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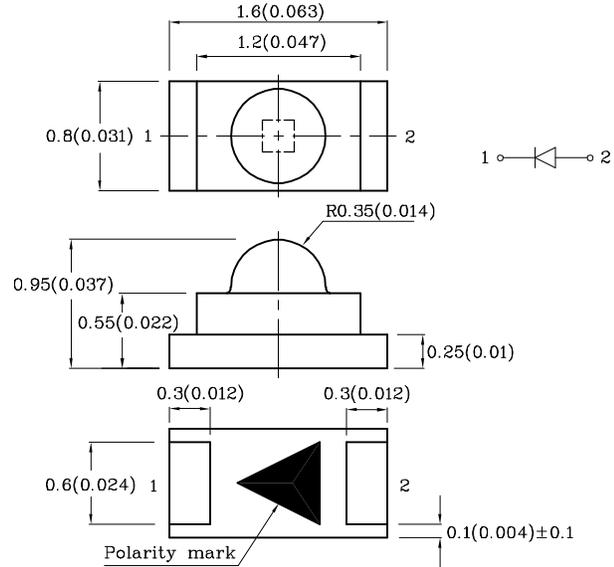
Notes:
1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.15(0.006") unless otherwise noted.
3. Specifications are subject to change without notice.

Absolute Maximum Ratings (T$_A$=25°C)		Blue (InGaN)	Unit
Reverse Voltage	V$_R$	5	V
Forward Current	I$_F$	30	mA
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	i$_{FS}$	150	mA
Power Dissipation	P$_D$	120	mW
Electrostatic Discharge Threshold (HBM)		250	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)	Unit
Forward Voltage (Typ.) (I$_F$=20mA)	V$_F$	3.3	V
Forward Voltage (Max.) (I$_F$=20mA)	V$_F$	4	V
Reverse Current (Max.) (V$_R$=5V)	I$_R$	50	μA
Wavelength of Peak Emission CIE127-2007* (Typ.) (I$_F$=20mA)	λP	460*	nm
Wavelength of Dominant Emission CIE127-2007* (Typ.) (I$_F$=20mA)	λD	465*	nm
Spectral Line Full Width At Half-Maximum (Typ.) (I$_F$=20mA)	$\triangle\lambda$	25	nm
Capacitance (Typ.) (V$_F$=0V, f=1MHz)	C	100	pF

Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity CIE127-2007* (I$_F$=20mA) mcd		Wavelength CIE127-2007* nm λP	Viewing Angle 2θ 1/2
				min.	typ.		
XZCBD53W-8	Blue	InGaN	Water Clear	80*	198*	460*	40°

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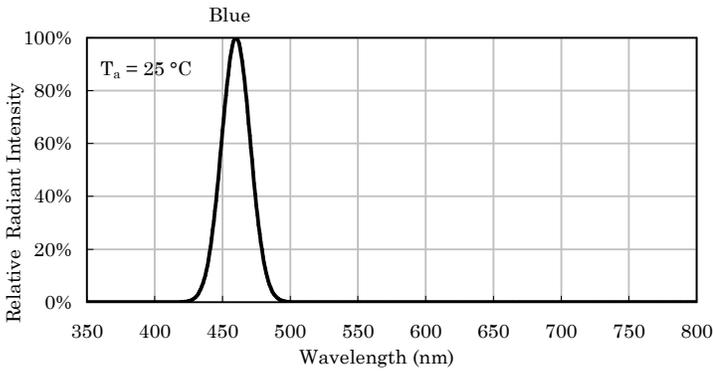
Blue

Relative Intensity Vs. CIE Wavelength
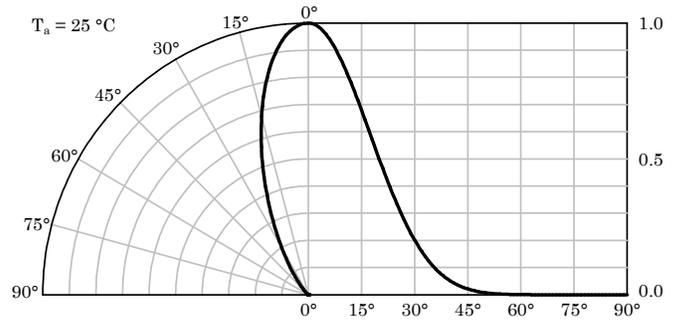
Spatial Distribution

❖ **Blue**

Forward Current vs. Forward Voltage

Luminous Intensity vs. Forward Current

Forward Current Derating Curve


Luminous Intensity vs. Ambient Temperature
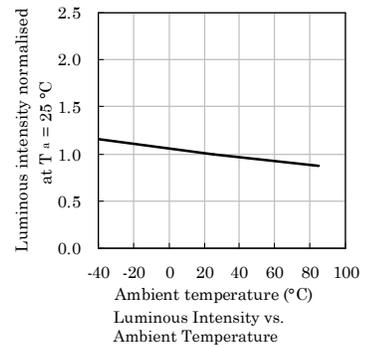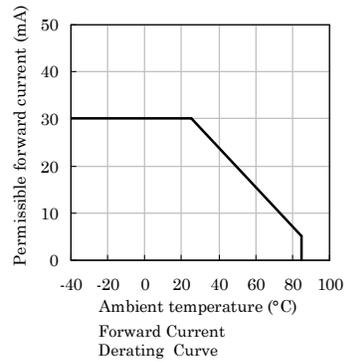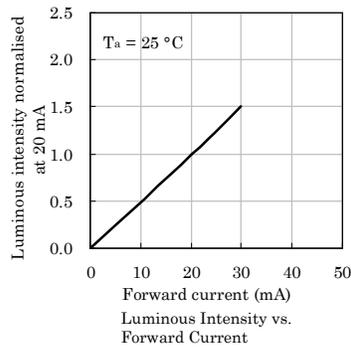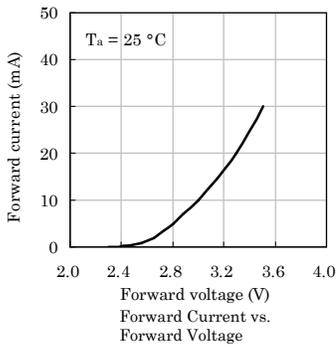
LED is recommended for reflow soldering and soldering profile is shown below.

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

Notes:
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

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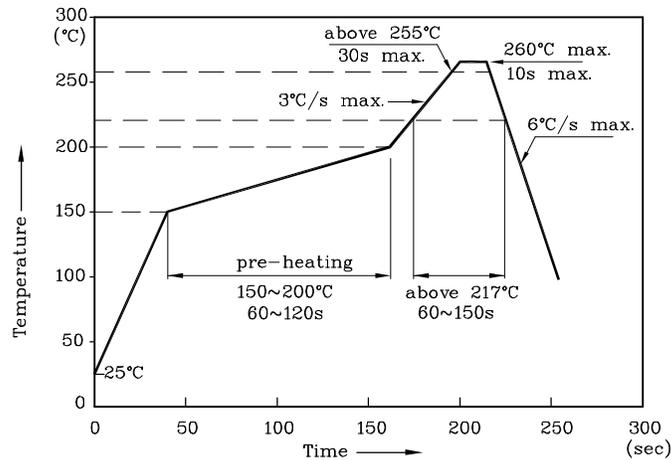
❖ **The device has a single mounting surface. The device must be mounted according to the specifications.**

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

0.8

0.8   0.85   0.8

❖ **Reel Dimension (Units : mm)**

R6.5±0.5

120°

12±1

ø178±2   ø60±2

9±1
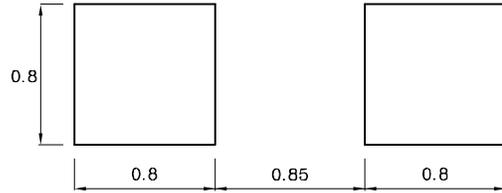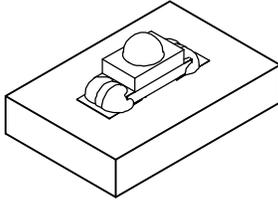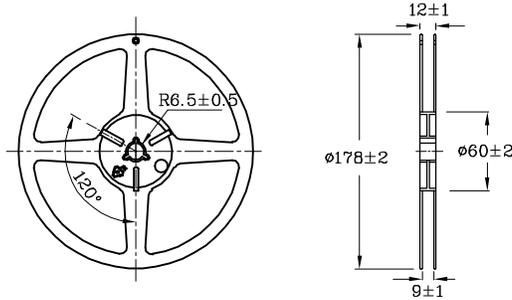
❖ **Tape Specification (Units : mm)**

TAPE

4±0.1

2±0.1   4±0.1   ø1.5±0.1   0.254±0.1

1.75±0.1   0.95±0.1

8±0.3   3.5±0.05

1

2
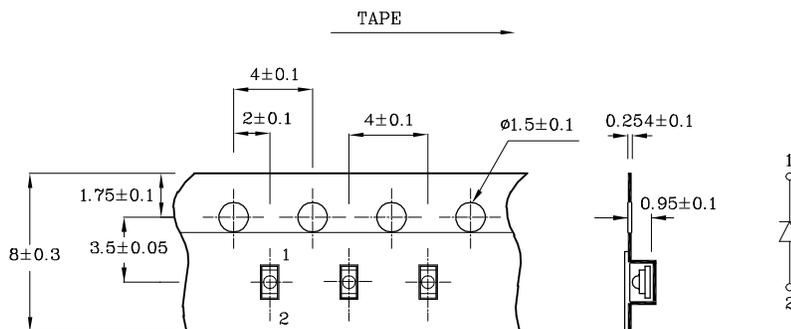
Remarks:

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.

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PACKING & LABEL SPECIFICATIONS

User Direction of Feed

Label

2,000pcs/Reel

Label

1 Reel/Bag

Outside Label

60K/Box

Outside Label

30K/Box

PN: XXXXXXXXXXXXXXX
QTY: XXXX PCS   Date Code:XX/XX/XX
Bin Code:XXXX
Lot Code:

(1P) MFG PN:XXXXXXXXXXXXXXX   (Q) QTY:XXXX

(1T) L/C:XXXXXXXXXX-XXXX   (33P) BIN CODE:XXXX

(4L) COO:CN   (9D) D/C:XXXX

(SP)XXXXXXXXXX

RoHS Compliant
Made in China
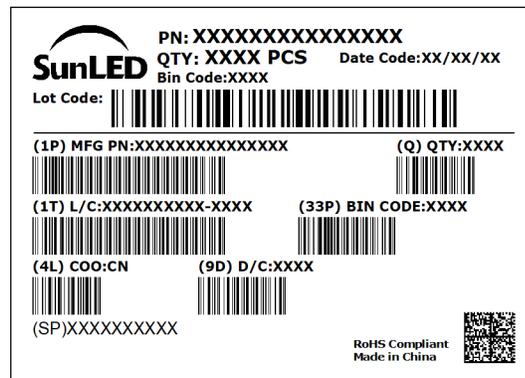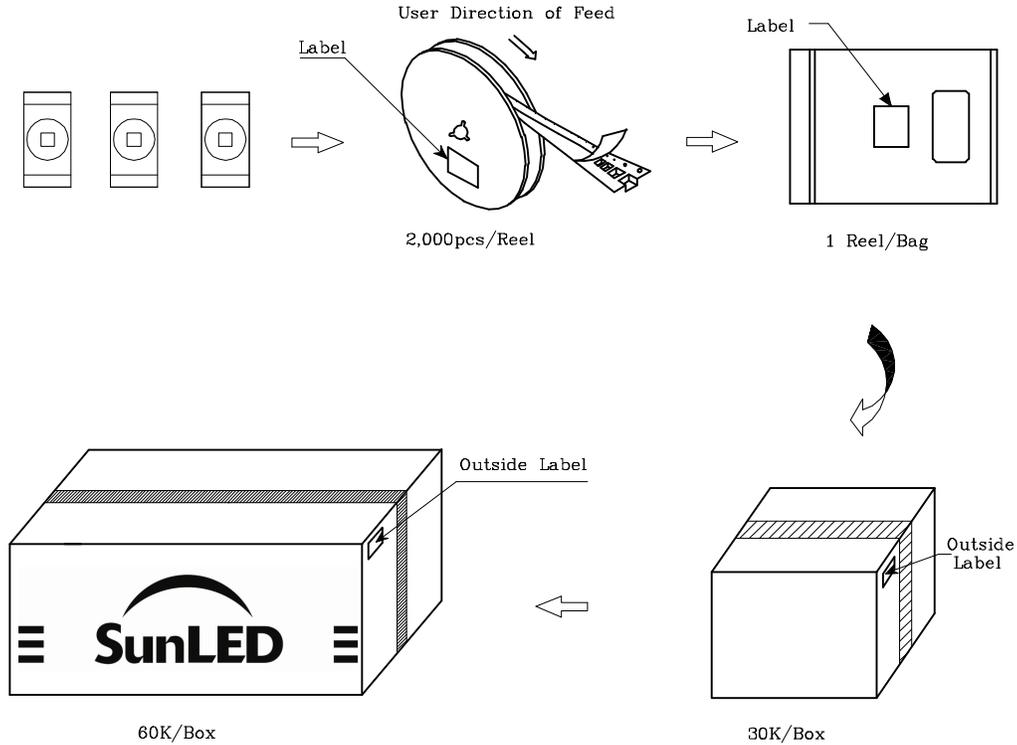
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   User accepts full risk and responsibility when operating the product(s) beyond their intended specifications.
4. The product(s) described in this document are intended for electronic applications in which a person's life is not reliant upon the LED. Please
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