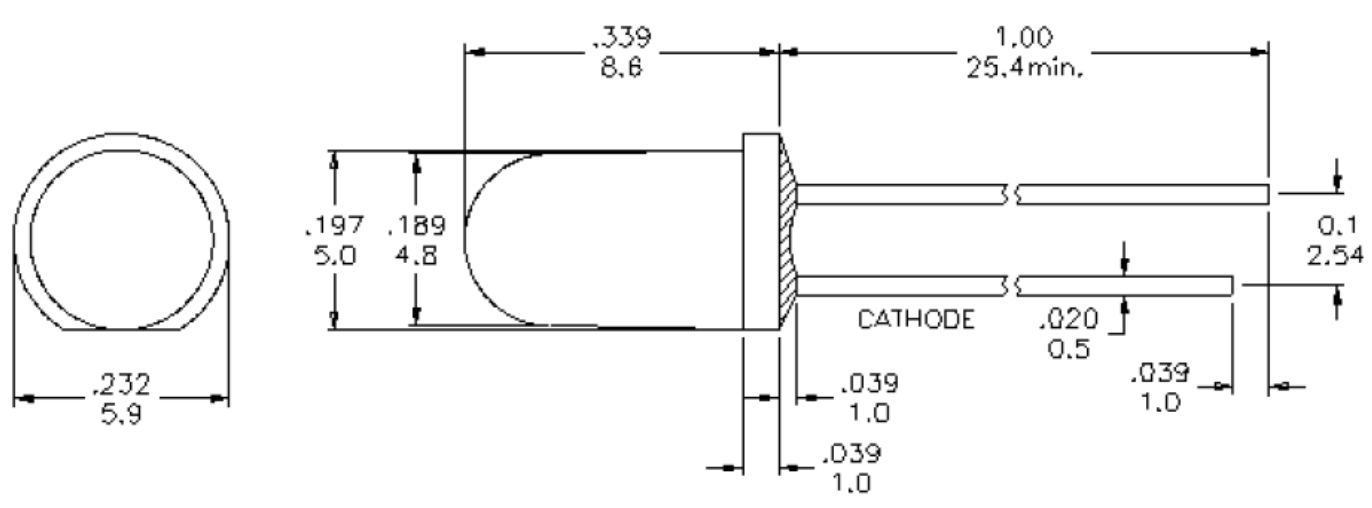


**SPECIFICATIONS** **CL50Y2D**

### OUTLINES DIMENSIONS



The technical drawing shows the following dimensions:

- Top View:** Diameter is .232 (5.9).
- Side View:**
  - Distance from the left edge to the start of the lens: .339 (8.6).
  - Distance from the start of the lens to the right edge: 1.00 (25.4 min.).
  - Distance from the left edge to the center of the lens: .189 (4.8).
  - Distance from the left edge to the top of the lens: .197 (5.0).
  - Distance from the right edge to the top of the lens: 0.1 (2.54).
  - Distance from the right edge to the bottom of the lens: 0.1 (2.54).
  - Distance from the right edge to the center of the lens: .039 (1.0).
  - Distance from the right edge to the bottom of the lens: .039 (1.0).
  - Distance from the right edge to the bottom of the lens: .020 (0.5).
  - Distance from the right edge to the bottom of the lens: .039 (1.0).

**Notes:**

1. All Dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.25\text{mm}$  (0.01") unless otherwise noted.
3. Specifications are subject to change without notice.

Part Number	Chip Material	Color of Emission	Lens Type	Viewing Angle
CL50Y2D	InGaAlP	Yellow	Yellow Diffused	45°



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**ABSOLUTE MAXIMUM RATINGS**
**(TA=25°C)**

Parameter	Symbol	Max Rating	Unit
Power Dissipation	PD	72	mW
Pulse Current Forward Current	IFP	100	mA
Continuous Forward Current	IF	30	mA
Reverse Voltage	VR	5	V
Operating Temperature Range	TOPR	-40~+80	°C
Storage Temperature Range	TSTG	-40~+100	°C
IFP = Pulse Width ≤ 10 ms, Duty Ratio ≤ 1/10. Soldering Condition: 260 °C/ 5sec			

**OPTICAL-ELECTRICAL CHARACTERISTICS**
**(TA=25°C)**

Parameter	Symbol	Test Condition	Value			Unit
			Min	Typ	Max	
Luminous Intensity	IV	IF = 20mA	220	350	-	mcd
Forward Voltage	VF	IF = 10mA	-	2.0	2.4	V
Reverse Leakage Current	IR	VR = 5V	-	-	50	μA
Viewing Angle	2θ1/2	IF = 10mA	-	45	-	deg
Dominant Wavelength	λD	IF = 10mA	-	588	-	nm

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



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## OPTICAL CHARACTERISTIC CURVES

Fig 1. Forward Current vs. Forward Voltage

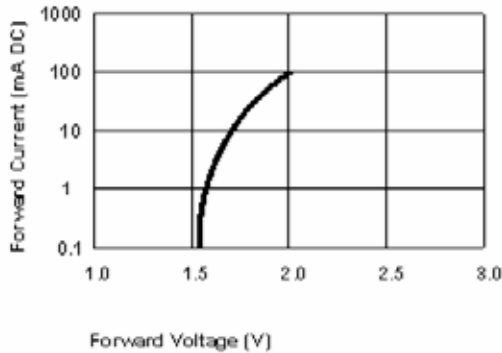


Fig 2. Relative Intensity vs. Forward Current

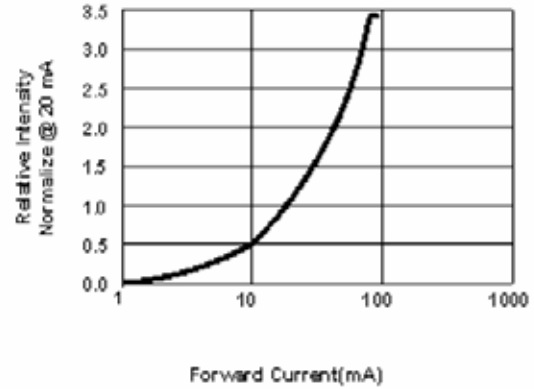


Fig 3. Forward Voltage vs. Temperature

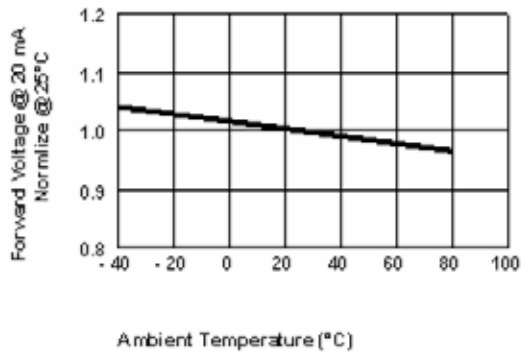


Fig 4. Relative Intensity vs. Temperature

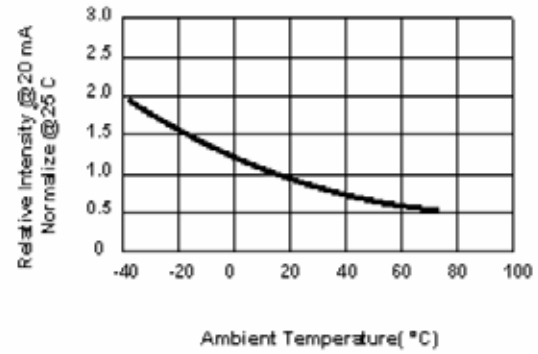


Fig5. Relative Intensity Vs. Wavelength

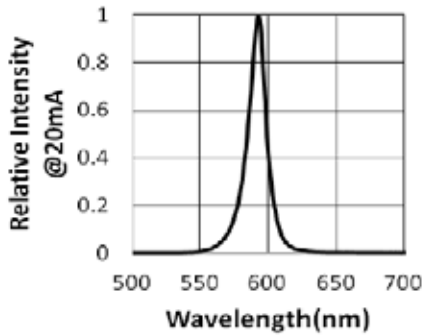
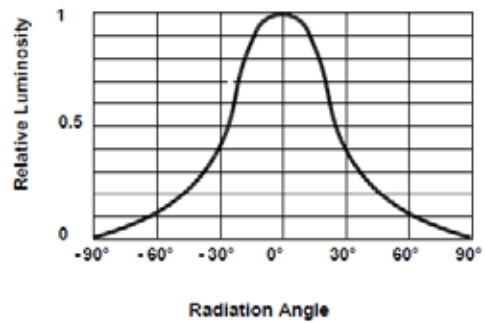


Fig6. Relative Luminous Intensity Vs. RadRadiation



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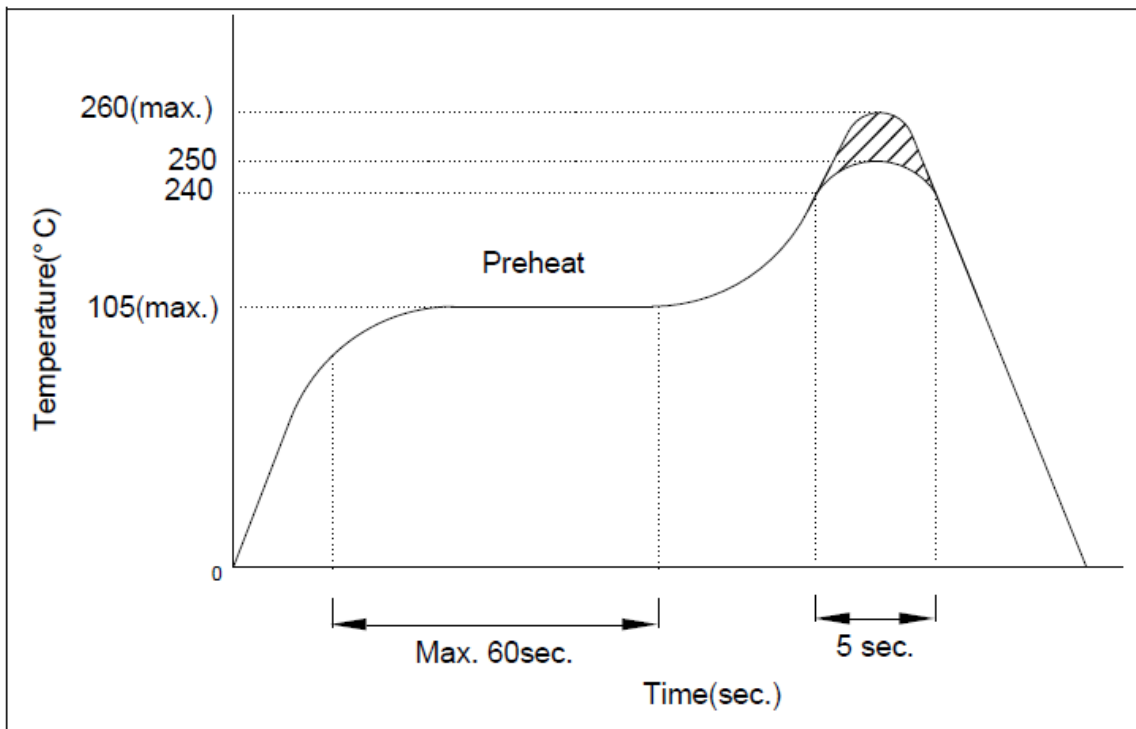
## SOLDERING CONDITIONS – LAMP TYPE LED

### PRECAUTION FOR USE

#### 1. Recommended Soldering Condition

##### 1.1 Wave Soldering

Basic spec is  $\leq 5$  sec. when  $260^{\circ}\text{C}$ . If temperature is higher, time should be shorter ( $+10^{\circ}\text{C} \rightarrow -1$  sec).



##### 1.2 Soldering Iron

Power dissipation of iron should be smaller than 15W and temperature should be controllable. Surface temperature of iron tip should be under  $230^{\circ}\text{C}$ , soldering time  $\leq 3$  sec.

#### 2. Electrostatic Discharge (ESD)

Static electricity or surge voltage will damage the LEDs.

Use of conductive wrist band or anti-electrostatic glove when handling these LEDs is recommended. All devices, equipment, work table, storage rack and machinery must be properly grounded.

In the events of manual working in process, make sure devices are well protected from ESD at all times.



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