

### Part Number: XZMDKCBD62W-1

1.6X1.25mm BI-COLOR SMD CHIP LED LAMP

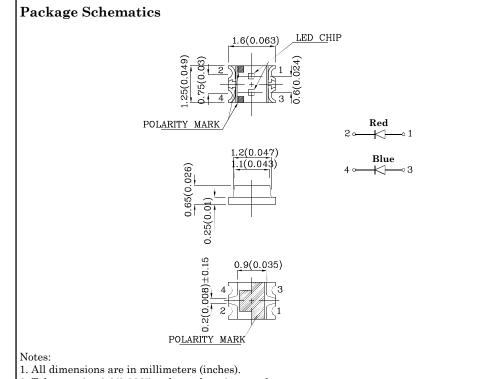
#### Features

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





ATTENTION OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DISCHARGE SENSITIVE DEVICES



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)		Red (AlGaInP)	Blue (InGaN)	Unit	
Reverse Voltage	$V_{R}$	5	5	V	
Forward Current	$I_{\rm F}$	30	30	mA	
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	ifs	185	150	mA	
Power Dissipation	$P_{D}$	75	120	mW	
Electrostatic Discharge Thresh- old (HBM)		3000	250	V	
Operating Temperature	$T_{\rm A}$	-40 ~ +85		°C	
Storage Temperature	Tstg	-40 ~	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 Chara (T <sub>A</sub> =25°C)	cteristics		Red (AlGaInP)	Blue (InGaN)	Unit	
Forward Voltage ( (I <sub>F</sub> =20mA)	Гур.)	$V_{\rm F}$	1.95	3.3	v	
Forward Voltage (I (I <sub>F</sub> =20mA)	$V_{\rm F}$	2.5	4	v		
Reverse Current ( $V_R=5V$ )	$I_R$	10	50	uA		
Wavelength of Pea Emission CIE127-2 (I <sub>F</sub> =20mA)	λP	645*	460*	nm		
Wavelength of Dominant Emission CIE127-2007* (Typ.) (I <sub>F</sub> =20mA)		λD	630*	465*	nm	
Spectral Line Full Width At Half-Maximum (Typ.) (I <sub>F</sub> =20mA)		$ riangle \lambda$	28	25	nm	
Capacitance (Typ.) (V <sub>F</sub> =0V, f=1MHz)		С	35	100	pF	
Lens-color	Luminous In CIE127-20 (I <sub>F</sub> =20mA)	007*	Wavelen CIE127-2 nm λł	007* Ang	Viewing Angle 20 1/2	
	min.	typ.				

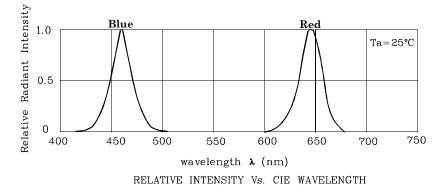
Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity CIE127-2007* (I <sub>F</sub> =20mA) mcd		Wavelength CIE127-2007* nm λP	Viewing Angle 20 1/2
				min.	typ.		
XZMDKCBD62W-1 —	Red	AlGaInP	Water Clear -	120 40*	198 79*	645*	150°
	Blue	InGaN		40 40*	79 79*	460*	

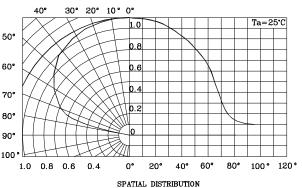
 ${\rm *Luminous\ intensity\ value\ and\ wavelength\ are\ in\ accordance\ with\ CIE127-2007\ standards.}$ 

Sep 17,2016

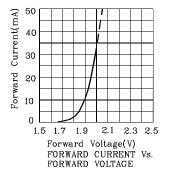
XDSB5712 V4-X Layout: Maggie L.

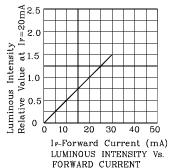


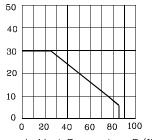




✤ Red

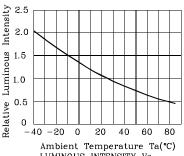






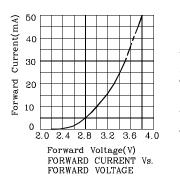
Forward Current(mA)

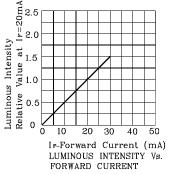
Ambient Temperature Ta(°C) FORWARD CURRENT DERATING CURVE

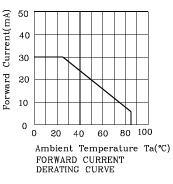


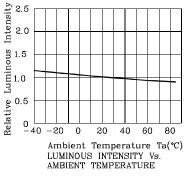


Slue











300 (°C)

250

200

150

100

50

Notes

Temperature

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

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

4°C/s

80~190

100

Tim

2. Recommended reflow temperature: 145°C-260°C

3. Do not put stress to the epoxy resin during

150

Maximum soldering temperature should not exceed 260°C

200

150~180°C

4℃/s max

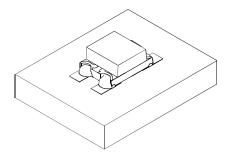
50

10 8

C/s I

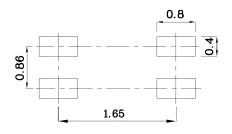
250

300 (sec) The device has a single mounting surface. The device must be mounted according to the specifications.



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

Reel Dimension



high temperatures conditions

## Tape Specification (Units : mm)

#### TAPE 12[.472]±0.5 $4.0 \pm 0.1$ $1.75 \pm 0.1$ 0.23±0.1 $2.0 \pm 0.1$ $4.0 \pm 0.1$ Ø1.5±0.1 R6.5[.256]±0,1 18[.709]±0.2 .78[7.008]±1 2.362] 2.205] $0.92 \pm 0.1$ 05 C $8.0 \pm 0.3$ 2 3.5±0. 2 4 R36[1.417] 9[.354]±0.2

#### 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

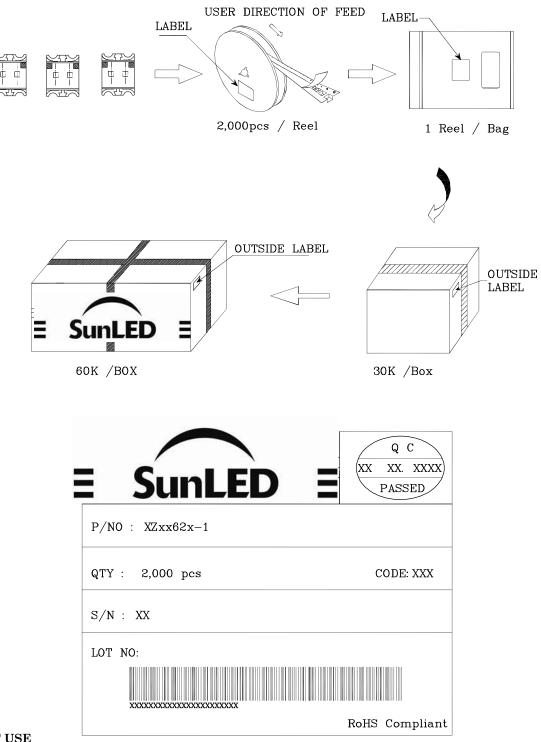
2. Luminous intensity / luminous flux: +/-15%

3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.



#### **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.
- 3. The product(s) in this document are designed to be operated within the electrical and environmental specifications indicated on the datasheet.
- 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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