

Part Number: L-1387QMP/1GYW

Green
Yellow

Features

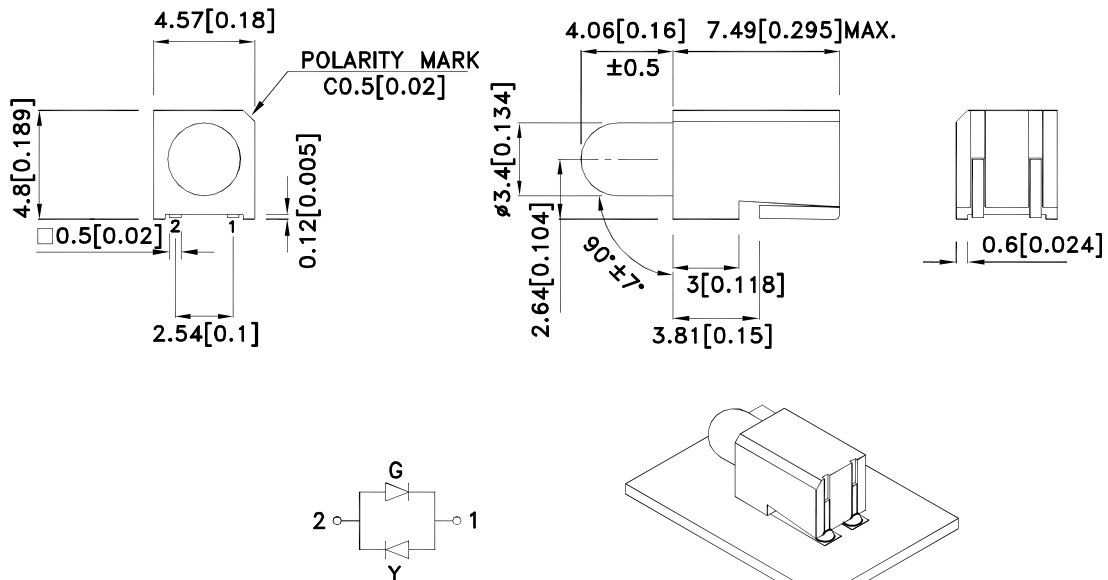
- Surface mount type.
- Black case enhances contrast ratio.
- Wide viewing angle.
- High reliability life measured in years.
- Package: 1000pcs / reel.
- Housing material: PPA.
- High temperature resistant housing.
- High glass transition temperature epoxy.
- RoHS compliant.

Description

The Green source color devices are made with Gallium Phosphide Green Light Emitting Diode.

The Yellow source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Yellow Light Emitting Diode.

Package Dimensions



Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.25(0.01)$ unless otherwise noted.
3. The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.



Selection Guide

| Part No. | Dice | Lens Type | Iv (mcd) [2] @ 20mA | | Viewing Angle [1] |
|----------------|--------------------|----------------|------------------------|------|----------------------|
| | | | Min. | Typ. | 2θ1/2 |
| L-1387QMP/1GYW | Green (GaP) | White Diffused | 10 | 20 | 60° |
| | Yellow (GaAsP/GaP) | | 5 | 10 | |

Notes:

1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 of the optical peak value.
2. Luminous intensity/ luminous Flux: +/-15%.

Electrical / Optical Characteristics at TA=25°C

| Symbol | Parameter | Device | Typ. | Max. | Units | Test Conditions |
|--------------------|--------------------------|-----------------|------------|------------|-------|---------------------------|
| λ _{peak} | Peak Wavelength | Green Yellow | 565 590 | | nm | I _F =20mA |
| λ _D [1] | Dominant Wavelength | Green Yellow | 568 588 | | nm | I _F =20mA |
| Δλ _{1/2} | Spectral Line Half-width | Green Yellow | 30 35 | | nm | I _F =20mA |
| C | Capacitance | Green Yellow | 15 20 | | pF | V _F =0V;f=1MHz |
| V _F [2] | Forward Voltage | Green Yellow | 2.2 2.1 | 2.5 2.5 | V | I _F =20mA |

Notes:

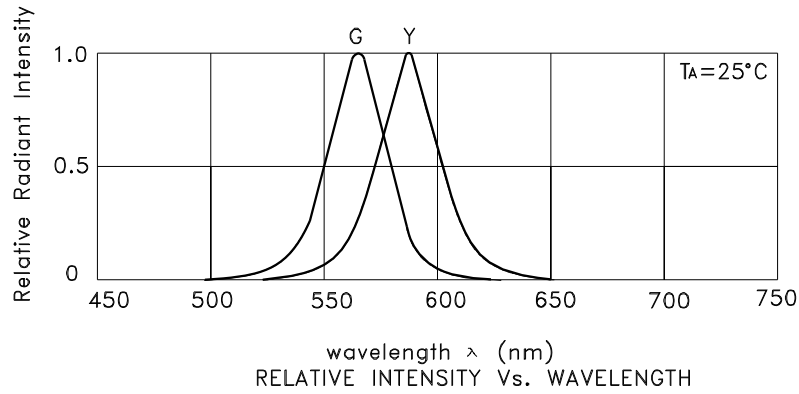
1. Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.

Absolute Maximum Ratings at TA=25°C

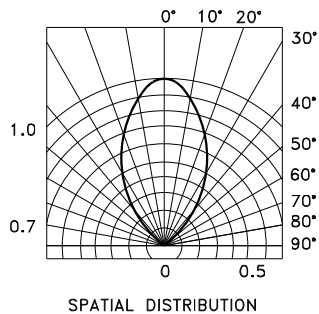
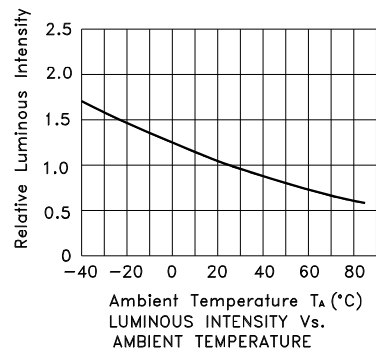
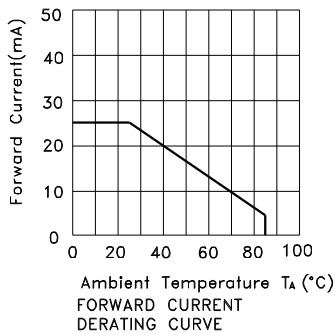
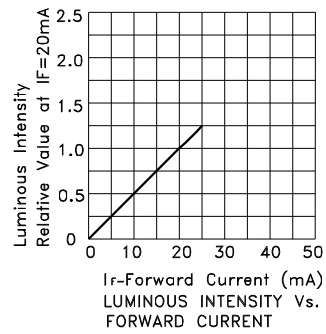
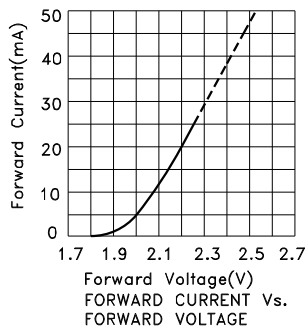
| Parameter | Green | Yellow | Units |
|--------------------------|----------------|--------|-------|
| Power dissipation | 62.5 | 75 | mW |
| DC Forward Current | 25 | 30 | mA |
| Peak Forward Current [1] | 140 | 140 | mA |
| Operating Temperature | -40°C To +85°C | | |
| Storage Temperature | -40°C To +85°C | | |

Note:

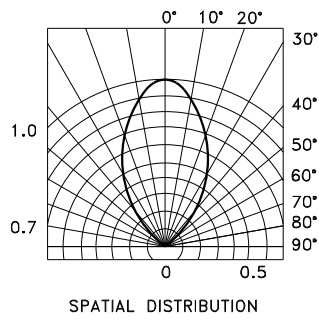
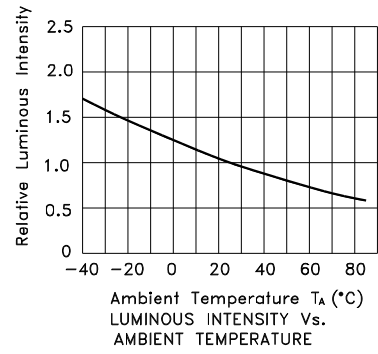
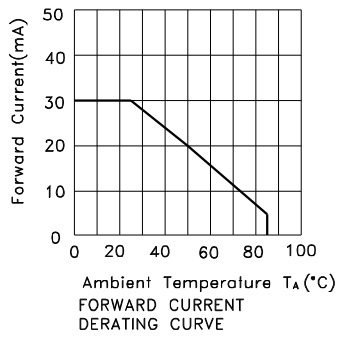
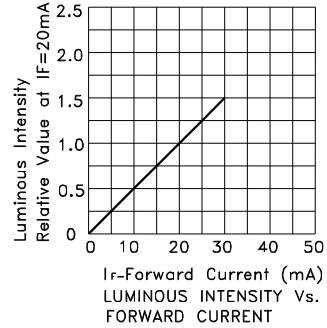
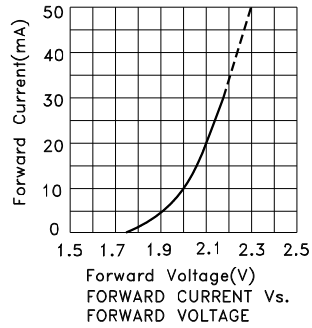
1. 1/10 Duty Cycle, 0.1ms Pulse Width.



L-1387QMP/1GYW Green

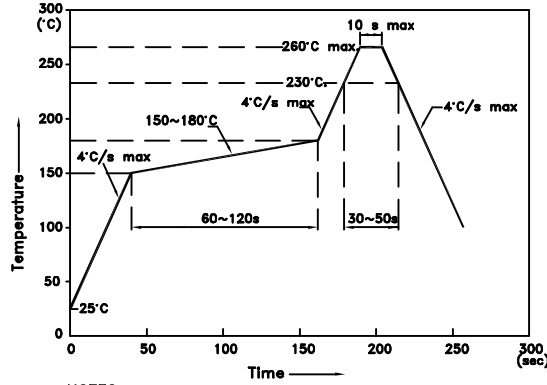


Yellow



L-1387QMP/1GYW

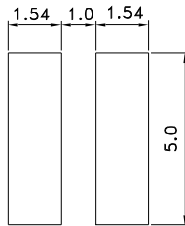
Reflow Soldering Profile For Lead-free SMT Process.



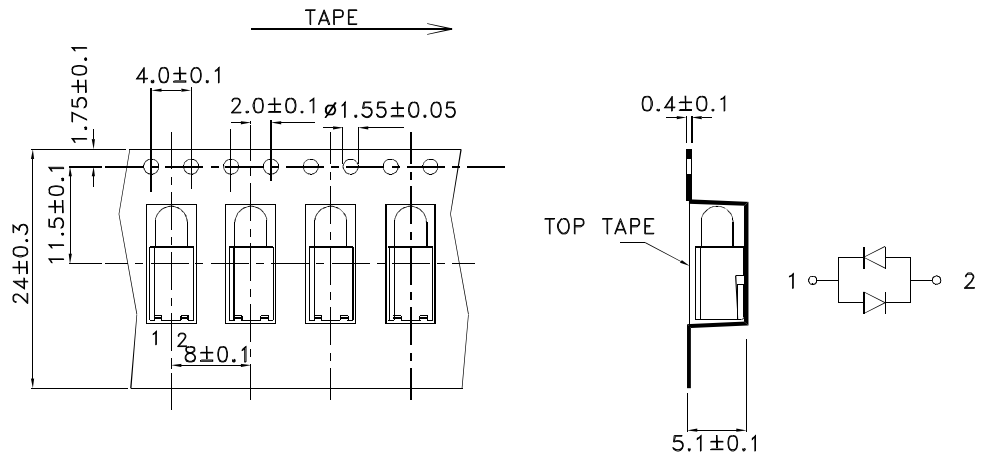
NOTES:

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.

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

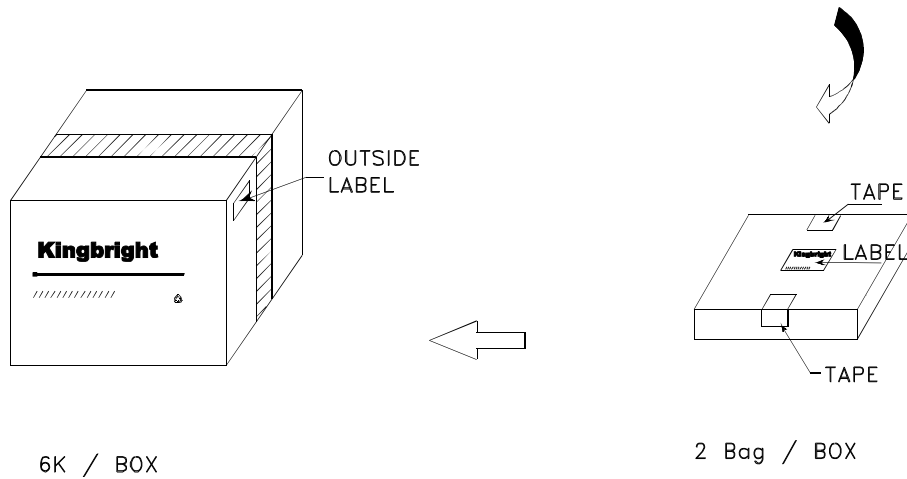
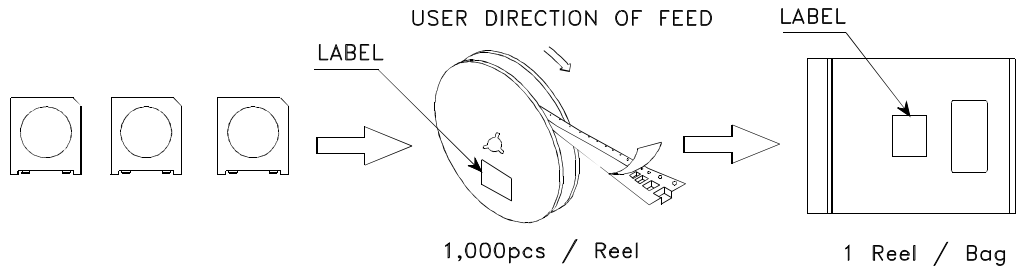



Tape Dimensions (Units : mm)



PACKING & LABEL SPECIFICATIONS

L-1387QMP/1GYW



| | |
|--|--|
| Kingbright | |
| P/N/O: L-1387QMPxxx | |
| QTY: 1000 pcs | Q.C. Q C XX XX XX PASSED |
| S/N: XXXX | |
| CODE: XXX | |
| LOT NO: | |
|  xxxxxxxxxxxxxxxxxxxxxxxxxxxx | |
| RoHS Compliant | |

No stress shall be applied on the LED during soldering to prevent damage.

