

L720-66-60-130 IRED illuminator with PMMA lens cap and heat sink

L720-66-60-130 is an extremely high beam and 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 sealed with PMMA lens cap and with heat sink for high current use. 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 720nm

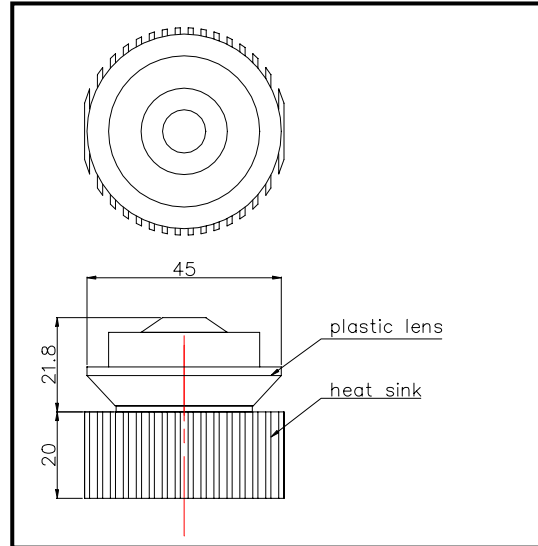
◆ Applications

- 1) For IR search light
- 2) For CCD lighting

◆ Specifications

- 1) Product name IR illuminator
- 2) Spec. No. L720-66-60-130
- 3) Chip
 - (1) Material AlGaAs
 - (2) Peak wavelength 720nm
- 4) Package
 - (1) Stem TO-66 stem with AlN
 - (2) Lens PMMA lens
 - (3) Heat sink Aluminum

◆ Outer dimension (Unit: mm)



◆ Absolute Maximum Ratings

Item	Symbol	Maximum Rated Value	Unit	Ambient Temp.
Power Dissipation	P_D	8.0	W	$T_a=25^\circ\text{C}$
Forward Current	I_F	750	mA	$T_a=25^\circ\text{C}$
Pulse Forward Current	I_{FP}	3	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}	2.0	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.

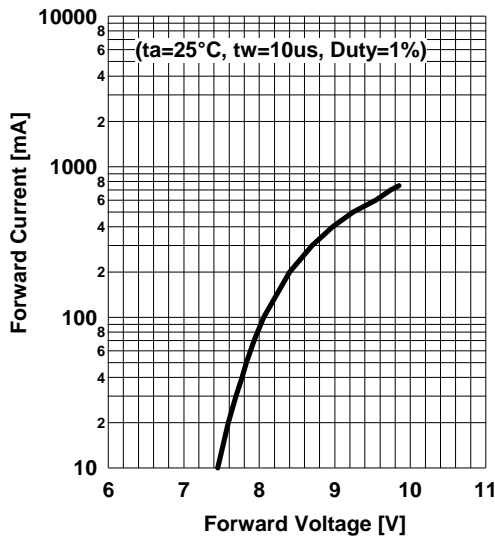
‡Soldering condition: Soldering condition must be completed within 3 seconds at 265 $^\circ\text{C}$

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

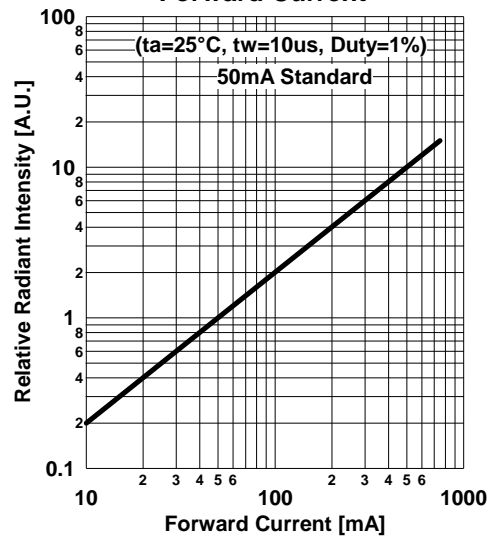
◆ Electro-Optical Characteristics

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Total Radiated Power	P_o	$I_F=600\text{mA}$		550		mW
Total Radiated Power	P_o	$I_F=3\text{A}$		2750		mW
Radiant Intensity	I_E	$I_F=600\text{mA}$		2000		mW/sr
Forward Voltage	V_F	$I_F=600\text{mA}$		9.5		V
Reverse Current	V_R	$I_R=10\mu\text{A}$	50			V
Peak Wavelength	λ_P	$I_F=600\text{mA}$		720		nm
Half Width	$\Delta\lambda$	$I_F=600\text{mA}$		30		nm
Viewing Half Angle	$\theta_{1/2}$	$I_F=600\text{mA}$		± 13		deg.
Rise Time	t_r	$I_F=600\text{mA}$		100		ns
Fall Time	t_f	$I_F=600\text{mA}$		100		ns

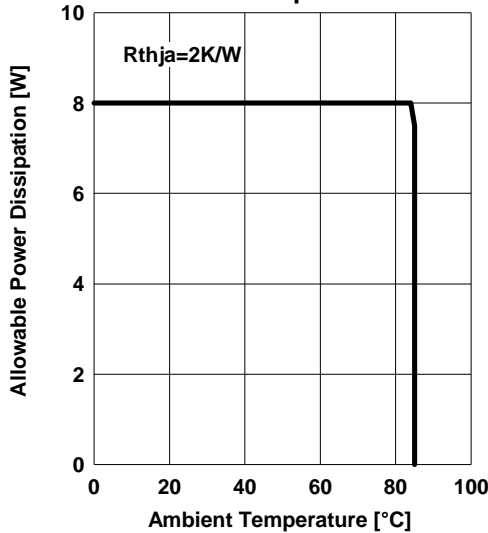
Forward Current - Forward Voltage



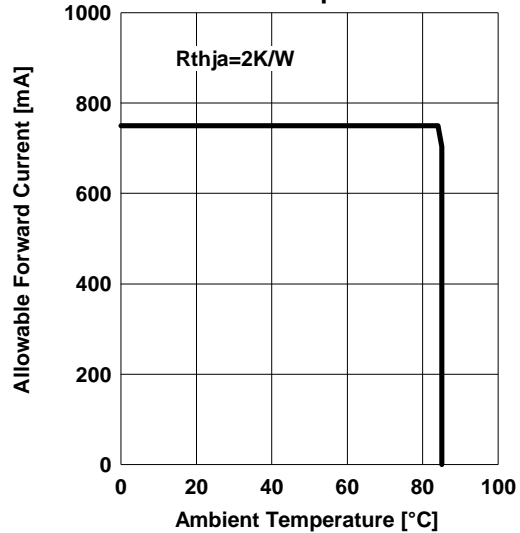
Relative Radiant Intensity - Forward Current



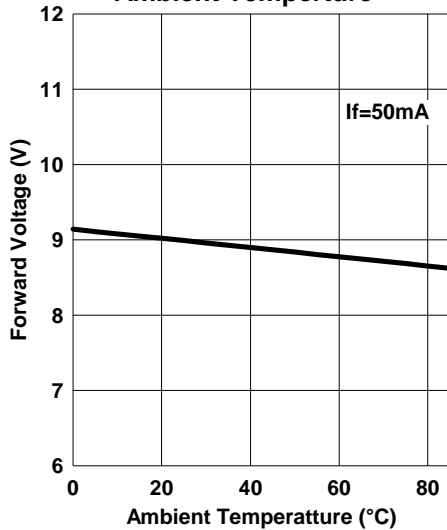
Allowable Power Dissipation - Ambient Temperature



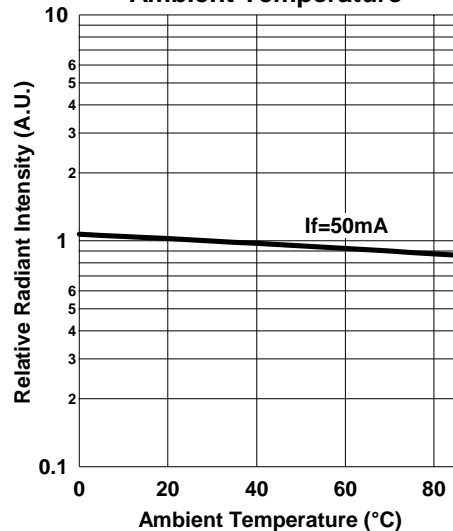
Allowable Forward Current - Ambient Temperature



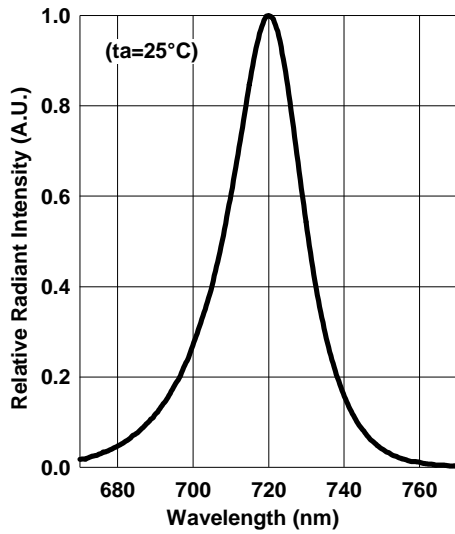
Forward Voltage - Ambient Temperature



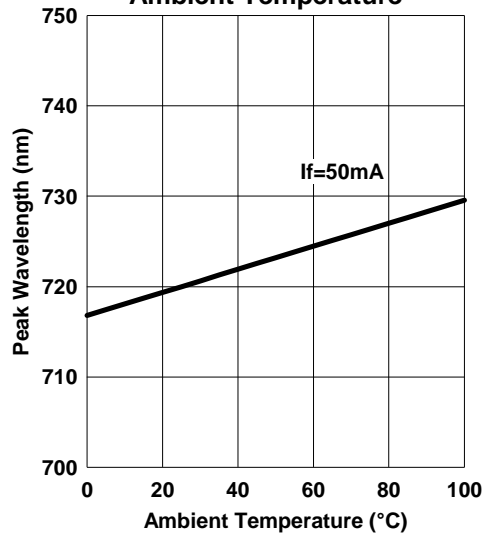
Relative Radiant Intensity - Ambient Temperature



Relative Spectral Emission



Peak Wavelength - Ambient Temperature



Radiation Characteristics

