LED850-66-60 epoxy lens type Infrared illuminator

LED850-66-60 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.

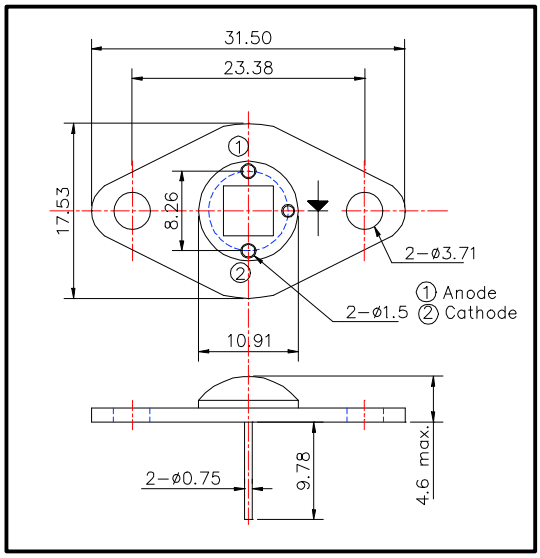
Features

1) high reliability
2) compact TO-66 package
3) high output power at 850 nm

Applications

1) IR search light, night vision
2) CCD lighting

Outer dimension (Unit: mm)



Specifications

1) Product name	red color illuminator
2) Spec. No.	LED850-66-60
3) Fast Chip	tr = 30 ns, tf = 20 ns at 100mA
(1) Material	GaAlAs
(2) Peak wavelength	850 nm
4) Package	
(1) Stem	TO-66 stem with AlN
(2) Lens	Clear silicone and epoxy lens

Absolute Maximum Ratings

Item	Symbol	Maximum Rated Value	Unit	Ambient Temperature
Power Dissipation	P_D	7.5	W	Ta = 25°C
Forward Current	I_F	1000	mA	Ta = 25°C
Pulse Forward Current	I_{FP}	6.0	A	Ta = 25°C
Reverse Voltage	V_R	50	V	Ta = 25°C
Operating Temperature	T_{OPR}	-30 ~ +85	°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 = 800 mA		7.5		V
Reverse Voltage	V_R	I_R =10 µA	50			V
Total Radiated Power	P_O	I_F = 800 mA		1500		mW
Total Radiated Power	P_O	I_F = 5 A		9000		mW
Radiant Intensity	I_E	I_F = 800 mA		400		mW/sr
Brightness	I_V	I_F = 800 mA		-----		mcd
Peak Wavelength	λ_P	I_F = 800 mA	830	850	870	nm
Half Width	$\Delta\lambda$	I_F = 800 mA		40		nm
Viewing Half Angle	$\theta_{1/2}$	I_F = 800 mA		±60		deg.

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

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