



<b>Y</b> YOLight	<b>Z</b> Product Code	<b>-</b>	<b>R</b> Color Red	<b>5</b> Size 5 mm	<b>N</b> Shape Normal	<b>15</b> Angle 2θ ½ 15°
---------------------	--------------------------	----------	--------------------------	--------------------------	-----------------------------	--------------------------------

## FEATURES

- **Highly Luminous Ultra Bright Red**
- **AllnGaP / GaAs Technology Chip**
- **Super Luminous Intensity 9300 mcd**
- **Iv Ranks, Luminous Intensity Bin Limits T / U / V / W / X**
- **High Luminous Flux**
- **Dominate Wavelength 625 nm**
- **Water Clear UV Resistance Epoxy Package**
- **Extremely Uniform Red Light**
- **Lens Size 5mm with 3mm option**
- **Shape Options with Normal or Sharp**
- **Viewing Angles 2θ ½ = 30° , with 15° / 23° / 45° options**
- **Stand-Off Options**

## BENEFITS

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

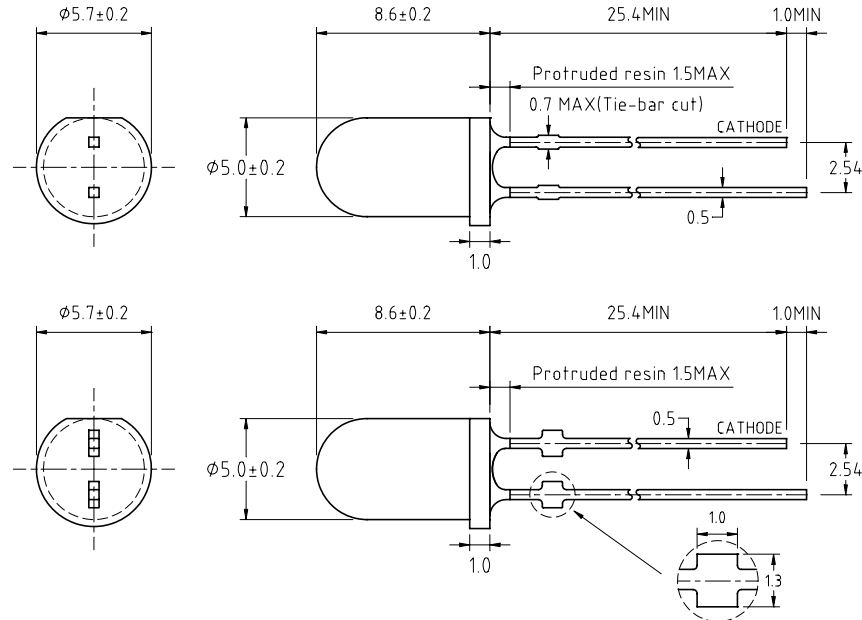
## APPLICATIONS

- **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**



<b>Y</b>	<b>Z</b>	<b>-</b>	<b>R</b>	<b>5</b>	<b>N</b>	<b>15</b>
YOLight	Product Code		Color	Size	Shape	Angle 2θ ½
			Red	5 mm	Normal	15°

**Package Dimensions**



**Notes:**

1. All dimensions are in millimeters (inches).
2. Tolerance  $\pm 0.25$  (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	V <sub>r</sub>	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



# YOLight™ Ultra Bright Red LED Lamp

## YZ-R 5 Series

**Y Z -**  
YOLight Product Code

**R**  
Color  
Red

**5**  
Size  
5 mm

**N**  
Shape  
Normal

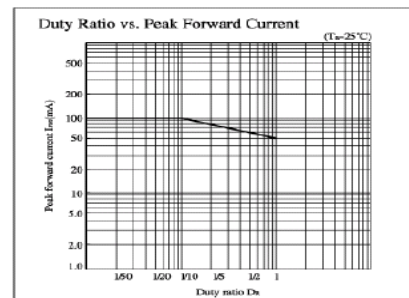
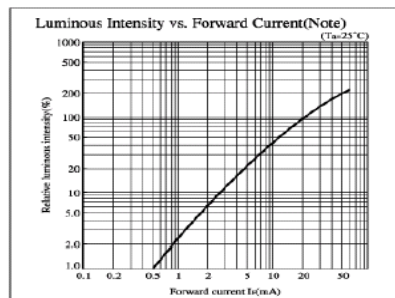
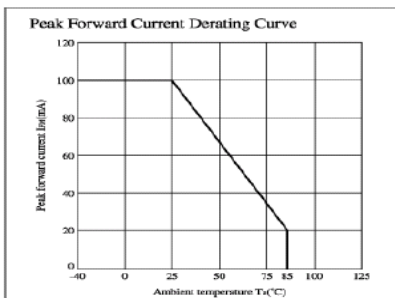
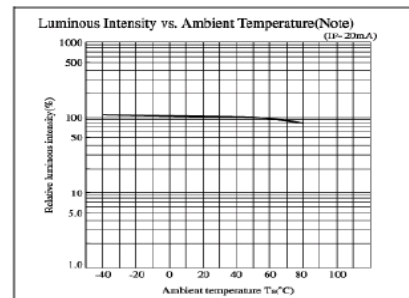
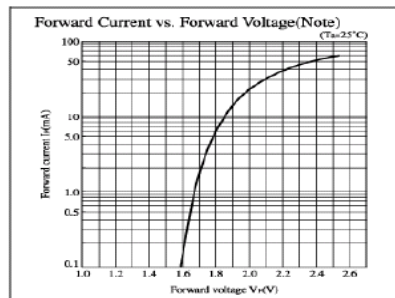
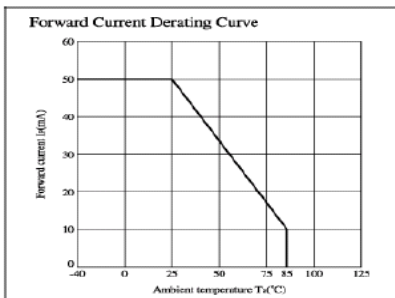
**15**  
Angle 2θ ½  
15°

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

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Forward Voltage	$V_f$	2.0	2.3	2.6	V	$I_f = 20 \text{ mA}$
Dominant Wavelength	$\lambda_d$		625		nm	$I_f = 20 \text{ mA}$
Luminous Intensity	$I_v$	3200	5500	9300	mcd	$I_f = 20 \text{ mA}$
Spectrum Radiation Bandwidth	$\Delta\lambda$		20		nm	$I_f = 20 \text{ mA}$
Reverse Current	$I_r$			10	mA	$V_R = 5V$

Grade	Emission Wavelength Range $\lambda_p$ (nm)	Viewing Angle	Lens Shape	Luminous Intensity $I_v$ (mcd)		
				Min	Typ	Max
YZ-R 5N15	620nm ~ 630nm	15°	Normal	4200		9300
YZ-R 5N30		30°	Normal	3200		7200

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



### Iv Ranks / Luminous Intensity Bin Limits

Bin Name	Min	Max
T	2500	3200
U	3200	4200
V	4200	5500
W	5500	7200
X	7200	9300



# YOLight™ Ultra Bright Red LED Lamp

## YZ-R 5 Series

<b>Y</b>	<b>Z</b>	<b>-</b>	<b>R</b>	<b>5</b>	<b>N</b>	<b>15</b>
YOLight	Product Code		Color	Size	Shape	Angle 2θ ½
			Red	5 mm	Normal	15°

**Notes:**

1. YZ-R series can supply the above listed T/U/V/W I<sub>v</sub> 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 2θ ½: 30: 30°± 3°; options include 15: 15°± 3° / 23: 23°± 3° / 45: 45°± 3°
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.*