

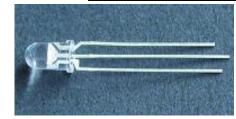
## HUIYUAN OPTO-ELECTRONIC CO.,LTD.

## **TECHNOLOGY DATA SHEET & SPECIFICATIONS**

#### 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

#### MODEL: 5019R1G3C-DSC



### Descriptions

The LED lamps contain two integral chips and is available as both bicolor and bipolar types
The Bright Red and Green light is emitted by diodes of GaAsP/GaP and GaAsP/GaP respectively
Type of bipolar lamps are both White Diffused and Color Diffused while the bicolor are White Diffused

### **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



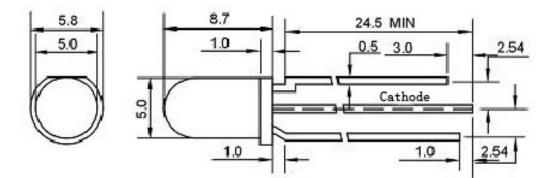
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### **Device Selection Guide**

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LED Part No.	Material	Emitted Color	Lens Color	
5019R1G3C-DSC	AlGaInP	Red		
	InGaN	Green	Water clear	

### **Package Dimensions**



UNIT:mm

#### Notes:

<sup>•</sup>Other dimensions are in millimeters, tolerance is 0.25mm except being specified.

<sup>•</sup>Protruded resin under flange is 1.5mm Max LED.

Bare copper alloy is exposed at tie-bar portion after cutting.



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### **Electro-Optical Characteristics (Ta=25**)

Parameter	Symbol	Device	Min.	Тур.	Max.	Unit	Test Condition
Luminous Intensity	lv	Red	1500		2900	mcd	IF=20mA
		Green	1800		3500		
Viewing Angle	<b>20</b> <sub>1/2</sub>	Red	35	25	35	Deg	(Note 1)
		Green		35			
Peak Emission Wavelength	λр	Red	620		635	nm	IF=20mA
		Green	520		530		
Spectral Line Half-Width	Δλ	Red	15	20	25	nm	IF=20mA
		Green	30	35	40		
Forward Voltage	V <sub>F</sub>	Red	1.9		2.3	V	IF=20mA
		Green	2.9		3.3		
Reverse Current	I <sub>R</sub>	Red			10	μA	VR=5V
		Green					

#### Note:

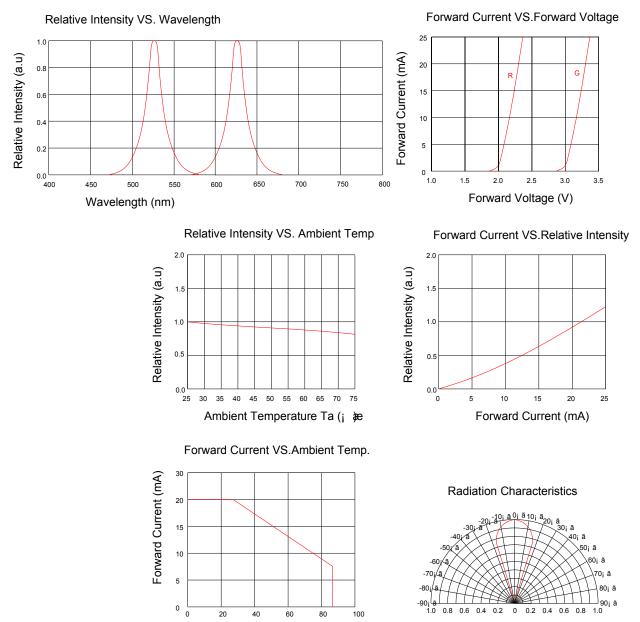
- 1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
- 2.  $\theta$ 1/2 is the off-axis angle at which the luminous intensity is half the axial luminous intensity.



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### **Typical Electro-Optical Characteristics Curves**



Ambient Temperature Ta(; )æ

Radiation Angle



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### Notes

- 1. Above specification may be changed without notice. HYLED 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. 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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