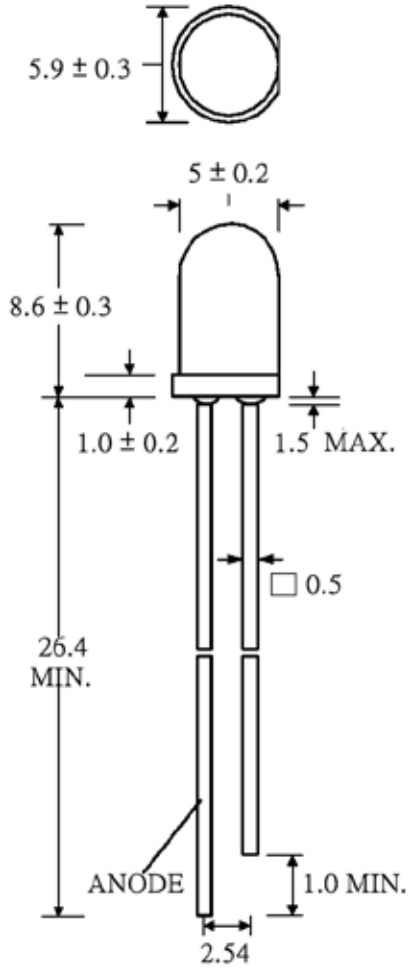


**SPECIFICATIONS** **CL50GT2C-15D**
**OUTLINES DIMENSIONS**
**DESCRIPTION**

- Super bright LED lamp
- Round type
- T1-3/4 (5mm) diameter
- Lens color: Water clear
- With flange
- Solder leads without stand-off

**FEATURES**

- Emitted color: Super Green
- High luminous intensity
- Technology: GaN
- Peak wavelength  $\lambda_p = 527\text{nm}$
- Viewing angle:  $15^\circ$
- UV resistant epoxy



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
CL50GT2C-15D	GaN	Green	Water Clear	$15^\circ$



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

Parameter	Symbol	Max Rating	Unit
Power Dissipation	P <sub>D</sub>	120	mW
Pulse Current Forward Current	I <sub>FP</sub>	100	mA
Continuous Forward Current	I <sub>F</sub>	30	mA
Reverse Voltage	V <sub>R</sub>	5	V
Operating Temperature Range	T <sub>OPR</sub>	-20~+80	°C
Storage Temperature Range	T <sub>STG</sub>	-30~+100	°C
I <sub>FP</sub> = 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	I <sub>v</sub>	I <sub>F</sub> = 20mA	6600	10000	-	mcd
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> = 20mA	-	3.5	4.0	V
Reverse Leakage Current	I <sub>R</sub>	V <sub>R</sub> = 5V	-	-	10	μA
Viewing Angle	2θ <sub>1/2</sub>	I <sub>F</sub> = 20mA	-	15	-	deg
Dominant Wavelength	λ <sub>D</sub>	I <sub>F</sub> = 20mA	-	525	-	nm

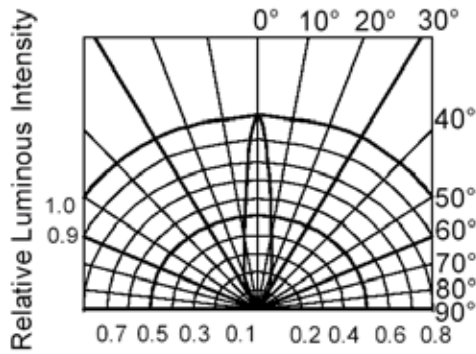
\*Tolerance of viewing angle: -10 / +5 deg.



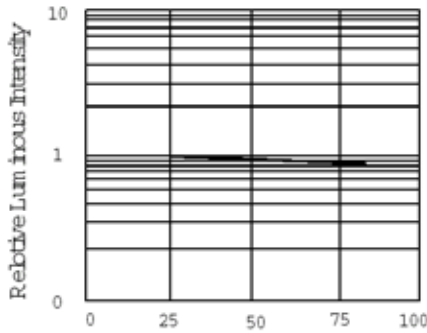
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## OPTICAL CHARACTERISTIC CURVES

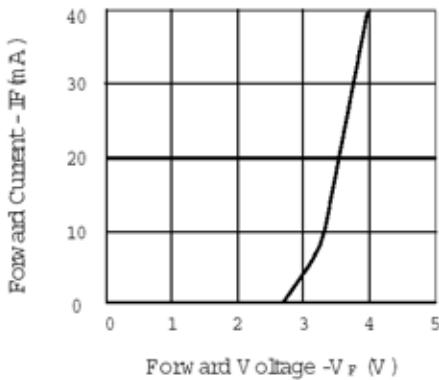
### TYPICAL ELECTRO-OPTICAL CHARACTERISTIC CURVES



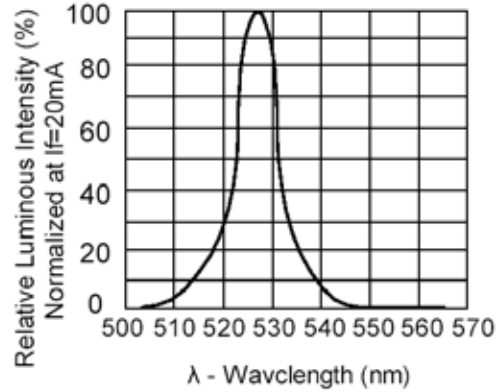
**RADIATION DIAGRAM**



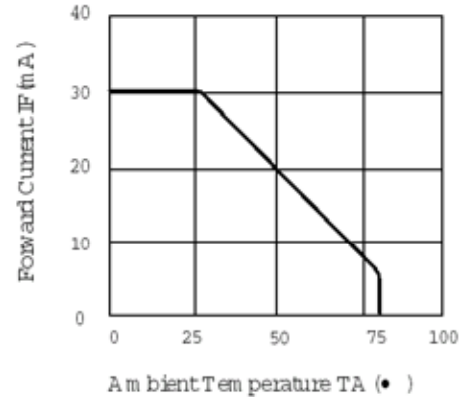
**LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE**



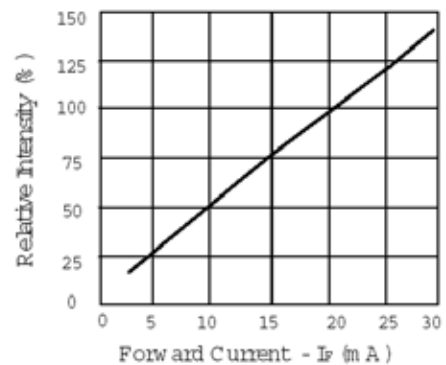
**FORWARD CURRENT Vs. FORWARD VOLTAGE**



**RELATIVE LUMINOUS INTENSITY Vs. WAVELENGTH**



**FORWARD CURRENT Vs. AMBIENT TEMPERATURE**



**LUMINOUS INTENSITY Vs. FORWARD CURRENT**



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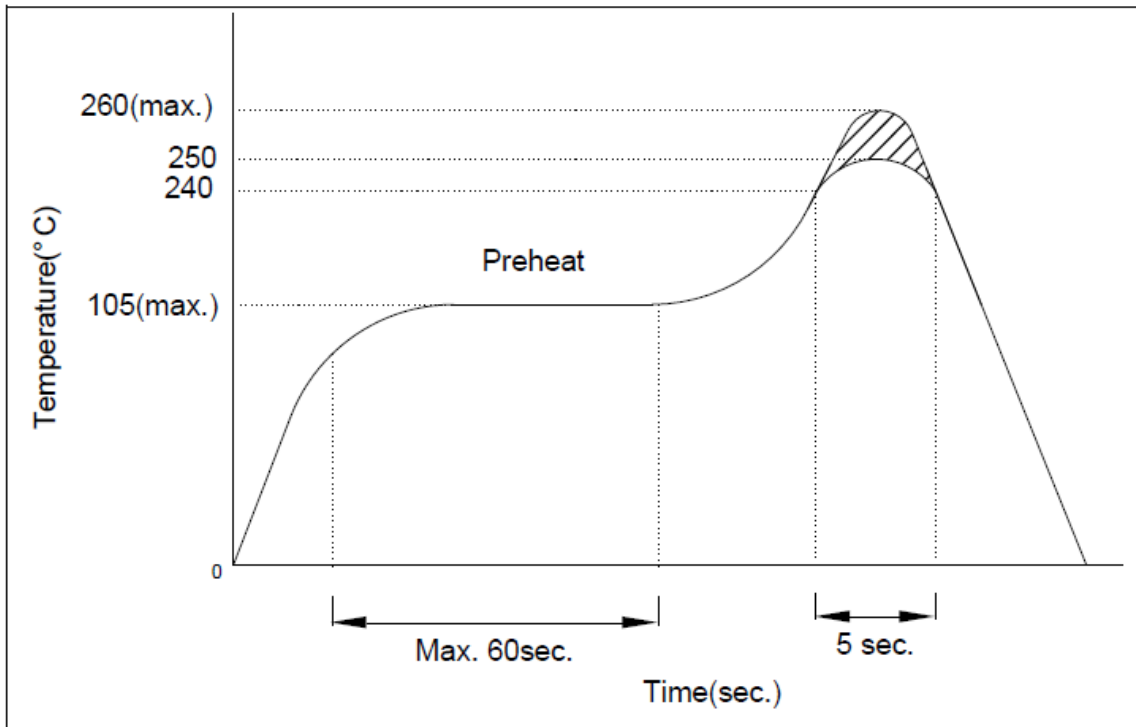
**SOLDERING CONDITIONS – LAMP TYPE LED**

**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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