

# ARL-5213RGBC/4C

#### **Features**

- Uniformlight output
- Lowpowerconsumption
- I.C.Compatible
- Longlife-solidstatereliaility
- Common cathode

#### Descriptions

- The Red source color devices are made with AlGaInP on GaAs substrate Light Emitting Diode
- The Green source color devices are made with InGaN on sic Light Emitting Diode
- The Blue source color devices are made with InGaA1N on sic Light Emitting Diode.

#### **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

## **Applications**

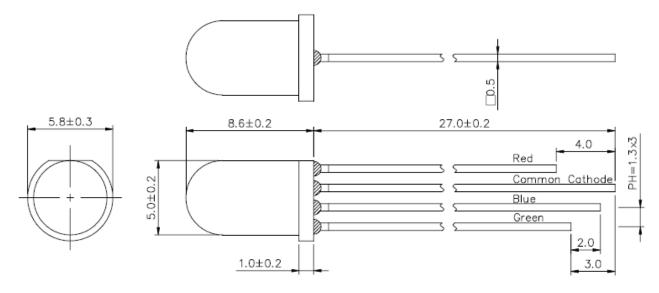
- Status indicators
- Commercial use
- Advertising Signs
- Back lighting

## **Device Selection Guide**

	Lens Color		
Material	Emitted Color		
AlGaInP	Red	Weter eleer	
InGaN	Green	Water clear	
InGaN	Blue		

## 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

#### $(Ta = 25^{\circ}C)$

Parameter	Symbol	Absolute Maximum Rating	Unit
Forward Pulse Current	IFPM	R :60 G: 100 B: 100	mA
Forward Current	IFM	20	m A
Reverse Voltage	VR	5	V
Power Dissipation	PD	R :60 G: 130 B: 130	mW
Operating Temperature	Topr	-40~+80	°C
Storage Temperature	Tstg	-40~ + 100	°C
Soldering Temperature	Tsol	Reflow Soldering : 260 °C for 10 sec. Hand Soldering : 350 °C for 3 sec.	°C

# Electric-optical characteristics $(Ta=25^{\circ}C)$

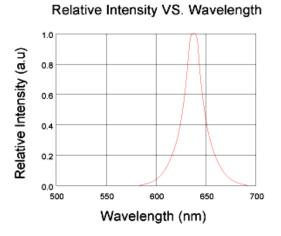
Parameter	Symbol	Device	Min.	Тур.	Max.	Unit	Test Con- dition
Luminous Intensity	lv	Red Green Blue	1000 1500 1000	1500 2000 1200	2000 2700 1500	mcd	IF=20mA
Viewing Angle	201/2	Red Green Blue		30	40	Deg	(Note 1)
Peak Emission Wavelength	λр	Red Green Blue	625 520 460	630 525 465	640 530 470	nm	IF=20mA
Spectral Line Half-Width	□λ	Red Green Blue	15 15 25	20 20 30	25 25 35	nm	IF=20mA
Forward Voltage	VF	Red Green Blue	1.9 2.9 2.9		2.4 3.3 3.3	V	IF=20mA
Reverse Current	IR	Red Green Blue			10	μA	VR= 5V

# Notes

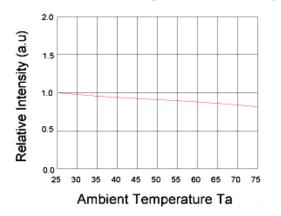
1. Above specification may be changed without notice. Company will reserve authority on material change for above specification.

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

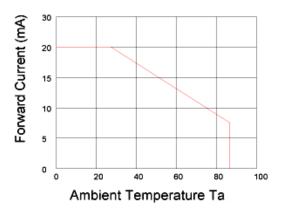
3. These specification sheets include materials protected under copyright of Company corporation. Please don't reproduce or cause anyone to reproduce them without Company consent.

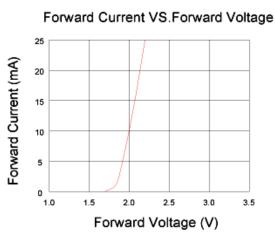


Relative Intensity VS. Ambient Temp

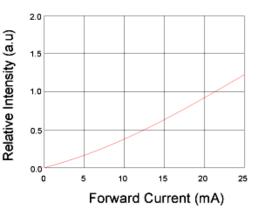


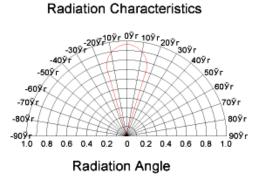
#### Forward Current VS.Ambient Temp.



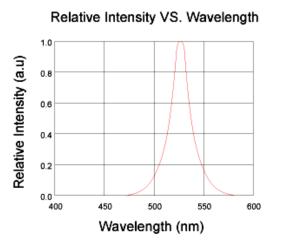


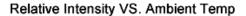
Forward Current VS.Relative Intensity

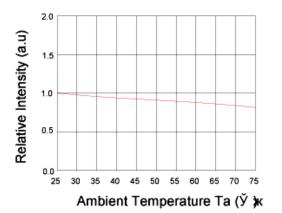




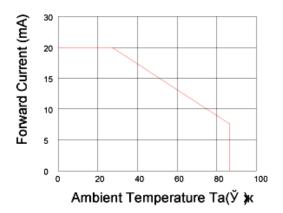
RED

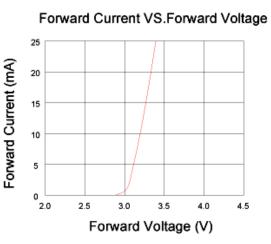




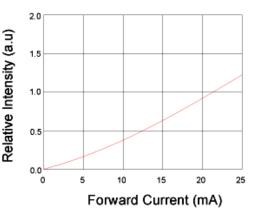


Forward Current VS.Ambient Temp.

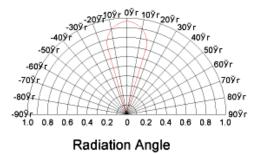




Forward Current VS.Relative Intensity

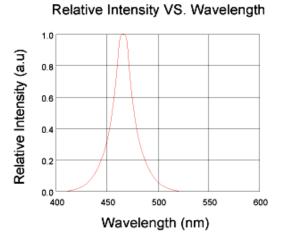


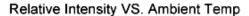
**Radiation Characteristics** 

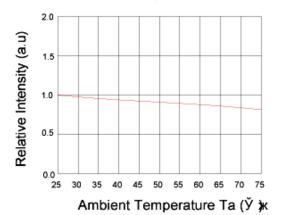


# **Typical Electro-Optical Characteristics Curves**

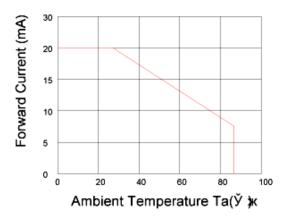
Blue

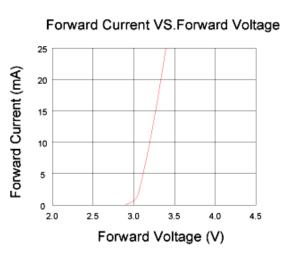






#### Forward Current VS.Ambient Temp.





Forward Current VS.Relative Intensity

