# L850F-03-55

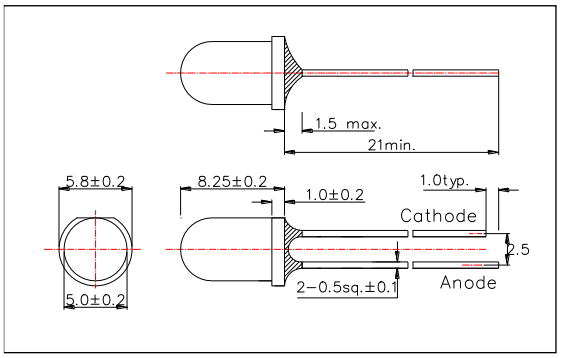
## Infrared LED Lamp for High Current Drive

L850F-03-55 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 850nm. These devices are intended to be operated at pulsed current of 2A under Max.4.3V for stable long life.

<Specifications>

1. Product Name: Infrared LED Lamp
2. Type Number: L850F-03-55
3. Chip:
   - Chip material: AlGaAs
   - Dimension: 550um x 550um
   - Peak Wavelength: 850nm typ.
4. Package
   - Type: Φ5mm Clear Molding
   - Resin Material: Epoxy Resin
   - Lead Frame: Soldered

Outer Dimension (Unit:mm)




| **Absolute Maximum Ratings[Ta=25℃]** | | | |
|---|---|---|---|
| Item | Symbol | Maximum Rated Value | Unit |
| Power Dissipation | PD | 150 | mW |
| Forward Current | IF | 100 | mA |
| Pulse Forward Current* | IFP | 2000 | mA |
| Reverse Voltage | VR | 5 | V |
| Operating Temperature | TOPR | -30 ~ +85 | ℃ |
| Storage Temperature | TSTG | -30 ~ +100 | ℃ |
| Soldering Temperature** | TSOL | 265 | ℃ |

* Duty=1% and Pulse Width=10us.
** Soldering condition must be completed within 3 second at 265 ℃.

| **Electro-Optical Characteristics [Ta=25℃ ]** | | | | | | |
|---|---|---|---|---|---|---|
| Item | Symbol | Condition | Minimum | Typical | Maximum | Unit |
| Forward Voltage | VF/VFP | IF=50mA | | 1.42 | 1.50 | V |
| | | IFP=1A | | 3.2 | 3.5 | |
| | | IFP=2A | | 3.6 | 4.3 | |
| Reverse Current | IR | VR=5V | | | 10 | uA |
| Total Radiated Power* | PO | IF=50mA | 18 | 20 | | mW |
| Radiant Intensity** | IE | IF=50mA | 50 | 70 | | mW/sr |
| Peak wavelength | λP | IF=50mA | 840 | 850 | 860 | nm |
| Half Width | Δλ | IF=50mA | | 40 | | nm |
| Viewing Half Angle | θ1/2 | IF=50mA | | ±15 | | deg |
| Rise Time | tr | IF=50mA | | 15 | | ns |
| Fall Time | tf | IF=50mA | | 10 | | ns |

* Measured by Photodyne #500
** Measured by Tektronix J-6512

RoHS Compliant