PRELIMINARY

LED750-66-60 epoxy lens type Infrared illuminator

LED750-66-60 is a wide viewing and extremely high output power illuminator assembled with a total of 60 high efficiency AlGaAs LED 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 750 nm

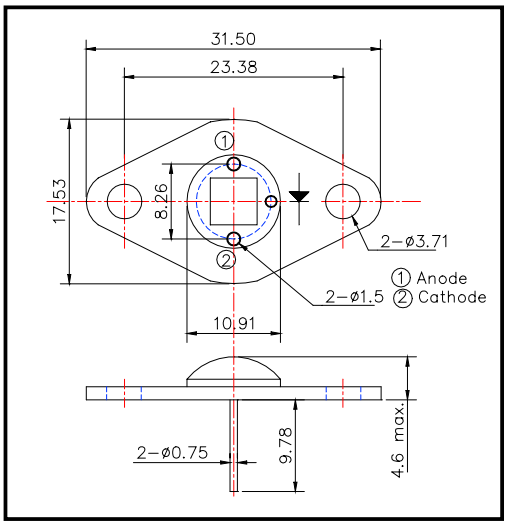
Applications

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

Specifications

1) Product name	IR illuminator
2) Spec. No.	LED750-66-60
3) Chip	
(1) Material	AlGaAs
(2) Peak wavelength	750 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_D	7.8	W	Ta = 25°C
Forward Current	I_F	750	mA	Ta = 25°C
Pulse Forward Current	I_{FP}	3	A	Ta = 25°C
Reverse Voltage	V_R	50	V	Ta = 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
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
Forward Voltage	V_F	I_F = 600 mA		9.0		V
Reverse Current	V_R	I_R = 10 uA	50			V
Peak Wavelength	λ_P	I_F = 600 mA	735	750	765	nm
Half Width	$\Delta\lambda$	I_F = 600 mA		30		nm
Viewing Half Angle	$2\Theta/2$	I_F = 600 mA		±60		deg.
Rise Time	t_r	I_F = 600 mA		100		ns
Fall Time	t_f	I_F = 600 mA		100		ns

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

ROITHNER LASERTECHNIK, 1040 Vienna, Austria, Schoenbrunner Str. 7, Tel. +43 1 586 52 43-0, Fax: +43 1 586 52 43 –44
office@oithner-laser.com, www.roithner-laser.com