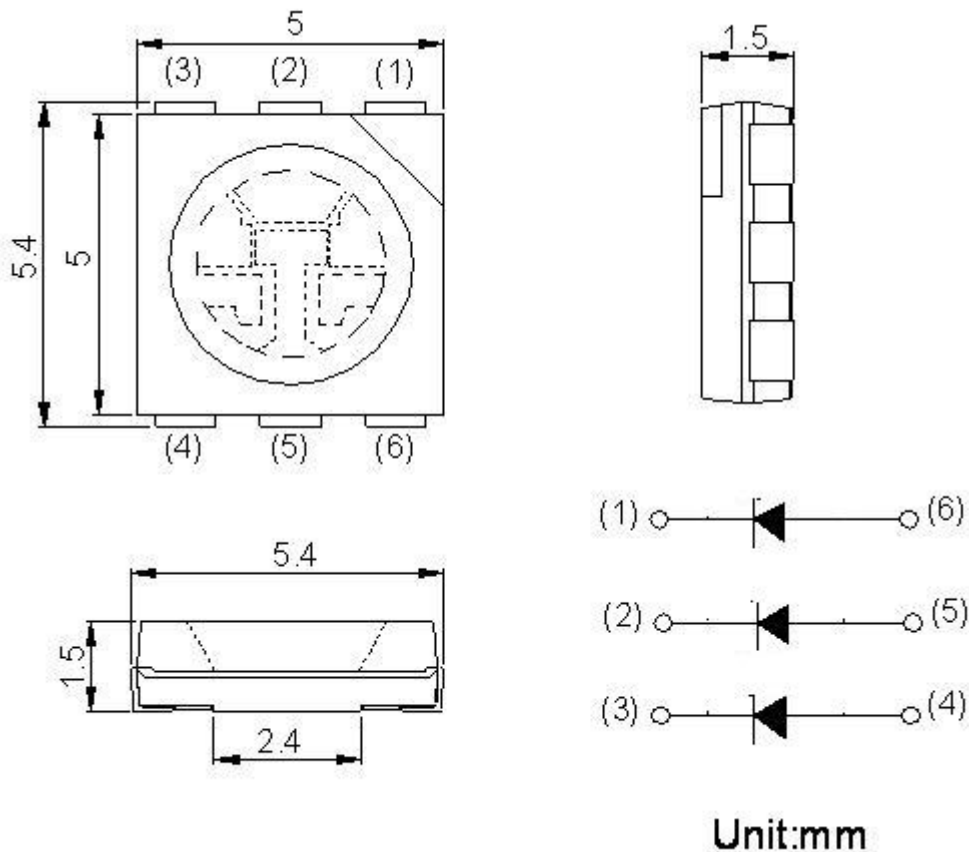


370-375nm 5050 SMD UV LED Specification

◆ Features

- * High brightness surface mount technology.
- * Emitting view angle 120°
- * Suitable for all SMT assembly method.
- * IR reflow soldering and vapor phase reflow soldering.
- * For outdoor and indoor display, backlight application.

◆ Package Dimensions



Notes:

1. All dimensions are in mm.
2. Tolerance is ± 0.25 mm unless otherwise noted.
3. Lead spacing is measured where the leads emerge from the package.

370-375nm 5050 SMD UV LED Specification

◆ Description

Model No.	Material	Emitted	Lens Color
XL5050UVC3C/375	InGaN/Sapphire	UV	Water clear

◆ Absolute Maximum Ratings (T_A=25°C)

Parameter	Symbol	Rating	Unit
Power Dissipation	P _D	200	mW
Forward Current (DC)	I _F	60	mA
Peak Forward Current *	I _{FP}	200	mA
Reverse Voltage	V _R	5.0	V
Operation Temperature Range	T _{op}	-25to+85	°C
Storage Temperature Range	T _{stg}	-40to+100	°C
Soldering Temperature	260°C/5sec		

* Pulse width ≤ 0.1msec Duty Ratio ≤ 1/10

◆ Electrical and Optical Characteristics (T_A=25°C)

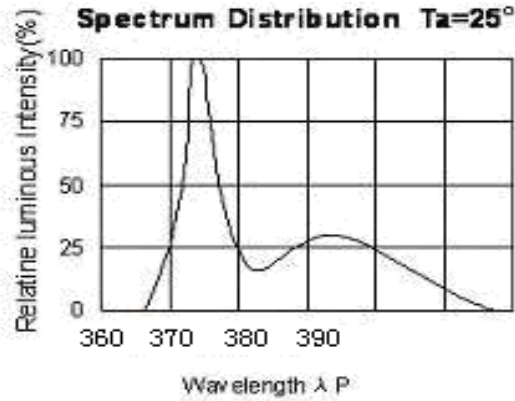
Parameter	Test Condition	Symbol	Min	Typ	Max	Unit
Forward Voltage(V _F)	I _F =60mA	V _F	3.5		4.0	V
View Angle	I _F =60mA	2 θ 1/2		120		deg
Reverse Current	V _R =-5V	I _R			2	μA
Wavelength	I _F =60mA	wl	370	----	375	nm
Luminous Intensity(I _v)	I _F =60mA	I _v	8		12	Mw

Notes:

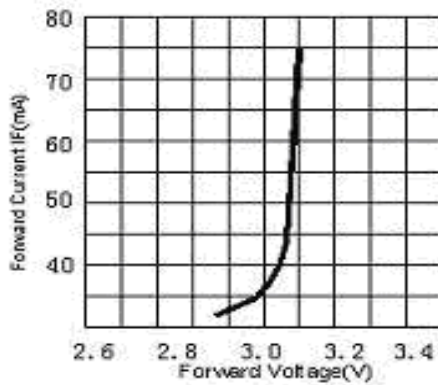
1. The peak Wavelength, λ_p is derived from the CIE chromaticity diagram and represents the single wavelength which define the color of the device.
2. 2 θ 1/2 is the off-axis angle where the luminous intensity is one half the on-axis intensity.
3. Luminous intensity is measured by SEALAND equipment on Top LED in the same lot.

370-375nm 5050 SMD UV LED Specification

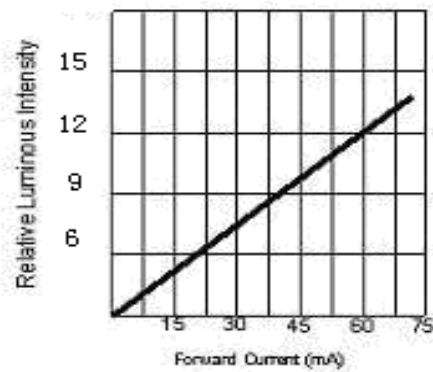
Typical Electrical/Optical Characteristic Curves ($I_f=60\text{mA}; T_A=25^\circ\text{C}$)



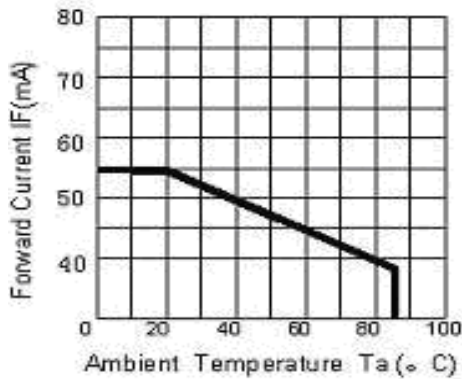
Forward Current vs. Forward Voltage



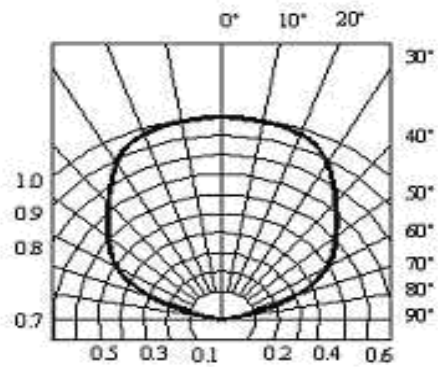
Relative Luminous Intensity vs Forward Current



Ambient Temperature VS. Forward Current



Radiation Diagram



370-375nm 5050 SMD UV LED Specification

Reliability performance

Test items and result

Test classification	Test item	Test condionts	Test duration	Sample size	AC/RE
Life test	Room temperature DC operating life test	Ta=25±5°C IF=60mA	1000hrs	30pcs	0/1
Environment test	Thermal shock Test	-10±5°C ← → +100±5°C 5min 10sec 5min	50cysles	30pcs	0/1
	Temperature cycle test	-40±5°C ← → +85±5°C 30min 5sec 30min	50cysles	30pcs	0/1
	High temperature & High humidity test	Ta=85±5°C RH=85%±0.5%RH	1000hrs	30pcs	0/1
	High temperature storage	Ta =100±5 °C	1000hrs	30pcs	0/1
	Low temperature storage	Ta =-55±5°C	1000hrs	30pcs	0/1
Mechanical test	Resistance to soldering heat	Ta =230±5°C	5sec	30pcs	0/1
	Lead integrity	Load 2.5N(0.25KGf) 0 °C ∞ 90 °C ∞ 0°C	3times	30pcs	0/1