

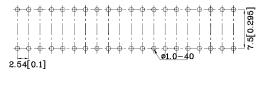
# Part Number: XGMGX20D

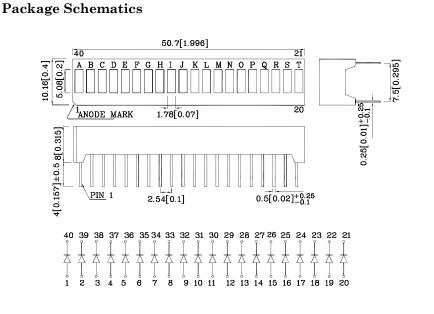
20 SEGMENTS BAR GRAPH ARRAY

- $\bullet$  Robust package
- Uniform light disbursement
- Ideal for backlighting logos or icons
- Excellent for flush mounting
- Standard configuration: Gray face w/ white segments
- RoHS Compliant



#### RECOMMENDED PCB LAYOUT





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	$\mathbf{I}_{\mathbf{F}}$	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	$T_{\rm A}$	$-40 \sim +85$	°C	
Storage Temperature	Tstg	$-40 \sim +85$		
Lead Solder Temperature [2mm Below Package Base]	260°C For 3-5 Seconds			

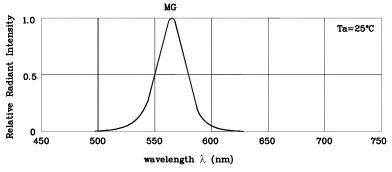
Operating Characteristics (T <sub>A</sub> =25°C)		MG (GaP)	Unit
Forward Voltage (Typ.) (I <sub>F</sub> =10mA)	$V_{\mathrm{F}}$	2	V
Forward Voltage (Max.) (I <sub>F</sub> =10mA)	$V_{\rm F}$	2.5	V
Reverse Current (Max.) $(V_R=5V)$	$I_R$	10	uA
Wavelength of Peak Emission CIE127-2007* (Typ.) (I <sub>F</sub> =10mA)	λP	565*	nm
Wavelength of Dominant Emission CIE127-2007* (Typ.) (I <sub>F</sub> =10mA)	λD	568*	nm
Spectral Line Full Width At Half-Maximum (Typ.) (I <sub>F</sub> =10mA)	$ riangle \lambda$	30	nm
Capacitance (Typ.) (V <sub>F</sub> =0V, f=1MHz)	С	15	$_{\rm pF}$

Part Number	Emitting Color	Emitting Material	Luminous Intensity CIE127-2007* (I <sub>F</sub> =10mA) ucd		Wavelength CIE127-2007* nm λP	Description
			min.	typ.		
XGMGX20D	Green	GaP	5600 1400*	11990 2790*	565*	20 Segments Bar graph-Display

\*Luminous intensity value and wavelength are in accordance with CIE127-2007 Mar 05.2014

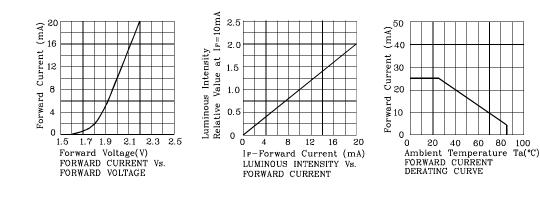
XDSA1922 V8-X Layout: Maggie L.

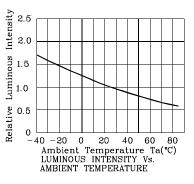




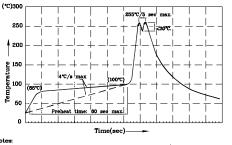
RELATIVE INTENSITY Vs. CIE WAVELENGTH

### ♦ MG





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



nmend pre-heat temperature of 105°C or less (as measured with a nocouple attached to the LED pins) prior to immersion in the solder with a maximum solder bath temperature of 280°C wave soldering temperature between 245°C  $\sim$  255°C for 3 sec (5 sec 1. Rec the wave 2.Peak

 Peak wave soldering temperature between max).
Do not apply stress to the epoxy result.
Pixtures should not incur stress on the during soldering process.
SAC 305 solder alloy is recommended.
No more than one wave soldering pass. while the temperature is all component when mounting sin the

#### Remarks:

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

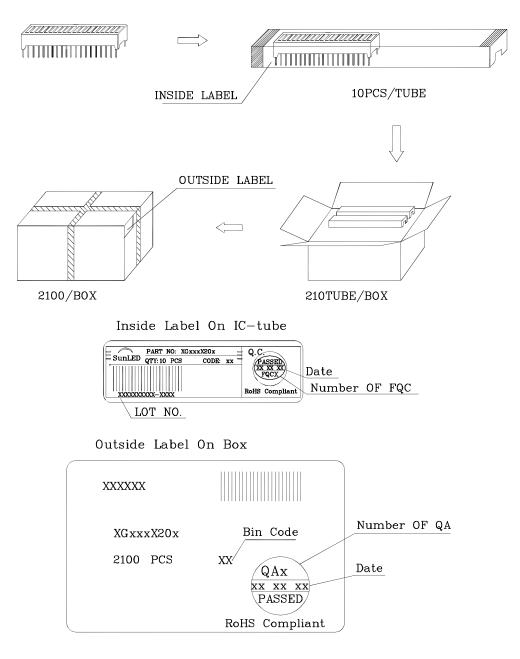
luminous intensity / luminous flux, or wavelength),

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**



### TERMS OF USE

- 1. Data presented in this document reflect statistical figures and should be treated as technical reference only.
- 2. Contents within this document are subject to improvement and enhancement changes without notice.
- 3. The product(s) in this document are designed to be operated within the electrical and environmental specifications indicated on the datasheet.
- User accepts full risk and responsibility when operating the product(s) beyond their intended specifications.
- 4. The product(s) described in this document are intended for electronic applications in which a person's life is not reliant upon the LED. Please
- consult with a SunLED representative for special applications where the LED may have a direct impact on a person's life.
- 5. The contents within this document may not be altered without prior consent by SunLED.
- $6. \ Additional \ technical \ notes \ are \ available \ at \ \underline{http://www.SunLEDusa.com/TechnicalNotes.asp}$