

## L830-01AU

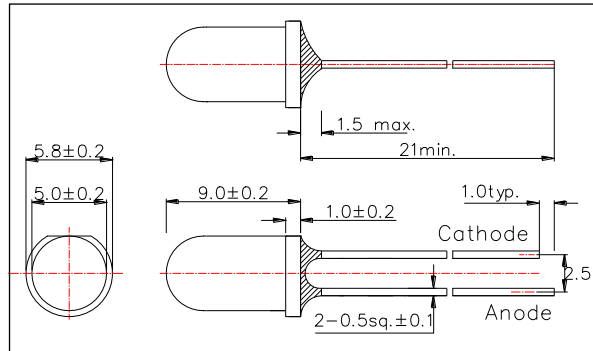
### Infrared LED Lamp

L830-01AU 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>

- Product Name: Infrared LED Lamp
- Type Number: L830-01AU
- Chip:
  - Chip material: AlGaAs
  - Peak Wavelength: 830nm typ.
- Package
  - Type: Φ5mm Clear 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    | 500                 | mA   |
| Reverse Voltage                   | VR     | 5                   | V    |
| Operating Temperature             | TOPR   | -30 ~ +85           | °C   |
| Storage Temperature               | TSTG   | -30 ~ +100          | °C   |
| Soldering Temperature**           | TSOL   | 265                 | °C   |

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

\*\* 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   |         | 1.6      | 1.8     | V     |
| Reverse Current                           | IR              | VR=5V     |         |          | 10      | uA    |
| Total Radiated Power*                     | PO              | IF=50mA   | 16      | 18       |         | mW    |
| Radiant Intensity**                       | IE              | IF=50mA   | 45      | 90       |         | mW/sr |
| Peak Wavelength                           | $\lambda_P$     | IF=50mA   | 810     | 830      | 850     | nm    |
| Half Width                                | $\Delta\lambda$ | IF=50mA   |         | 35       |         | nm    |
| Viewing half Angle                        | $\theta_{1/2}$  | IF=50mA   |         | $\pm 10$ |         | deg   |
| Rise Time                                 | tr              | IF=50mA   |         | 60       |         | ns    |
| Fall Time                                 | tf              | IF=50mA   |         | 40       |         | ns    |

\* Measured by Photodyne #500

\*\* Measured by Tektronix J-6512

