

# IR LED LAMP SPECIFICATION

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**CONFIDENTIAL**

Drawn by	Checked by	Approved by

Rev. 0.0

**U-JINLED**  
*Lighting Your Imagination*

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**Overseas Factory** : Plot#61, Sector#7 Export Processing Zone,  
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TEL : (880)31-74-0050 FAX : (880)31-74-0038

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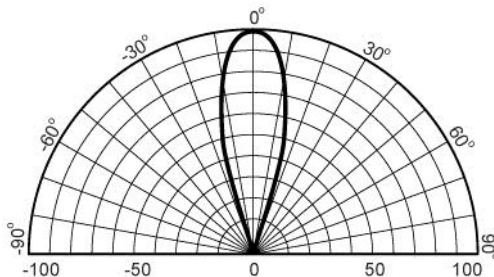
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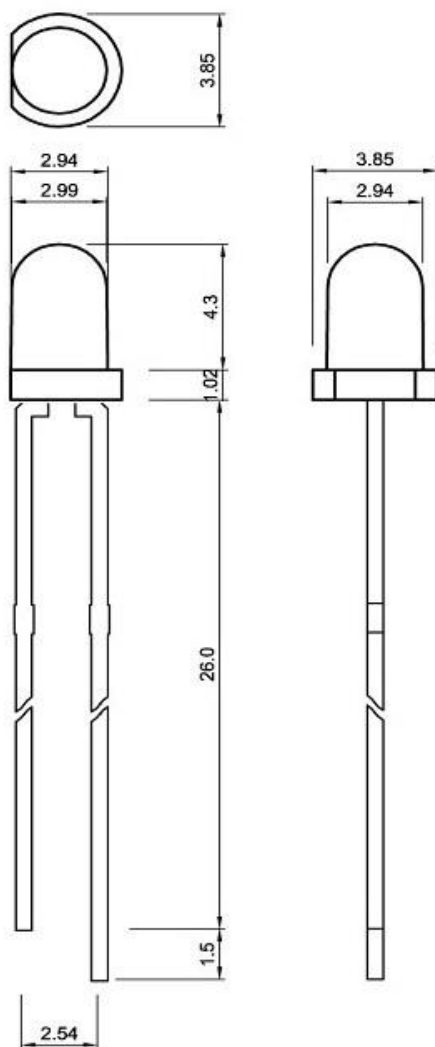
## ULI-94031A-30IRA

### 1. Features

- 3mm dia round top lamp.
- AlGaAs/GaAs Infrared LED.
- Viewing angle 30°.
- Water clear epoxy-molding type.
- High reliability and long life.
- High luminous intensity.
- Pb free.



### 2. Dimension



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### 3. Absolute maximum ratings (Ta=25°C)

Parameter	Sym	Rating	Unit
Forward Current(max)	IF	50	mA
Reverse Voltage	VR	5	V
Power Dissipation	PD	65	mW
Peak Pulsed forward current	IPF	500	mA
Operation Temp	Topg	-35 ~ + 85	°C
Storage Temp	Tstg	-40 ~ +100	°C

Pulse forward condition : Duty ratio =1%, Pulse width = 10us.

### 4. Optoelectronic characteristics (Ta=25°C)

Parameter	Sym	Condition	Min	Typ	Max	Unit
Forward Voltage	VF	IF = 50mA		1.2		V
Reverse Current	IR	VR = 5V			10	μA
Peak wave length	λP	IF = 50mA		940		nm
Line half width	Δλ	"		35		nm
Rise time	Tr	"		40		ns
Rise fall	Tf			30		ns
Radiant Intensity	IE	IF =50mA		22		mW/sr
Total Radiant power	PO	IF = 20mA		9.3		mW
		IF = 50mA		19.2		

### 5. Soldering conditions

Soldering Temp ≤ 260°C  
Soldering Time : 3 sec at location 2.0mm away from the base of the epoxy bulb.

### 6. Reliability Test

Test Item	Test Conditions	Note	Number of Damaged
Steady State Operating Life	Ta = 25°C IF=50mA	240hrs	0/20
Steady State Operating Life of Low Temperature	Ta=-35°C, IF=50mA	240hrs	0/20
Steady State Operating Life of High Temperature	Ta=85°C, IF=10mA	240hrs	0/20
Resistance to soldering Heat	Tsld=260 ± 5°C, 10sec. 3mm from the base of the epoxy bulb	1 time	0/10
Temperature Cycle	Ta = -40°C ~ 100°C (1 Cycle = 1hr)	100 cycles	0/20

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### ■ Typical Electro-Optical Characteristics Curve:

Fig 1. Forward Current vs. Forward Voltage

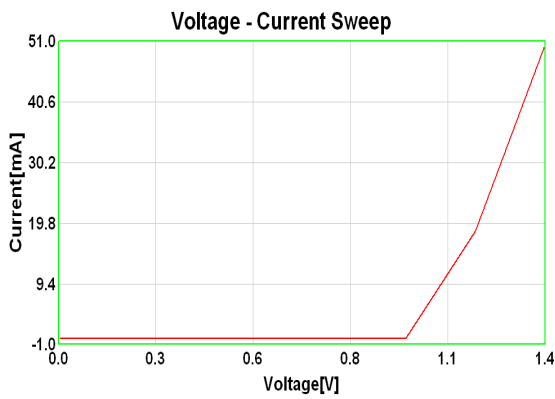


Fig 2. Relative Intensity(mW/sr) vs. Forward Current

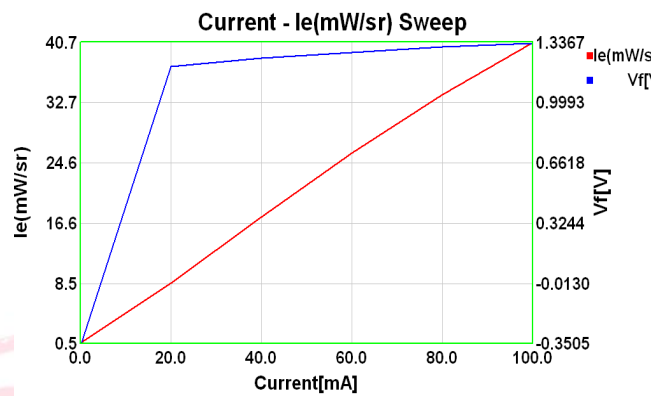


Fig 3. Relative Intensity vs. Wavelength

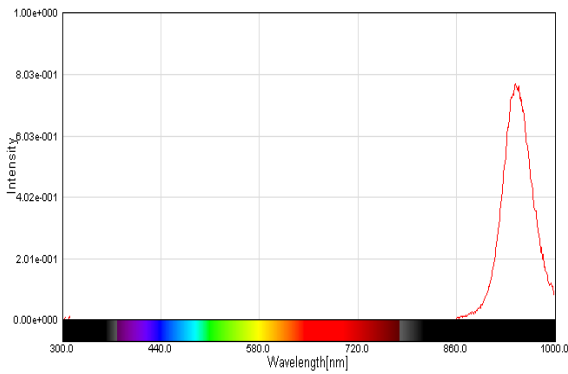


Fig 4. Forward Current vs. Temperature

