



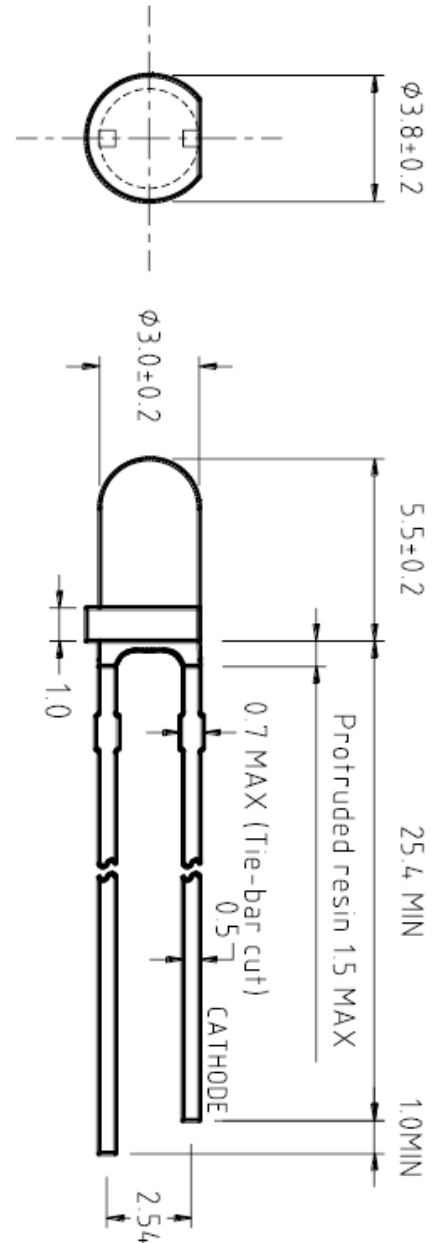
American Opto Plus LED Corp.

L314UBC-25D

3mm Blue LED Lamp

DESCRIPTION

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



FEATURES

- Emitted Color: Blue
- High Luminous Intensity
- Technology: InGaN
- Viewing Angle: 25°

NOTES:

1. All dimensions are in millimeters tolerance is ± 0.25 mm unless otherwise noted;

Part Number	Material	Lens Color	
		Emitted	Lens
L314UBC-25D	InGaN	Blue	Water Clear



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ABSOLUTE MAXIMUM RATINGS

(Ta=25°C)

Parameter	Symbol	Ratings	Unit
DC Forward Current	I_F	30	mA
Peak Pulsed Forward Current	I_{FP}	100	mA
Reverse Voltage	V_R	5	V
Power Dissipation	P_d	114	mW
Operating temperature range	T_{opr}	-30~+85	°C
Storage temperature range	T_{stg}	-40~+100	°C
Solder Dipping Temperature	T_{sld}	260°C for 5 sec	

OPTICAL-ELECTRICAL CHARACTERISTICS

(Ta=25°C)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Current	I_R	$V_R=5V$	--	--	50	μA
Forward Voltage	V_F	$I_F=20mA$	--	3.2	3.8	V
Luminous Intensity	I_v		2500	4000	7200	mcd
Dominant Wavelength	λ_d		460	470	480	nm
Peak Wavelength	λ_p		--	465	--	nm
Spectral Half Width	$\Delta\lambda_{1/2}$		--	20	--	nm

*Note: I_{FP} = Pulse Width \leq 10ms, Duty Ratio \leq 1/10



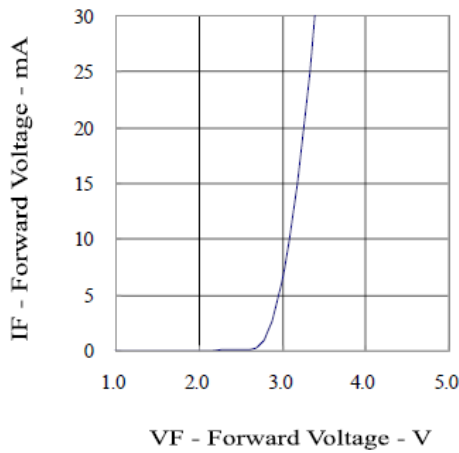
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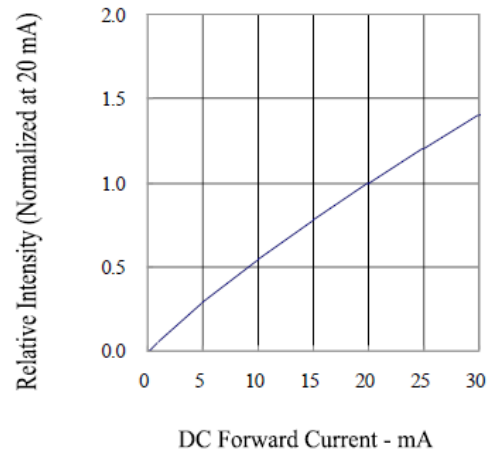
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TYPICAL ELECTRICAL-OPTICAL CHARACTERISTIC CURVES

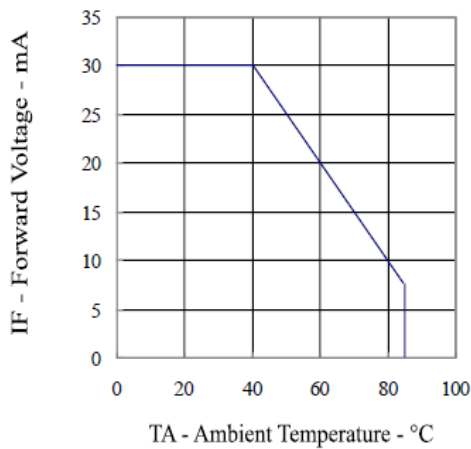
Forward Current vs. Forward Voltage



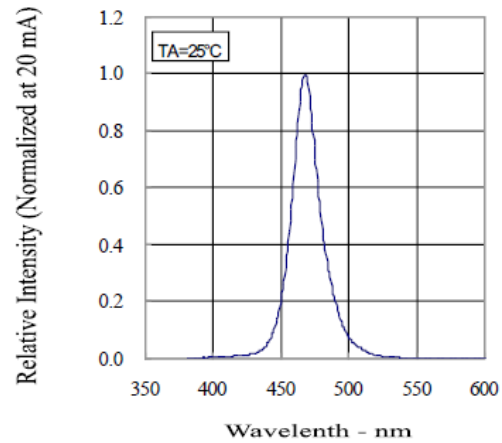
Relative Intensity vs. Forward Voltage



Forward Current vs. Ambient Temperature



Relative Intensity vs. Wavelength





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SOLDERING CONDITIONS – LAMP TYPE LED

- Solder the LED no closer than 3mm from the base of the epoxy bulb. Soldering beyond the base of the tie bar is recommended.
- Recommended soldering conditions.

Dip Soldering

Pre-Heat	100°C Max.
Pre-Heat Time	60 sec. Max.
Solder Bath Temperature	260°C Max.
Dipping Time	5 sec. Max.
Dipping Position	No lower than 3mm from the base of the epoxy bulb.

Hand Soldering

	3Ø Series	Others (Including Lead-Free Solder)
Temperature	300°C Max.	350°C Max.
Soldering time	3 sec. Max.	3 sec. Max.
Position	No closer than 3mm from the base of the epoxy bulb.	No closer than 3mm from the base of the epoxy bulb.

- Do not apply any stress to the lead, particularly when heated
- The LEDs must not be repositioned after soldering
- After soldering the LEDs, the epoxy bulb should be protected from mechanical shock or vibration until the LEDs return to room temperature.
- Direct soldering onto a PC board should be avoided. Mechanical stress to the resin may be caused by the PC board warping or from the clinching and cutting of the leadframes. When it is absolutely necessary, the LEDs may be mounted in this fashion, but the User will assume responsibility for any problems. Direct soldering should only be done after testing has confirmed that no damage, such as wire bond failure or resin deterioration, will occur. AOP's LEDs should not be soldered directly to double sided PC boards because the heat will deteriorate the epoxy resin.
- When it is necessary to clamp the LEDs to prevent soldering failure, it is important to minimize the mechanical stress on the LEDs.
- Cut the LED leadframes at room temperature. Cutting the leadframes at high temperatures may cause LED failure.