

8mm (0.32") SINGLE DIGIT NUMERIC DISPLAY

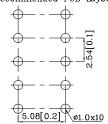
### **Features**

- Low power consumption
- $\bullet$ Robust package
- I.C. Compatible
- Standard configuration: Gray face w/ white segments
- Optional black face provides superior color contrast
- RoHS Compliant





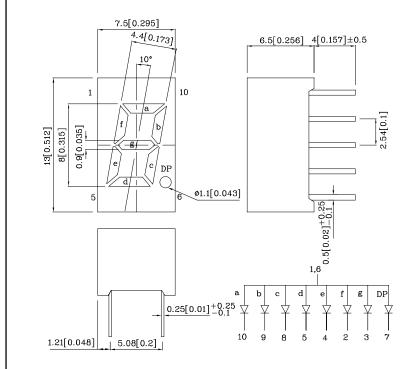
Recommended PCB Layout





## 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.

Absolute Maximum Ratings (T <sub>A</sub> =25°C)	Red (GaAlAs)	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	ifs	155	mA	
Power Dissipation	$P_D$	75	mW	
Operating Temperature	$T_{\rm A}$	-40 ~ +85	°C	
Storage Temperature	Tstg	-40 ~ +85		
Lead Solder Temperature [2mm Below Package Base]	260°C For 3-5 Seconds			

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 (GaAlAs)	Unit	
Forward Voltage (Typ.) (I <sub>F</sub> =10mA)	$V_{\mathrm{F}}$	1.8	V
Forward Voltage (Max.) (I <sub>F</sub> =10mA)	$V_{\mathrm{F}}$	2.5	V
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	655*	nm
Wavelength of Dominant Emission CIE127-2007* (Typ.) $(I_F=10\text{mA})$	λD	640*	nm
Spectral Line Full Width At Half-Maximum (Typ.) (I <sub>F</sub> =10mA)	$\triangle \lambda$	20	nm
Capacitance (Typ.) (V <sub>F</sub> =0V, f=1MHz)	С	45	pF

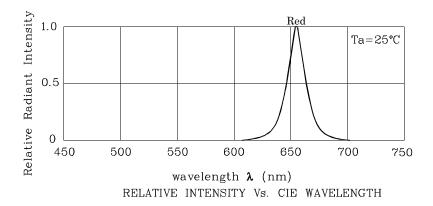
Part Number	Emitting Color	Emitting Material	$\begin{array}{c} Luminous\ Intensity\\ CIE127\text{-}2007*\\ (I_F\text{=}10\text{mA})\\ ucd \end{array}$	Wavelength CIE127-2007* nm λP	Description
			min. typ.		
XDMR06A	Red	GaAlAs	14000 36990 5600* 9990*	655*	Common Anode, Rt.Hand Decimal.

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

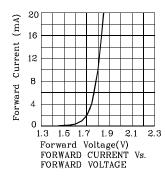
Oct 17,2016

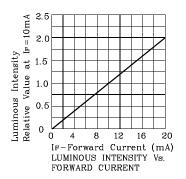


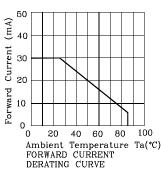


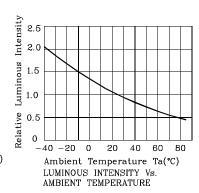


### ❖ Red

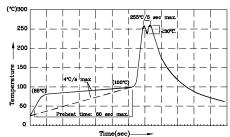








Wave Soldering Profile for Thru-Hole Products (Pb-Free Components)



- mmend pre-heat temperature of  $105^{\circ}\mathrm{C}$  or less (as measured with a noccuple attached to the LED pins) prior to immersion in the solder with a maximum solder bath temperature of  $250^{\circ}\mathrm{C}$  wave soldering temperature between  $245^{\circ}\mathrm{C}$   $\sim 255^{\circ}\mathrm{C}$  for 3 sec (5 se
- Notes:

  1. Recommend pre-heat temperature of 105°C or less (as measured w thermocouple attached to the LED pins) prior to immersion in the wave with a maximum solder bath temperature of 250°C

  2. Peak wave soldering temperature between 245°C ~ 255°C for 3 sec max).

  3. Do not apply stress to the epoxy resin while the temperature is al 4.Fixtures should not incur stress on the component when mounting during soldering process.

  5.AGC 305 solder alloy is recommended.

  6. No more than one wave soldering pass.

  7. During wave soldering, the PCB top-surface temperature should be kept below 105°C.

### 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:

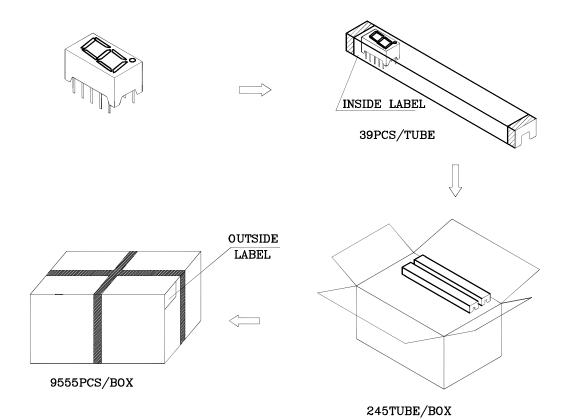
- 1. Wavelength: +/-1nm
- 2. Luminous Intensity / Luminous Flux: +/-15%
- 3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.





### PACKING & LABEL SPECIFICATIONS



### Inside Label On IC-tube

Outside Label On Box



# XXXXXX XDxx06x Bin Code 9555 PCS XX QAx Date

PASSED/

RoHS Compliant

### 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 http://www.SunLEDusa.com/TechnicalNotes.asp

Oct 17,2016