

# ВЫВОДНОЙ СВЕТОДИОД КРУГЛЫЙ

**ARL-5413EGC/3L**

## FEATURES

- Two chips are matched for uniform light output, wide viewing angle.
- Long life-solid state reliability.
- I.C. compatible.
- Low power consumption.
- Pb free.

## DESCRIPTIONS

- The lamp contains two integral chips and is available bicolor.
- White diffused lens color.

## APPLICATIONS

- TV set.
- Monitor.
- Telephone.
- Computer.
- Circuit board.

## DEVICE SELECTION GUIDE

LED Part No.	CHIP		Lens Color
	Material	Emitted Color	
ARL-5413EGC/3L	AlGaInP	Red	Water clear
	AlGaInP	Green	



5 mm



CLEAR



Red/Yellowish



### USAGE NOTES:

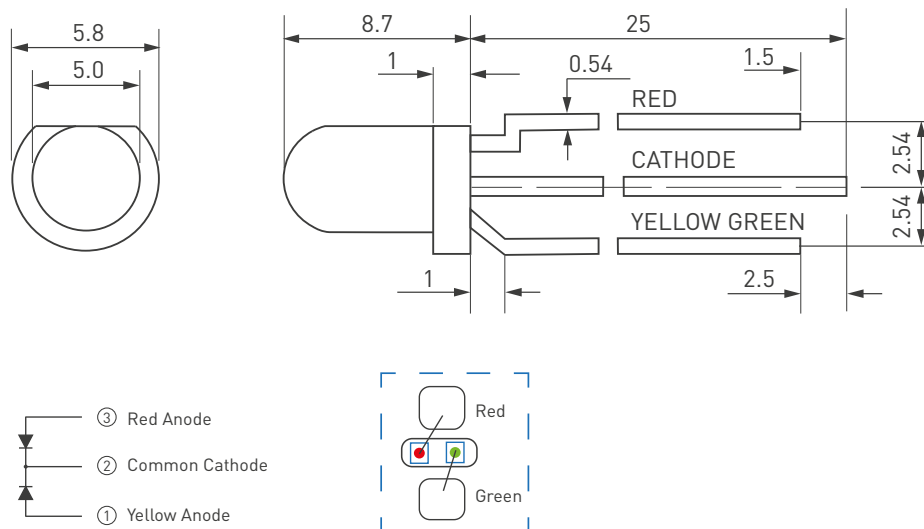
Surge will damage the LED.

When using LED, it must use a protective resistor in series with DC current about 18 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	$I_{FPM}$	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	$^\circ\text{C}$
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	Device	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	$I_v$	Red	20	—	30	mcd	$I_f=20\text{mA}$
		Green	10	—	15		
Viewing Angle	$2\theta_{1/2}$	Red	30	—	40	Deg	(Note 1)
		Green					
Peak Emission Wavelength	$\lambda_P$	Red	620	630	635	nm	$I_f=20\text{mA}$
		Green	565	570	575		
Spectral Line Half-Width	$\Delta\lambda$	Red	15	20	25	nm	$I_f=20\text{mA}$
		Green	15	20	25		
Forward Voltage	$V_F$	Red	1.9	—	2.4	V	$I_f=20\text{mA}$
		Green	1.9	—	2.4		
Reverse Current	$I_R$	Red	—	—	10	$\mu\text{A}$	$V_R=5\text{V}$
		Green					

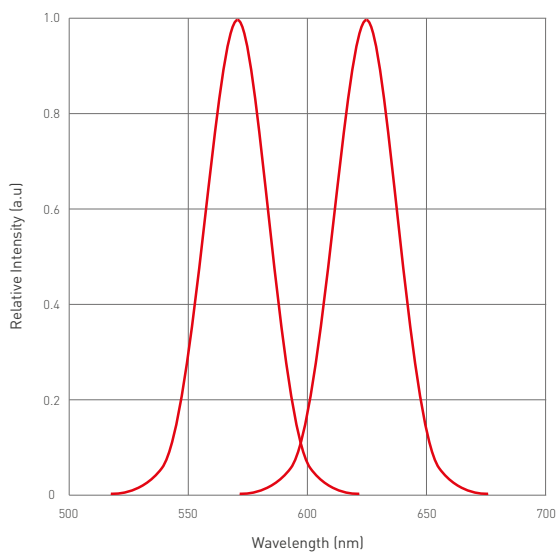
### Note:

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

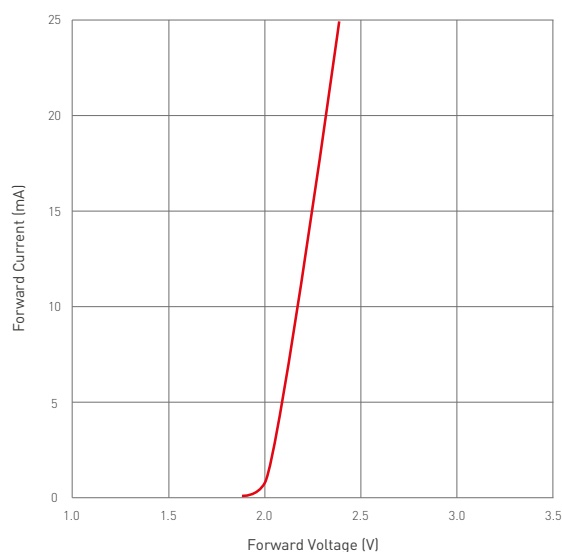
2.  $\theta_{1/2}$  is the off-axis angle at which the luminous intensity is half the axial luminous intensity.

# TYPICAL ELECTRO-OPTICAL CHARACTERISTICS CURVES

Relative Intensity VS Wavelength



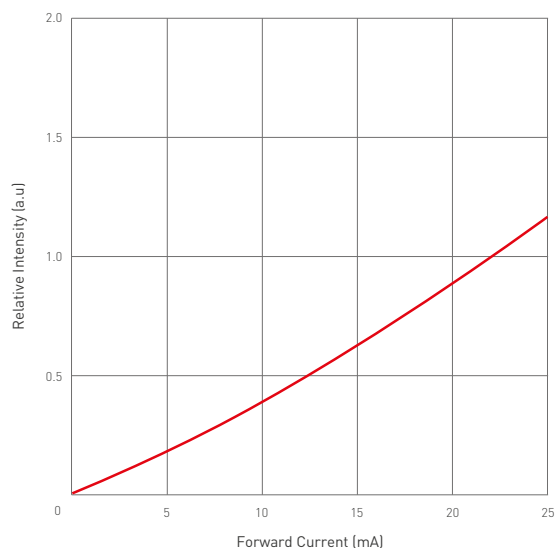
Forward Current VS Forward Voltage



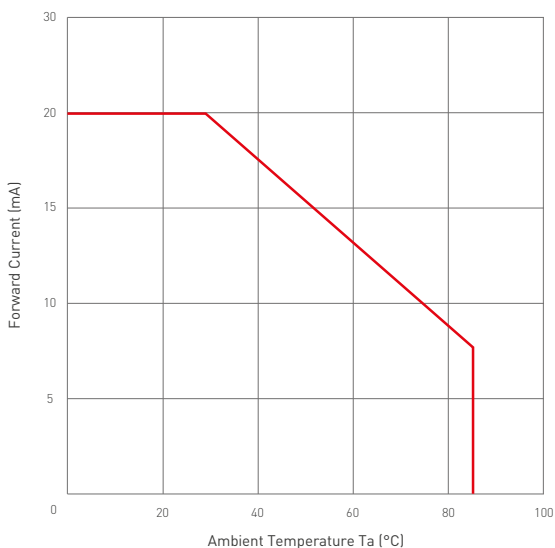
Relative Intensity VS Ambient Temp



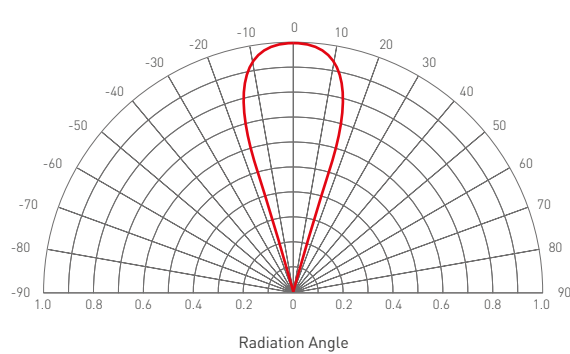
Forward Current VS Relative Intensity



Forward Current VS Ambient Temp



Radiation Characteristics



## NOTES

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2. When using this product, please observe the absolute maximum ratings and the instructions for using outlined in these specification sheets. Hyled 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.
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