

## Features

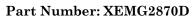
- $\bullet$  Robust package
- $\bullet$  Uniform light disbursement
- Ideal for backlighting logos or icons
- Excellent for flush mounting
- RoHS compliant



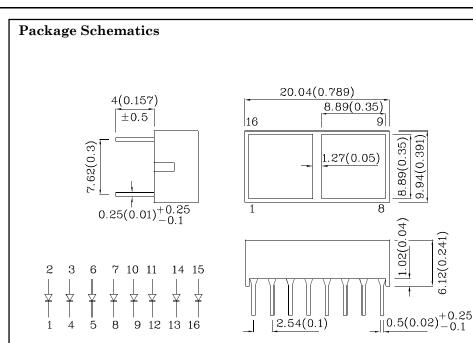
RECOMMENDED PCB LAYOUT  $(\overset{\bullet}{\text{CO}})^{2}$ 

2.54(0.1)

ø1.0-16



8.89mmx8.89mm LED LIGHT BAR



#### Notes: 1. All dimensions are in millimeters (inches), Tolerance is ±0.25(0.01")unless otherwise noted. 2. Specifications are subject to change without notice.

Absolute Maximum Ratings (T <sub>A</sub> =25°C)	MG (GaP)	Unit		
Reverse Voltage	$V_{R}$	5	V	
Forward Current	$I_{\rm F}$	25	mA	
Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width	ifs	140	mA	
Power Dissipation	$\mathbf{P}_{\mathrm{D}}$	62.5	mW	
Operating Temperature	$T_{\rm A}$	$\text{-}40 \sim \text{+}85$	°C	
Storage Temperature	Tstg	$-40 \sim +85$		
Lead Solder Temperature [2mm Below Package Base]	260°C For 3-5 Seconds			

Operating Characteristics (T <sub>A</sub> =25°C)	MG (GaP)	Unit	
Forward Voltage (Typ.) (I <sub>F</sub> =20mA)	$V_{\rm F}$	2.2	V
Forward Voltage (Max.) (I <sub>F</sub> =20mA)	$V_{\rm F}$	2.5	V
Reverse Current (Max.) (V <sub>R</sub> =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 <sub>F</sub> =20mA)	λD	568*	nm
Spectral Line Full Width At Half-Maximum (Typ.) (I <sub>F</sub> =20mA)	$ riangle\lambda$	30	nm
Capacitance (Typ.) (V <sub>F</sub> =0V, f=1MHz)	С	15	pF

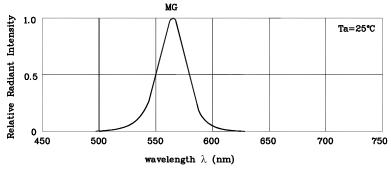
Part Number	Emitting Color	Emitting Material	Luminous Intensity CIE127-2007* (I <sub>F</sub> =20mA) mcd		Wavelength CIE127-2007* nm λP	Lens-color
			min.	typ.		
XEMG2870D	Green	GaP	12 3*	29 8*	565*	Green Diffused

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

Mar 12,2014

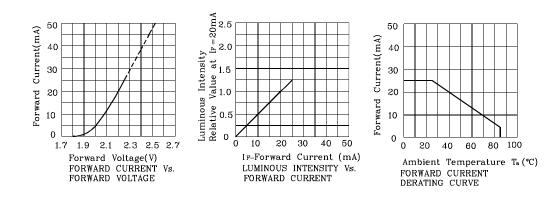
XDSA1995 V6-X Layout: Maggie L.

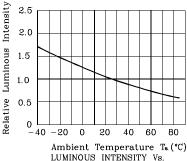




RELATIVE INTENSITY Vs. CIE WAVELENGTH

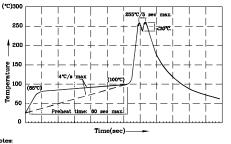
### ♦ MG





AMBIENT TEMPERATURE

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



nmend pre-heat temperature of 105°C or less (as measured with a noccupie attached to the LED pins) prior to immersion in the solder with a maximum solder bath temperature of 260°C wave soldering temperature between  $245°C \sim 255°C$  for 3 sec (5 sec 1. Rec the wave 2.Peak

2.Peak wave soldering temperature between 245°C ~ 255°C for 3 secmax).
3.Do not apply stress to the epoxy resin while the temperature is a 4.Fixtures 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.
7.During wave soldering, the PCB top-surface temperature should be kept below 105°C. while the temperature is ab component when mounting 85°C

Remarks:

If special sorting is required (e.g. binning based on forward voltage,

luminous intensity / luminous flux, or wavelength),

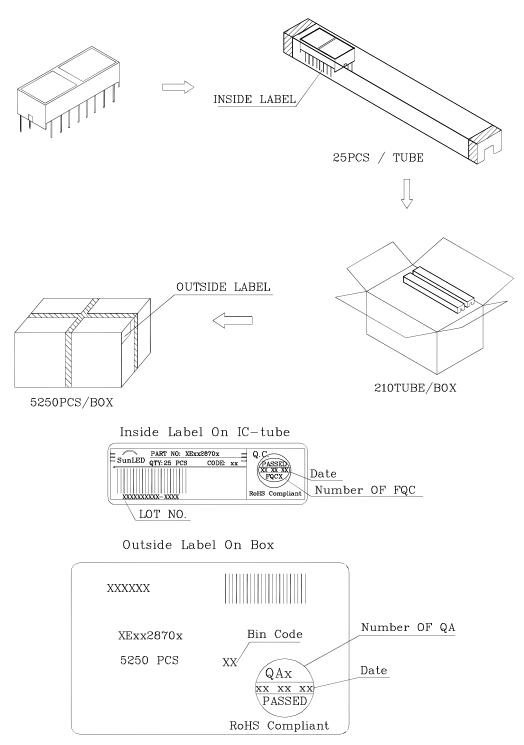
the typical accuracy of the sorting process is as follows:

- 1. Wavelength: +/-1nm
- 2. Luminous Intensity / Luminous Flux: +/-15%
- 3. Forward Voltage: +/-0.1V
- Note: Accuracy may depend on the sorting parameters.



8.89mmx8.89mm LED LIGHT BAR

# **PACKING & LABEL SPECIFICATIONS**



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