

### Part Number: XZMDKCBD55W-7

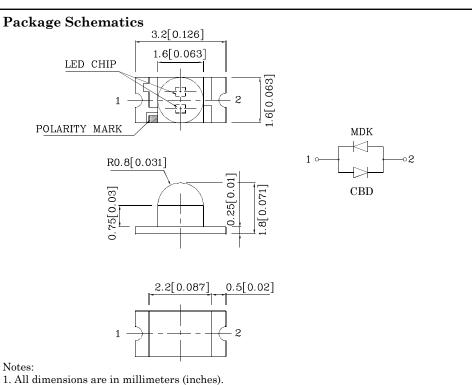
3.2mm x 1.6mm BI-POLAR SURFACE MOUNT LED LAMP

### 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
- $\bullet$  Moisture sensitivity level : level 3
- RoHS compliant







- 2. Tolerance is  $\pm 0.1(0.004")$  unless otherwise noted.
- 3. Specifications are subject to change without notice.

Absolute Maximum Ratings (T <sub>A</sub> =25°C)		MDK (AlGaInP)	CBD (InGaN)	Unit
Forward Current	$\mathbf{I}_{\mathrm{F}}$	30	30	mA
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	ifs	185	150	mA
Power Dissipation	$\mathbf{P}_{\mathrm{D}}$	75	120	mW
Operating Temperature	$T_{\rm A}$	-40 ~ +85		°C
Storage Temperature	Tstg	-40 ~ +85		
Electrostatic Discharge Threshold (HBM)		-	250	V

Operating Characteristics (T <sub>A</sub> =25°C)		MDK (AlGaInP)	CBD (InGaN)	Unit
Forward Voltage (Typ.) (I <sub>F</sub> =20mA)	$V_{\rm F}$	1.95	3.3	v
Forward Voltage (Max.) (I <sub>F</sub> =20mA)	$V_{\rm F}$	2.5	4	V
Wavelength of Peak Emission (Typ.) (I <sub>F</sub> =20mA)	λP	650	468	nm
Wavelength of Dominant Emission (Typ.) (I <sub>F</sub> =20mA)	λD	630	470	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	$_{\rm pF}$

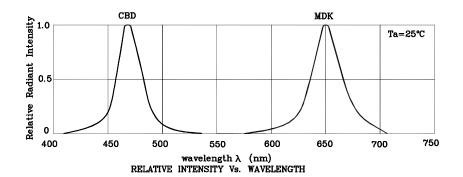
Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity (I <sub>F</sub> =20mA) mcd		Wavelength nm λP	Viewing Angle 20 1/2
				min.	typ.		
XZMDKCBD55W-7 —	Red	AlGaInP	Water Clear -	500	895	650	- 40°
	Blue	InGaN		120	248	468	

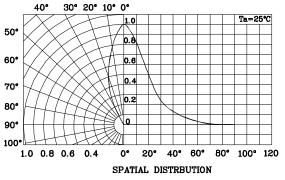
XDSB1206 V4 Layout: Maggie L.



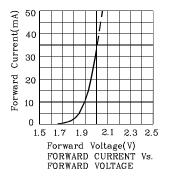
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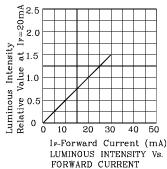
3.2mm x 1.6mm BI-POLAR SURFACE MOUNT LED

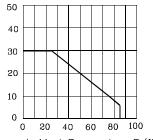




## \* MDK

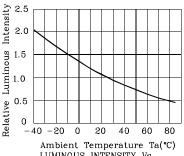






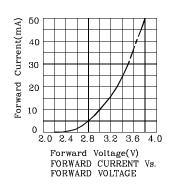
Forward Current(mA)

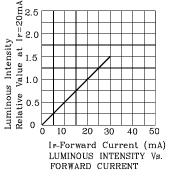
Ambient Temperature Ta(°C) FORWARD CURRENT DERATING CURVE

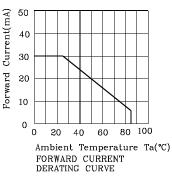


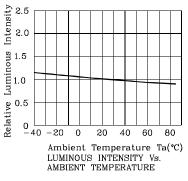
LUMINOUS INTENSITY VS. AMBIENT TEMPERATURE

♦ CBD











300 (°C)

250

200

150

100

50

Notes

Temperature

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3.2mm x 1.6mm BI-POLAR SURFACE MOUNT LED LAMP

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

4°C/s

80~190

100

high temperatures conditions

Tape Specification (Units : mm)

Tim

Recommended reflow temperature: 145°C-260°C
Do not put stress to the epoxy resin during

150~180°C

4℃/s max

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

150

Maximum soldering temperature should not exceed 260°C

200

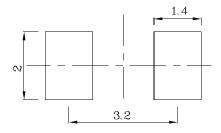
10 s

C/s

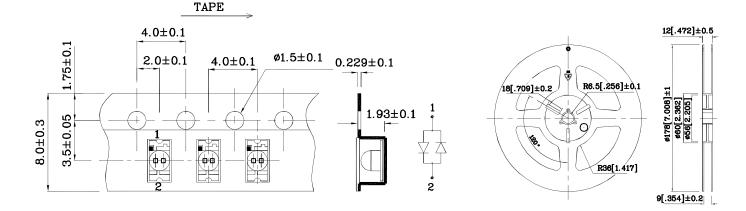
250

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



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  $\,$ 

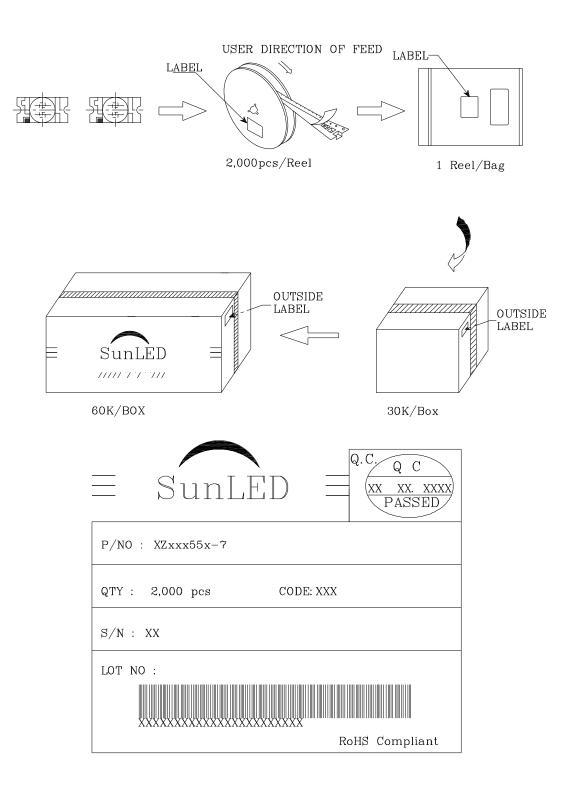
Note: Accuracy may depend on the sorting parameters.

Apr 12,2011

XDSB1206 V4 Layout: Maggie L.



# PACKING & LABEL SPECIFICATIONS



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