

## ■Features

- High Luminous PLCC2 Top SMD LEDs
- 3.0x2.0x1.25mm Standard Directivity
- Water Clear Type / W,M: Yellow Diffused Type
- 3Kpcs / Reel

## ■Applications

- Electronic Signs and Signals
- Small Area Illuminations
- Back Lighting
- Other Lighting

## ■Absolute Maximum Rating

(Ta=25°C)

Item	Symbol	Value		Unit
		W/M/BL/PG	YG/YL/OR/HR	
DC Forward Current	I <sub>F</sub>	25	25	mA
Pulse Forward Current#	I <sub>FP</sub>	100	100	mA
Reverse Voltage	V <sub>R</sub>	5	5	V
Power Dissipation	P <sub>D</sub>	90	65	mW
Operating Temperature	Topr	-25 ~ +85		°C
Storage Temperature	Tstg	-35 ~ +85		°C
Lead Soldering Temperature	Tsol	260°C/10sec		-

#Pulse width Max.10ms Duty ratio max 1/10

## ■Electrical -Optical Characteristics

(Ta=25°C)

Part Number	Color			V <sub>F</sub> (V)			I <sub>R</sub> (μA)	I <sub>v</sub> (mcd)			λ <sub>D</sub> (nm)			2θ1/2(deg)
				Min.	Typ.	Max.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Typ.
				I <sub>F</sub> =20mA			V <sub>R</sub> =5V	I <sub>F</sub> =20mA			I <sub>F</sub> =20mA			
OSWX3020C1C	Cool White	W		2.8	3.2	3.6	10	1000	1200	1400	X:0.23,Y:0.18			120
OSW63020C1C	Cool White	W		2.8	3.2	3.6	10	1400	1600	1800	15000-18000-25000K (X:0.26,Y:0.27)			120
OSW43020C1C	Pure White	W		2.8	3.2	3.6	10	1400	1600	1800	5500-6500-8500K (X:0.31,Y:0.33)			120
OSM53020C1C	Warm White	M		2.8	3.2	3.6	10	1400	1600	1800	3000K			120
OSB53020C1C	Blue	BL		2.8	3.2	3.6	10	100	200	300	465	470	475	120
OSG53020C1C	Pure Green	PG		2.8	3.0	3.6	10	400	600	800	520	525	530	120
OSG83020C1C	Yellow Green	YG		1.8	2.1	2.6	10	20	40	60	565	570	575	120
OSY53020C1C	Yellow	YL		1.8	2.1	2.6	10	100	200	300	585	590	595	120
OSR53020C1C	Red	HR		1.8	2.1	2.6	10	100	200	300	620	625	630	120

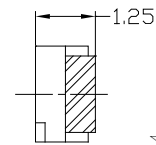
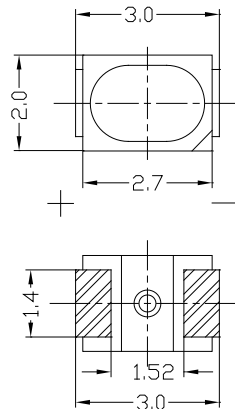
\*1 Tolerance of measurements of chromaticity coordinate is ±10%

\*3 Tolerance of measurements of luminous intensity is ±15%

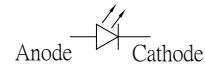
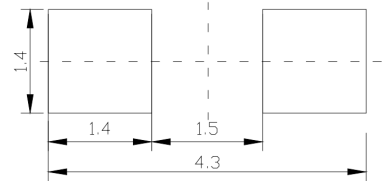
\*2 Tolerance of measurements of dominant wavelength is ±1nm

\*4 Tolerance of measurements of forward voltage is ±0.1V

## ■Outline Dimension

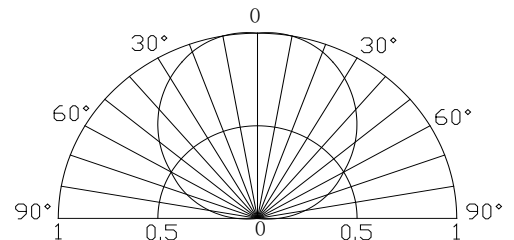


**Soldering PAD Suggested:**



Unit:mm  
Tolerance:±0.20mm  
unless otherwise noted

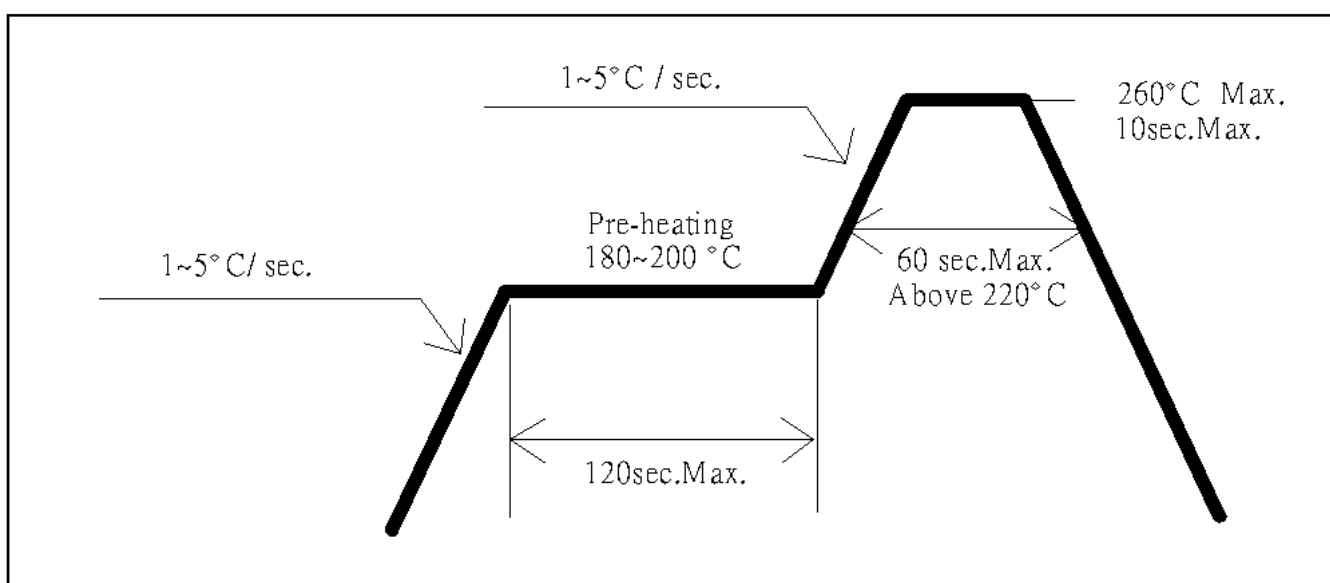
## ■Directivity



## ■ Soldering Conditions

Reflow Soldering		Hand Soldering	
Pre-Heat	180 ~ 200℃	Temperature Soldering time	350℃ Max. 3 sec. Max. (one time only)
Pre-Heat Time	120 sec. Max.		
Peak Temperature	260℃ Max.		
Dipping Time	10 sec. Max.		
Condition	Refer to Temperature-profile		

### • Reflow Soldering Condition(Lead-free Solder)



\*Recommended soldering conditions vary according to the type of LED

\*Although the recommended soldering conditions are specified in the above table, reflow, or hand soldering at the lowest possible temperature is desirable for the LEDs.

\*A rapid-rate process is not recommended for cooling the LEDs down from the peak temperature.

• All SMD LED products are pb-free soldering available.

• Occasionally there is a brightness decrease caused by the influence of heat or ambient atmosphere during air reflow. It is recommended that the User use the nitrogen reflow method.

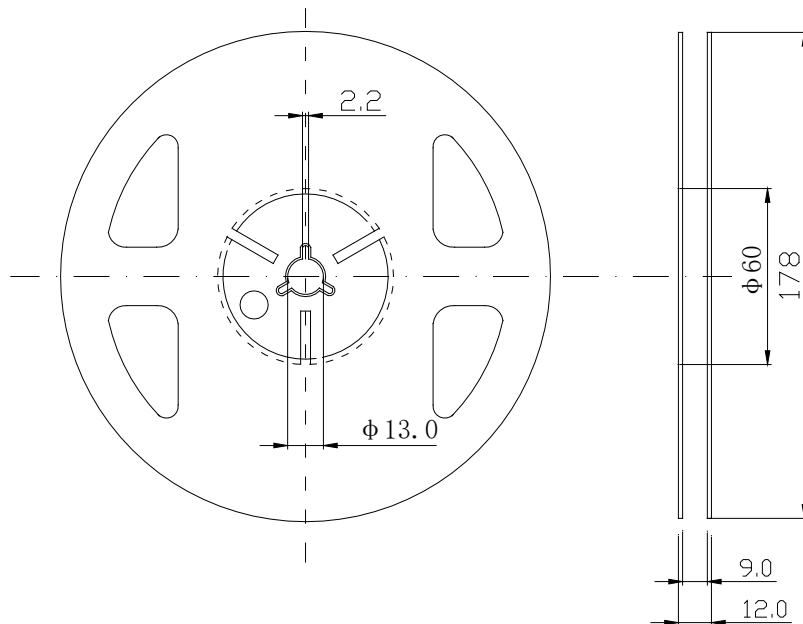
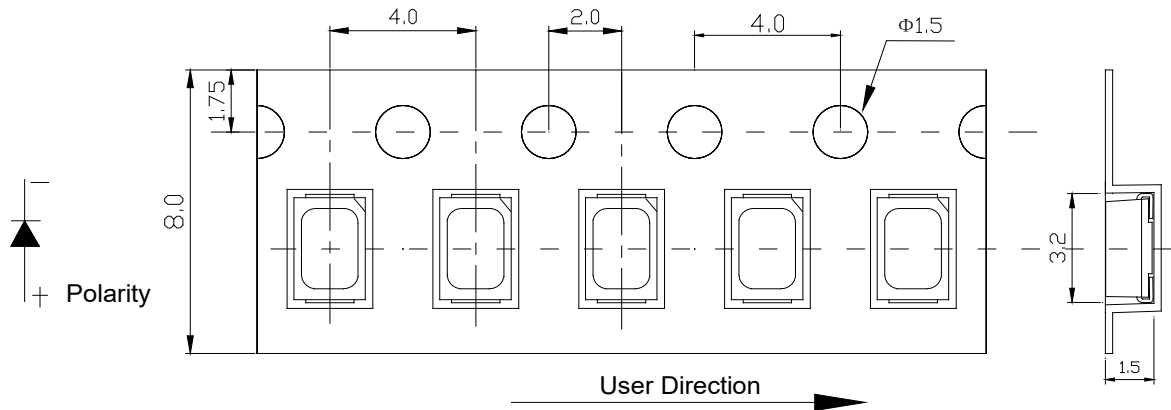
• Repairing should not be done after the LEDs have been soldered. When repairing is unavoidable a double-head soldering iron should be used. It should be confirmed beforehand whether the characteristics of the LEDs will or will not be damaged by repairing.

• Reflow soldering should not be done more than two times.

• When soldering, do not put stress on the LEDs during heating.

• After soldering, do not warp the circuit board.

## ■ Packaging Dimensions



### Notes:

1. Unit: mm
2. 3000pcs/Reel

## Precautions in Use for Surface Mount Diode

### ■ Storage

#### · Storage Conditions

Before opening the package:

The LEDs should be kept at 30°C or less and 60%RH or less. The LEDs should be used within a year. When storing the LEDs, moisture proof packaging with absorbent material (silica gel) is recommended.

#### · After opening the package:

Soldering should be done right after opening the package (within 24hrs).

Keeping of a fraction, sealing and Temperature: 5~30°C Humidity: Less than 30%.

If the package has been opened more than 24 Hours, components should be dried for 12hrs, at 60±5°C.

· Optosupply LED electrode sections are comprised of a silver plated copper alloy. The silver surface may be affected by environments which contain corrosive gases and so on. Please avoid conditions which may cause the LED to corrode, tarnish or discolor. This corrosion or discoloration may cause difficulty during soldering operations. It is recommended that the User use the LEDs as soon as possible.

· Please avoid rapid transitions in ambient temperature, especially in high humidity environments where condensation can occur.