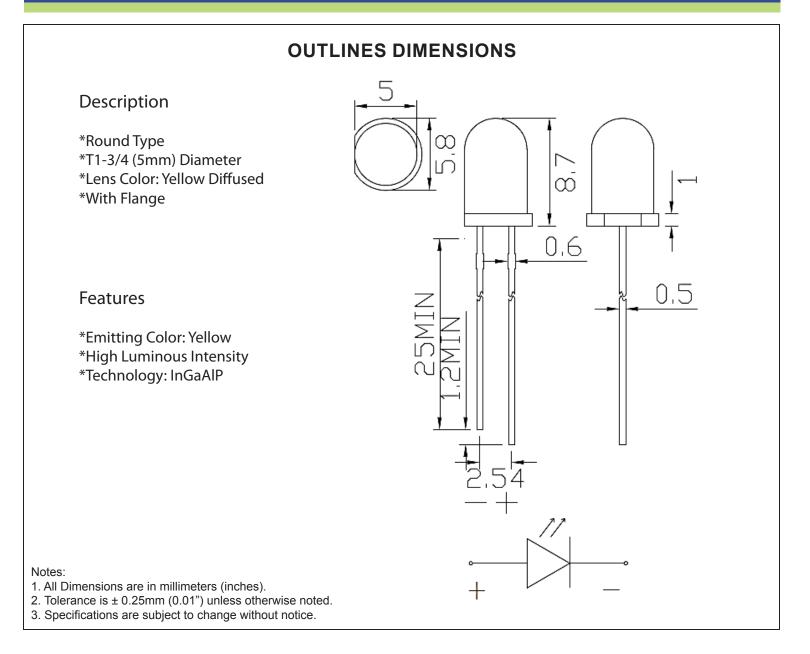


SPECIFICATIONS

CLA50Y2D



Part Number	Chip Material	Color of Emission	Lens Type	Viewing Angle
CLA50Y2D	InGaAIP	Yellow	Yellow Diffused	40°



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ABSOLUTE MAXIMUM RATINGS

Parameter Symbol Max Rating Unit **Power Dissipation** PD 66 mW 60 **Pulse Current Forward Current** IFP mA 30 **Continuous Forward Current** IF mΑ V **Reverse Voltage** VR 5 **Operating Temperature Range** TOPR -25~+85 °C Storage Temperature Range -30~+85 °C Tstg

IFP = Pulse Width ≤ 10 ms, Duty Ratio ≤1/10. Soldering Condition: 260 °C/ 5sec

OPTICAL-ELECTRICAL CHARACTERISTICS

Value Parameter Test Condition Unit Symbol Min Тур Max 100 150 Luminous Intensity Iv I_F = 20mA _ mcd Forward Voltage I⊧ = 20mA 2.1 2.4 V VF _ 10 $V_R = 5V$ _ Reverse Leakage Current IR _ μA $2\theta 1/2$ I_F = 20mA 40 _ Viewing Angle _ deg 593 588 I_F = 20mA _ **Dominant Wavelength** λD nm

*Tolerance of viewing angle: -10 / +5 deg.



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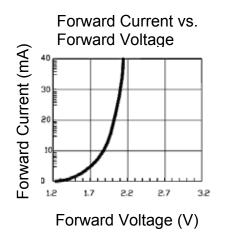




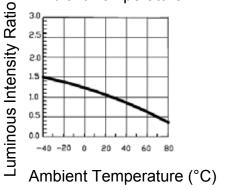
(TA=25°C)

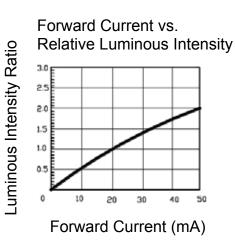


OPTICAL CHARACTERISTIC CURVES

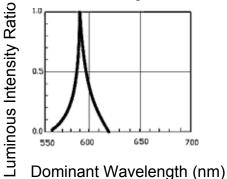


Relative Luminous Intensity vs. Ambient Temperature

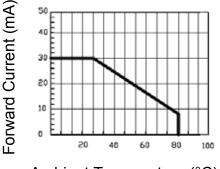




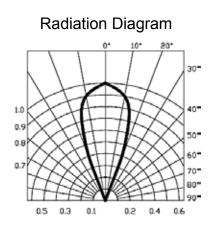
Relative Luminous Intensity vs. Main Wavelength



Forward Current vs. Ambient Temperature



Ambient Temperature (°C)





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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	100 °C Max		
Pre-Heat Time	60 Second Max		
Solder Bath Temperature	260 °C Max		
Dippng Time	5 Second Max		
Dipping Position	No lower than 3mm from the base of the epoxy		

Hand Soldering				
	3mm Series	Others		
Temperature Soldering Time Position	300 °C Max 3 Second Max No closer than 3mm from the base of the epoxy	350 °C Max 3 Second Max No closer than 3mm from the base of the epoxy		

* Do not apply any stress to the lead. Particularly when heated.

- * The LED 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. 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 temperature may cause LED failure.



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