



**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

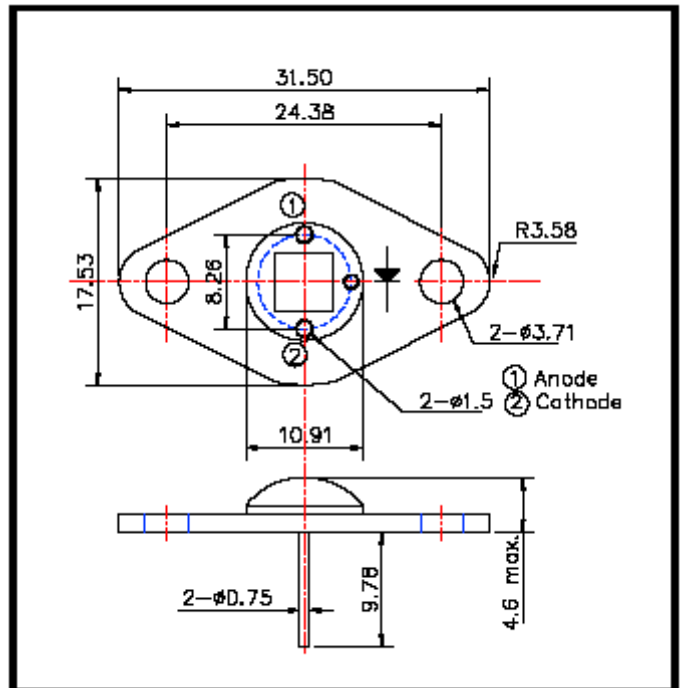
• **Applications**

- 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	$P_O$	$I_F=600\text{mA}$		1000		MW
Total Radiated Power	$P_O$	$I_{FP}=3\text{A}$		4000		mW
Radiant Intensity	$I_E$	$I_F=600\text{mA}$		450		MW/sr
Forward Voltage	$V_F$	$I_F=600\text{mA}$		9.0		V
Reverse Current	$V_R$	$I_R=10\mu\text{A}$	50			V
Peak Wavelength	$\lambda_P$	$I_F=600\text{mA}$		790		nm
Half Width	$\Delta\lambda$	$I_F=600\text{mA}$		40		nm
Viewing Half Angle	$\theta_{1/2}$	$I_F=600\text{mA}$		$\pm 60$		deg.
Rise Time	$t_r$	$I_F=600\text{mA}$		100		ns
Fall Time	$t_f$	$I_F=600\text{mA}$		100		ns

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