

# L660N-66-60

For Plant Growth and Photo Synthetically Active Radiation use

L660N-66-60 is a wide viewing and extremely high output power illuminator assembled with a total of 60 high efficiency AlGaInP diode chips, mounted on a copper made 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.

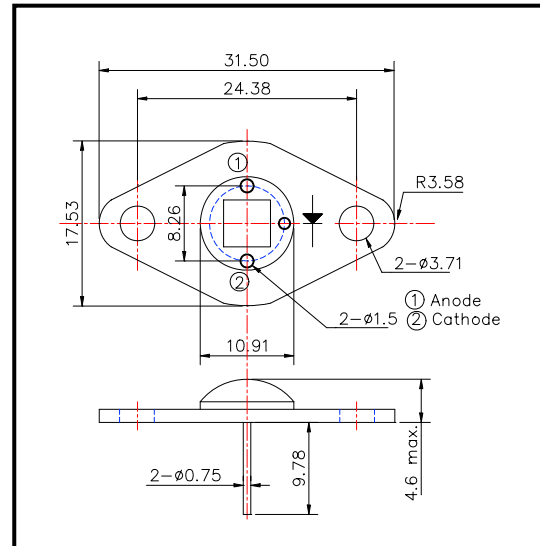
### ◆ Features

- 1) High reliability
- 2) Compact (TO-66) package
- 3) High output power at 660nm

### ◆ Specifications

- |                     |                             |
|---------------------|-----------------------------|
| 1) Product name     | IR illuminator              |
| 2) Spec. No.        | L660N-66-60                 |
| 3) Chip             |                             |
| (1) Material        | AlGaInP                     |
| (2) Peak wavelength | 660nm                       |
| 4) Package          |                             |
| (1) Stem            | TO-66 stem with AlN         |
| (2) Lens            | Silicone and/or Epoxy resin |

### ◆ Outer dimension (Unit: mm)



### ◆ Absolute Maximum Ratings

Item	Symbol	Maximum Rated Value	Unit	Ambient Temp.
Power Dissipation	$P_D$	16.8	W	$T_a=25^\circ\text{C}$
Forward Current	$I_F$	1.2	A	$T_a=25^\circ\text{C}$
Reverse Voltage	$V_R$	50	V	$T_a=25^\circ\text{C}$
Junction Temperature	$T_J$	100	$^\circ\text{C}$	
Thermal Resistance	$R_{thjp}$	2	K/W	
Operating Temperature	$T_{OPR}$	-30 ~ +80	$^\circ\text{C}$	
Storage Temperature	$T_{STG}$	-30 ~ +110	$^\circ\text{C}$	
Soldering Temperature	$T_{SOL}$	265	$^\circ\text{C}$	

‡Pulse Forward Current condition: Duty=1% and Pulse Width=1us.

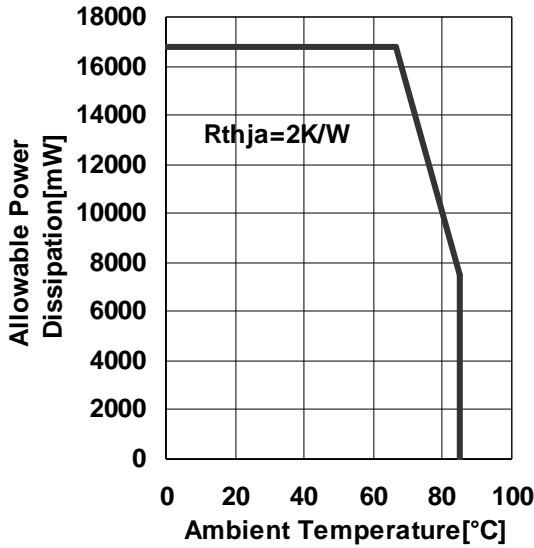
‡Soldering condition: Soldering condition must be completed within 3 seconds at 265 $^\circ\text{C}$

‡Thermal Resistance: Junction – Package, mounted on heat sink

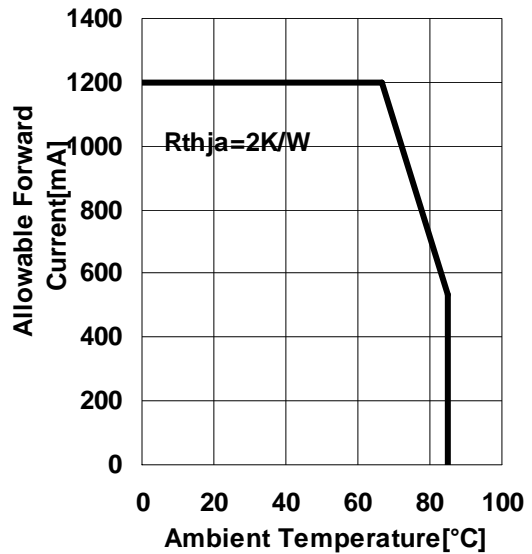
### ◆ Electro-Optical Characteristics

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Total Radiated Power	$P_o$	$I_F=600\text{mA}$		1200		mW
		$I_F=1.2\text{A}$		2400		
Radiant Intensity	$I_E$	$I_F=600\text{mA}$		270		mW/sr
		$I_F=1.2\text{A}$		540		
Brightness	$I_v$	$I_F=600\text{mA}$		31400		mcd
		$I_F=1.2\text{A}$		62800		
Forward Voltage	$V_F$	$I_F=600\text{mA}$		11.2		V
		$I_F=1.2\text{A}$		12.0		
Peak Wavelength	$\lambda_P$	$I_F=600\text{mA}$		660		nm
Half Width	$\Delta\lambda$	$I_F=600\text{mA}$		16		nm
Viewing Half Angle	$\theta_{1/2}$	$I_F=600\text{mA}$		$\pm 60$		deg.

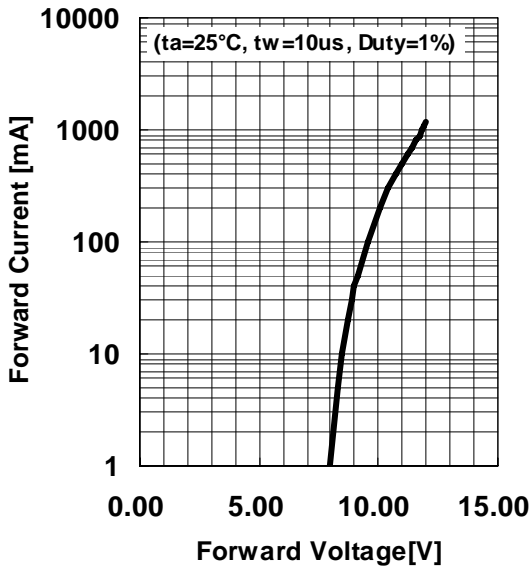
Allowable Power Dissipation- Ambient Temperature



Allowable Forward Current- Ambient Temperature



Forward Current - Forward Voltage



Relative Radiant intensity - Forward Current

