

# Part Number: XZFMDK05A2

Surface Mount Display

#### **Features**

- 0.2 inch digit height
- Robust package
- Low power consumption
- Standard configuration: Gray face w/ white segments
- Standard Package: 300pcs/ ReelMSL (Moisture Sensitivity Level): 2a
- RoHS Compliant

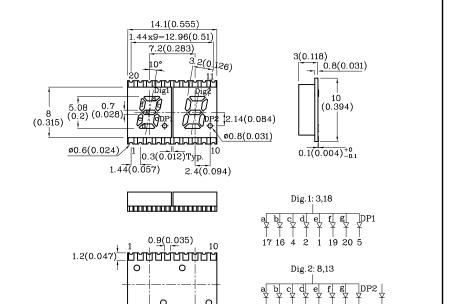






# ATTENTION OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DISCHARGE SENSITIVE DEVICES

# 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	PD	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 $(T_A=25^{\circ}C)$		Red (AlGaInP)	Unit
Forward Voltage (Typ.) (I <sub>F</sub> =10mA)	$V_{\mathrm{F}}$	1.85	V
Forward Voltage (Max.) (I <sub>F</sub> =10mA)	$V_{\mathrm{F}}$	2.35	V
Reverse Current (Max.) $(V_R=5V)$	$I_R$	10	μA
Wavelength of Peak Emission CIE127-2007* (Typ.) (I <sub>F</sub> =10mA)	λΡ	645*	nm
Wavelength of Dominant Emission CIE127-2007* (Typ.) (I <sub>F</sub> =10mA)	λD	630*	nm
Spectral Line Full Width At Half-Maximum (Typ.) (I <sub>F</sub> =10mA)	$\triangle \lambda$	28	nm
Capacitance (Typ.) (V <sub>F</sub> =0V, f=1MHz)	С	35	pF

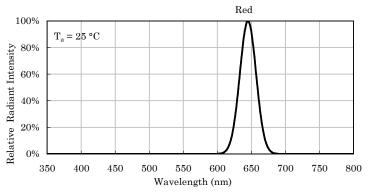
12 11 9 7 6 14 15 10

Part Number	Emitting Color	Emitting Material	CIE127-2007* (I <sub>F</sub> =10mA) ucd	Wavelength CIE127-2007* nm λP	Description
			min. typ.		
XZFMDK05A2	Red	AlGaInP	14000 29990 3600* 8090*	645*	Common Anode, Rt.Hand Decimal.

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

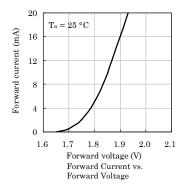
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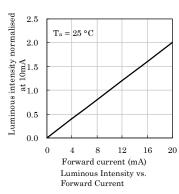


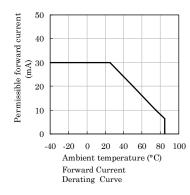


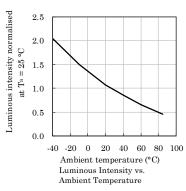
Relative Intensity Vs. CIE Wavelength

# **♦** Red



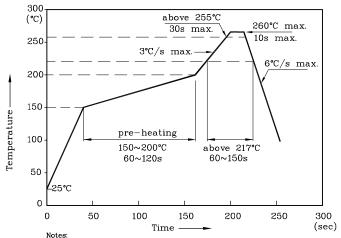






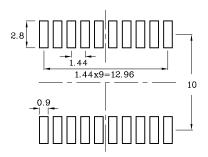
# LED is recommended for reflow soldering and soldering profile is shown below.

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



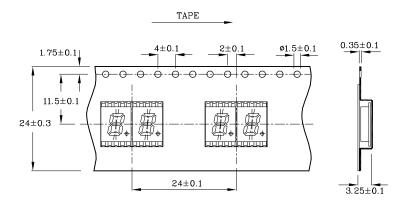
- 1. All temperatures refer to the center of the package,
- measured on the package body surface facing up during reflow.
- Do not apply any stress to the LED during high temperature conditions.
   Maximum number of soldering passes: 2

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

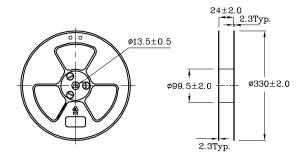


# ❖ Tape Specification (Units:mm)

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# \* 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

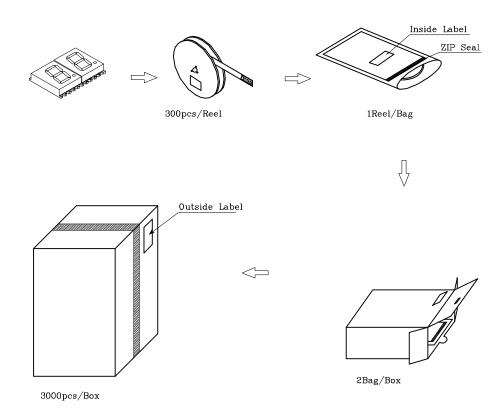
Note: Accuracy may depend on the sorting parameters.

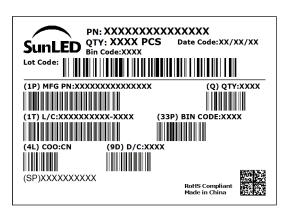


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### PACKING & LABEL SPECIFICATIONS

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Dec 11,2020

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