



# TOYO LED ELECTRONICS LIMITED

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

Tel: (852) 2540 7288

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<http://www.toyo-led.com>

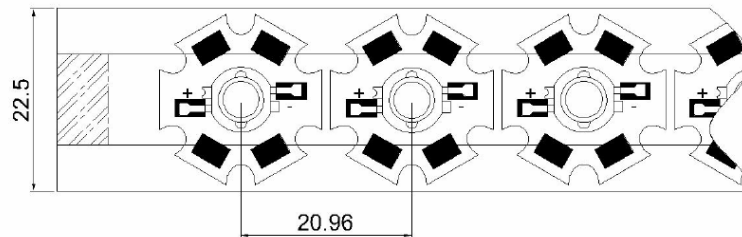
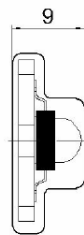
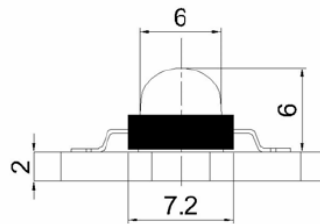
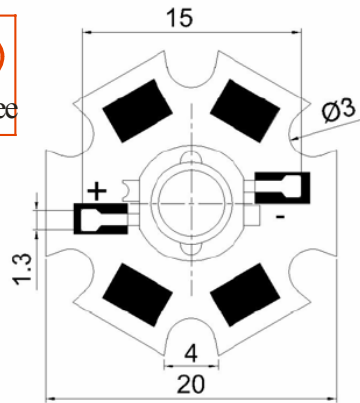
[email: sales@toyo-led.com](mailto:sales@toyo-led.com)



**P/N: TY-HP5PW-S**

High Power Series

## PACKAGE DIMENSION



### ◆ Features

1. Long operating life (up to 100k hours)
2. Highest flux per family in the world
3. Wide range of colors: 2500K~25000K
4. Lambertian radiation pattern
5. More energy efficient than incandescent and most halogen lamps
6. Low voltage DC operated
7. Cool beam, safe to touch
8. Fully dimmable
9. No UV
10. Superior ESD protection
11. Lower Rth
12. Instant light (less than 100ns)
13. RoHS compliant

### ◆ Applications

1. Reading lights (cars, buses & aircraft)
2. Portable (flashlight, bicycle)
3. Orientation
4. Mini-accent
5. Decorative
6. Fiber optic alternative
7. Appliance
8. Sign and channel letter
9. Architectural detail
10. Cove lighting
11. Edge-lit signs (Exit, point of sale)
12. Automotive Exit (Stop-Tail-Turn, CHMSL, Mirror Side Repeat)

### NOTES:

1. All dimensions are in millimeters;
2. Tolerance is  $\pm 0.20\text{mm}$  especially other specified;
3. 20pcs / Tube.



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✧ **Absolute Maximum Ratings(Ta=25C°)**

Item	Symbol	Maximum	Unit
Forward Current	I <sub>F</sub>	1.2	A
Peak Forward Current*	I <sub>FP</sub>	1.3	A
Reverse Voltage	V <sub>R</sub>	5	V
Power Dissipation	P <sub>D</sub>	5	W
Electrostatic Discharge	ESD	±500	V
Operating Temperature Range	T <sub>OPR</sub>	-40 ~ +80	°C
Storage Temperature Range	T <sub>STG</sub>	-40 ~ +100	°C
Lead Soldering Temperature**	T <sub>SOL</sub>	Max. 260°C for 3sec Max.	

\*IFP Conditions: Pulse Width≤10msec duty≤1/10

\*\*Our MCPCB is usual use for installation and connection during application, but the ability of heat dissipation is not enough. If lighted, our high power stars will need better another type heat dissipation equipment. So we recommend the working time is not over 5~10 seconds without any heat dissipation equipment.

\*\*Re-flow, wave peak and soak-stannum soldering etc. is not suitable for this products.

\*\*Suggest to solder it by professional high power LED soldering machine.

✧ **Electrical / Optical Characteristics(Ta=25C°)**

Item	Symbol	Min.	Typ.	Max.	Unit	Condition
Forward Voltage	V <sub>F</sub>	3.2	3.6	4.0	V	I <sub>F</sub> =1.2A
Reverse Current	I <sub>R</sub>	--	--	50	uA	V <sub>R</sub> =5V
50% Power Angle	2θ <sub>1/2</sub>	110	--	140	deg	I <sub>F</sub> =1.2A
Luminous Intensity	Φ <sub>V</sub>	150	--	210	lm	I <sub>F</sub> =1.2A
Recommend Forward Current	I <sub>F</sub>	--	1.2	--	A	--
Chromaticity	T <sub>c</sub>	5000	--	10000	K	I <sub>F</sub> =1.2A
Thermal Resistance, Junction to Case	R <sub>JP</sub>	--	18	--	°C/w	I <sub>F</sub> =1.2A

Notes:

1. Torlerance of measurement of fowward voltage ±0.1V.
2. Torlerance of measurement of peak wavelength ±2.0nm.
3. Torlerance of measurement of luminous intensity ±15%.



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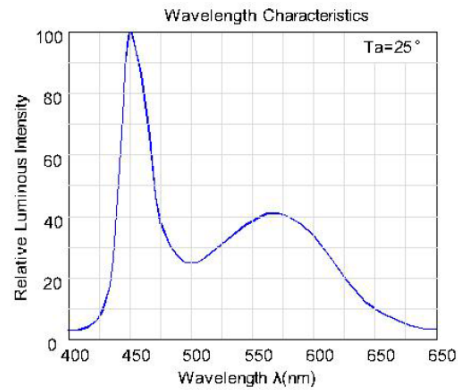
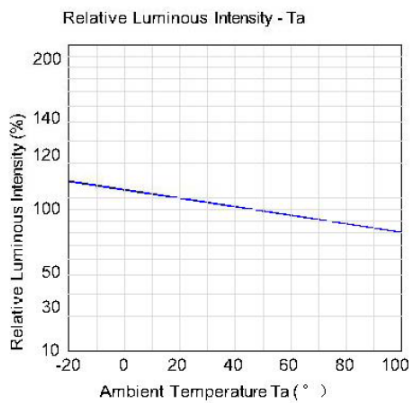
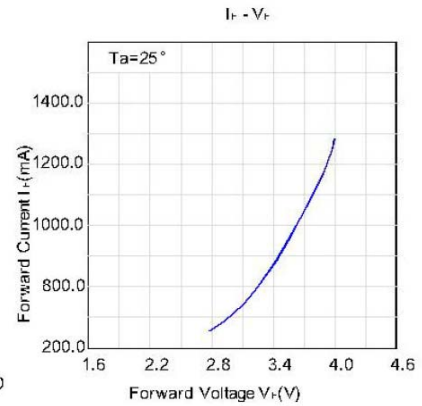
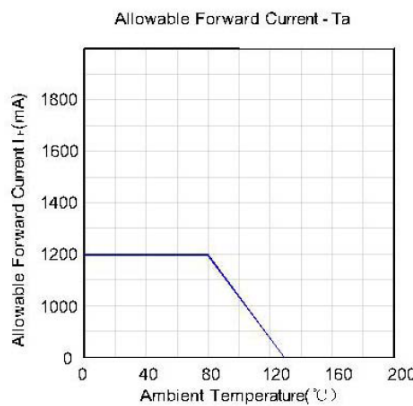
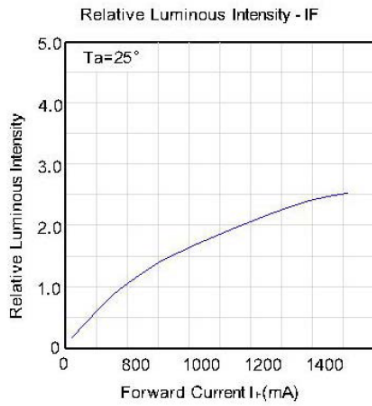
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## P/N: TY-HP5PW-S

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



### Radiation Pattern

