

## ARL-5213RGBC/4C



### Features

- Uniform light output
- Low power consumption
- I.C. Compatible
- Long life-solid state reliability
- 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 InGaAlN 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

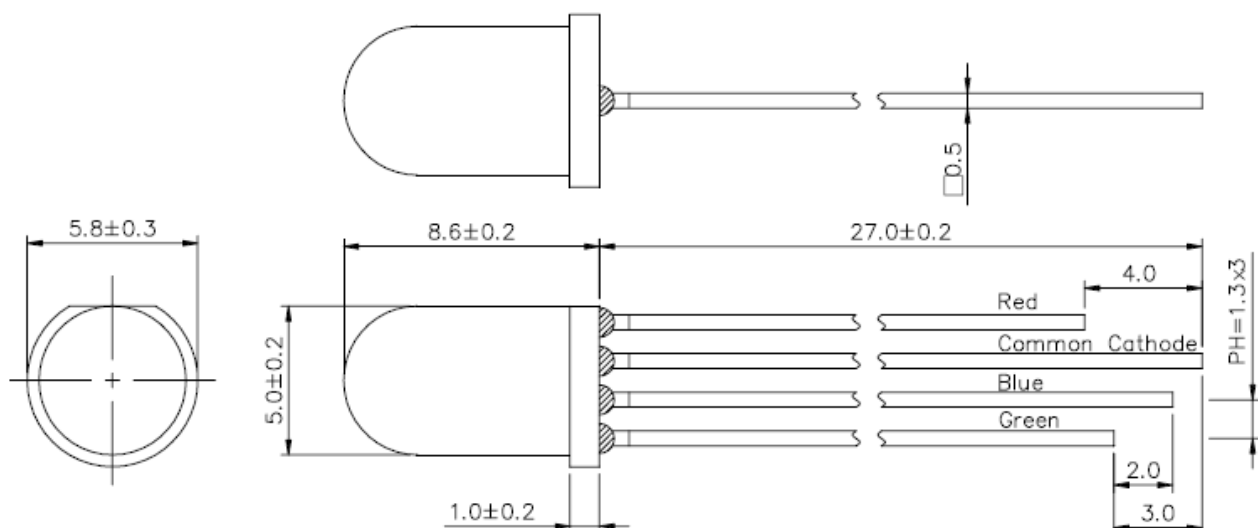
### Device Selection Guide

Chip		Lens Color
Material	Emitted Color	Water clear
AlGaInP	Red	
InGaN	Green	
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°C)

Parameter	Symbol	Absolute Maximum Rating	Unit
Forward Pulse Current	IFPM	R : 60 G: 100 B: 100	mA
Forward Current	IFM	20	mA
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

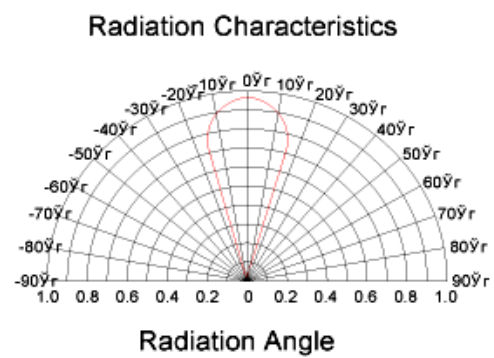
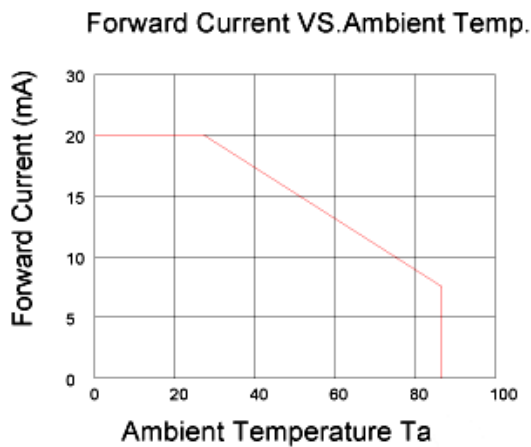
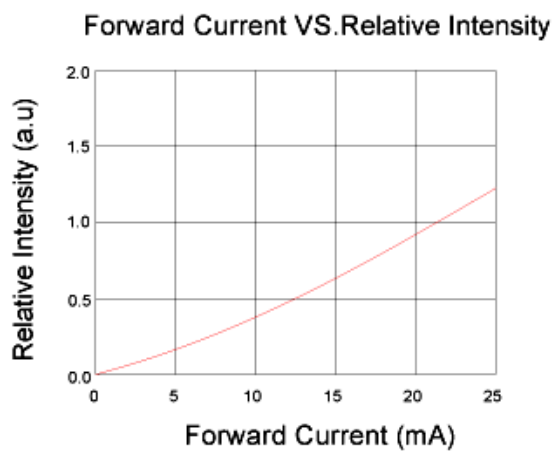
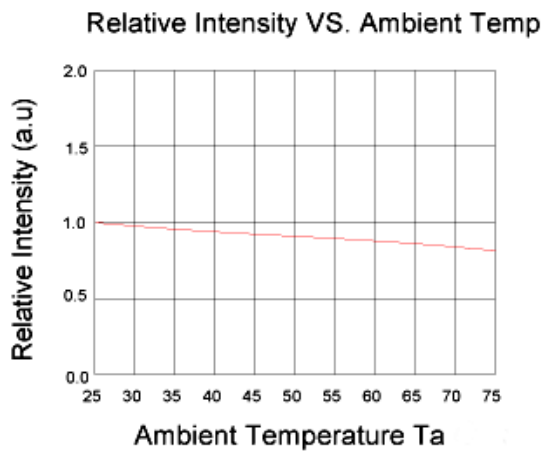
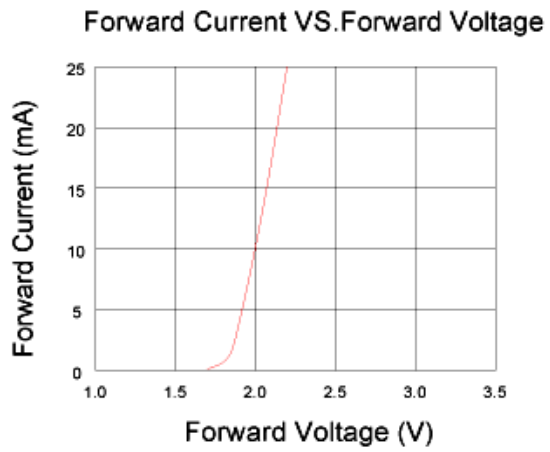
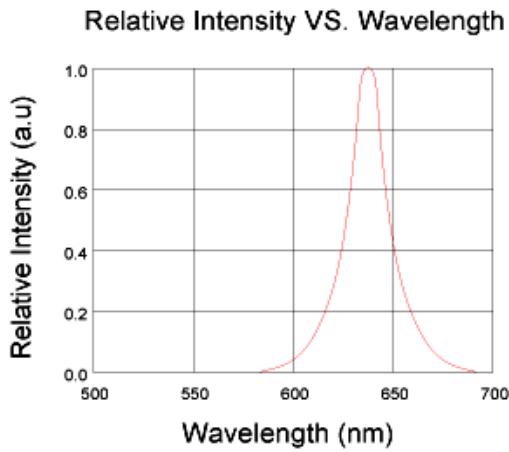
## Electric-optical characteristics

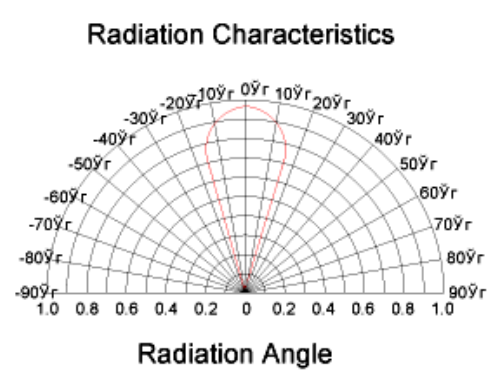
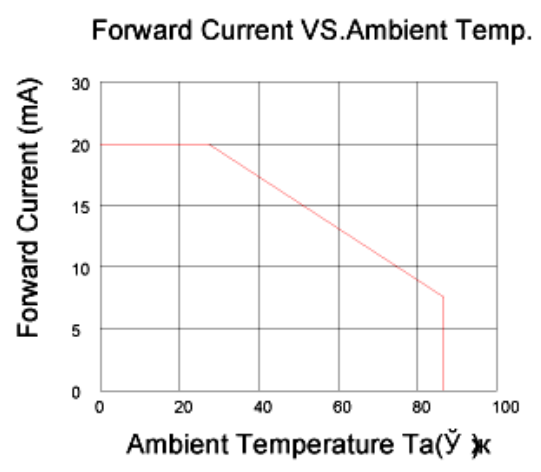
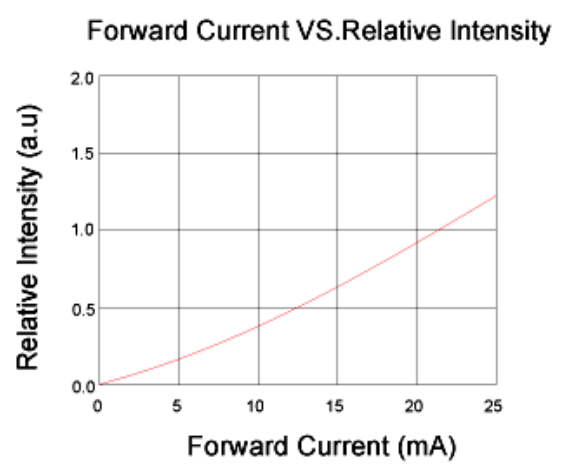
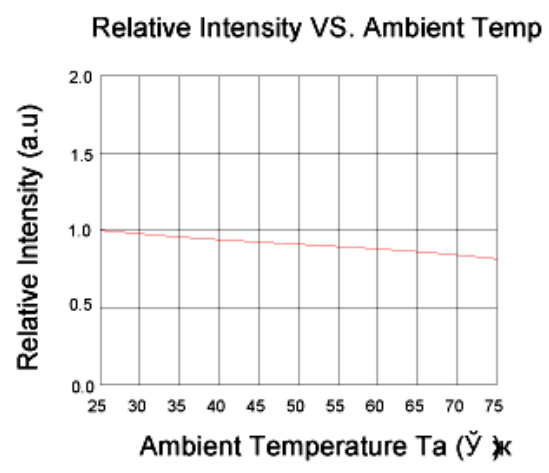
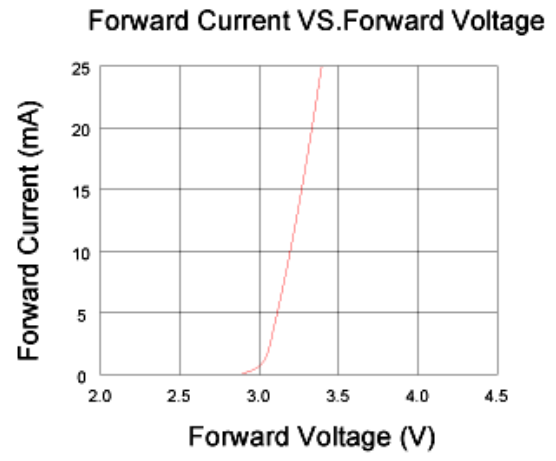
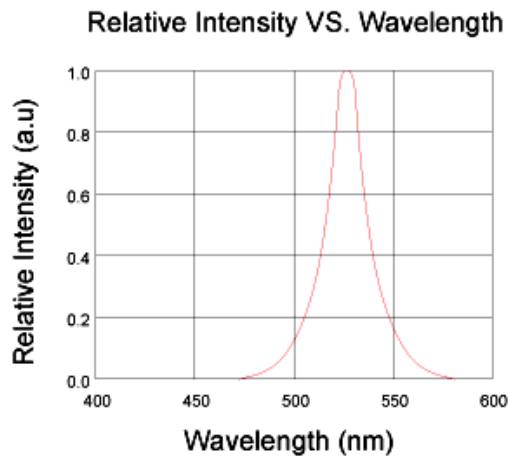
(Ta=25°C)

Parameter	Symbol	Device	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	Iv	Red Green Blue	1000 1500 1000	1500 2000 1200	2000 2700 1500	mcd	IF=20mA
Viewing Angle	2θ1/2	Red Green Blue	---	30	40	Deg	(Note 1)
Peak Emission Wavelength	λp	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

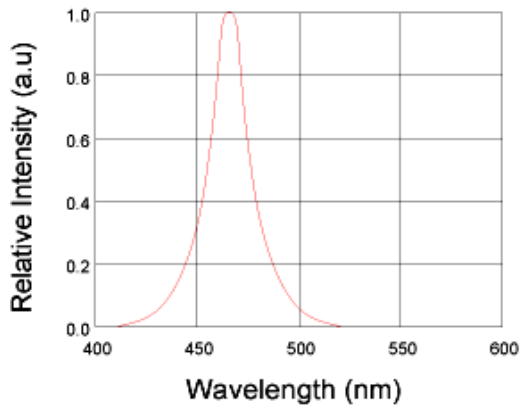
## Notes

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.
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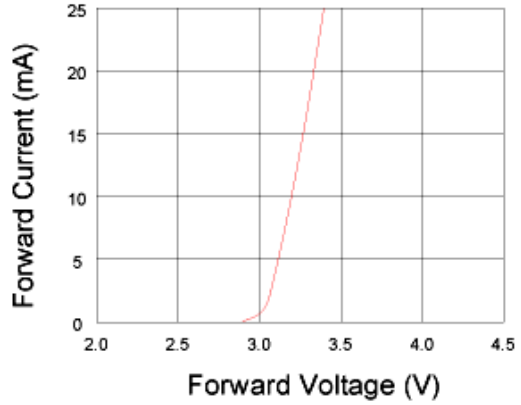




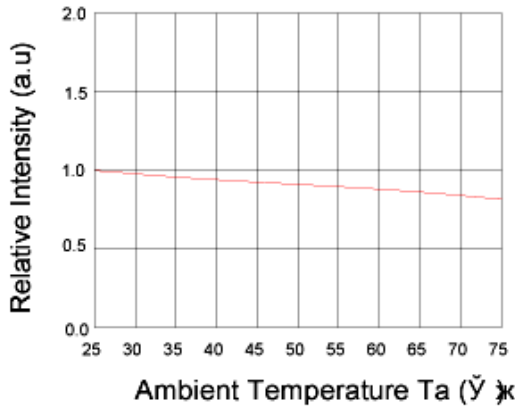
Relative Intensity VS. Wavelength



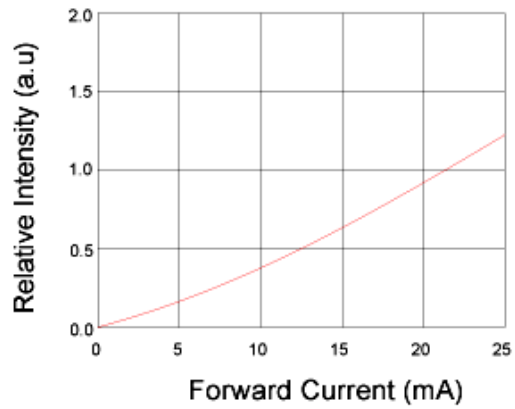
Forward Current VS. Forward Voltage



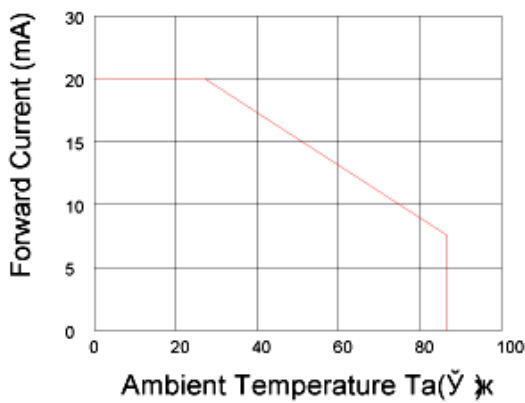
Relative Intensity VS. Ambient Temp



Forward Current VS. Relative Intensity



Forward Current VS. Ambient Temp.



Radiation Characteristics

