PRELIMINARY

# LED660-66-60 epoxy lens type RED color illuminator

LED660-66-60 is a wide viewing and extremely high output power illuminator assembled with a total of 60 high efficiency AlGaAs diode chips, mounted on a metal stem TO-66 with AlN ceramics and covered with double coated clear silicone and epoxy resin. These devices are designed for high current operation with proper heat sinking to improve thermal conductive efficiency.

♦ Features

1) High reliability
2) Compact (TO-66) package
3) High output power at 660 nm

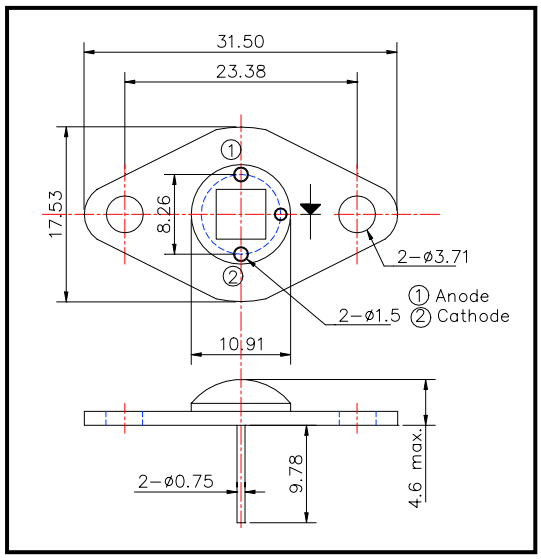
♦Applications

1) For high intensity lighting source

♦ Specifications

| | |
|---|---|
| 1) Product name | Red color illuminator |
| 2) Spec. No. | LED660-66-60 |
| 3) Chip | |
| (1) Material | AlGaAs |
| (2) Peak wavelength | 660 nm |
| 4) Package | |
| (1) Stem | TO-66 stem with AlN |
| (2) Lens | Clear epoxy lens |

♦Outer dimension (Unit: mm)




♦Absolute Maximum Ratings

| Item | Symbol | Maximum Rated Value | Unit | Ambient Temp. |
|---|---|---|---|---|
| Power Dissipation | $P_D$ | 4.5 | W | Ta = 25 °C |
| Forward Current | $I_F$ | 400 | mA | Ta = 25 °C |
| Pulse Forward Current | $I_{FP}$ | 2000 | A | Ta = 25 °C |
| Reverse Voltage | $V_R$ | 50 | V | Ta = 25 °C |
| Operating Temperature | $T_{OPR}$ | -30 ~ +80 | °C | |
| Storage Temperature | $T_{STG}$ | -30 ~ +110 | °C | |
| Soldering Temperature | $T_{SOL}$ | 240 | °C | |

‡Pulse Forward Current condition: Duty = 1% and Pulse Width = 1 μs.
‡Soldering condition: Soldering condition must be completed within 3 seconds at 260°C

♦Electro-Optical Characteristics

| Item | Symbol | Condition | Minimum | Typical | Maximum | Unit |
|---|---|---|---|---|---|---|
| Forward Voltage | $V_F$ | $I_F$ = 240 mA | | 10.0 | | V |
| Brightness | $I_V$ | $I_F$ = 240 mA | | 3500 | | mcd |
| Total Radiated Power | $P_O$ | $I_F$ = 240 mA | | 180 | | mW |
| Radiant Intensity | $I_E$ | $I_F$ = 240 mA | | 30 | | mW/sr |
| Reverse Current | $V_R$ | $I_R$ = 10 μA | 50 | | | V |
| Peak Wavelength | $\lambda_P$ | $I_F$ = 240 mA | 650 | 660 | 670 | nm |
| Half Width | $\Delta\lambda$ | $I_F$ = 240 mA | | 20 | | nm |
| Viewing Half Angle | $\theta_{1/2}$ | $I_F$ = 240 mA | | ±60 | | deg. |

‡Heat sink is required thermal resistance <8 K/W

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