

# ВЫВОДНОЙ СВЕТОДИОД КРУГЛЫЙ

**ARL-5213VC-200mcd**

## FEATURES

- Low power consumption.
- General purpose leads.
- Reliable and rugged.
- Long life solid state reliability.
- Available on tape and reel.
- RoHS compliant.

## DESCRIPTIONS

- The source color devices are made with InGaN on SiC light emitting diode.
- This device radiates intense ultraviolet (UV) light when operated. Most of the UV light emitted is not visible. Exposure to UV radiation can be harmful to your health. Protect your eyes and skin during the operation. Do not look directly at the device during the operation.
- Exposure to UV light, even for a brief period, can damage your eyes.
- Do not operate the device unless you have had proper safety training and take appropriate precautions.
- Do not permit children or untrained personnel to operate the device.
- Static electricity and surge damage the LEDs. It is recommended to use a wrist band or anti-static gloves when handling the LEDs.
- All devices, equipment and machinery must be electrically grounded.

## DEVICE SELECTION GUIDE

LED Part No.	CHIP		Lens Color
	Material	Emitted Color	
<b>ARL-5213VC-200mcd</b>	<b>InGaN</b>	<b>Ultra violet</b>	<b>Water clear</b>



5 mm



CLEAR



UVA



### USAGE NOTES:

Surge will damage the LED.

When using LED, it must use a protective resistor in series with DC current about 20 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
<b>Reverse Voltage</b>	<b><math>V_R</math></b>	<b>5</b>	<b>V</b>
<b>Operating Temperature</b>	<b><math>T_{opr}</math></b>	<b>-40... +80</b>	<b><math>^\circ\text{C}</math></b>
<b>Storage Temperature</b>	<b><math>T_{stg}</math></b>	<b>-40... +100</b>	<b><math>^\circ\text{C}</math></b>
<b>Soldering Heat (5s)</b>	<b><math>T_{sol}</math></b>	<b>260</b>	<b><math>^\circ\text{C}</math></b>

## ELECTRO-OPTICAL CHARACTERISTICS ( $T_A = +25^\circ\text{C}$ )

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
<b>Luminous Intensity</b>	<b><math>I_v</math></b>	<b>1000</b>	—	<b>1200</b>	<b>mcd</b>	<b><math>I_f=20\text{mA}</math> (Note 1)</b>
<b>Viewing Angle</b>	<b><math>2\theta_{1/2}</math></b>	<b>10</b>	<b>15</b>	<b>20</b>	<b>Deg</b>	<b>Note 2</b>
<b>Peak Emission Wavelength</b>	<b><math>\lambda_p</math></b>	<b>390</b>	—	<b>400</b>	<b>nm</b>	<b><math>I_f=20\text{mA}</math></b>
<b>Dominant Wavelength</b>	<b><math>\Delta\lambda</math></b>	—	<b>395</b>	—	<b>nm</b>	<b><math>I_f=20\text{mA}</math></b>
<b>Forward Voltage</b>	<b><math>V_F</math></b>	<b>3.0</b>	<b>3.3</b>	<b>3.5</b>	<b>V</b>	<b><math>I_f=20\text{mA}</math></b>
<b>Reverse Current</b>	<b><math>I_R</math></b>	—	—	<b>10</b>	<b><math>\mu\text{A}</math></b>	<b><math>V_R=5\text{V}</math></b>

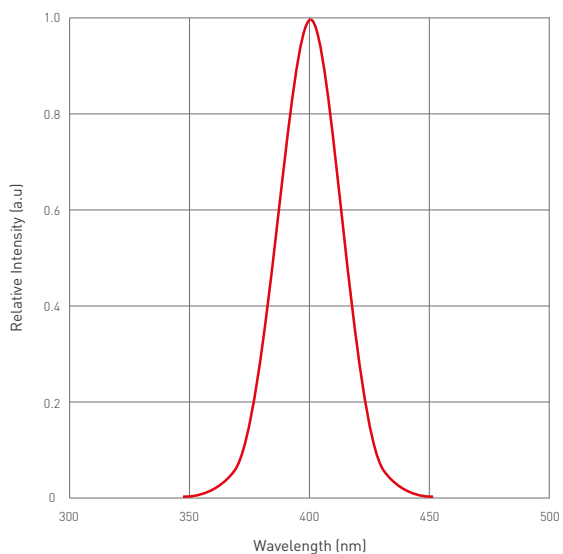
### Note:

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

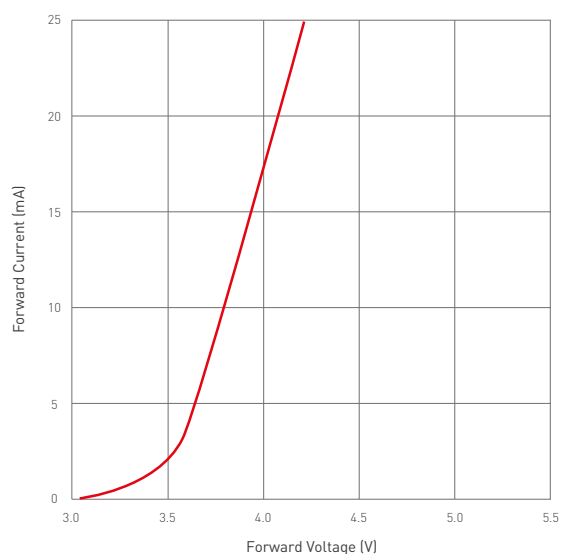
2.  $\theta_{1/2}$  is the off-axis angle at which the luminous intensity is half the axial luminous intensity.

# TYPICAL ELECTRO-OPTICAL CHARACTERISTICS CURVES

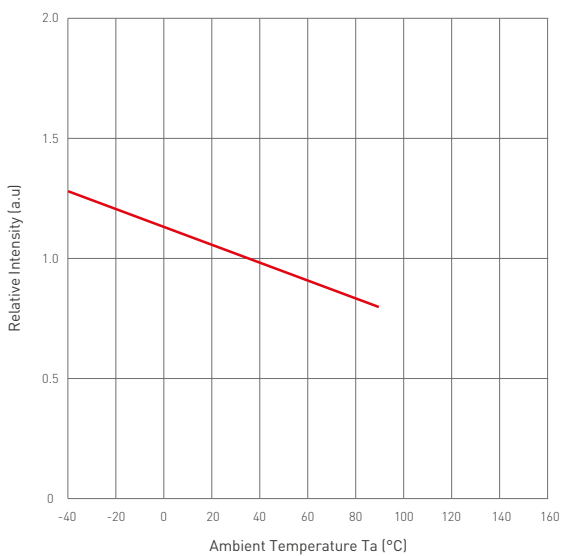
Relative Intensity VS Wavelength



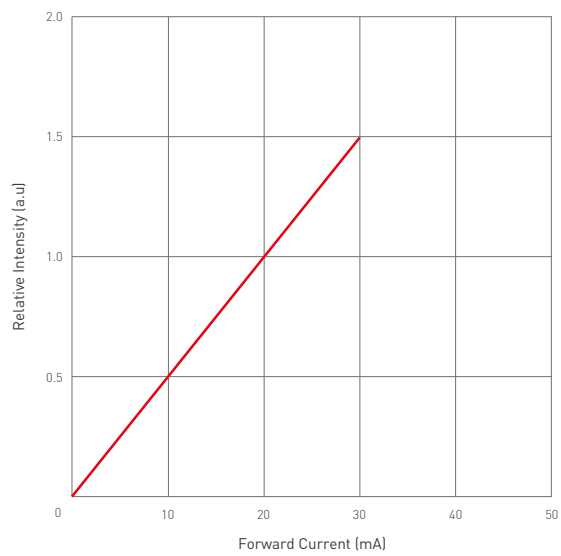
Forward Current VS Forward Voltage



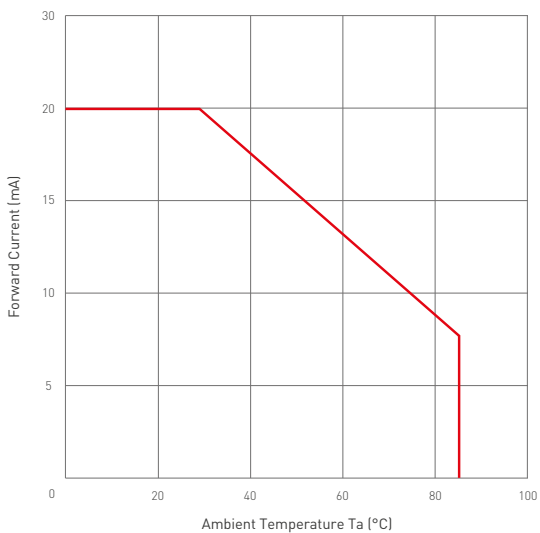
Relative Intensity VS Ambient Temp



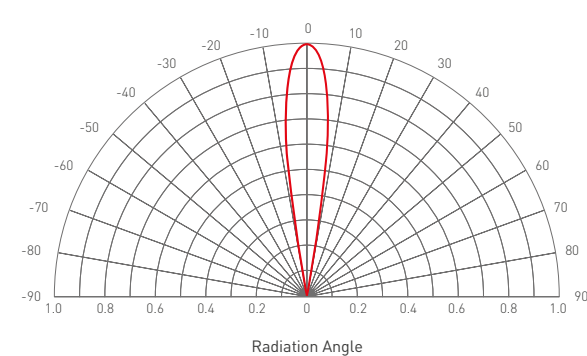
Forward Current VS Relative Intensity



Forward Current VS Ambient Temp



Radiation Characteristics



## NOTES

1. Above specification may be changed without notice. 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. 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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