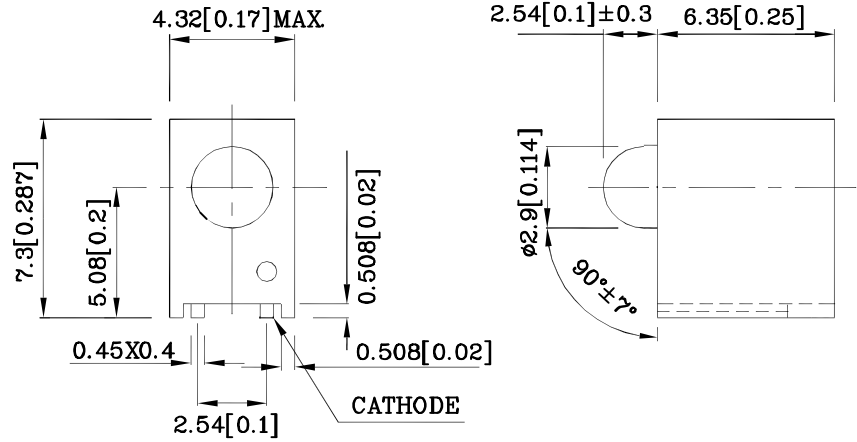


Features

- Black casing provides superior contrast
- Reliable & robust
- Package : 500pcs / reel
- Moisture sensitivity level : level 3
- Housing material: PPA
- High temperature resistant housing
- High glass transition temperature epoxy
- RoHS compliant



Package Schematics



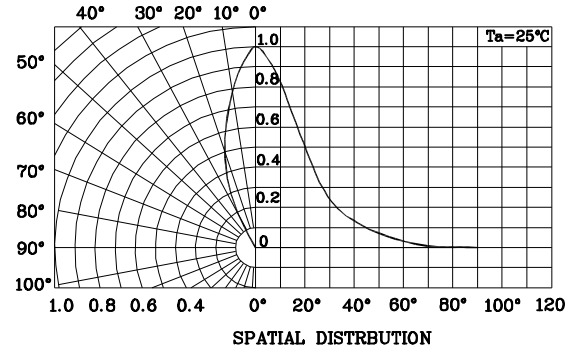
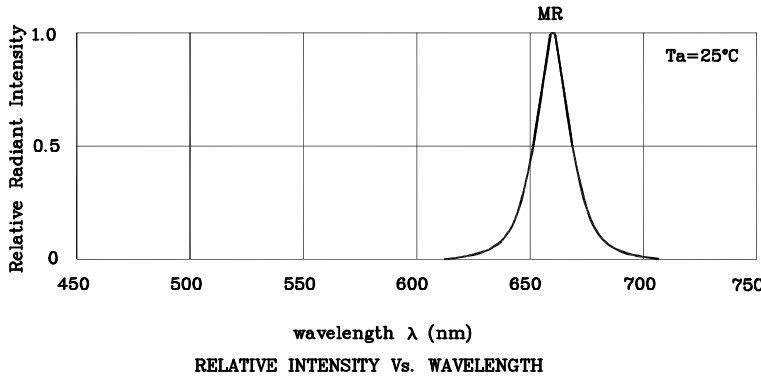
Notes:

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.

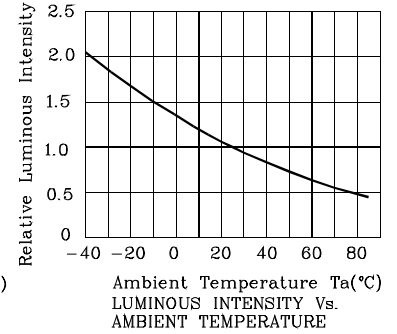
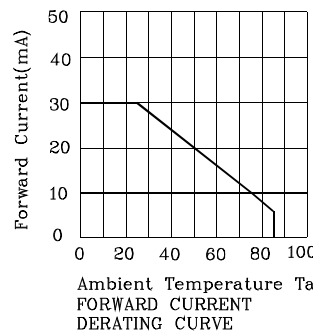
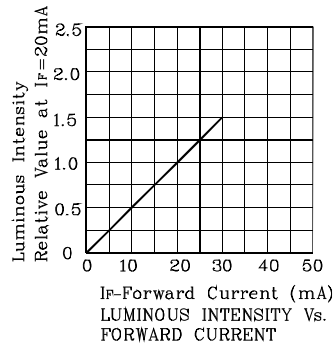
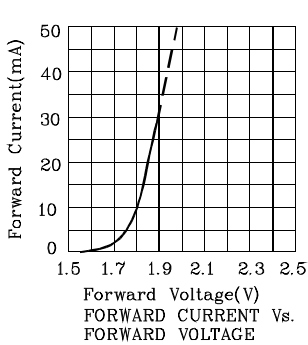
| Absolute Maximum Ratings (TA=25°C) | | MR (GaAlAs) | Unit |
|----------------------------------------------------------------|------|----------------|------|
| Reverse Voltage | VR | 5 | V |
| Forward Current | IF | 30 | mA |
| Forward Current (peak) 1/10 Duty Cycle 0.1ms Pulse Width | iFS | 155 | mA |
| Power Dissipation | PD | 75 | mW |
| Operating Temperature | TA | -40 ~ +85 | °C |
| Storage Temperature | Tstg | -40 ~ +85 | |

| Operating Characteristics (TA=25°C) | | MR (GaAlAs) | Unit |
|-----------------------------------------------------------------|-----|----------------|------|
| Forward Voltage (Typ.) (IF=20mA) | VF | 1.85 | V |
| Forward Voltage (Max.) (IF=20mA) | VF | 2.5 | V |
| Reverse Current (Max.) (VR=5V) | IR | 10 | uA |
| Wavelength of Peak Emission (Typ.) (IF=20mA) | λ P | 660 | nm |
| Wavelength of Dominant Emission (Typ.) (IF=20mA) | λ D | 640 | nm |
| Spectral Line Full Width At Half-Maximum (Typ.) (IF=20mA) | Δλ | 20 | nm |
| Capacitance (Typ.) (VF=0V, f=1MHz) | C | 45 | pF |

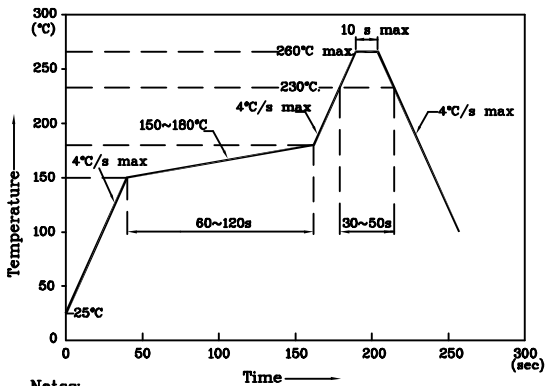
| Part Number | Emitting Color | Emitting Material | Lens-color | Luminous Intensity (IF=20mA) mcd | | Wavelength nm λ P | Viewing Angle 2 θ 1/2 |
|----------------|----------------|-------------------|--------------|----------------------------------------|------|-------------------------|--------------------------|
| | | | | min. | typ. | | |
| XNK1LMR147DSMD | Red | GaAlAs | Red Diffused | 180 | 347 | 660 | 40° |



❖ MR

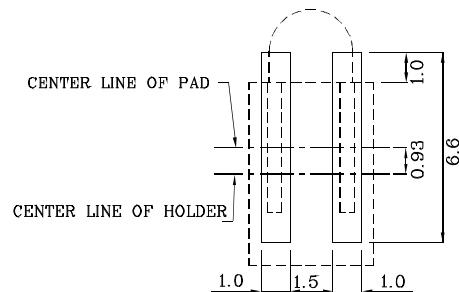


Reflow Soldering Profile for SMD Products (Pb-Free Components)



- Notes:
1. Maximum soldering temperature should not exceed 260°C
 2. Recommended reflow temperature: 145°C-260°C
 3. Do not put stress to the epoxy resin during high temperatures conditions

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



Remarks:

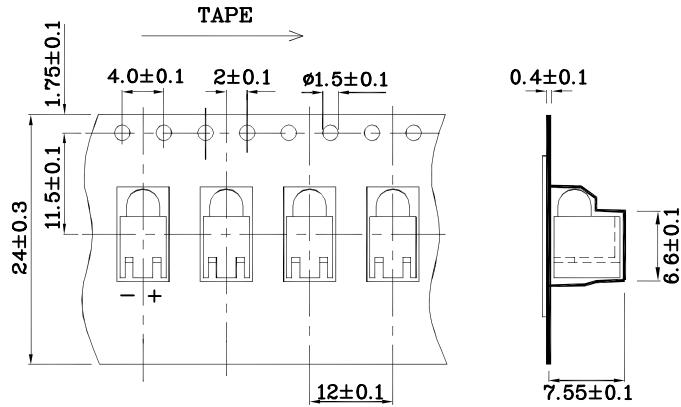
If special sorting is required (e.g. binning based on forward voltage, Luminous intensity / luminous flux, or wavelength), the typical accuracy of the sorting process is as follows:

1. Wavelength: +/-1nm
2. Luminous intensity / luminous flux: +/-15%
3. Forward Voltage: +/-0.1V

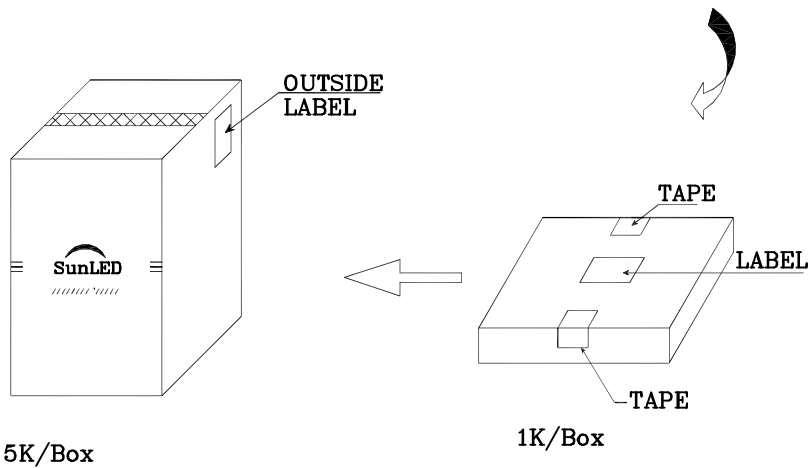
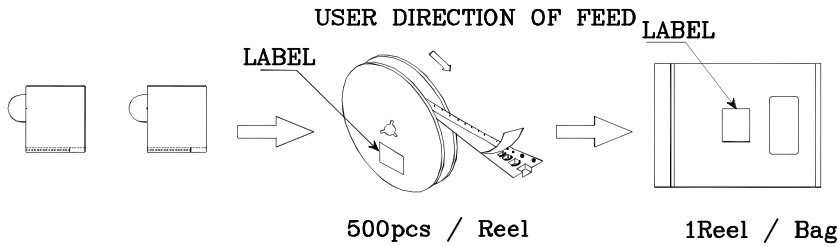
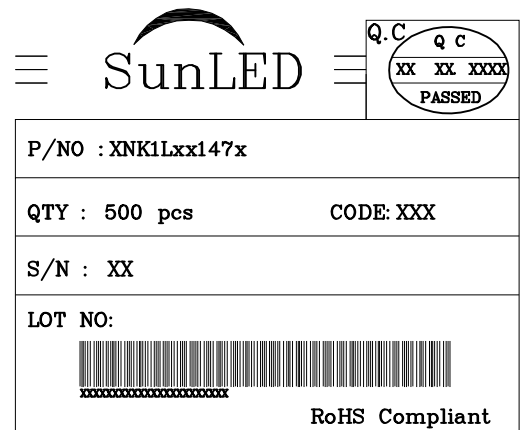
Note: Accuracy may depend on the sorting parameters.




❖ Tape Specification (Units : mm)



PACKING & LABEL SPECIFICATIONS

QC
q c
XX XX XXXX
PASSED

| | |
|---------------------------------------------------------------------------------------------------------------|-----------|
| P/NO : XNK1Lxx147x | |
| QTY : 500 pcs | CODE: XXX |
| S/N : XX | |
| LOT NO: | |
|  XXXXXXXXXXXXXXXXXXXX | |
| RoHS Compliant | |