

ARL-5513URC-1cd

FEATURES

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



DESCRIPTIONS

- 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

APPLICATIONS

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

USAGE NOTES

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

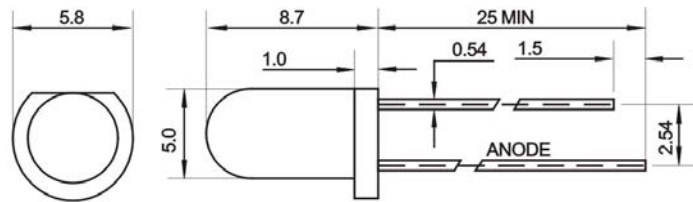
Device Selection Guide

LED Part No.	Chip		Lens Color
	Material	Emitted Color	
ARL-5513URC-1cd	AlGaInP	Red	Water clear

PACKAGE DIMENSIONS

NOTES

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



Absolute Maximum Rating (Ta=25°C)

Parameter	Symbol	Absolute Maximum Rating	Unit
Forward Pulse Current	I_{FPM}	100	mA
Forward Current	I_{FM}	30	mA
Reverse Voltage	V_R	5	V
Power Dissipation	P_D	140	mW
Operating Temperature	T_{opr}	-45 ~ +80	°C
Storage Temperature	T_{stg}	-40 ~ +100	°C
Soldering Heat (5s)	T_{sol}	260	°C

Electro-Optical Characteristics (Ta=25 °C)

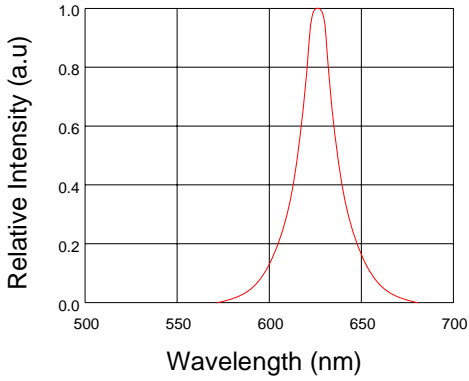
Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	I_v	600	1000	---	mcd	IF=20mA(Note1)
Viewing Angle	$2\theta_{1/2}$	---	40	60	Deg	(Note 2)
Peak Emission Wavelength	λ_p	620	630	635	nm	IF=20mA
Spectral Line Half-Width	$\Delta\lambda$	15	20	25	nm	IF=20mA
Forward Voltage	V_F	1.9	---	2.3	V	IF=20mA
Reverse Current	I_R	---	---	10	μA	VR=5V

Note:

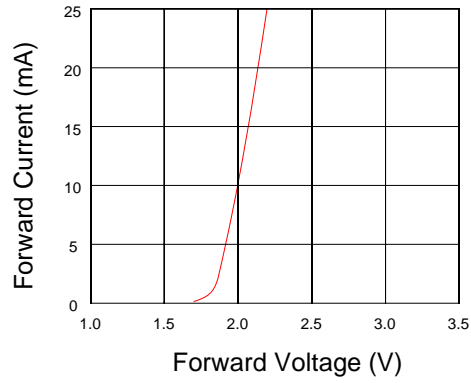
- Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
- $\theta_{1/2}$ is the off-axis angle at which the luminous intensity is half the axial luminous intensity.

TYPICAL ELECTRO-OPTICAL CHARACTERISTICS CURVES

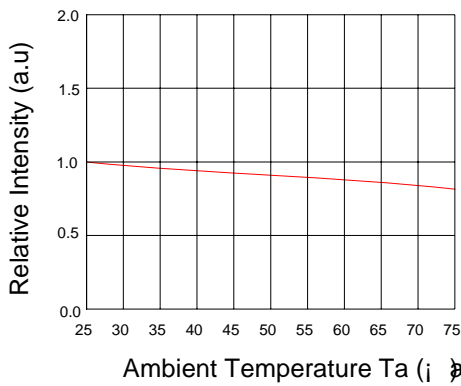
Relative Intensity VS. Wavelength



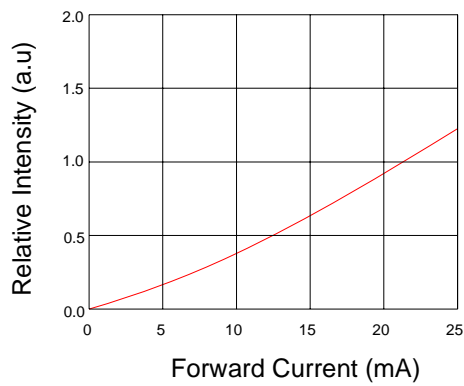
Forward Current VS. Forward Voltage



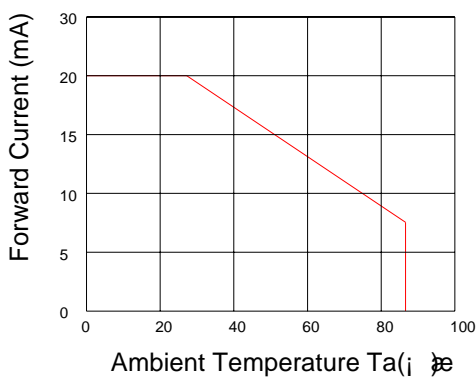
Relative Intensity VS. Ambient Temp



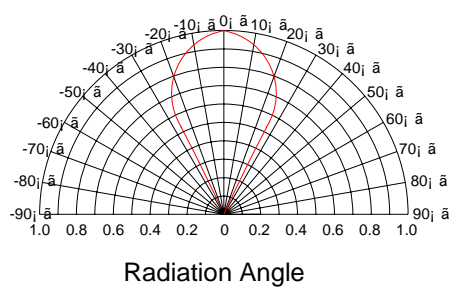
Forward Current VS. Relative Intensity



Forward Current VS. Ambient Temp.



Radiation Characteristics



Note:

- Above specification may be changed without notice. Factory will reserve authority on material change for above specification.
- When using this product, please observe the absolute maximum ratings and the instructions for using outlined in these specification sheets. Factory 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.
- These specification sheets include materials protected under copyright of factory corporation. Please don't reproduce or cause anyone to reproduce them without factory's consent.