

Radiation	Type	Technology	Case
Infrared	20 degrees	AlGaAs/AlGaAs	plastic lens, metal case

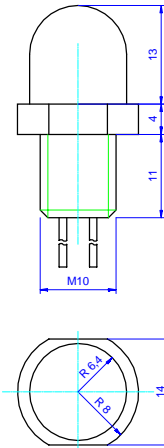
Description

High-power infrared-LED module, double-hetero AlGaAs structure, six chips are soldered on metal header, fast switching time

Outline: H=13 mm (± 0,5)

Applications

Illumination for CCD-cameras, remote control and optical communications, traffic signals, measurement systems



Absolute Maximum Ratings

at $T_{amb} = 25^{\circ}\text{C}$, unless otherwise specified

Parameter	Test conditions	Symbol	Value	Unit
DC forward current	on heat sink	I_F	250	mA
Peak forward current	$t_p \leq 10 \mu\text{s}$, $f \leq 500 \text{ Hz}$	I_{FM}	2000	mA
Reverse voltage*	$I_R = 10 \mu\text{A}$	V_R	20	V
Power dissipation	on heat sink ($S \geq 50 \text{ cm}^2$)	P	3	W
Operating temperature range		T_{amb}	-60 to +85	$^{\circ}\text{C}$
Storage temperature range		T_{stg}	-60 to +85	$^{\circ}\text{C}$
Junction temperature		T_j	100	$^{\circ}\text{C}$

*Always protect the LED source against reverse currents

Optical and Electrical Characteristics

at $T_{amb} = 25^{\circ}\text{C}$, unless otherwise specified

Parameter	Test conditions	Symbol	Min	Typ	Max	Unit
Forward voltage	$I_F = 100 \text{ mA}$	V_F		10.5		V
Forward voltage	$I_F = 250 \text{ mA}$	V_F		13		V
Radiant power	$I_F = 250 \text{ mA}$	Φ_e		225		mW
Radiant intensity	$I_F = 250 \text{ mA}$	I_e		1000		mW/sr
Peak wavelength	$I_F = 250 \text{ mA}$	λ_p	790	810	830	nm
Spectral bandwidth at 50%	$I_F = 250 \text{ mA}$	$\Delta\lambda_{0,5}$		30		nm
Viewing angle	$I_F = 250 \text{ mA}$	φ		20		deg
Switching time	$I_F = 250 \text{ mA}$	t_r, t_f		150		ns
Thermal resistance junction-case		R_{thJC}		10		K/W