

# Part Number: XMUY18C

18mm (0.7 ") SINGLE COLOR DOT MATRIX DISPLAY

### Features

- $\bullet$  Low power consumption
- $\bullet$  Robust package
- I.C. Compatible

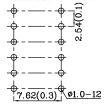
 $\bullet$  Standard configuration: Gray face w/ white dots

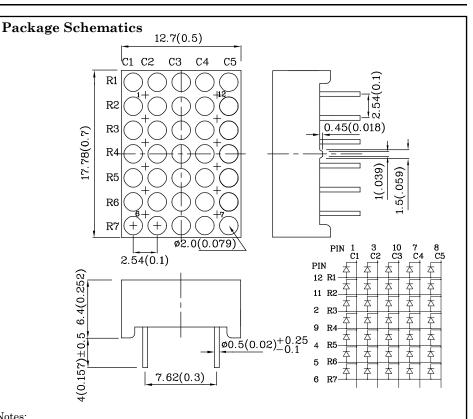
• Optional black face provides superior color contrast

• 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<br>(T <sub>A</sub> =25°C)             |                       | UY<br>(GaAsP/GaP) | Unit |  |
|--|-----------------------|-------------------|------|--|
| Reverse Voltage  | $V_{\mathrm{R}}$      | 5                 | V    |  |
| Forward Current  | $I_{\rm F}$           | 30                | mA   |  |
| Forward Current (Peak)<br>1/10 Duty Cycle<br>0.1ms Pulse Width | ifs                   | 140               | 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)                              |                   | UY<br>(GaAsP/GaP) | Unit        |
|--|-------------------|-------------------|-------------|
| Forward Voltage (Typ.)<br>(I <sub>F</sub> =10mA)                                 | $V_{\mathrm{F}}$  | 1.95              | V           |
| Forward Voltage (Max.)<br>(I <sub>F</sub> =10mA)                                 | $V_{\rm F}$       | 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                | 590*              | nm          |
| Wavelength of Dominant<br>Emission CIE127-2007* (Typ.)<br>(I <sub>F</sub> =10mA) | λD                | 588*              | nm          |
| Spectral Line Full Width<br>At Half-Maximum (Typ.)<br>(I <sub>F</sub> =10mA)     | $	riangle\lambda$ | 35                | nm          |
| Capacitance (Typ.)<br>(V <sub>F</sub> =0V, f=1MHz)                               | С                 | 20                | $_{\rm pF}$ |

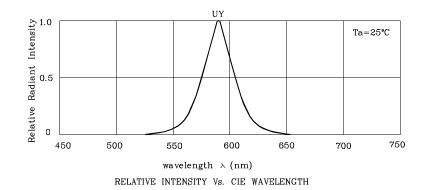
| Part<br>Number | Emitting<br>Color | Emitting<br>Material | Luminous Intensity<br>CIE127-2007*<br>(I <sub>F</sub> =10mA) ucd |               | Wavelength<br>CIE127-2007*<br>nm λP | Description    |
|----------------|-------------------|----------------------|--|---------------|-------------------------------------|----------------|
|                |                   |                      | min.   | typ.          |                                     |                |
| XMUY18C        | Yellow            | GaAsP/GaP            | 3600<br>900*   | 6390<br>2190* | 590*                                | Column Cathode |

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

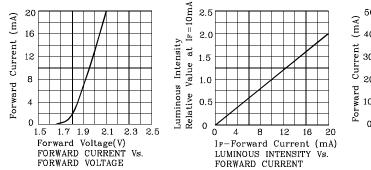
Mar 04,2014

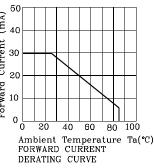
XDSA1820 V6-X Layout: Maggie L.

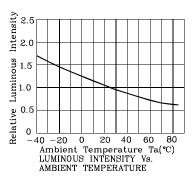




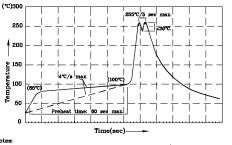
## ♦ UY







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 2400 ~ 2000 to 5 sec (o smax).
 Do not apply stress to the epoxy resin while the temperature is above
 Pixtures should not incur stress on the component when mounting and during soldering process.
 S.AG 305 solder alloy is recommended.
 No more than one wave soldering pass.

### Remarks:

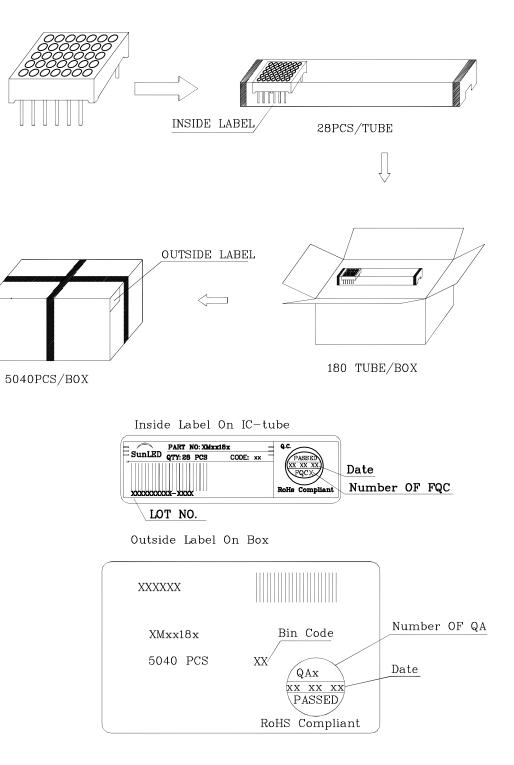
If special sorting is required (e.g. binning based on forward voltage,

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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