### T-1 (3mm) SOLID STATE LAMP

Part Number: WP710A10LYD Yellow

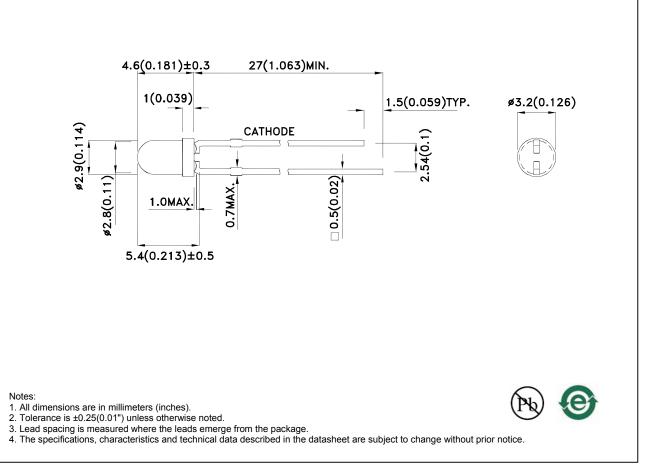
#### Features

- Low power consumption.
- Popular T-1 diameter package.
- General purpose leads.
- Reliable and rugged.
- Long life solid state reliability.
- Available on tape and reel.
- Low current IF=2mA operating.
- RoHS compliant.

#### Description

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

#### Package Dimensions



REV NO: V.2 CHECKED: Allen Liu DATE: MAR/05/2011 DRAWN: J.Yu PAGE: 1 OF 6 ERP: 1101029210

#### **Selection Guide** lv (mcd) [2] Viewing @ 2mA Angle [1] Part No. Dice Lens Type 201/2 Min. Тур. WP710A10LYD Yellow (GaAsP/GaP) Yellow Diffused 2 40° 1

Notes:

1.  $\theta$ 1/2 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	Тур.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Yellow	590		nm	I⊧=2mA
λD [1]	Dominant Wavelength	Yellow	588		nm	I⊧=2mA
Δλ1/2	Spectral Line Half-width	Yellow	35		nm	IF=2mA
С	Capacitance	Yellow	20		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage	Yellow	1.85	2.5	V	I⊧=2mA
IR	Reverse Current	Yellow		10	uA	VR = 5V

Notes:

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

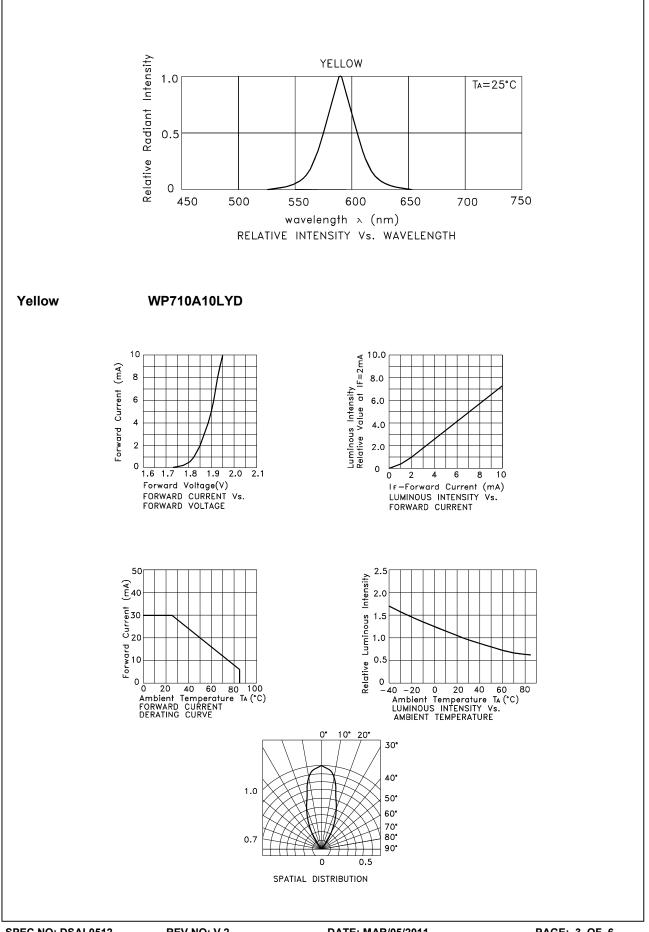
### Absolute Maximum Ratings at TA=25°C

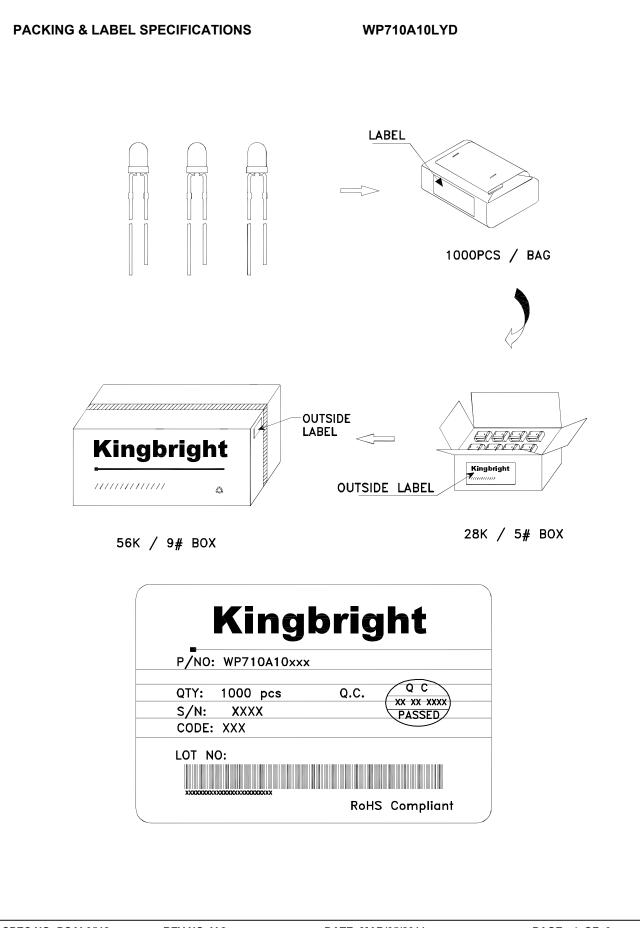
Parameter	Yellow	Units		
Power dissipation	75	mW		
DC Forward Current	30	mA		
Peak Forward Current [1]	140	mA		
Reverse Voltage	5	V		
Operating/Storage Temperature	-40°C To +85°C			
Lead Solder Temperature [2]	260°C For 3 Seconds			
Lead Solder Temperature [3]	260°C For 5 Seconds			

Notes:

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

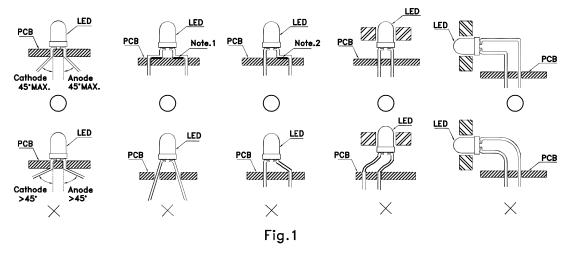
2. 2mm below package base.
3. 5mm below package base.



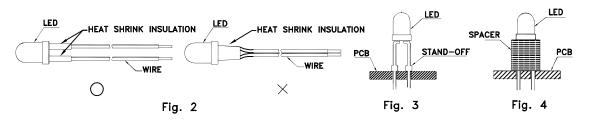


### PRECAUTIONS

1. The lead pitch of the LED must match the pitch of the mounting holes on the PCB during component placement. Lead-forming may be required to insure the lead pitch matches the hole pitch. Refer to the figure below for proper lead forming procedures. (Fig. 1)



- $\supset$  " Correct mounting method "imes " Incorrect mounting method
- When soldering wire to the LED, use individual heat-shrink tubing to insulate the exposed leads to prevent accidental contact short-circuit. (Fig.2)
- 3.Use stand-offs (Fig.3) or spacers (Fig.4) to securely position the LED above the PCB.



- 4. Maintain a minimum of 2mm clearance between the base of the LED lens and the first lead bend. (Fig. 5 and 6)
- 5. During lead forming, use tools or jigs to hold the leads securely so that the bending force will not be transmitted to the LED lens and its internal structures. Do not perform lead forming once the component has been mounted onto the PCB. (Fig. 7)

