



# 3.65 x 6.15 mm SINGLE CHIP LED LIGHT BAR

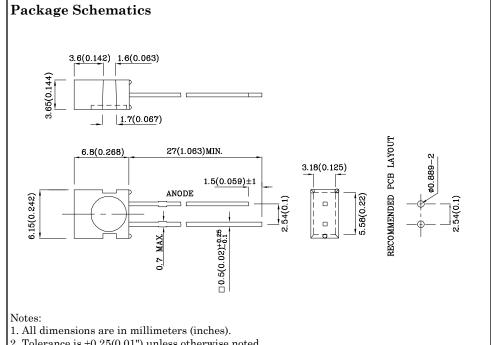
## **Features**

- Reliable & robust
- Low power consumption
- RoHS compliant





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- 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°C)		MG (GaP)	Unit		
Reverse Voltage	$V_{\mathrm{R}}$	5	V		
Forward Current	$I_{\mathrm{F}}$	25	mA		
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	ifs	140	mA		
Power Dissipation	$P_{D}$	62.5	mW		
Operating Temperature	$T_{A}$	°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				

Operating Characteristics (T <sub>A</sub> =25°C)		MG (GaP)	Unit
Forward Voltage (Typ.) (I <sub>F</sub> =20mA)	$V_{\mathrm{F}}$	2.2	V
Forward Voltage (Max.) (I <sub>F</sub> =20mA)	$V_{\mathrm{F}}$	2.5	V
Reverse Current (Max.) $(V_R=5V)$	$I_R$	10	uA
Wavelength of Peak Emission CIE127-2007* (Typ.) (I <sub>F</sub> =20mA)	λP	565*	nm
Wavelength of Dominant Emission CIE127-2007* (Typ.) $(I_F=20\text{mA})$	λD	568*	nm
Spectral Line Full Width At Half-Maximum (Typ.) (I <sub>F</sub> =20mA)	Δλ	30	nm
Capacitance (Typ.) (V <sub>F</sub> =0V, f=1MHz)	С	15	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.		
XEMG21D	Green	GaP	Green Diffused	8*	15*	565*	100°

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

Jan 03,2014 XDSA1930 V7-Z Layout: Maggie L.

40°

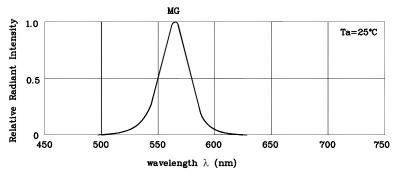
20° 10°

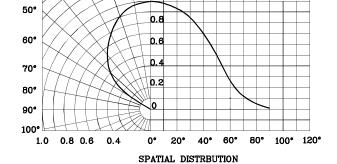
0°





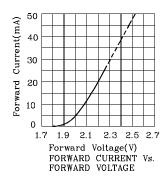
Ta=25°C

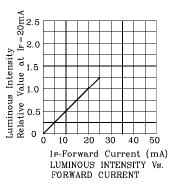


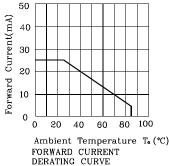


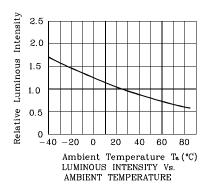
RELATIVE INTENSITY Vs. CIE WAVELENGTH

### ❖ MG

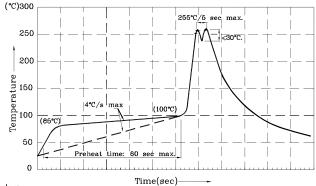








Wave Soldering Profile For Thru-Hole Products (Pb-Free Components)



#### 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

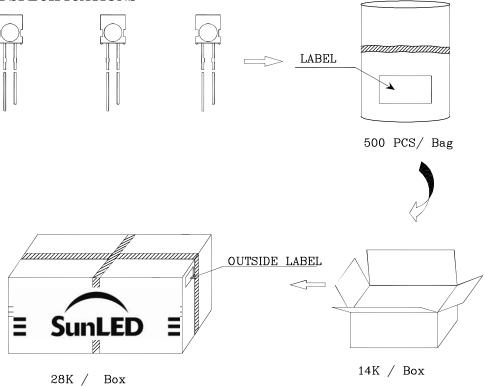
Note: Accuracy may depend on the sorting parameters.

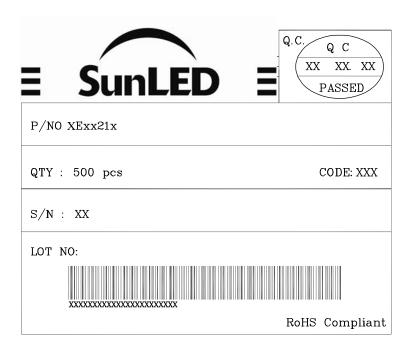
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# PACKING & LABEL SPECIFICATIONS





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Jan 03,2014