

PRELIMINARY
Lead (Pb) Free Product – RoHS Compliant

L645-66-60 epoxy lens type RED color illuminator

L645-66-60 is a wide viewing and extremely high output power illuminator assembled with a total of 60 high efficiency InGaAlP 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.

♦ Outer dimension (Unit: mm)

♦ Features

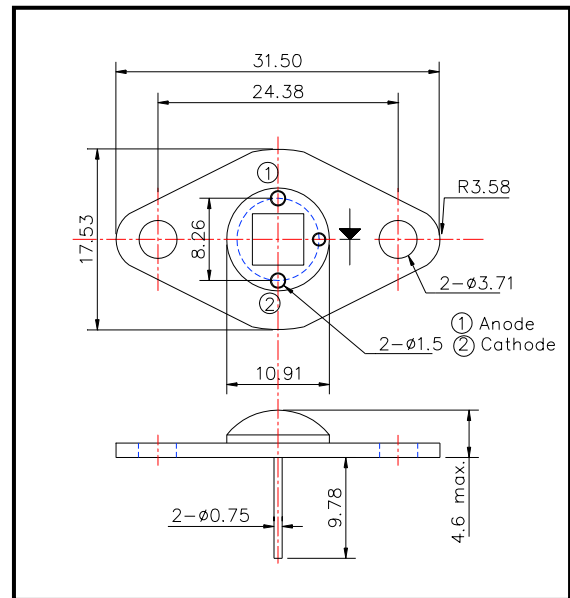
- 1) High reliability
- 2) Compact (TO-66) package
- 3) High output power at 645nm

♦ Applications

- 1) For high intensity lighting source

♦ Specifications

- | | |
|---------------------|-----------------------|
| 1) Product name | Red color illuminator |
| 2) Spec. No. | L645-66-60 |
| 3) Chip | |
| (1) Material | InGaAlP |
| (2) Peak wavelength | 645nm |
| 4) Package | |
| (1) Stem | TO-66 stem with AlN |
| (2) Lens | Clear epoxy lens |



♦ Absolute Maximum Ratings

Item	Symbol	Maximum Rated Value	Unit	Ambient Temp.
Power Dissipation	P _D	4.5	W	T _a =25°C
Forward Current	I _F	400	mA	T _a =25°C
Pulse Forward Current	I _{FP}	600	mA	T _a =25°C
Reverse Voltage	V _R	50	V	T _a =25°C
Operating Temperature	T _{OPR}	-30 ~ +80	°C	
Storage Temperature	T _{STG}	-30 ~ +110	°C	
Soldering Temperature	T _{SOL}	240	°C	

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

‡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 =240mA		10.0		V
Brightness	I _V	I _F =240mA		7000		mcd
Total Radiated Power	P _O	I _F =240mA		120		mW
Radiant Intensity	I _E	I _F =240mA		35		mW/sr
Reverse Current	V _R	I _R =10uA	50			V
Peak Wavelength	λ _P	I _F =240mA	635	645	655	nm
Half Width	Δλ	I _F =240mA		20		nm
Viewing Half Angle	θ _{1/2}	I _F =240mA		±60		deg.

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

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