





## **Features**

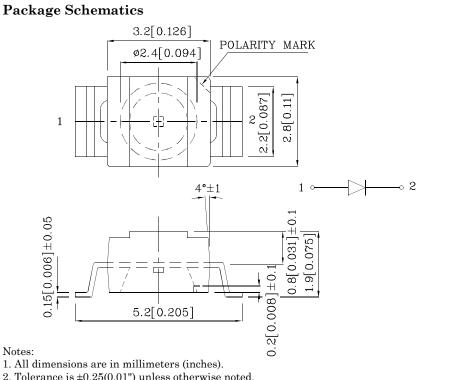
- Ideal for indication light on hand held products
- Long life and robust package
- Standard Package: 2000pcs/ Reel
- MSL (Moisture Sensitivity Level): 4

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• RoHS compliant







- 2. Tolerance is  $\pm 0.25(0.01")$  unless otherwise noted.
- 3. Specifications are subject to change without notice.

Absolute Maximum Ratings (T <sub>A</sub> =25°C)	MDK (AlGaInP)	Unit		
Reverse Voltage	$V_{\rm R}$	5	V	
Forward Current	$I_{\mathrm{F}}$	30	mA	
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	$i_{\mathrm{FS}}$	185	mA	
Power Dissipation	$P_{D}$	75	mW	
Operating Temperature	$T_{A}$	-40 ~ +85	°C	
Storage Temperature	Tstg	-40 ~ +85	C	

Operating Characteristics (T <sub>A</sub> =25°C)	MDK (AlGaInP)	Unit	
Forward Voltage (Typ.) (I <sub>F</sub> =20mA)	$V_{\mathrm{F}}$	1.95	V
Forward Voltage (Max.) (I <sub>F</sub> =20mA)	$V_{\mathrm{F}}$	2.5	V
Reverse Current (Max.) (V <sub>R</sub> =5V)	$I_R$	10	uA
Wavelength of Peak Emission CIE127-2007* (Typ.) (I <sub>F</sub> =20mA)	λP	645*	nm
Wavelength of Dominant Emission CIE127-2007* (Typ.) (I <sub>F</sub> =20mA)	λD	630*	nm
Spectral Line Full Width At Half-Maximum (Typ.) (I <sub>F</sub> =20mA)	$\triangle \lambda$	28	nm
Capacitance (Typ.) (V <sub>F</sub> =0V, f=1MHz)	С	35	pF

 Part Number	Emitting Color	Emitting Material	Lens-color	$\begin{array}{c} \text{Luminous} \\ \text{CIE127} \\ \text{(I}_{\text{F}} = 20 \text{m} \end{array}$	-2007*	Wavelength CIE127-2007* λP nm	Viewing Angle 20 1/2
				min.	typ.		
ZMDK45WT-9	Red	AlGaInP	Water Clear	150 55*	347 98*	645*	120°

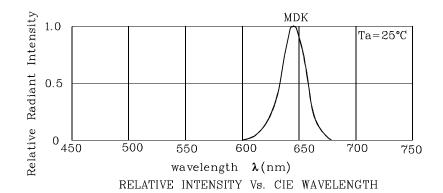
<sup>\*</sup>Luminous intensity value and wavelength are in accordance with CIE127-2007 standards.

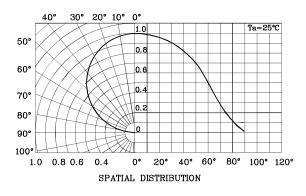
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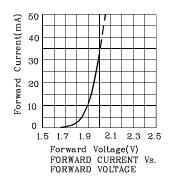


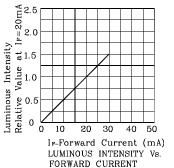
www.SunLED.com 3.2x2.8mm PLCC2 SMD LED

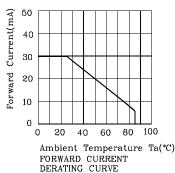


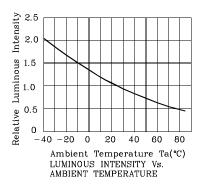


## **❖** MDK



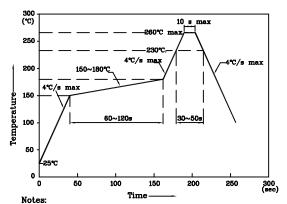






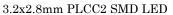
# LED is recommended for reflow soldering and soldering profile is shown below.

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



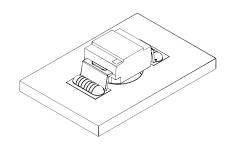
- 1. Maximum soldering temperature should not exceed 260°C
- 2. Recommended reflow temperature: 145°C-260°C
- 3. Do not put stress to the epoxy resin during high temperatures conditions



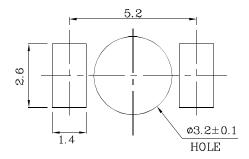


## ❖ The device has a single mounting surface. The device must be mounted according to the specifications.

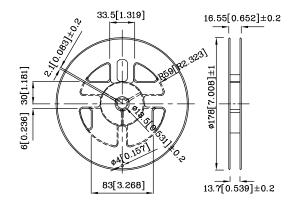
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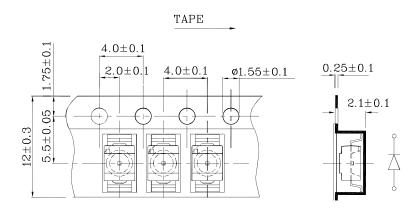
# ❖ Recommended Soldering Pattern (Units: mm; Tolerance: $\pm 0.1$ )



## **❖** 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:

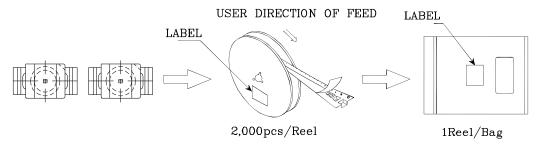
- 1. Wavelength: +/-1nm
- 2. Luminous intensity / luminous flux: +/-15%
- 3. Forward Voltage: +/-0.1V

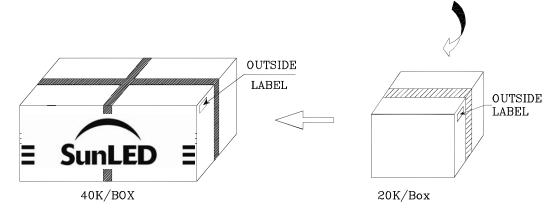
Note: Accuracy may depend on the sorting parameters.

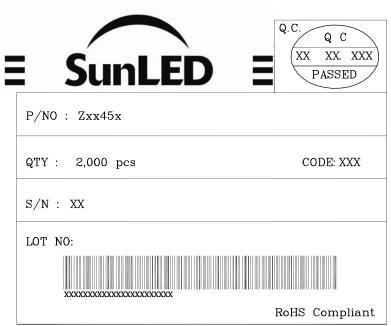




#### PACKING & LABEL SPECIFICATIONS







## TERMS OF USE

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- 6. Additional technical notes are available at http://www.SunLED.com/TechnicalNotes

SDSA9097 V2-X Layout: Maggie L.