

**SPECIFICATIONS** **CL30W3C**

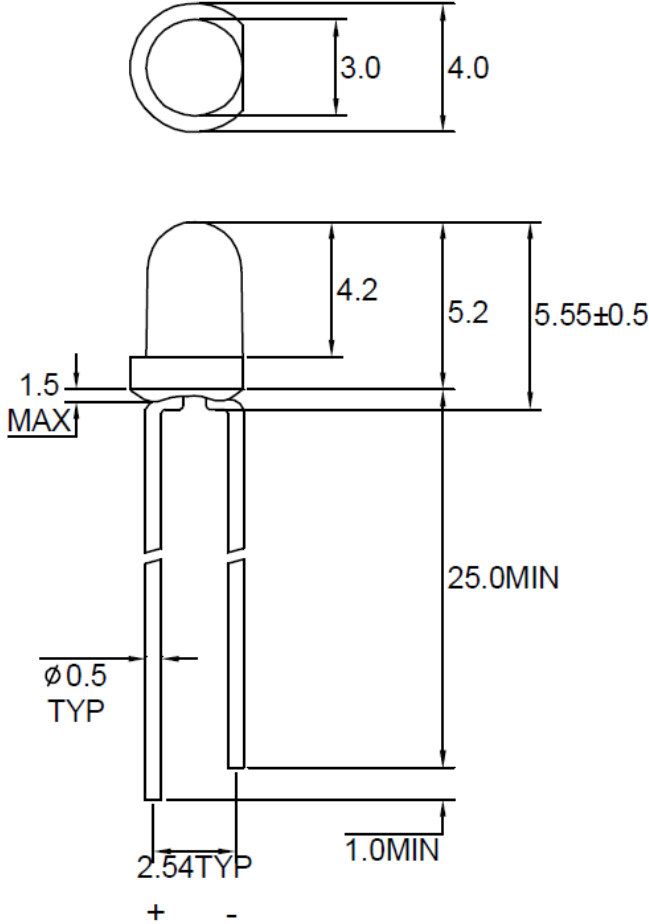
**OUTLINES DIMENSIONS**

**DESCRIPTION**

- Round Type
- 3mm Diameter
- Lens Color: Water Clear
- With Flange
- Solder leads without standoffs

**FEATURES**

- Emitted Color: Warm White
- High Luminous Intensity
- Technology: InGaN/GaN
- Viewing Angle: 30°



Notes:  
 1. All Dimensions are in millimeters (inches).  
 2. Tolerance is ± 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
CL30W3C	InGaN	Warm White	Water Clear	30°



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

Parameter	Symbol	Max Rating	Unit
Power Dissipation	PD	120	mW
Pulse Current Forward Current	IFP	100	mA
Continuous Forward Current	IF	30	mA
Reverse Voltage	VR	5	V
Operating Temperature Range	TOPR	-20~+80	°C
Storage Temperature Range	TSTG	-30~+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	2200	5000	-	mcd
Forward Voltage	VF	IF = 20mA	-	3.5	4.0	V
Reverse Leakage Current	IR	VR = 5V	-	-	50	µA
Viewing Angle	2θ1/2	IF = 20mA	-	30	-	deg
Chromaticity Coordinate	X	IF = 20mA	-	0.28	-	-
Chromaticity Coordinate	Y	IF = 20mA	-	0.28	-	-

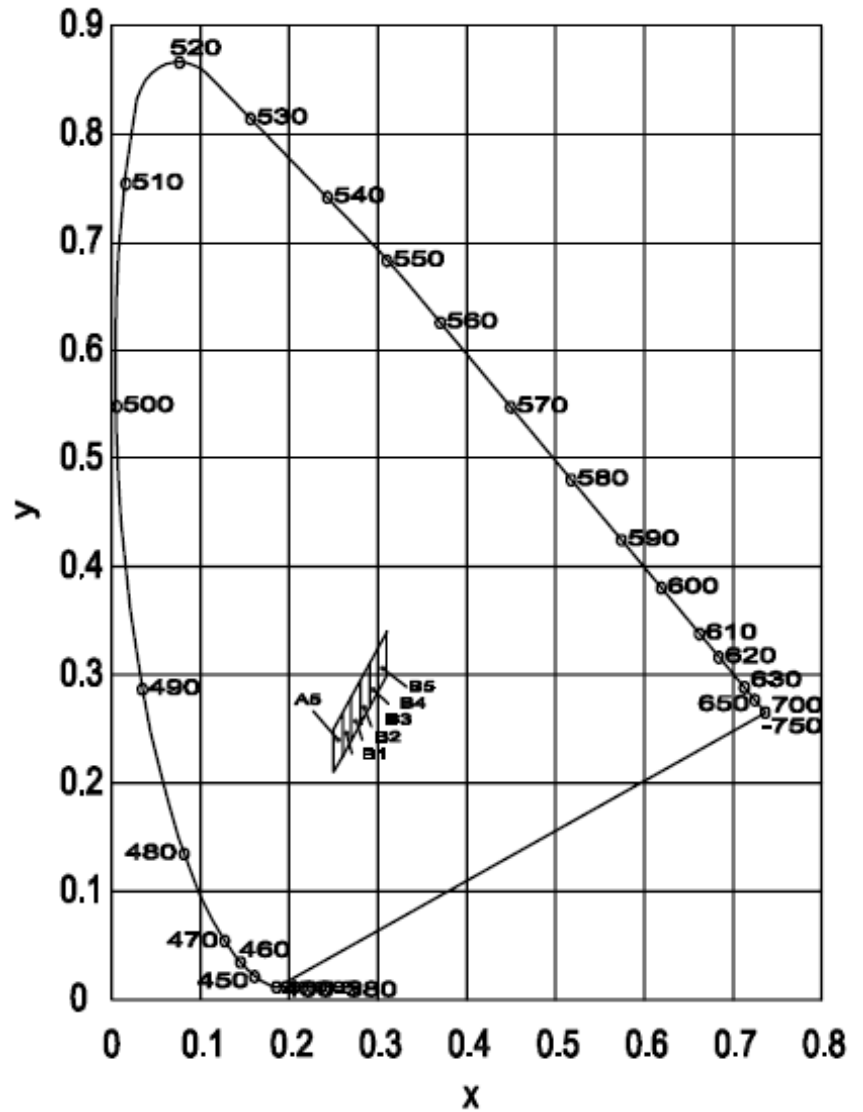
\*Tolerance of viewing angle: -10 / +5 deg.



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**CHROMATICITY COORDINATES FOR SPECIFICATIONS FOR BIN GRADING**

BIN	X	Y	BIN	X	Y
A5	0.25	0.250	B5	0.30	0.325
	0.25	0.210		0.30	0.285
	0.26	0.225		0.31	0.300
	0.26	0.265		0.31	0.340
B1	0.26	0.265			
	0.26	0.225			
	0.27	0.240			
B2	0.27	0.280			
	0.27	0.240			
	0.28	0.255			
B3	0.28	0.295			
	0.28	0.255			
	0.29	0.270			
B4	0.29	0.310			
	0.29	0.270			
	0.30	0.325			



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## OPTICAL CHARACTERISTIC CURVES

Fig.1 Forward current vs. Forward Voltage

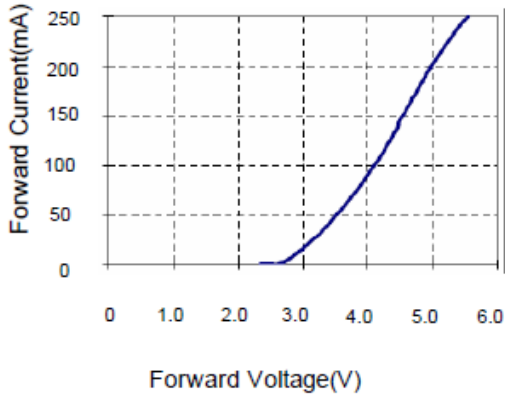


Fig.2 Relative Intensity vs. Forward Current

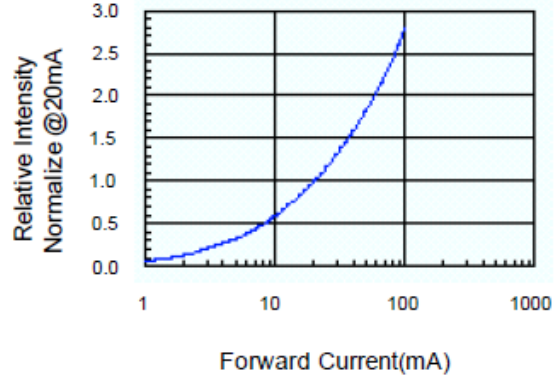


Fig.3 Forward Voltage vs. Temperature

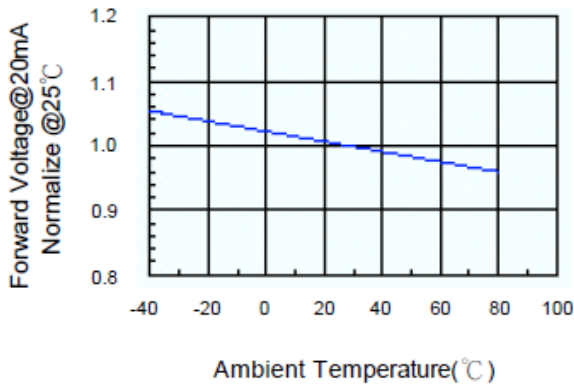


Fig.4 Relative Intensity vs. Temperature

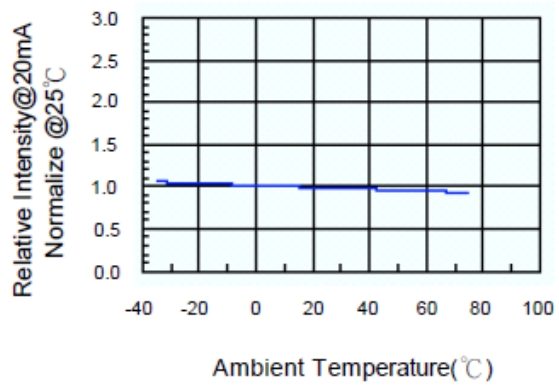
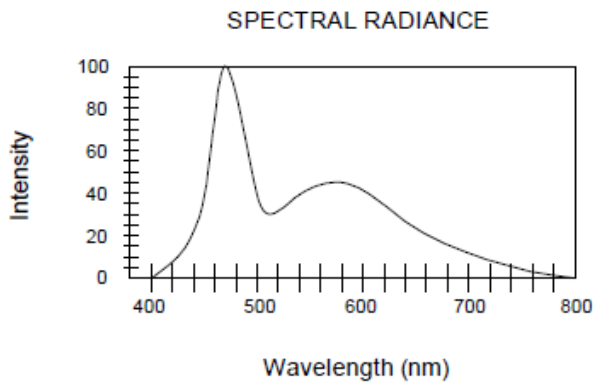


Fig.5 Luminous Spectrum (Ta=25°C)



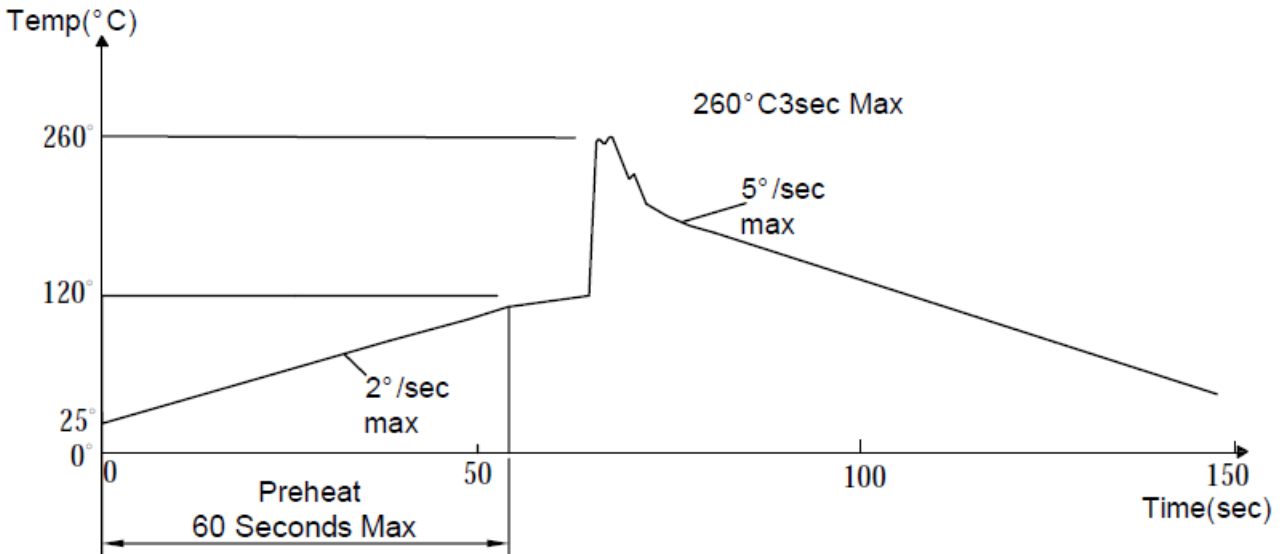
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## SOLDERING CONDITIONS – LAMP TYPE LED

1. Iron:
  - Soldering Iron: 30W Max
  - Temperature 350°C Max
  - Soldering Time: 3 seconds max (one time only)
  - Distance: 2mm Min (from solder joint to body)

2. Wave Soldering Profile

- Dip Soldering
- Preheat: 120°C Max
- Preheat time: 60 seconds Max
- Ramp-up
- 2°C/sec (max)
- Ramp-Down: -5°C/sec (max)
- Solder Bath: 260°C Max
- Dipping Time: 3 seconds Max
- Distance: 2mm Min (from solder joint to body)



- Note:
1. Wave solder should not be made more than once.
  2. You can just only select one of the soldering conditions above.



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