

LED810-66-60 Epoxy Lens type Infrared Illuminator

LED810-66-60 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 810nm

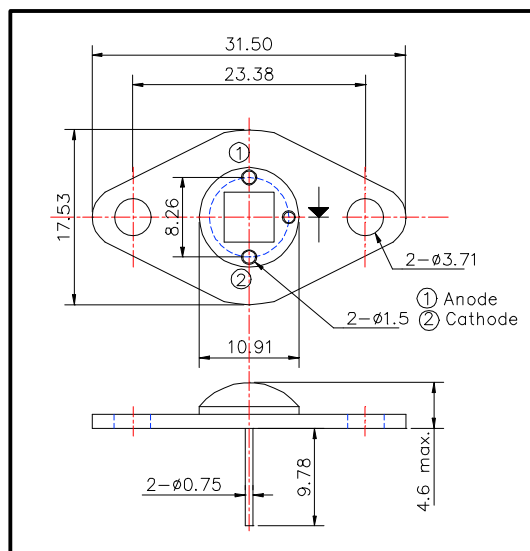
Applications

- 1) For IR search light
- 2) For CCD lighting
- 3) For night vision light source

Specifications

- | | |
|---------------------|-------------------------------|
| 1) Product name | IR illuminator |
| 2) Spec. No. | LED810-66-60 |
| 3) Chip | |
| (1) Material | AlGaAs |
| (2) Peak wavelength | 810nm |
| 4) Package | |
| (1) Stem | TO-66 stem with AlN |
| (2) Lens | Clear silicone and epoxy lens |

Outer dimension (Unit: mm)



Absolute Maximum Ratings

| Item | Symbol | Maximum Rated Value | Unit | Ambient Temp. |
|-----------------------|------------------|---------------------|------|----------------------|
| Power Dissipation | P _D | 7.6 | W | T _a =25°C |
| Forward Current | I _F | 750 | mA | T _a =25°C |
| Pulse Forward Current | I _{FP} | 3 | A | T _a =25°C |
| Reverse Voltage | V _R | 50 | V | T _a =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=1us.

‡ Soldering condition: Soldering condition must be completed within 3 seconds at 260°C

| Electro-Optical Characteristics | | | | | | |
|---------------------------------|------------------|-----------------------|---------|---------|---------|-------|
| Item | Symbol | Condition | Minimum | Typical | Maximum | Unit |
| Total Radiated Power | P _O | I _F =600mA | | 1000 | | mW |
| Total Radiated Power | P _O | I _F =3A | | 4000 | | mW |
| Radiant Intensity | I _E | I _F =600mA | | 450 | | mW/sr |
| Forward Voltage | V _F | I _F =600mA | | 9.0 | | V |
| Reverse Current | V _R | I _R =10uA | 50 | | | V |
| Peak Wavelength | I _P | I _F =600mA | | 810 | | nm |
| Half Width | DI | I _F =600mA | | 30 | | nm |
| Viewing Half Angle | Q _{1/2} | I _F =600mA | | ±60 | | deg. |
| Rise Time | t _r | I _F =600mA | | 100 | | ns |
| Fall Time | t _f | I _F =600mA | | 100 | | ns |

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