

SunLED
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 $1.6 \times 1.5 \text{ mm}$  Bi-Color SMD Chip LED Lamp

## TUTVUIIDET: MZMTITV GOSVV T

### **Features**

- Ideal for indication light on hand held products
- Long life and robust package
- Standard Package: 2,000pcs/ Reel
- MSL (Moisture Sensitivity Level): 3
- Halogen-free
- RoHS compliant







# ATTENTION OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DISCHARGE SENSITIVE

DEVICES

# Package Schematics 1.6(0.063) LED Chip 1.5(0.059) 0.85 1.5(0.059) Polarity mark 0.25(0.01) 0.7(0.028) 0.35(0.014) 0.35(0.014)

### Notes:

- 1. All dimensions are in millimeters (inches).
- 2. Tolerance is  $\pm 0.2(0.008")$  unless otherwise noted.

0.65(0.026)

3. Specifications are subject to change without notice.

Absolute Maximum Ratings (T <sub>A</sub> =25°C)		Yellow (AlGaInP)	Green (AlGaInP)	Unit
Reverse Voltage	$V_{\mathrm{R}}$	5	5	V
Forward Current	$I_{\mathrm{F}}$	30	30	mA
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	i <sub>FS</sub>	175	150	mA
Power Dissipation	$P_D$	75	75	mW
Operating Temperature	$T_{\rm A}$	-40 ~ +85		°C
Storage Temperature	Tstg	-40 ~ +85		C

A Relative Humidity between 40% and 60% is recommended in ESD-protected work areas to reduce static build up during assembly process (Reference JEDEC/JESD625-A and JEDEC/J-STD-033)

Operating Characteristics (T <sub>A</sub> =25°C)	Yellow (AlGaInP)	Green (AlGaInP)	Unit	
Forward Voltage (Typ.) (I <sub>F</sub> =20mA)	$V_{\mathrm{F}}$	2	2.1	V
Forward Voltage (Max.) (I <sub>F</sub> =20mA)	$V_{\mathrm{F}}$	2.5	2.5	V
Reverse Current (Max.) $(V_R=5V)$	$I_R$	10	10	μA
Wavelength of Peak Emission CIE127-2007* (Typ.) (I <sub>F</sub> =20mA)	λР	590*	574*	nm
Wavelength of Dominant Emission CIE127-2007* (Typ.) (I <sub>F</sub> =20mA)	λD	590*	570*	nm
Spectral Line Full Width At Half-Maximum (Typ.) (I <sub>F</sub> =20mA)	Δλ	20	20	nm
Capacitance (Typ.) (V <sub>F</sub> =0V, f=1MHz)	С	20	15	pF

Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity CIE127-2007* (I <sub>F</sub> =20mA) mcd		Wavelength CIE127-2007* nm λP	Viewing Angle 20 1/2
				min.	typ.		
XZMYKVG59W-1	Yellow	AlGaInP	Water Clear -	80*	118*	590*	150°
	Green	AlGaInP		20*	49*	574*	

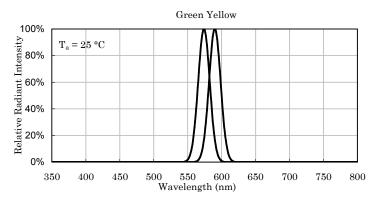
<sup>\*</sup>Luminous intensity value and wavelength are in accordance with CIE127-2007 standards.

Nov 26,2020 XDSB1898 V6-Z Layout: Maggie L.



# 1.6 x 1.5 mm Bi-Color SMD Chip LED Lamp



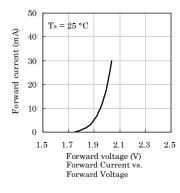


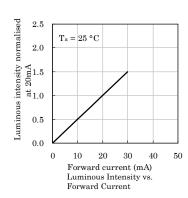
 $T_a = 25 \, ^{\circ}\text{C}$   $15^{\circ}$   $0^{\circ}$  1.0  $45^{\circ}$  0.5  $0^{\circ}$   $1.5^{\circ}$   $0^{\circ}$  0.5  $0^{\circ}$   $0^{\circ}$  0.5  $0^{\circ}$   $0^{\circ}$ 

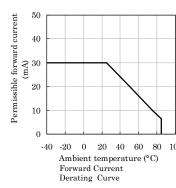
Relative Intensity Vs. CIE Wavelength

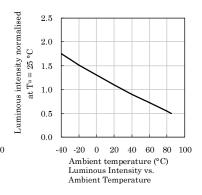
Spatial Distribution

### **❖** Yellow

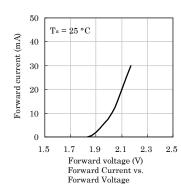


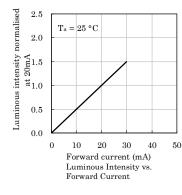


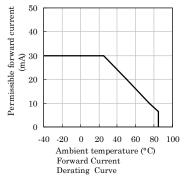


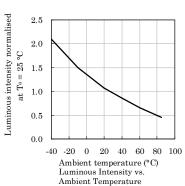


### **❖** Green







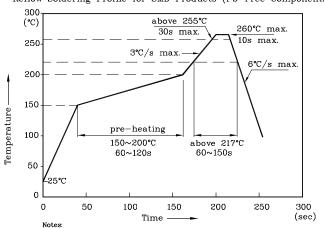






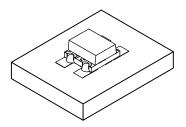
# LED is recommended for reflow soldering and soldering profile is shown below.

Reflow Soldering Profile for SMD Products (Pb-Free Components)

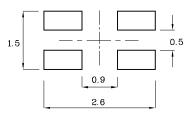


- 1. All temperatures refer to the center of the package, measured on the package body surface facing up during reflow.
- 2. Do not apply any stress to the LED during high temperature conditions 3. Maximum number of soldering passes: 2

❖ The device has a single mounting surface. The device must be mounted according to the specifications.



### Recommended Soldering Pattern (Units: mm; Tolerance: $\pm 0.1$ )



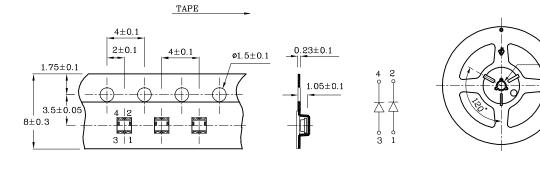
 $R6.5 \pm 0.5$ 

ø178±2

9±1

### ❖ Tape Specification (Units:mm)

❖ Reel Dimension (Units:mm)



### Remarks:

If special sorting is required (e.g. binning based on forward voltage, Luminous intensity / luminous flux, or wavelength), the typical accuracy of the sorting process is as follows:

- 1. Wavelength: +/-1nm
- 2. Luminous intensity / luminous flux: +/-15%
- 3. Forward Voltage: +/-0.1V

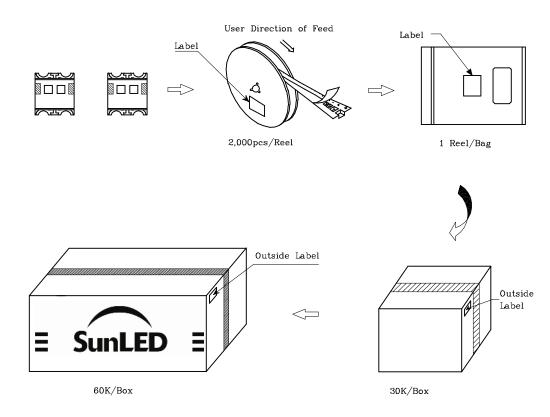
Note: Accuracy may depend on the sorting parameters.

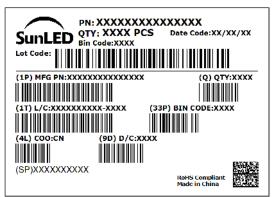
ø60±2





### PACKING & LABEL SPECIFICATIONS





### TERMS OF USE

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