



LED780-66-60



TECHNICAL DATA

High Power LED Array, 60 chips

AlGaAs

LED780-66-60 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.

Specifications

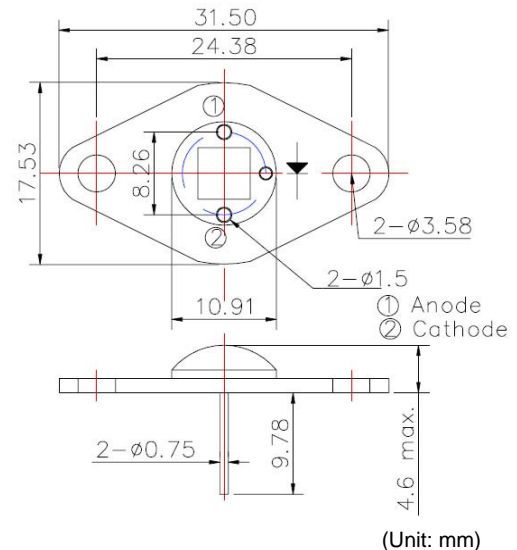
- Structure: AlGaAs, 60 LED chips
- Peak Wavelength: typ. 780 nm
- Optical Output Power: typ. 1 W
- Package: TO-66 stem with AlN, clear silicon and epoxy resin

Absolute Maximum Ratings ($T_C=25^\circ\text{C}$)

Item	Symbol	Value	Unit
Power Dissipation	P_D	7.8	W
Forward Current	I_F	750	mA
Pulsed Forward Current * ¹	I_{FP}	3	A
Reverse Voltage	V_R	50	V
Operating Temperature	T_{opr}	-30 ... +80	$^\circ\text{C}$
Storage Temperature	T_{stg}	-30 ... +110	$^\circ\text{C}$
Soldering Temperature * ²	T_{sol}	240	$^\circ\text{C}$

*¹ duty = 1%, pulse width = 1 μs

*² must be completed within 3 seconds



Electro-Optical Characteristics

Item	Symbol	Condition	Min.	Typ.	Max.	Unit
Total Radiated Power	P_O	$I_F = 600 \text{ mA}$	-	1	-	W
Total Radiated Power	P_O	$I_F = 3 \text{ A}$	-	4	-	W
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 Voltage	V_R	$I_R = 10 \mu\text{A}$	50	-	-	V
Peak Wavelength	λ_P	$I_F = 600 \text{ mA}$	-	780	-	nm
Half Width	$\Delta\lambda$	$I_F = 600 \text{ mA}$	-	30	-	nm
Viewing Half Angle	$\Theta_{1/2}$	$I_F = 600 \text{ mA}$	-	± 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, thermal resistance <8K/W

Notes

- This high power LED must be cooled!
- Do not view directly into the emitting area of the LED during operation!
- The above specifications are for reference purpose only and subjected to change without prior notice.



NOTE

LED MUST BE COOLED



Typical Performance Curves

