



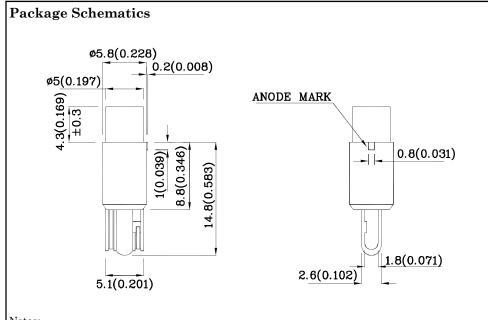


## **Features**

- Housing material: Type 66 Nylon
- Housing UL rating: 94V-0
- $\bullet$  Reliable & robust
- ullet 5V internal resistor
- RoHS Compliant







### 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)     | MDK<br>(AlGaInP)    | Unit                     |                      |  |
|---|---------------------|--------------------------|----------------------|--|
| Reverse Voltage                                     | $V_{\mathrm{R}}$    | 5                        | V                    |  |
| Forward Voltage                                     | $V_{\mathrm{F}}$    | 6                        | V                    |  |
| Power Dissipation                                   | $P_{D}$             | 85                       | mW                   |  |
| Operating Temperature                               | $T_{\rm A}$         | T <sub>A</sub> -40 ~ +70 |                      |  |
| Storage Temperature                                 | Tstg                | -40 ~ +85                | $^{\circ}\mathrm{C}$ |  |
| Lead Solder Temperature<br>[2mm Below Package Base] | 260°C For 3 Seconds |                          |                      |  |
| Lead Solder Temperature<br>[5mm Below Package Base] | 260°C For 5 Seconds |                          |                      |  |

| Operating Characteristics (T <sub>A</sub> =25°C)                              |                   | MDK<br>(AlGaInP) | Unit |
|---|-------------------|------------------|------|
| Forward Current (Typ.)<br>(V <sub>F</sub> =5V)                                | I <sub>F</sub> 13 |                  | mA   |
| Forward Current (Max.) (V <sub>F</sub> =5V)                                   | $I_{\mathrm{F}}$  | 17.5             | mA   |
| Reverse Current (Max.) $(V_R=5V)$   | $I_R$             | 10               | uA   |
| Wavelength of Peak<br>Emission CIE127-2007*(Typ.)<br>(V <sub>F</sub> =5V)     | λР                | 650<br>645*      | nm   |
| Wavelength of Dominant<br>Emission CIE127-2007*(Typ.)<br>(V <sub>F</sub> =5V) | λD                | 630<br>630*      | nm   |
| Spectral Line Full Width<br>At Half-Maximum (Typ.)<br>(V <sub>F</sub> =5V)    | Δλ                | 28               | nm   |

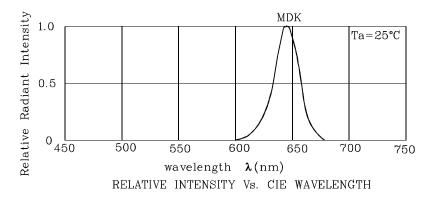
| Part<br>Number | Emitting<br>Color | Emitting<br>Material | Lens-color  | $\begin{array}{c} Luminous \ Intensity \\ CIE127\text{-}2007* \\ (V_F\text{=}5V) \ mcd \end{array}$ |            | Wavelength<br>CIE127-2007*<br>λP nm | Viewing<br>Angle<br>20 1/2 |
|----------------|-------------------|----------------------|-------------|---|------------|-------------------------------------|----------------------------|
|                |                   |                      |             | min.  | typ.       |                                     |                            |
| XNZSMDK52W5V02 | Red               | AlGaInP              | Water Clear | 80<br>30*   | 148<br>50* | 650<br>645*                         | 70°                        |

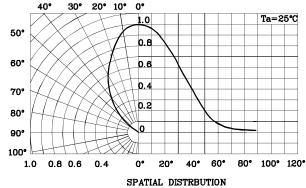
<sup>\*</sup>Luminous intensity value and wavelength are in accordance with CIE127-2007 standards.

Apr 29,2012XDSA9754 V6-X Layout: Maggie L.

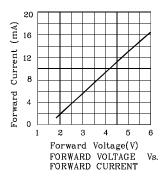


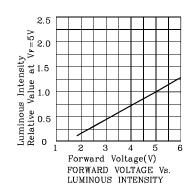


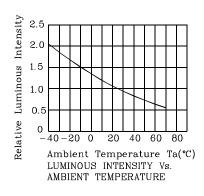




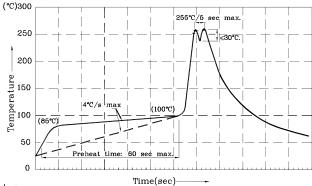
### **❖** MDK







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 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%

Note: Accuracy may depend on the sorting parameters.

Apr 29,2012

XDSA9754 V6-X Layout: Maggie L.



# PACKING & LABEL SPECIFICATIONS

www.SunLEDusa.com

