



 $2 \, \mathrm{mm} \ \mathrm{x} \ 5 \mathrm{mm}$  BI-COLOR RECTANGULAR LED LAMP



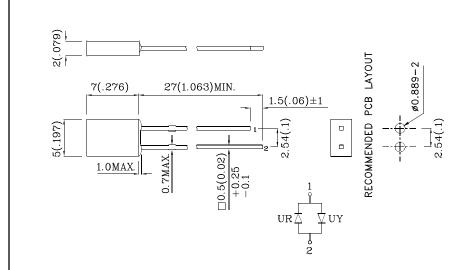
## **Features**

- Radial / Through hole package
- $\bullet$  Reliable & robust
- Low power consumption
- Available on tape and reel
- RoHS Compliant





# Package Schematics



### 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 <sub>A</sub> =25°C)		UR (GaAsP/ GaP)	UY (GaAsP/ GaP)	Unit	
Forward Current	$I_{\mathrm{F}}$	30	30	mA	
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	$i_{\mathrm{FS}}$	160	140	mA	
Power Dissipation	$P_{D}$	75	75	mW	
Operating Temperature	$T_{\rm A}$	-40 ~	$^{\circ}\mathrm{C}$		
Storage Temperature	Tstg	-40 ~			
Lead Solder Temperature [2mm Below Package Base]	260°C For 3 Seconds				
Lead Solder Temperature [5mm Below Package Base]	260°C For 5 Seconds				

Operating Characteristics (T <sub>A</sub> =25°C)	UR (GaAs P/ GaP)	UY (GaAsP/ GaP)	Unit	
Forward Voltage (Typ.) (I <sub>F</sub> =20mA)	$V_{\mathrm{F}}$	2	2.1	V
Forward Voltage (Max.) (I <sub>F</sub> =20mA)	$V_{\mathrm{F}}$	2.5	2.5	V
Wavelength of Peak Emission CIE127-2007* (Typ.) $(I_F=20\text{mA})$	λΡ	627*	590*	nm
Wavelength of Dominant Emission CIE127-2007* (Typ.) (I <sub>F</sub> =20mA)	λD	617*	588*	nm
Spectral Line Full Width At Half-Maximum (Typ.) (I <sub>F</sub> =20mA)	Δλ	45	35	nm
Capacitance (Typ.) (V <sub>F</sub> =0V, f=1MHz)	С	15	20	pF

Part Number	Emitting Color	Emitting Material	Lens-color	Luminous Intensity CIE127-2007* (I <sub>F</sub> =20mA) mcd		Wavelength CIE127-2007* nm λP	Viewing Angle 20 1/2
				min.	typ.		
XSUYR18M —	Red	GaAsP/GaP	White Diffused -	2 1.2*	5 3.8*	627*	110°
	Yellow	GaAsP/GaP		2 2*	3.8 3.8*	590*	

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

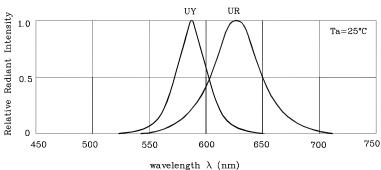
Dec 17,2013



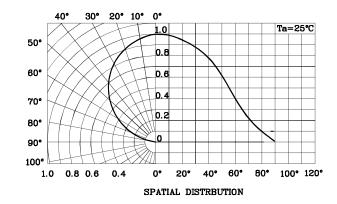
## Part Number: XSUYR18M

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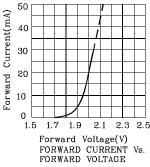


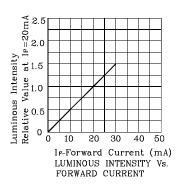


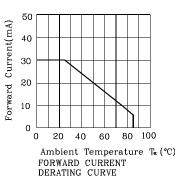
RELATIVE INTENSITY Vs. CIE WAVELENGTH

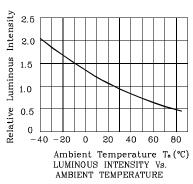


## **UR**

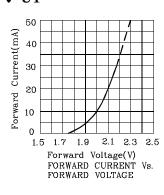


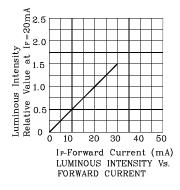


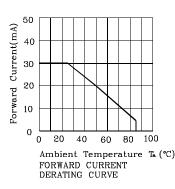


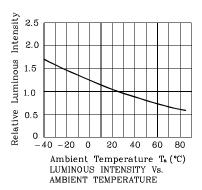


## UY

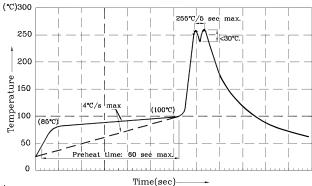








Wave Soldering Profile For Thru-Hole Products (Pb-Free Components)



- 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 max).
- (8 sec links).

  3.Do not apply stress to the epoxy resin while the temperature is above 85°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:

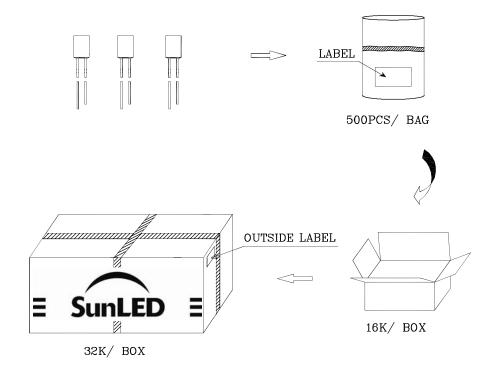
- 1. Wavelength: +/-1nm
- 2. Luminous Intensity / Luminous Flux: +/-15%
- 3. Forward Voltage: +/-0.1V

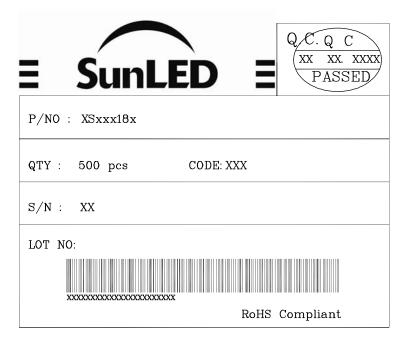
Note: Accuracy may depend on the sorting parameters.



 $2 \mathrm{mm} \ \mathrm{x} \ 5 \mathrm{mm} \ \mathrm{BI\text{-}COLOR} \ \mathrm{RECTANGULAR}$  LED LAMP

## PACKING & LABEL SPECIFICATIONS





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