



# TOYO LED ELECTRONICS LIMITED

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

Tel : (852) 2540 7288  
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Fax : (852) 2517 1797  
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**P/N: TY-30SUR1D60-30H4R**

3mm Round Type LEDs Series

# SPECIFICATION FOR CUSTOMER APPROVAL

**P/N: TY-30SUR1D60-30H4R**

DATE : February 17, 2014

PREPARED BY : Yanguoliang

CONFIRMED BY :

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

**CUSTOMER:** \_\_\_\_\_  
(COMPANY CHOP)

**APPROVAL BY:** \_\_\_\_\_  
(SIGNATURE)



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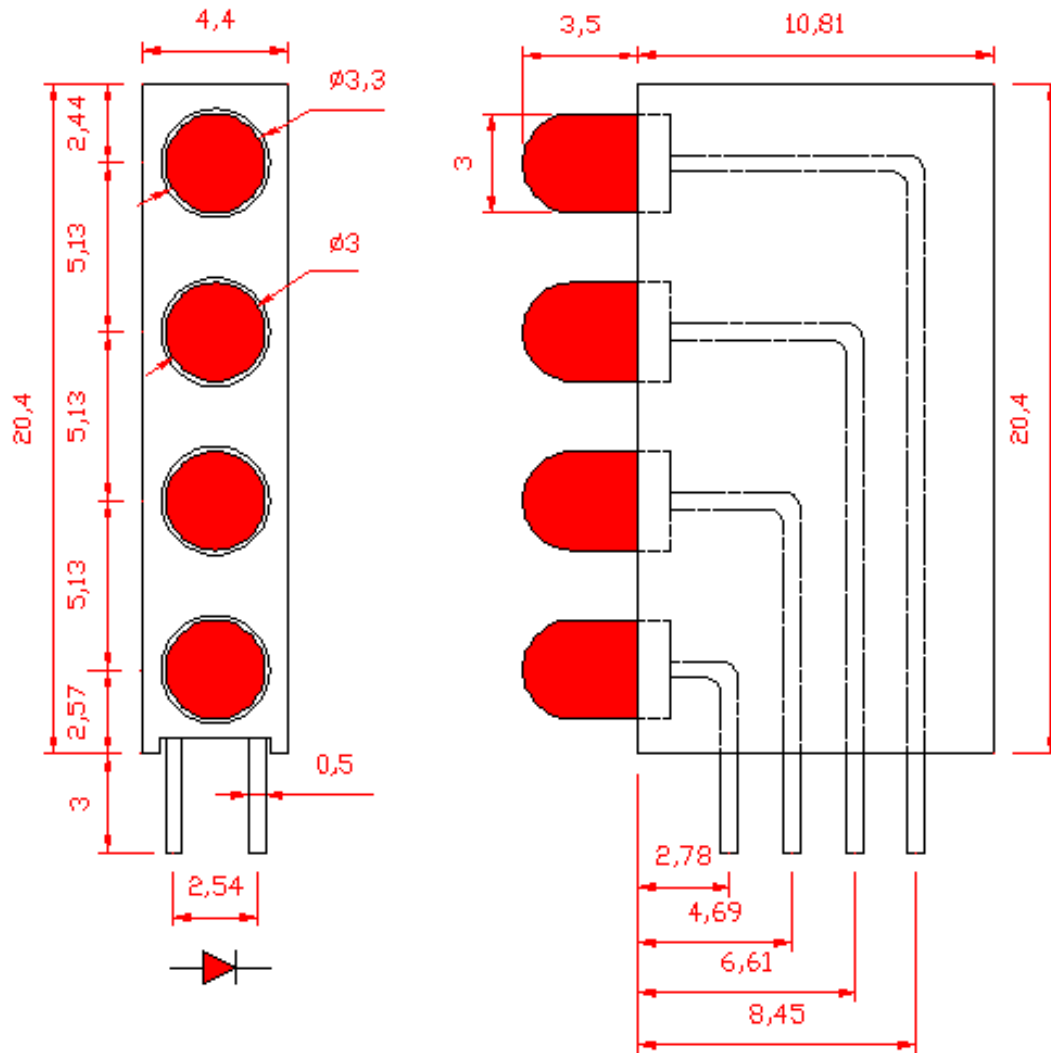
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## P/N: TY-30SUR1D60-30H4R

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### PACKAGE DIMENSION



#### NOTES:

1. All dimensions are in millimeter(inch);
2. Tolerance is  $\pm 0.25\text{mm}(0.01")$  unless other specified;
3. Specifications are subject to change without notice.



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### Selection Guide

Part No.	Chip:		Lens Color	Iv(mcd)(If=20mA)			Viewing Angle (2θ½)
	Raw Material	Emitted Color		MIN	TYP	MAX	
TY-30SUR1D60-30H4R	AlGaInP	Red	Red Diffused	20	30	-	60 °

### Absolute Maximum Ratings(Ta=25C °)

Item	Symbol	Maximum	Unit
Power Dissipation	PD	72	mW
Peak Forward Current (1/10 Duty Cycle 0.1ms Pulse Width)	IFP	90	mA
Continuous Forward Current	IFmax	30	mA
Reverse Voltage	VR	5	V
Capacitance	C	20	pF
Operating / Storage Temperature Range	Topr / 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	-	645	-	nm	IF=20mA
Dominant Wavelength	λd	625	631	645	nm	IF=20mA
Forward Voltage	VF	1.8	2.1	2.5	V	IF=20mA
Reverse Current	IR	-	-	10	uA	VR=5V

#### NOTES:

- 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

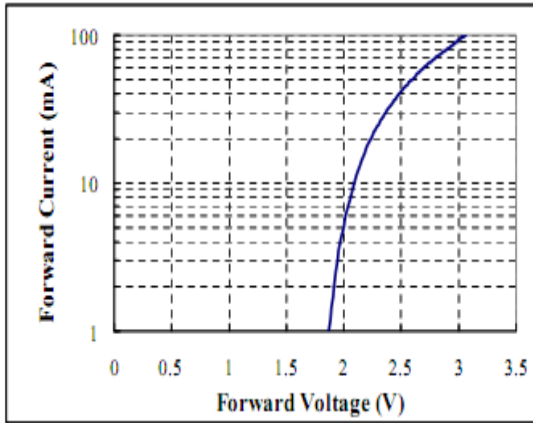


FIG. 2 Relative Intensity Vs. Forward Current

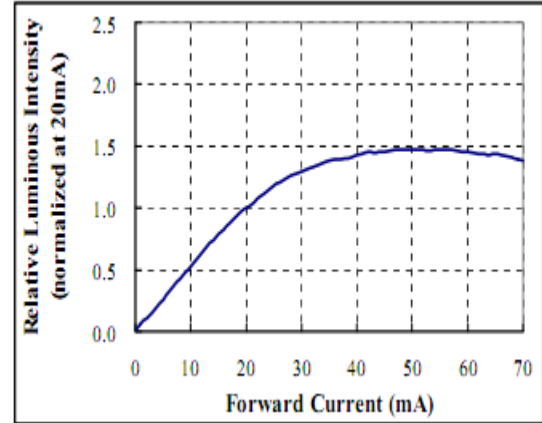


FIG. 3 Forward Voltage Vs. Temperature

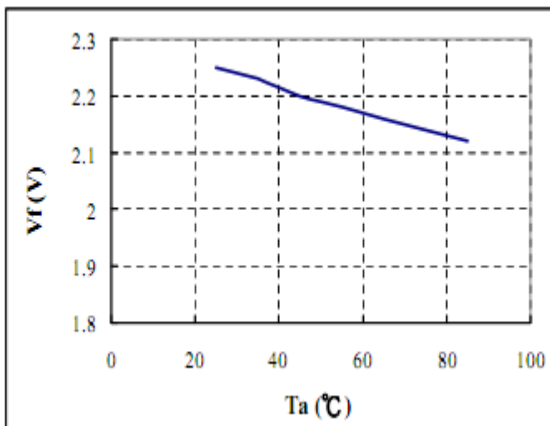


FIG. 4 Relative Intensity Vs. Temperature

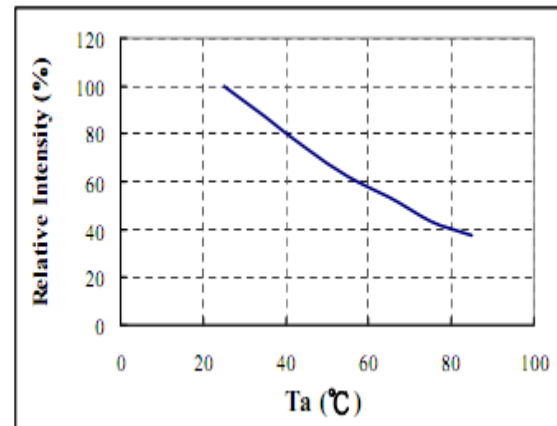
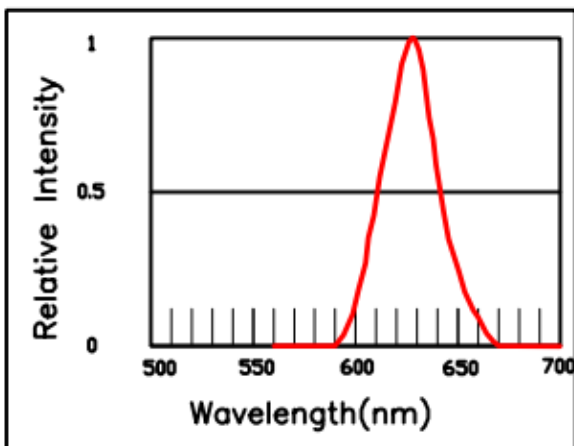


FIG. 5 Relative Intensity Vs. Wavelength





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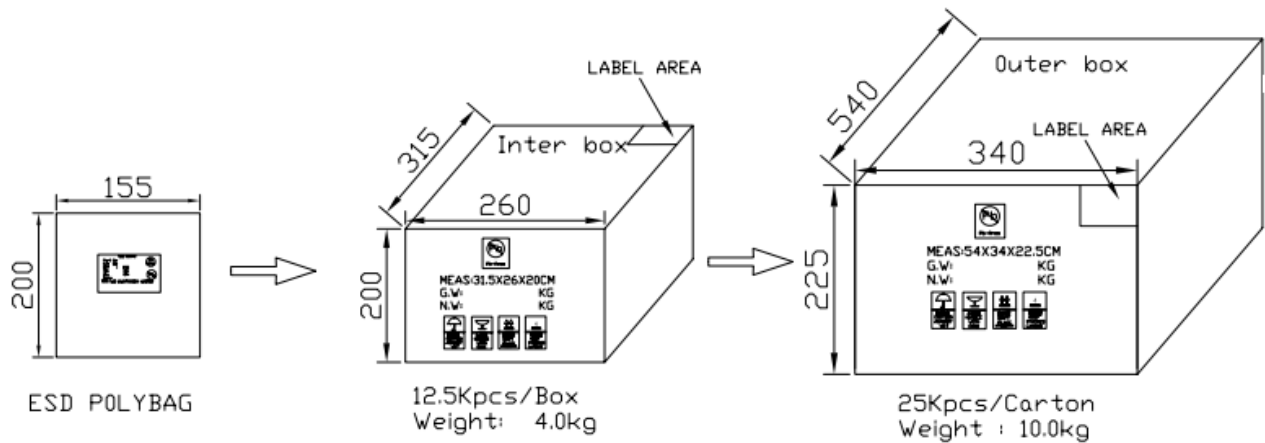
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## BULK & PACKING DIMENSIONS



### 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.