



TOYO LED ELECTRONICS LIMITED

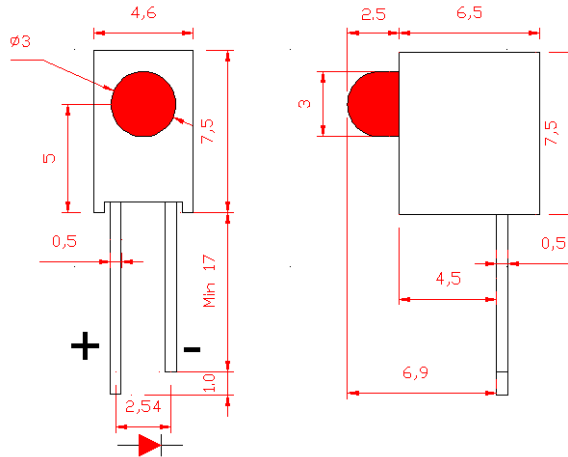
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P/N: TY-31SR1D60-20H2

3 mm Round Type LEDs Series

PACKAGE DIMENSION



Selection Guide

Part No.	Chip:		Lens Color	Iv(mcd)(IF=20mA)			Viewing Angle (2θ½)
	Raw Material	Emitted Color		MIN	TYP	MAX	
TY-31SR1D60-20H2	AlGaAs	Red	Red Diffused	10	20	-	60 °

Absolute Maximum Ratings(Ta=25C °)

Item	Symbol	Maximum	Unit
Power Dissipation	P _D	75	mW
Peak Forward Current (1/10 Duty Cycle 0.1ms Pulse Width)	I _{FP}	90	mA
Continuous Forward Current	I _{Fmax}	30	mA
Reverse Voltage	V _R	5	V
Capacitance	C	95	pF
Operating / Storage Temperature Range	T _{opr} / T _{stg}	-40 °C to +85 °C	
Lead Solder Temperature	T _{sol}	260 °C for 3 seconds	

Electrical / Optical Characteristics(Ta=25C °)

Item	Symbol	Min.	Typ.	Max.	Unit	Condition
Peak Wavelength	λ _p	-	660	-	nm	I _F =20mA
Dominant Wavelength	λ _d	630	640	650	nm	I _F =20mA
Forward Voltage	V _F	1.8	2.2	2.6	V	I _F =20mA
Reverse Current	I _R	-	-	10	uA	V _R =5V

NOTES:

- All dimensions are in millimeter;
- Tolerance is ±0.25mm, unless 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

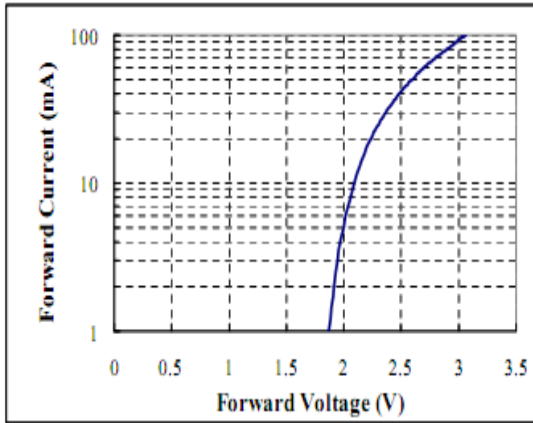


FIG. 2 Relative Intensity Vs. Forward Current

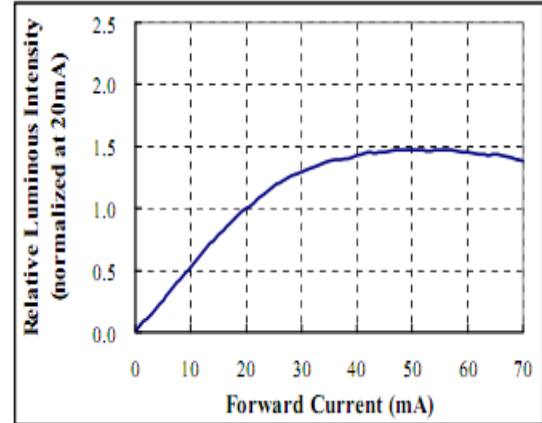


FIG. 3 Forward Voltage Vs. Temperature

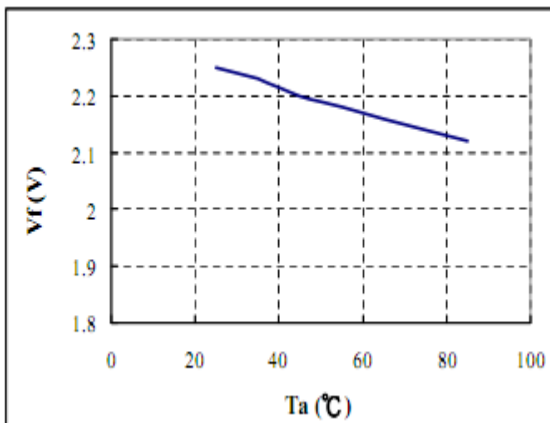


FIG. 4 Relative Intensity Vs. Temperature

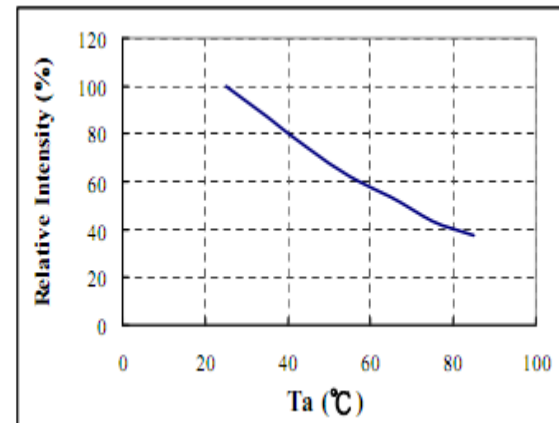
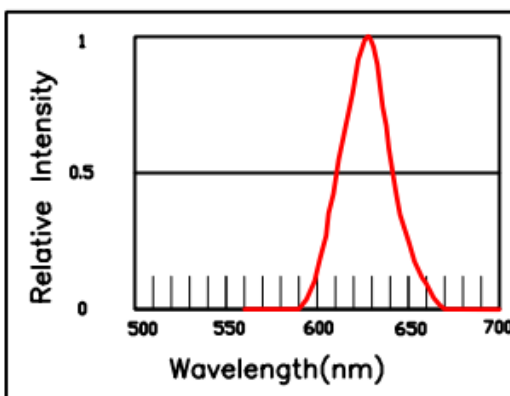


FIG. 5 Relative Intensity Vs. Wavelength





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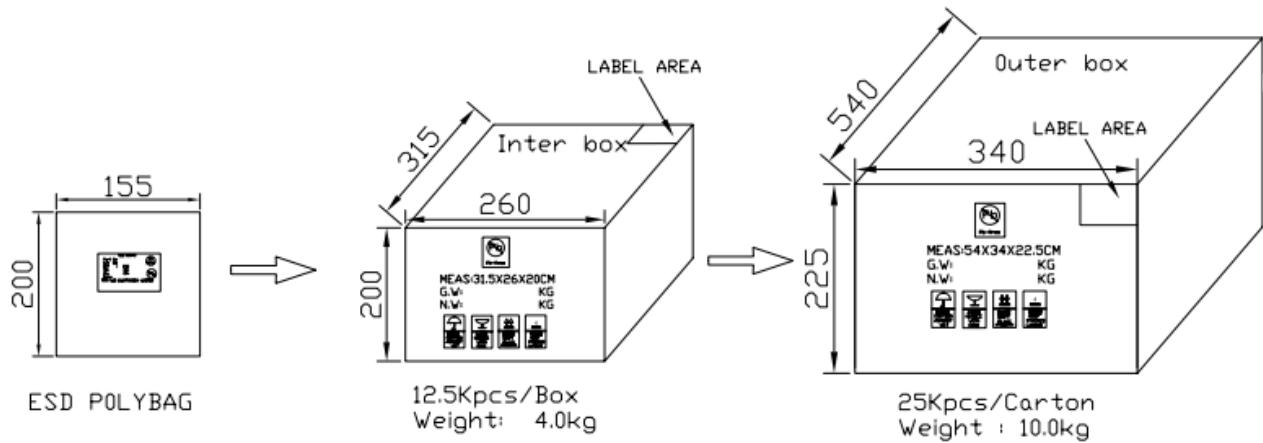
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BULK & PACKING DIMENSIONS



Notes:

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