

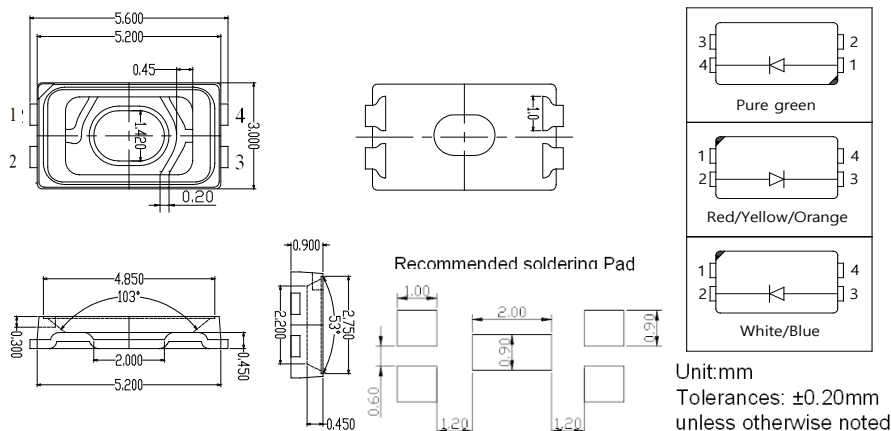
## ■Features

- Top view white LED (5.6x3.0x0.9mm)
- Super high brightness of surface mount LED
- Lead frame package with individual 4 pins
- ESD protection
- Compatible to IR reflow soldering.
- MSL:Level 5a

## ■Applications

- General lighting
- Decoration lighting
- Indicator

## ■Outline Dimension



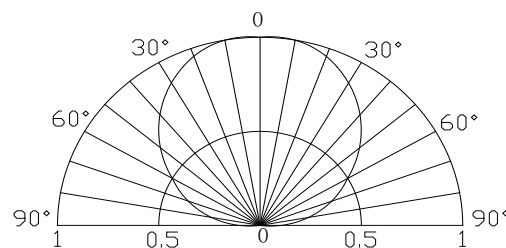
## ■Absolute Maximum Rating

(Ta=25°C)

Item	Symbol	Value		Unit
		W/M/B/PG	Y/O/R	
DC Forward Current	I <sub>F</sub>	150	150	mA
Pulse Forward Current#	I <sub>FP</sub>	200	200	mA
Reverse Voltage	V <sub>R</sub>	5	5	V
Power Dissipation	P <sub>D</sub>	540	390	mW
Operating Temperature	T <sub>opr</sub>	-30 ~ +85		°C
Storage Temperature	T <sub>stg</sub>	-40 ~ +100		°C
Lead Soldering Temperature	T <sub>sol</sub>	260°C/10sec		-

#Pulse width Max 0.1ms, Duty ratio max 1/10

## ■Directivity



## ■Electrical -Optical Characteristics

(Ta=25°C)

Part Number	Color			V <sub>F</sub> (V)			I <sub>R</sub> (μA)	Φ <sub>v</sub> (lm)			CCT/WD(WP)			2θ1/2(deg)	CRI
				Min.	Typ.	Max.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	Typ.	Min.
				I <sub>F</sub> =150mA			V <sub>R</sub> =5V	I <sub>F</sub> =150mA			I <sub>F</sub> =150mA				
OSW55630C1D	Cool White	W		2.8	3.1	3.6	10	40	-	55	8000K	-	16000K	120	70
OSW45630C1D	White	W		2.8	3.1	3.6	10	45	-	60	6000K	-	7000K	120	75
OSW35630C1D	White	W		2.8	3.1	3.6	10	45	-	60	5000K	-	6000K	120	80
OSM75630C1D	Warm White	M		2.8	3.1	3.6	10	45	-	55	3500K	-	4500K	120	80
OSM55630C1D	Warm White	M		2.8	3.1	3.6	10	40	-	55	2800K	-	3500K	120	80
OSB55630C1D	Blue	B		2.8	3.1	3.6	10	5	-	10	455	465	470	120	-
OSG55630C1D	Pure Green	PG		2.8	3.1	3.6	10	25	-	35	520	525	530	120	-
OSY55630C1D	Yellow	Y		1.8	2.1	2.6	10	10	-	20	585	590	595	120	-
OSO55630C1D	Orange	O		1.8	2.1	2.6	10	10	-	20	600	605	610	120	-
OSR55630C1D	Red	R		1.8	2.1	2.6	10	10	-	20	620	625	630	120	-
OSR75630C1D	Red	R		1.8	2.1	2.6	10	5	-	8	650	660	670	120	-

\*1 Tolerance of measurements of chromaticity coordinate is  $\pm 10\%$

\*2 Tolerance of measurements of dominant(peak) wavelength is  $\pm 1\text{nm}$

\*3 Tolerance of measurements of luminous flux is  $\pm 15\%$

\*4 Tolerance of measurements of forward voltage is  $\pm 0.1\text{V}$



**OptoSupply**

Light It Up

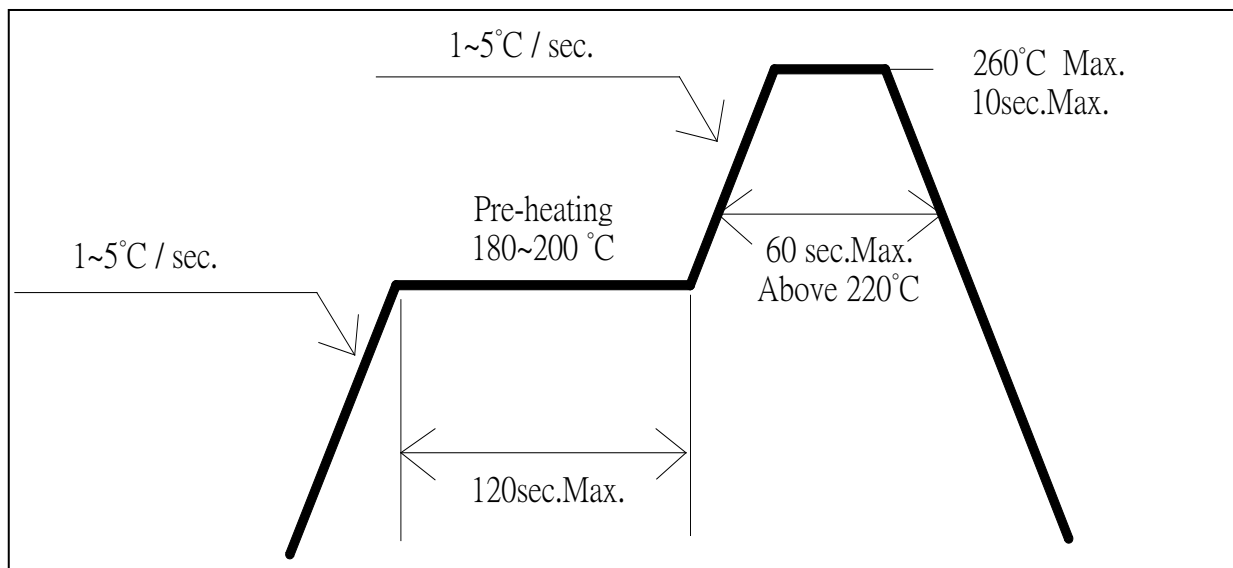
**5.6 x 3.0 x 0.9mm SMD**

**OSXX5630C1D**

### ■ Soldering Conditions

Reflow Soldering		Hand Soldering	
Pre-Heat	180 ~ 200°C	Temperature Soldering time	350°C Max. 3 sec. Max. (one time only)
Pre-Heat Time	120 sec. Max.		
Peak Temperature	260°C 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.

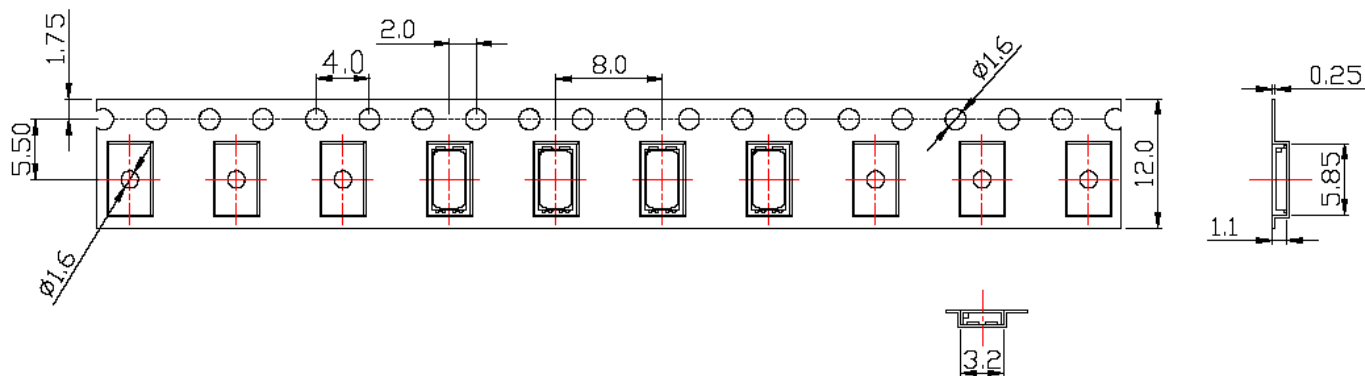
• Reflow soldering should not be done more than two times.

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

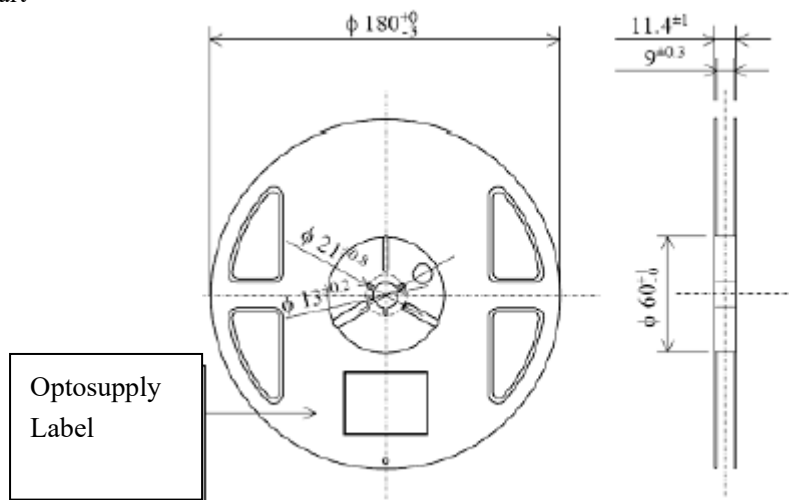
• After soldering, do not warp the circuit board.

■ Package Model

Loaded Quantity 3000 pcs. Per Reel



Reel Part



## 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  $60 \pm 5^\circ\text{C}$ .

· 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.