# imall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



# Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832 Email & Skype: info@chipsmall.com Web: www.chipsmall.com Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



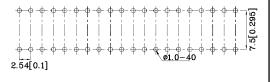


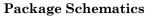
### Part Number: XGMRX20D

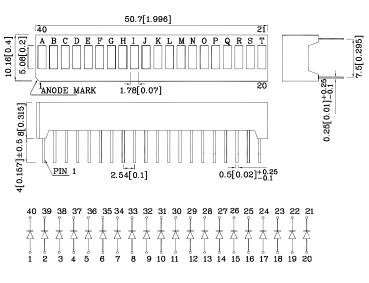
20 SEGMENTS BAR GRAPH ARRAY

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









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<br>(T <sub>A</sub> =25°C)             |                       | MR<br>(GaAlAs) | Unit |  |
|--|-----------------------|----------------|------|--|
| Reverse Voltage  | $V_{R}$               | 5              | V    |  |
| Forward Current  | $I_{\rm F}$           | 30             | mA   |  |
| Forward Current (Peak)<br>1/10 Duty Cycle<br>0.1ms Pulse Width | ifs                   | 155            | mA   |  |
| Power Dissipation  | $P_{D}$               | 75             | mW   |  |
| Operating Temperature  | $T_{\rm A}$           | $-40 \sim +85$ | °C   |  |
| Storage Temperature  | Tstg                  | $-40 \sim +85$ |      |  |
| Lead Solder Temperature<br>[2mm Below Package Base]            | 260°C For 3-5 Seconds |                |      |  |

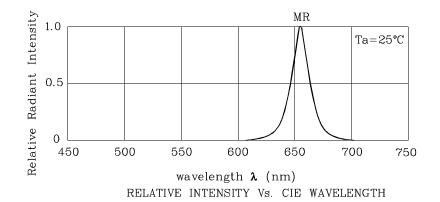
| Operating Characteristics<br>(T <sub>A</sub> =25°C)                              |                   | MR<br>(GaAlAs) | Unit        |
|--|-------------------|----------------|-------------|
| Forward Voltage (Typ.)<br>(I <sub>F</sub> =10mA)                                 | $V_{\rm F}$       | 1.8            | V           |
| Forward Voltage (Max.)<br>(I <sub>F</sub> =10mA)                                 | $V_{\mathrm{F}}$  | 2.5            | V           |
| Reverse Current (Max.)<br>(V <sub>R</sub> =5V)                                   | $I_R$             | 10             | uA          |
| Wavelength of Peak<br>Emission CIE127-2007* (Typ.)<br>(I <sub>F</sub> =10mA)     | λP                | 655*           | nm          |
| Wavelength of Dominant<br>Emission CIE127-2007* (Typ.)<br>(I <sub>F</sub> =10mA) | λD                | 640*           | nm          |
| Spectral Line Full Width<br>At Half-Maximum (Typ.)<br>(I <sub>F</sub> =10mA)     | $	riangle\lambda$ | 20             | nm          |
| Capacitance (Typ.)<br>(V <sub>F</sub> =0V, f=1MHz)                               | С                 | 45             | $_{\rm pF}$ |

| Part<br>Number | Emitting<br>Color | Emitting<br>Material | Luminous Intensity<br>CIE127-2007*<br>(I <sub>F</sub> =10mA) ucd |                | Wavelength<br>CIE127-2007*<br>nm λP | Description                      |
|----------------|-------------------|----------------------|--|----------------|-------------------------------------|----------------------------------|
|                |                   |                      | min.   | typ.           |                                     |                                  |
| XGMRX20D       | Red               | GaAlAs               | 14000<br>3600*   | 29990<br>7990* | 655*                                | 20 Segments<br>Bar graph-Display |

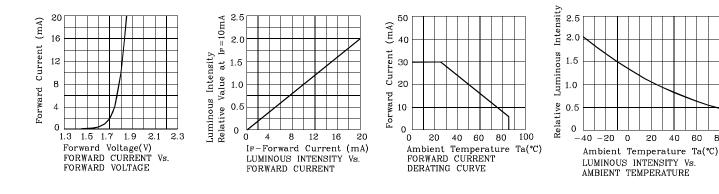
\*Luminous intensity value and wavelength are in accordance with CIE127-2007 Mar 05.2014

XDSA1921 V9-X Layout: Maggie L.

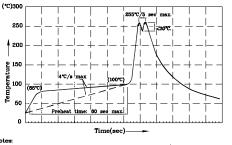




#### ♦ MR



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



Access 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°C 2.Peak wave soldering temperature between 245°C ~ 255°C for 3 sec (5 sec max)

Peak wave soldering temperature between two or two o

Remarks:

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

luminous intensity / luminous flux, or wavelength),

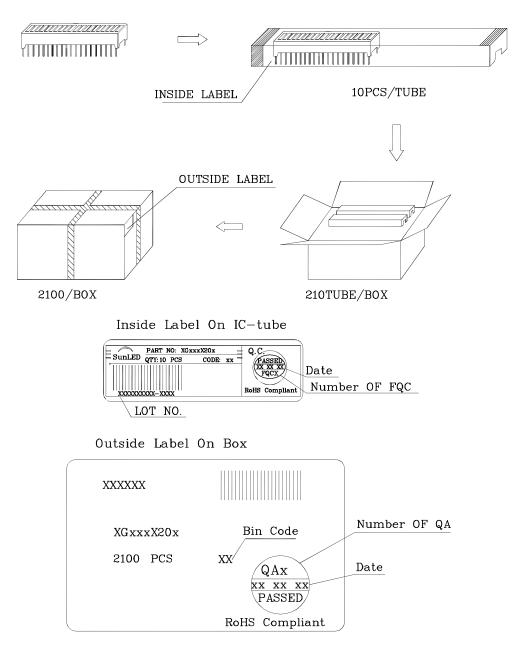
the typical accuracy of the sorting process is as follows:

- 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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- 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
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- 6. Additional technical notes are available at <u>http://www.SunLEDusa.com/TechnicalNotes.asp</u>