#### **Features**

• Ideal for indication light on hand held products

• Long life and robust package

• Variety of lens types and color choices available

ullet Package : 2000 pcs / reel

• Moisture sensitivity level : level 3

• RoHS compliant

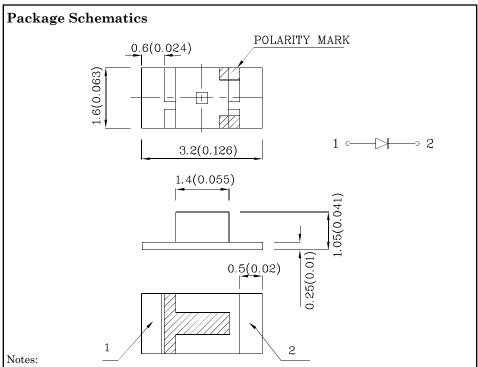






# ATTENTION

OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DISCHARGE SENSITIVE DEVICES



- 1. All dimensions are in millimeters (inches).
- 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)	CBD (InGaN)	Unit	
Reverse Voltage	$V_{\mathrm{R}}$	5	V
Forward Current	$I_{\mathrm{F}}$	30	mA
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	$i_{\mathrm{FS}}$	150	mA
Power Dissipation	$P_{\mathrm{D}}$	120	mW
Operating Temperature	$T_{\rm A}$	-40 ~ +85	°C
Storage Temperature	Tstg	-40 ~ +85	C
Electrostatic Discharge Threshold (HBM)	250	V	

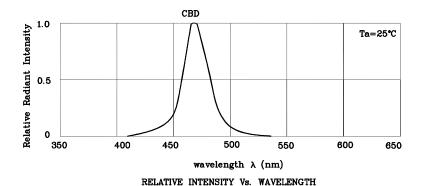
Operating Characteristics (T <sub>A</sub> =25°C)		CBD (InGaN)	Unit
Forward Voltage (Typ.) (I <sub>F</sub> =20mA)	$V_{\mathrm{F}}$	3.3	V
Forward Voltage (Max.) (I <sub>F</sub> =20mA)	$V_{\mathrm{F}}$	4	V
Reverse Current (Max.) (V <sub>R</sub> =5V)	${ m I}_{ m R}$	50	uA
Wavelength of Peak Emission (Typ.) (I <sub>F</sub> =20mA)	λР	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)	$\triangle \lambda$	25	nm
Capacitance (Typ.) (V <sub>F</sub> =0V, f=1MHz)	С	100	pF

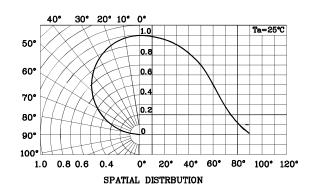
Part Number	Emitting Color	Emitting Material	Lens-color	$\begin{array}{c} Luminous\\ Intensity\\ (I_F=20mA)\\ mcd \end{array}$		Wavelength nm $\lambda P$	Viewing Angle 20 1/2
				min.	typ.		
XZCBD55W-2	Blue	InGaN	Water Clear	55	98	468	120°

Apr 15,2011 XDSB1583 V3 Layout: Maggie L.

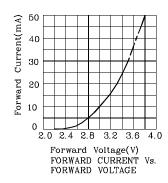


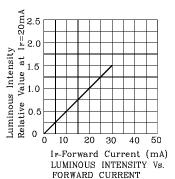


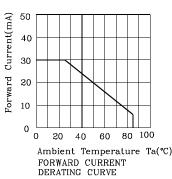


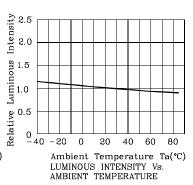


### **♦** CBD



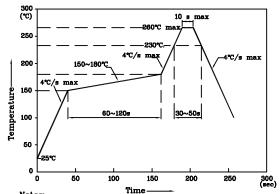






LED is recommended for reflow soldering and soldering profile is shown below.

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

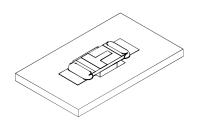


- 1. Maximum soldering temperature should not exceed 260°C
- 2. Recommended reflow temperature: 145°C-260°C
- 3. Do not put stress to the epoxy resin during high temperatures conditions

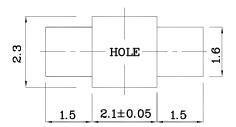




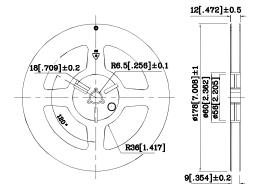
❖ The device has a single mounting surface. The device must be mounted according to the specifications.



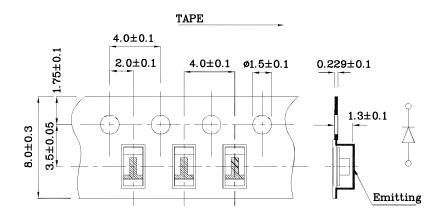
**❖** Recommended Soldering Pattern (Units:mm; Tolerance: ± 0.1)



### **❖** 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 15,2011

XDSB1583 V3 Layout: Maggie L.





### PACKING & LABEL SPECIFICATIONS

