

High Efficiency LED Lamp

Features

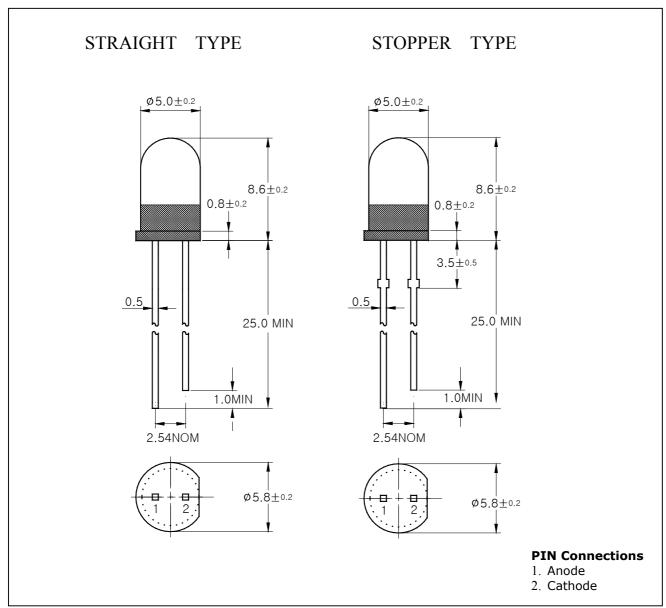
- Red Colored lens type
- \$\phi 5mm(T-13/4) all plastic mold type
- Super luminosity

Application

- Traffic Signal
- Massage Board
- Variable message signs(VMS)

Outline Dimensions

unit: mm



Absolute maximum ratings

| Characteristic | Symbol | Ratings | Unit | |
|-------------------------|-------------------|--------------------|------|--|
| Power Dissipation | P _D | 100 | mW | |
| Forward Current | I_{F} | 40 | mA | |
| *1Peak Forward Current | ${ m I}_{\sf FP}$ | 50 | mA | |
| Reverse Voltage | V_R | 4 | V | |
| Operating Temperature | T_{opr} | -25~85 | °C | |
| Storage Temperature | T _{stg} | -30~100 | °C | |
| *2Soldering Temperature | T _{sol} | 260° for 5 seconds | | |

^{*1.}Duty ratio = 1/16, Pulse width = 0.1ms

^{*2.}Keep the distance more than 2.0mm from PCB to the bottom of LED package



Electrical Characteristics

| Characteristic | Symbol | Test Condition | Min. | Тур. | Max. | Unit |
|-----------------------------------|------------------------|-----------------------|------|------|------|------|
| Forward Voltage | V_{F} | I _F = 20mA | - | 2.0 | 2.5 | V |
| * ⁴ Luminous Intensity | I_{V} | I _F = 20mA | 520 | 1170 | 2640 | mcd |
| Peak Wavelength | λ_{P} | I_F = 20mA | - | 630 | 1 | nm |
| Spectrum Bandwidth | Δλ | I _F = 20mA | - | 17 | - | nm |
| Reverse Current | _R | V _R =4V | - | - | 10 | uA |
| * ³ Half Angle | θ1/2 | I _F = 20mA | - | ±20 | - | deg |

^{*3.} θ 1/2 is the off-axis angle where the luminous intensity is 1/2 the peak intensity

^{*4.} Luminous Intensity classification

| Р | Q | R | S |
|---------|----------|-----------|-----------|
| 520~780 | 780~1170 | 1170~1760 | 1760~2640 |

^{*4.} Luminous Intensity Maximum tolerance for each Grade Classification limit is $\pm 18\%$

Characteristic Diagrams

Fig. 1 I_F - V_F

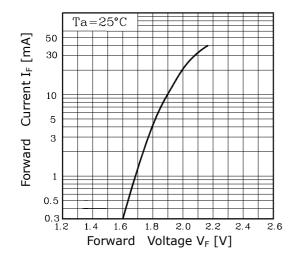


Fig. 3 $I_F - Ta$

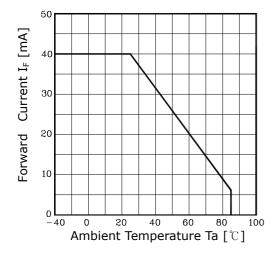


Fig. 2 I_V - I_F

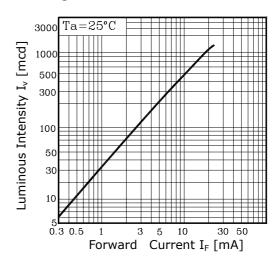


Fig.4 Spectrum Distribution

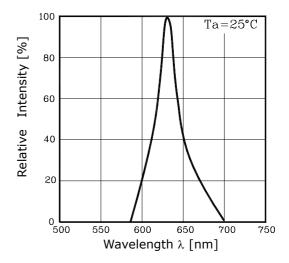
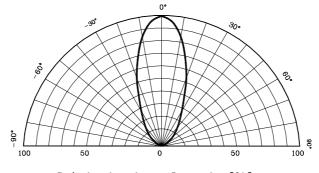


Fig. 5 Radiation Diagram



Relative Luminous Intensity [%]

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