

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

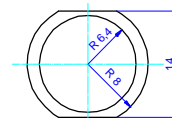
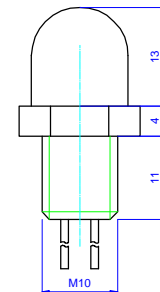
### Description

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

### Applications

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

**Outline:** H=13 mm (± 0,5)



### 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	$I_F = 250 \text{ mA}$	$\Phi_e$		225		mW
Radiant intensity	$I_F = 250 \text{ mA}$	$I_e$		1.2		W/sr
Peak wavelength	$I_F = 250 \text{ mA}$	$\lambda_p$	790	810	830	nm
Spectral bandwidth at 50%	$I_F = 250 \text{ mA}$	$\Delta\lambda_{0,5}$		30		nm
Viewing angle	$I_F = 250 \text{ mA}$	$\varphi$		20		deg
Switching time	$I_F = 250 \text{ mA}$	$t_r, t_f$		150		ns
Thermal resistance junction-case		$R_{thJC}$		10		K/W