

SPECIFICATIONS CL50W6C

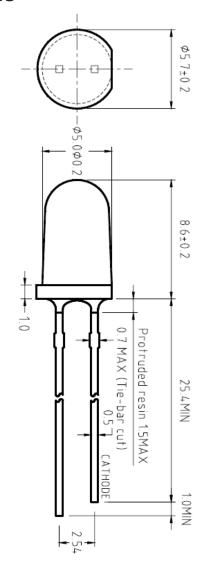
OUTLINES DIMENSIONS

Description

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

Features

- *Emitting Color: White
- *High Luminous Intensity
- *Technology: InGaN
- *Chromaticity Coordinate = 0.31/0.32



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
CL50W6C	InGaN	White	Water Clear	10°



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ABSOLUTE MAXIMUM RATINGS

 $(TA=25^{\circ}C)$

Parameter	Symbol	Max Rating	Unit
Power Dissipation	Po	114	mW
Pulse Current Forward Current	lfp	100	mA
Continuous Forward Current	lF	30	mA
Reverse Voltage	VR	5	V
Operating Temperature Range	Topr	-40~+85	°C
Storage Temperature Range	Тѕтс	-40~+100	°C
I _{FP} = Pulse Width ≤ 10 ms, Duty Ratio ≤1/10. Soldering Condition: 260 °C/ 5sec			

OPTICAL-ELECTRICAL CHARACTERISTICS

(TA=25°C)

Darameter	Symbol	Test Condition	Value			Lloit
Parameter			Min	Тур	Max	Unit
Luminous Intensity	lv	I⊧ = 30mA	21000	32000	ı	mcd
Forward Voltage	VF	I⊧ = 30mA	-	3.3	3.8	V
Reverse Leakage Current	lR	V _R = 5V	-	-	10	μΑ
Viewing Angle	201/2	I⊧ = 30mA	-	10	1	deg
Chromaticity Coordinate	X	I⊧ = 30mA	-	0.31	1	-
Chromaticity Coordinate	Y	I⊧ = 30mA	-	0.32	-	-

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

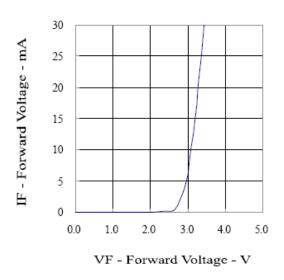


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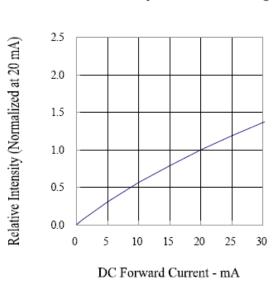


OPTICAL CHARACTERISTIC CURVES

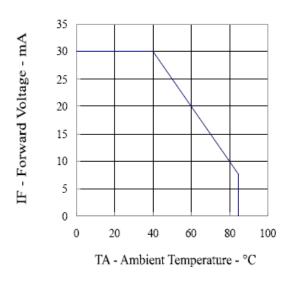
Forward Current vs. Forward Voltage



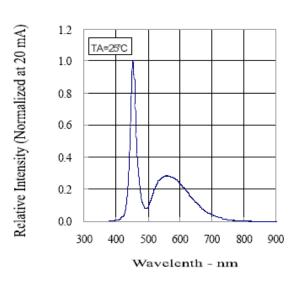
Relative Intensity vs. Forward Voltage



Forward Current vs. Ambient Temperature



Relative Intensity vs. Wavelength





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

