



Shenzhen Shining Opto-electronic Co.,Ltd

SPECIFICATION FOR APPROVAL

# 承认书

CUSTOMER'S CODE

客户代码

DESCRIPTION

品名

大功率发光管

SPECIFICATION

规格

5W 模顶发射管

DATE

送样日期

PART NO.

本厂型号

SN-IR-850nm-5W-04

REFERENCE NO.

档案号

NUMBER OF SAMPLE

送样数量

COPY OF ACKNOWLEDGEMENT

承认书份数

Approved By Customer 客户承认	Qualified By 核准	Form Designer 制作

# SN-IR-850nm-5W-04

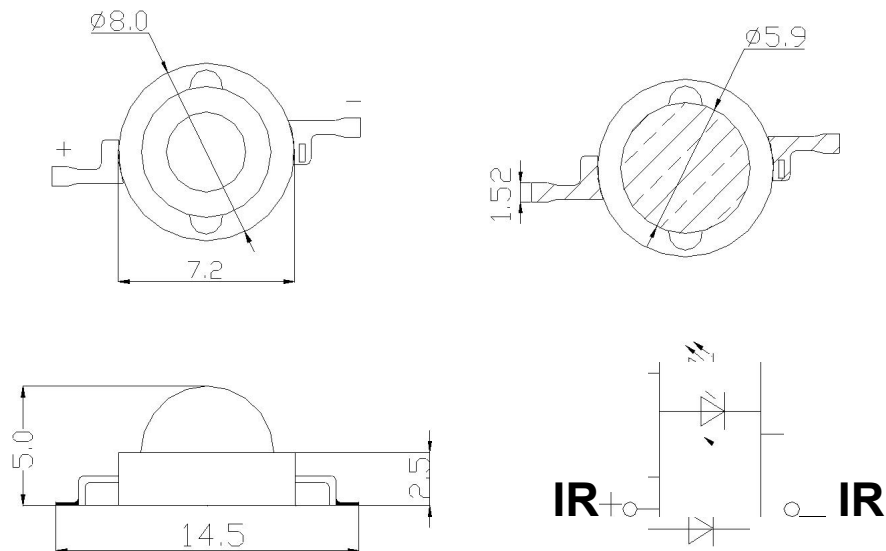
## High Power LED

Part Number	Chip		Lens Color
	Material	Source Color	
SN-IR-850nm-5W-04	AlGaInP	IR	Water Clear

### Features

- High brightness IR LED round package
- Light output intensity grade Viewing angle 140 degree
- Light color.IR
- RoHS compliant

### Dimensions



#### Notes:

1. All dimensions are in millimeters.
2. Tolerance is  $\pm 0.1$ mm unless otherwise noted.

## Absolute Maximum Rating @ Ta=25°C

Parameter	Symbol	Maximum Rating	Unit
Continuous Forward Current	IF	1400	mA
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	IFp	1800	mA
Reverse Voltage	VR	5	V
Power Dissipation	PD	5000	mW
Electrostatic discharge	ESD	1000	V
Operating Temperature Range	TOPR	-25°C to +85°C	
Storage Temperature Range	TSTG	-35°C to +105°C	
Lead Soldering Temperature (3mm from the base of the epoxy bulb)	TSOL	360°C	

## Electrical / Optical Characteristic @ Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Forward Voltage	VF	1.4	1.6	2.0	V	IF=1400mA
Luminous Flux	Φ				Lm	IF=1400mA
Wavelength	Wld		850		nm	IF=1400mA
Reverse Current	IR	0		10	μA	VR=5V
Viewing Angle	2θ1/2			140	deg	IF=1400mA
Recommend Forward Current	IF(rec)			1400	mA	

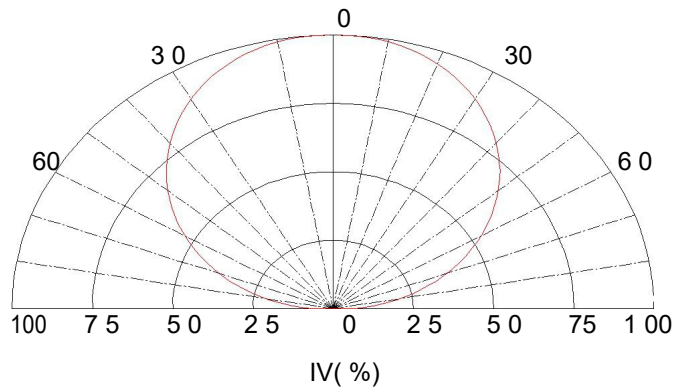
tolerance of measurement of forward voltage±0.1V

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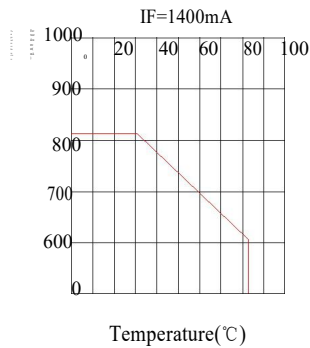
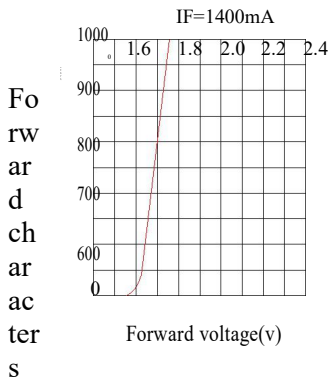
# Typical Electrical / Optical Character Curves

( 25 ° Ambient Temperature Unless Otherwise Noted )

Spatial Distribution

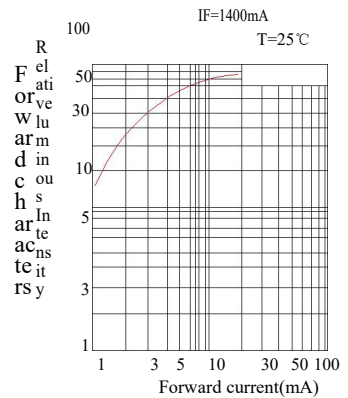
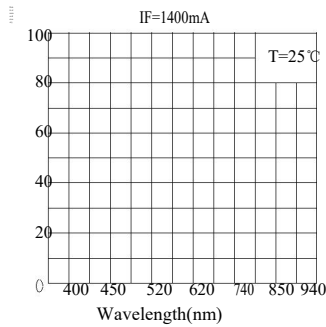
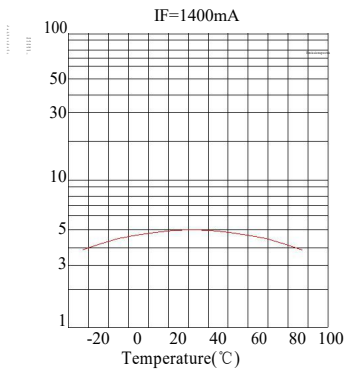


## Typical electrical-optical Characteristics curves



**Notes:**

The data are a typical presentation of the product, Contact customer service for details of technical information and warranty. The product is sensitive to static antistatic operation environment is recommended Products are shipped in either bulk



## Reliability Tests

Type	Test Item	REF Standard	Test Condition	Note	Number of Damaged
Environmental Sequence	Temperature Cycle	JIS C 7021 (1997)A-4	-20°C*30mins~25°C *5mins~80°C * 30mins	100 cycles	0/100
	High Humidity Heat Cycle	JIS C 7021 (1997)A-5	30°C →65°C, RH= 90% 24hrs/1cycle	10 cycles	0/100
	High Temperature Storage	JIS C 7021 (1997)B-10	Ta= 80°C	1000h	0/100
	Humidity Heat Storage	JIS C 7021 (1997)B-11	Ta=60°C RH=90%	1000h	0/100
	Low Temperature Storage	JIS C 7021 (1997)B-12	Ta= -30°C	1000h	0/100
Operational Sequence	DC Operating Life	JIS C 7035 (1985)	Ta= 25°C, IF=1400mA	1000h	0/100
	High Humidity Low Temperature Heat Life Test	*	Ta=60°C RH=90% IF=1400mA	500h	0/100 0/100
	Life Test	*	Ta= -20°C, IF=1400mA	1000h	
Destructive Sequence	Resistance to Soldering Heat	JIS C 7021 (1997)A-11	Tsol=260±5°C, 10sec (3mm from the base of the epoxy bulb)	1 time	0/20
	Solderability	JIS C 7021 (1997)A-2	Tsol=235 ±5°C, 5sec (Using flux)	1 time (over 95%)	0/20
	Lead Pull/Bend Test	JIS C 7021 (1997)A-11	Load 2.5N (0.25kgf) 0°→90°→0°Bending 3 times	No noticeable damage	0/20

\*Refer to reliability test standard specification for in this line.