

IR LED LAMP SPECIFICATION

Drawn by	Checked by	Approved by

Rev. 0.0



Head Office : 48-40, Gamnae-gil, Ilsandong-gu, Goyang-si,
Gyeonggi-do, Korea.
TEL : 031-932-8351~3. FAX : 031-932-8355
E-mail : info@ujin-led.co.kr

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

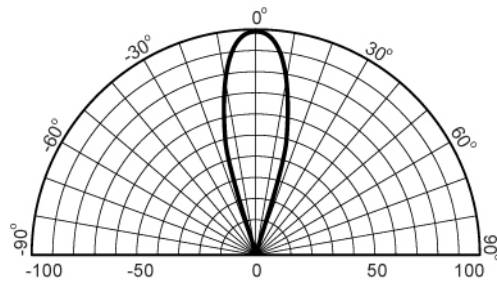


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ULI-81036A-30IRP

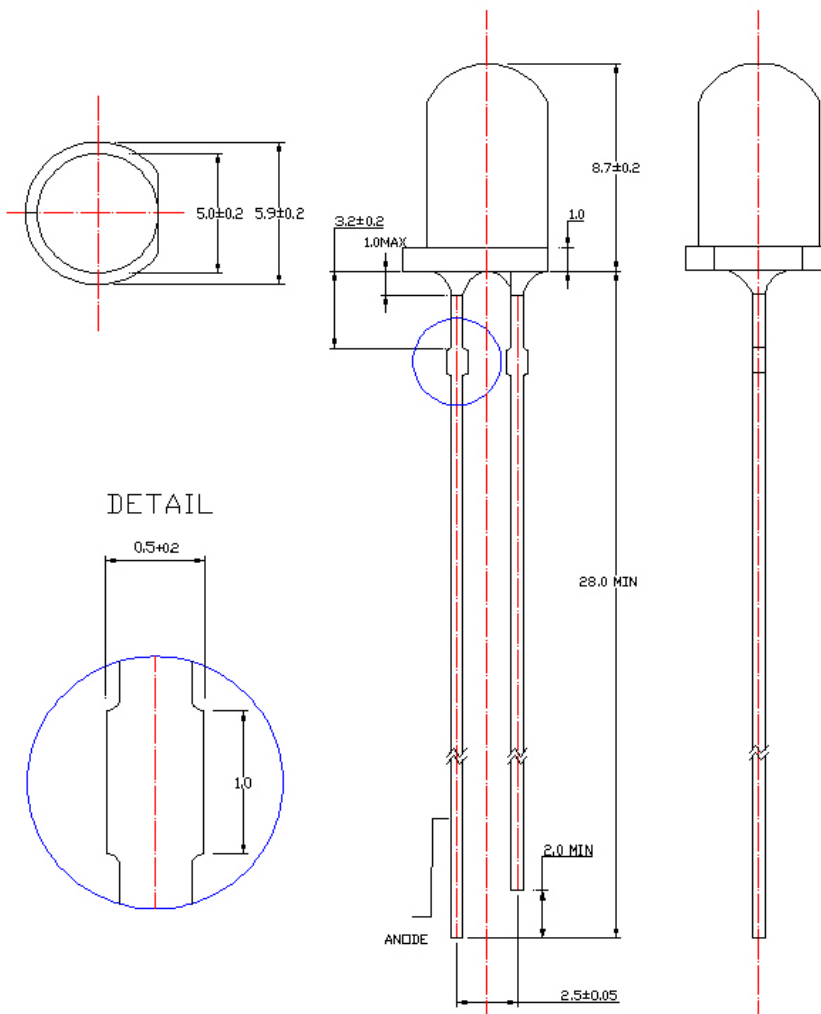
1. Features

- 5mm dia round top lamp.
- AlGaAs Infrared LED.
- Viewing angle 30°.
- Water clear epoxy-molding type.
- High reliability and long life.
- High luminous intensity.
- Pb free.



2. Dimension

Unit : mm
Tolerance : ±0.25





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3. Absolute maximum ratings (Ta=25°C)

Parameter	Sym	Rating	Unit
Forward Current	IF	50	mA
Reverse Voltage	VR	5	V
Power Dissipation	PD	80	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 = 20mA	1.30		1.60	V
Reverse Current	IR	VR = 5V			10	μA
Peak wave length	λP	IF = 20mA	800	810		nm
Line half width	Δλ	"		35		nm
Rise time	Tr	"		40		ns
Rise fall	Tf			30		ns
Total Radiant power	IE	IF =20mA		15		mw
Radiant Intensity	PO	IF = 20mA		40		mw/sr
		IF = 50mA		120		

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	1000hrs	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=50mA	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

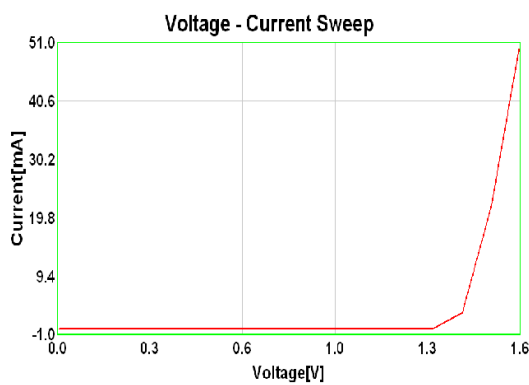


Fig 2. Relative Intensity(mW/sr) vs. Forward Current

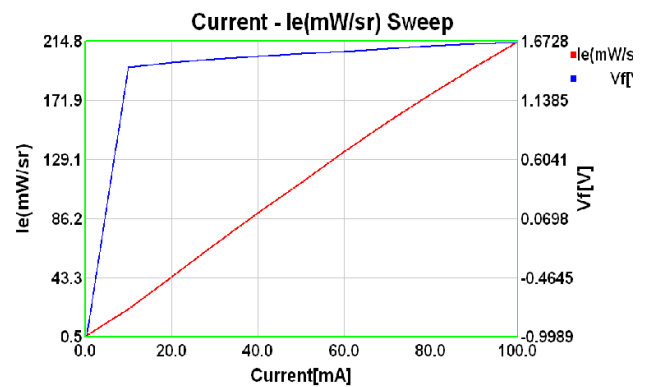


Fig 3. Relative Intensity vs. Wavelength

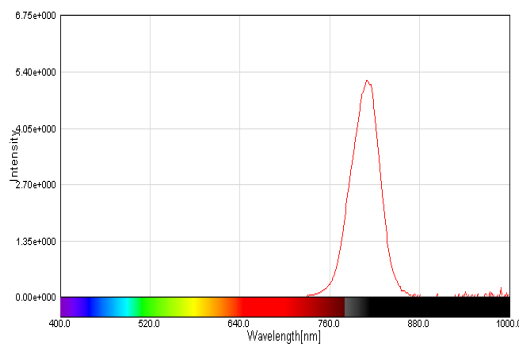


Fig 4. Forward Current vs. Temperature

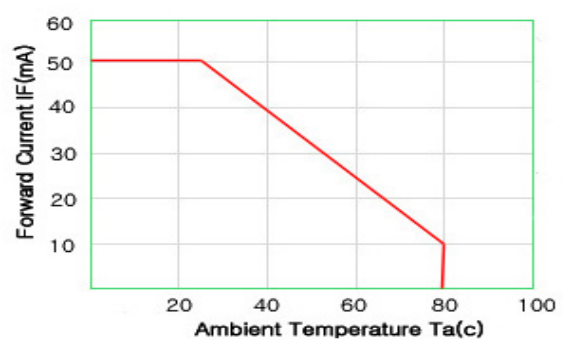


Fig 5. Relative Intensity(mW) vs. Forward Current

