

T-1 3/4 (5mm) BLINKING LED LAMP

# **Features**

- 5mm package with built-in blinking IC
- Blinking frequency: 3.0Hz to 1.5Hz
- Operation voltage: 3.5V to 14V
- RoHS compliant.







ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

# Package Schematics 8.6(0.339) 1.5(0.059)±1 Cathode Cathode

## 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)     | Red<br>(GaAlAs)     | Unit                     |    |  |
|---|---------------------|--------------------------|----|--|
| Reverse Voltage                                     | $V_{\mathrm{R}}$    | 0.5                      | V  |  |
| Forward Voltage                                     | $V_{\mathrm{F}}$    | 14                       | V  |  |
| Power Dissipation                                   | $P_{D}$             | 310                      | mW |  |
| Operating Temperature                               | $T_{A}$             | T <sub>A</sub> -40 ~ +70 |    |  |
| Storage Temperature                                 | Tstg                | -40 ~ +85                | °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 |                          |    |  |

A Relative Humidity between 40% and 60% is recommended in ESD-protected work areas to reduce static build up during assembly process (Reference JEDEC/JESD625-A and JEDEC/J-STD-033)

| Operating Characteristics (T <sub>A</sub> =25°C)             |                     | Red<br>(GaAlAs) | Unit |
|--|---------------------|-----------------|------|
| Forward Current (Min.) (V <sub>F</sub> =3.5V)                | $I_{\mathrm{F}}$    | 8               | mA   |
| Forward Current (Typ.)<br>(V <sub>F</sub> =5V)               | $I_{\mathrm{F}}$    | 22              | mA   |
| Supply Current (Typ.) $(V_F=3.5V)$ I <sub>SON</sub>          |                     | 8               | mA   |
| Supply Current (Typ.) (V <sub>F</sub> =14V)                  | $I_{SON}$           | 44              | mA   |
| Blink Frequency<br>(Min.~Max.)<br>(V <sub>F</sub> =3.5V~14V) | f                   | 1.5~3           | Hz   |
| Wavelength of Peak<br>Emission CIE127-2007* (Typ.)           | λΡ                  | 655*            | nm   |
| Wavelength of Dominant Emission<br>CIE127-2007* (Typ.)       | λD                  | 640*            | nm   |
| Spectral Line Full Width At Half-Maximum (Typ.)              | $\triangle \lambda$ | 20              | nm   |

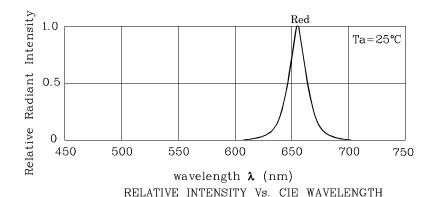
| <br>Part<br>Number | Emitting<br>Color | Emitting<br>Material | Lens-color   | Luminous Intensity CIE127-2007* (V <sub>F</sub> =9V) mcd |            | Wavelength<br>CIE127-2007*<br>nm<br>λP | Viewing<br>Angle<br>20 1/2 |
|--------------------|-------------------|----------------------|--------------|--|------------|--|----------------------------|
|                    |                   |                      |              | min.   | typ.       |  |                            |
| XBMR53D            | Red               | GaAlAs               | Red Diffused | 120<br>40*   | 198<br>79* | 655*                                   | 60°                        |

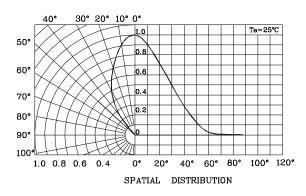
<sup>\*</sup>Luminous intensity value and wavelength are in accordance with CIE127-2007 standards.

Oct 10,2016 XDSA2650 V9-X Layout: Maggie L.

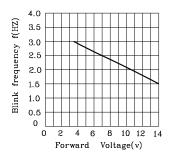


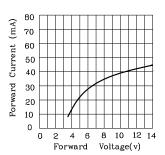




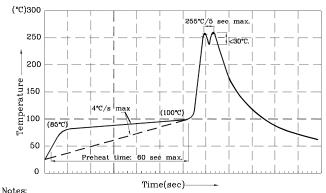


## **❖** Red





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



- 1. 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
- (8 sec max).

  3.Do not apply stress to the epoxy resin while the temperature is above 85°C.

  4.Fixtures should not incur stress on the component when mounting and during soldering process.

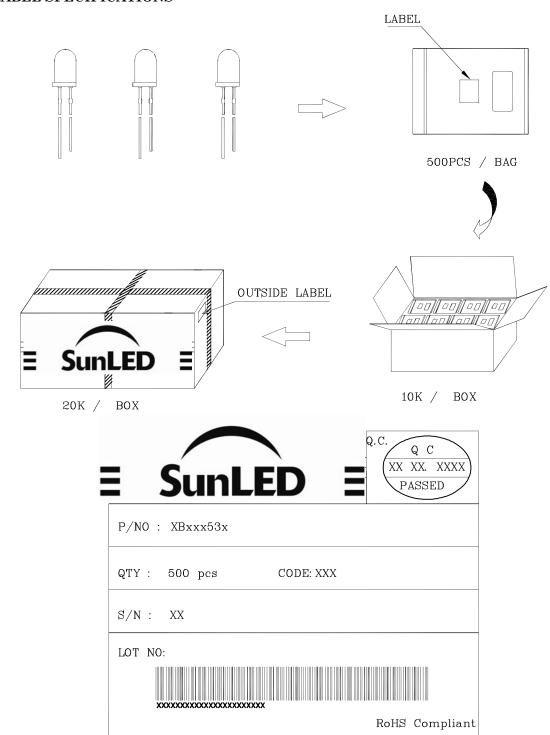
  5.SAC 305 solder alloy is recommended.

  6.No more than one wave soldering pass.



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# 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.
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- 6. Additional technical notes are available at <a href="http://www.SunLEDusa.com/TechnicalNotes.asp">http://www.SunLEDusa.com/TechnicalNotes.asp</a>

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