



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

## **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



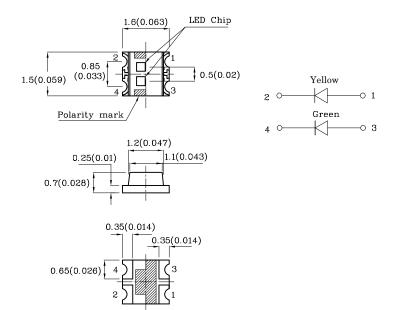




# ATTENTION OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DISCHARGE SENSITIVE

DEVICES

# Package Schematics



### Notes

- 1. All dimensions are in millimeters (inches).
- 2. Tolerance is  $\pm 0.2(0.008")$  unless otherwise noted.
- 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	$i_{\mathrm{FS}}$	175	150	mA
Power Dissipation	$P_D$	75	75	mW
Operating Temperature	$T_{\rm A}$	-40 ~ +85		°C
Storage Temperature	Tstg	-40 ~ +85		

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)

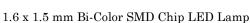
Operating Characteristics (T <sub>A</sub> =25°C)	Yellow (AlGaInP)	Green (AlGaInP)	Unit	
Forward Voltage (Typ.) (I <sub>F</sub> =20mA)	$V_{\mathrm{F}}$	2	2.1	V
Forward Voltage (Max.) (I <sub>F</sub> =20mA)	$V_{\mathrm{F}}$	2.5	2.5	V
Reverse Current (Max.) $(V_R=5V)$	$I_R$	10	10	μA
Wavelength of Peak Emission CIE127-2007* (Typ.) (I <sub>F</sub> =20mA)	λΡ	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	- water Clear	20*	49*	574*	

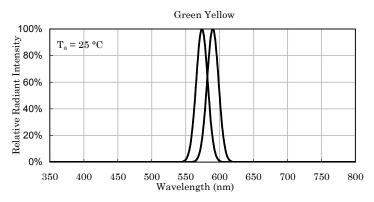
<sup>\*</sup>Luminous intensity value and wavelength are in accordance with CIE127-2007 standards.

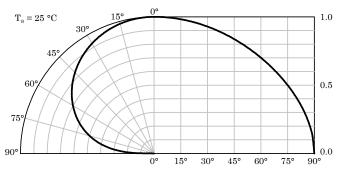
Nov 26,2020







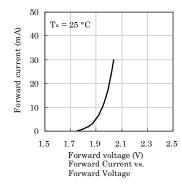


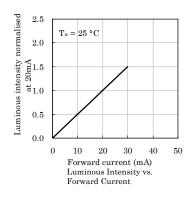


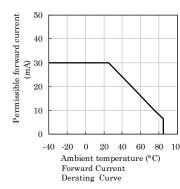
Relative Intensity Vs. CIE Wavelength

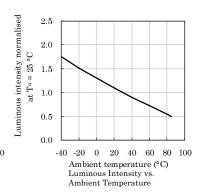
Spatial Distribution

## **❖** Yellow

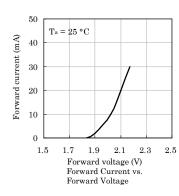


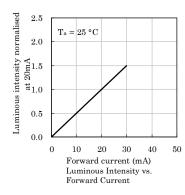


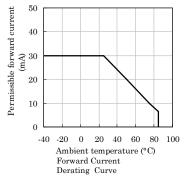


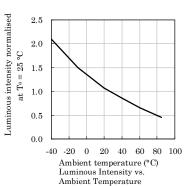


## **❖** Green







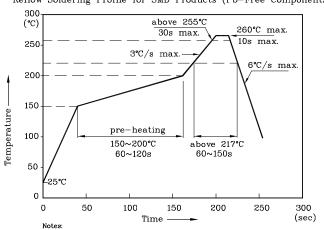




1.6 x 1.5 mm Bi-Color SMD Chip LED Lamp

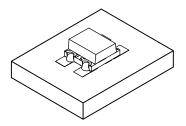
# LED is recommended for reflow soldering and soldering profile is shown below.

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

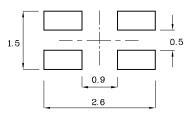


- 1. All temperatures refer to the center of the package, measured on the package body surface facing up during reflow.
- 2. Do not apply any stress to the LED during high temperature conditions 3. Maximum number of soldering passes: 2

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

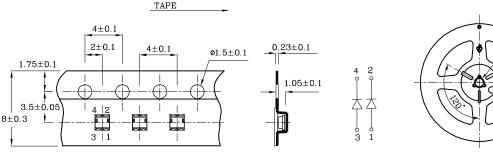


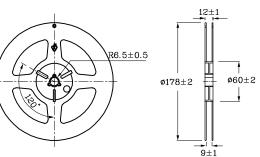
## Recommended Soldering Pattern (Units: mm; Tolerance: $\pm 0.1$ )



## ❖ 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:

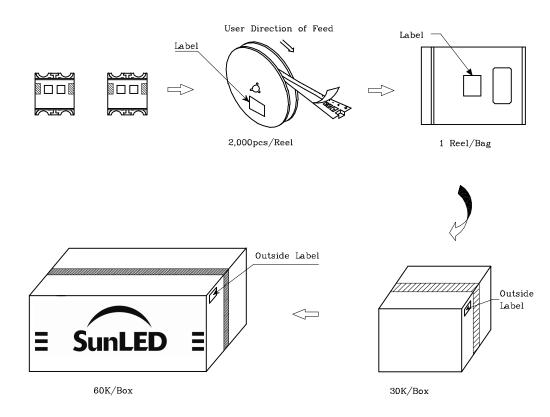
- 1. Wavelength: +/-1nm
- 2. Luminous intensity / luminous flux: +/-15%
- 3. Forward Voltage: +/-0.1V

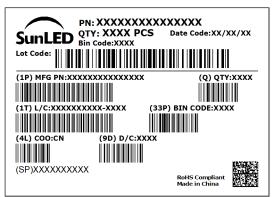
Note: Accuracy may depend on the sorting parameters.





## PACKING & LABEL SPECIFICATIONS





## TERMS OF USE

- $1. \ Data \ presented \ in \ this \ document \ reflect \ statistical \ figures \ and \ should \ be \ treated \ as \ technical \ reference \ only.$
- 2. Contents within this document are subject to improvement and enhancement changes without notice.
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Nov 26,2020 XDSB1898 V6-Z Layout: Maggie L.