





# SUBMINIATURE SOLID STATE LAMP

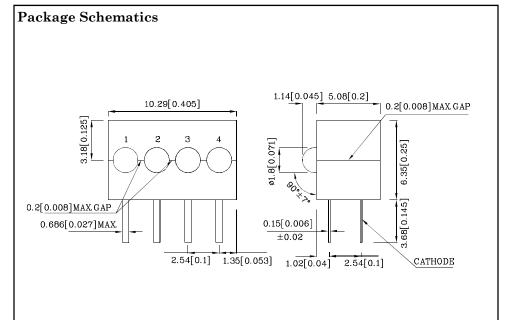
# **Features**

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

Dec 23,2013







#### 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)		MG (GaP)	Unit		
Reverse Voltage	$V_{\rm R}$	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	$T_A$ -40 ~ +85		°C		
Storage Temperature	Tstg	-40 ~ +85	-0		
Lead Solder Temperature [2mm Below Package Base]	260°C For 3 Seconds				
Lead Solder Temperature [5mm Below Package Base]	260°C For 5 Seconds				

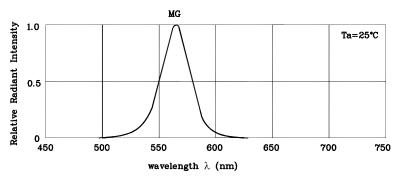
Operating Characteristics (T <sub>A</sub> =25°C)		MG (GaP)	Unit
Forward Voltage (Typ.) (I <sub>F</sub> =20mA)	$V_{\mathrm{F}}$	2.2	V
Forward Voltage (Max.) (I <sub>F</sub> =20mA)	$V_{\mathrm{F}}$	2.5	V
Reverse Current (Max.) $(V_R=5V)$	$I_R$	10	uA
Wavelength of Peak Emission CIE127-2007* (Typ.) (I <sub>F</sub> =20mA)	λΡ	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.		
XNF4ZMG46D	Green	GaP	Green Diffused	5*	11*	565*	40°

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



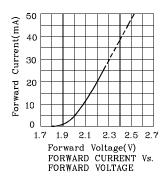


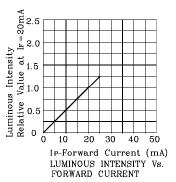


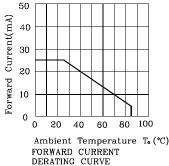
40° 30° 20° 10° 0° Ta=25°C 50° 0.8 60° 0.6 701 80° 90° 100 1.0 0.8 0.6 0.4 20° 40° 60° 80° 100° 120 0° SPATIAL DISTRBUTION

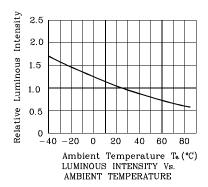
RELATIVE INTENSITY Vs. CIE WAVELENGTH

# ❖ MG

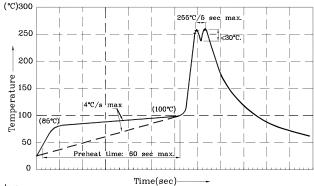








Wave Soldering Profile For Thru-Hole Products (Pb-Free Components)



### 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:

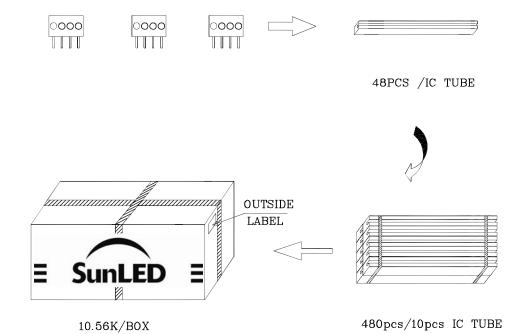
- 1. Wavelength: +/-1nm
- 2. Luminous Intensity / Luminous Flux: +/-15%
- 3. Forward Voltage: +/-0.1V

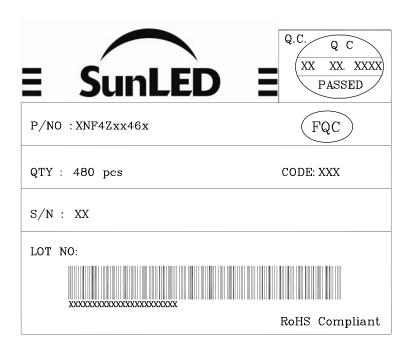
Note: Accuracy may depend on the sorting parameters.





# PACKING & LABEL SPECIFICATIONS





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