

BEELED

СВЕТОДИОДЫ BEELED – ТЕХНИЧЕСКОЕ ОПИСАНИЕ

MODEL: 5050SURGBC

Features

- *AlGaInP Red、InGaN Blue、 InGaN Green
- *Size : 5.0mm×5.0mm×1.5mm
- *High luminous intensity, high reliability and long life
- *With ROHS Compliant



Descriptions

- *The 5050 SMD LED is much smaller than lead frame type components thus enable smaller board size, higher packing density, reduced storage space and finally smaller equipment to be obtained
- *Besides, lightweight makes them ideal for miniature applications.etc



Usage Notes:

- *Surge will damage the LED
- *When using LED, it must use a protective resistor in series with DC current about 20mA

Applications

- *Amusement equipment、
- *Information boards、
- *Flashlight for digital camera of cellular phone、
- *Lighting for small size device.

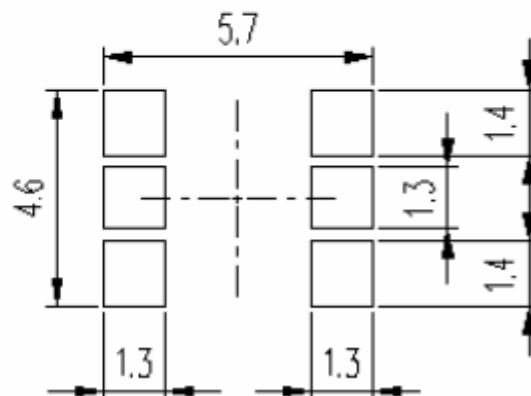
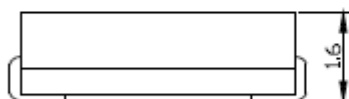
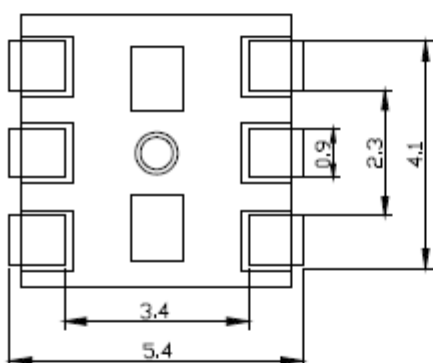
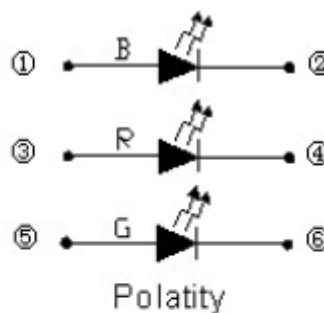
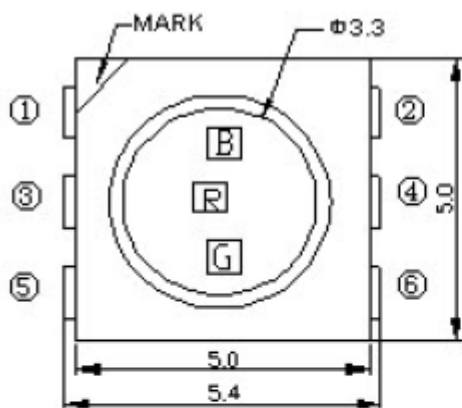
Device Selection Guide

LED Part No.	Chip		Lens Color
	Material	Emitted Color	
5050SURGBC	AlGaInP	Red	Water clear
	InGaN	BLUE	
	InGaN	Green	

Package Dimensions

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Electro-Optical Characteristics ($T_a=25^\circ\text{C}$)

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Parameter	Symbol	Color	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	I _v	Red Blue Green	1000 1200 1600	---	1200 1500 1800	mcd	I _F =20mA (Note1)
Viewing Angle	2θ _{1/2}	Red Blue Green	---	120	---	Deg	(Note 2)
Peak Emission Wavelength	λ _p	Red Blue Green	620 465 518	---	625 470 525	nm	I _F =20mA
Spectral Line Half-Width	Δλ	Red Blue Green	---	25 30 30	---	nm	I _F =20mA
Forward Voltage	V _F	Red Blue Green	1.8 3.0 3.0	---	2.0 3.4 3.2	V	I _F =20mA
Reverse Current	I _R	Red Blue Green	---	10 50 50	---	μA	V _R =5V

Note:

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

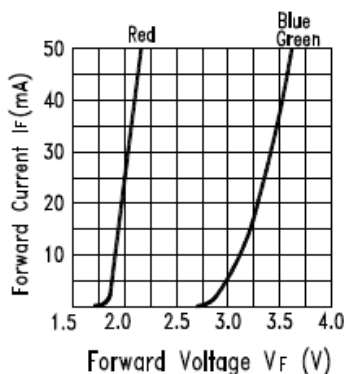
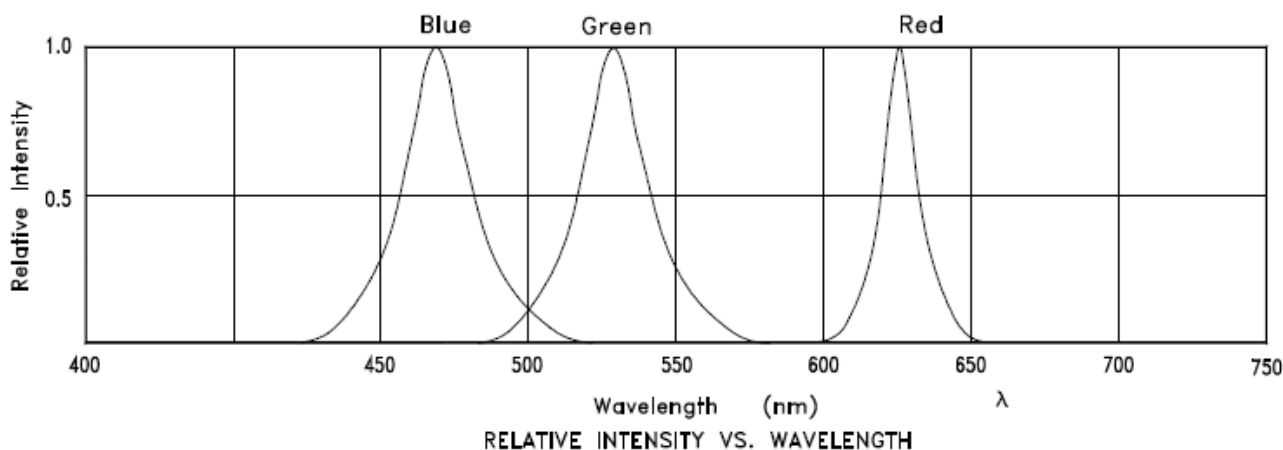


Fig.2 Forward Current vs. Forward Voltage

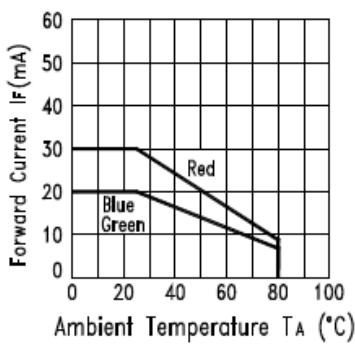


Fig.3 Forward Current Derating Curve

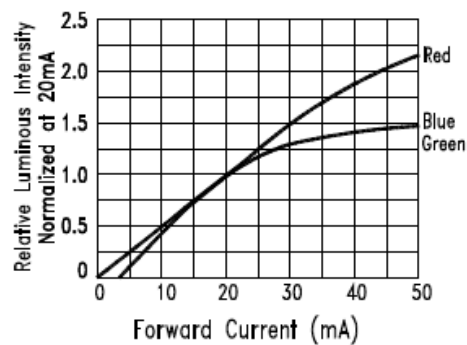


Fig.4 Relative Luminous Intensity vs. Forward Current

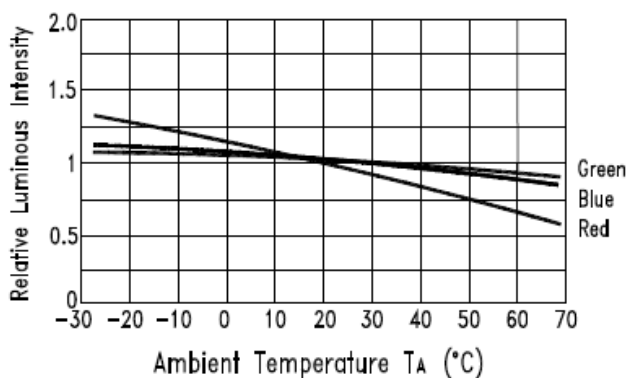


Fig.5 Luminous Intensity vs. Ambient Temperature

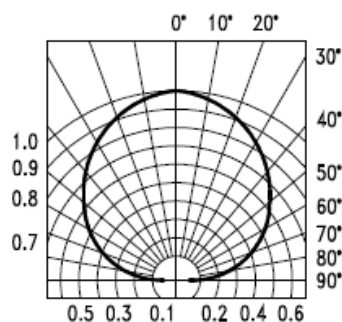


Fig.6 Spatial Distribution

Notes



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