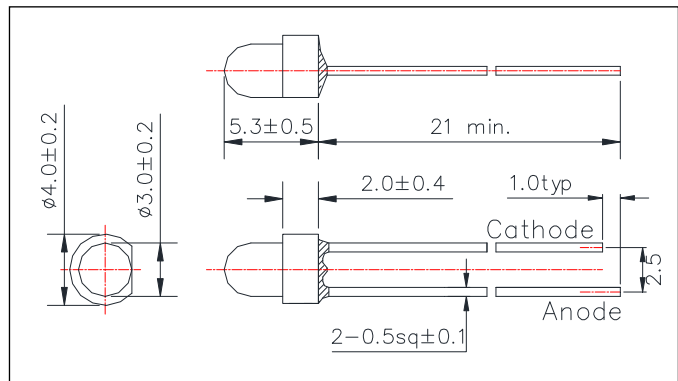


**L645-36**  
Super Bright Red LED Lamp

<Specifications>

- Chip Material: AlGaInP
- Chip Dimension: 300um x 300um
- Number of Chips: 1pcs
- Peak Wavelength: 645nm typ.
- Package Type: Φ3mm Crear Molding
- Lead Frame: Soldered (Lead Free)
- Lens: Epoxy Resin

Outer Dimension (Unit:mm)



| Absolute Maximum Ratings[Tc=25°C] |        |                     |      |
|-----------------------------------|--------|---------------------|------|
| Item                              | Symbol | Maximum Rated Value | Unit |
| Power Dissipation                 | PD     | 120                 | mW   |
| Forward Current                   | IF     | 50                  | mA   |
| Pulse Forward Current*            | IFP    | 100                 | mA   |
| Reverse Voltage                   | VR     | 5                   | V    |
| Thermal Resistance                | Rthja  | 170                 | 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 | Minimum | Typical | Maximum | Unit  |
| Forward Voltage                            | VF     | IF=20mA   |         | 2.3     | 2.4     | V     |
|  | VFP    | IFP=100mA |         | 3.5     |         |       |
| Total Radiated Power*                      | PO     | IF=20mA   |         | 11      |         | mW    |
|  |        | IFP=100mA |         | 55      |         |       |
| Radiant Intensity**                        | IE     | IF=20mA   |         | 16      |         | mW/sr |
|  |        | IFP=100mA |         | 81      |         |       |
| Brightness                                 | IV     | IF=20mA   |         | 1000    |         | mcd   |
| Luminous Flux                              | ΦV     | IF=20mA   |         | 1500    |         | mlm   |
| Peak Wavelength                            | λP     | IF=20mA   | 635     |         | 655     | nm    |
| Half Width                                 | Δλ     | IF=20mA   |         | 16      |         | nm    |
| Viewing Half Angle                         | θ1/2   | IF=20mA   |         | ±34     |         | deg   |
| Rise Time                                  | tr     | IF=20mA   |         | 25      |         | ns    |
| Fall Time                                  | tf     | IF=20mA   |         | 20      |         | ns    |

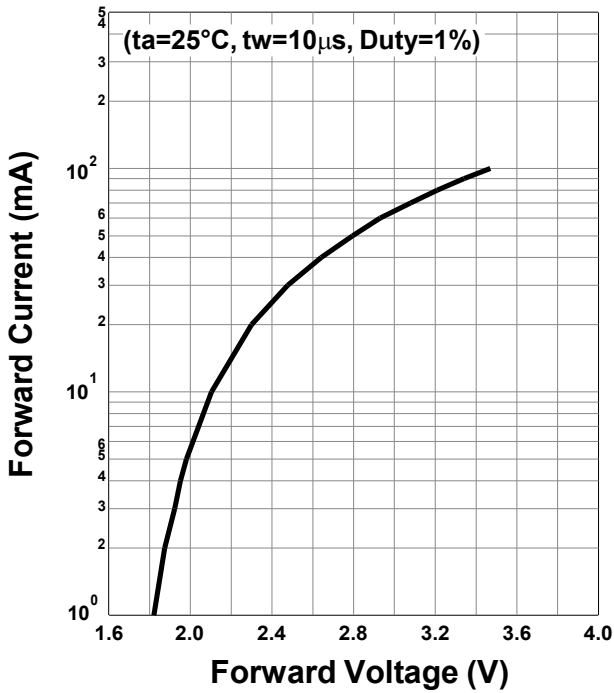
\* Measured by S3584-08

\*\* Measured by CIE127-2007 Condition B

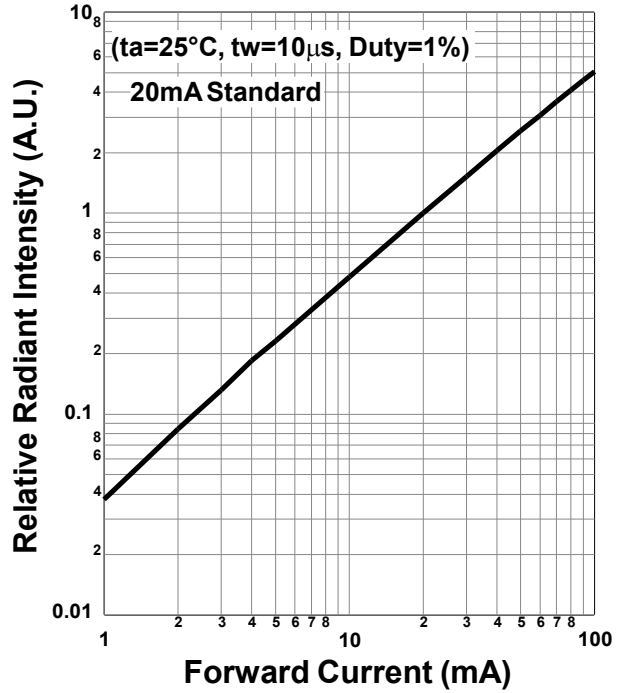


Typical Characteristic Curves

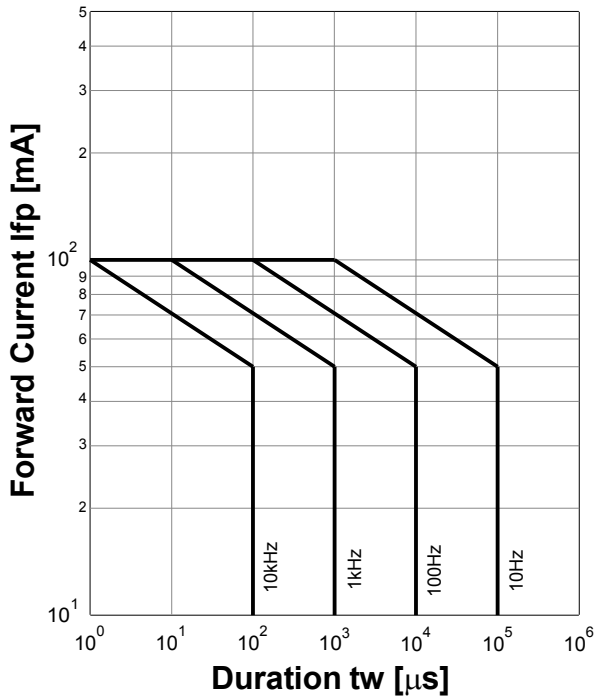
**Forward Current - Forward Voltage**



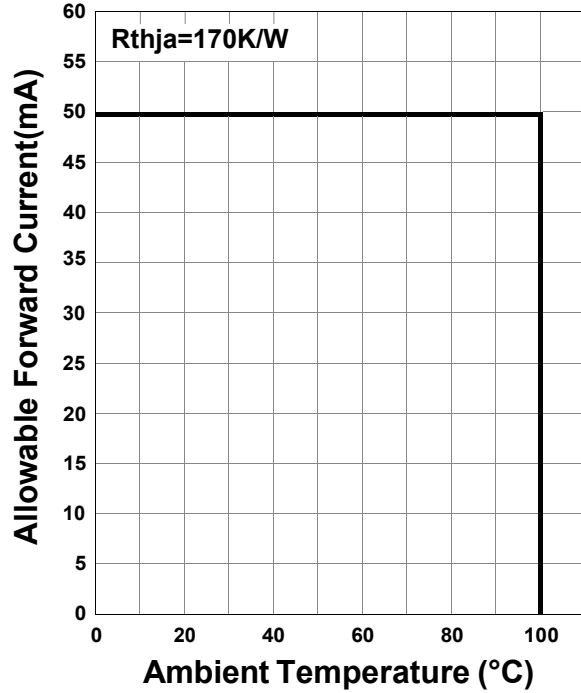
**Relative Radiant Intensity - Forward Current**

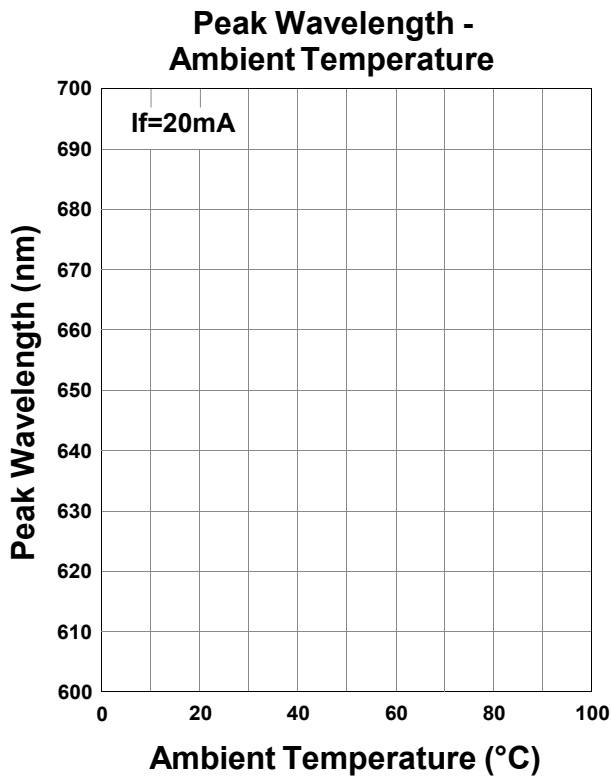
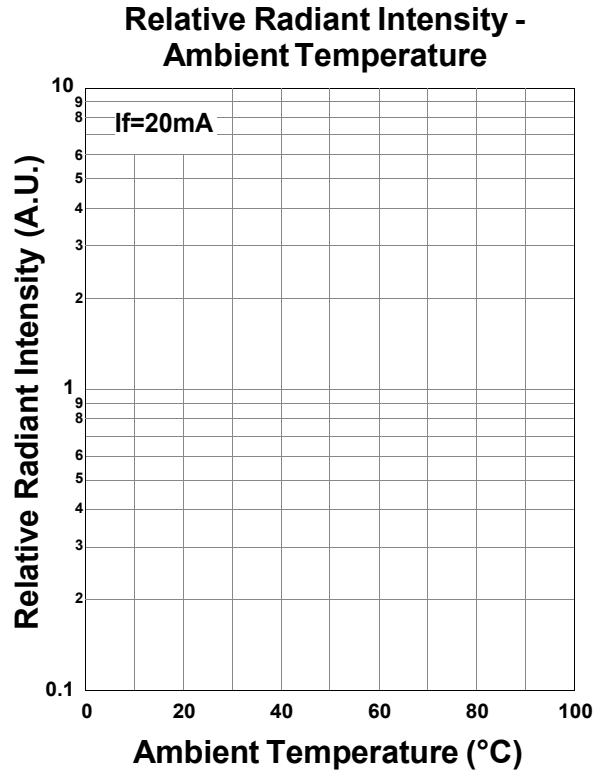
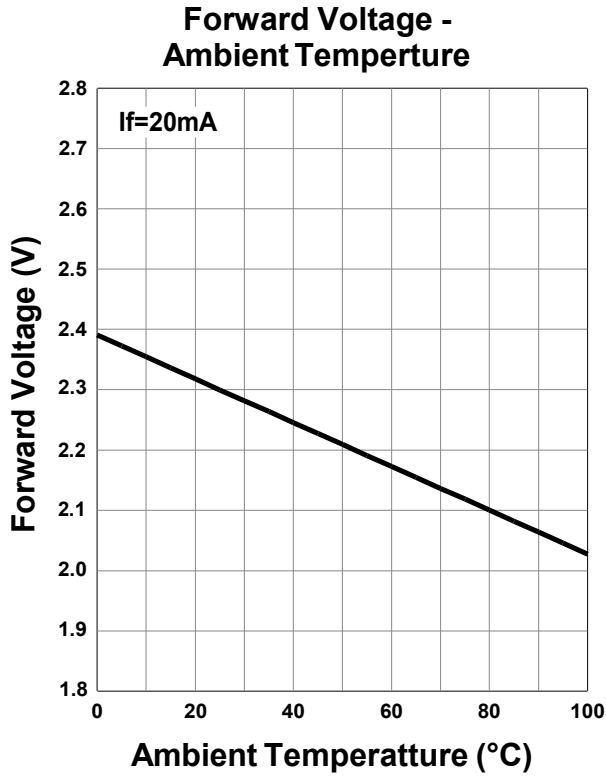


**Forward Current - Pulse Duration**

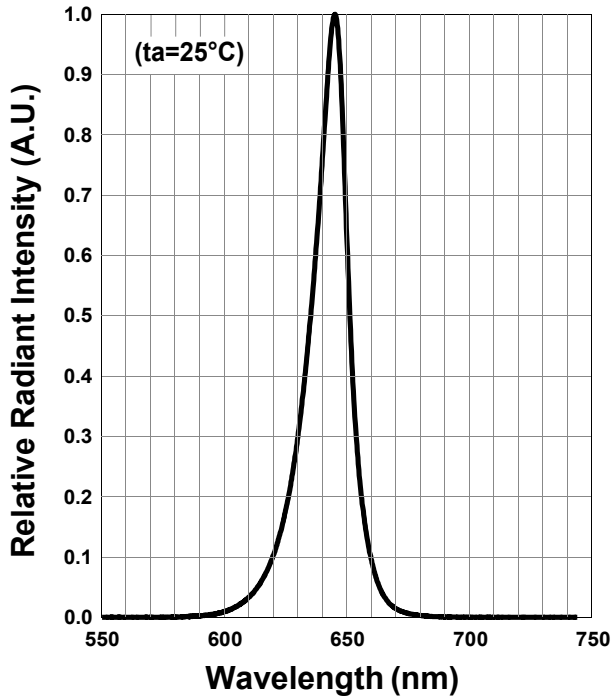


**Allowable Forward Current - Ambient Temperature**

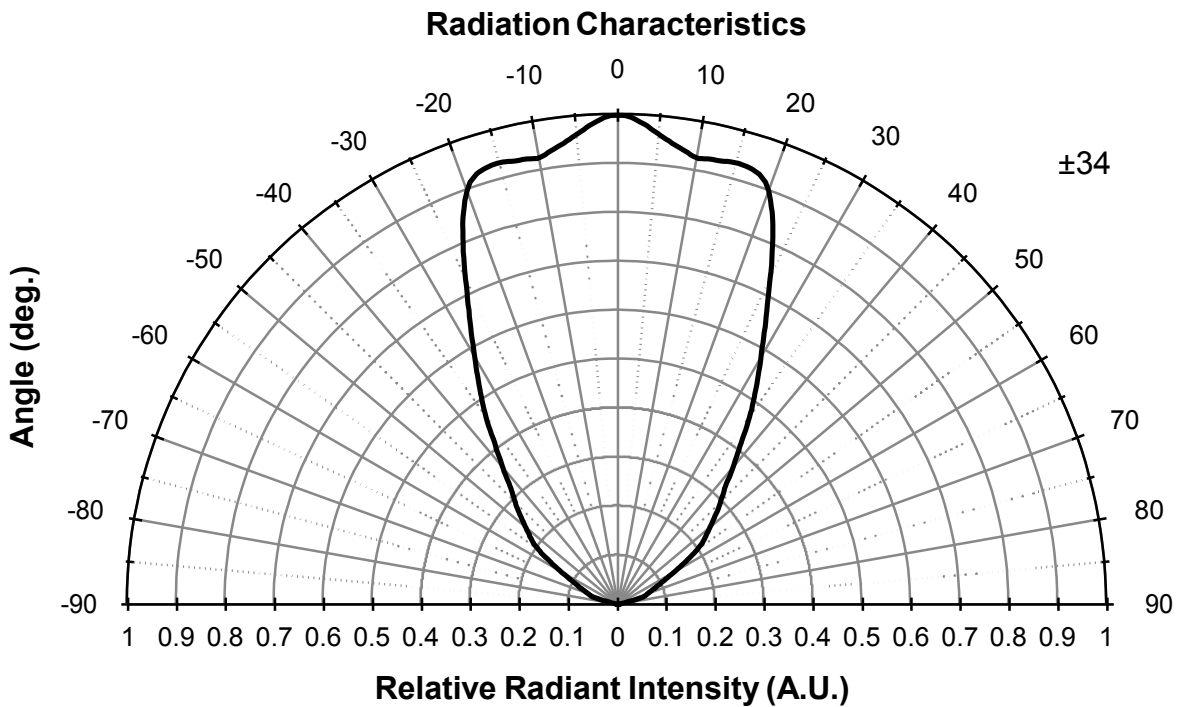
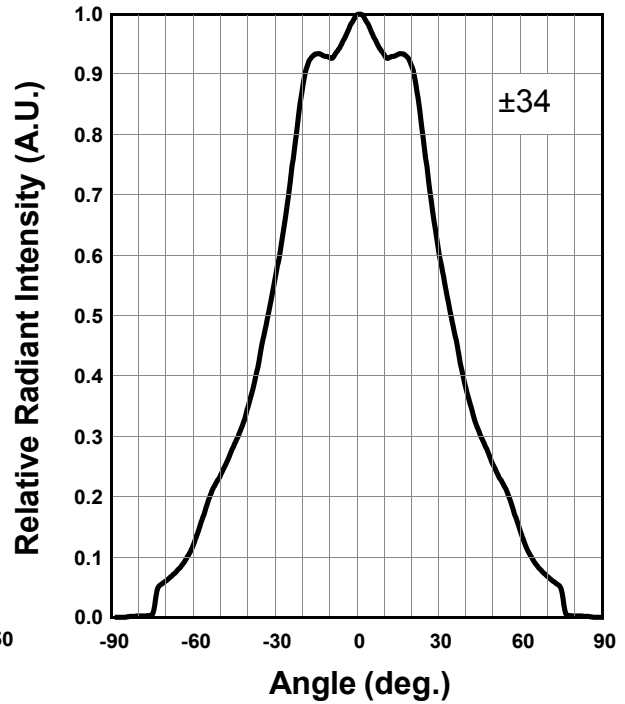




**Relative Spectral Emission**



**Radiation Characteristics**



**Disclaimer**

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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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