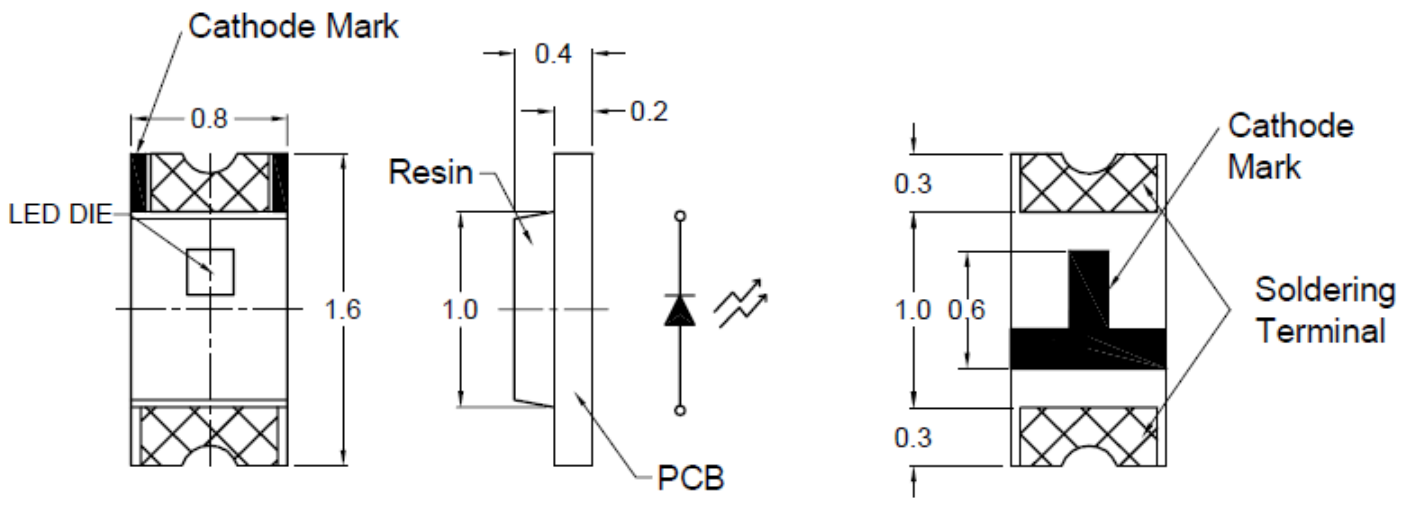
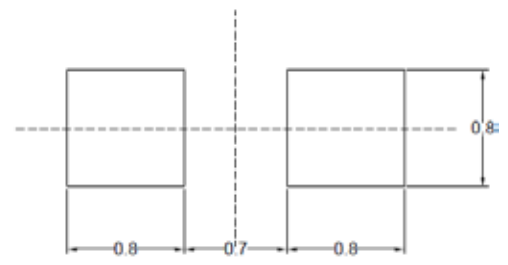


## SPECIFICATIONS CS63CR3C

### PACKAGE OUTLINES



### Recommended Pad Layout



Notes:  
 1. All dimensions are in millimeters (inches);  
 2. Tolerances are  $\pm 0.1$ mm unless otherwise noted.

Part Number	Chip Material	Color of Emission	Lens Type	Viewing Angle
CS63CR3C	AlGaInP	Red	Water Clear	110°



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**ABSOLUTE MAXIMUM RATINGS**
**(TA=25°C)**

Parameter	Symbol	Value	Unit
Forward current	I <sub>f</sub>	30	mA
Reverse current @ 5V	I <sub>r</sub>	10	μA
Power dissipation	P <sub>d</sub>	72	mW
Operating temperature range	T <sub>op</sub>	-40~+85	°C
Storage temperature range	T <sub>stg</sub>	-40~+90	°C
Peak pulsing current (1/10 duty f= 10KHz)	I <sub>fp</sub>	90	mA
Electrostatic Discharge	ESD	2000	V
Soldering Temperature	T <sub>SOL</sub>	Max 260°C for 5 sec Max	

**OPTICAL-ELECTRICAL CHARACTERISTICS**
**(TA=25°C)**

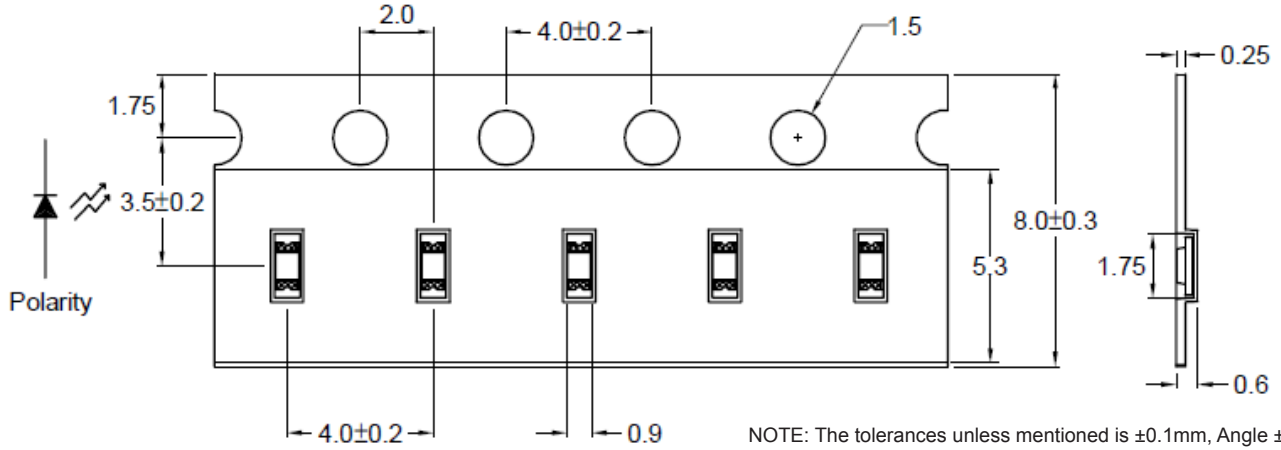
Parameter	Symbol	Test Condition	Value			Unit
			Min	Typ	Max	
Wavelength at peak emission	λ <sub>peak</sub>	I <sub>F</sub> = 20mA	-	642	-	nm
Spectral half bandwidth	Δλ	I <sub>F</sub> = 20mA	-	20	-	nm
Dominant wavelength	λ <sub>dom</sub>	I <sub>F</sub> = 20mA	-	630	-	nm
Forward Voltage	V <sub>f</sub>	I <sub>F</sub> = 20mA	1.5	-	2.4	V
Luminous intensity	I <sub>v</sub>	I <sub>F</sub> = 20mA	30	80	-	mcd
Viewing angle at 50% I <sub>v</sub>	2Θ ½	I <sub>F</sub> = 20mA	-	110	-	Deg

\*NOTE: 1. The forward voltage data did not including ±0.1V tolerance 2. The luminous intensity data did not including ±15% tolerance

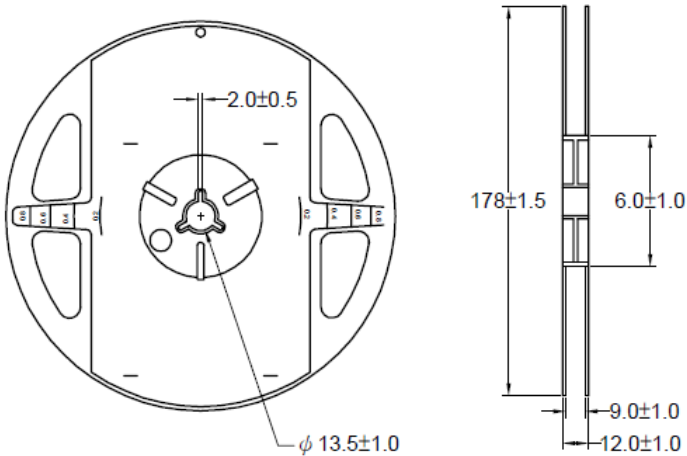


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## DIMENSIONS OF TAPE (Unit: mm)



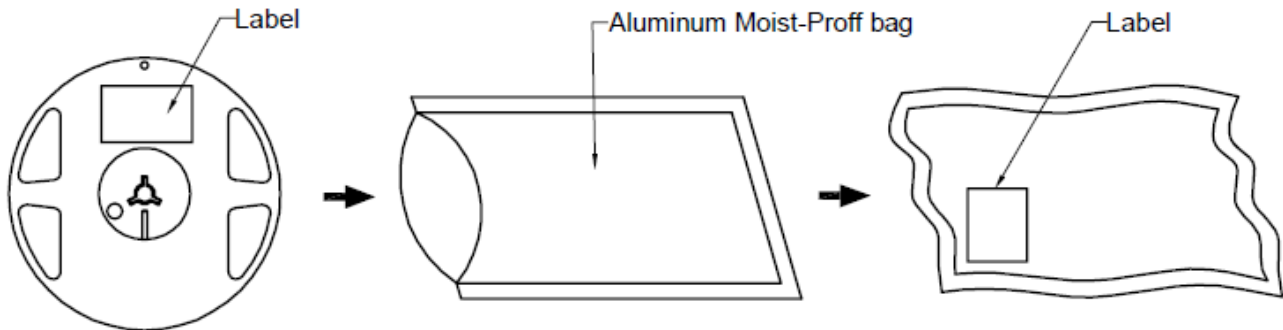
## REEL DIMENSIONS



NOTES:

1. Empty component pockets are sealed with top cover tape;
2. The maximum number of missing lamps is two;
3. The cathode is oriented towards the tape sprocket hole.
4. 4,000pcs/Reel

## PACKAGING SPECIFICATION



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## OPTICAL CHARACTERISTIC CURVES

Fig.1 Forward current vs. Forward Voltage

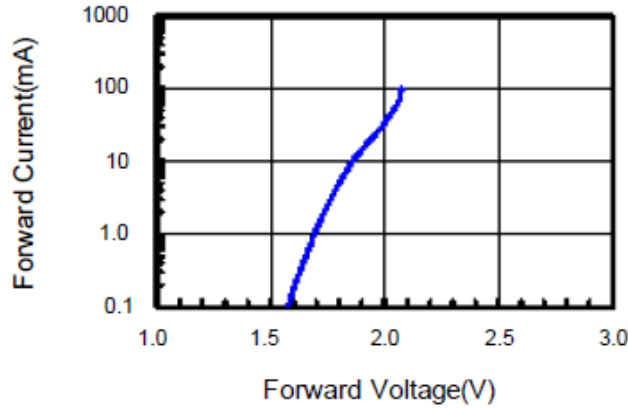


Fig.2 Relative Intensity vs. Forward Current

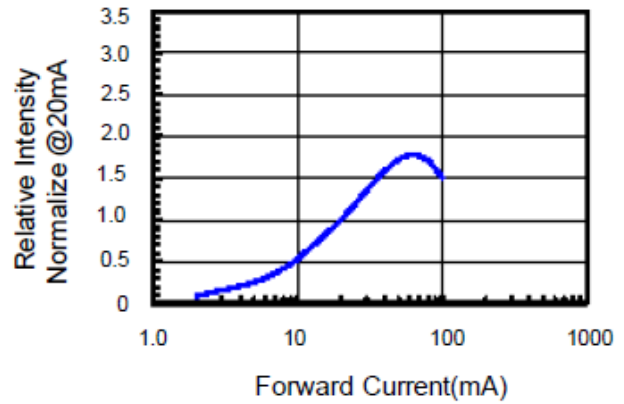


Fig.3 Forward Voltage vs. Temperature

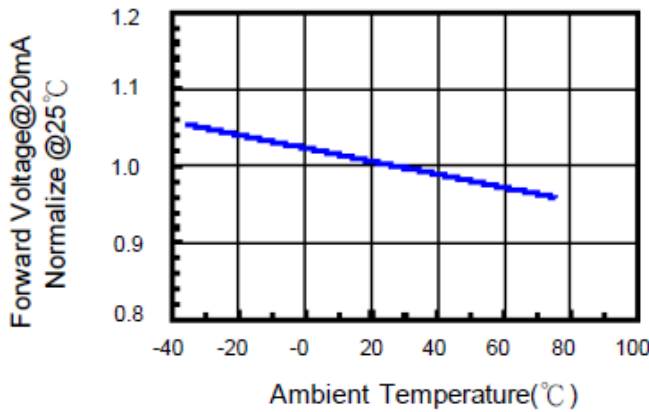


Fig.4 Relative Intensity vs. Temperature

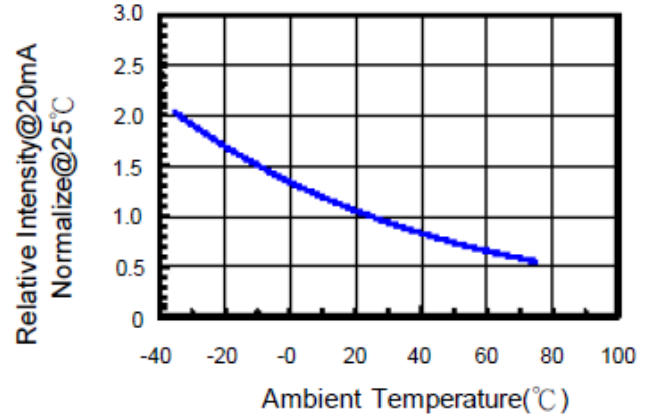


Fig.5 Relative Intensity vs. Wavelength

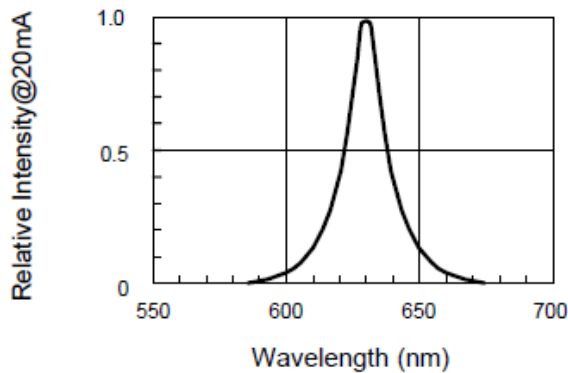
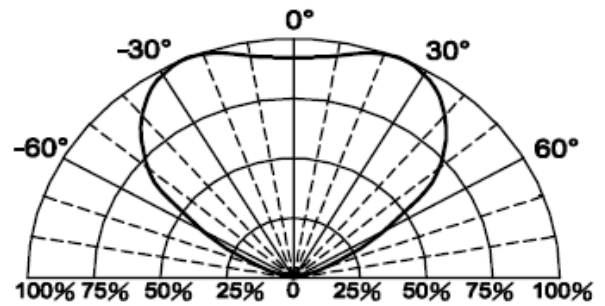


Fig.6 Directive Radiation



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## BRIGHTNESS BIN CODE

Group	(mcd) at 20mA		Unit
	MIN	MAX	
N	32	50	Mcd
P	50	80	
Q	80	125	
R	125	200	

## COLOR CODE FOR VISIBLE SMD

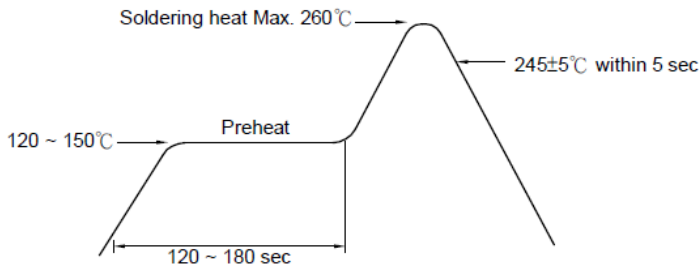
Group	(nm) at 20mA		Unit
	MIN	MAX	
29	624	627	nm
30	627	630	
31	630	633	
32	633	636	

## SOLDERING CONDITIONS – LAMP TYPE LED

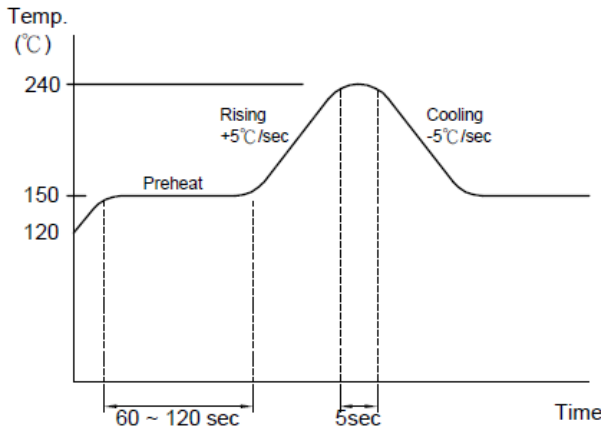
### 1. Hand Solder

Basic spec is  $\leq 280^{\circ}\text{C}$  3 sec one time only.

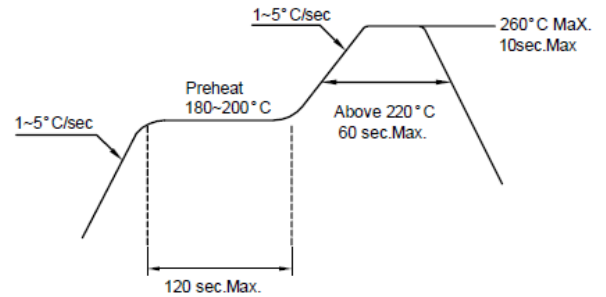
### 2. Wave Solder



### 3-1. LEAD Reflow Solder



### 3-2 PB-Free Reflow Solder



Reflow Soldering should not be done more than two times.



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