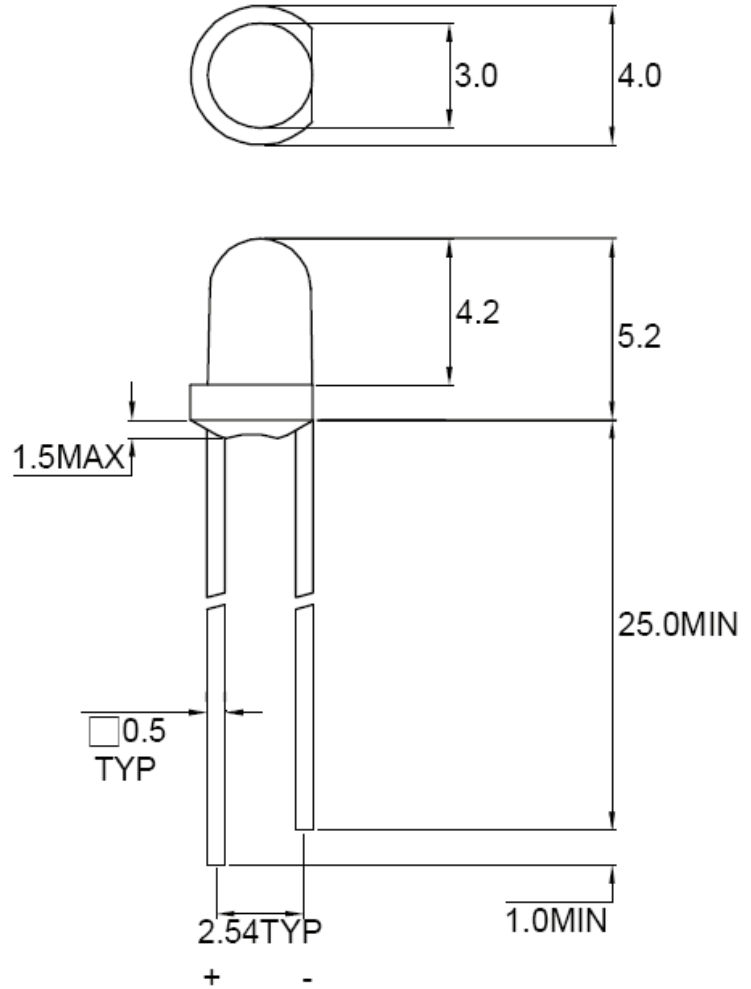


SPECIFICATIONS
CL30B2T
OUTLINES DIMENSIONS
DESCRIPTION

- Round type
- T1 (3mm) diameter
- Lens color: Blue Transparent
- With flange
- Solder leads without stand-off

FEATURES

- Emitted color: Blue
- Technology: InGaN/GaN
- Viewing angle: 30°
- Peak wavelength $\lambda_p = 470\text{nm}$


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
CL30B2T	InGaN	Blue	Blue Tinted	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	900	2200	-	mcd
Forward Voltage	VF	IF = 20mA	-	3.0	4.0	V
Reverse Leakage Current	IR	VR = 5V	-	-	50	µA
Viewing Angle	2θ1/2	IF = 20mA	-	30	-	deg
Dominant Wavelength	λD	IF = 20mA	468	-	477	nm

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



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OPTICAL CHARACTERISTIC CURVES

Fig.1 Forward current vs. Forward Voltage

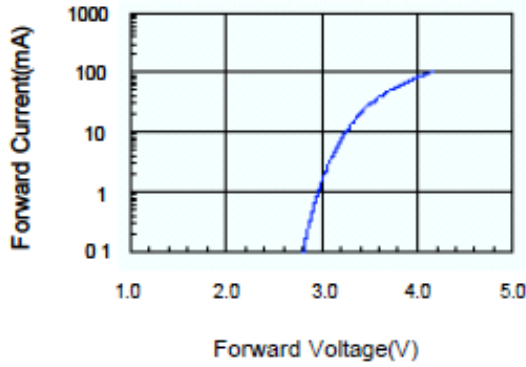


Fig.2 Relative Intensity vs. Forward Current

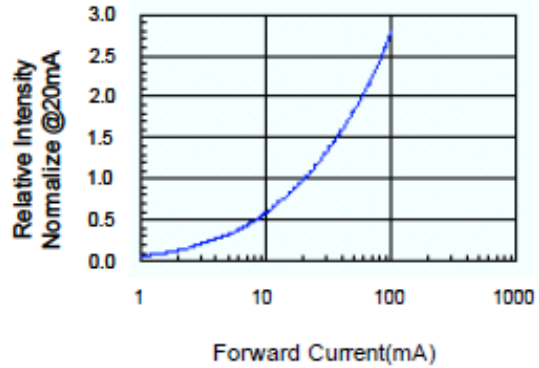


Fig.3 Forward Voltage vs. Temperature

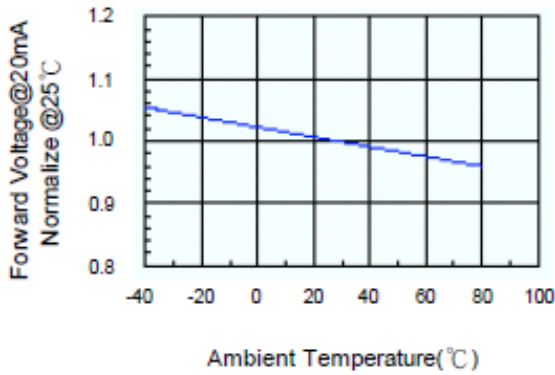


Fig.4 Relative Intensity vs. Temperature

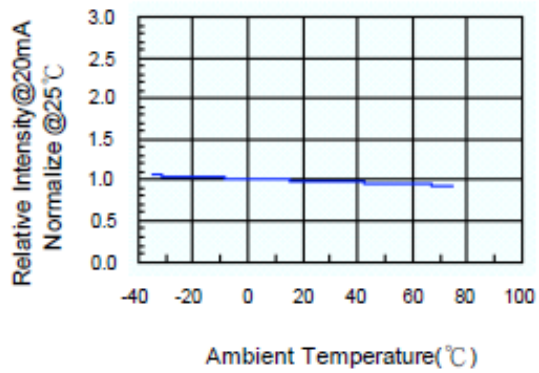


Fig.5 Relative Intensity vs. Wavelength

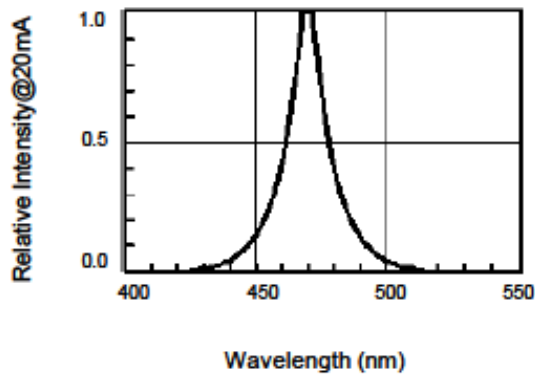
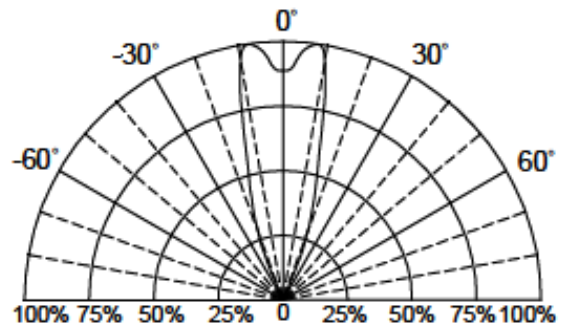


Fig.6 Directivity Radiation



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SOLDERING CONDITIONS – LAMP TYPE LED

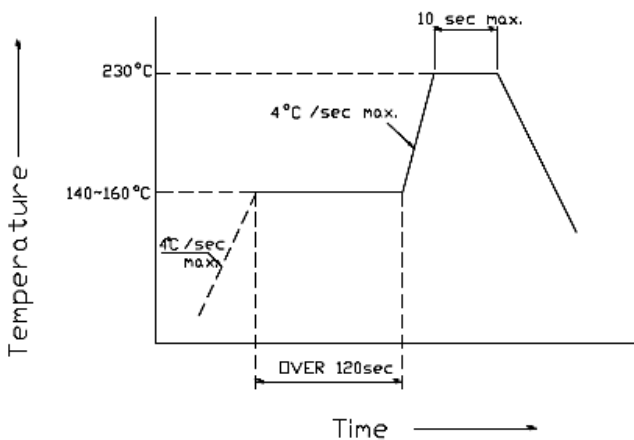
1. Soldering Conditions

Number of reflow process shall be less than 2 times and cooling process to normal temperature is required between first and second soldering process.

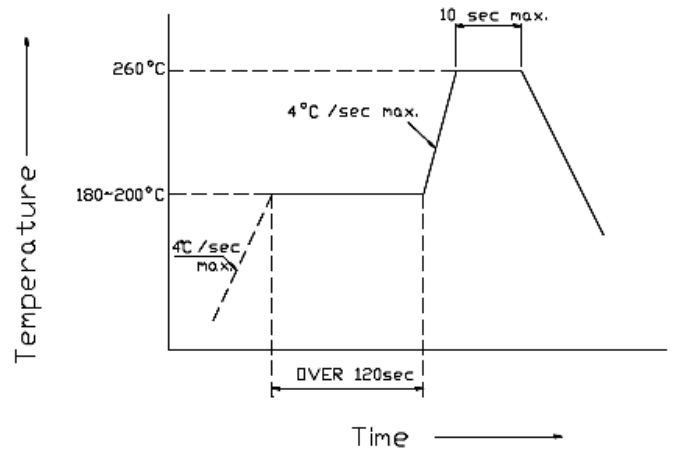
Recommended Soldering Conditions

Reflow Soldering			Hand Soldering	
	Lead Solder	Lead-Free Solder	Temperature	350°C max
Pre-heat	140~160°C	180~200°C	Soldering Time	3 sec. max. one time only
Pre-heat time	120 sec. max	120 sec. max		
Peak Temp.	230°C max	260°C max		
Soldering Time	10 sec. max	10 sec. max		
Condition	See below	See below		

(Lead Solder)



(Lead-Free Solder)



2. Static Electricity

It is recommended that a wrist band or an anti-electrostatic glove be used when handling LEDs. All devices, equipment and machinery must be properly grounded.

Damaged LED will show some unusual characteristics such as the forward voltage becomes lower, or the LEDs do not light at the low current. Criteria: $V_F > 2.0V @ I_F = 0.5mA$.



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