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LED880-66-60

TECHNICAL DATA

High Power LED Array, 60 chips   AlGaAs

LED880-66-60 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 AIN ceramics and covered with double coated clear silicone and epoxy resin.
These devices are designed for high current operation with proper heat sinking to improver thermal conductive efficiency.

Specifications

- Structure: AlGaAs, 60 LED chips
- Peak Wavelength: typ. 880 nm
- Optical Output Power: typ. 1.5 W
- Package: TO-66 stem with AIN,
          clear silicon and epoxy resin

Absolute Maximum Ratings (T_C=25°C)

Item	Symbol	Value	Unit
Power Dissipation	P_D	7.5	W
Forward Current	I_F	1200	mA
Pulsed Forward Current *[1]	I_{FP}	6	A
Reverse Voltage	V_R	50	V
Operating Temperature	T_{opr}	-30 … +80	°C
Storage Temperature	T_{stg}	-30 … +110	°C
Soldering Temperature *[2]	T_{sol}	265	°C

*[1] duty = 1%, pulse width = 1 µs
*[2] must be completed within 3 seconds
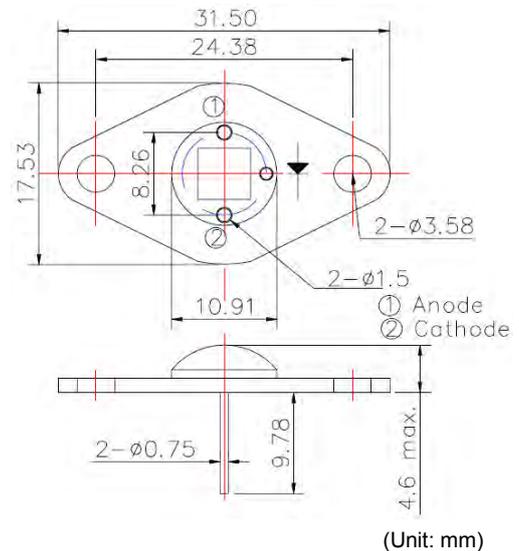
(Unit: mm)

Electro-Optical Characteristics

Item	Symbol	Condition	Min.	Typ.	Max.	Unit
Total Radiated Power	P_O	I_F = 800 mA	-	1.5	-	W
Total Radiated Power	P_O	I_{FP} = 5 A	-	9.0	-	W
Radiant Intensity	I_E	I_F = 800 mA	-	(400)	-	mW/sr
Axial Radiated Power *	I	I_F = 800 mA	-	0.03	-	mW/cm²
Forward Voltage	V_F	I_F = 800 mA	-	7.5	-	V
Peak Wavelength	λ_P	I_F = 800 mA	875	885	895	nm
Half Width	$\Delta\lambda$	I_F = 800 mA	-	40	-	nm
Viewing Half Angle	$\Theta_{1/2}$	I_F = 800 mA	-	±60	-	deg.
Rise Time	t_f	I_F = 800 mA	-	15	-	ns
Fall Time	t_f	I_F = 800 mA	-	10	-	ns

* L = 1m
Heat Sink is required, LED is required to keep less than 60°C

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

Forward Current – Forward Voltage

Radiant Power - Forward Current

Relative Radiant Intensity - Wavelength