

LED780-66-60 epoxy lens type Infrared illuminator

LED780-66-60 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 780 nm

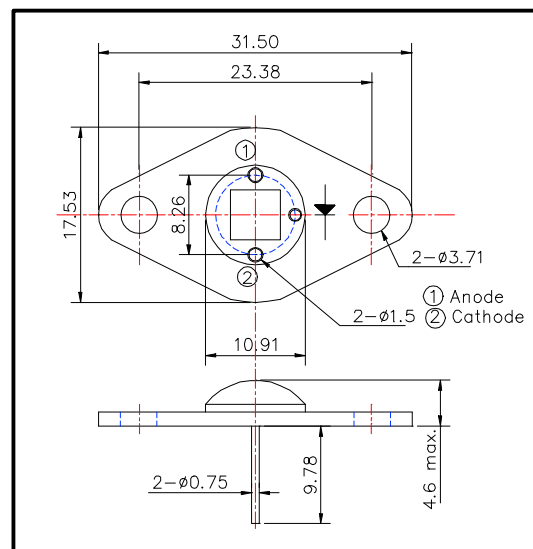
Applications

- 1) For IR search light
- 2) For CCD lighting

Specifications

- | | |
|---------------------|-------------------------------|
| 1) Product name | IR illuminator |
| 2) Spec. No. | LED780-66-60 |
| 3) Fast Chip | tr, tf = typ. 100 ns @ 600 mA |
| (1) Material | AlGaAs |
| (2) Peak wavelength | 780 nm |
| 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 Temperature
Power Dissipation	P _D	7.8	W	T _a = 25°C
Forward Current	I _F	0.75	A	T _a = 25°C
Pulse Forward Current	I _{FP}	3.0	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 = 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 = 600 mA		9.0		V
Reverse Voltage	V _R	I _R = 10 μA	50			V
Total Radiated Power	P _O	I _F = 600 mA		1000		mW
Total Radiated Power	P _O	I _F = 3 A		4000		mW
Radiant Intensity	I _E	I _F = 600 mA		450		mW/sr
Brightness	I _v	I _F = 600 mA		-----		mcd
Peak Wavelength	I _P	I _F = 600 mA	770	780	790	nm
Half Width	DI	I _F = 600 mA		40		nm
Viewing Half Angle	Q _{1/2}	I _F = 600 mA		±60		deg.

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

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