

L870-66-60 epoxy lens type InfraRed illuminator

L870-66-60 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 870nm

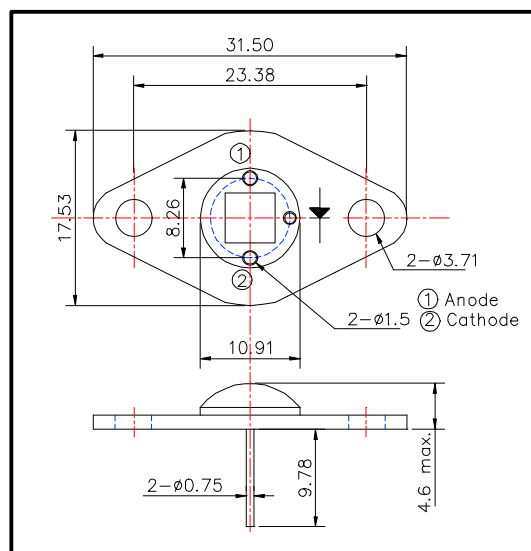
Applications

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

Specifications

- 1) Product name IR illuminator
- 2) Spec. No. L870-66-60
- 3) Chip
 - (1) Material AlGaAs
 - (2) Peak wavelength 870nm
- 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	7.5	W	T _a =25°C
Forward Current	I _F	1.2	A	T _a =25°C
Pulse Forward Current	I _{FP}	6	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 =800mA		1600		mW
Total Radiated Power	P _O	I _F =5A		9500		mW
Radiant Intensity	I _E	I _F =800mA		450		mW/sr
Forward Voltage	V _F	I _F =800mA		7.50		V
Reverse Current	V _R	I _R =10uA	50			V
Peak Wavelength	λ _P	I _F =800mA	860	870	880	nm
Half Width	Δλ	I _F =800mA		40		nm
Viewing Half Angle	Q _{1/2}	I _F =800mA		±60		deg.
Rise Time	t _r	I _F =100mA		15		ns
Fall Time	t _f	I _F =100mA		10		ns

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

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