

## LED product specifications

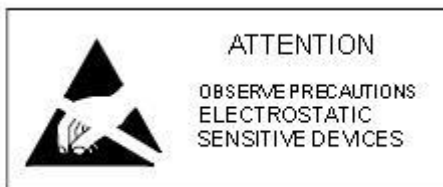
Product Type: 100 watts 810nm IR led

Version No.: 01

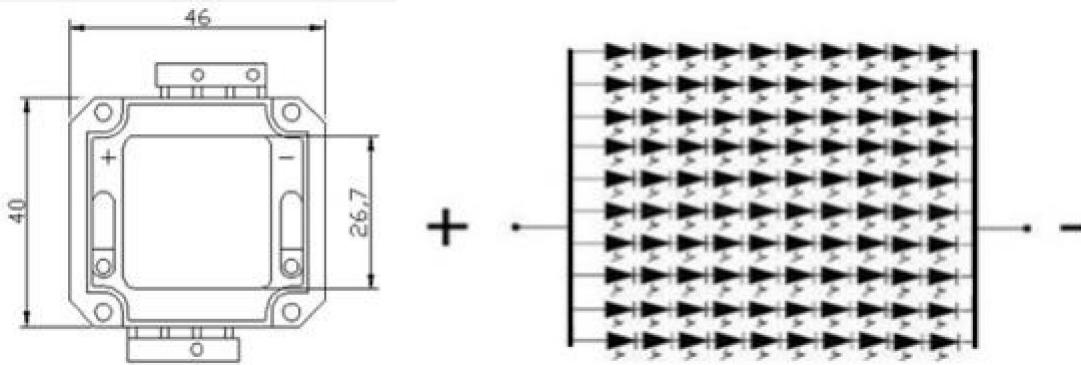
### Product Description:

- 100W high power led
- Colloid Color: Transparent
- Emission Color: Infrared
- Viewing Angle:140°

Dice Material: InGaN



## Outline Drawing



### Notes:

1. All dimensions area in mm tolerance is  $\pm 0.25$ mm unless otherwise noted.
2. An epoxy meniscus may extend about 1.2mm down the leads.
3. Burr around bottom of epoxy may be 0.5mm max.

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

Items	Symbol	Maximum	Units
DC Forward Current	I <sub>F</sub>	3500	mA
Peak forward current	I <sub>FP</sub>	3500	mA
Reverse Voltage	V <sub>R</sub>	50	V
Power consumption	P <sub>D</sub>	100	W
Operation Temperature	T <sub>opr</sub>	-20~+75	°C
Storage Temperature	T <sub>stg</sub>	-30~+80	°C
Lead Soldering Temperature	T <sub>sol</sub>	Max 260°C for 5 sec Max. (3mm from the base of the body )	

\* Pulse width ≤ 0.1msec duty ≤ 1/10

**Product Optical Properties (Ta = 25°C)**

Item	Symbol	Conditions	Min	Avera	Max	Units
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> = 3500mA	15	---	16	V
Reverse current	I <sub>R</sub>	V <sub>R</sub> = 50V	---	---	100	μA
Color Temperature	CCT	I <sub>F</sub> = 3500mA	---		---	K
Peak Wavelength	λ <sub>p</sub>	I <sub>F</sub> = 3500mA	810	---	815	nm
Luminous Intensity	I <sub>v</sub>	I <sub>F</sub> = 3500mA	30		50	lm
50% power Angle	$2\theta_{H-H}^{1/2}$	I <sub>F</sub> = 3500mA	---	140	---	deg
	$2\theta_{V-V}^{1/2}$	I <sub>F</sub> = 3500mA		---	---	deg

## Absolute Maximum Ratings

Parameter	Symbol	Rating	Unit
		Infrared	
DC Forward Current(mA)	If	3500	mA
Peak Pulse Current(mA)	If	3500	mA
Reverse Voltage	VR	50	V
LED Junction Temperature	Tj	125	°C
Operation Temperature	Topr	-40--100	°C
Storage Temperature	Tstg	-40--100	°C
Soldening Temperature	Tsol	260	°C
ESD Sensitivity	Vb	4000	V

### Important Notes:

- 1) All ranks will be included per delivery, rank ratio will be determined by HONGKE.
- 2) Tolerance of measurement of luminous intensity is  $\pm 15\%$ .
- 3) Tolerance of measurement of VF is  $\pm 0.05$  V.
- 4) Color Coordinates Measurement allowance is  $\pm 0.015$ .
- 5) For reliability test conditions and data, Please refer to “Reliability Test” section on page 7.
- 6) For how to use HONGKE LED product safely, Please refer to “Application Notes” section on page 9 and 10.
- 7) Packaging methods are available to be chosen, please refer to “Packaging” section on page 11 and 12.
- 8) As we are making continuous efforts to improve the performance of LED, Specifications are subject to change without notice.