

# T-1 (3mm) SOLID STATE LAMP

WP1154YD

YELLOW

**PAGE: 1 OF 4** 

ERP:1101000764

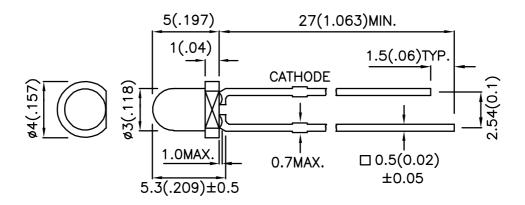
### **Features**

- •LOW POWER CONSUMPTION.
- •POPULAR T-1 DIAMETER PACKAGE.
- •GENERAL PURPOSE LEADS.
- •RELIABLE AND RUGGED.
- •LONG LIFE SOLID STATE RELIABILITY.
- •AVAILABLE ON TAPE AND REEL.
- •RoHS COMPLIANT.

## **Description**

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

## **Package Dimensions**



### Notes

- All dimensions are in millimeters (inches).
- 2. Tolerance is ±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.

SPEC NO: DSAF0798 REV NO: V.2 DATE: APR/11/2005
APPROVED: J. Lu CHECKED: Allen Liu DRAWN: W.J.ZHU

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## **Selection Guide**

| Part No. | Dice               | Lens Type       | Iv (mcd)<br>@ 10 mA |      | Viewing<br>Angle |
|----------|--------------------|-----------------|---------------------|------|------------------|
|          |                    |                 | Min.                | Тур. | 201/2            |
| WP1154YD | YELLOW (GaAsP/GaP) | YELLOW DIFFUSED | 5                   | 15   | 60°              |

#### Note

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

| Symbol | Parameter                | Device | Тур. | Max. | Units | Test Conditions |
|--------|--------------------------|--------|------|------|-------|-----------------|
| λpeak  | Peak Wavelength          | Yellow | 590  |      | nm    | IF=20mA         |
| λD     | Dominant Wavelength      | Yellow | 588  |      | nm    | IF=20mA         |
| Δλ1/2  | Spectral Line Half-width | Yellow | 35   |      | nm    | IF=20mA         |
| С      | Capacitance              | Yellow | 20   |      | pF    | VF=0V;f=1MHz    |
| VF     | Forward Voltage          | Yellow | 2.1  | 2.5  | V     | IF=20mA         |
| lr     | Reverse Current          | Yellow |      | 10   | uA    | VR = 5V         |

# Absolute Maximum Ratings at TA=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

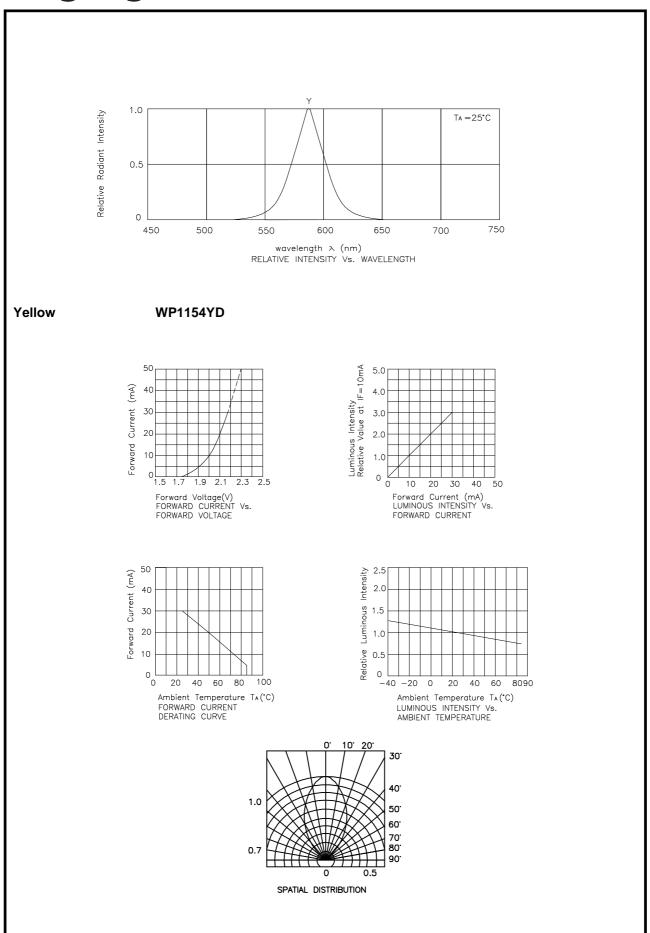
- 1. 1/10 Duty Cycle, 0.1ms Pulse Width.
- 2. 2mm below package base.
- 3. 5mm below package base.

 SPEC NO: DSAF0798
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 PAGE: 2 OF 4

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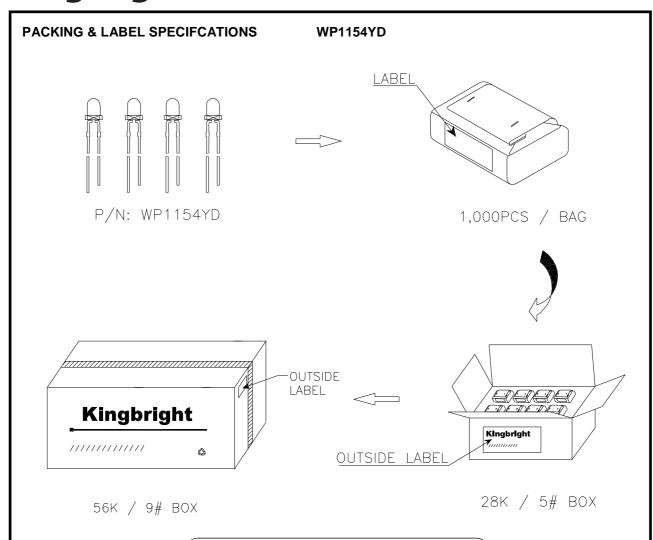
 $<sup>1.\,\</sup>theta1/2$  is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

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## Remarks:

 $If \ special \ sorting \ is \ required \ (e.g. \ binning \ based \ on \ forward \ voltage, luminous \ intensity, \ or \ wavelength),$ 

1. Wavelength: +/-1nm

2. Luminous Intensity: +/-15%

3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.

the typical accuracy of the sorting process is as follows:

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