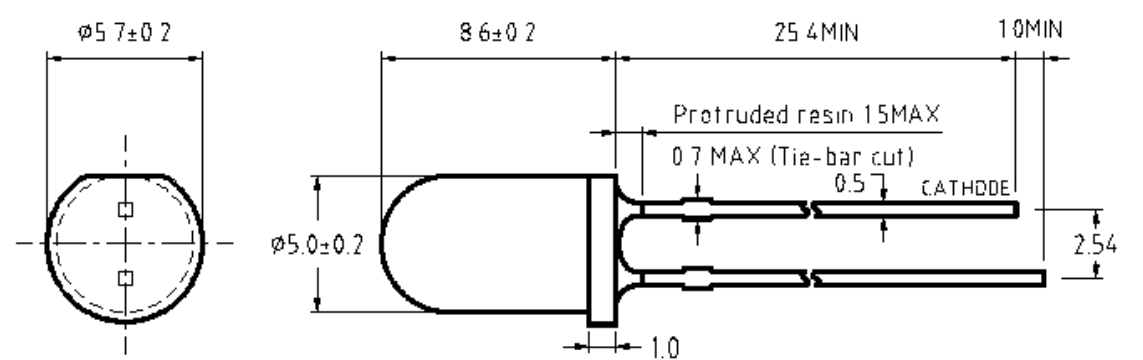


SPECIFICATIONS **CL50B3C-15D**

OUTLINES DIMENSIONS



The technical drawing shows two views of the LED component. The top view is a circle with a diameter of $\phi 5.7 \pm 0.2$ mm. The side view shows a component with a total length of 8.6 ± 0.2 mm. The main body has a diameter of $\phi 5.0 \pm 0.2$ mm. The tail length is 25.4 mm (minimum). The tail has a diameter of 2.54 mm. The tail features a cathode and an anode. The anode has a protruded resin of 15 mm maximum. The tie-bar cut has a maximum width of 0.7 mm. The cathode has a width of 0.5 mm. The tail has a thickness of 1.0 mm.

Notes:

1. All Dimensions are in millimeters (inches).
2. Tolerance is ± 0.25 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
CL50B3C-15D	InGaN	Blue	Water Clear	15°



ChromeLED Corp. reserves the right to make changes at any time in order to supply the best product possible. The most current version of this document will always be available at: www.chromeled.com

ABSOLUTE MAXIMUM RATINGS
(TA=25°C)

Parameter	Symbol	Max Rating	Unit
Power Dissipation	PD	114	mW
Pulse Current Forward Current	IFP	100	mA
Continuous Forward Current	IF	30	mA
Reverse Voltage	VR	5	V
Operating Temperature Range	TOPR	-30~+100	°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	5500	9300	-	mcd
Forward Voltage	VF	IF = 10mA	-	3.2	3.8	V
Reverse Leakage Current	IR	VR = 5V	-	-	50	µA
Viewing Angle	2θ1/2	IF = 20mA	-	15	-	deg
Dominant Wavelength	λD	IF = 10mA	460	470	480	nm

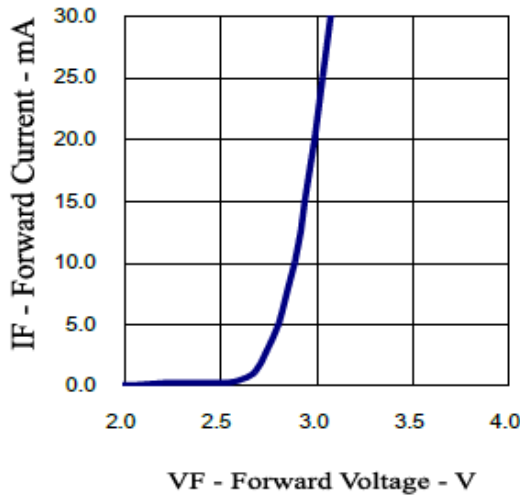
*Tolerance of viewing angle: -10 / +5 deg.



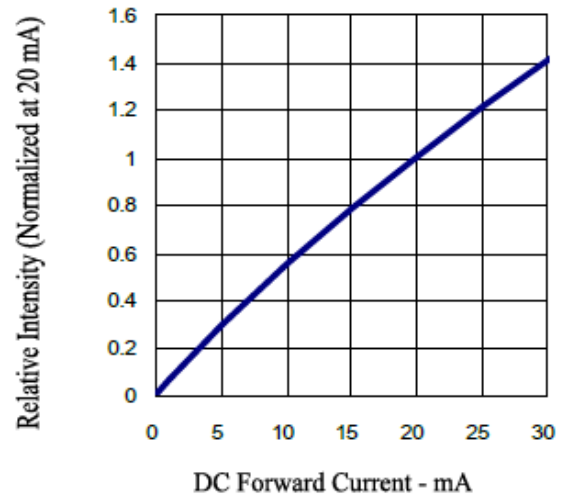
ChromeLED Corp. reserves the right to make changes at any time in order to supply the best product possible. The most current version of this document will always be available at: www.chromeled.com

OPTICAL CHARACTERISTIC CURVES

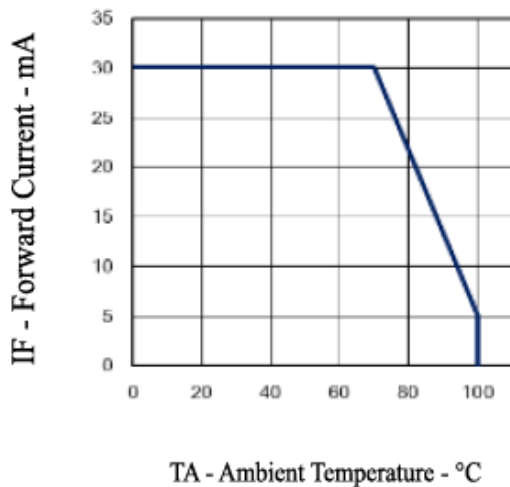
Forward Current vs. Forward Voltage



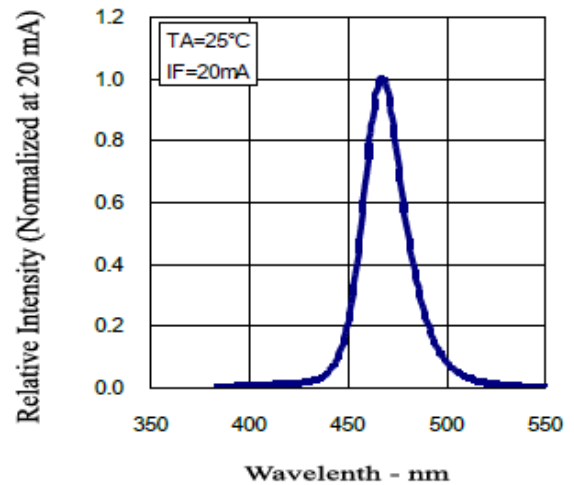
Relative Intensity vs. Forward Current



Forward Current vs. Ambient Temperature



Relative Intensity vs. Wavelength



ChromeLED Corp. reserves the right to make changes at any time in order to supply the best product possible. The most current version of this document will always be available at: www.chromeled.com

SOLDERING CONDITIONS – LAMP TYPE LED

RECOMMENDED SOLDERING CONDITIONS

- 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 sec. Max.
Solder Bath Temperature	260°C Max.
Dipping Time	5 sec. Max.
Dipping Position	No lower than 3mm from the base of the epoxy bulb.

Hand Soldering		
	Current Series	Others (Including Lead-Free Solder)
Temperature	300 °C Max.	350 °C 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 lead frames. 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. Sander'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 lead frames at room temperature. Cutting the lead frames at high temperatures may cause LED failure.



ChromeLED Corp. reserves the right to make changes at any time in order to supply the best product possible. The most current version of this document will always be available at: www.chromeled.com