

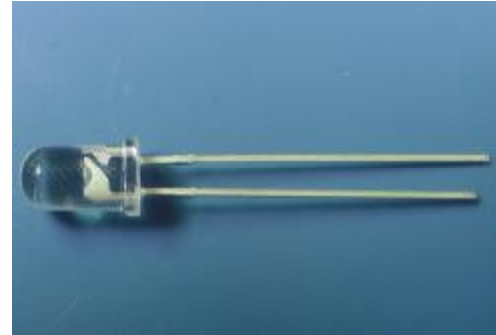
HL-503IR4C-L5



HL-503IR4C-L5

**Features**

- Mechanically and spectrally matchend to the phototransistor.
- Rohs compliant.

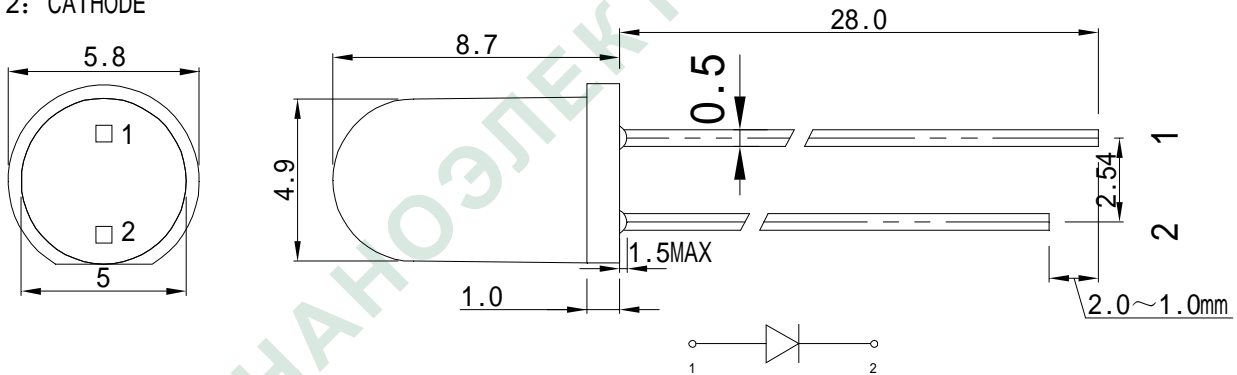


**Package Dimensions**

**Description**

This devices are made with TS GaAs.

- 1: ANODE  
2: CATHODE



Tolerance Grade	Dimension Tolerance (UNIT:mm)			
	0.5~3	3~6	6~30	30~120
	±0.1	±0.2	±0.3	±0.5
Chip		Lens Color		
Material	Emitting Color	Water Clear		
GaAs	/			

**Selection Guide**

Part No	Radiant Intensity(mW/sr) $I_F=50\text{mA}$		Viewing Angle
	Min	Typ	2 $\theta$ 1/2 (供参考)
HL-503IR4C-L5	--	154	20

**Note:**

- 2 $\theta$ 1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.
- Tolerance of measurement of luminous intensity $\pm$ 15%.

**Electrical / Optical Characteristics at TA=25°C**

Item	Symbol	Min	Typ	Units	Test Conditions
Forward Voltage	$V_F$		1.5	V	$I_F=50\text{mA}$
Reverse Current	$I_R$	--	10	$\mu\text{A}$	
Peak Spectral Wavelength	$\lambda_D$	--	850	nm	
Spectral Bandwidth	$\Delta \lambda_{1/2}$	--	50	nm	

**Note:**

- Tolerance of measurement of forward voltage $\pm$ 0.1V.
- Tolerance of measurement of peak Wavelength $\pm$ 2.0nm.

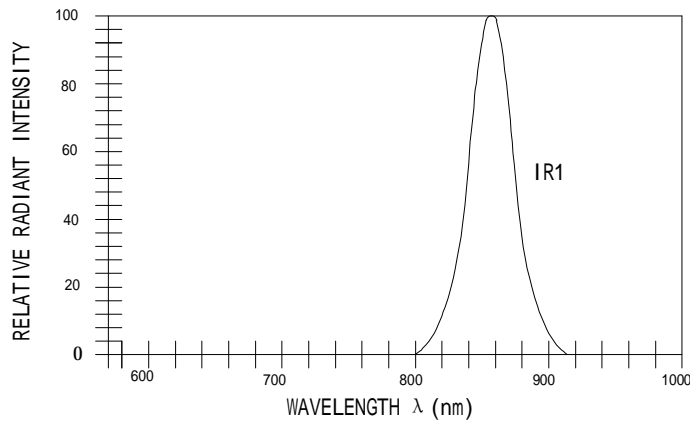
**Absolute Maximum ratings at Ta=25°C**

Parameter	Symbol	IR1	Units
Power Dissipation	Pt	100	mW
DC Forward Current	$I_F$	50	mA
Peak Forward Current[1]	$i_{FS}$	300	mA
Operating Temperature		-30°C ~80°C	
Storage Temperature		-30°C ~80°C	

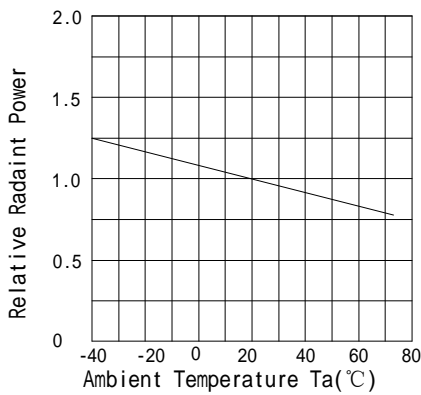
**Note:**

- IFP Conditions: Pulse Width $\leq$ 10msec
- Tsol Conditions: 3mm from the base of the epoxy bulb

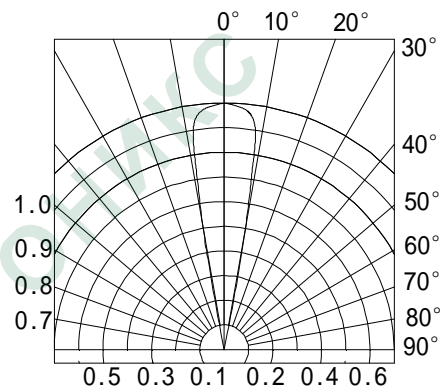
**HL-503IR4C-L5**



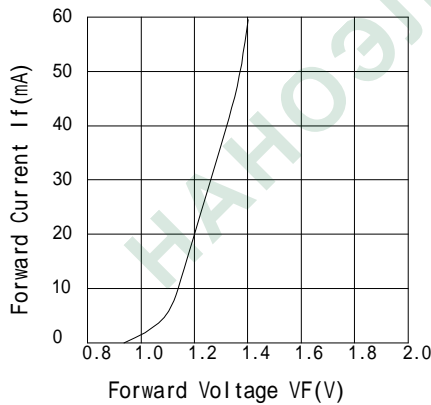
Forward Current vs.Forward Voltage



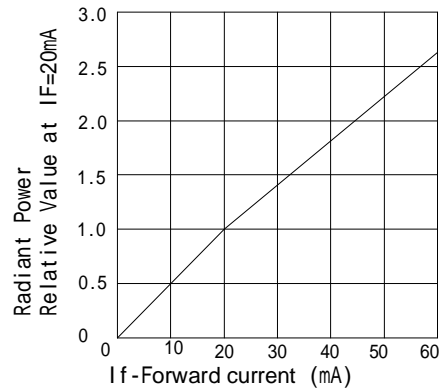
Radint Power Vs.Ambient Temperature



Spatial Distribution



Forward Current Vs.Forward Voltage



Radint Power Vs Forward Current

**Remarks:**

If special sorting is required (e.g.binning based on forward voltage or radiant intensity/luminous flux),the typical accuracy of the sorting process is as follows:

1. Radiant intensity/Luminous Flux:±15%.
2. Forward Voltage:±0.1V.

Note:Accuracy may depend on the sorting parameters.

## Soldering:

### 1. Manual Of Soldering

The temperature of the iron tip should not be higher than 300°C and Soldering within 3 seconds per solder-land is to be observed.

### 2. DIP soldering (Wave Soldering):

Preheating: 120°C~150°C, within 120~180 sec.

Operation heating: 245°C ± 5°C within 5 sec. 260°C (Max)

Gradual Cooling (Avoid quenching).

