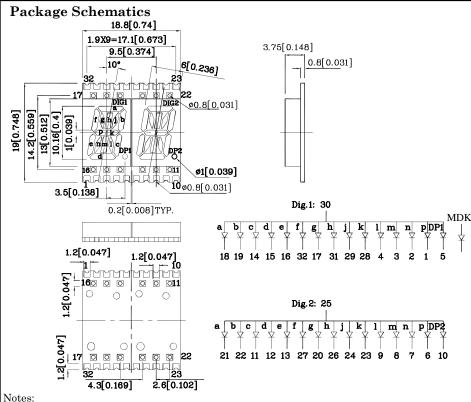


## SURFACE MOUNT DISPLAY

### Features

- $\bullet~0.4$  inch digit height
- Robust package
- Low power consumption
- Standard configuration: Gray face w/ white segments
- Standard Package: 250pcs/ Reel
- MSL (Moisture Sensitivity Level): 2a
- RoHS Compliant





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.

 $3. The gap between the reflector and PCB shall not exceed <math display="inline">0.25 {\rm mm}.$ 

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

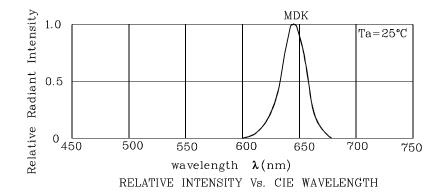
Operating Characteristics (T <sub>A</sub> =25°C)	eristics		Unit
Forward Voltage (Typ.) (I <sub>F</sub> =10mA)	$V_{\mathrm{F}}$	1.85	V
Forward Voltage (Max.) (I <sub>F</sub> =10mA)	$V_{\mathrm{F}}$	2.5	V
Reverse Current (Max.) ( $V_R$ =5V)	$I_R$	10	uA
Wavelength of Peak Emission CIE127-2007* (Typ.) (I <sub>F</sub> =10mA)	λP	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)	$ riangle\lambda$	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 <sub>F</sub> =10mA) ucd	Wavelength CIE127-2007* nm λP	Description
			min. typ.		
XZFAMDK10A2	Red	AlGaInP	14000359903600*8290*	645*	Common Anode, Rt.Hand Decimal.

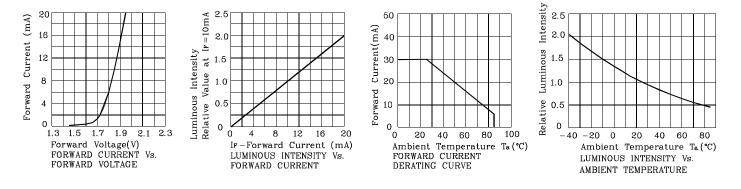
\*Luminous intensity value and wavelength are in accordance with CIE127-2007 standards. Jan 15.2014

XDSB1616 V3-X Layout: Maggie L.





♦ MDK



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

300 (°C) 10 s max 250 4°C/s C/s max 200 150~180 4°C/s max 150 Temperature 30~50s 80~120: 100 50 0 150 0 50 100 200 250 300 (sec) Time Notes:

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

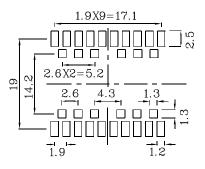
1. Maximum soldering temperature should not exceed 260°C

2. Recommended reflow temperature: 145°C-260°C 3. Do not put stress to the epoxy resin during

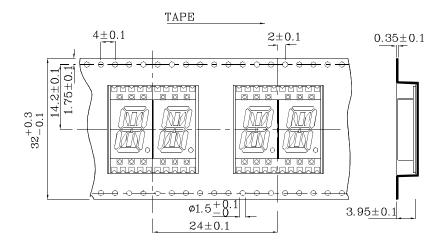
high temperatures conditions



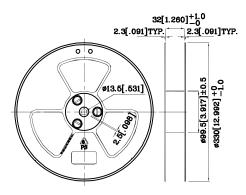
# **&** Recommended Soldering Pattern (Units : mm; Tolerance: ±0.15)



# 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

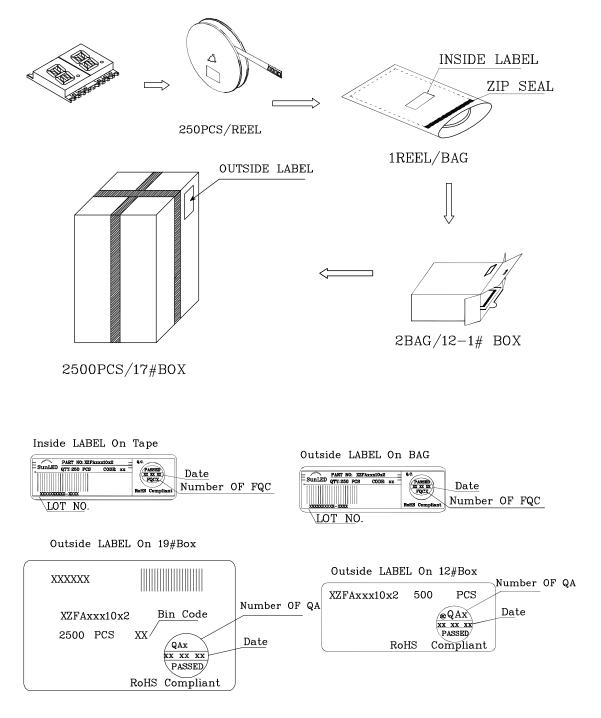
2. Luminous intensity / luminous flux: +/-15%

3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.



## **PACKING & LABEL SPECIFICATIONS**



#### TERMS OF USE

- 1. Data presented in this document reflect statistical figures and should be treated as technical reference only.
- 2. Contents within this document are subject to improvement and enhancement changes without notice.
- 3. The product(s) in this document are designed to be operated within the electrical and environmental specifications indicated on the datasheet. User accepts full risk and responsibility when operating the product(s) beyond their intended specifications.
- 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.
- 5. The contents within this document may not be altered without prior consent by SunLED.
- $6. \ Additional \ technical \ notes \ are \ available \ at \ \underline{http://www.SunLEDusa.com/TechnicalNotes.asp}$