

## OSW54LS1C1B-NO

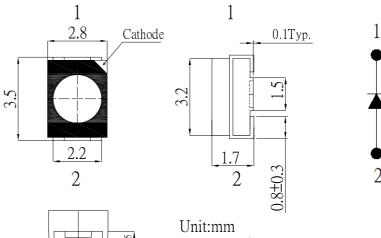
#### **■Features**

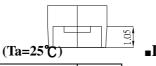
- High Luminous PLCC2 Top SMD LEDs
- 3.5x2.8x1.7mm Standard Directivity
- UV Resistant Epoxy
- **Black Surface**

## **■**Applications

- Traffic Lights
- Information Displays
- Signal and Symbol Luminary
- Variable Message Signs (VMS)

## **■Outline Dimension**

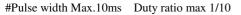




# Tolerance:±0.20mm **Directivity**

# ■Absolute Maximum Rating

Item	Symbol	Value	Unit
DC Forward Current	$I_{\mathrm{F}}$	30	mA
Pulse Forward Current#	$I_{FP}$	100	mA
Reverse Voltage	$V_R$	5	V
Power Dissipation	$P_D$	120	mW
Operating Temperature	Topr	-30 ~ +85	$^{\circ}\!\mathbb{C}$
Storage Temperature	Tstg	-40~ +100	$^{\circ}\!\mathbb{C}$
Lead Soldering Temperature	Tsol	260°C/5sec	_



# 0 30 30° 60 60° 0.5 0.5

## **■Electrical -Optical Characteristics**

Item	Symbol	Condition	Min.	Тур.	Max.	Unit
DC Forward Voltage*1	$V_{F}$	I <sub>F</sub> =20mA	2.7	2.9	3.4	V
DC Reverse Current	$I_R$	V <sub>R</sub> =5V	-	-	10	μΑ
Luminous Intensity*2	Iv	I <sub>F</sub> =20mA	2180	3000	-	mcd
Color Temperature*3	CCT	I <sub>F</sub> =20mA	-	10000	-	K
Chromaticity Coordinates*3	X	I <sub>F</sub> =20mA	-	0.27	-	
	у	I <sub>F</sub> =20mA	-	0.28	-	
50% Power Angle	2θ1/2	I <sub>F</sub> =20mA	-	120	-	deg

<sup>\*1</sup> Tolerance of measurements of forward voltage is±0.1V

# **LED & Application Technologies**









(Ta=25℃)

<sup>\*2</sup> Tolerance of measurements of luminous intensity is ±15%

<sup>\*3</sup> Tolerance of measurements of chromaticity coordinates / CCT is ±10%

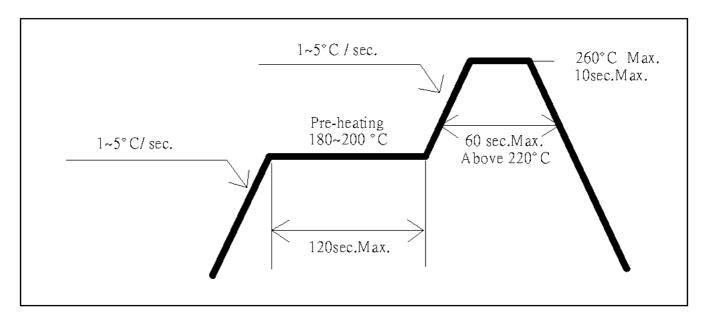


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## **■** Soldering Conditions

Reflow Soldering		Hand Soldering		
Pre-Heat	180 ∼ 200°C			
Pre-Heat Time	120 sec. Max.		350°C Max.	
Peak temperature	perature 260°C Max.		3 sec. Max.	
Dipping Time	10 sec. Max.	Soldering time (one time only)		
Condition	Refer to Temperature-profile		(ene unit emj)	

## • 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.





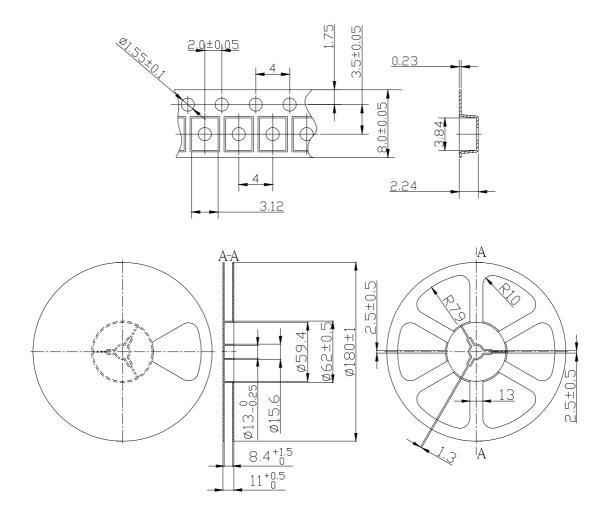






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## PACKING DIMENTIONS



#### Notes:

- 1. Unit: mm
- 2. 2000pcs/Reel











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## **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  $60\pm5^{\circ}$ 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.









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LT1ED53A AM27ZGC03 APFA3010SURKCGKQBDC APHK1608VGCA APT2012QGW CLX6D-FKB-CN1R1H1BB7D3D3 LTST
008BGEW LTW-010DCG LTW-020ZDCG LTW-21TS5 LTW-220DS5 598-8330-117F SML-LX0402IC-TR CMDA20AYAA7D1S

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CMD91-21VRC/TR7 SML-512PWT86A SMF-2432GYC-TR EASV3015RGYA0 LTST-C190KFKT-5A LTST-C194TBKT-5A CLX6E
FKC-CH1M1D1BB7C3D3 SML-LXL0805USBC-TR SML-LX2835SYSUGCTR LTW-M670ZVS-M5 APA2106ZGC/G CLMXB-FKA
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