



**Lead (Pb) Free Product – RoHS Compliant**

# LED790-66-60 epoxy lens type Infrared illuminator

LED790-66-60 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 790nm

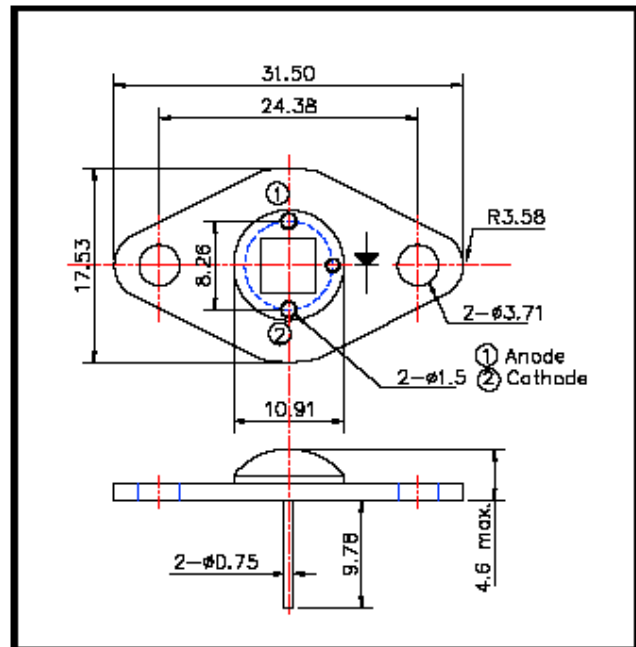
• **Applications**

- 1) For IR search light
- 2) For CCD lighting

• **Specifications**

- 1) Product Name IR illuminator
- 2) Type No. LED790-66-60
- 3) Chip
  - Chip Material AlGaAs
  - Peak Wavelength 790nm
- 4) Package
  - Stem TO-66 stem with AlN
  - Lens Clear silicone and epoxy lens

• **Outer dimension (Unit: mm)**



• **Absolute Maximum Ratings**

Item	Symbol	Maximum Rated Value	Unit	Ambient Temperature
Power Dissipation	P <sub>D</sub>	7.8	W	T <sub>a</sub> =25°C
Forward Current	I <sub>F</sub>	750	mA	T <sub>a</sub> =25°C
Pulse Forward Current	I <sub>FP</sub>	3	A	T <sub>a</sub> =25°C
Reverse Voltage	V <sub>R</sub>	50	V	T <sub>a</sub> =25°C
Operating Temperature	T <sub>OPR</sub>	-30 ~ +80	°C	
Storage Temperature	T <sub>STG</sub>	-30 ~ +110	°C	
Soldering Temperature	T <sub>SOL</sub>	265	°C	

- ▶ Pulse Forward Current condition: Duty=1% and Pulse Width=1us.
- ▶ Soldering condition: Soldering condition must be completed within 3 seconds at 265°C



• ***Electro-Optical Characteristics***

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Total Radiated Power	P <sub>O</sub>	I <sub>F</sub> =600mA		1000		MW
Total Radiated Power	P <sub>O</sub>	I <sub>FP</sub> =3A		4000		mW
Radiant Intensity	I <sub>E</sub>	I <sub>F</sub> =600mA		450		MW/sr
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =600mA		9.0		V
Reverse Current	V <sub>R</sub>	I <sub>R</sub> =10μA	50			V
Peak Wavelength	λ <sub>P</sub>	I <sub>F</sub> =600mA		790		nm
Half Width	Δλ	I <sub>F</sub> =600mA		40		nm
Viewing Half Angle	θ <sub>1/2</sub>	I <sub>F</sub> =600mA		±60		deg.
Rise Time	t <sub>r</sub>	I <sub>F</sub> =600mA		100		ns
Fall Time	t <sub>f</sub>	I <sub>F</sub> =600mA		100		ns

► Heat sink is required to protect LED at 60°C or less