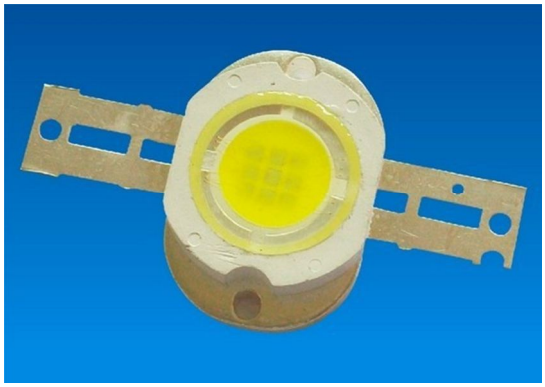
TOYO LED ELECTRONICS LIMITED

Room 1610, Hong Kong Plaza, 188 Connaught Road West, Hong Kong.
Tel : (852) 2540 7288 Fax : (852) 2517 1797
http://www.toyo-led.com E-mail : sales@toyo-led.com

P/N: TY-THP10PW

High Power LEDs Series

✧ Features:

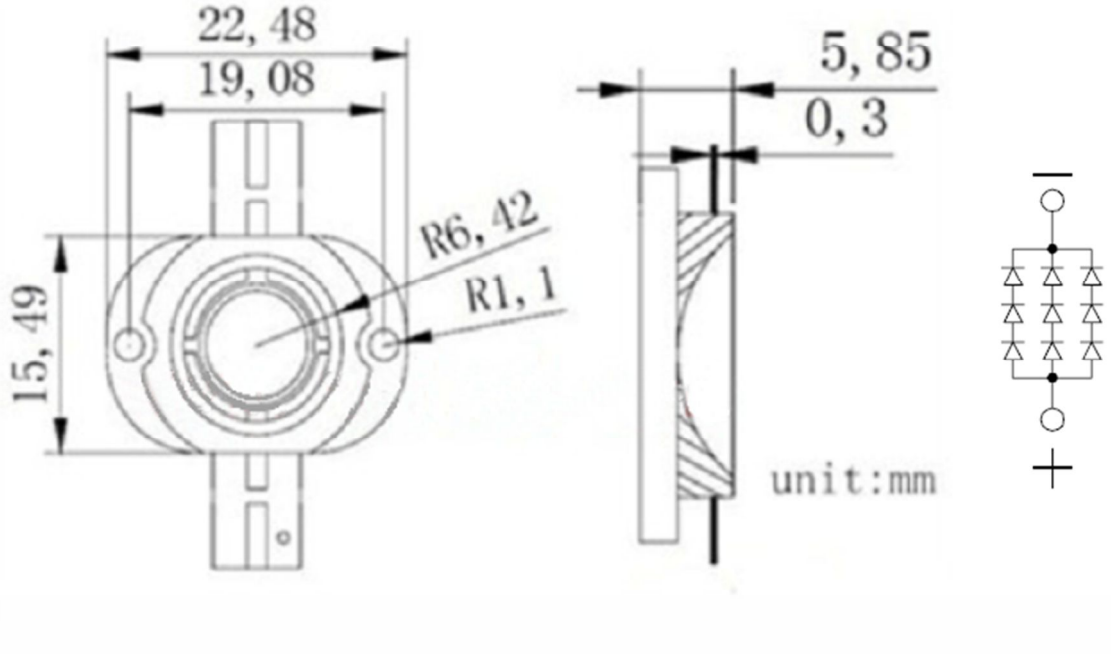


- 10W High Power LED
- Emitted color: Pure White
- Silica package
- Long operating life

✧ Application

- General lighting
- Architectural Lighting
- Decoration lighting
- Advertisement

✧ Package Dimensions



NOTES:

1. All dimensions are in millimeter[unit];
2. Tolerance is±0.25mm especially other specified;
3. Specifications are subject to change without notice.

TOYO LED ELECTRONICS LIMITED

Room 1610, Hong Kong Plaza, 188 Connaught Road West, Hong Kong.
Tel : (852) 2540 7288 Fax : (852) 2517 1797
http://www.toyo-led.com E-mail : sales@toyo-led.com

P/N: TY-THP10PW

High Power LEDs Series

Part No.	Chip Material	Emitted Color	Lens Color
TY-THP10PW	InGaN	Pure White	Yellow Diffused

✧ Absolute Maximum Ratings(Ta=25℃)

Item	Symbol	Maximum	Unit
Power Dissipation	PD	10.7	W
Continuous Forward Current	I_{Fmax}	1050	mA
Peak Forward Current(1/10 Duty Cycle 0.1ms Pulse Width)	I_{FP}	2000	mA
Reverse Voltage	V_R	5	V
Operating Temperature Range	T_{opr}	-30 to+85	℃
Storage Temperature Range	T_{stg}	-40 to+100	℃
Manual Solding Temperature	Tsol	Max. 300ºC for 5sec Max.	

✧ Electrical/Optical Characteristics(Ta=25℃)

Item	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	VF	IF=1050mA	--	10.2	--	V
Luminous Flux	Φ	IF=1050mA	1000	--	1100	lm
Color Temperature	CCT	IF=1050mA	6500	---	7500	K
Viewing Angle	2θ 1/2	IF=1050mA	---	140	---	Deg
Color Rendering Index	CRI	IF=1050mA	70	---	---	Ra
Reverse Current	IR	VR=5V	---	--	50	uA

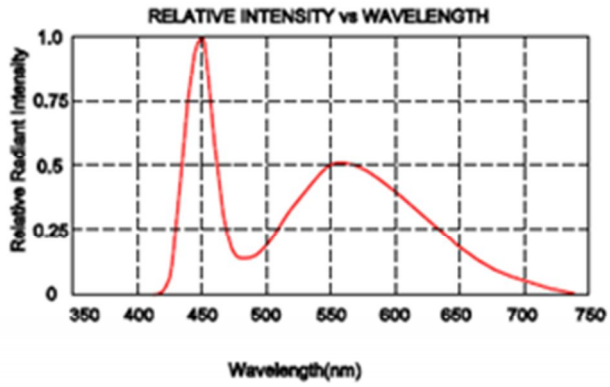
TOYO LED ELECTRONICS LIMITED

Room 1610, Hong Kong Plaza, 188 Connaught Road West, Hong Kong.
Tel : (852) 2540 7288 Fax : (852) 2517 1797
http://www.toyo-led.com E-mail : sales@toyo-led.com

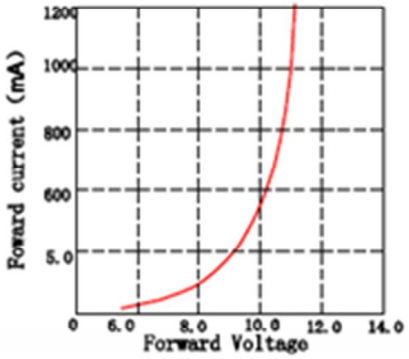
P/N: TY-THP10PW

✧ Typical Electro-Optical Characteristic Curve

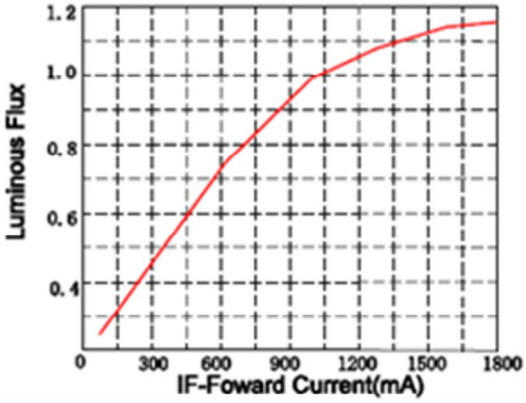
■ Spectrum Distribution



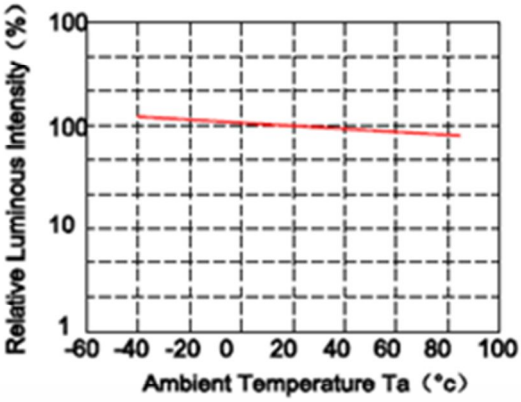
■ Foward current-Forward Voltage



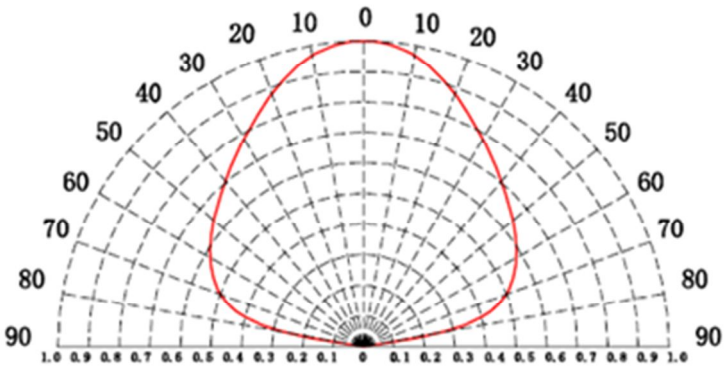
■ Luminous Flux VS Foward Current



■ Relative Luminous Intensity VS Ambient Temperature



■ Radiation Pattern



TOYO LED ELECTRONICS LIMITED
Room 1610, Hong Kong Plaza, 188 Connaught Road West, Hong Kong.
Tel : (852) 2540 7288 Fax : (852) 2517 1797
http://www.toyo-led.com E-mail : sales@toyo-led.com

P/N: TY-THP10PW

✧ Packing:

■ Tray Packing

16pcs/tray

✧ Cautions：

The LED's are devices which are materialized by combining Blue LED's and special phosphors. Consequently the color of the LED's is changed a little by an operating current . Care should be taken after due consideration when using LED's.

(1) Moisture Proof Package:

When moisture is absorbed into the SMT package it may vaporize and expand during soldering .There is a possibility that this can cause exfoliation of the contacts and damage to the optical Characteristics of the LED's . For this reason , the moisture proof package is used to keep Moisture to a minimum in the package.

(2) Storage

Storage Conditions

Before opening the package:

The LED's should be kept at 30℃ or less and 60%RH or less. The LED's should be used With in a year. When storing the LED's. moisture proof packaging with absorbent material (silica gel)is recommended.

After opening the package:

The LED's should be kept at 30℃ or less and 50%RH or less. The LED's should be soldered Within 168 hours (7days) after opening the package . If unused LED's remain, they should be Stored in moisture proof packages, such as sealed containers with packages of moisture Absorbent material (silica gel).It is also recommended to return the LED's to the original moisture proof bag and to reseal the moisture proof bag again.

If the moisture absorbent material (silica gel) has faded away or the LED's have exceeded the storage time , baking treatment should be performed using the following conditions. Baking treatment : more than 48 hours at 60±5℃ / 10h~12h (Humidity in accordance with the different environments)

(3) Heat Generation

Thermal design of the end product is of paramount importance. Please consider the heat generation of the LED when making the system design. The coefficient of temperature increase per input electric power is affected by the thermal resistance of the circuit board and density of LED placement on the board ,as well as other components.

The operating current should be decided after considering the ambient maximum temperature of LED's

（4）Cleaning

It is recommended that Ethanol alcohol be used as a solvent for cleaning the LED 's. when using other solvents, it should be confirmed beforehand whether the solvents will dissolve The package and the resin or not . Freon solvents should not be used to clean the LED's because of worldwide regulations.

(5) Static Electricity

Static electricity or surge voltage damages the LED's .

It is recommended that a wrist band or an anti-electrostatic glove be used when handling the LED's.

All devices ,equipment and machinery must be properly grounded. It is recommended That measures be taken against surge voltage to the equipment that mounts the LED's .

When Inspecting the final products in which LED's were assembled, It is recommended to check. Whether the assembled LED's are damaged by static electricity or not . It is easy to find Static-damaged LED's by a light –on test or a VF test at a lower current (below 20 mA is recommended).

Damaged LED's will show some unusual characteristics such as the leak current Remarkably increases, the forward voltage becomes lower , or the LED's do not light at the low Current.

(6) Others

Care must be taken to ensure that the reverse voltage will not exceed the absolute maximum rating when using the LED's with matrix drive.

The LED light output is strong enough to injure human eyes .Precautions must be taken to prevent looking directly at the LED's with unaided eyes for more than a few seconds.

The LED's described in this brochure are intended to be used for ordinary electronic equipment（Street Lights 、Tunnel Lights 、Flashlight lamp 、miner's lamp and more) The maximum ambient temperature should be taken into consideration when determining the operating current.

User shall not reverse engineer by disassembling or analysis of the LED's when defective LED's are found ,the User shall inform .

The appearance and specifications of the product may be modified for improvement without Notice.

TOYO LED ELECTRONICS LIMITED

Room 1610, Hong Kong Plaza, 188 Connaught Road West, Hong Kong.
Tel : (852) 2540 7288 Fax : (852) 2517 1797
http://www.toyo-led.com E-mail : sales@toyo-led.com

P/N: TY-THP10PW

REVISION HISTORY

DATE	REVISION CONTENTS	VERSION
2016-06-30	New	A