

#### Part Number: XZFMDK10C

SURFACE MOUNT DISPLAY

#### **Features**

- 0.4 inch digit height
- Robust package
- Low power consumption
- Standard configuration: Gray face w/ white segments
- Standard Package: 400pcs/ Reel
- MSL (Moisture Sensitivity Level): 2a
- RoHS compliant



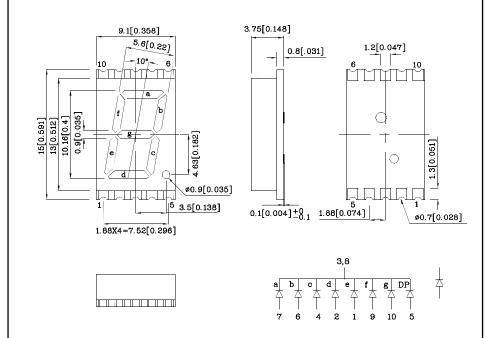




# ATTENTION OBSERVE PRECAUTIONS FOR HANDLING

FOR HANDLING
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

# **Package Schematics**



#### Notes

- 1. All dimensions are in millimeters (inches), Tolerance is  $\pm 0.25 (0.01")$  unless otherwise noted.
- 2. Specifications are subject to change without notice.
- 3. The gap between the reflector and PCB shall not exceed 0.25mm.

Absolute Maximum Ratings (T <sub>A</sub> =25°C)	Red (AlGaInP)	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	$i_{\mathrm{FS}}$	185	mA
Power Dissipation	$P_{D}$	75	mW
Operating Temperature	$T_{\rm A}$	-40 ~ +85	°C
Storage Temperature	Tstg	-40 ~ +85	C

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)	Unit		
Forward Voltage (Typ.) (I <sub>F</sub> =10mA)	ward Voltage (Typ.) (I <sub>F</sub> =10mA) V <sub>F</sub>			
Forward Voltage (Max.) (I <sub>F</sub> =10mA)	ward Voltage (Max.) ( $I_F$ =10mA) $V_F$ 2.33			
Reverse Current (Max.) (V <sub>R</sub> =5V)	$I_R$	10	uA	
Wavelength of Peak Emission CIE127-2007* (Typ.) (I <sub>F</sub> =10mA)	λΡ	645*	nm	
Wavelength of Dominant Emission CIE127-2007* (Typ.) $(I_F=10\text{mA})$	7p.) λD 630*			
Spectral Line Full Width At Half-Maximum (Typ.) (I <sub>F</sub> =10mA)	Δλ 28		nm	
Capacitance (Typ.) (V <sub>F</sub> =0V, f=1MHz)	С	35	pF	

Part Number	Emitting Color	Emitting Material	Luminous Intensity CIE127-2007* $(I_F=10 \text{mA})$ ucd		Wavelength CIE127-2007* nm λP	Description
			min.	typ.		
XZFMDK10C	Red	AlGaInP	21000 9000*	53990 19990*	645*	Common Cathode, Rt.Hand Decimal.

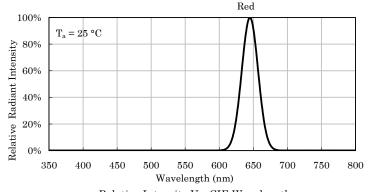
<sup>\*</sup>Luminous intensity value and wavelength are in accordance with CIE127-2007 standards.

Nov 08,2018

XDSA8702 V9-X Layout: Maggie L.

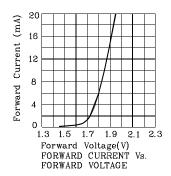


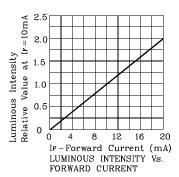


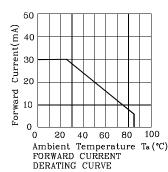


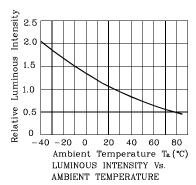
Relative Intensity Vs. CIE Wavelength

#### **♦** Red



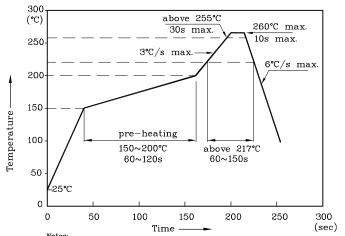






# LED is recommended for reflow soldering and soldering profile is shown below.

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.

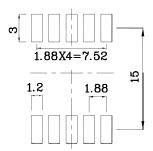
  2. Do not apply any stress to the LED during high temperature conditions.

  3. Maximum number of soldering passes: 2

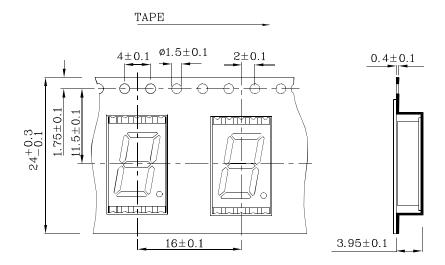




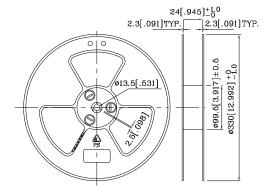
# **❖** Recommended Soldering Pattern (Units: mm; Tolerance: ±0.15)



# **❖** Tape Specification (Units:mm)



### **❖** 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:

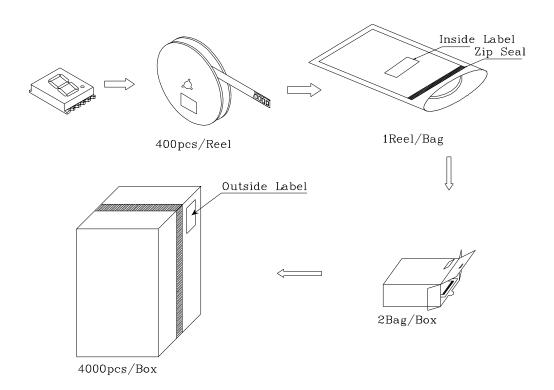
- 1. Wavelength: +/-1nm
- 2. Luminous intensity / luminous flux: +/-15%
- 3. Forward Voltage: +/-0.1V

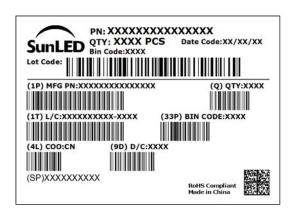
Note: Accuracy may depend on the sorting parameters.





### 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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- 7. Additional technical notes are available at <a href="https://www.SunLEDusa.com/TechnicalNotes.asp">https://www.SunLEDusa.com/TechnicalNotes.asp</a>

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