

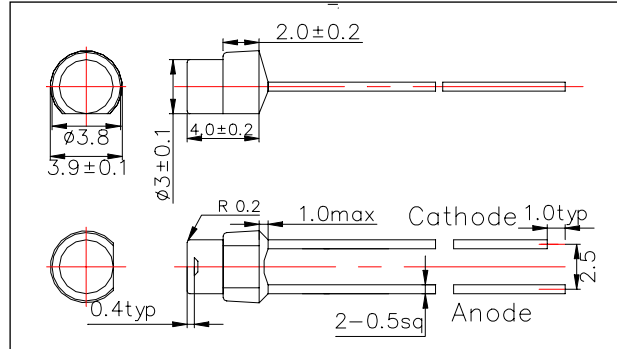
## L830-31-2C Infrared LED Lamp

L830-31-2C is an AlGaAs LED mounted on a lead frame with a clear epoxy lens. On forward bias, it emits a spectral band of radiation that peaks at 830nm.

<Specifications>

1. Product Name: Infrared LED Lamp
2. Type Number: L830-31-2C
3. Chip:
  - Chip material: AlGaAs
  - Dimension: 400um x 400um
  - Peak Wavelength: 830nm typ.
4. Package
  - Type: Φ3mm Flat Molding
  - Resin Material: Epoxy Resin
  - Lead Frame: Soldered(Lead Free)

Outer Dimension (Unit:mm)



| Absolute Maximum Ratings[Ta=25°C] |        |                     |      |
|-----------------------------------|--------|---------------------|------|
| Item                              | Symbol | Maximum Rated Value | Unit |
| Power Dissipation                 | PD     | 170                 | mW   |
| Forward Current                   | IF     | 100                 | mA   |
| Pulse Forward Current*            | IFP    | 1000                | mA   |
| Reverse Voltage                   | VR     | 5                   | V    |
| Junction Temperature              | Tj     | 100                 | °C   |
| Thermal Resistance**              | Rthjp  | 250                 | K/W  |
| Operating Temperature             | TOPR   | -30 ~ +85           | °C   |
| Storage Temperature               | TSTG   | -30 ~ +100          | °C   |
| Soldering Temperature***          | TSOL   | 265                 | °C   |

\* Duty=1% and Pulse Width=10us.

\*\* Junction - ambient, leads 7mm, soldered on PCB

\*\*\* Soldering condition must be completed within 3 second at 265°C.

| Electro-Optical Characteristics [Ta=25°C] |        |           |         |         |         |       |
|---|--------|-----------|---------|---------|---------|-------|
| Item                                      | Symbol | Condition | Minimum | Typical | Maximum | Unit  |
| Forward Voltage                           | VF     | IF=50mA   |         | 1.55    | 1.65    | V     |
| Reverse Current                           | IR     | VR=5V     |         |         | 10      | uA    |
| Total Radiated Power*                     | PO     | IF=50mA   |         |         |         | mW    |
| Radiant Intensity**                       | IE     | IF=50mA   |         | 220     |         | mW/sr |
| Peak Wavelength                           | λP     | IF=50mA   | 800     | 810     | 820     | nm    |
| Half Width                                | Δλ     | IF=50mA   |         | 40      |         | nm    |
| Viewing Half Angle                        | θ1/2   | IF=50mA   |         | ±10     |         | deg   |
| Rise Time                                 | tr     | IF=50mA   |         | 25      |         | ns    |
| Fall Time                                 | tf     | IF=50mA   |         | 15      |         | ns    |

\* Measured by Photodyne #500

\*\* Measured by Tektronix J-6512

