Part Number: XZCBDVG53W-9

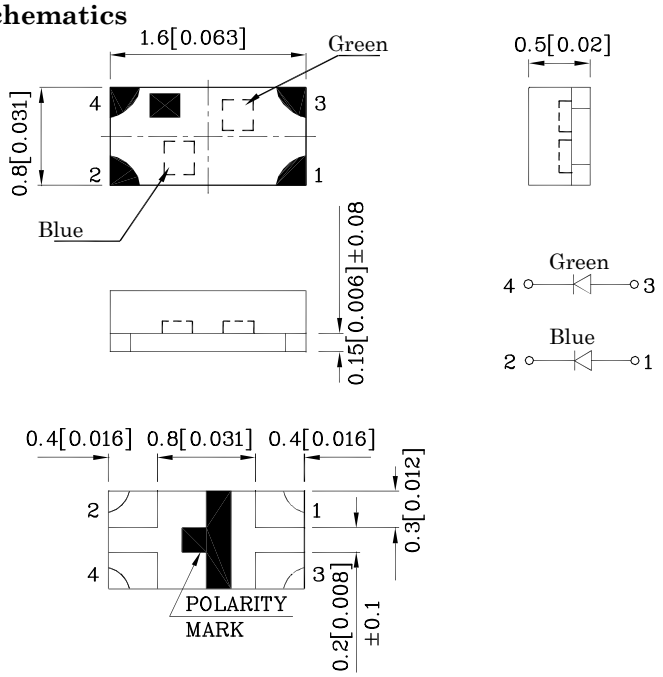
1.6x0.8x0.5mm BI-COLOR SURFACE MOUNT LED

Features

- 1.6mm X 0.8mm SMD LED
- Package height: 0.5mm
- IR-reflow compatible
- Standard Package: 2,000pcs/ Reel
- MSL (Moisture Sensitivity Level): 3
- RoHS compliant

ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

Package Schematics



Notes:
1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.15(0.006") unless otherwise noted.
3. Specifications are subject to change without notice.

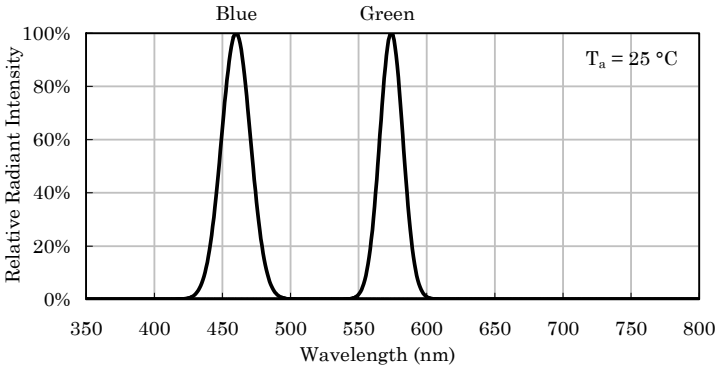
Absolute Maximum Ratings (T_A=25°C)		Blue (InGaN)	Green (AlGaInP)	Unit
Reverse Voltage	V_R	5	5	V
Forward Current	I_F	30	30	mA
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	i_{FS}	150	150	mA
Power Dissipation	P_D	120	75	mW
Electrostatic Discharge Threshold (HBM)		250	3000	V
Operating Temperature	T_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)

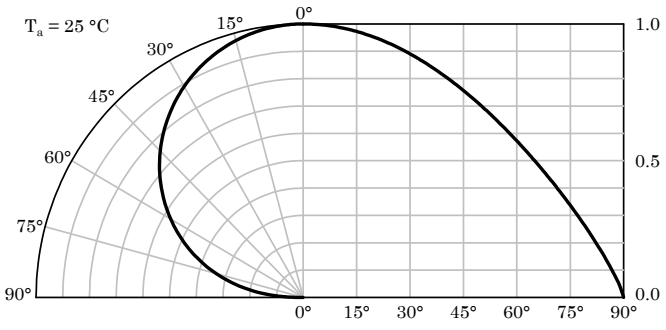
Operating Characteristics (T_A=25°C)		Blue (InGaN)	Green (AlGaInP)	Unit
Forward Voltage (Typ.) (I_F=20mA)	V_F	3.3	2.1	V
Forward Voltage (Max.) (I_F=20mA)	V_F	4	2.5	V
Reverse Current (Max.) (V_R=5V)	I_R	50	10	μA
Wavelength of Peak Emission CIE127-2007* (Typ.) (I_F=20mA)	λP	460*	574*	nm
Wavelength of Dominant Emission CIE127-2007* (Typ.) (I_F=20mA)	λD	465*	570*	nm
Spectral Line Full Width At Half-Maximum (Typ.) (I_F=20mA)	△λ	25	20	nm
Capacitance (Typ.) (V_F=0V, f=1MHz)	C	100	15	pF

Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity CIE127-2007* (I_F=20mA) mcd min.	Luminous Intensity CIE127-2007* (I_F=20mA) mcd typ.	Wavelength CIE127-2007* nm λP	Viewing Angle 2θ 1/2
XZCBDVG53W-9	Blue	InGaN	Water Clear	40*	69*	460*	130°
	Green	AlGaInP		20*	49*	574*	

*Luminous intensity value and wavelength are in accordance with CIE127-2007 standards.

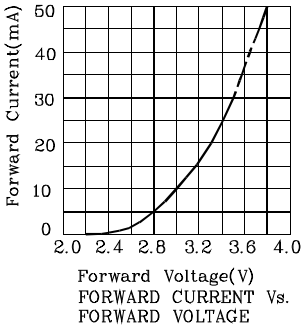


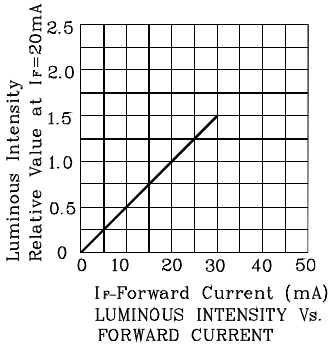
Relative Intensity Vs. CIE Wavelength

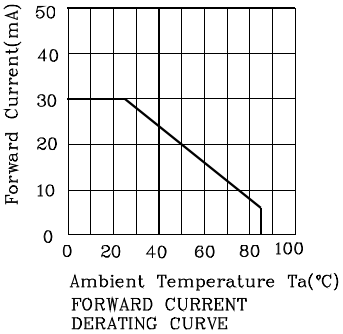


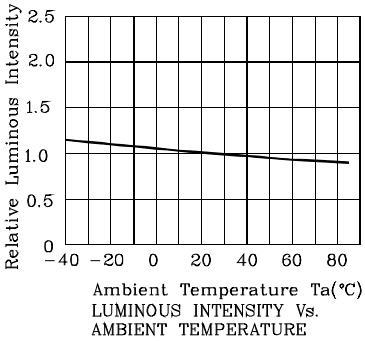
Spatial Distribution

❖ Blue

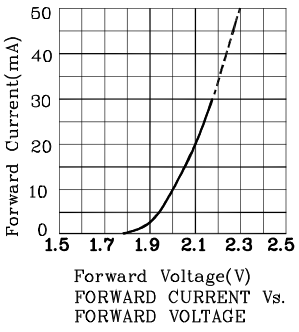


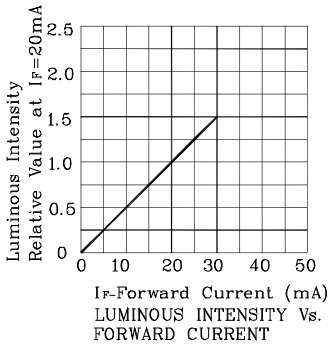


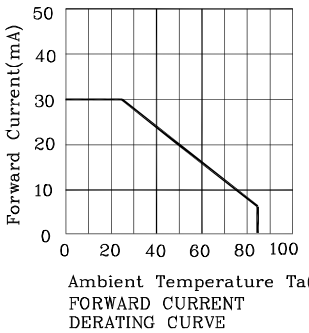


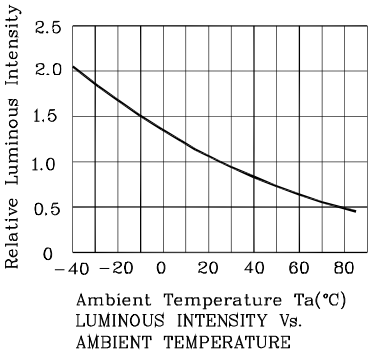


❖ Green

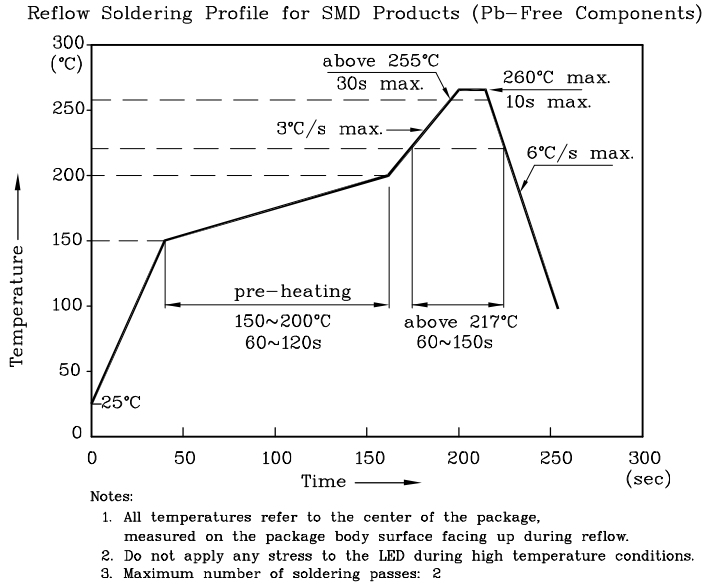




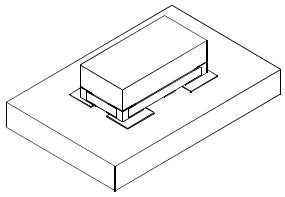




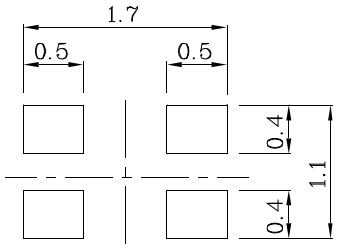
LED is recommended for reflow soldering and soldering profile is shown below.



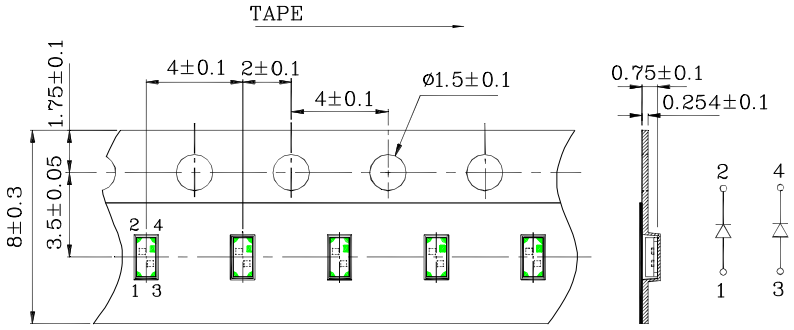
❖ The device has a single mounting surface. The device must be mounted according to the specifications.



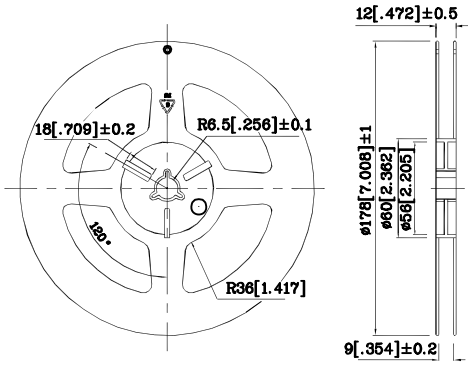
❖ Recommended Soldering Pattern (Units : mm; Tolerance: ± 0.1)



❖ Tape Specification (Units : mm)



❖ Reel Dimension



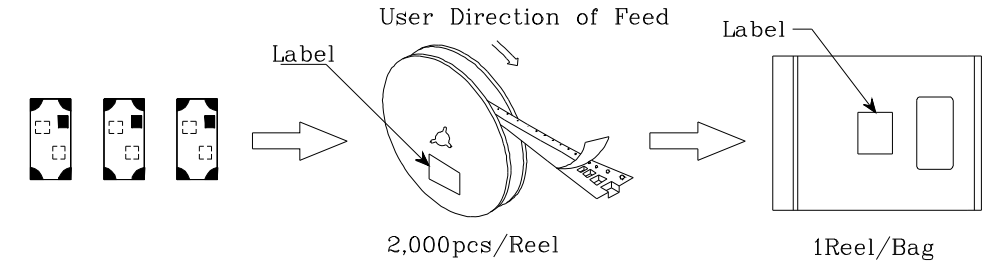
Remarks:

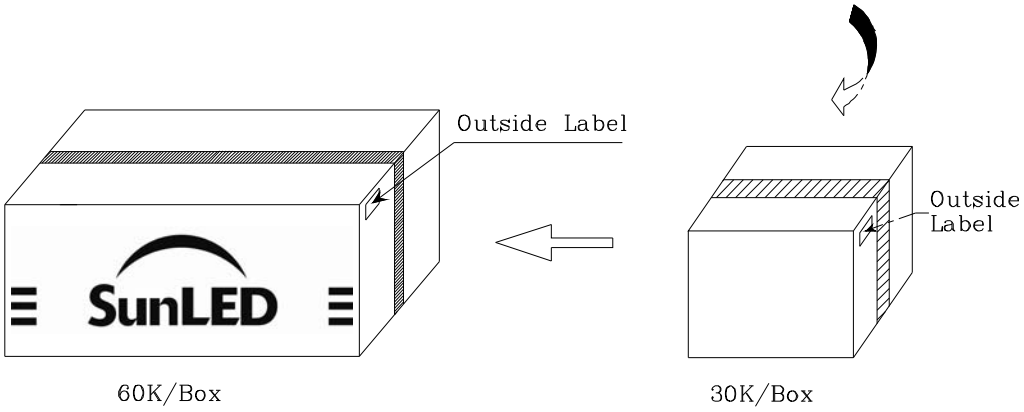
If special sorting is required (e.g. binning based on forward voltage, Luminous intensity / luminous flux, or wavelength), the typical accuracy of the sorting process is as follows:

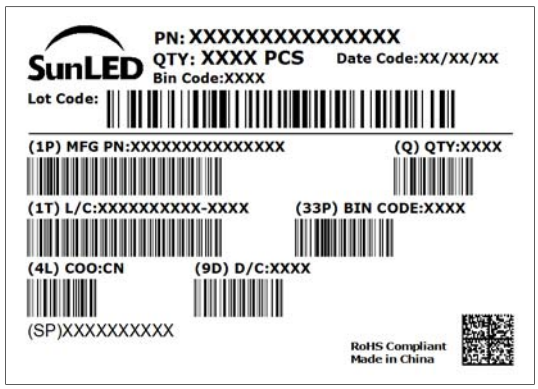
1. Wavelength: +/-1nm
2. Luminous intensity / luminous flux: +/-15%
3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.

PACKING & LABEL SPECIFICATIONS







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