



SURFACE MOUNT DISPLAY

#### **Features**

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

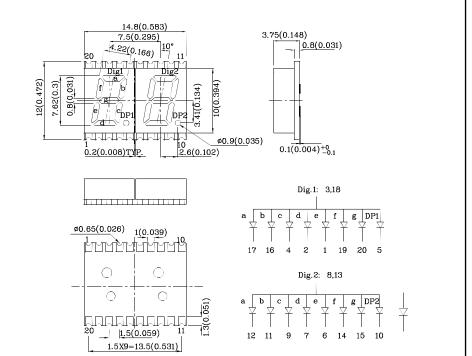






# ATTENTION OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DISCHARGE SENSITIVE DEVICES

# **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)		Orange (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	$i_{\mathrm{FS}}$	195	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)		Orange (AlGaInP)	Unit
Forward Voltage (Typ.) (I <sub>F</sub> =10mA)	$V_{\mathrm{F}}$	2	V
Forward Voltage (Max.) (I <sub>F</sub> =10mA)	$V_{\mathrm{F}}$	2.35	V
Reverse Current (Max.) $(V_R=5V)$	$I_R$	10	μА
Wavelength of Peak Emission CIE127-2007* (Typ.) (I <sub>F</sub> =10mA)	λP	610*	nm
Wavelength of Dominant Emission (Typ.) (I <sub>F</sub> =10mA)	λD	605*	nm
Spectral Line Full Width At Half-Maximum (Typ.) (I <sub>F</sub> =10mA)		29	nm
Capacitance (Typ.) (V <sub>F</sub> =0V, f=1MHz)	С	15	pF

	Part Number	Emitting Color	Emitting Material	Luminous I CIE127- (I <sub>F</sub> =10m.	2007*	Wavelength CIE127-2007* nm λP	Description
				min.	typ.		
XZ	FMOK07A2	Orange	AlGaInP	21000 5600*	45990 10990*	610*	Common Anode, Rt.Hand Decimal.

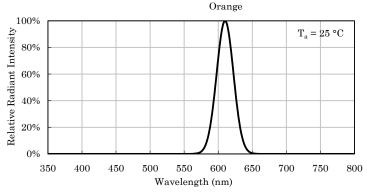
<sup>\*</sup>Luminous intensity value and wavelength are in accordance with CIE127-2007 standards.

Feb 26,2019

XDSA9176 V8-X Layout: Maggie L.

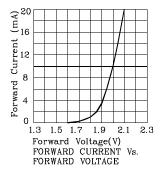


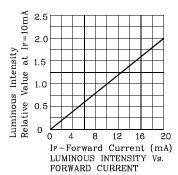


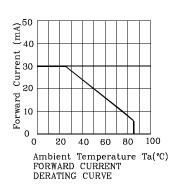


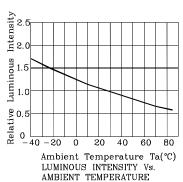
Relative Intensity Vs. CIE Wavelength

### Orange



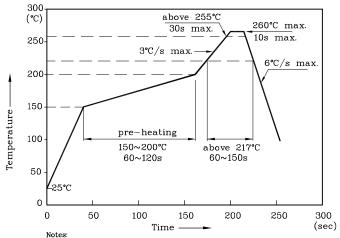






# LED is recommended for reflow soldering and soldering profile is shown below.

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

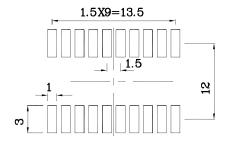


- 1. All temperatures refer to the center of the package, measured on the package body surface facing up during reflow.
- 2. Do not apply any stress to the LED during high temperature conditions.

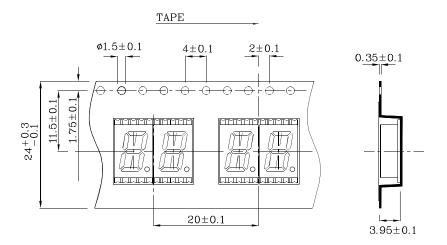
  3. Maximum number of soldering passes: 2



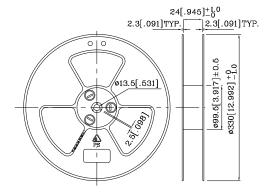
# **♦** Recommended Soldering Pattern (Units: mm; Tolerance: ±0.15)



# **❖** 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:

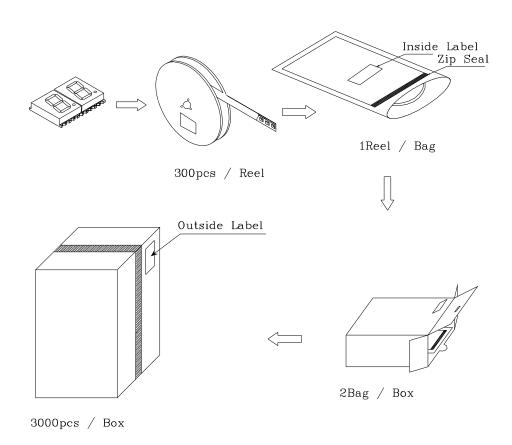
- 1. Wavelength: +/-1nm
- 2. Luminous intensity / luminous flux: +/-15%
- 3. Forward Voltage: +/-0.1V

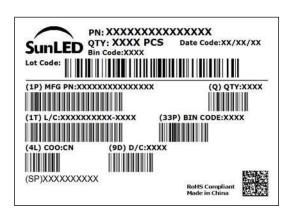
Note: Accuracy may depend on the sorting parameters.





#### PACKING & LABEL SPECIFICATIONS





#### TERMS OF USE

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