



**THE DATASHEET OF
XNK1LUG11DSMD**

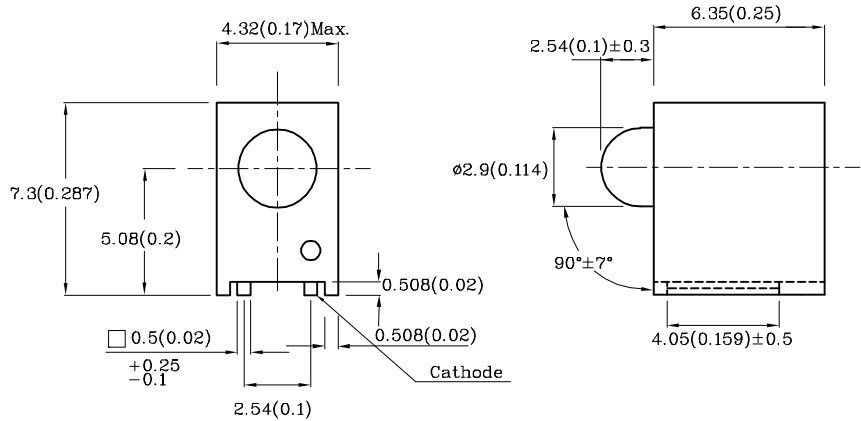


Features

- Black casing provides superior contrast
- Reliable & robust
- Standard Package: 500pcs/ Reel
- MSL (Moisture Sensitivity Level): 3
- Housing UL rating: 94V-0
- Housing material: PPA
- High temperature resistant housing
- High glass transition temperature epoxy
- Halogen-free
- RoHS compliant



Package Schematics



Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.25(0.01") unless otherwise noted.
3. Specifications are subject to change without notice.

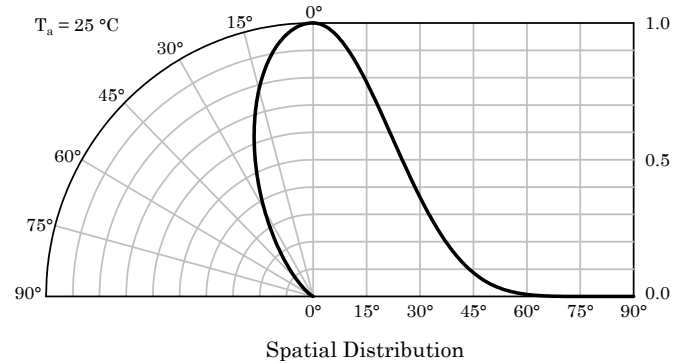
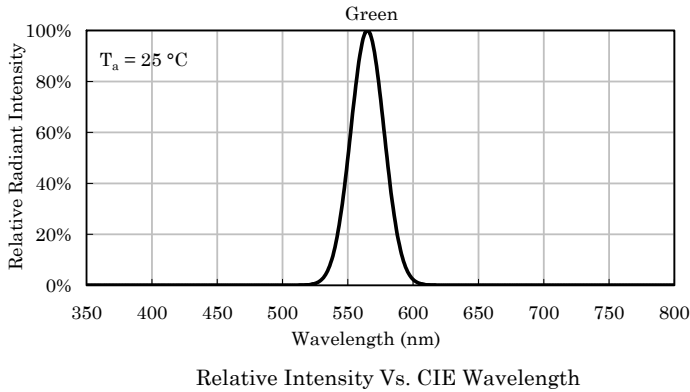
| Absolute Maximum Ratings (T _A =25°C) | | Green (GaP) | Unit |
|--|------------------|----------------|------|
| Reverse Voltage | V _R | 5 | V |
| Forward Current | I _F | 25 | mA |
| Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width | i _{FS} | 140 | mA |
| Power Dissipation | P _D | 62.5 | mW |
| Operating Temperature | T _A | -40 ~ +85 | °C |
| Storage Temperature | T _{stg} | -40 ~ +85 | |

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)

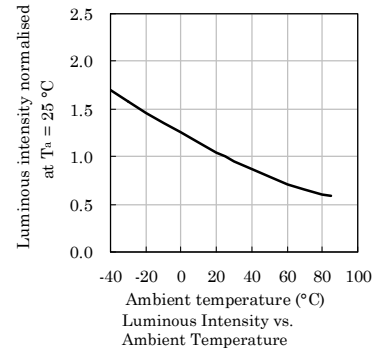
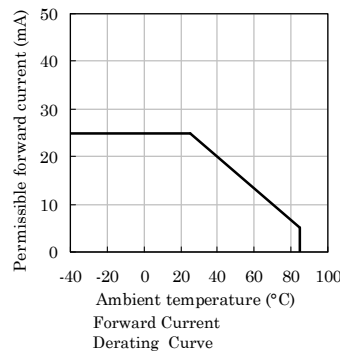
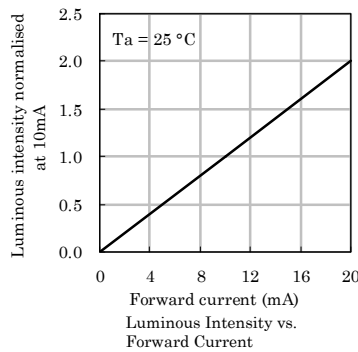
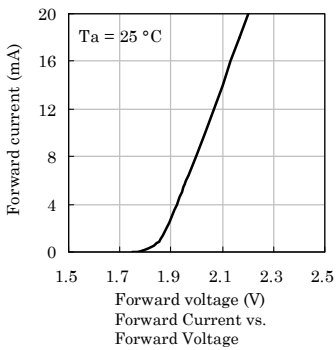
| Operating Characteristics (T _A =25°C) | | Green (GaP) | Unit |
|--|----------------|----------------|------|
| Forward Voltage (Typ.) (I _F =10mA) | V _F | 2 | V |
| Forward Voltage (Max.) (I _F =10mA) | V _F | 2.4 | V |
| Reverse Current (Max.) (V _R =5V) | I _R | 10 | µA |
| Wavelength of Peak Emission CIE127-2007* (Typ.) (I _F =10mA) | λ _P | 565* | nm |
| Wavelength of Dominant Emission CIE127-2007* (Typ.) (I _F =10mA) | λ _D | 568* | nm |
| Spectral Line Full Width At Half-Maximum (Typ.) (I _F =10mA) | Δλ | 30 | nm |
| Capacitance (Typ.) (V _F =0V, f=1MHz) | C | 15 | pF |

| Part Number | Emitting Color | Emitting Material | Lens-color | Luminous Intensity CIE127-2007* (I _F =10mA) mcd | | Wavelength CIE127-2007* nm λ _P | Viewing Angle 2θ 1/2 |
|----------------|-------------------|----------------------|----------------|---|------|---|----------------------------|
| | | | | min. | typ. | | |
| XNK1LUG11DSMD | Green | GaP | Green Diffused | 10* | 24* | 565* | 50° |

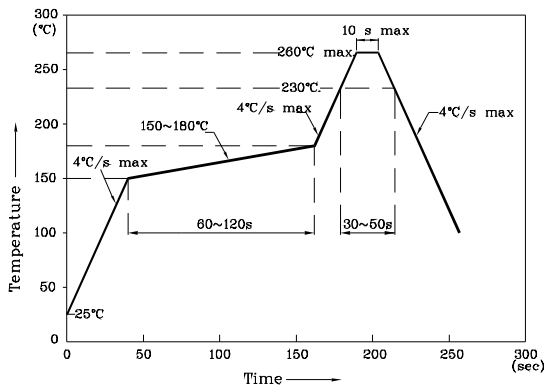
*Luminous intensity value and wavelength are in accordance with CIE127-2007 standards.



❖ Green



Reflow Soldering Profile for SMD Products (Pb-Free Components)



NOTES:

1. We recommend the reflow temperature $245^\circ\text{C} (+/-5^\circ\text{C})$. The maximum soldering temperature should be limited to 260°C .
2. Don't cause stress to the epoxy resin while it is exposed to high temperature.
3. No more than once.

Remarks:

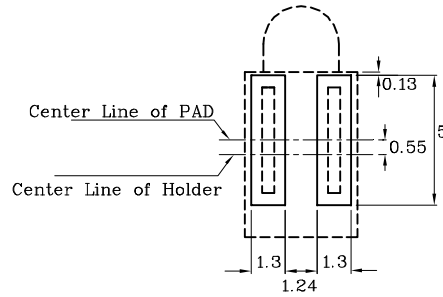
If special sorting is required (e.g. binning based on forward voltage, luminous intensity / luminous flux, or wavelength), the typical accuracy of the sorting process is as follows:

1. Wavelength: $\pm 1\text{nm}$
2. Luminous Intensity / Luminous Flux: $\pm 15\%$
3. Forward Voltage: $\pm 0.1\text{V}$

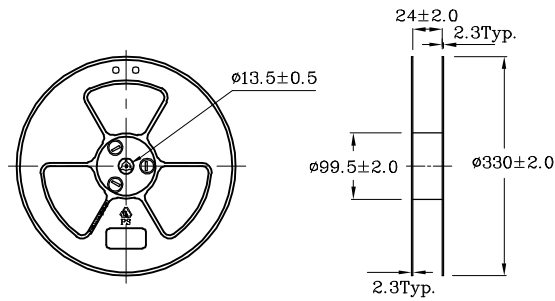
Note: Accuracy may depend on the sorting parameters.



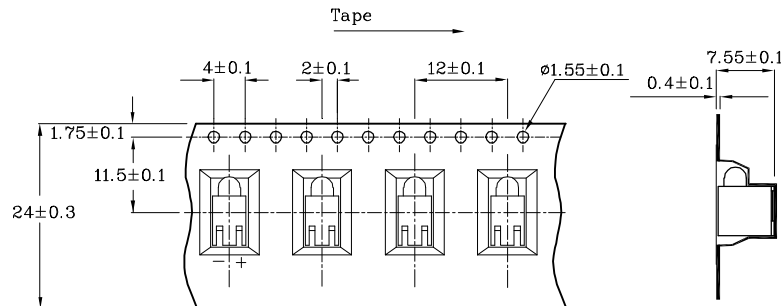
❖ Recommended Soldering Pattern
(Units: mm ; Tolerance: ± 0.1)



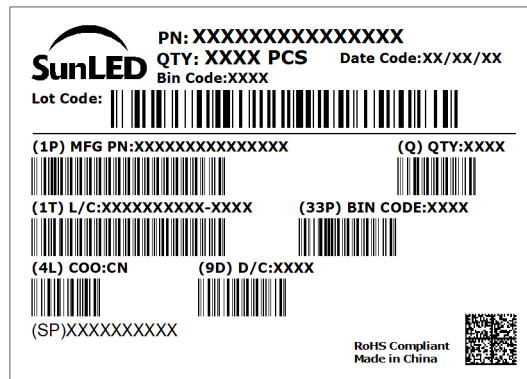
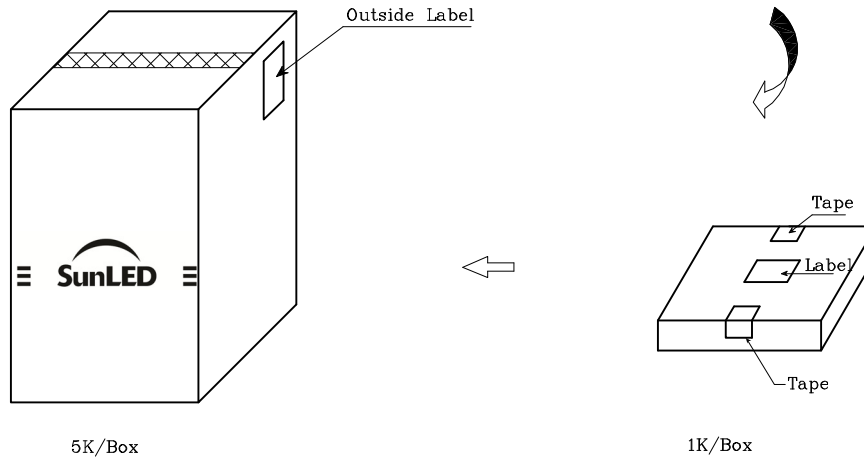
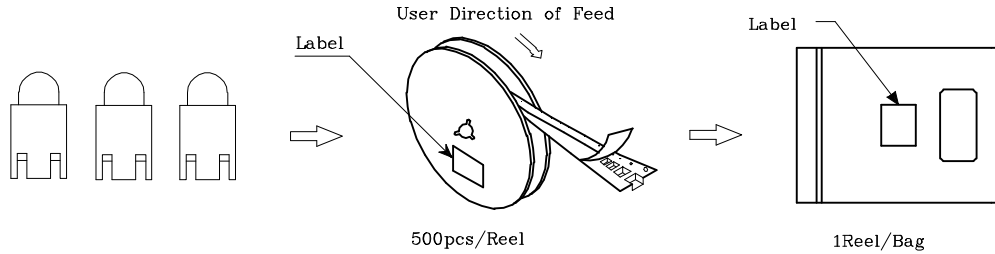
❖ Reel Dimension (Units : mm)



❖ Tape Specification (Units : mm)



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.
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