### **FEATURES**

- Highly Luminous Ultra Bright Yellow
- AllnGaP / GaAs Technology Chip
- Super Luminous Intensity 7200 mcd
- Iv Ranks, Luminous Intensity Bin Limits S / T / U / V / W
- High Luminous Flux
- Dominate Wavelength 590 nm
- Water Clear UV Resistance Epoxy Package
- Extremely Uniform Yellow Light
- Lens Size 5mm with 3mm option
- Shape Options with Normal or Sharp
- Viewing Angles  $20 \frac{1}{2} = 30^{\circ}$ , with  $15^{\circ} / 23^{\circ} / 45^{\circ}$  options
- Stand-Off Options

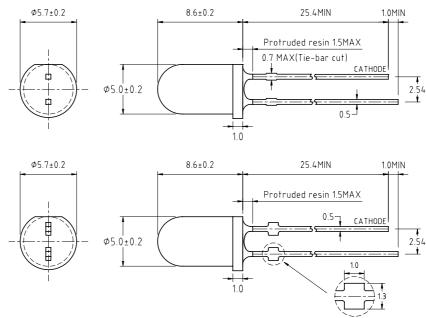
#### **BENEFITS**

- Low Energy Consumptions
- Low Maintenance Costs
- High Application Design Flexibility
- High Reliability
- Prompt Shipment
- Very Competitive prices

## **APPLICATIONS**

- Traffic Signals and Outdoor Signals
- Cavity Lights/ Effect Lights
- Legend Back Lights
- Automotive Lights
- Electronic Displays / Moving Signs
- Garden Lights
- Torch / Miniature Flash Lights
- Optical Indicator Lights
- Display / Decoration Lights
- Channel Letter Lights
- Lantern Lights
- Solar Energy Lights

# **Package Dimensions**



#### Notes:

- 1. All dimensions are in millimeters (inches).
- 2. Tolerance ± 0.25 (0.01") mm unless otherwise noted.
- 3. Protruded resin under flange is 1.0mm (0.04") max.
- 4. Lead spacing is measured where the leads emerge from the package
- 5. Specifications are subject to change without notice.

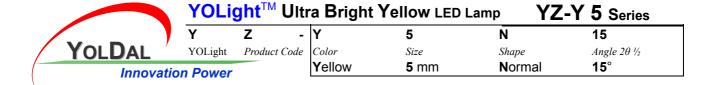
## **Delivery**

- Bulk, 500 pieces per bag standard
- Ammo or Reel available upon request

# Absolute Maximum Ratings at Ta = 25°C

Forward Voltage	V <sub>f</sub>	2.3 ± 0.3 V
Continuous Forward Current	I <sub>f</sub>	50 mA
Power Dissipation	P <sub>d</sub>	130 mW
Peak Forward Current	I <sub>fp</sub>	150 mA
Derating Factor		0.40 mA/ °C
Reverse Voltage	Vr	5 V
Operating Temperature	T <sub>op</sub>	-25 ~ +85°C
Storage Temperature	T <sub>stg</sub>	-35 ~ +100°C
Soldering Temperature	T <sub>sd</sub>	260°C / 5 Sec

Remarks: Duty Ratio = 1/16, Pulse Width = 0.1ms

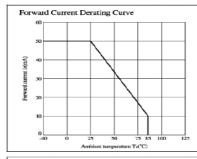


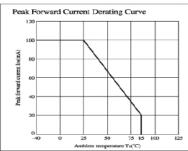
# Electrical / Optical Characteristics at Ta = 25°C

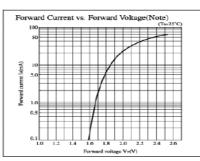
Parameter	Symbol	Min	Тур	Max	Unit	Test Condition
Forward Voltage	$V_f$	2.0	2.3	2.6	V	I <sub>f</sub> = 20 mA
Dominant Wavelength	$\lambda_d$		590		nm	I <sub>f</sub> = 20 mA
Luminous Intensity	l <sub>v</sub>	3200	4000	7200	mcd	I <sub>f</sub> = 20 mA
Spectrum Radiation Bandwidth	$\Delta_{\lambda}$		20		nm	I <sub>f</sub> = 20 mA
Reverse Current	I <sub>r</sub>			10	mA	V <sub>R</sub> = 5V

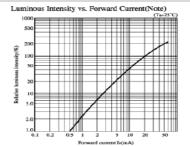
Grade	Emission Wavelength   Viewing   Lens	Lens	Luminous Intensity I <sub>v</sub> (mcd)			
Range λ <sub>P</sub> (nm)	Angle	Shape	Min	Тур	Max	
YZ-Y 5N15	585nm ~ 593nm	15°	Normal	4200		7200
YZ-Y 5N30		30°	Normal	3200		5500

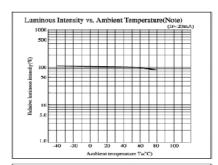
# Electrical / Optical Characteristics Diagram at Ta = 25°C

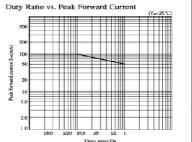






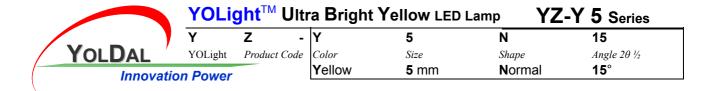






# Iv Ranks / Luminous Intensity Bin Limits

Bin Name	Min	Max
S	1900	2500
Т	2500	3200
U	3200	4200
V	4200	5500
W	5500	7200



#### Notes:

- 1. YZ-Y series can supply the above listed S/T/U/V/W  $I_{\nu}$  ranks.
- 2. I<sub>V</sub> Ranks Tolerance of each minimum and maximum is ± 15%
- 3. Size: 5: 5mm / 3: 3mm Lens Size
- 4. Shape: N: Normal / S: Sharp Shape
- 5. Angle  $20 \frac{1}{2}$ : 30:  $30^{\circ} \pm 3^{\circ}$ ; options include 15:  $15^{\circ} \pm 3^{\circ} / 23$ :  $23^{\circ} \pm 3^{\circ} / 45$ :  $45^{\circ} \pm 3^{\circ}$
- 6. Stand Off: N: No Stand-Off / Y: With Stand-Off

Note: All data showing in this product specification are measured by proper experiment conditions and instruments. However, those data may be different due to variations of testing instruments and conditions.