

# LED970-66-60 epoxy lens type IR illuminator

LED970-66-60 is a wide viewing and extremely high output power infrared illuminator assembled with a total of 60 high efficiency GaAs LED chips, mounted on a TO-66 metal stem 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 970 nm

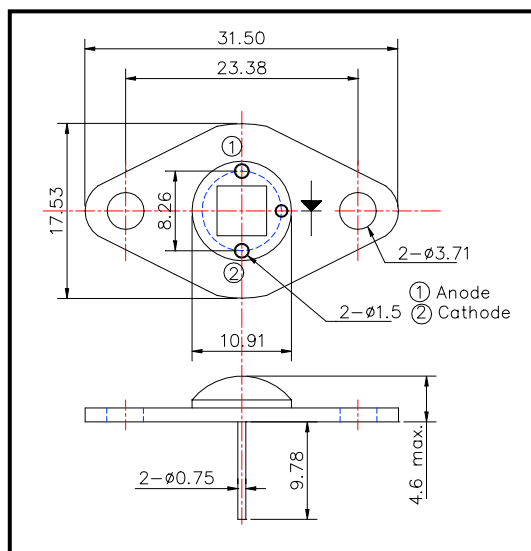
## ◆ Applications

- 1) Anti stoke excitation
- 2) CCD IR-illumination
- 3) Medical applications

## ◆ Specifications

- |                     |                               |
|---------------------|-------------------------------|
| 1) Product name     | IR illuminator                |
| 2) Spec. No.        | LED970-66-60                  |
| 3) Chip             |                               |
| (1) Material        | GaAs                          |
| (2) Peak wavelength | 970 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 Temp.
Power Dissipation	P <sub>D</sub>	7.5	W	T <sub>a</sub> = 25°C
Forward Current	I <sub>F</sub>	1.2	A	T <sub>a</sub> = 25°C
Pulse Forward Current	I <sub>FP</sub>	5	A	T <sub>a</sub> = 25°C
Reverse Voltage	V <sub>R</sub>	5	V	T <sub>a</sub> = 25°C
Operating Temperature	T <sub>OPR</sub>	-30 ~ +85	°C	
Storage Temperature	T <sub>STG</sub>	-30 ~ +110	°C	
Soldering Temperature	T <sub>SOL</sub>	240	°C	

‡Pulse Forward Current condition: Duty = 1% and Pulse Width = 1 us.

‡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 <sub>O</sub>	I <sub>F</sub> = 600 mA	240	480		mW
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> = 600 mA		6.5	7.5	V
Reverse Current	V <sub>R</sub>	I <sub>R</sub> = 10 uA	50			V
Peak Wavelength	λ <sub>P</sub>	I <sub>F</sub> = 600 mA	960	970	980	nm
Half Width	Δλ	I <sub>F</sub> = 600 mA		55		nm
Viewing Half Angle	θ <sub>1/2</sub>	I <sub>F</sub> = 600 mA		±60		deg
Rise Time	t <sub>r</sub>	I <sub>F</sub> = 600 mA		1000		ns
Fall Time	t <sub>f</sub>	I <sub>F</sub> = 600 mA		500		ns

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

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