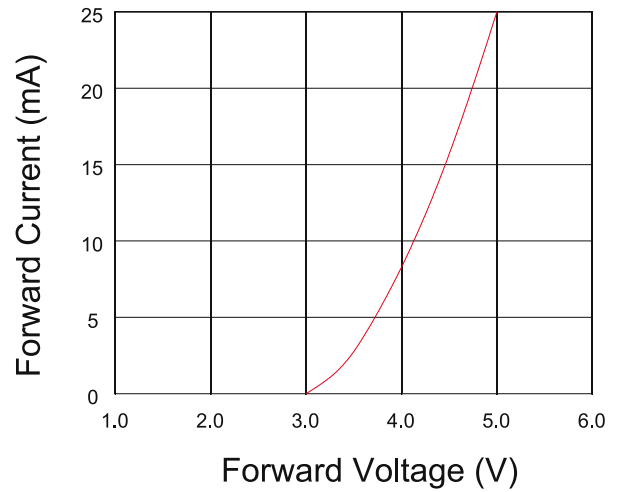
Parameter	Symbol	Value	Units
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	I_{FPM}	100	mA
Forward Current	I_{FM}	30	mA
Reverse Voltage	V_R	5	V
Power Dissipation	P_D	100	mW
Operating Temperature	T_{opr}	-40~+80	°C
Storage Temperature	T_{stg}	-40~+100	°C
Soldering Heat (5s)	T_{sol}	260	°C

Typical optical characteristics curves

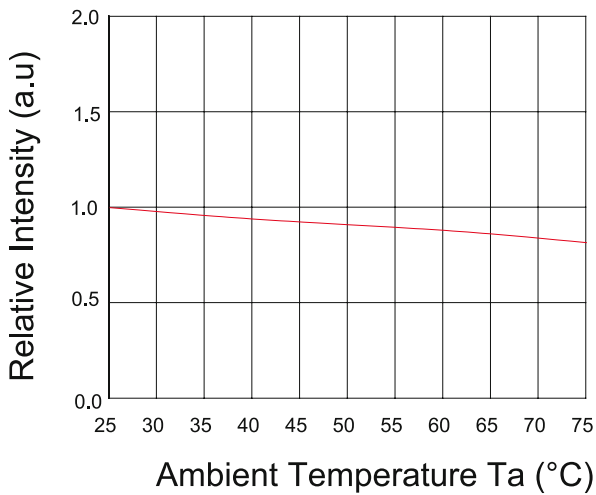
Relative Intensity VS. Wavelength



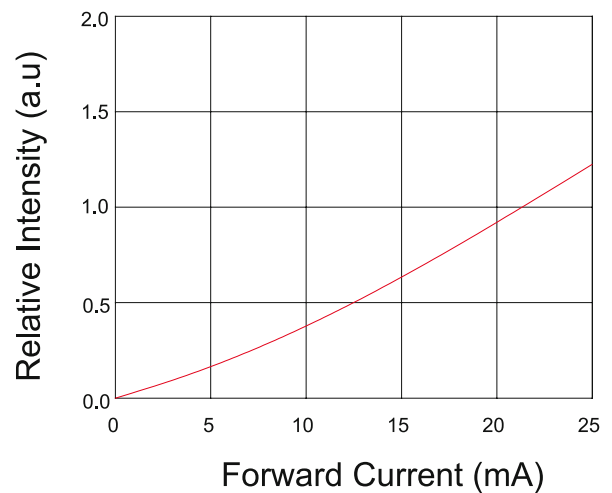
Forward Current VS. Forward Voltage



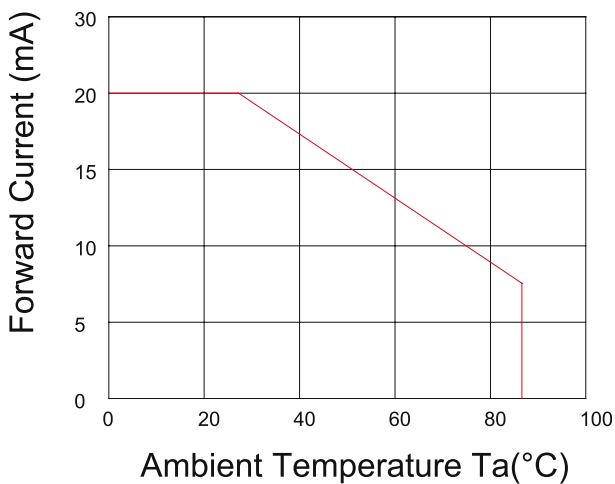
Relative Intensity VS. Ambient Temp



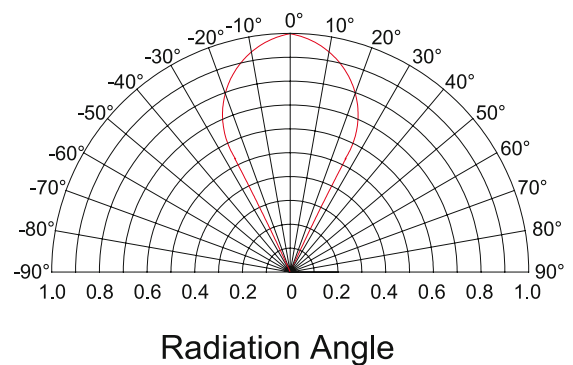
Forward Current VS. Relative Intensity



Forward Current VS. Ambient Temp.



Radiation Characteristics



Electrical / Optical Characteristics at Ta=25°C

Parameter	Symbol	Min.	Typ.	Max	Units	Test Conditions
Luminous Intensity	I _v	2000	--	4500	mcd	IF=20mA
Viewing Angle	2θ _{1/2}	--	40	--	Deg	(Note 2)
Peak Emission Wave-length	λ _p	620	630	635	nm	IF=20mA
Spectral Line Half-Width	Δλ	15	20	25	nm	IF=20mA
Turn on time	Duty		1/20		ms	IF=20mA
Blinking Frequency	Fled	1.8	--	2.4	Hz	IF=20mA
Forward Voltage	V _F	3.0	--	5.0	V	IF=20mA
Reverse Current	I _R	--	--	10	μA	VR = 5V

Note:

1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
2. θ_{1/2} is the off-axis angle at which the luminous intensity is half the axial luminous intensity.