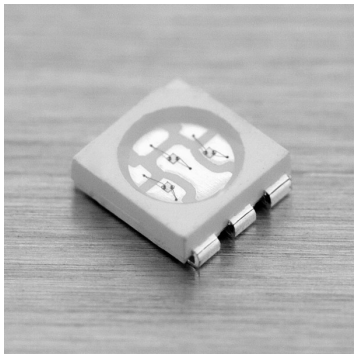
Winger Electronics
WERRGB01-C1M
5050 PLCC6 SMD LED

ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
SENSITIVE DEVICES

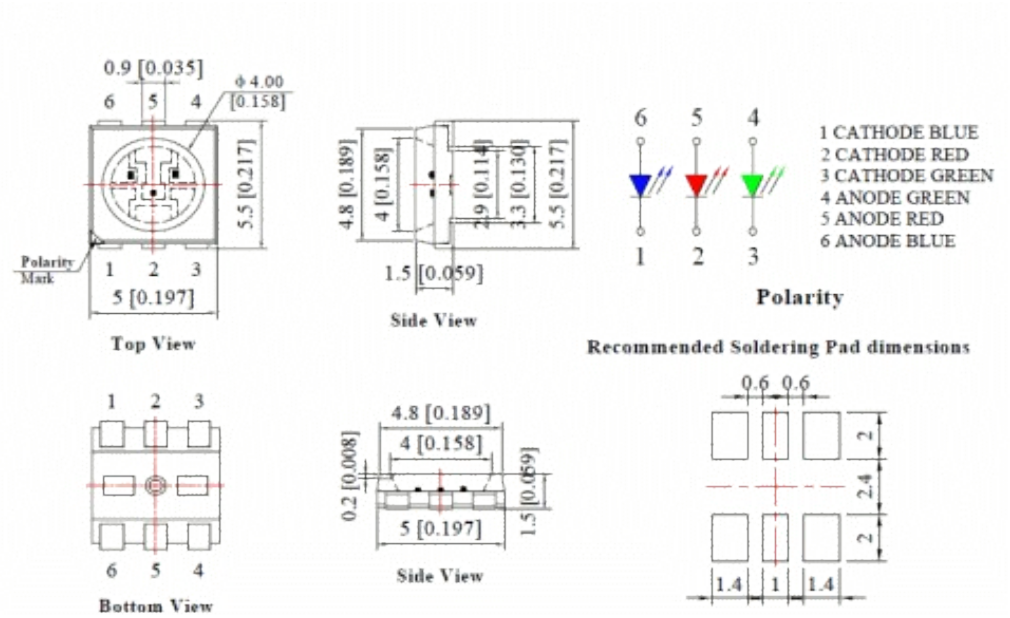


RoHS COMPLIANT

Description

- PLCC6 SMD LED
- Emitting Color: Red, Green, Blue

Dimension figure



Unit: mm
Tolerances: ±0.25mm

Absolute Maximum Ratings

Item	Symbol	Absolute Maximum Rating	Unit
Forward Current	I_F	3x 25	mA
Peak Forward Current *	I_{FP}	3x 100	mA
Reverse Voltage	V_R	5	V
Power Dissipation	P_O	Red: 60	mW
		Green: 95	
		Blue: 95	
Operating Temperature	T_{OPR}	-40 ~ +70	°C
Storage Temperature	T_{stg}	-40 ~ +85	°C
Lead Soldering Temperature	T_{SOL}	Max. 5 sec @ 260	°C

*I_{FP} Conditions: 1/10 Duty Cycle, 0.1ms Puls Width

Typical Optical/Electrical Characteristics

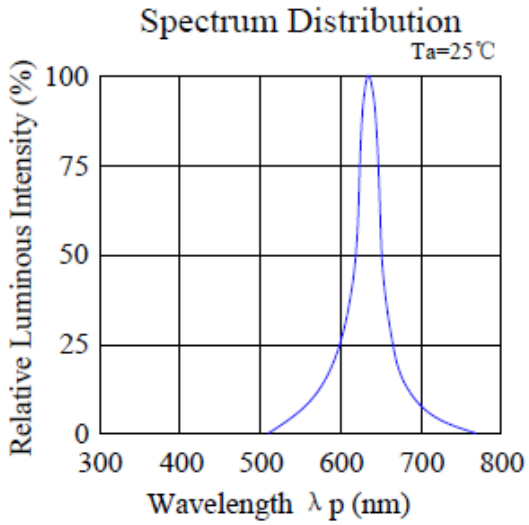
Item	Symbol	Condition		Min.	Typ.	Max.	Unit
Forward Voltage	V_F	I_F=20mA	Red	1,8	2	2,2	V
			Green	3	3,2	3,4	
			Blue	3	3,2	3,4	
50% Power Angle				-	120	-	deg
Liminous Intensity	I_V		Red	450	600	800	mcd
			Green	550	800	1000	
			Blue	200	350	400	
Dominant Wavelength	λ_D		Red	-	625	-	
			Green	-	525	-	nm
			Blue	-	470	-	
Recommended Forward Current	$I_{F(rec)}$			-	-	20	mA
Reverse Current	I_R	V_R=5V	Red	-	-	10	µA
			Green	-	-	50	
			Blue	-	-	50	

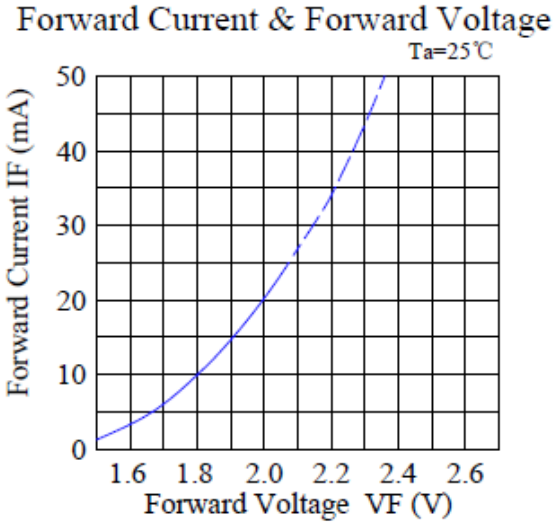
Notes:

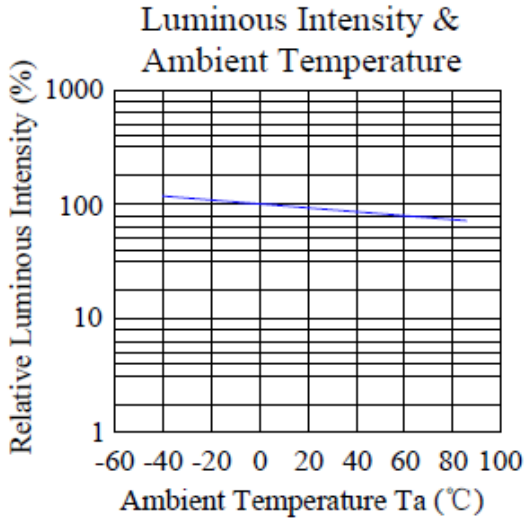
1. Absolute maximum ratings Ta=25°C
2. Measurement Tolerances of Forward Voltage ±0.1V
3. Measurement Tolerances of peak wavelength ±2.0nm

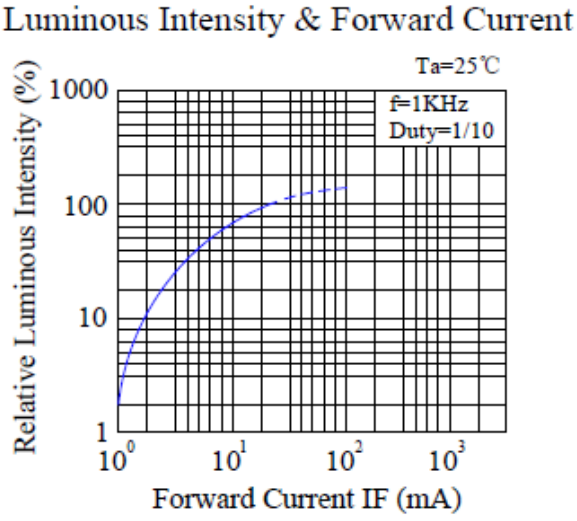
Typical electrical and optical characteristics

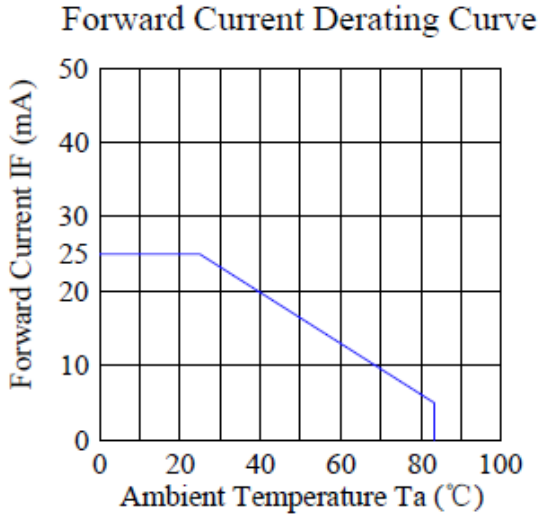
Red:

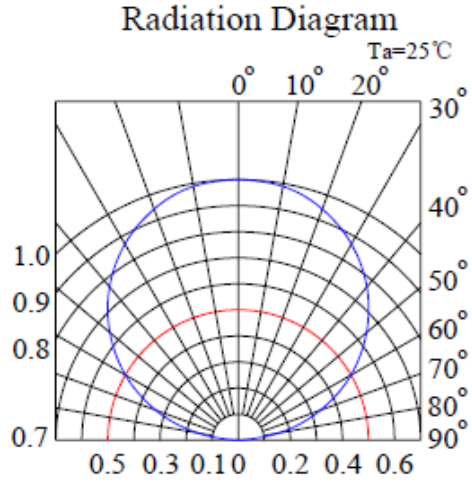






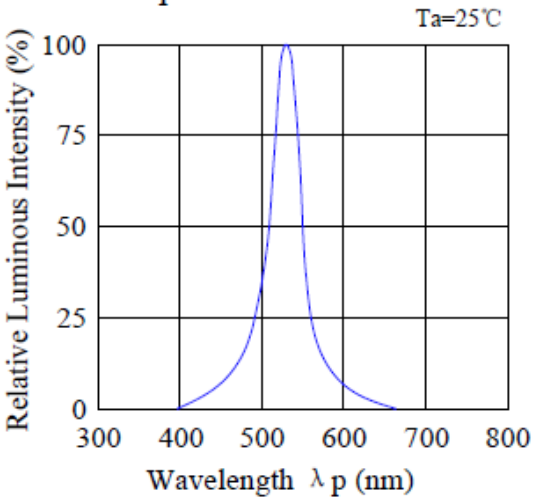




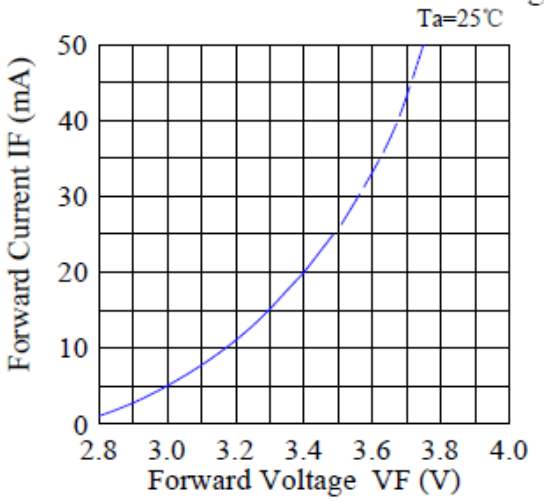


Green:

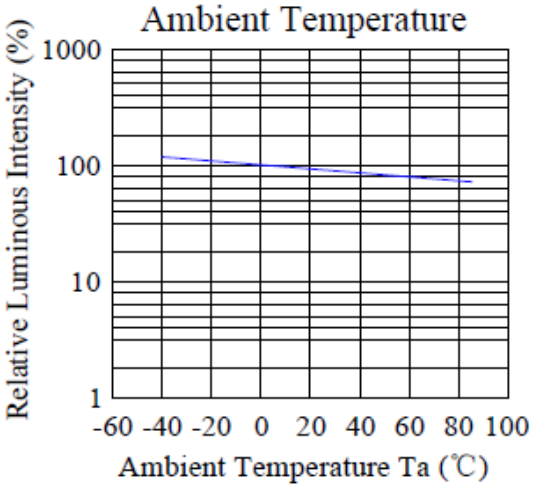
Spectrum Distribution



Forward Current & Forward Voltage



Luminous Intensity & Ambient Temperature



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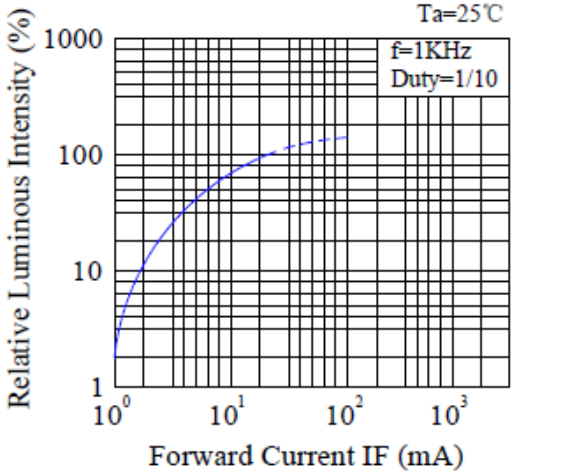
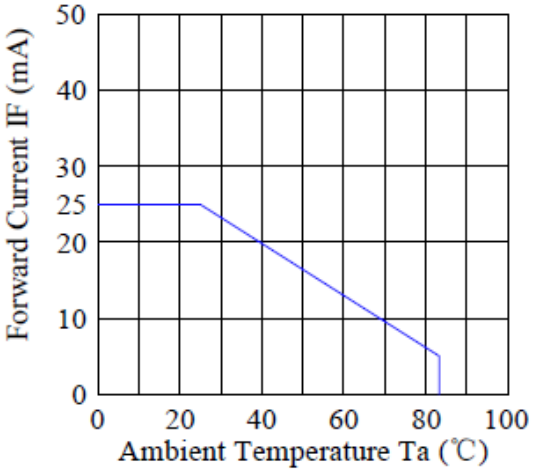
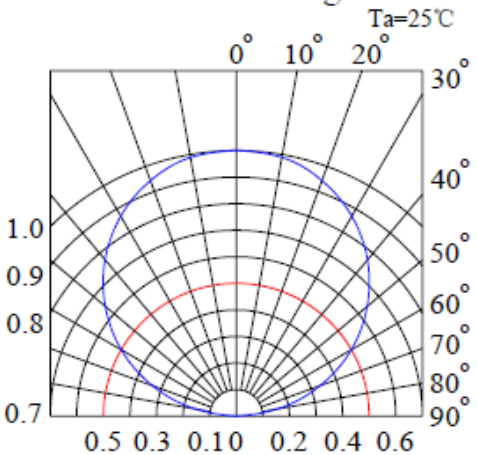


Forward Current Derating Curve

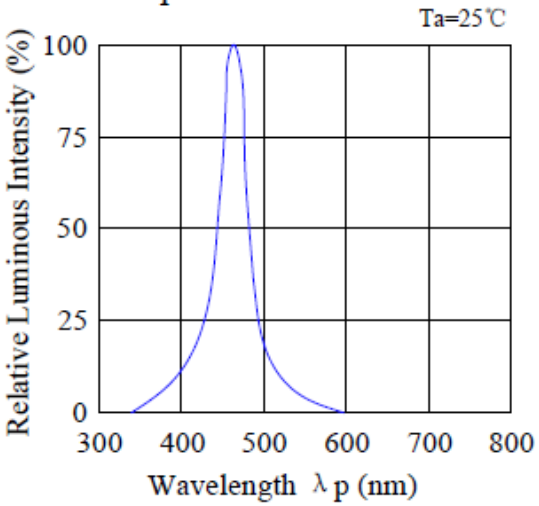


Radiation Diagram

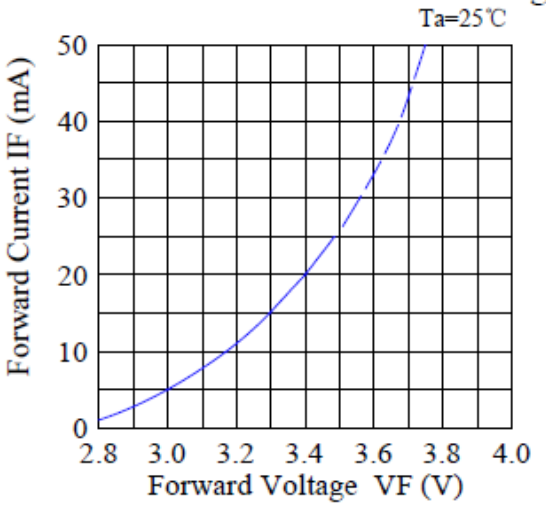


Blue:

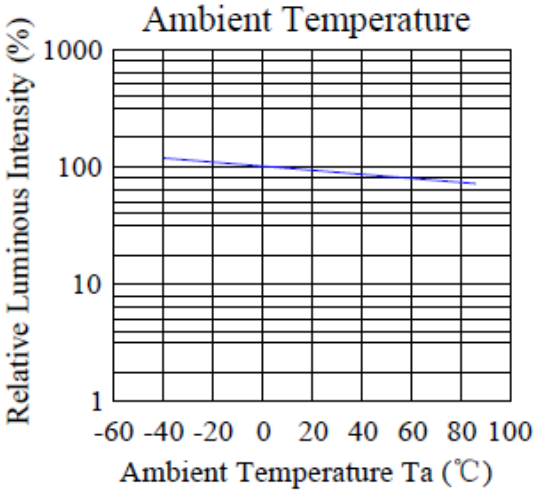
Spectrum Distribution



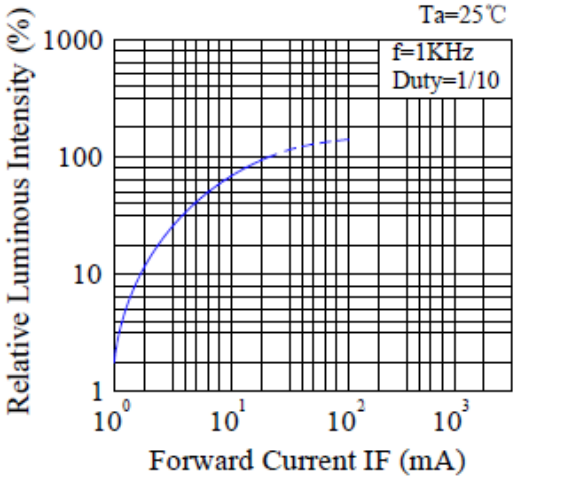
Forward Current & Forward Voltage



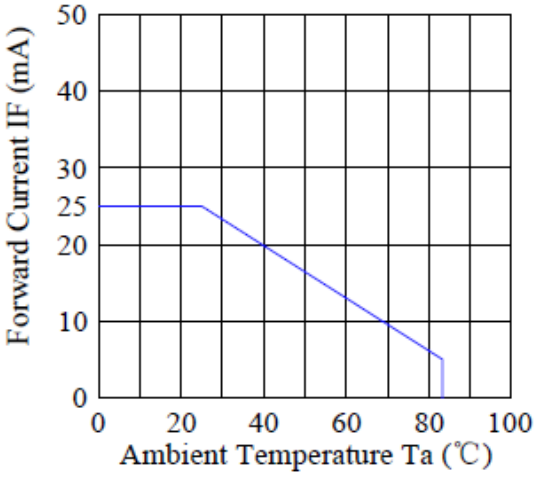
Luminous Intensity & Ambient Temperature



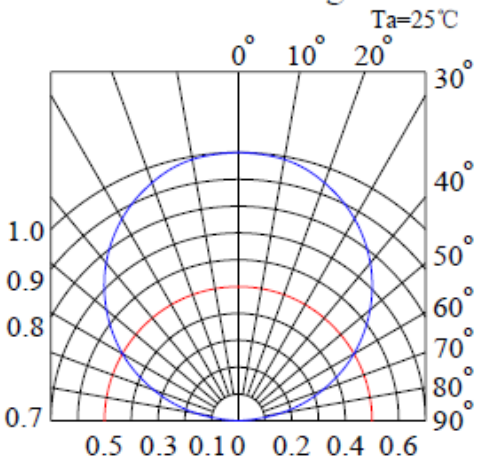
Luminous Intensity & Forward Current



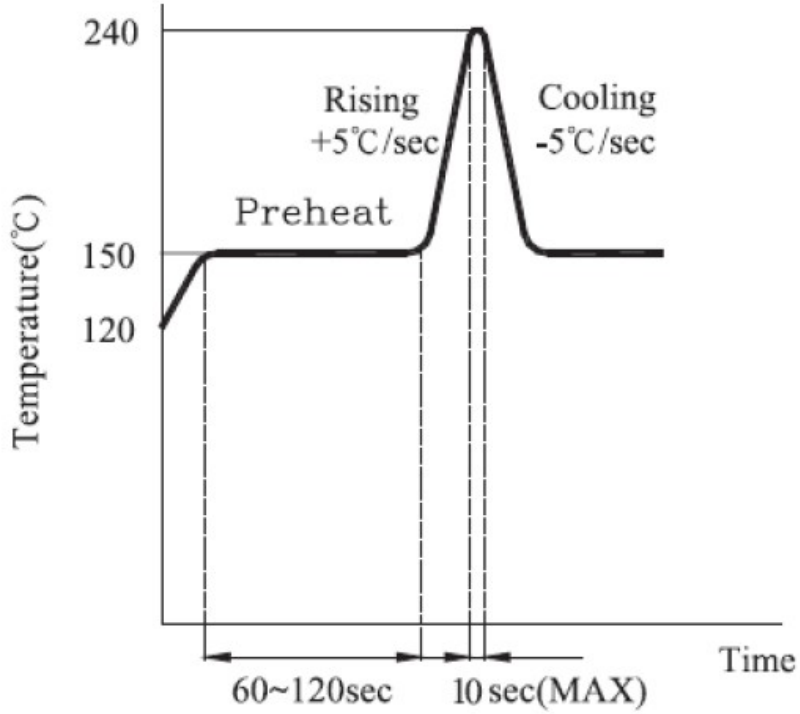
Forward Current Derating Curve



Radiation Diagram



Reflow soldering profile



Storage

1. Do not open moisture proof bag before ready to use
2. Before opening the package, LEDs should be kept at 30°C or less and 80% RH or less.
3. After opening the package, LEDs should be kept at 30°C or less and 60% RH or less.
4. The LEDs should be used within one year.
5. The LEDs should be used within 168 hours (7 days) after opening the package.
6. If the silica gel bag has fabled away or storage time has exceeded, baking treatment should be performed. Conditions: 60±5°C for 24 hours.

7. Warranty

(1) Perform an acceptance inspection on arrival of the goods. Return the defectives if any stipulating the disqualification and quantity.

(2) Embedding the LEDs into the application and the verification of life and other qualities in practical use shall be executed by user.

(3) Do not use the LEDs for the applications that require the higher reliability and security and that may endanger life and health by the breakdown and the malfunction. Seller shall not bear any responsibility or liability with respect to any claims and damages caused by user’s usage of the LEDs without following our intended purpose or any written consent.

(4) Seller shall not bear responsibility for any damages or defects caused by improper operation at the current in excess of the absolute maximum ratings that are not covered by warranty.