

# Features

- 0.2 inch digit height
- Robust package
- Low power consumption
- $\bullet$  Standard configuration: Gray face w/ white segments

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- $\bullet$  Standard Package: 650pcs/ Reel
- MSL (Moisture Sensitivity Level): 2a
- RoHS compliant



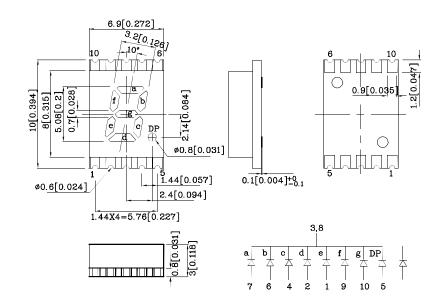




# ATTENTION OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DISCHARGE SENSITIVE

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 <sub>R</sub>		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)

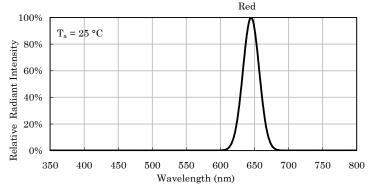
Operating Characteristics (T <sub>A</sub> =25°C)	Red (AlGaInP)	Unit	
Forward Voltage (Typ.) (I <sub>F</sub> =10mA)	$V_{\mathrm{F}}$	1.85	V
Forward Voltage (Max.) (I <sub>F</sub> =10mA)	2.35	V	
Reverse Current (Max.) $(V_R=5V)$	$I_R$	10	uA
Wavelength of Peak Emission CIE127-2007* (Typ.) (I <sub>F</sub> =10mA)	λР	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

Part Number	Emitting Color	Emitting Material	CHET27-2007*		Wavelength CIE127-2007* nm λP	Description
			min.	typ.		
XZFMDK05C	Red	AlGaInP	14000 3600*	29990 8090*	645*	Common Cathode, Rt. Hand Decimal.

<sup>\*</sup>Luminous intensity value and wavelength are in accordance with CIE127-2007 standards. Nov 07.2018

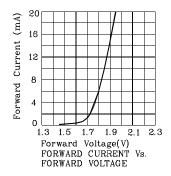


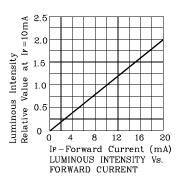


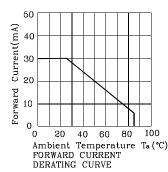


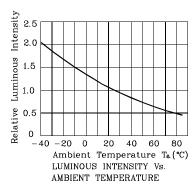
Relative Intensity Vs. CIE Wavelength

### **♦** Red



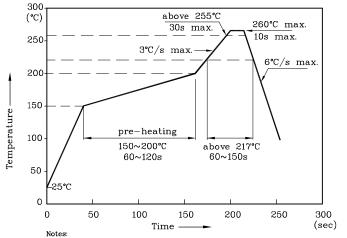






# LED is recommended for reflow soldering and soldering profile is shown below.

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

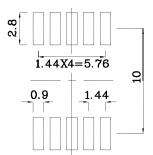


- 1. All temperatures refer to the center of the package,
- measured on the package body surface facing up during reflow. Do not apply any stress to the LED during high temperature conditions.
   Maximum number of soldering passes: 2

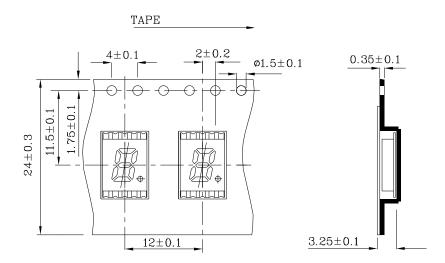




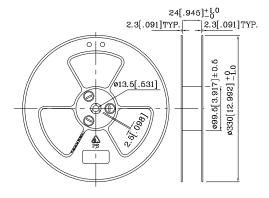
# **❖** Recommended Soldering Pattern (Units: mm; Tolerance: ±0.15)



# \* Tape Specification (Units:mm)



## **❖** 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:

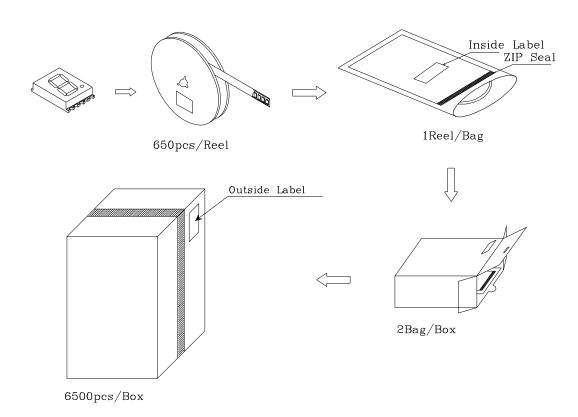
- 1. Wavelength: +/-1nm
- 2. Luminous intensity / luminous flux: +/-15%
- 3. Forward Voltage: +/-0.1V

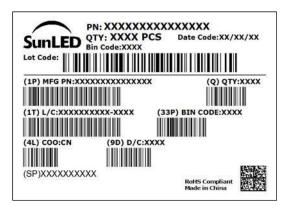
Note: Accuracy may depend on the sorting parameters.





### PACKING & LABEL SPECIFICATIONS





#### TERMS OF USE

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- 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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