

## Part Number: XZDG53W-8

1.6X0.8mm 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

 $\bullet$  Package: 2000pcs / reel

• Moisture sensitivity level : level 3

• RoHS compliant

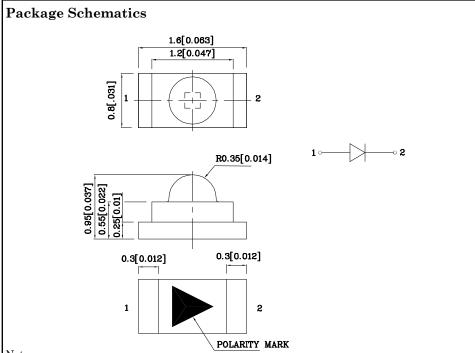






# ATTENTION OBSERVE PRECAUTIONS

FOR HANDLING ELECTROSTATIC DISCHARGE SENSITIVE DEVICES



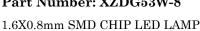
- 1. All dimensions are in millimeters (inches).
- 2. Tolerance is  $\pm 0.15(0.006")$  unless otherwise noted.
- 3. Specifications are subject to change without notice.

Absolute Maximum Ratings (T <sub>A</sub> =25°C)	DG (InGaN)	Unit		
Reverse Voltage	$V_{\mathrm{R}}$	5	V	
Forward Current	$I_{\mathrm{F}}$	25	mA	
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	ifs	150	mA	
Power Dissipation	PD	102.5	mW	
Operating Temperature	$T_{\rm A}$	-40 ~ +85	°C	
Storage Temperature	Tstg	-40 ~ +85	C	
Electrostatic Discharge Threshold (HBM)	450	V		

Operating Characteristics (T <sub>A</sub> =25°C)		DG (InGaN)	Unit	
Forward Voltage (Typ.) (I <sub>F</sub> =20mA)	$V_{\mathrm{F}}$	3.3	V	
Forward Voltage (Max.) (I <sub>F</sub> =20mA)	$V_{\mathrm{F}}$	4.1	V	
Reverse Current (Max.) $(V_R=5V)$	$I_{\mathrm{R}}$	50	uA	
Wavelength of Peak Emission (Typ.) (I <sub>F</sub> =20mA)	λР	515	nm	
Wavelength of Dominant Emission (Typ.) (I <sub>F</sub> =20mA)	λD	525	nm	
Spectral Line Full Width At Half-Maximum (Typ.) (I <sub>F</sub> =20mA)	$\triangle \lambda$	30	nm	
Capacitance (Typ.) (V <sub>F</sub> =0V, f=1MHz)	С	45	pF	

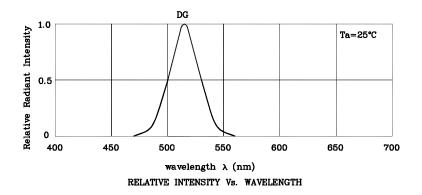
Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity (I <sub>F</sub> =20mA) mcd		Wavelength nm λP	Viewing Angle 20 1/2
				min.	typ.		
XZDG53W-8	Green	InGaN	Water Clear	500	995	515	60°

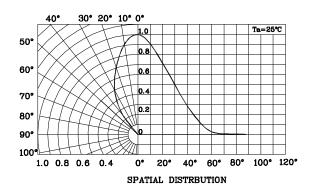
Apr 09,2011 XDSB3742 V3 Layout: Maggie L.



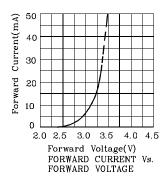


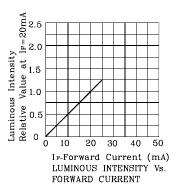


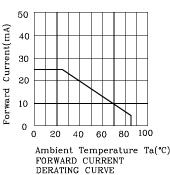


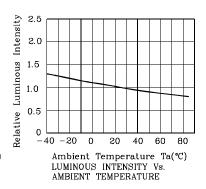


## **♦** DG



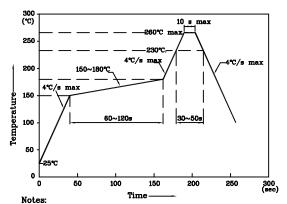






## LED is recommended for reflow soldering and soldering profile is shown below.

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



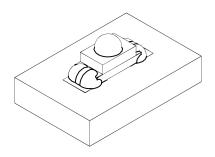
- 1. Maximum soldering temperature should not exceed 260°C
- 2. Recommended reflow temperature: 145°C-260°C
- Do not put stress to the epoxy resin during high temperatures conditions



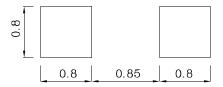
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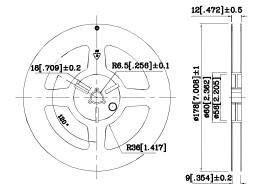
❖ The device has a single mounting surface. The device must be mounted according to the specifications.



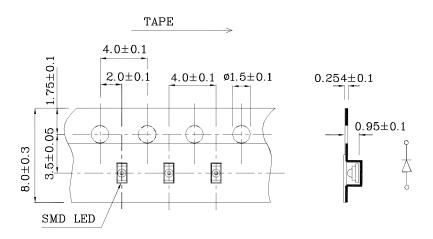
**❖** Recommended Soldering Pattern (Units:mm; Tolerance: ± 0.1)



## **❖** 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 09,2011

XDSB3742 V3 Layout: Maggie L.





## PACKING & LABEL SPECIFICATIONS

