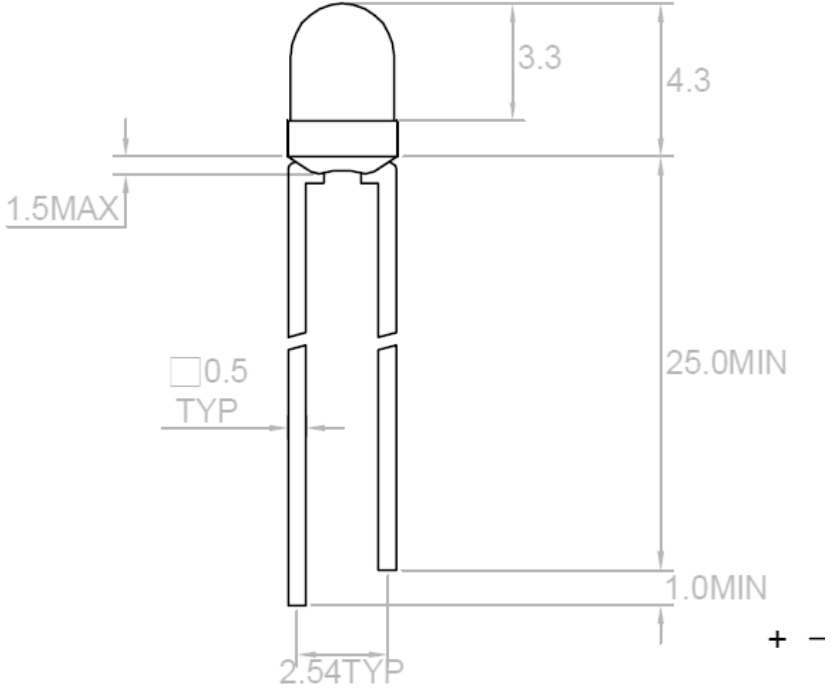


SPECIFICATIONS **CL28W3CZ**
OUTLINES DIMENSIONS
Description

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

Features

- *Emitted Color: White
- *High Luminous Intensity
- *Technology: InGaN
- *Color Coordinates:
X = 0.31, Y = 0.32



- 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
CL28W3CZ	InGaN/GaN	White	Water Clear	40°



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ABSOLUTE MAXIMUM RATINGS
(TA=25°C)

Parameter	Symbol	Max Rating	Unit
Power Dissipation	P _D	120	mW
Pulse Current Forward Current	I _{FP}	100	mA
Continuous Forward Current	I _F	30	mA
Reverse Voltage	V _R	5	V
Operating Temperature Range	T _{OPR}	-20~+80	°C
Storage Temperature Range	T _{STG}	-30~+100	°C
I _{FP} = 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 _V	I _F = 20mA	3400	6200	-	mcd
Forward Voltage	V _F	I _F = 20mA	-	3.5	4.0	V
Reverse Leakage Current	I _R	V _R = 5V	-	50	-	μA
Viewing Angle	2θ _{1/2}	I _F = 20mA	-	40	-	deg
Chromaticity Coordinates	X	I _F = 20mA	-	0.31	-	-
Chromaticity Coordinates	Y	I _F = 20mA	-	0.32	-	-

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



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OPTICAL CHARACTERISTIC CURVES

Fig.1 Forward current vs. Forward Voltage

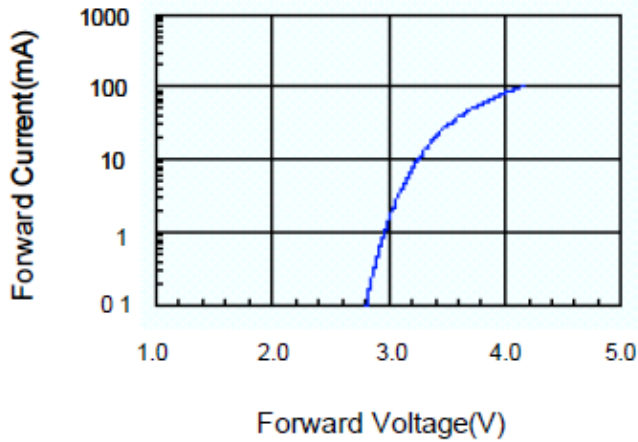


Fig.2 Relative Intensity vs. Forward Current

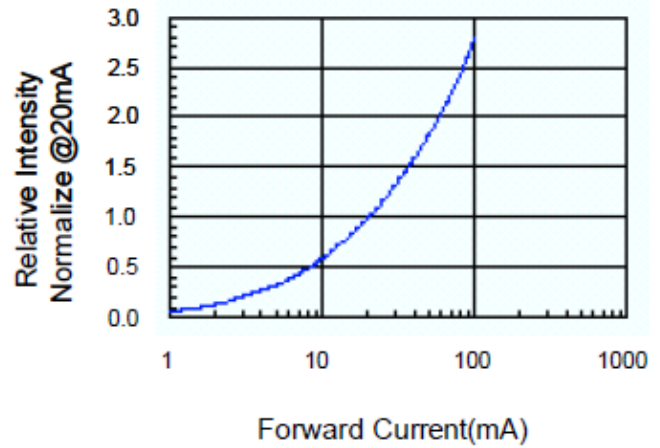


Fig.3 Forward Voltage vs. Temperature

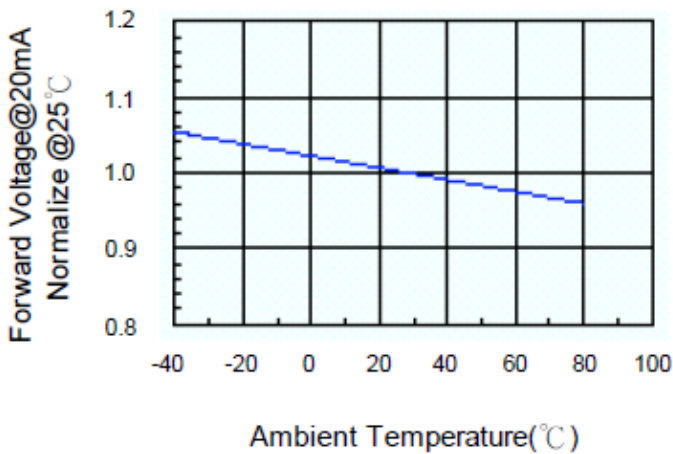
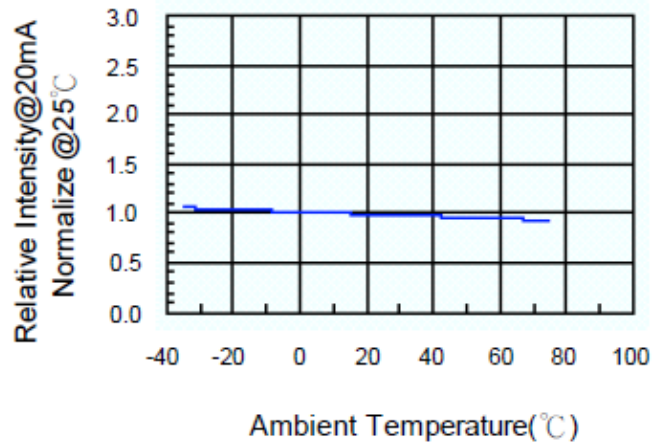


Fig.4 Relative Intensity vs. Temperature



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SOLDERING CONDITIONS – LAMP TYPE LED

SOLDERING CONDITION (Pb-Free)

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

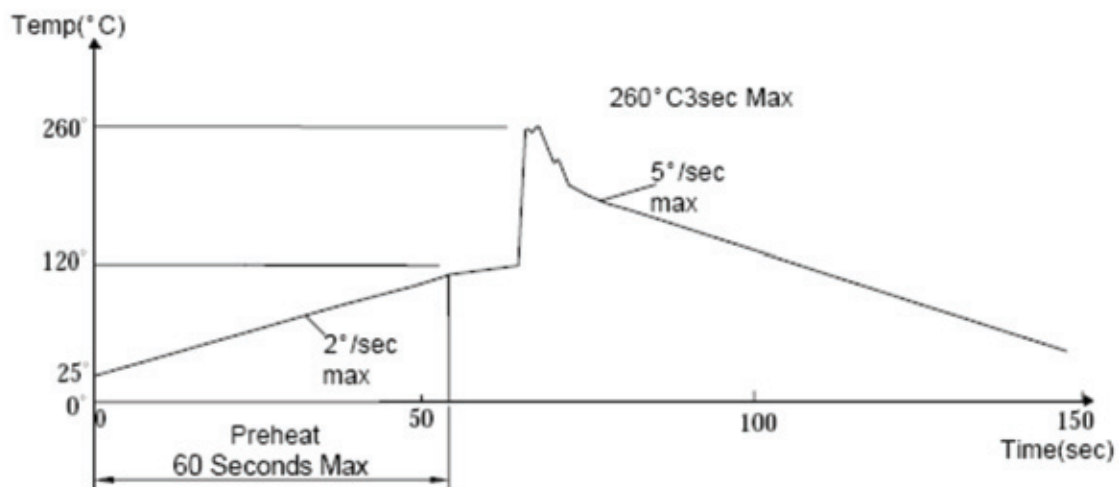
2°C/sec (Max)

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 one time.

2. You can only select one of the soldering conditions above.



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