

L870-66-60-550

IRED illuminator with Glass ball lens cap and heat sink

L870-66-60-550 is an extremely high beam and 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 sealed with glass ball lens cap and with heat sink for high current use.

◆ Features

- 1) High beam
- 2) Compact (TO-66) package
- 3) High output power

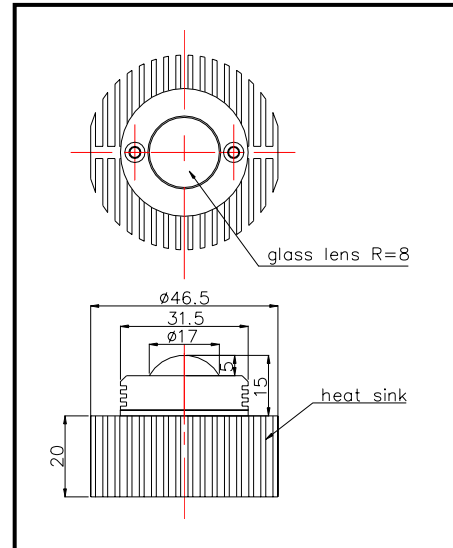
◆ Applications

- 1) For IR search light
- 2) For CCD lighting
- 3) For machine vision use

◆ Specifications

- | | |
|---------------------|---------------------|
| 1) Product name | IR illuminator |
| 2) Spec. No. | L870-66-60-550 |
| 3) Chip | |
| (1) Material | AlGaAs |
| (2) Peak wavelength | 870nm |
| 4) Package | |
| (1) Stem | TO-66 stem with AlN |
| (2) Lens | Glass ball lens |
| (3) Heat sink | Aluminum |

◆ Outer dimension (Unit: mm)



◆ Absolute Maximum Ratings

Item	Symbol	Maximum Rated Value	Unit	Ambient Temp.
Power Dissipation	P_D	7.5	W	$T_a=25^\circ\text{C}$
Forward Current	I_F	1.2	A	$T_a=25^\circ\text{C}$
Pulse Forward Current	I_{FP}	6	A	$T_a=25^\circ\text{C}$
Reverse Voltage	V_R	50	V	$T_a=25^\circ\text{C}$
Operating Temperature	T_{OPR}	-30 ~ +80	$^\circ\text{C}$	
Storage Temperature	T_{STG}	-30 ~ +110	$^\circ\text{C}$	
Soldering Temperature	T_{SOL}	240	$^\circ\text{C}$	

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

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

◆ Electro-Optical Characteristics ($T_a=25^\circ\text{C}$)

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Total Radiated Power	P_o	$I_F=800\text{mA}$		950		mW
Total Radiated Power	P_o	$I_{FP}=5\text{A}$		5500		mW
Radiant Intensity	I_E	$I_F=800\text{mA}$		600		mW/sr
Forward Voltage	V_F	$I_F=800\text{mA}$		7.50		V
Reverse Current	V_R	$I_R=10\mu\text{A}$	50			V
Peak Wavelength	λ_P	$I_F=800\text{mA}$	860	870	880	nm
Half Width	$\Delta\lambda$	$I_F=800\text{mA}$		40		nm
Viewing Half Angle	$\theta_{1/2}$	$I_F=800\text{mA}$		± 15		deg.
Rise Time	t_f	$I_F=100\text{mA}$		15		ns
Fall Time	t_f	$I_F=100\text{mA}$		10		ns

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