

# SPECIFICATIONS CLA50G2C

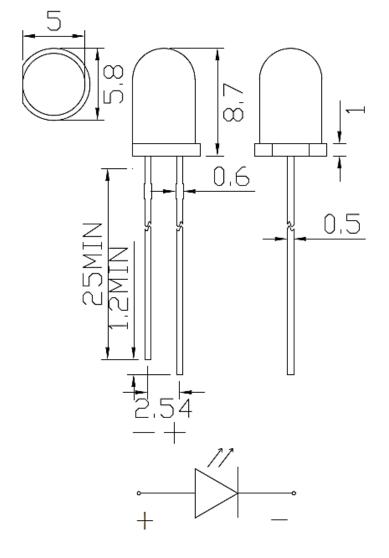
### **OUTLINES DIMENSIONS**

## Description

- \*Round Type
- \*T1-3/4 (5mm) Diameter
- \*Lens Color: Water Clear
- \*With Flange

#### **Features**

\*Emitting Color: Green \*High Luminous Intensity \*Technology: InGaAIP



#### Notes:

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

Part Number	Chip Material	Color of Emission	Lens Type	Viewing Angle
CLA50G2C	InGaAlP	Green	Water Clear	20°



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# **ABSOLUTE MAXIMUM RATINGS**

(TA=25°C)

Parameter	Symbol	Max Rating	Unit
Power Dissipation	Pb	60	mW
Pulse Current Forward Current	lfP	80	mA
Continuous Forward Current	lF	20	mA
Reverse Voltage	VR	5	V
Operating Temperature Range	Topr	-25~+85	°C
Storage Temperature Range	Тѕтс	-30~+85	°C
IFP = Pulse Width ≤ 10 ms, Duty Ratio ≤1/10. Soldering Condition: 260 °C/ 3se			

# **OPTICAL-ELECTRICAL CHARACTERISTICS**

(TA=25°C)

Parameter	Symbol	Test Condition	Value			l limit
			Min	Тур	Max	Unit
Luminous Intensity	lv	I <sub>F</sub> = 20mA	500	800	-	mcd
Forward Voltage	VF	I⊧ = 20mA	-	2.1	2.4	V
Reverse Leakage Current	lR	V <sub>R</sub> = 5V	-	-	10	μΑ
Viewing Angle	201/2	I⊧ = 20mA	-	20	-	deg
Dominant Wavelength	λD	I⊧ = 20mA	568	-	573	nm

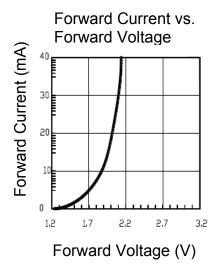
<sup>\*</sup>Tolerance of viewing angle: -10 / +5 deg.

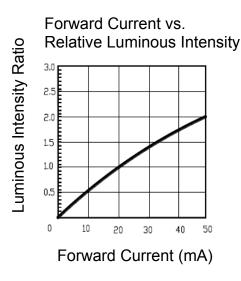


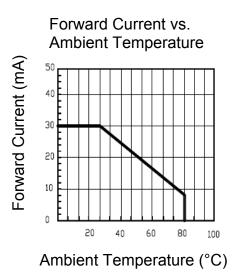
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# **OPTICAL CHARACTERISTIC CURVES**







Relative Luminous Intensity vs. **Ambient Temperature** Luminous Intensity Ratio 1.5 1.0

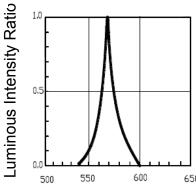
20 40 60

Ambient Temperature (°C)

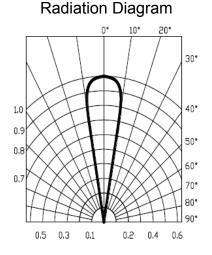
-40 -20

0

Relative Luminous Intensity vs. Main Wavelength



Dominant Wavelength (nm)



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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.

