

# Kingbright

## T-1 3/4 (5mm) SOLID STATE LAMP

WP1513YT

YELLOW

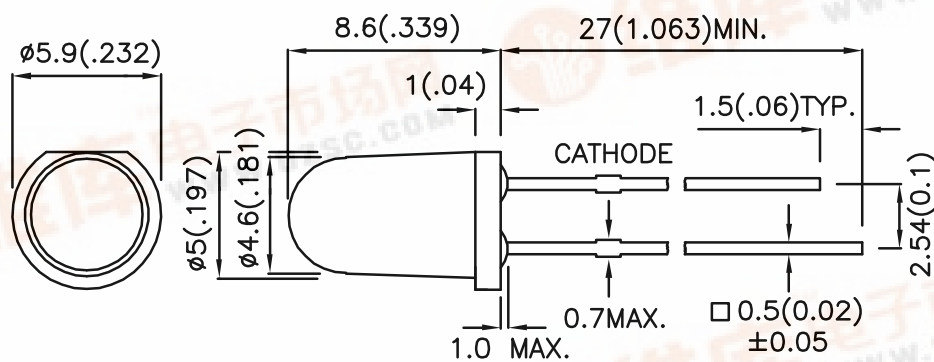
### Features

- LOW POWER CONSUMPTION.
- VERSATILE MOUNTING ON P.C. BOARD OR PANEL.
- T-1 3/4 DIAMETER PACKAGE, TAPERED TYPE.
- RELIABLE AND RUGGED.
- RoHS COMPLIANT.

### Description

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. Lead spacing is measured where the leads emerge from the package.
4. Specifications are subject to change without notice.

## Selection Guide

| Part No. | Dice               | Lens Type          | Iv (mcd)<br>@ 10 mA |      | Viewing<br>Angle |
|----------|--------------------|--------------------|---------------------|------|------------------|
|          |                    |                    | Min.                | Typ. | 2 $\theta$ 1/2   |
| WP1513YT | YELLOW (GaAsP/GaP) | YELLOW TRANSPARENT | 18                  | 40   | 20°              |

Note:

1.  $\theta$ 1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

## Electrical / Optical Characteristics at T<sub>A</sub>=25°C

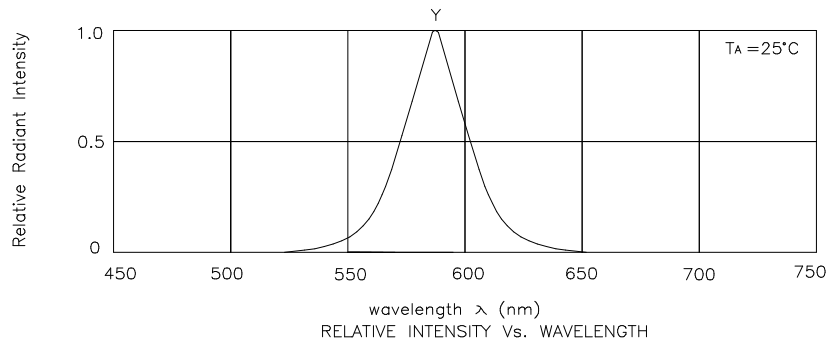
| Symbol                | Parameter                | Device | Typ. | Max. | Units | Test Conditions            |
|-----------------------|--------------------------|--------|------|------|-------|----------------------------|
| $\lambda_{peak}$      | Peak Wavelength          | Yellow | 590  |      | nm    | I <sub>F</sub> =20mA       |
| $\lambda_D$           | Dominant Wavelength      | Yellow | 588  |      | nm    | I <sub>F</sub> =20mA       |
| $\Delta\lambda_{1/2}$ | Spectral Line Half-width | Yellow | 35   |      | nm    | I <sub>F</sub> =20mA       |
| C                     | Capacitance              | Yellow | 20   |      | pF    | V <sub>F</sub> =0V; f=1MHz |
| V <sub>F</sub>        | Forward Voltage          | Yellow | 2.1  | 2.5  | V     | I <sub>F</sub> =20mA       |
| I <sub>R</sub>        | Reverse Current          | Yellow |      | 10   | uA    | V <sub>R</sub> = 5V        |

## Absolute Maximum Ratings at T<sub>A</sub>=25°C

| Parameter                       | Yellow              | Units |
|---------------------------------|---------------------|-------|
| Power dissipation               | 105                 | mW    |
| DC Forward Current              | 30                  | mA    |
| Peak Forward Current [1]        | 140                 | mA    |
| Reverse Voltage                 | 5                   | V     |
| Operating / Storage Temperature | -40°C To +85°C      |       |
| Lead Solder Temperature [2]     | 260°C For 3 Seconds |       |
| Lead Solder Temperature [3]     | 260°C For 5 Seconds |       |

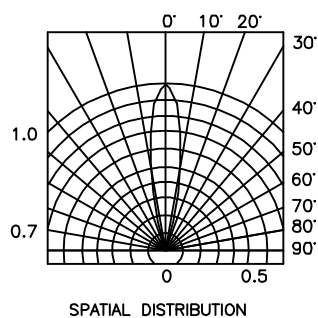
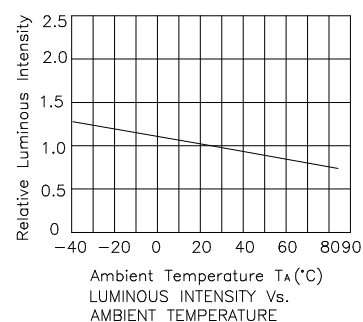
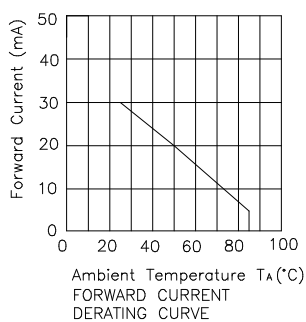
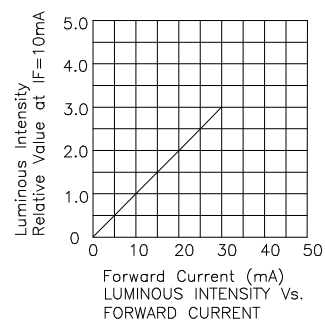
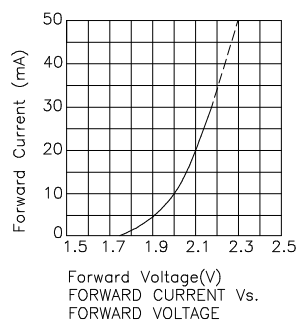
Notes:

- 1/10 Duty Cycle, 0.1ms Pulse Width.
- 2mm below package base.
- 5mm below package base.



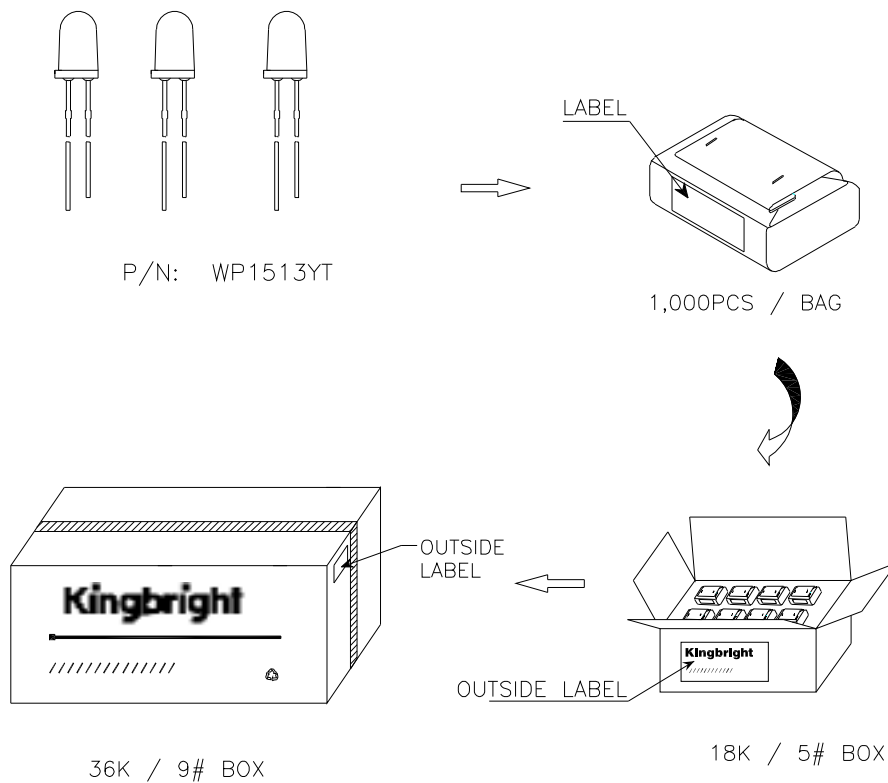
## Yellow

### WP1513YT



## PACKING & LABEL SPECIFICATIONS

## WP1513YT



|                                                                                                   |                          |
|---------------------------------------------------------------------------------------------------|--------------------------|
| <b>Kingbright</b>                                                                                 |                          |
| Q.C.                                                                                              |                          |
| TYPE NO : WP1513YT                                                                                | QC<br>xx xx xx<br>PASSED |
| QUANTITY : 1,000 pcs                                                                              |                          |
| S/N : XXX                                                                                         | CODE: XX                 |
| LOT NO                                                                                            |                          |
| <br>xxxxxxxxxx |                          |
| RoHS Compliant                                                                                    |                          |

### Remarks:

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

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

Note: Accuracy may depend on the sorting parameters.