TOYOLED ELECTRONICS LIMITED
Unit 10-11, 19/F, Metro Loft, 38 KwaiHei Street, Kwai Chung, N.T., Hong Kong
Tel : (852) 2540 7288 Fax : (852) 2517 1797
http://www.toyo-led.com E-mail : sales@toyo-led.com

SPECIFICATION FOR CUSTOMER APPROVAL

P/N: TY-30UR2BL1W30-1000N

DATE : January 18, 2017

PREPARED BY : Chen you hui

CONFIRMED BY :

PLEASE CONFIRM & SIGN BACK THIS SHEET TO US

CUSTOMER: _____ **APPROVAL BY:** _____

(COMPANY CHOP) (SIGNATURE)

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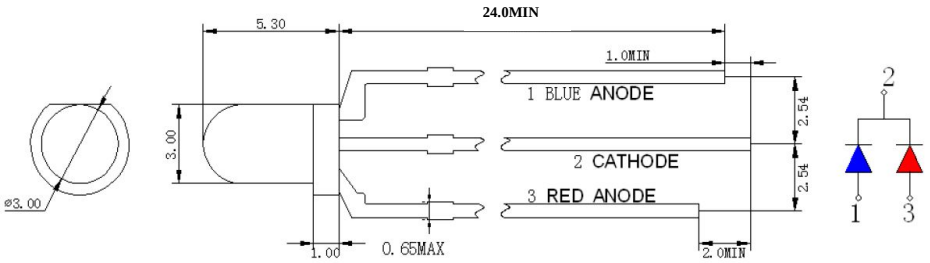
3mm Round Type LEDs Series

PACKAGE DIMENSION

Pb-free



Selection Guide

Part No.	Dice		Lens Color	Iv(mcd)(IF=20mA)			Viewing Angle
	Raw Material	Emitted Color		MIN	TYP	MAX	(2θ½)
TY-30UR2BL1W30-1000N	AlGaInP	Red	Water Clear	100	150	--	30°
	InGaN	Blue		300	500	--	30°

Absolute Maximum Ratings(Ta=25C°)

Item	Symbol	Maximum		Unit
Power Dissipation	PD	R	78	mW
		B	90	
Peak Forward Current (1/10 Duty Cycle 0.1ms Pulse Width)	IFP	R	90	mA
		B	100	
Continuous Forward Current	IFmax	R	30	mA
		B	25	
Reverse Voltage	VR	5		V
Electrostatic discharge	ESD	1000		V
Operating Temperature Range	Topr / Tstg	-40 to+85		
Storage Temperature Range	Topr / Tstg	-40 to+100		

Electrical / Optical Characteristics(Ta=25C°)

Item	Symbol	Min.		Typ.		Max.		Unit	Condition
		R	B	R	B	R	B		
Peak Wavelength	λp	-	-	640	468	-	-	nm	IF=20mA
Dominant Wavelength	λd	-	-	630	470	-	-	nm	IF=20mA
Spectral Line Coordinates	Δλ	-	-	20	30	-	-		IF=20mA
Forward Voltage	VF	-	-	2.0	3.0	2.6	3.6	V	IF=20mA
Reverse Current	IR	-	-	-	-	10	10	uA	VR=5V

NOTES:

1. All dimensions are in millimeter(inch);
2. Tolerance is ±0.25mm(0.01″) unless other specified; Luminous intensity tolerance is ±10%;
3. Dominant Emission Wavelength tolerance is ±1nm; Specifications are subject to change without notice.

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■ Typical Electro-Optical Characteristic Curve: RED

FIG. 1 Forward Current Vs. Forward Voltage

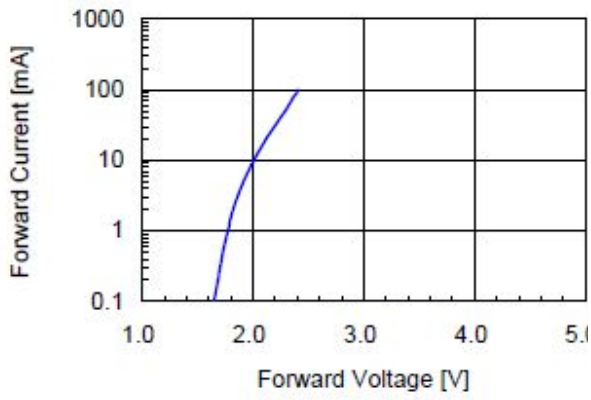


FIG.2 Relative Intensity Vs. Forward Current

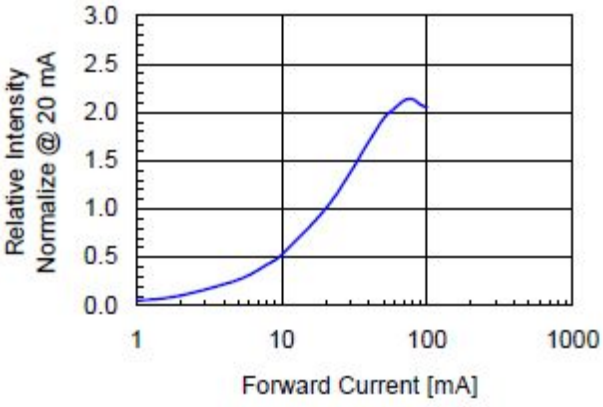


FIG. 3 Forward Voltage Vs. Temperature

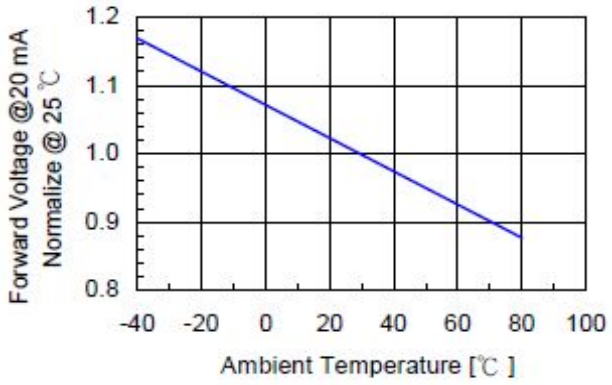


FIG. 4 Relative Intensity Vs. Temperature

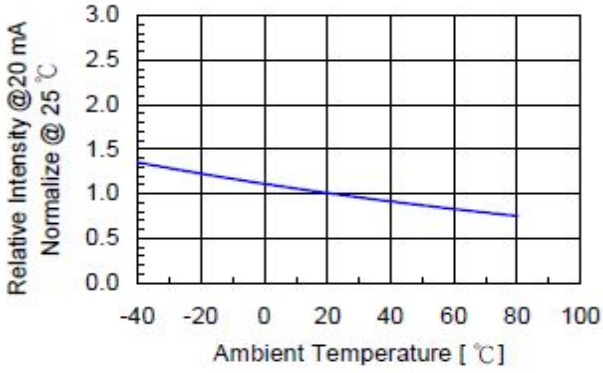
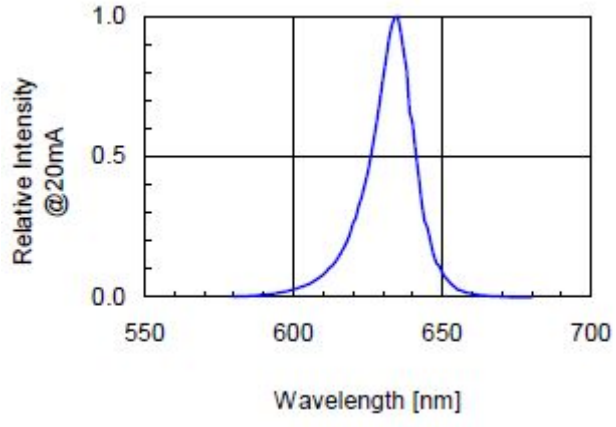


FIG. 5 Relative Intensity Vs. Wavelength



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■ Typical Electro-Optical Characteristic Curve: Blue

FIG. 1 Forward Current Vs. Forward Voltage

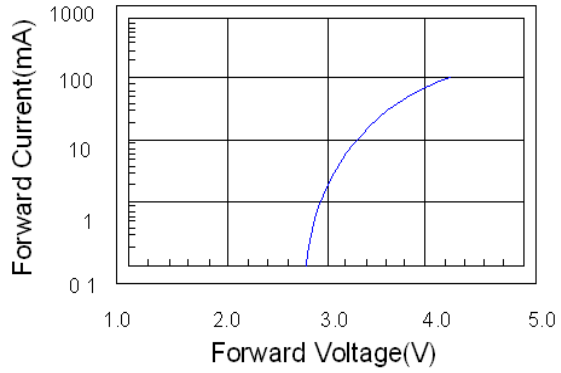


FIG. 2 Relative Intensity Vs. Forward Current

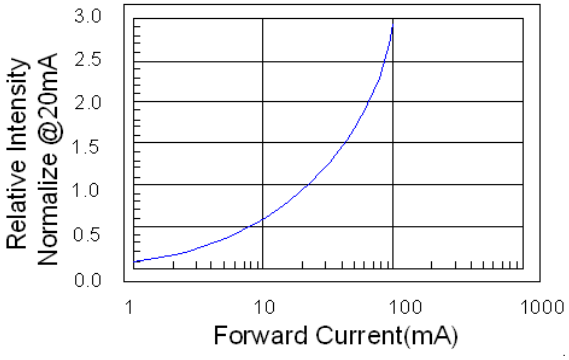


FIG. 3 Forward Voltage Vs. Temperature

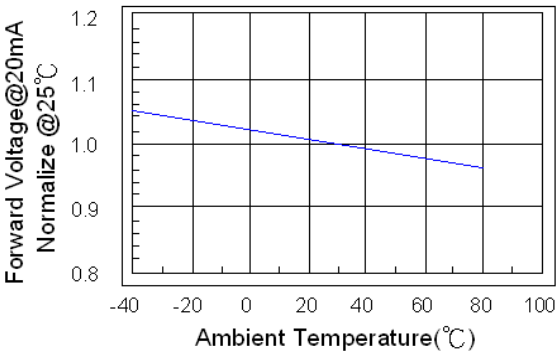


FIG. 4 Relative Intensity Vs. Temperature

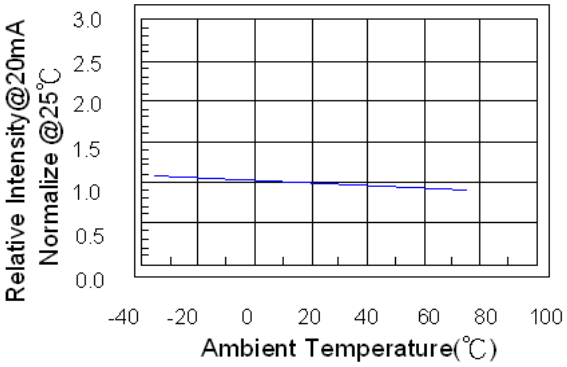
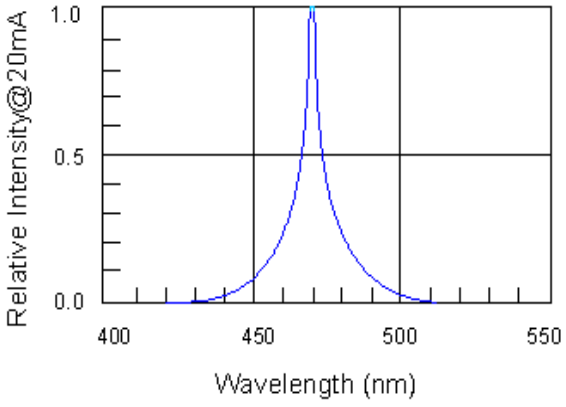


FIG. 5 Relative Intensity Vs. Wavelength



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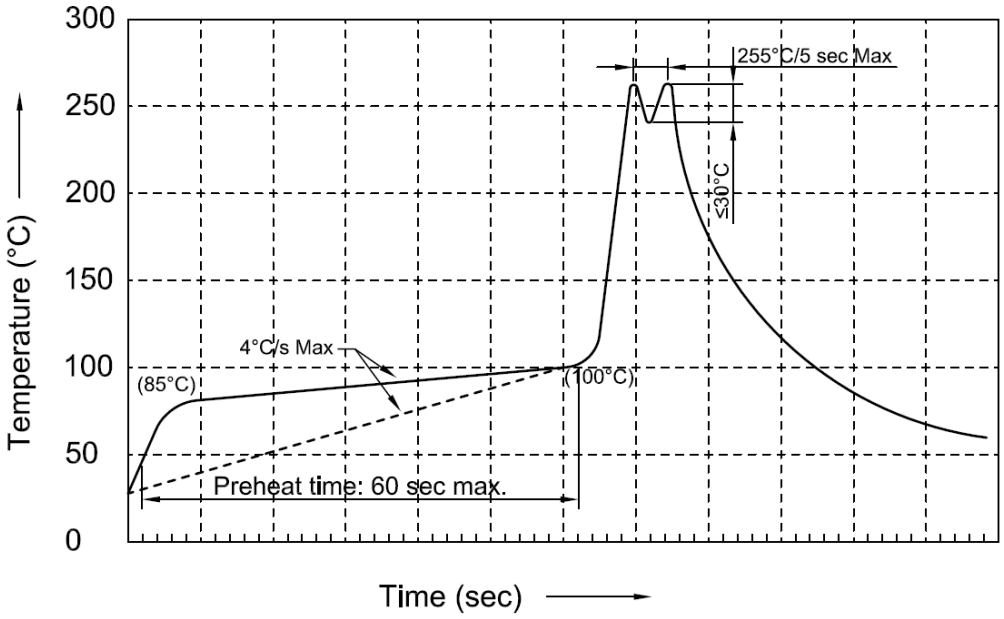
Recommended Wave Soldering Profiles:



Notes:

1. Recommend pre-heat temperature of 105℃ 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℃.
2. Peak wave soldering temperature between 245-255℃ for 3 sec (5 sec max).
3. Do not apply stress to the epoxy resin while the temperature is above 85℃.
4. Fixtures should not apply stress on the component when mounting and soldering process.
5. More than one wave soldering is not allowed.

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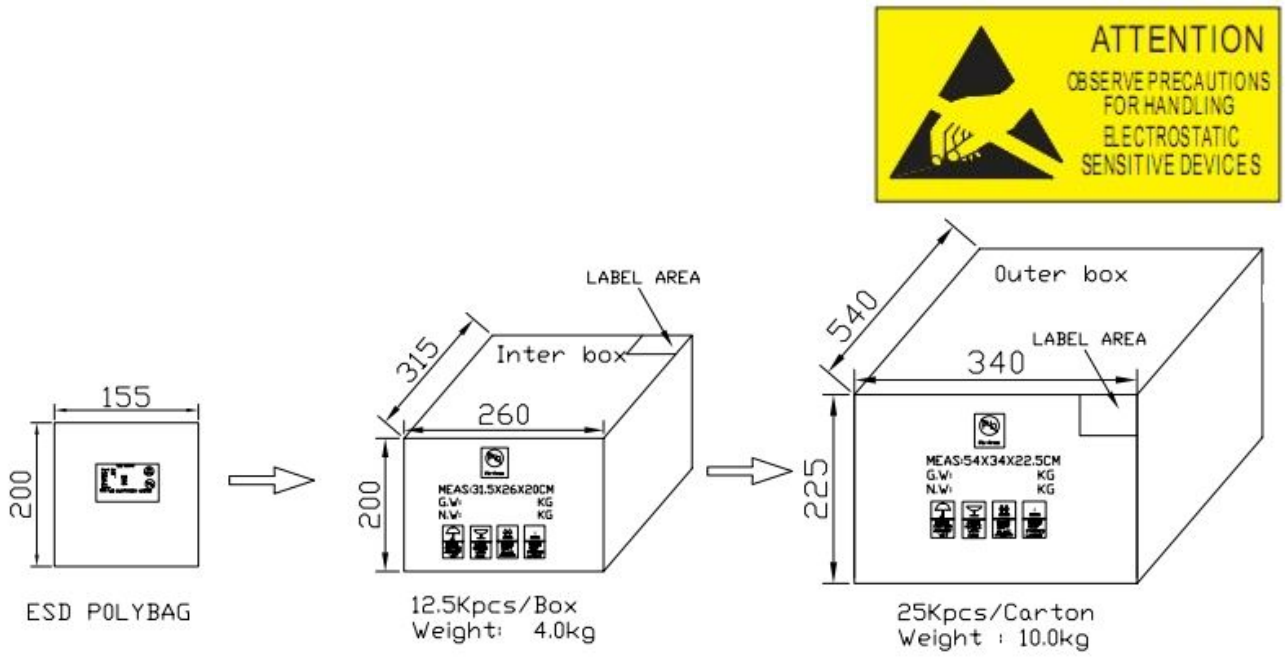
BULK & PACKING DIMENSIONS



erms and conditions for the usage of this document

1. The information included in this document reflects representative usage scenarios and intended for technical reference only.
2. The part number, type, and specifications mentioned in this document are subject to future change and improvement without notice. Before production usage customer should refer to the latest datasheet for the updated specifications.
3. When using the products referenced in this document, please make sure the product is being operated within the environmental and electrical limits specified in the datasheet. If customer usage exceeds the specified limits, TOYO will not be responsible for any subsequent issues.
4. The information in this document applies to typical usage in consumer electronics applications. If customer's application has special reliability requirements or have life-threatening liabilities, such as automotive or medical usage, please consult with TOYO representative for further assistance.

Notes:

1. All dimension are in millimeter;
2. Tolerance is ±0.25mm unless otherwise specified.
3. Not recommend to solder within 3mm from the resin.
4. Any kind of LEDs can be made in taped.

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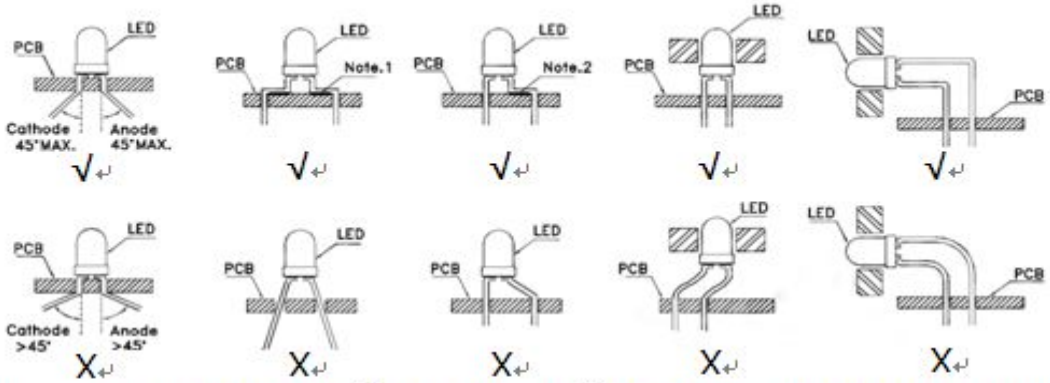
1.Storage conditions:

a. Prevent continued exposure to the condensing moisture environment and keep the product away from rapid transitions in ambient temperature.

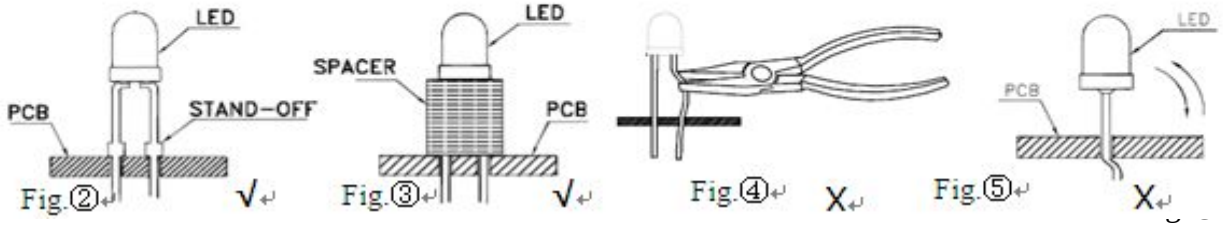
b. LEDs should be stored with temperature ≤30℃ and relative humidity ≤60%。

c. Product in the original sealed package is recommended to be assembled within 72 hours of opening. Product in opened package for more than a week should be baked for 30 (+10/-0) hours at 85-100℃.

2. The lead pitch of the LED must match the pitch of the mounting holes on the PCB during component. Lead-forming may be required to insure the lead pitch matches the pitch. Refer to the figure below for proper lead forming procedures. (Fig.①)



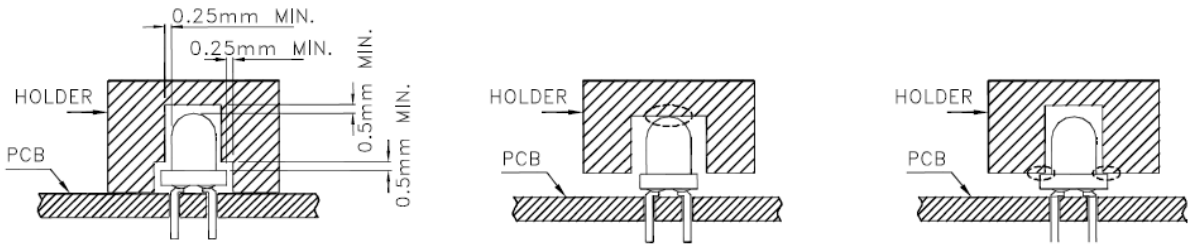
3. Fig.① Use stand-offs (fig.②) or spacers (fig.③) to securely position the LED above the PCB.



4. During lead forming, use tools or jigs to hold the leads securely so that the bending force will not be transmitted to the LED lens and its internal structures. Do not perform lead forming once the component has been mounted onto the PCB.(fig.④)

5. Do not bend the leads more than twice. (fig.⑤)

6. During soldering, component covers and holders should leave clearance to avoid placing damaging stress on the LED during soldering



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7. The tip of the soldering iron should never touch the lens epoxy.

8. Through-hole LEDs are incompatible with reflow soldering.

9. Cleaning:

a. At room temperature, cleaning should occur only with isopropyl alcohol for a duration of no more than one minute when necessary. Dry at room temperature before use.

b. Do not clean the LEDs by the ultrasonic. When it is absolutely necessary, the influence of ultrasonic cleaning on the LEDs depends on factors such ultrasonic power and the assembled condition. Ultrasonic cleaning shall be pre-qualified to ensure this will not cause damage to the LED.

10. Other:

a. Above specification may be changed without notice. TOYO will reserve authority on material change for above specification.

b. When using this product, please observe the absolute maximum ratings and the instructions for using outlined in these specification sheets. TOYO assumes no responsibility for any damage resulting from use of the product which does not comply with the absolute maximum ratings and the instructions included in these specification sheets.

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REVISION HISTORY

DATE	REVISION CONTENTS	VERSION
2017-01-18	NEW	A