



# TOYO LED ELECTRONICS LIMITED

Room 1610, Hong Kong Plaza, 188 Connaught Road West, Hong Kong.

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Fax : (852) 2517 1797  
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**P/N: TY-302UG4D120-40BTB**

3mm Round Type LEDs Series

# SPECIFICATION FOR CUSTOMER APPROVAL

**P/N: TY-302UG4D120-40BTB**

DATE : March 20, 2010

PREPARED BY : PETER SO

CONFIRMED BY : EVA CHENG

**PLEASE CONFIRM & SIGN BACK THIS SHEET TO US**

**CUSTOMER:** \_\_\_\_\_

(COMPANY CHOP)

**APPROVAL BY:** \_\_\_\_\_

(SIGNATURE)



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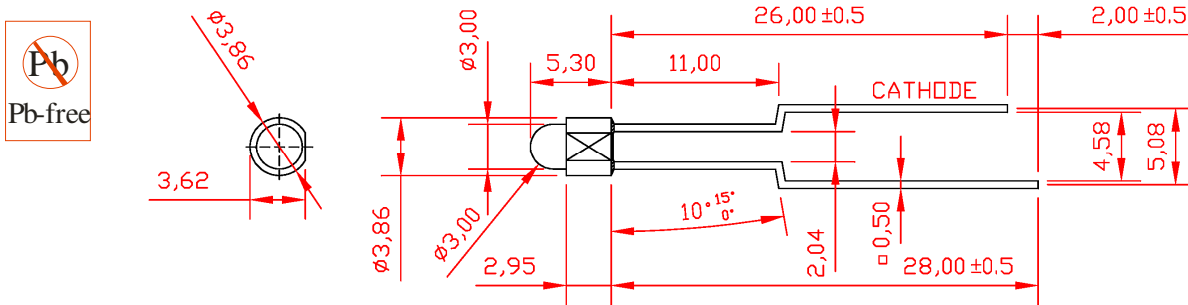
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## PACKAGE DIMENSION



### Selection Guide

Part No.	Dice		Lens Color	Iv(mcd)(IF=20mA)			Viewing Angle (20½°)
	Raw Material	Emitted Color		MIN	TYP.	MAX	
TY-302UG4D120-40BTB	AlGaInP	Ultra Yellow Green	Green Diffused	38	40	45	120°

### Absolute Maximum Ratings(Ta=25C°)

Item	Symbol	Maximum	Unit
Power Dissipation	PD	60	mW
Peak Forward Current (1/10 Duty Cycle 0.1ms Pulse Width)	IFP	140	mA
Continuous Forward Current	IFmax	25	mA
Reverse Voltage	VR	5	V
Capacitance	C	15	pF
Operating / Storage Temperature Range	Topt / Tstg	-40°C to +85°C	
Lead Solder Temperature	Tsol	260°C for 3 seconds	

### Electrical / Optical Characteristics(Ta=25C°)

Item	Symbol	Min.	Typ.	Max.	Unit	Condition
Peak Wavelength	λp	-	575	-	nm	IF=20mA
Dominant Wavelength	λd	569	570	572	nm	IF=20mA
Spectral Line Coordinates	Δλ	-	20	-		IF=20mA
Forward Voltage	VF	-	2.10	2.40	V	IF=20mA
Reverse Current	IR	-	-	10	uA	VR=5V

### NOTES:

- All dimensions are in millimeter(inch);
- Tolerance is ±0.25mm(0.01") especially other specified; Luminous intensity tolerance is ±10%;
- Dominant Emission Wavelength tolerance is ±5%; Specifications are subject to change without notice.



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## TYPICAL ELECTRO-OPTICAL CHARACTERISTIC CURVE

FIG. 1 Forward Current Vs. Forward Voltage

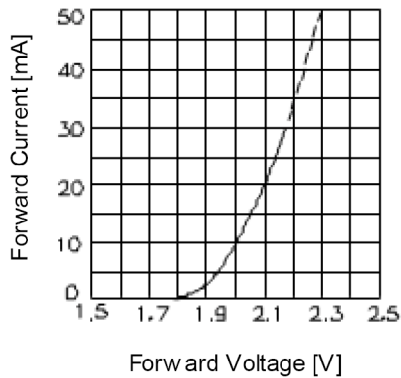


FIG. 2 Relative Intensity Vs. Forward Current

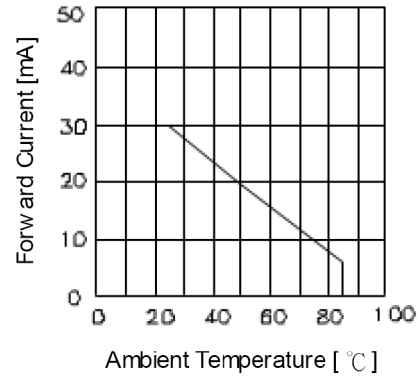


FIG. 3 Forward Voltage Vs. Temperature

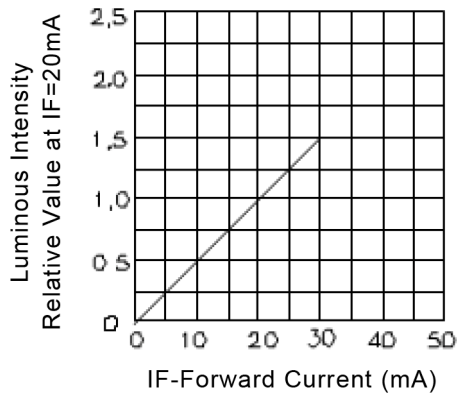


FIG. 4 Relative Intensity Vs. Temperature

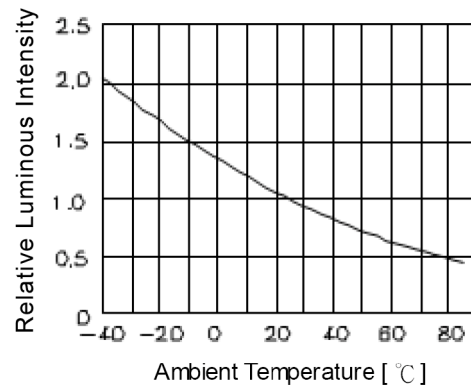
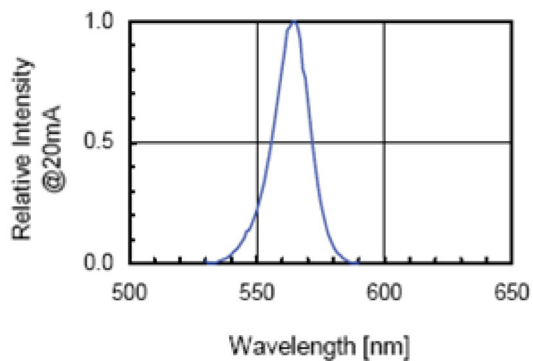


FIG. 5 Relative Intensity Vs. Wavelength





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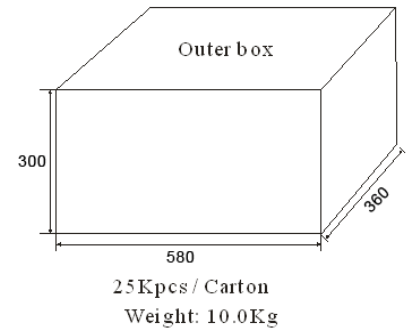
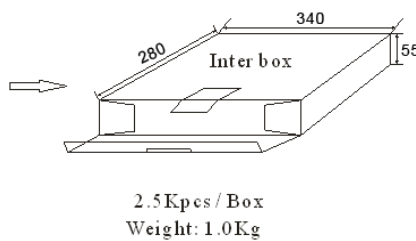
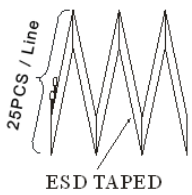
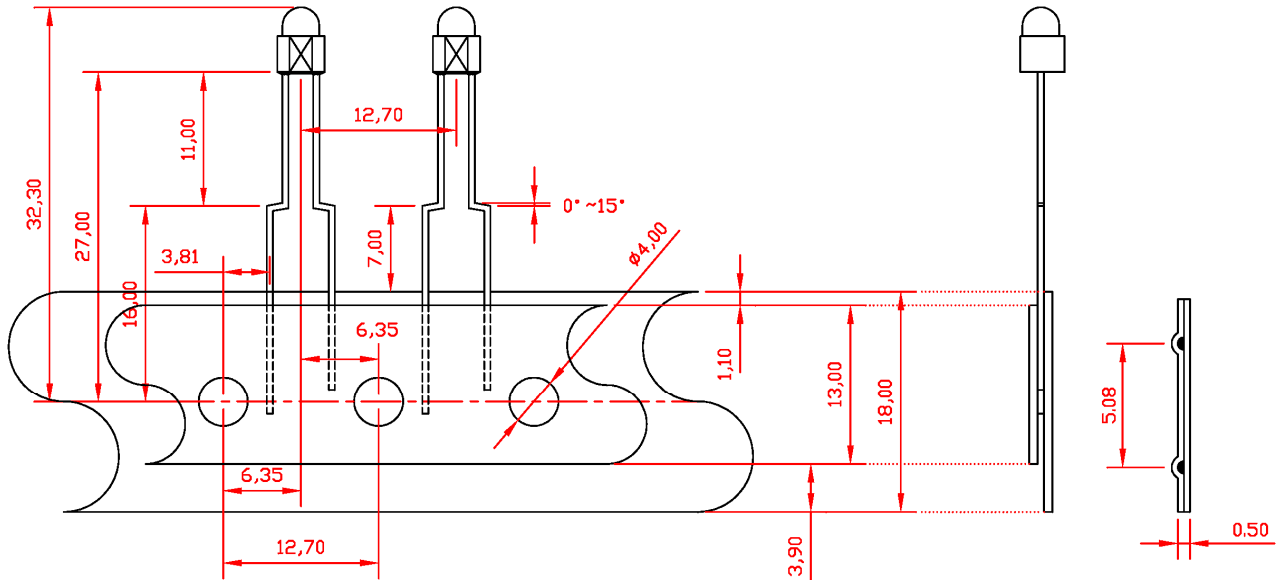
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### TAPED & PACKAGE DIMENSIONS



#### Notes:

1. All dimension are in millimeter (inches);
2. Tolerance is  $\pm 0.25\text{mm}$  ( $0.01''$ ) unless otherwise specified.
3. Not recommend to solder within 3mm from the resin.
4. Any kind of LEDs can be made in taped & reel.