YSF-R319HY

FEATURES

Highly Luminous Ultra Bright RED

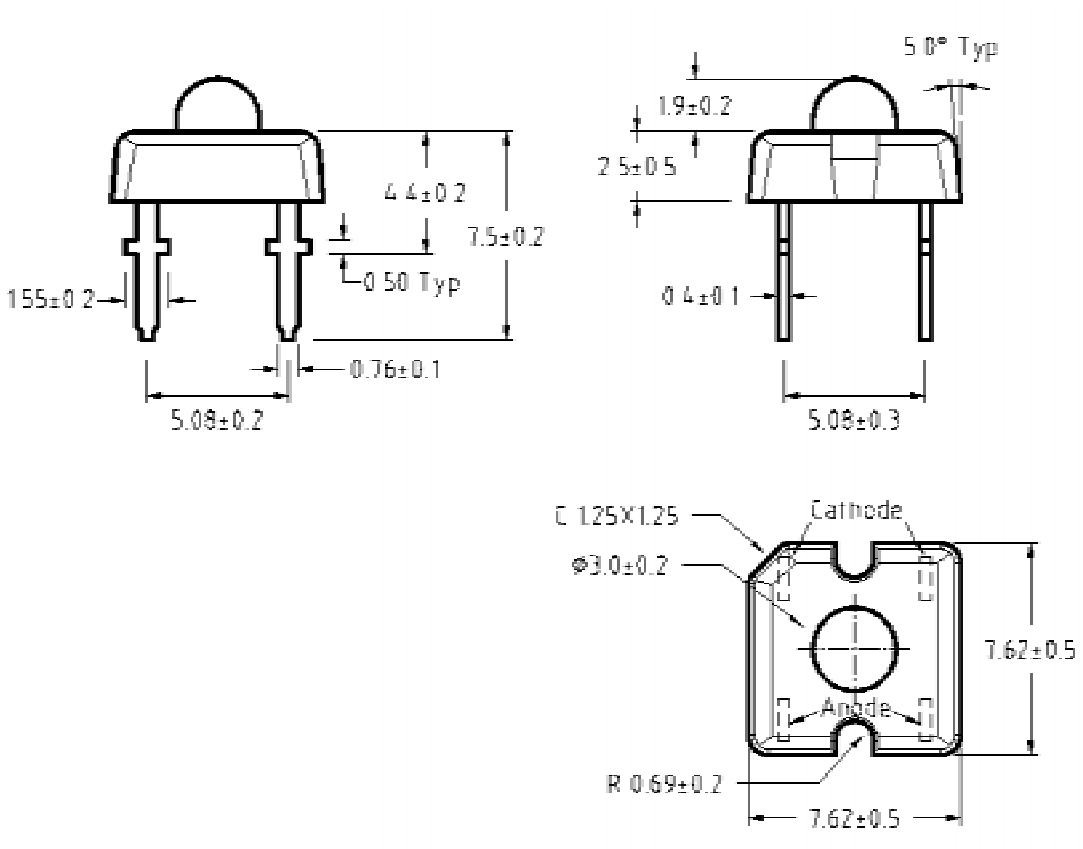
AlInGaP Technology Chip

Dominate Wavelength 625 nm

Water Clear Package

Viewing Angles 2θ ½ = 50° (Reference)

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

- **Tube, 60 pieces per bag standard**

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Absolute Maximum Ratings at Ta = 25°C

Item	Symbol	Absolute Maximum Rating	Unit
DC Forward Current	I_F	50	mA
Peak Pulsed Forward Current ※	I_{FP}	150	mA
Reverse Voltage	V_R	5	V
Power Dissipation	Pd	250	mW
Operating Temperature	T_{opr}	-35 ~ +85 ℃	°C
Storage Temperature	T_{stg}	-40 ~ +100 ℃	°C
Solder Dipping Temperature	T_{sld}	260℃ for 5 sec	

Remarks: Duty Ratio = 1/10, Pulse Width = 0.1ms

Electrical / Optical Characteristics at Ta = 25°C

Item	Symbol	Condition	Min	Typ	Max	Unit
Forward Voltage	V_F	I_F=50mA		2.4	2.7	V
Reverse Current	I_R	V_R=5V			50	μA
Luminous Intensity	I_V	I_F=50mA	4200		7200	mcd
Dominant Wavelength	λd	I_F=50mA	615		635	nm
Peak Wavelength	λp	I_F=50mA		625		nm
Spectral Half Width	Δλ1/2	I_F=50mA		30		nm

Iv Ranks / Luminous Intensity Bin Limits

Bin Name	*Min*	*Max*
V	4200	5500
W	5500	7200

I_V Ranks Tolerance of each minimum and maximum is ± 15%

Color /Wave Length Ranks

Bin Name	*Wave Length (nm)*
1	615~620
2	620~625
3	625~630
4	630~635

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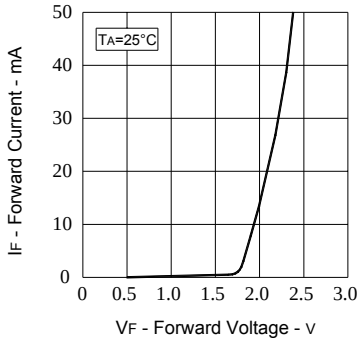
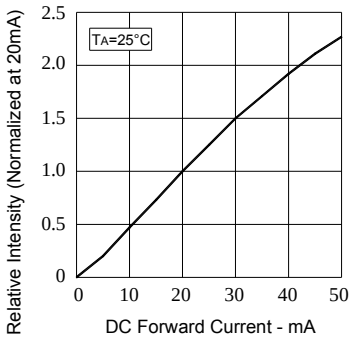
Electrical / Optical Characteristics Diagram at Ta = 25°C

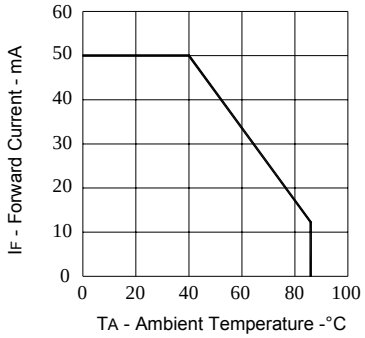
Forward Current vs.Forward Voltage



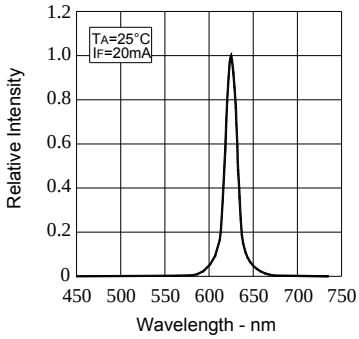
Relative Intensity vs.Forward Current



Forward Current vs.Ambient Temperature



Relative Intensity vs.Wavelength



Notes:

1. One delivery will include up to three color ranks and two luminous intensity ranks of the products. The quantity-ratio of the ranks is decided by Yoldal.
2. 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.

Soldering Conditions - Lamp Type LED

- Solder the LED no closer than 3mm from the base of the epoxy bulb. Soldering beyond the base of the tie bar is recommended
- Recommended soldering conditions

Dip Soldering	
Pre-Heat	120℃ Max.
Pre-Heat Time	60 sec. Max.
Solder Bath Temperature	260℃ Max.
Dipping Time	10 sec. Max.
Dipping Position	No lower than 3mm from the base of the epoxy bulb.

Hand Soldering		
	3Ø Series	**Others (Including Lead-Free Solder)**
Temperature	300℃ Max.	350℃ Max.
Soldering time	3 sec. Max.	3 sec. Max.
Position	No closer than 3mm from the base of the epoxy bulb.	No closer than 3mm from the base of the epoxy bulb.

- Do not apply any stress to the lead, particularly when heated
- The LEDs must not be repositioned after soldering
- After soldering the LEDs, the epoxy bulb should be protected from mechanical shock or vibration until the LEDs return to room temperature.
- Direct soldering onto a PC board should be avoided. Mechanical stress to the resin may be caused by the PC board warping or from the clinching and cutting of the leadframes. When it is absolutely necessary, the LEDs may be mounted in this fashion, but, the User will assume responsibility for any problems. Direct soldering should only be done after testing has confirmed that no damage, such as wire bond failure or resin deterioration, will occur. YOLDAL's LEDs should not be soldered directly to double sided PC boards because the heat will deteriorate the epoxy resin.
- When it is necessary to clamp the LEDs to prevent soldering failure, it is important to minimize the mechanical stress on the LEDs.
- Cut the LED leadframes at room temperature. Cutting the leadframes at high temperatures may cause LED failure.