



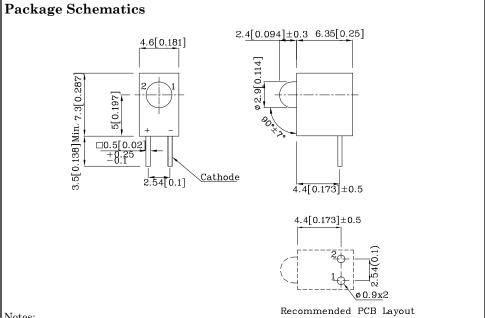


### **Features**

- Housing material: Type 66 Nylon
- Black casing provides superior contrast
- Housing UL rating: 94V-0
- $\bullet$  Reliable & robust
- Custom color combinations available
- RoHS Compliant







- Notes:
- 1. All dimensions are in millimeters (inches).
- 2. Tolerance is  $\pm 0.25(0.01")$  unless otherwise noted.
- 3. Specifications are subject to change without notice.

Absolute Maximum Ratings $(T_A=25^{\circ}C)$		Red (GaAsP/GaP)	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	$i_{\mathrm{FS}}$	160	mA		
Power Dissipation	$P_{D}$	75	mW		
Operating Temperature	$T_{\rm A}$	-40 ~ +85	$^{\circ}\mathrm{C}$		
Storage Temperature	Tstg	-40 ~ +85	C		
Lead Solder Temperature [2mm Below Package Base]	260°C For 3 Seconds				
Lead Solder Temperature [5mm Below Package Base]	260°C For 5 Seconds				

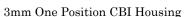
A Relative Humidity between 40% and 60% is recommended in ESD-protected work areas to reduce static build up during assembly process (Reference JEDEC/JESD625-A and JEDEC/J-STD-033)

Operating Characteristics ( $T_A$ =25°C)		Red (GaAsP/GaP)	Unit
Forward Voltage (Typ.) $(I_F=10\text{mA})$	$V_{\mathrm{F}}$	1.9	V
Forward Voltage (Max.) $(I_F=10mA)$	$V_{\mathrm{F}}$	2.5	V
Reverse Current (Max.) $(V_R=5V)$	$I_{R}$	10	uA
Wavelength of Peak Emission CIE127-2007* (Typ.) $(I_F=10\text{mA})$	λP	627*	nm
Wavelength of Dominant Emission CIE127-2007* (Typ.) $(I_F=10\text{mA})$	λD	617*	nm
Spectral Line Full Width At Half-Maximum (Typ.) (I <sub>F</sub> =10mA)	Δλ	45	nm
Capacitance (Typ.) (V <sub>F</sub> =0V, f=1MHz)	С	15	pF

Part Number	Emitting Color	Emitting Material	Lens-color	$\begin{array}{c} \text{Luminous Intensity} \\ \text{CIE}127\text{-}2007* \\ \text{(I}_{\text{F}}\text{=}10\text{mA)} \\ \text{mcd} \end{array}$		Wavelength CIE127-2007* nm λP	Viewing Angle 20 1/2
				min.	typ.		
XVB1LUR11D	Red	GaAsP/GaP	Red Diffused	12 10*	29 19*	627*	50°

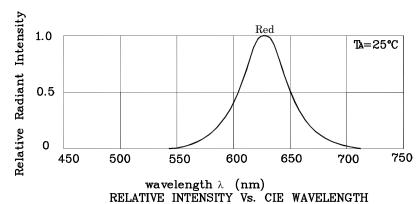
<sup>\*</sup>Luminous intensity value and wavelength are in accordance with CIE127-2007 standards.

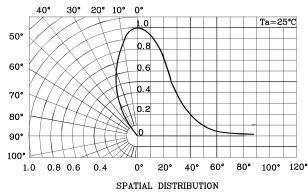
Oct 08,2016 XDSB8816 V1-X Layout: Maggie L.



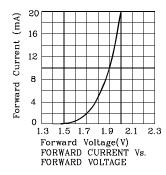


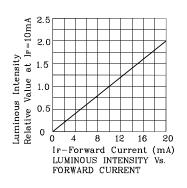


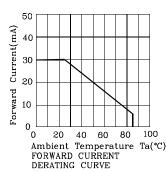


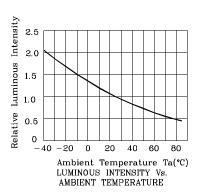


## Red

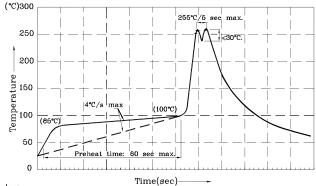








Wave Soldering Profile For Thru-Hole Products (Pb-Free Components)



Notes:

- Notes. I. 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  $260^{\circ}C$  2. Peak wave soldering temperature between  $245^{\circ}C \sim 255^{\circ}C$  for 3 sec
- (5 sec max).
- 3.Do not apply stress to the epoxy resin while the temperature is above  $85\,^\circ\text{C}.$  4.Fixtures should not incur stress on the component when mounting and
- 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:

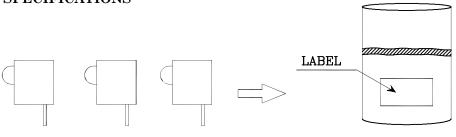
- 1. Wavelength: +/-1nm
- 2. Luminous Intensity / Luminous Flux: +/-15%
- 3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.

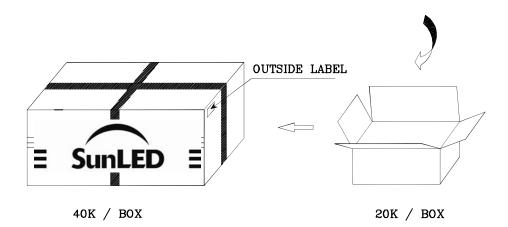


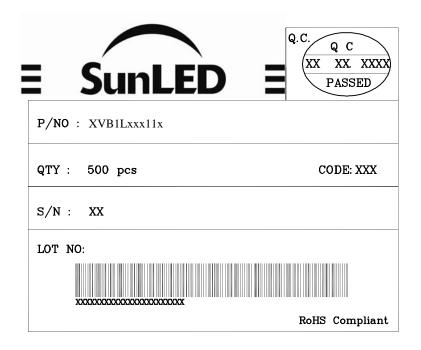


# PACKING & LABEL SPECIFICATIONS



500PCS / BAG





## TERMS OF USE

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

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