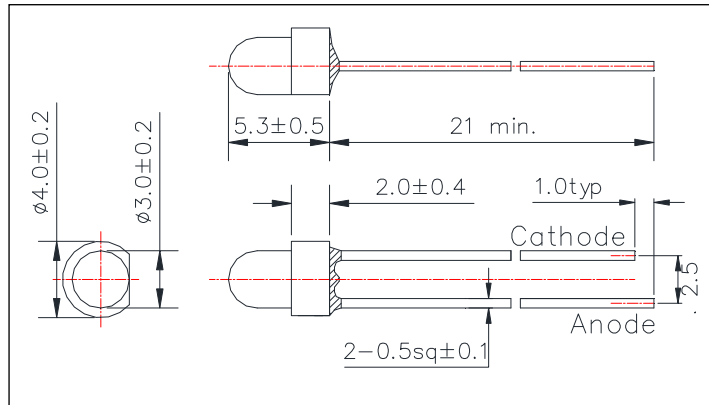


L850-36UP
Infrared LED Lamp

<Specifications>

- Chip Material: AlGaAs
- Chip Dimension: 400um x 400um
- Number of Chips: 1pcs
- Peak Wavelength: 850nm typ.
- Package Type: Φ3mm Clear Molding
- Lead Frame: Soldered (Lead Free)
- Lens: Epoxy Resin

Outer Dimension (Unit:mm)



| Absolute Maximum Ratings [Tc=25°C] | | | |
|------------------------------------|--------|------------|------|
| Item | Symbol | Value | Unit |
| Power Dissipation | PD | 160 | mW |
| Forward Current | IF | 100 | mA |
| Pulse Forward Current* | IFP | 1000 | mA |
| Reverse Voltage | VR | 5 | V |
| Thermal Resistance | Rthja | 220 | K/W |
| Junction Temperature | Tj | 120 | °C |
| Operating Temperature | TOPR | -40 ~ +100 | °C |
| Storage Temperature | TSTG | -40 ~ +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[Tc=25°C] | | | | | | |
|--|-----------------|-----------|-----|----------|-----|-------|
| Item | Symbol | Condition | Min | Typ | Max | Unit |
| Forward Voltage | VF | IF=50mA | | 1.5 | 1.6 | V |
| | | IFP=1A | | 3.0 | | |
| Total Radiated Power* | PO | IF=50mA | | 28 | | mW |
| | | IFP=1A | | 460 | | |
| Radiant Intensity** | IE | IF=50mA | | 62 | | mW/sr |
| | | IFP=1A | | 1000 | | |
| Peak Wavelength | λ_p | IF=50mA | 840 | | 860 | nm |
| Half Width | $\Delta\lambda$ | IF=50mA | | 42 | | nm |
| Viewing Half Angle | $\theta_{1/2}$ | IF=50mA | | ± 30 | | deg |
| Rise Time | tr | IF=50mA | | 5 | | ns |
| Fall Time | tf | IF=50mA | | 5 | | ns |

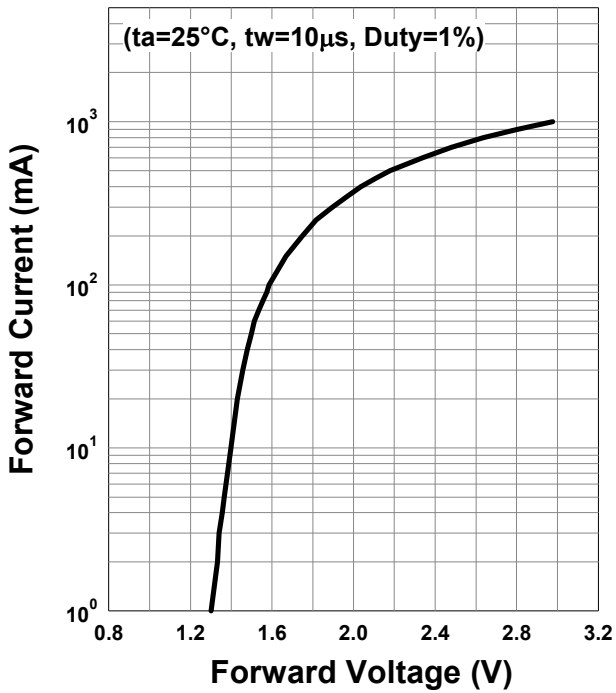
* Measured by S3584-08

** Measured by CIE127-2007 Condition B

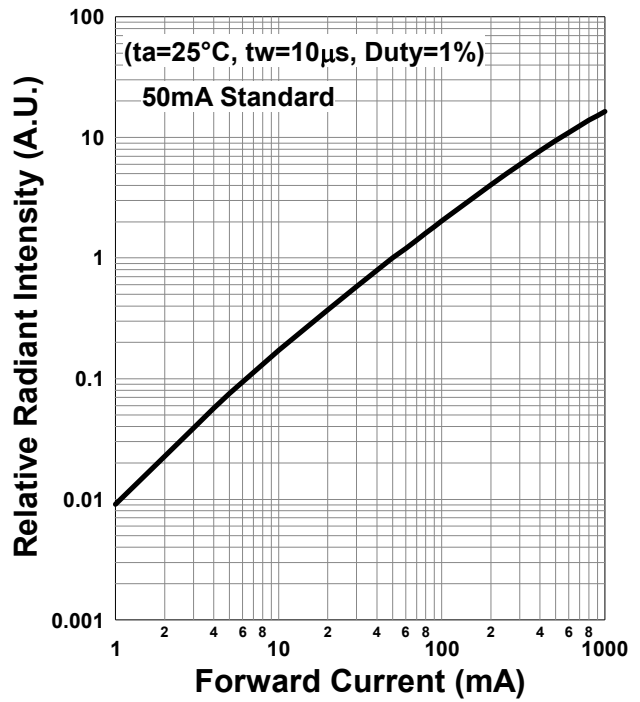


Typical Characteristic Curves

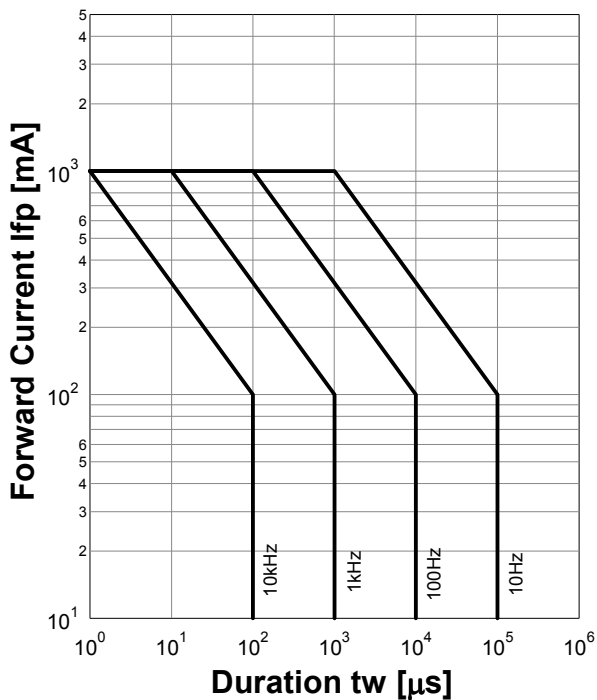
Forward Current - Forward Voltage



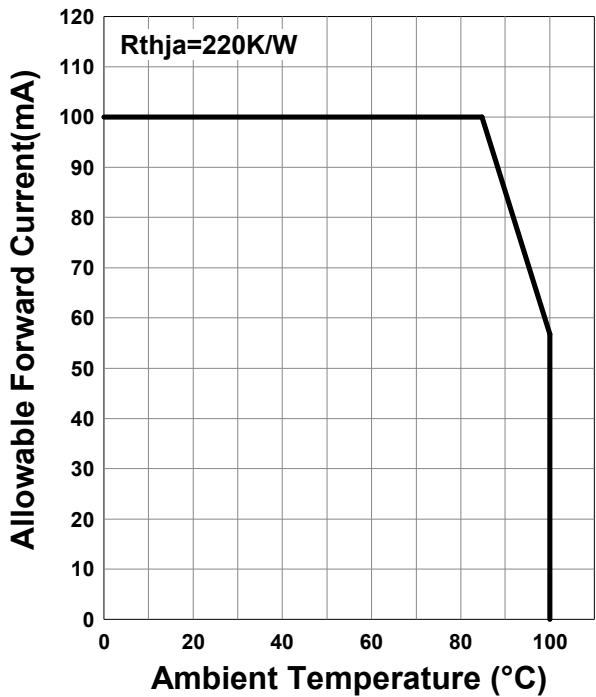
Relative Radiant Intensity - Forward Current

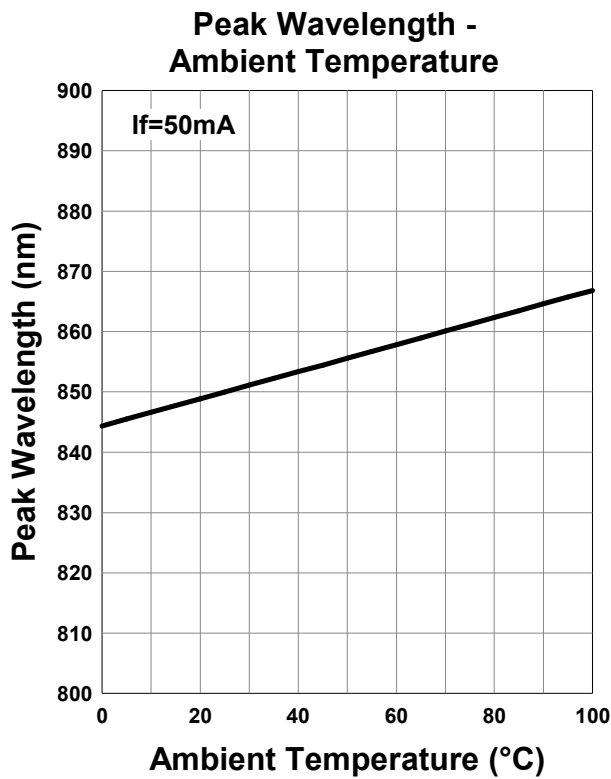
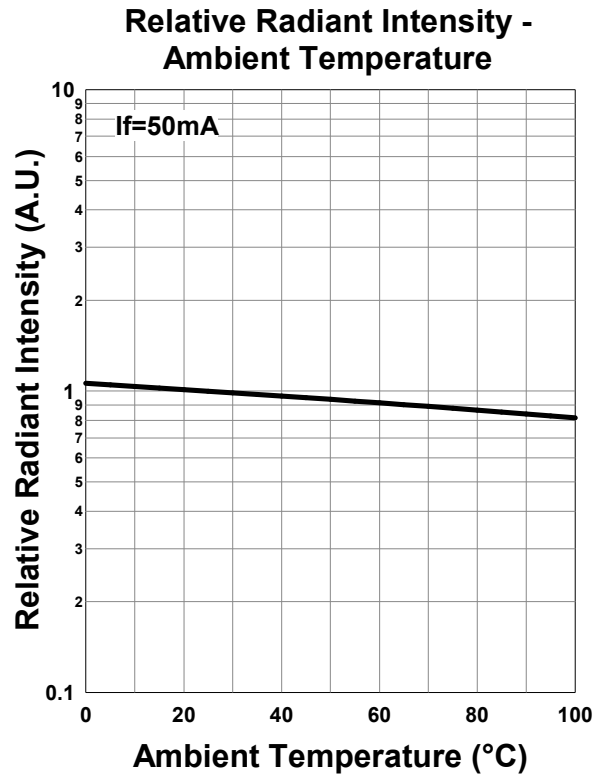
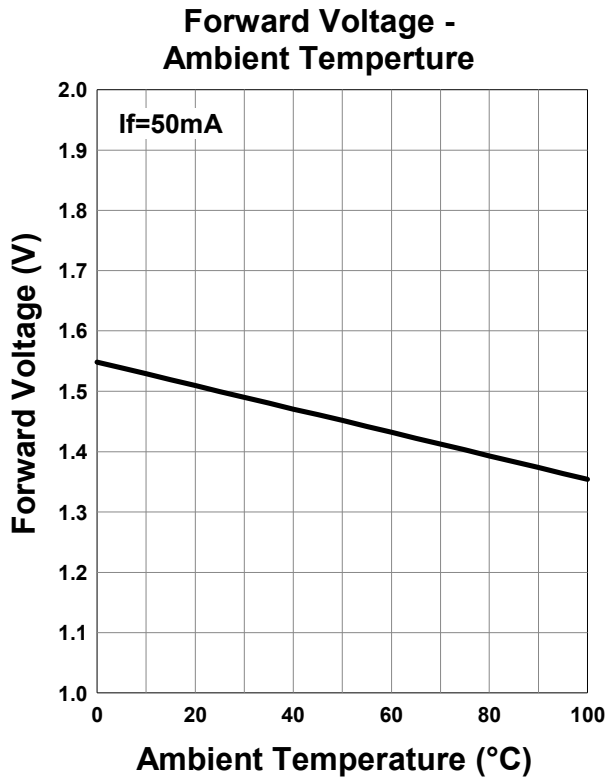


Forward Current - Pulse Duration

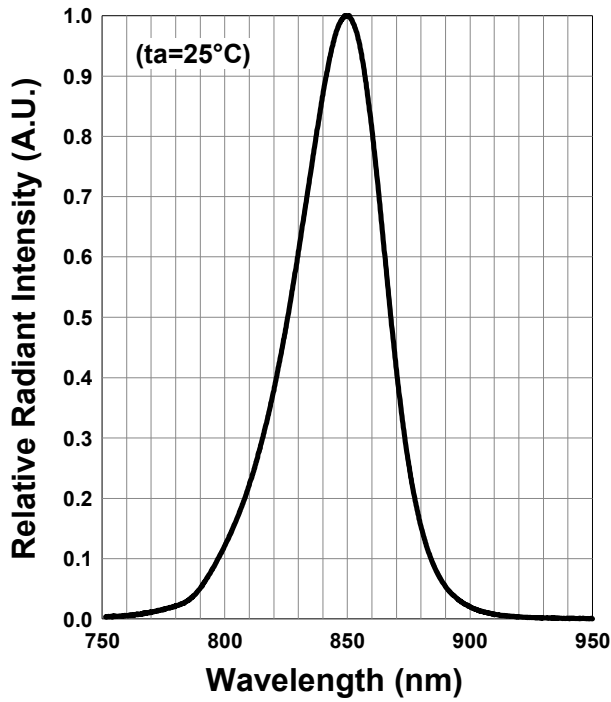


Allowable Forward Current - Ambient Temperature

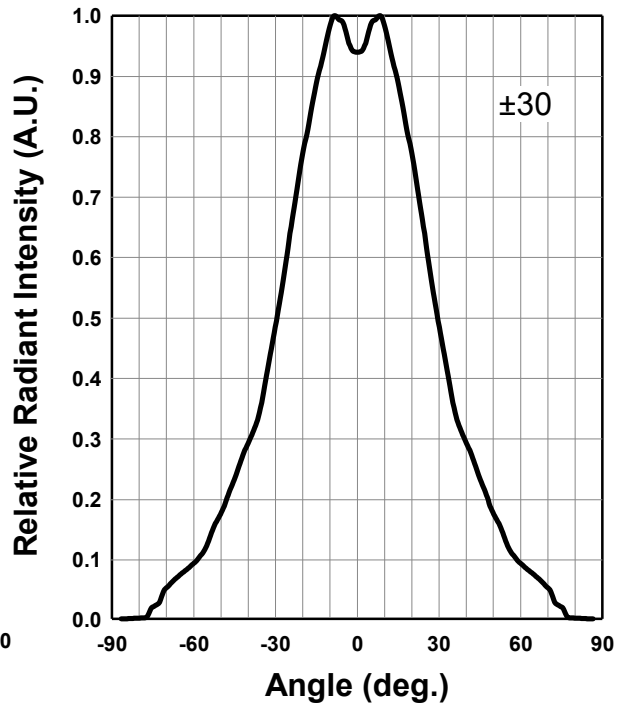




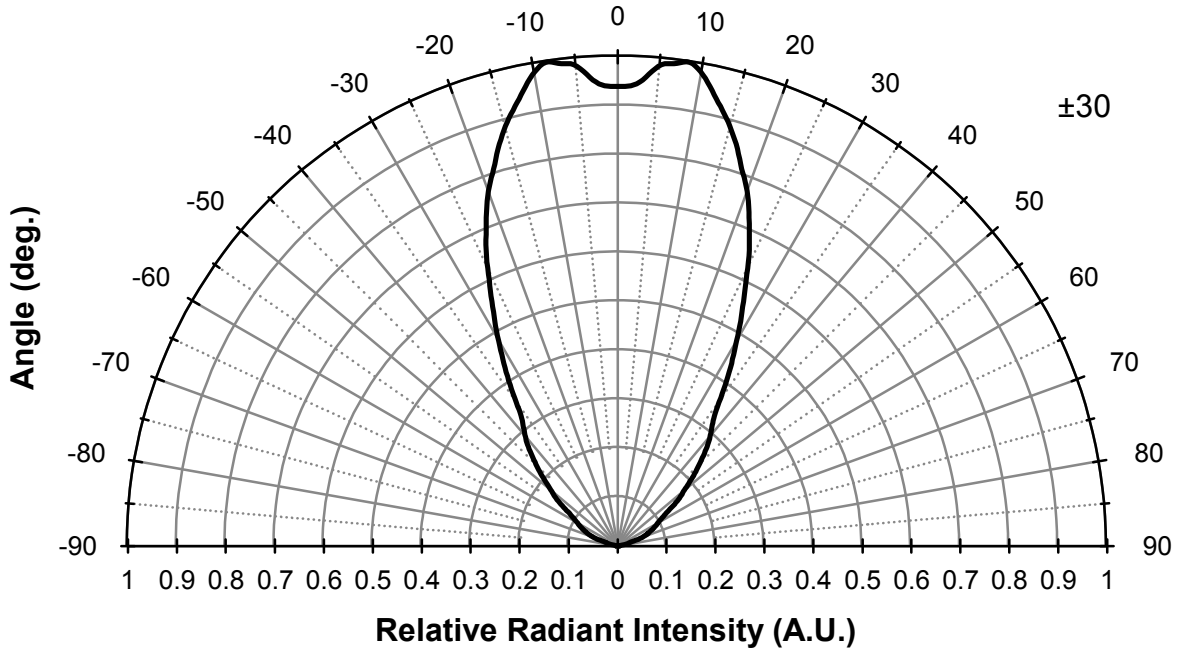
Relative Spectral Emission



Radiation Characteristics



Radiation Characteristics



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Product data and parameters in this catalog are typical values based on reasonably up-to-date measurements.

Product data and parameters may vary by user application and over time.

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