

#### Part Number: XZCBD54W-4

2.0x1.25mm SMD CHIP LED LAMP

### **Features**

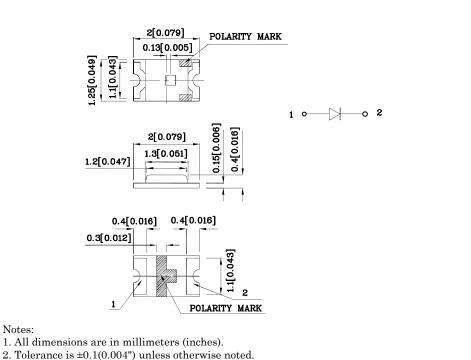
- Ideal for indication light on hand held products
- Long life and robust package
- Variety of lens types and color choices available
- Package : 2000pcs / reel
- Moisture sensitivity level : level 3
- RoHS compliant





ATTENTION OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DISCHARGE SENSITIVE DEVICES

# **Package Schematics**



3. Specifications are subject to change without notice.

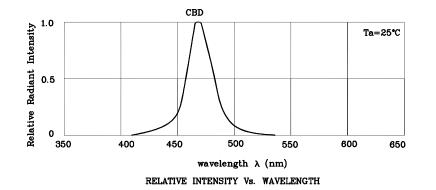
Notes:

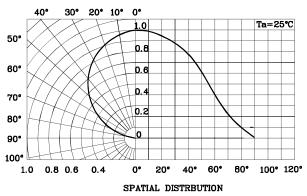
Absolute Maximum Ratings (T <sub>A</sub> =25°C)		CBD (InGaN)	Unit	
Reverse Voltage		5	V	
Forward Current	$I_{\rm F}$	30	mA	
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	i <sub>FS</sub>	150	mA	
Power Dissipation	$P_{D}$	120	mW	
Operating Temperature	TA	-40 ~ +85	°C	
Storage Temperature	Tstg	$-40 \sim +85$	-0	
Electrostatic Discharge Threshold (HBM)		250	V	

Operating Characteristics (T <sub>A</sub> =25°C)		CBD (InGaN)	Unit	
Forward Voltage (Typ.) (I <sub>F</sub> =20mA)	$V_{\rm F}$	3.3	V	
Forward Voltage (Max.) (I <sub>F</sub> =20mA)	$V_{\rm F}$	4	V	
Reverse Current (Max.) (V <sub>R</sub> =5V)	$I_R$	50	uA	
Wavelength of Peak Emission (Typ.) (I <sub>F</sub> =20mA)	λP	468	nm	
Wavelength of Dominant Emission (Typ.) (I <sub>F</sub> =20mA)	λD	470	nm	
Spectral Line Full Width At Half-Maximum (Typ.) (I <sub>F</sub> =20mA)	$ riangle \lambda$	25	nm	
Capacitance (Typ.) (V <sub>F</sub> =0V, f=1MHz)	С	100	$\mathrm{pF}$	

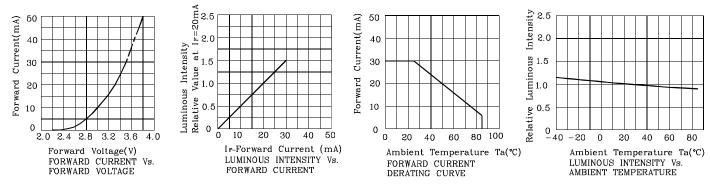
Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity (I <sub>F</sub> =20mA) mcd		Wavelength nm λP	Viewing Angle 20 1/2
				min.	typ.		
XZCBD54W-4	Blue	InGaN	Water Clear	55	98	468	110°







CBD



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

300 (°C) 10 s max 250 4°C/s C/s max 200 150~180 4°C/s max 150 Temperature 30~50s 80~120: 100 50

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

Notes: 1. Maximum soldering temperature should not exceed 260°C 2. Recommended reflow temperature: 145°C-260°C

150

200

250

300 (sec)

Do not put stress to the epoxy resin during З.

Time

100

high temperatures conditions

50

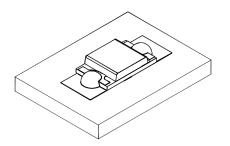
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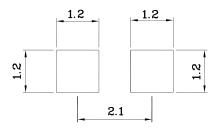
P. 2/4



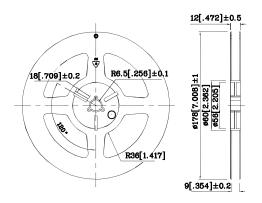
✤ The device has a single mounting surface. The device must be mounted according to the specifications.



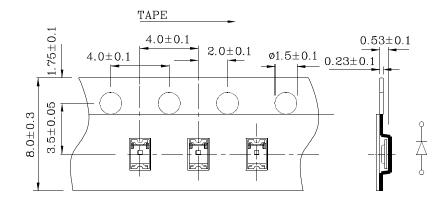
Recommended Soldering Pattern (Units : mm; Tolerance: ± 0.1)



Reel Dimension



### Tape Specification (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.

Apr 11,2011



### PACKING & LABEL SPECIFICATIONS

