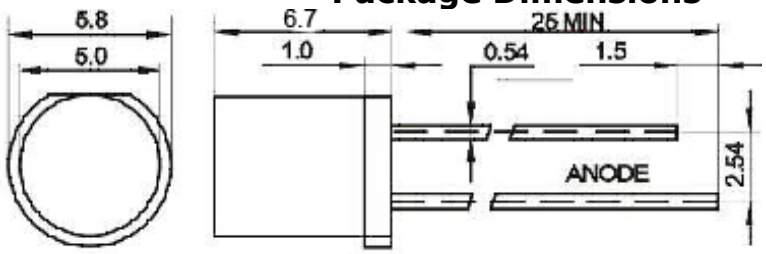
ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

ARL-5923URW-800mcd

Package Dimensions



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

- High efficiency
- Low Power consumption
- General purpose leads
- Selected minimum intensities
- Available on tape and reel
- Pb free

Applications

- Status indicators
- Commercial use
- Advertising Signs
- Back lighting

Usage Notes

The ultra bright LED is an electrostatic insensitive device,so static electricity and surge will damage the LED.It is required to wear a wrist-band when handling the LED. All device, equipment, machinery, desk and ground must be properly grounded
When using LED, it must use a protective resistor in series with DC current about 20mA

Description

- The series is specially designed for applications requiring higher brightness
- The LED lamps are available with different colors, intensities, epoxy colors, etc
- Superior performance in outdoor environment

Device Selection Guide

Part No.	Chip		Lens Color
	Material	Emitted Color	
ARL-5923URW-800mcd	AlGaInP	Red	White Diffused

Absolute Maximum Rating (T_a=25°C)

Parameter	Symbol	Absolute Maximum Rating	Units
Peak Forward Current (Duty /10 @ 1KHZ)	I_{FPM}	70	mA
Forward Current	I_{FM}	25	mA
Reverse Voltage	V_R	5	V
Power Dissipation	P_D	100	mW
Operating Temperature	Topr	-40 ~ +80	°C
Storage Temperature	Tstg	-40 ~ +100	°C
Soldering Temperature	Tsol	260	°C

Electrical / Optical Characteristics at TA=25°C

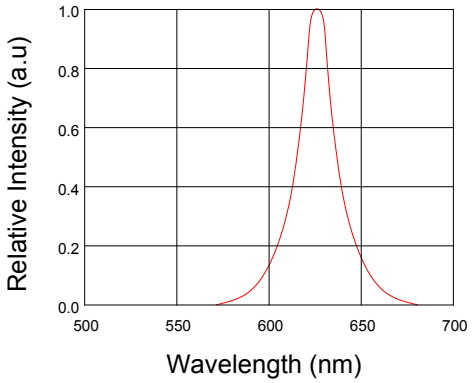
Parameter	Symbol	Min	Typ.	Max.	Units	Test Conditions
Luminous Intensity	Iv	500	---	800	mcd	IF=20mA (Note 1)
Viewing Angle	2θ1/2	80	---	100	Deg	(Note 2)
Peak Emission Wavelength	λp	620	625	630	nm	IF=20mA
Spectral Line Half-Width	λ	15	20	25	nm	IF=20mA
Forward Voltage	V_F	1.9	---	2.3	V	IF=20mA
Reverse Current	I_R	---	---	10	μA	VR=5V

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

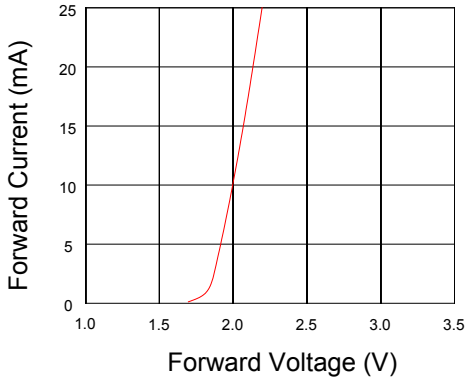
2. $\theta_{1/2}$ is the off-axis angle at which the luminous intensity is half the axial luminous intensity.

Typical Electro-Optical Characteristics Curves

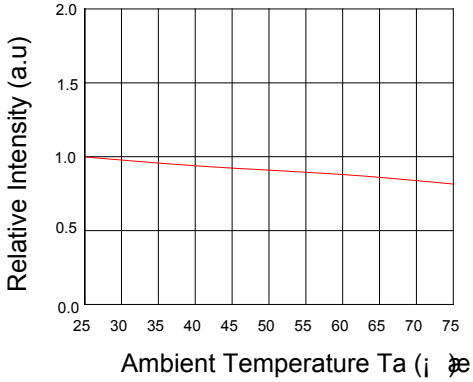
Relative Intensity VS. Wavelength



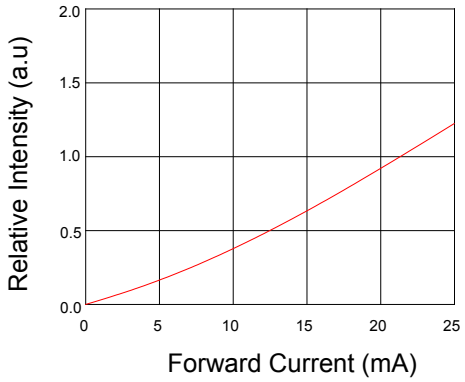
Forward Current VS.Forward Voltage



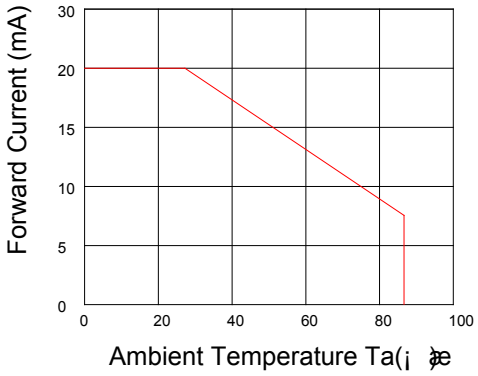
Relative Intensity VS. Ambient Temp



Forward Current VS.Relative Intensity



Forward Current VS.Ambient Temp.



Radiation Characteristics