SunLED
www.SunLEDusa.com

**Part Number: XRS2LMDK11D**

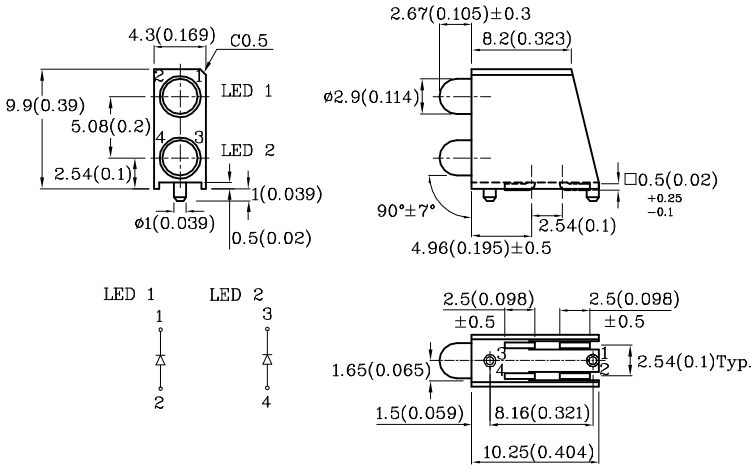
3 mm Two Position SMD CBI Housing

## Features

- Black casing provides superior contrast
- Reliable & robust
- Custom color combinations available
- MSL (Moisture Sensitivity Level): 3
- Housing material: PPA
- Housing UL rating: 94V-0
- High temperature resistant housing
- High glass transition temperature epoxy
- Halogen-free
- RoHS compliant

**ATTENTION**
OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DISCHARGE SENSITIVE DEVICES

## 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.

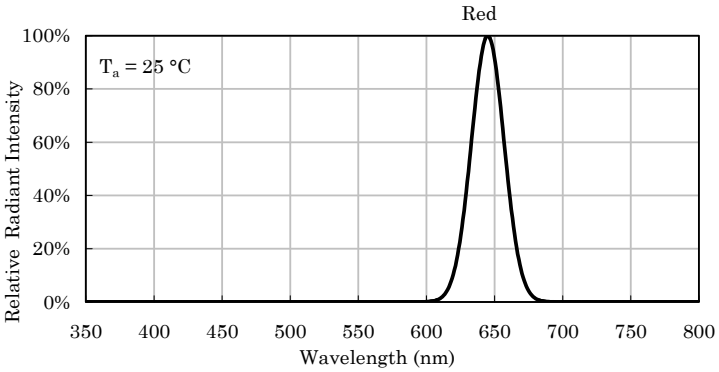
| Absolute Maximum Ratings (Ta=25°C) | | Red (AlGaInP) | Unit |
|---|---|---|---|
| Reverse Voltage | $V_R$ | 5 | V |
| Forward Current | $I_F$ | 30 | mA |
| Forward Current (Peak) 1/10 Duty Cycle 0.1ms Pulse Width | $I_{FP}$ | 185 | mA |
| Power Dissipation | $P_D$ | 75 | mW |
| Operating Temperature | Ta | -40 ~ +85 | °C |
| Storage Temperature | Tstg | -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)

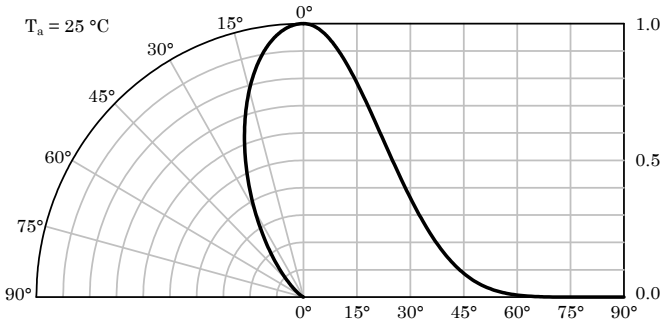
| Operating Characteristics (Ta=25°C) | | Red (AlGaInP) | Unit |
|---|---|---|---|
| Forward Voltage (Typ.) ($I_F$=20mA) | $V_F$ | 1.95 | V |
| Forward Voltage (Max.) ($I_F$=20mA) | $V_F$ | 2.5 | V |
| Reverse Current (Max.) ($V_R$=5V) | $I_R$ | 10 | μA |
| Wavelength of Peak Emission CIE127-2007* (Typ.) ($I_F$=20mA) | λP | 645* | nm |
| Wavelength of Dominant Emission CIE127-2007* (Typ.) ($I_F$=20mA) | λD | 630* | nm |
| Spectral Line Full Width at Half-Maximum (Typ.) ($I_F$=20mA) | △λ | 28 | nm |

| Part Number | Emitting Color | Emitting Material | Lens-color | Luminous Intensity CIE127-2007* ($I_F$=20mA) mcd min. | Luminous Intensity CIE127-2007* ($I_F$=20mA) mcd typ. | Wavelength CIE127-2007* nm λP | Viewing Angle 2θ 1/2 |
|---|---|---|---|---|---|---|---|
| XRS2LMDK11D | Red | AlGaInP | Red Diffused | 500<br>200* | 1195<br>397* | 645* | 50° |

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

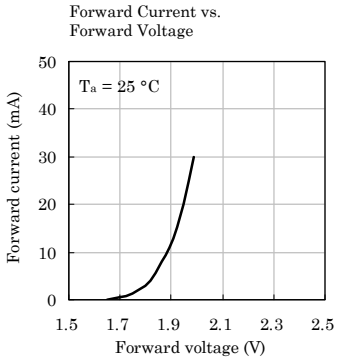


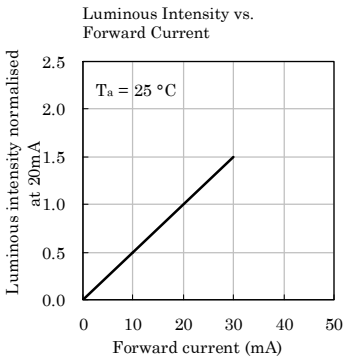

Relative Intensity Vs. CIE Wavelength

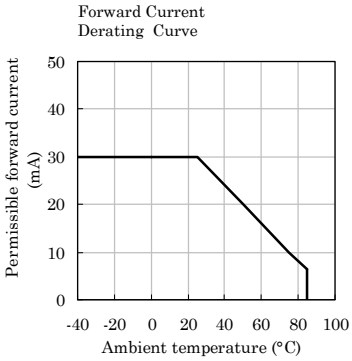


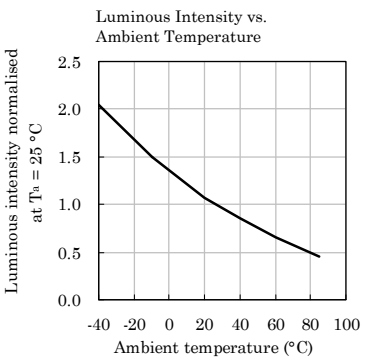

Spatial Distribution

## ❖ Red

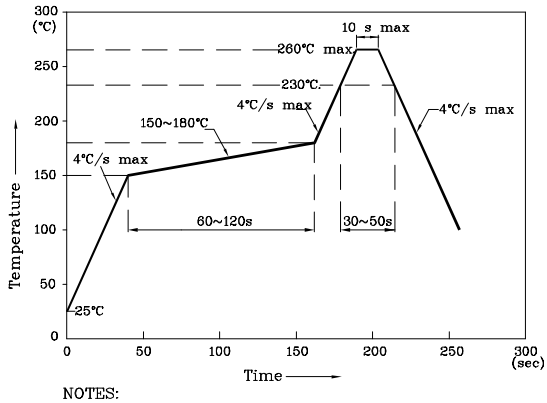



Reflow Soldering Profile for SMD Products (Pb−Free Components)

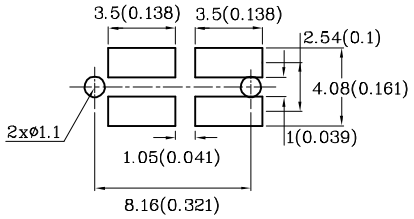



NOTES:
1. We recommend the reflow temperature 245°C(+/−5°C). The maximum soldering temperature should be limited to 260°C.
2. Don't cause stress to the epoxy resin while it is exposed to high temperature.
3. No more than once.

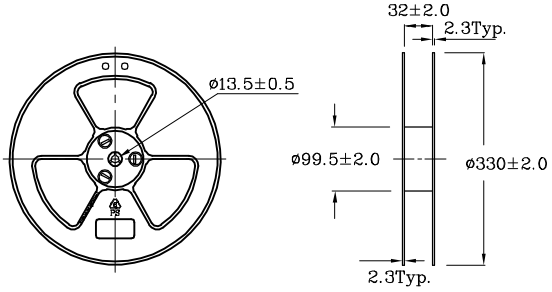
Remarks:

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: +/-1nm
2. Luminous Intensity / Luminous Flux: +/-15%
3. Forward Voltage: +/-0.1V
Note: Accuracy may depend on the sorting parameters.

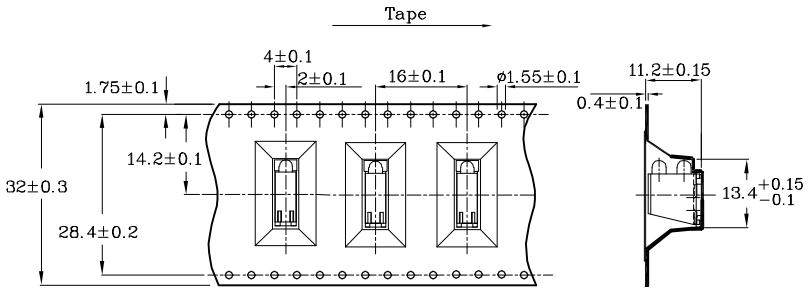
❖ **Recommended Soldering Pattern**
**(Units: mm ; Tolerance: ± 0.1)**



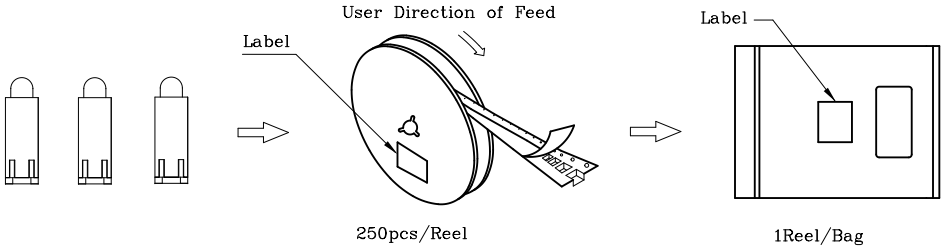

❖ **Reel Dimension (Units : mm)**

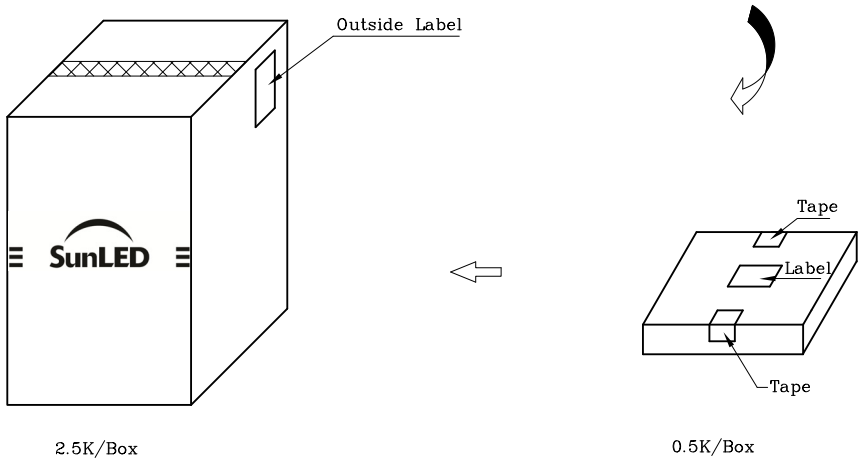


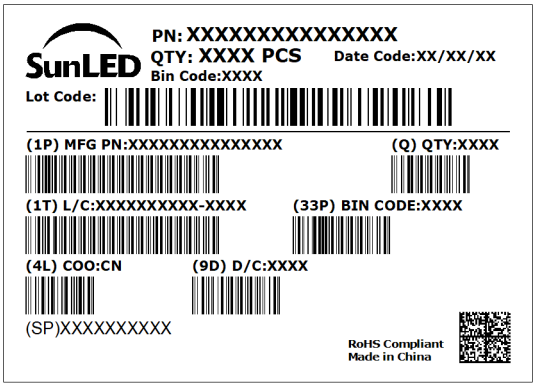

❖ **Tape Specification (Units : mm)**



## Packing & Label Specifications




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