

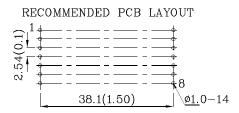
50mm (2.0 ") 5x7 DOT MATRIX DISPLAY

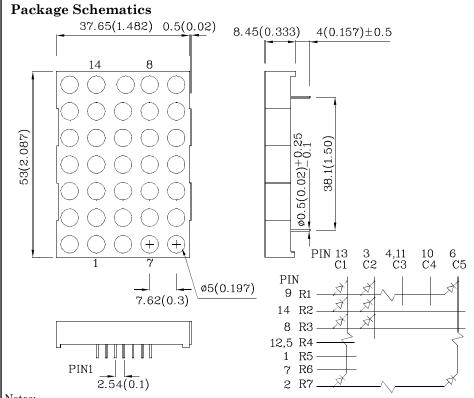
## **Features**

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

Absolute Maximum Ratings (T <sub>A</sub> =25°C)		VG (AlGaInP)	Unit	
Reverse Voltage	$V_{\rm R}$	5	V	
Forward Current	$I_{\mathrm{F}}$	30	mA	
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	ifs	150	mA	
Power Dissipation	$P_D$	75	mW	
Operating Temperature	$T_{A}$	-40 ~ +85	°C	
Storage Temperature	Tstg	-40 ~ +85		
Lead Solder Temperature [2mm Below Package Base]	260°C For 3-5 Seconds			

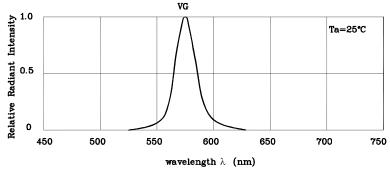
Operating Characteristics (T <sub>A</sub> =25°C)	VG (AlGaInP)	Unit	
Forward Voltage (Typ.) (I <sub>F</sub> =10mA)	$V_{\mathrm{F}}$	2	V
Forward Voltage (Max.) (I <sub>F</sub> =10mA)	$V_{\mathrm{F}}$	2.5	V
Reverse Current (Max.) (V <sub>R</sub> =5V)	$I_{ m R}$	10	uA
Wavelength of Peak Emission CIE127-2007* (Typ.) (I <sub>F</sub> =10mA)	λΡ	574*	nm
Wavelength of Dominant Emission CIE127-2007* (Typ.) (I <sub>F</sub> =10mA)	λD	570*	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	15	pF

Part Number	Emitting Color	Emitting Material	CIE127-2007* (I <sub>F</sub> =10mA) ucd		Wavelength CIE127-2007* nm λP	Description
			min.	typ.		
XMVG50C	Green	AlGaInP	21000 9000*	51990 19990*	574*	Column Cathode

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

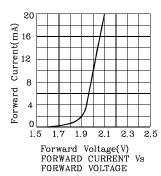
Mar 04,2014



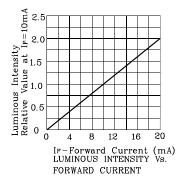


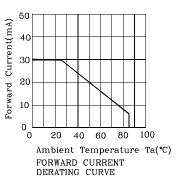
# RELATIVE INTENSITY Vs. CIE WAVELENGTH

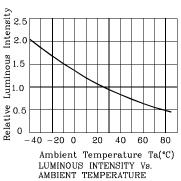
## ♦ VG



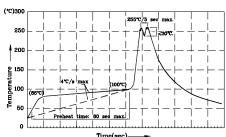
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Wave Soldering Profile for Thru-Hole Products (Pb-Free Components)



- 1. Recommend pre-heat temperature of 105°C or less (as measured with a thermocouple attached to the LED pins) prior to immersion in the solder wave with a maximum solder bath temperature of 260°C
  2. Peak wave soldering temperature between 245°C ~ 255°C for 3 sec (5 sec
- 2.Peak wave soldering temperature between 240 to 7 250 to 1 3 50 to 1 apply stress to the epoxy resin while the temperature is abd. 4.Pixtures should not incur stress on the component when mounting during soldering process.
  5.SAC 305 solder alloy is recommended.
  6.No more than one wave soldering pass.

## 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:

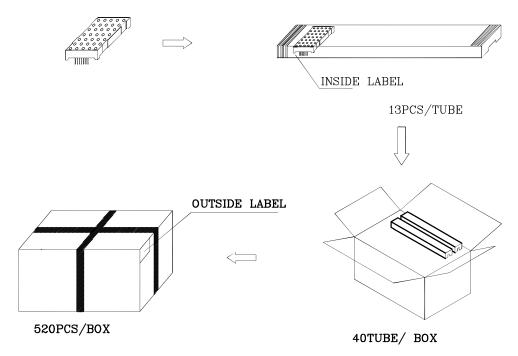
- 1. Wavelength: +/-1nm
- 2. Luminous Intensity / Luminous Flux: +/-15%
- 3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.

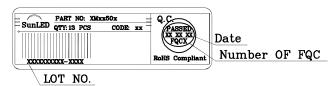


# SunLED www.SunLEDusa.com

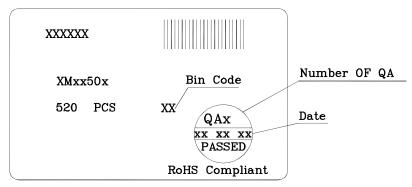
# PACKING & LABEL SPECIFICATIONS



# Inside Label On IC-tube



## Outside Label On Box



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- 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.
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- $6. \ Additional\ technical\ notes\ are\ available\ at\ \underline{http://www.SunLEDusa.com/TechnicalNotes.asp}$

Mar 04,2014