

# HIGH POWER IR LED

Lead (Pb) Free Product – RoHS Compliant

## L890 epoxy lens type Infrared illuminator

L890 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 890nm

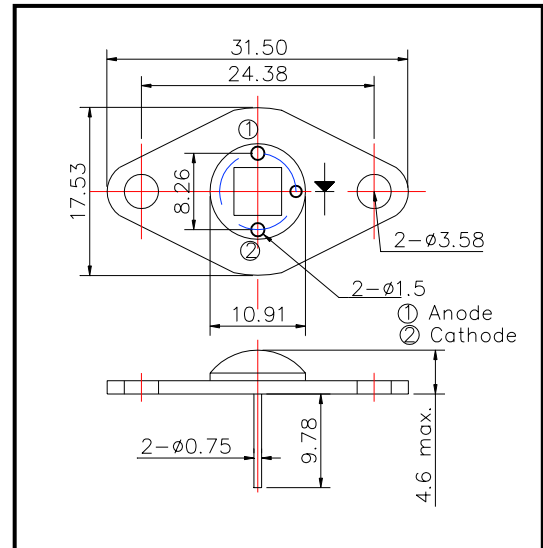
### ◆ Applications

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

### ◆ Specifications

- |                     |                               |
|---------------------|-------------------------------|
| 1) Product name     | IR illuminator                |
| 2) Spec. No.        | L890-66-60                    |
| 3) Chip             |                               |
| (1) Material        | AlGaAs                        |
| (2) Peak wavelength | 890nm                         |
| 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 Temperature
Power Dissipation	P <sub>D</sub>	7.5	W	T <sub>a</sub> =25°C
Forward Current	I <sub>F</sub>	1.0	A	T <sub>a</sub> =25°C
Pulse Forward Current	I <sub>FP</sub>	2.5	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 ~ +100	°C	
Soldering Temperature	T <sub>SOL</sub>	240	°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

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =800mA		7.0		V
Reverse Voltage	V <sub>R</sub>	I <sub>R</sub> =10uA	50			V
Total Radiated Power	P <sub>o</sub>	I <sub>F</sub> =800mA		850		mW
Total Radiated Power	P <sub>o</sub>	I <sub>FP</sub> =5A		5500		mW
Radiant Intensity	I <sub>E</sub>	I <sub>F</sub> =800mA		300		mW/sr
Peak Wavelength	λ <sub>P</sub>	I <sub>F</sub> =800mA	875	890	905	nm
Half Width	Δλ	I <sub>F</sub> =800mA		40		nm
Viewing Half Angle	θ <sub>1/2</sub>	I <sub>F</sub> =800mA		±60		deg.

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