

# LED645-66-60

epoxy lens type RED color illuminator LED645-66-60 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 TO-66 stem 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

High reliability  
Compact package  
High output power at 645 nm

## Applications

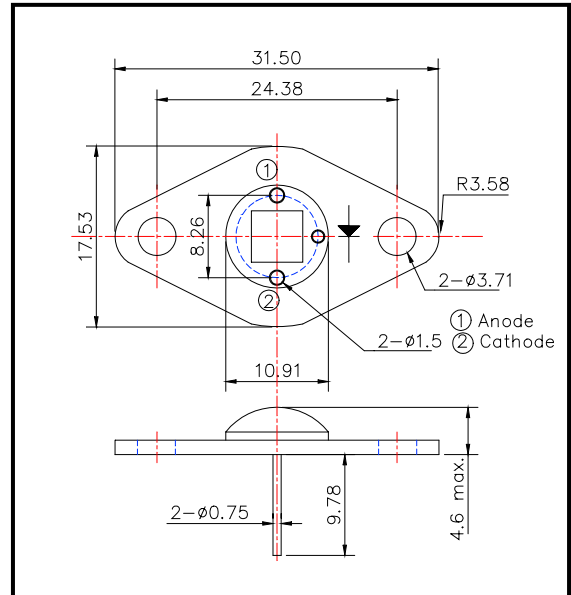
high intensity lighting source

## Specifications

Product name Red color illuminator  
Spec. No. LED645-66-60

Chip Material InGaAlP  
Peak wavelength 645 nm  
Package  
Stem TO-66 stem with AlN  
Lens Clear epoxy lens

Outer dimension (Unit: mm)



## Absolute Maximum Ratings

Item	Symbol	Maximum Rated Value	Unit	Ambient Temp.
Power Dissipation	$P_D$	4.5	W	$T_a=25^\circ\text{C}$
Forward Current	$I_F$	400	mA	$T_a=25^\circ\text{C}$
Pulse Forward Current	$I_{FP}$	600	mA	$T_a=25^\circ\text{C}$
Reverse Voltage	$V_R$	50	V	$T_a=25^\circ\text{C}$
Operating Temperature	$T_{OPR}$	-30 ~ +80	$^\circ\text{C}$	
Storage Temperature	$T_{STG}$	-30 ~ +110	$^\circ\text{C}$	
Soldering Temperature	$T_{SOL}$	240	$^\circ\text{C}$	

‡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	$V_F$	$I_F = 240 \text{ mA}$		10.0		V
Brightness	$I_V$	$I_F = 240 \text{ mA}$		7000		mcd
Total Radiated Power	$P_O$	$I_F = 240 \text{ mA}$		120		mW
Radiant Intensity	$I_E$	$I_F = 240 \text{ mA}$		35		mW/sr
Reverse Current	$V_R$	$I_R = 10 \text{ uA}$	50			V
Peak Wavelength	$\lambda_P$	$I_F = 240 \text{ mA}$	635	645	655	nm
Half Width	$\Delta\lambda$	$I_F = 240 \text{ mA}$		20		nm
Viewing Half Angle		$I_F = 240 \text{ mA}$		$\pm 60$		deg.

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

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