

### Part Number: XZM2CRKM2DG55W-8

 $3.2 \times 1.6$ mm SMD Chip LED Lamp

#### **Features**

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

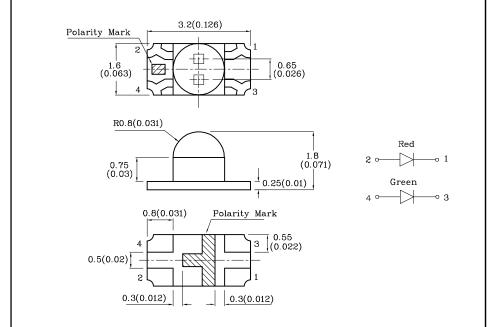






ATTENTION OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DISCHARGE SENSITIVE DEVICES

# Package Schematics



#### Notes:

- 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 ( $T_A$ =25°C)		Red (AlGaInP)	Green (InGaN)	Unit
Reverse Voltage	$V_{\mathrm{R}}$	5	5	V
Forward Current	$I_{\mathrm{F}}$	30	30	mA
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	ifs	150	100	mA
Power Dissipation	$P_{D}$	84	120	mW
Electrostatic Discharge Threshold (HBM)		3000 450		V
Operating Temperature	$T_{\rm A}$	-40 ~ +85		°C
Storage Temperature	Tstg	-40 ~ +85		

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 Characteristics (T <sub>A</sub> =25°C)	Red (AlGaInP)	Green (InGaN)	Unit	
Forward Voltage (Typ.) (I <sub>F</sub> =20mA)	$V_{\mathrm{F}}$	2.2	3.2	V
Forward Voltage (Max.) (I <sub>F</sub> =20mA)	$V_{\mathrm{F}}$	2.8	4	V
Reverse Current (Max.) $(V_R=5V)$	$I_{\mathrm{R}}$	10	50	μА
Wavelength of Peak Emission CIE127-2007* (Typ.) (I <sub>F</sub> =20mA)	λΡ	640*	520*	nm
Wavelength of Dominant Emission CIE127-2007* (Typ.) (I <sub>F</sub> =20mA)	λD	625*	525*	nm
Spectral Line Full Width At Half-Maximum (Typ.) (I <sub>F</sub> =20mA)	Δλ	20	35	nm
Capacitance (Typ.) (V <sub>F</sub> =0V, f=1MHz)	С	27	100	pF

Part Number	Emitting Color	Emitting Material	Lens-color	$\begin{array}{c} Luminous\ Intensity \\ CIE127\text{-}2007* \\ (I_F\text{=}20\text{mA}) \\ mcd \end{array}$		Wavelength CIE127-2007* nm λP	Viewing Angle 20 1/2
				min.	typ.		
XZM2CRKM2DG55W-8	Red	AlGaInP	Water Class	3000 700*	4190 1295*	640*	30°
	Green	InGaN	– Water Clear	700 700*	1295 1295*	520*	

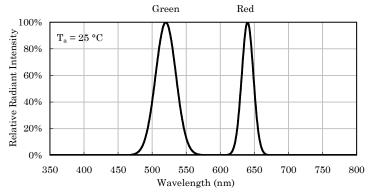
<sup>\*</sup>Luminous intensity value and wavelength are in accordance with CIE127-2007 standards. Nov 26,2020

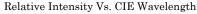
XDSB8747 V3-X Layout: Maggie L.

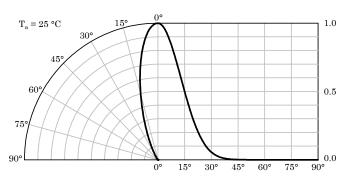


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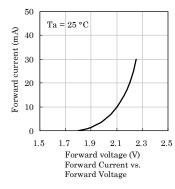


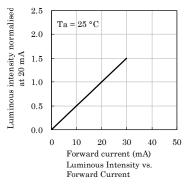


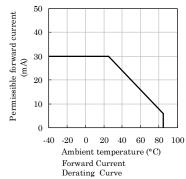


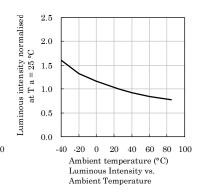
Spatial Distribution

## ❖ Red

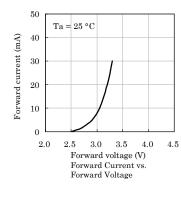


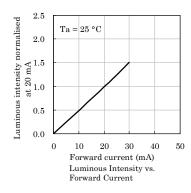


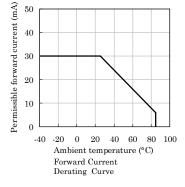


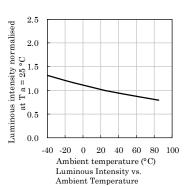


# **❖** Green







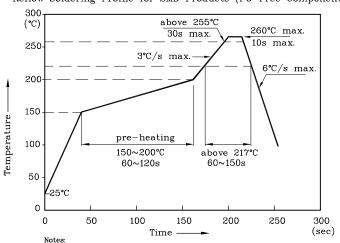






# LED is recommended for reflow soldering and soldering profile is shown below.

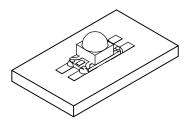
Reflow Soldering Profile for SMD Products (Pb-Free Components)



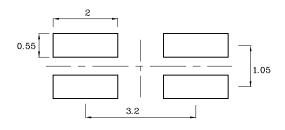
- 1. All temperatures refer to the center of the package,
- measured on the package body surface facing up during reflow.

  2. Do not apply any stress to the LED during high temperature conditions.
- 3. Maximum number of soldering passes: 2

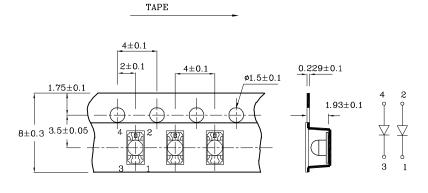
**❖** The device has a single mounting surface. The device must be mounted according to the specifications.



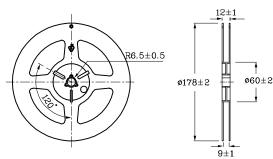
# Recommended Soldering Pattern (Units: mm; Tolerance: $\pm 0.1$ )



## **❖** Tape Specification (Units:mm)



# ❖ Reel Dimension (Units: mm)

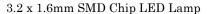


#### Remarks:

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:

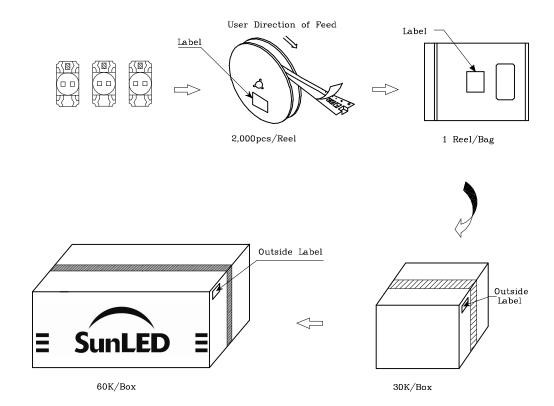
- 1. Wavelength: +/-1nm
- 2. Luminous intensity / luminous flux: +/-15%
- 3. Forward Voltage: +/-0.1V

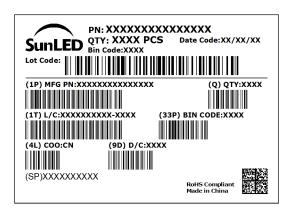
Note: Accuracy may depend on the sorting parameters.





#### PACKING & LABEL SPECIFICATIONS





#### TERMS OF USE

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- 2. Contents within this document are subject to improvement and enhancement changes without notice.
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- 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 consult with a SunLED representative for special applications where the LED may have a direct impact on a person's life.
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Nov 26,2020