



# TOYO LED 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



**P/N: TY-ZDSF7623URC1-2500**

# SPECIFICATION FOR CUSTOMER APPROVAL

**P/N: TY-ZDSF7623URC1-2500**

DATE : May 17, 2019

PREPARED BY : Steven

CONFIRMED BY :

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

**CUSTOMER:** \_\_\_\_\_ **APPROVAL BY:** \_\_\_\_\_  
(COMPANY CHOP) (SIGNATURE)

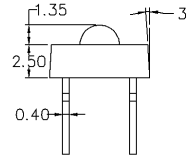
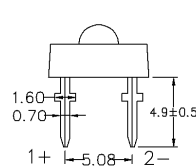
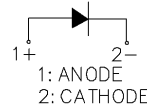
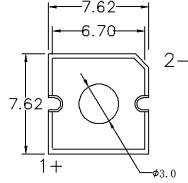


# TOYO LED ELECTRONICS LIMITED

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



## P/N: TY-ZDSF7623URC1-2500



### Selection Guide

Part No.	Dice		Lens Color	Iv(mcd)(IF=20mA)			Viewing Angle (20½)
	Raw Material	Emitted Color		MIN	TYP	MAX	
TY-ZDSF7623URC1-2500	AlGaInP	Red	Water Clear	2200	---	3700	90°

### 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	100	mA
Continuous Forward Current	IFmax	30	mA
Reverse Voltage	VR	5	V
Operating Temperature Range	Topr	-20°C to +75°C	
Storage Temperature Range	Tstg	-30°C to +80°C	
Lead Solder Temperature	Tsol	260°C for 5 seconds (3mm from the base of epoxy)	

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

Item	Symbol	Min.	Typ.	Max.	Unit	Condition
Forward Voltage	VF	1.8	---	2.4	V	IF=20mA
Dominant Wavelength	λd	620	---	630	nm	IF=20mA
Peak Wavelength	λp	---	632	---	nm	IF=20mA
Reverse Current	IR	---	---	10	uA	VR=5V

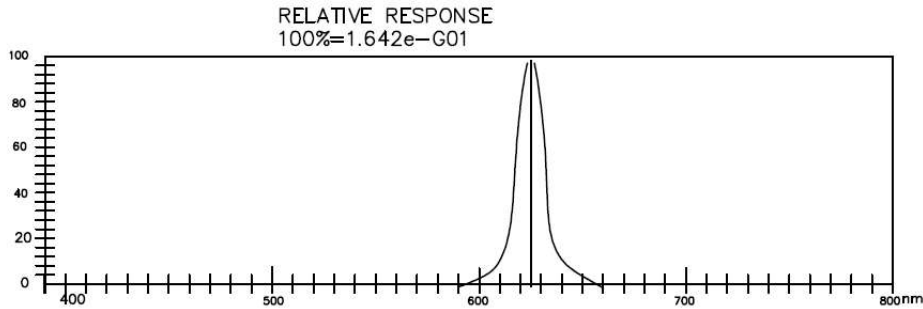
#### NOTES:

- All dimensions are in millimeter;
- Tolerance is ±0.25mm unless other specified; Luminous intensity tolerance is ±10%;
- Dominant Emission Wavelength tolerance is ±1nm; Specifications are subject to change without notice.

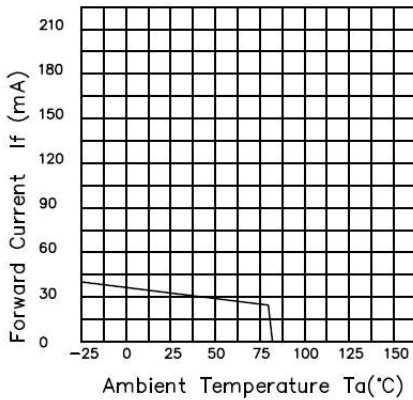


## P/N: TY-ZDSF7623URC1-2500

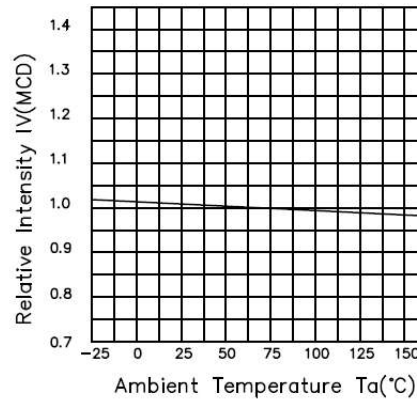
### ■ Typical Electro-Optical Characteristic Curve:



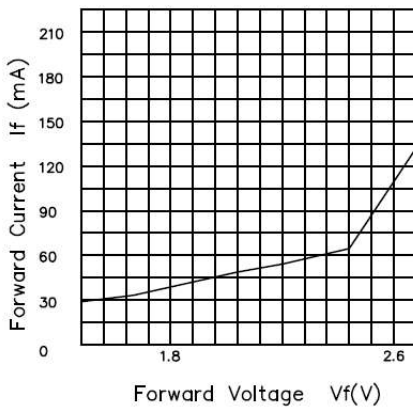
Forward Current vs. Ambient Temperature



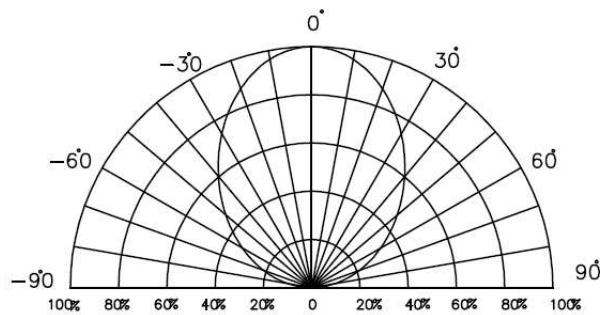
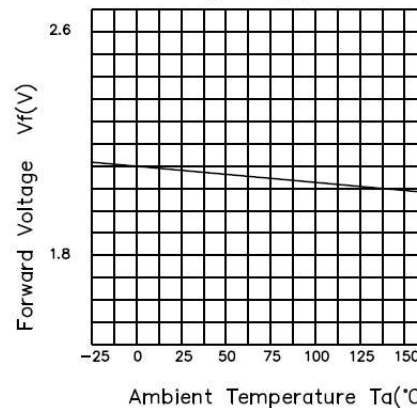
Relative Intensity vs. Ambient Temperature



Forward Current vs. Forward Voltage Vf(V)



Forward Voltage Vf(V). Ambient Temperature



Luminous Spectrum(Ta=25 °C) SPECTRAL RADIANCE



# TOYO LED 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



## P/N: TY-ZDSF7623URC1-2500

### Bin Range

#### 1. IV Ranks (If=20mA)

Bin Code	Bin21	Bin22
IV (MCD)	2200-2800	2800-3700

#### 2. VF Ranks (If=20mA)

Bin Code	Bin1	Bin2	Bin3
VF (V)	1.8-2.0	2.0-2.2	2.2-2.4

#### 3. λ D Ranks (If=20mA)

Bin Code	Bin1	Bin2	Bin3	Bin4
λ D (NM)	620-625	625-630	-	-

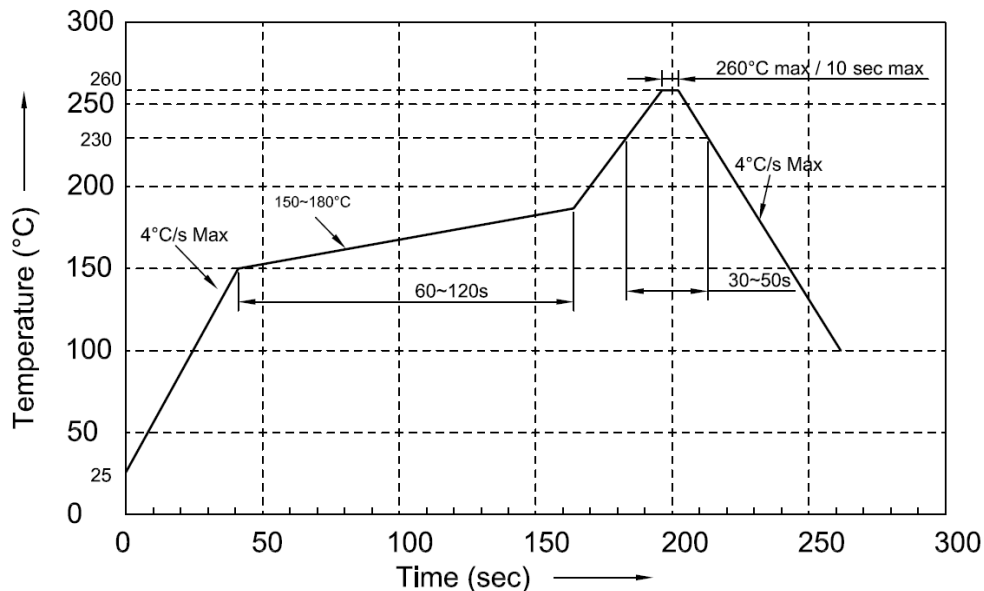


## P/N: TY-ZDSF7623URC1-2500

### ◇ Reliability Test Items And Conditions

NO.	Item	Test Condition	Test Hr/cycle/time	Sample Qty	Ac/Re
1	Reflow	TEMP:255±5°C;	3-10 sec	22pcs	0/1
2	High Temperature/HumidityStorage	TEMP: 85°C/ R.H.:85%	1000hrs	22pcs	0/1
3	Low Temperature Storage	TEMP:-40°C	1000hrs	22pcs	0/1
4	DC Operating Life	I <sub>f</sub> =150mA	1000hrs	22pcs	0/1
5	Temperature Cycle	100°C ± 5°C 30 min. ↑ ↓ 5 min -40°C ± 5°C 30 min.	100 Cycles	22pcs	0/1

### ◇ SMT Reflow Soldering Instructions



#### Notes:

1. We recommend the reflow temperature 245±5°C. The maximum soldering temperature should be limited to 260°C for 10s (max).
2. Don't cause stress to the epoxy resin while it is exposed to high temperature.
3. Number of reflow process shall be 2 times or less.



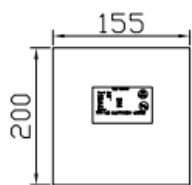
# TOYO LED ELECTRONICS LIMITED

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

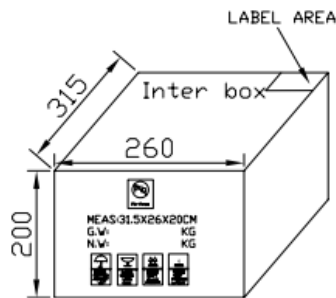


**P/N: TY-ZDSF7623URC1-2500**

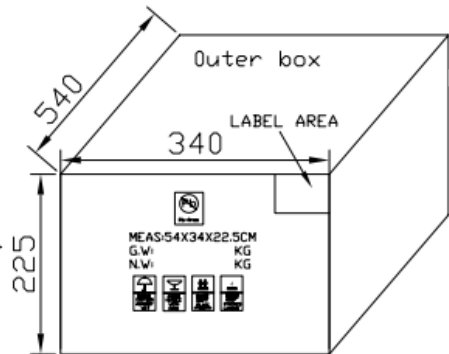
## BULK & PACKING DIMENSIONS



ESD POLYBAG



12.5Kpcs/Box  
Weight: 4.0kg



25Kpcs/Carton  
Weight : 10.0kg



# TOYO LED 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



**P/N: TY-ZDSF7623URC1-2500**

## REVISION HISTORY

DATE	REVISION CONTENTS	VERSION
2019-05-17	New	A