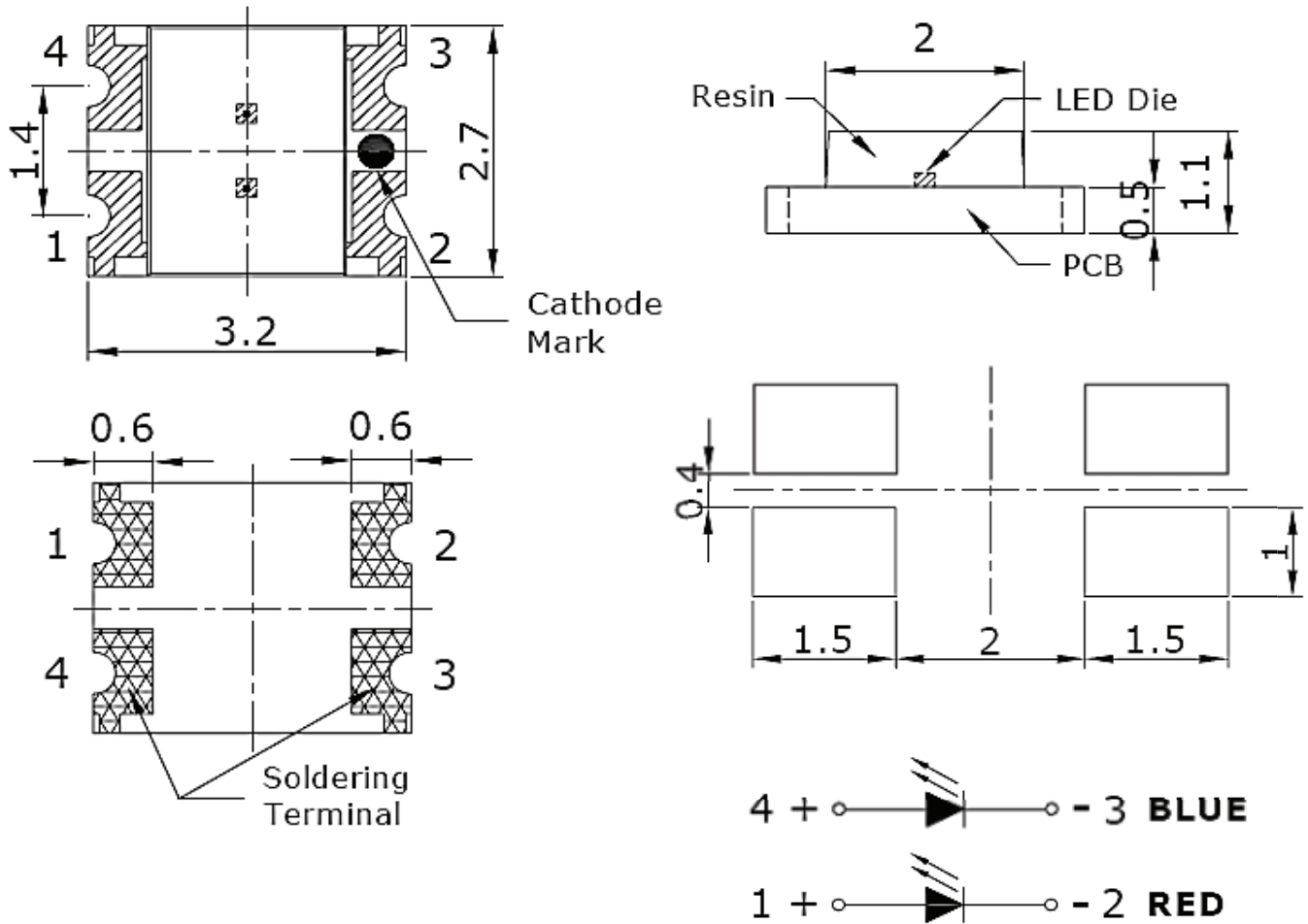


SPECIFICATIONS **CS121R2B2C**
OUTLINES DIMENSIONS


- Notes:
1. All Dimensions are in millimeters (inches).
 2. Tolerance is $\pm 0.25\text{mm}$ (0.01") unless otherwise noted.
 3. Specifications are subject to change without notice.

Part Number	Chip Material	Color of Emission	Lens Type	Viewing Angle
CS121R2B2C	InGaAlP/InGaN	Red/Blue	Water Clear	120°



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ABSOLUTE MAXIMUM RATINGS
(TA=25°C)

Parameter	Symbol	Color	Max Rating	Unit
Power Dissipation	PD	RED	60	mW
		BLUE	95	
Pulse Current Forward Current	IFP	RED	100	mA
		BLUE		
Continuous Forward Current	IF	RED	25	mA
		BLUE		
Reverse Voltage	VR	5		V
Operating Temperature Range	TOPR	-40~+80		°C
Storage Temperature Range	TSTG	-40~+85		°C

IFP = Pulse Width ≤ 10 ms, Duty Ratio ≤1/10. Soldering Condition: 260 °C/ 5sec

OPTICAL-ELECTRICAL CHARACTERISTICS
(TA=25°C)

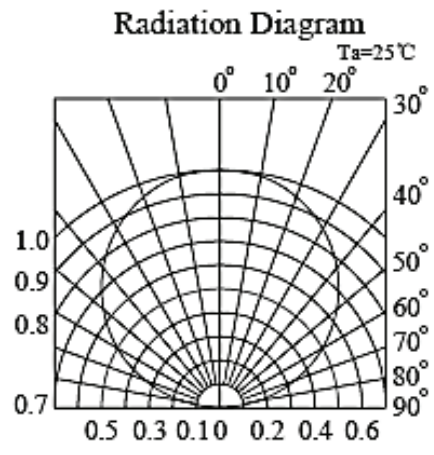
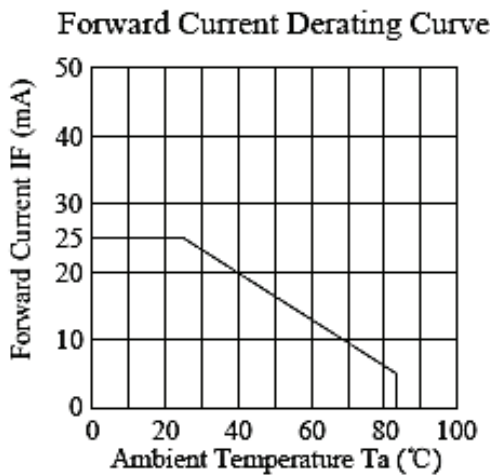
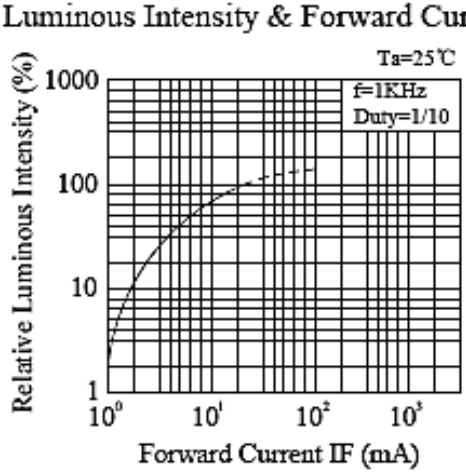
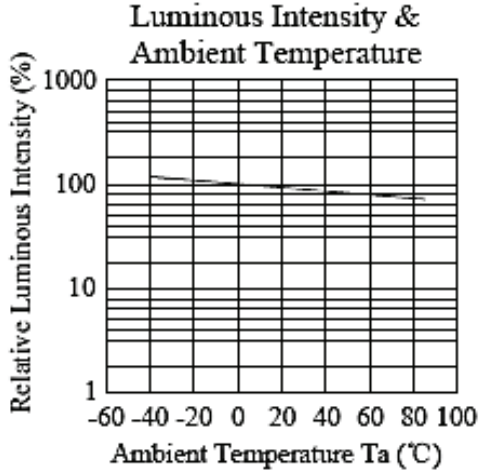
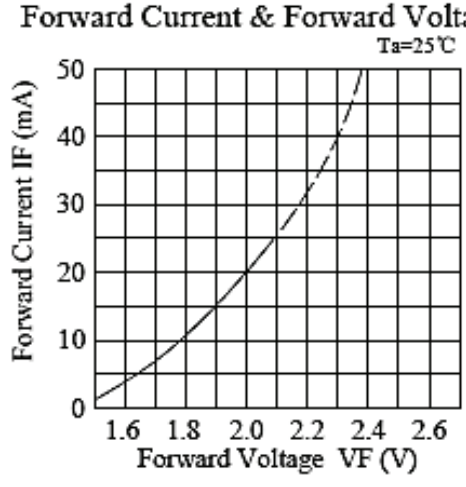
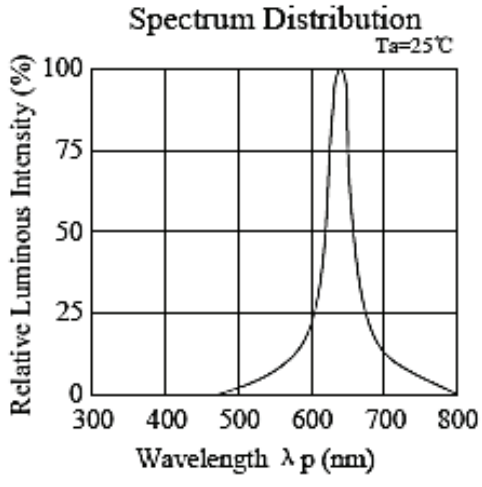

Parameter	Symbol	Test Condition	Color	Value			Unit
				Min	Typ	Max	
Luminous Intensity	IV	IF = 20mA	Red	80	150	-	mcd
			Blue	60	120	-	
Forward Voltage	VF	IF = 20mA	RED	1.6	2.0	2.4	V
			Blue	2.8	3.4	3.8	
Reverse Leakage Current	IR	VR = 5V	RED	-	-	10	µA
			Blue	-	-	10	
Viewing Angle	2θ1/2	IF = 20mA	RED	-	120	-	deg
			Blue	-	120	-	
Dominant Wavelength	λD	IF = 20mA	RED	-	624	-	nm
			Blue	-	470	-	

*Tolerance of viewing angle: -10 / +5 deg.



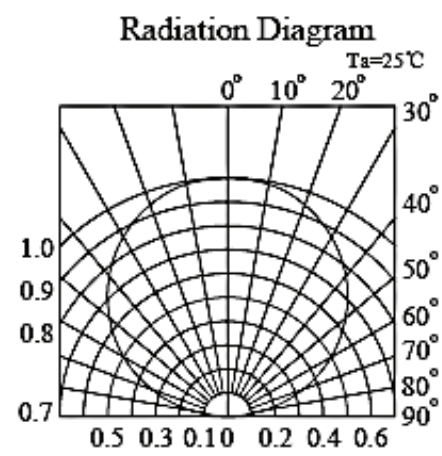
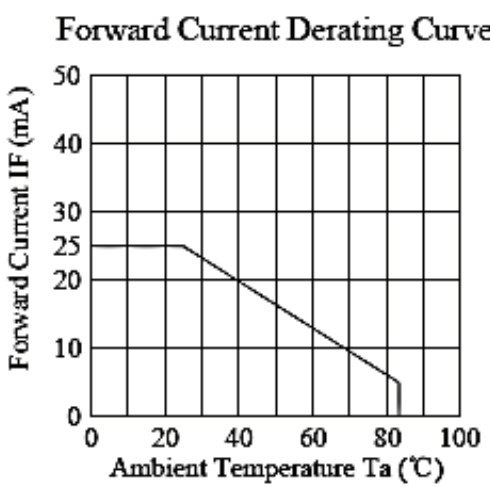
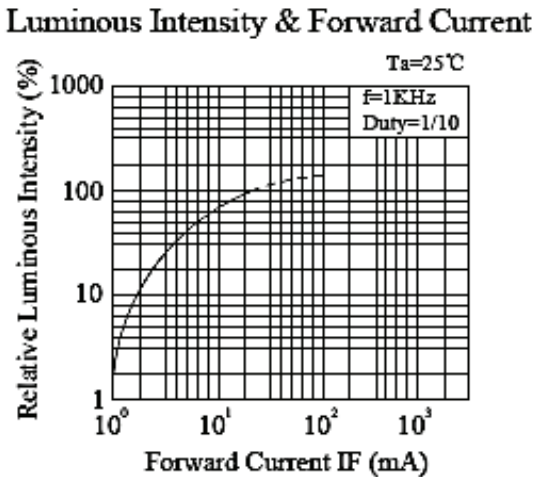
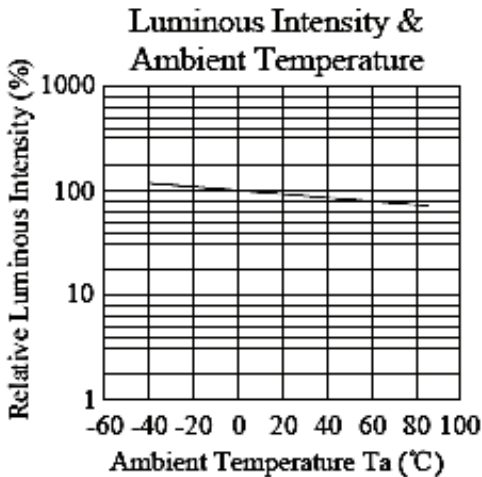
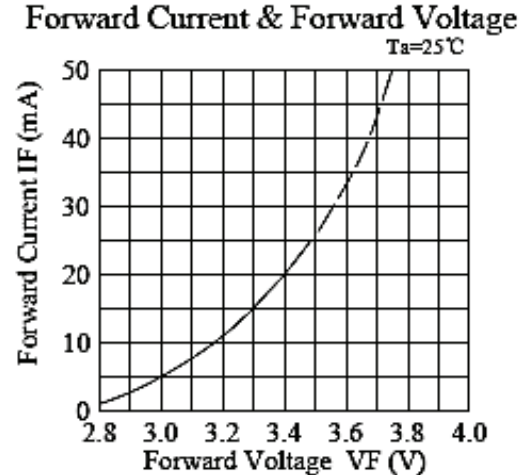
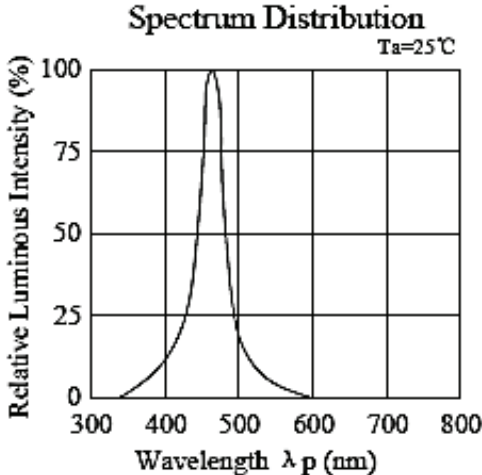
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OPTICAL CHARACTERISTIC CURVES (RED)

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OPTICAL CHARACTERISTIC CURVES (GREEN)



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SOLDERING CONDITIONS – LAMP TYPE LED

PRECAUTION FOR USE

1. Over-Current-Proof

Customer must apply resistors for protection, otherwise slight voltage shift will cause big current change & burn out will happen.

2. Storage

2.1 Do not open moisture proofs bag before the products are ready to use.

2.2 Before opening the package, the LEDs should be kept at 30 °C or less and 80% RH or less.

2.3 The LEDs should be used within a year.

2.4 After opening the package, the LEDs should be kept at 30 °C or less and 60% RH or less.

2.5 The LEDs should be used within 168 hours (7 days) after opening the package.

2.6 If the moisture absorbent material has faded away or the LEDs have exceed the storage time, baking treatment should be performed using the following conditions: 60±5 °C for 24 hours.

3. Soldering condition

When soldering lamps without stopper style, it is recommended to leave a minimum of 3mm clearance from the base of the lens to the soldering joint.

To avoid the epoxy climb up to lead frame and impact the non-soldering pattern, dipping the lens into the solder must be avoided.

Do not apply any external stress to the lead frame during soldering while the LED is at high temperature.

Recommended soldering conditions:

Soldering Iron		Wave Soldering	
Temperature	300°C Max.	Pre-heat	100°C Max.
Soldering Time	3 sec. Max. (one time only)	Pre-heat Time	60 sec. Max.
		Solder Wave	260°C Max.
		Soldering Time	5 sec. Max.

Note: excessive soldering temperature and/or time might result in deformation of the LED lens or catastrophic failure of the LED.

4. Soldering Iron

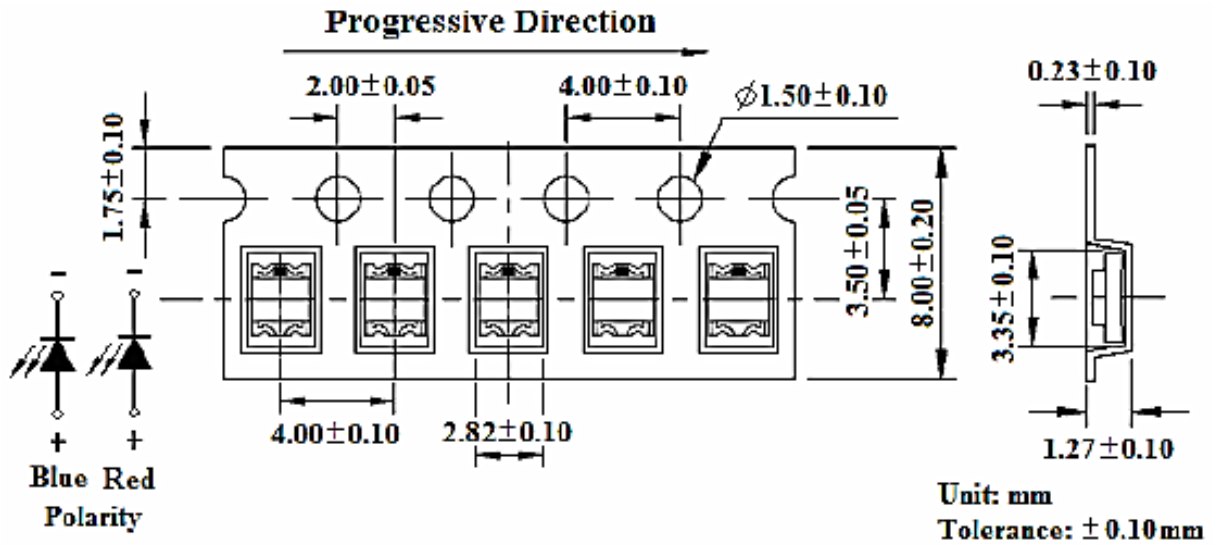
Each terminal is to go to the tip of the soldering iron temperature less than 260 °C for 5 seconds within one time in less than the soldering iron capacity of 25W. Leave two seconds and more intervals and do soldering of each terminal. Be careful because the damage of the product is often started at the time of the hand solder.



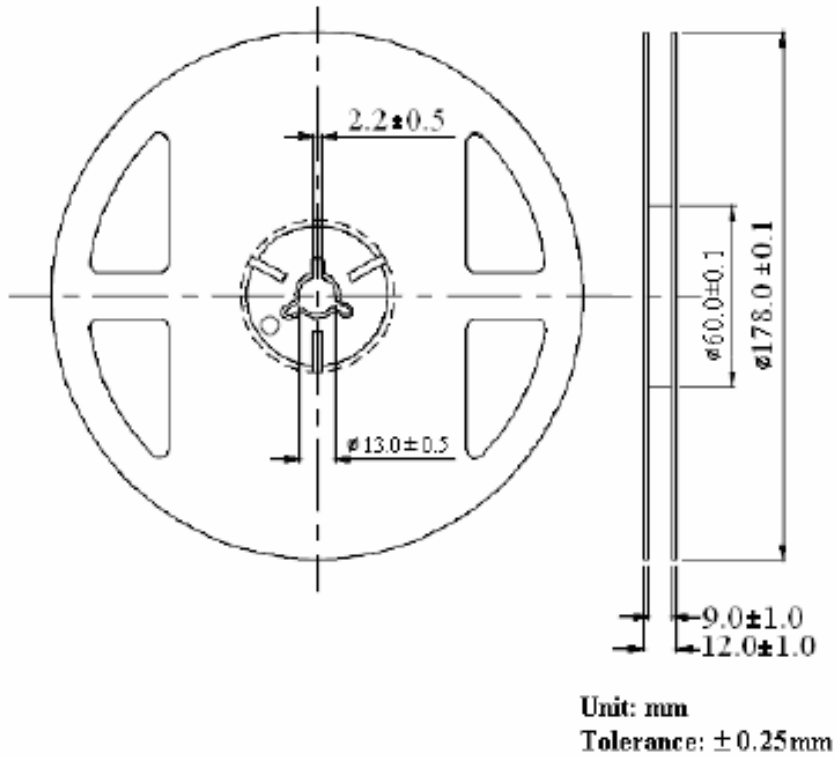
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PACKAGING SPECIFICATIONS

TAPE DIMENSIONS



REEL DIMENSIONS



*Loaded quantity: 3000 pcs per reel.



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