

IR LED LAMP SPECIFICATION

CONFIDENTIAL

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| | | |
| | | |

Rev. 0.0

U-JINLED
Lighting Your Imagination

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Chittagong, Bangladesh.
TEL : (880)31-74-0050 FAX : (880)31-74-0038

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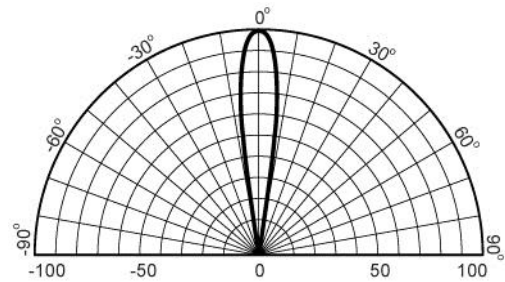
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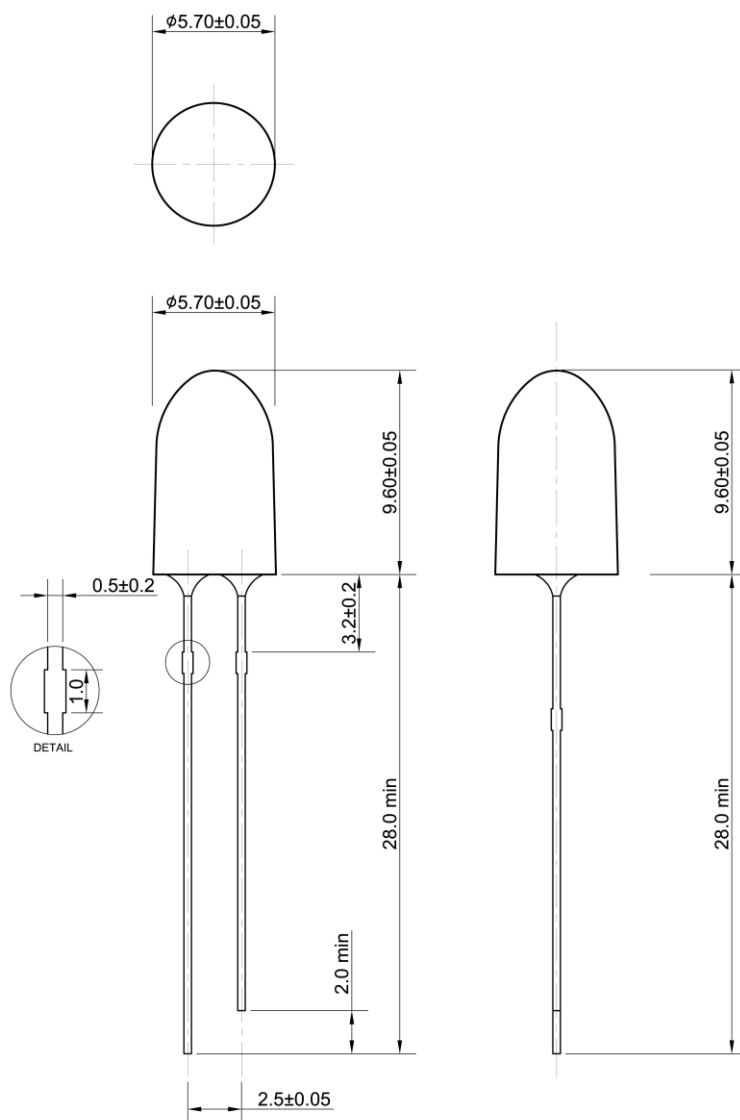
ULI-740E47A-BN

1. Features

- GaAlAs/GaAs infrared LED
- 5.0mm round top lamp.
- Water clear epoxy molding type.
- Viewing angle 12°.
- Fast response time.
- Pb free
- This product itself will remain RoHS compliance.



2. Dimension



Unit : mm
Tolerance : ± 0.25

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3. Applications

- Infrared applied system
- License Plate recognize (LPR)
- CCTV system

4. Absolute maximum ratings (Ta=25°C)

| Parameter | Sym | Rating | Unit |
|-----------------------------|------|------------|------|
| Forward Current | IF | 50 | mA |
| Reverse Voltage | VR | 5 | V |
| Power Dissipation | PD | 120 | 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.

5. Optoelectronic characteristics (Ta=25°C)

| Parameter | Sym | Condition | Min | Typ | Max | Unit |
|-------------------|-----|-----------|-----|-----|-----|-------|
| Forward Voltage | VF | IF = 50mA | 1.4 | | 2.4 | V |
| Reverse Current | IR | VR = -10V | 0 | | 0.5 | μA |
| Peak wave length | λP | IF = 50mA | | 740 | | nm |
| Radiant Intensity | IE | IF = 20mA | | 240 | | mW/sr |
| | | IF = 50mA | | 580 | | |

6. Soldering conditions

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

7. 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

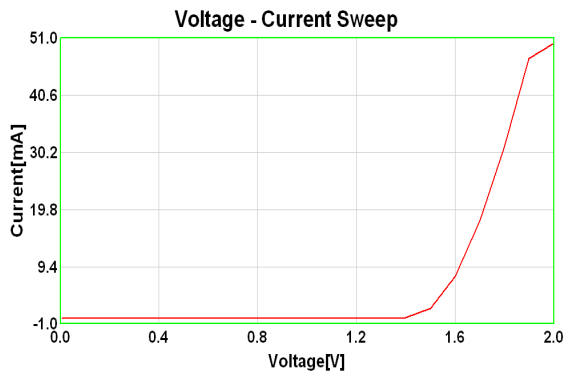


Fig 2. Relative Intensity(mW/sr) vs. Forward Current

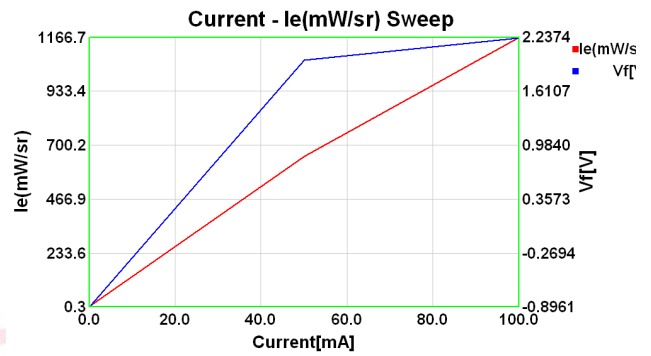


Fig 3. Forward Current vs. Temperature

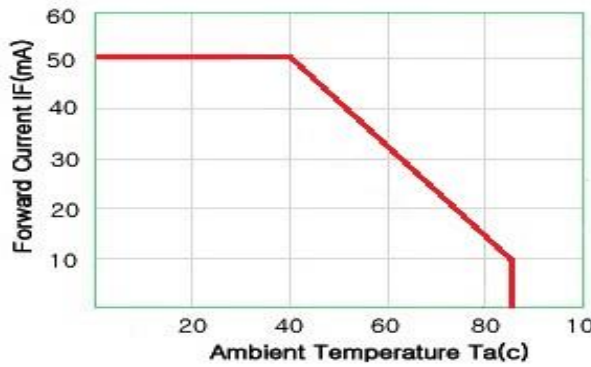


Fig 4. Relative Intensity vs. Wavelength

