



Opto Plus LED Corp.

OPL-3014WC-30

3 mm Dia LED Lamp

● EDIT HISTORY

Version A : Feb. 17, 2021

Preliminary Spec.



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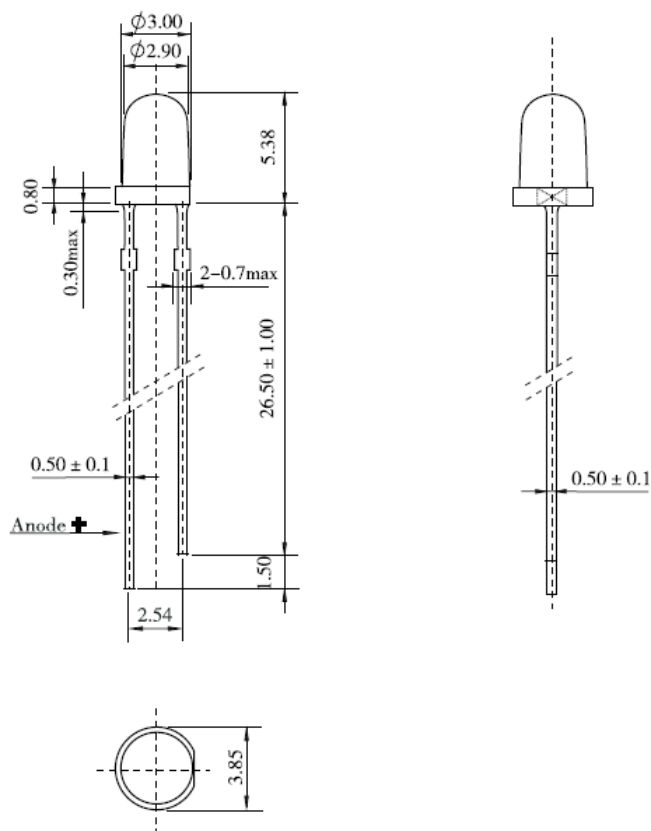
● FEATURES

- Low power consumption.
- High efficiency
- Round type
- With Flange
- Solder leads without stand-off
- Compliant with RoHs

● DESCRIPTION

- Chip Material : InGaN/GaN
- Emitting Color : Super White
- Lens Color : Water Clear

● PACKAGE DIMENSIONS





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NOTES: All dimensions are in millimeters. Tolerances are ± 0.25 mm unless otherwise noted.

● W: WHITE (InGaN/GaN)

ABSOLUTE MAXIMUM RATING AT Ta=25°C

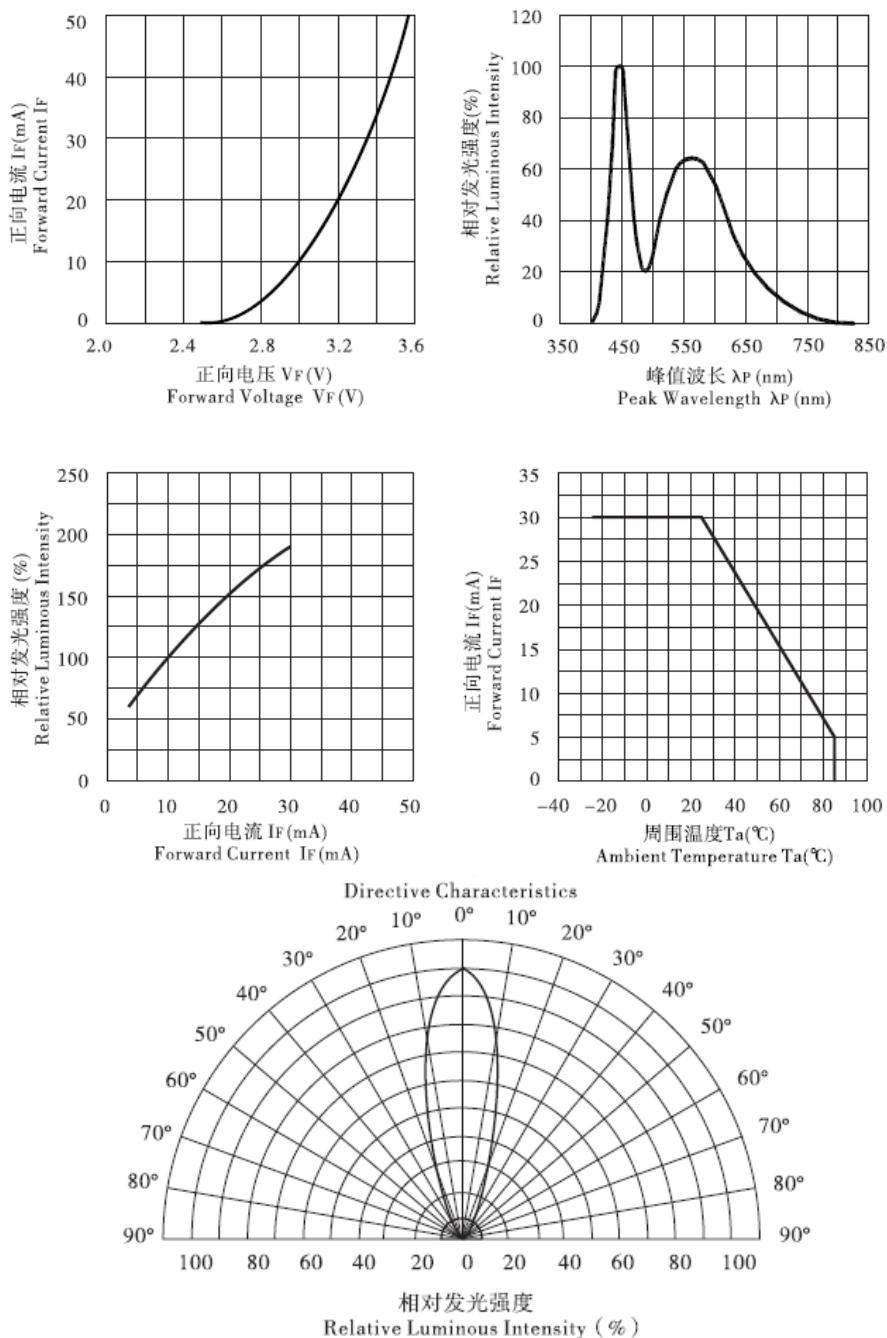
Parameter	Symbol	Maximum Rating	Unit
Power dissipation	P _{AD}	120	mW
Reverse voltage	V _R	5	V
Continuous forward current	I _{AF}	30	mA
Temperature coefficient	I/C	0.4	mA/°C
Pulse current	I _{PF}	100	mA
Operating temperature	T _{OPR}	-25 to +85	°C
Storage temperature	T _{STG}	-30 to +100	°C
Soldering Condition	T _{sd}	260°C/5set	°C

ELECTRICAL - OPTICAL CHARACTERISTICS AT Ta=25°C

Characteristic	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward voltage	V _F	I _F = 20mA	-	3.2	3.6	V
Reverse current	I _R	V _R = 5V	-	-	50	μA
Chromaticity coordinates (tolerance : ± 0.01)	λ_P	I _F = 20mA	X	0.28	-	nm
			Y	0.29	-	
Luminous intensity	I _V	I _F = 20mA	-	2800	-	mcd
Spectral radiation bandwidth	$\Delta\lambda$	I _F = 20mA	-	30	-	nm
Viewing Angle	2θ _{1/2}	I _F = 20mA	-	30	-	deg

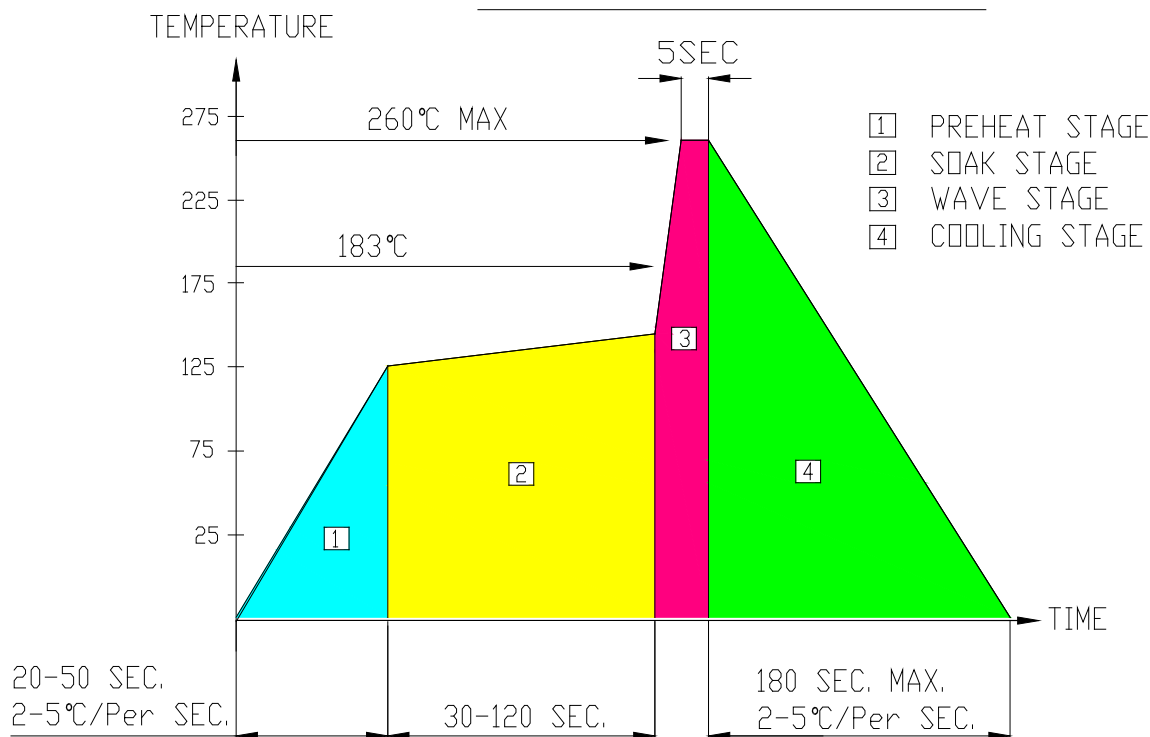
● W: WHITE (InGaN/GaN) CURVE

Typical Electro-optical Characteristic Curves
(25 °C Free Air Temperature Unless Otherwise Specified)



● RECOMMEND SOLDERING PROFILE

WAVE SOLDER PROFILE



● Note:

- Recommend pre-heat temperature of 105°C or less (as measured with a thermocouple attached to the LED pins) prior to immersion in the solder wave with a maximum solder bath temperature of 260°C
- Peak wave soldering temperature between 245°C ~ 225°C for 3 sec (5 sec max)
- No more than one wave soldering pass

● SOLDERING IRON

Basic spec is ≤ 4 sec when 260°C. If temperature is higher, time should be shorter (+10°C → 1 sec). Power dissipation of Iron should be smaller than 15W, and temperature should be controllable. Surface temperature of the device should be under 230°C.

● REWORK

Customer must finish rework within ≤ 3 sec under 350°C.
The head of soldering iron cannot touch copper foil.