

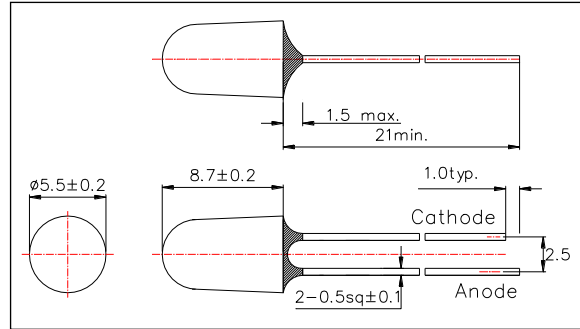
## L640-06 Super Bright Red LED Lamp

L640-06 is an AlGaInP LED mounted on a lead frame with a clear epoxy lens. On forward bias, it emits a band of visible light that peaks 640nm.

<Specifications>

1. Product Name: Super Bright Red LED
2. Type Number: L640-06
3. Chip:
  - Chip material: AlGaInP
  - Peak Wavelength: 640nm typ.
4. 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     | 110                 | mW   |
| Forward Current                   | IF     | 50                  | mA   |
| Pulse Forward Current*            | IFP    | 100                 | mA   |
| Reverse Voltage                   | VR     | 5                   | V    |
| Thermal Resistance                | Rthja  | 320                 | K/W  |
| Junction Temperature              | Tj     | 120                 | °C   |
| Operating Temperature             | TOPR   | -40 ~ +100          | °C   |
| Storage Temperature               | TSTG   | -40 ~ +100          | °C   |
| Soldering Temperature**           | TSOL   | 250                 | °C   |

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

\*\* Soldering condition must be completed within 5 second at 250°C.

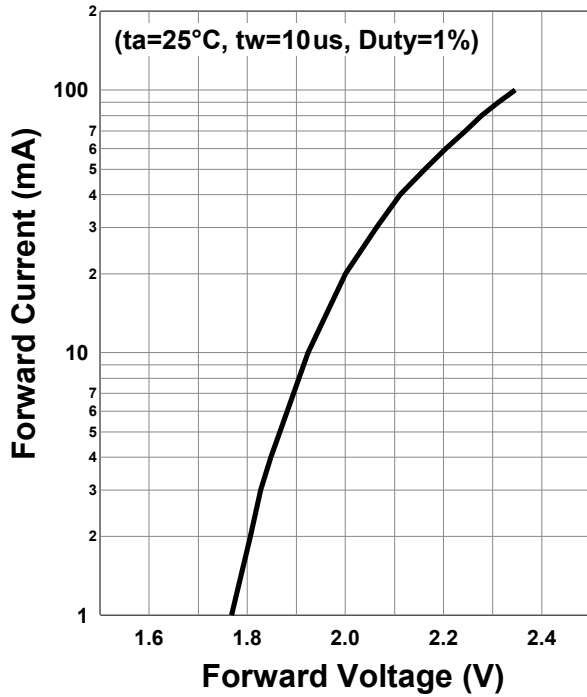
| Electro-Optical Characteristics [Ta=25°C ] |        |           |         |         |         |       |
|--|--------|-----------|---------|---------|---------|-------|
| Item                                       | Symbol | Condition | Minimum | Typical | Maximum | Unit  |
| Forward Voltage                            | VF     | IF=20mA   |         | 2.0     | 2.2     | V     |
|  |        | IFP=100mA |         | 2.4     |         |       |
| Total Radiated Power*                      | PO     | IF=20mA   |         | 8       |         | mW    |
|  |        | IFP=100mA |         | 38      |         |       |
| Brightness                                 | IV     | IF=20mA   |         | 3600    |         | mcd   |
| Radiant Intensity**                        | IE     | IF=20mA   |         | 75      |         | mW/sr |
|  |        | IFP=100mA |         | 360     |         |       |
| Peak Wavelength                            | λP     | IF=20mA   | 630     | 640     | 650     | nm    |
| Half Width                                 | Δλ     | IF=20mA   |         | 15      |         | nm    |
| Viewing Half Angle                         | θ1/2   | IF=20mA   |         | ±3      |         | deg   |
| Rise Time                                  | tr     | IF=20mA   |         | 55      |         | ns    |
| Fall Time                                  | tf     | IF=20mA   |         | 75      |         | ns    |

\* Measured by S3584-08

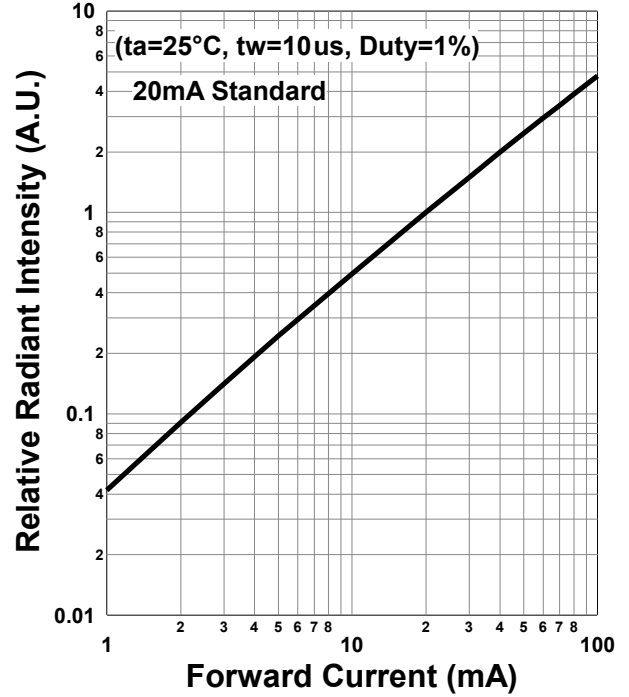
\*\* Measured by CIE127-2007 Condition B



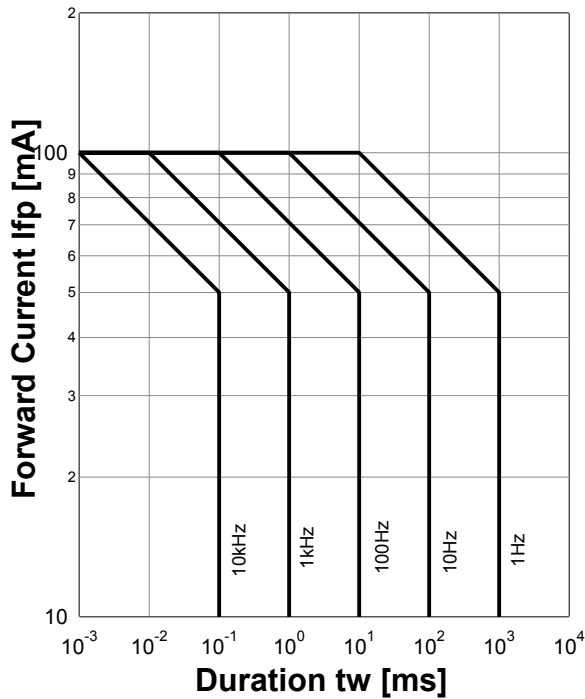
**Forward Current - Forward Voltage**



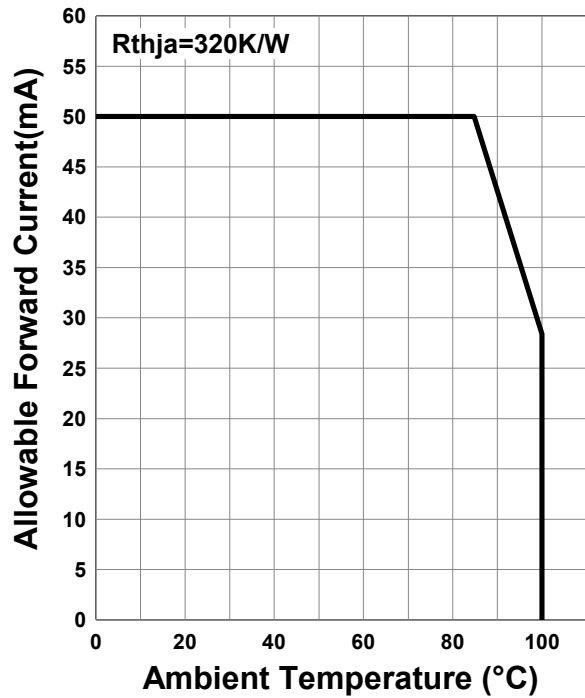
**Relative Radiant Intensity - Forward Current**

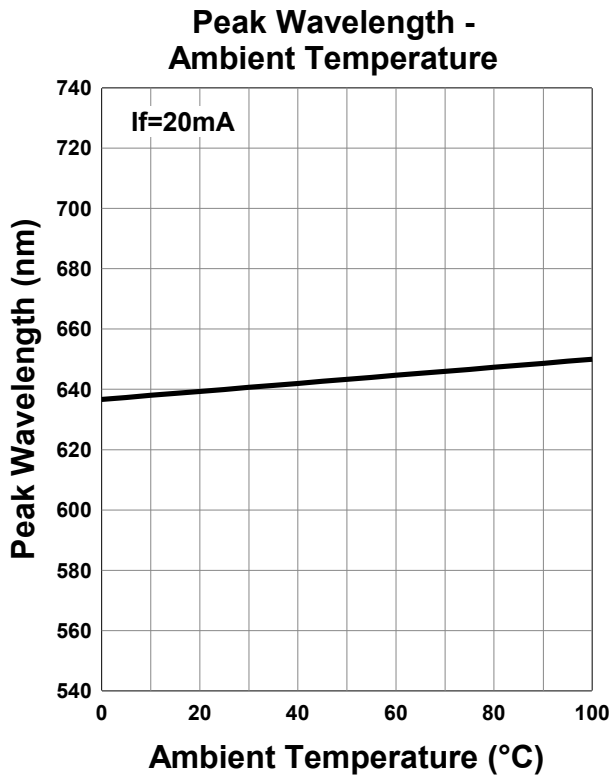
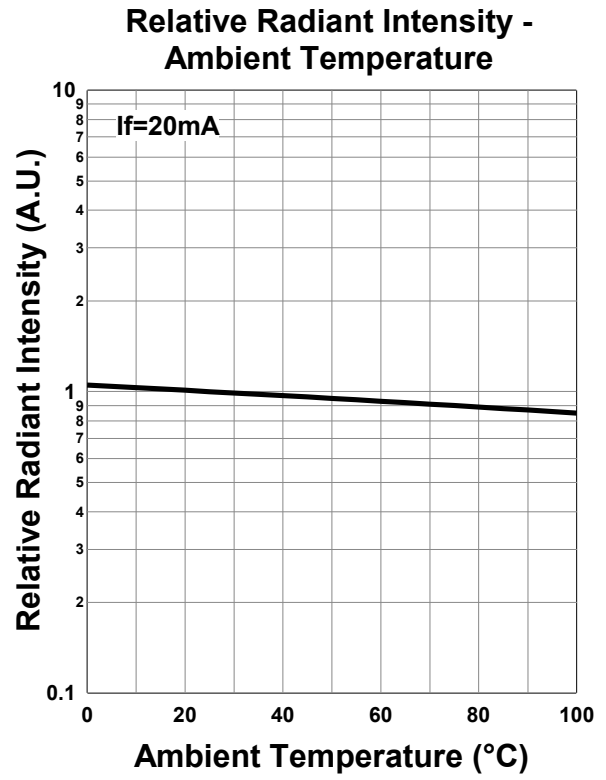
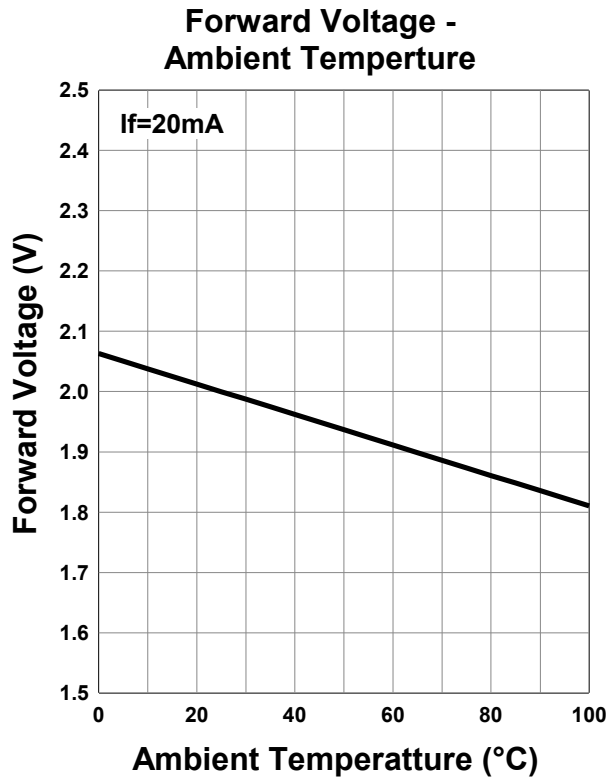


**Forward Current - Pulse Duration**

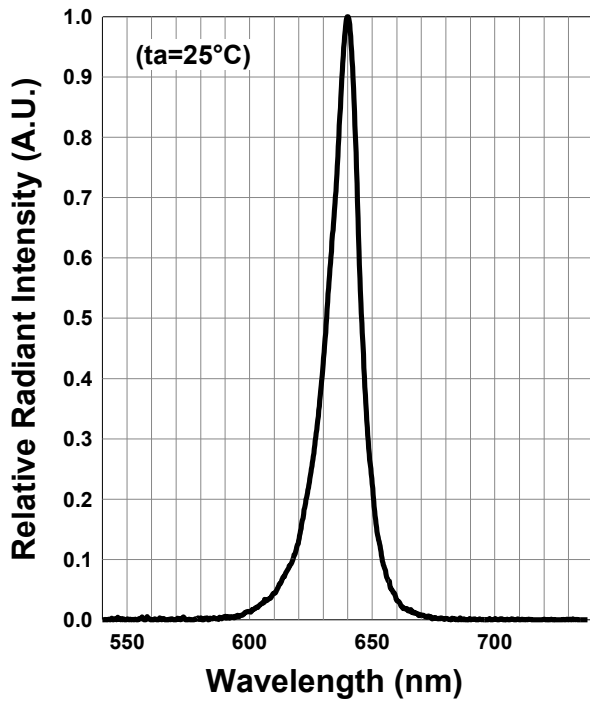


**Allowable Forward Current - Ambient Temperature**

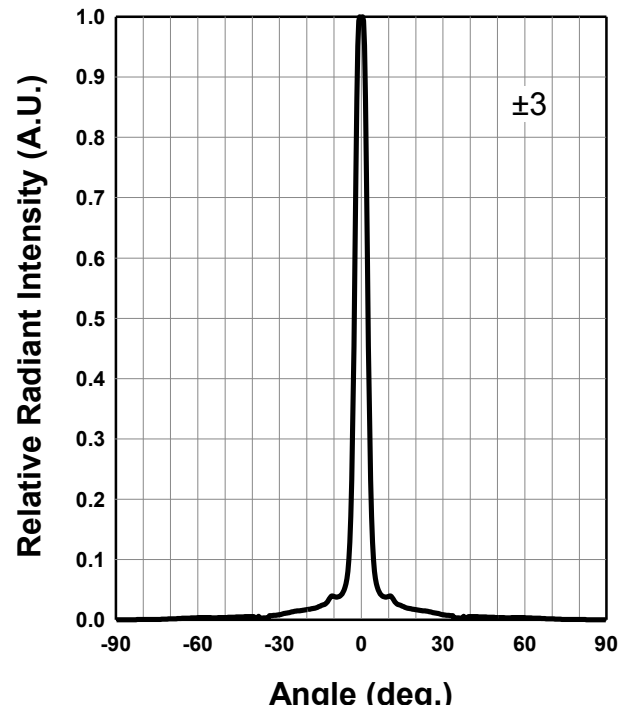




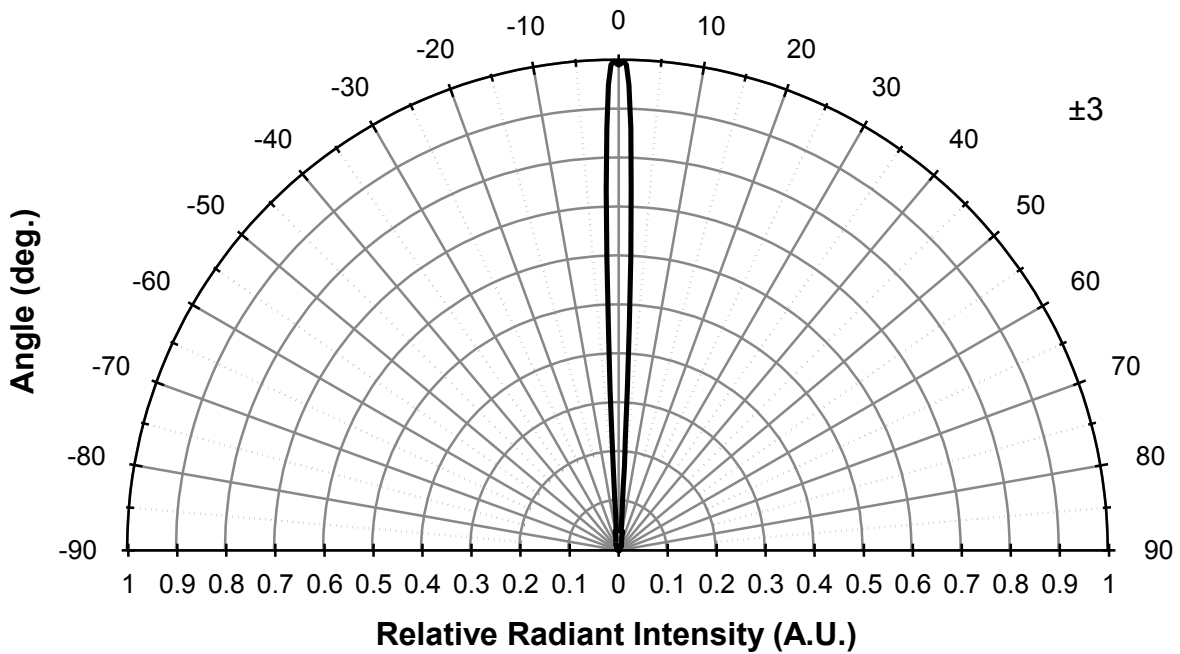
**Relative Spectral Emission**



**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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