

## Preliminary

Radiation	Type	Technology	Case
Infrared	15 degrees	AlGaAs/GaAs	plastic lens, metal case

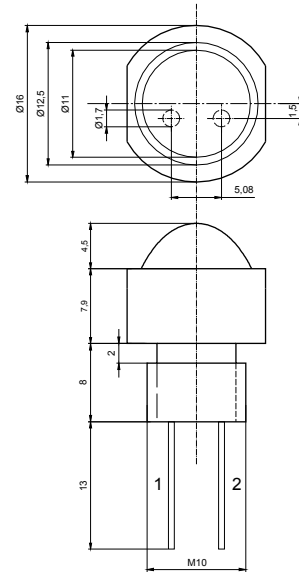
### Description

High-power infrared-LED module, consisting of a 1 mm DDH - AlGaAs die; fast switching time

### Applications

Illumination for CCD-cameras, remote control and optical communications, light barriers, measurement systems

**Outline:** H = 12,4 mm (± 0,5)  
D = 16 mm (± 0,5)  
M10



### Absolute Maximum Ratings

at  $T_{amb} = 25^{\circ}\text{C}$ , on heat sink ( $S \geq 50 \text{ cm}^2$ ), unless otherwise specified

Parameter	Test conditions	Symbol	Value	Unit
DC forward current	on heat sink	$I_F$	1.5	A
Peak forward current	$t_p \leq 10 \mu\text{s}$ , $f \leq 500 \text{ Hz}$	$I_{FM}$	3	A
Reverse current	$V_R = 5 \text{ V}$	$I_R$	10	$\mu\text{A}$
Power dissipation	on heat sink	$P$	3.5	W
Operating temperature range		$T_{amb}$	-25 to +100	$^{\circ}\text{C}$
Storage temperature range		$T_{stg}$	-25 to +100	$^{\circ}\text{C}$
Junction temperature		$T_j$	100	$^{\circ}\text{C}$

### Optical and Electrical Characteristics

at  $T_{amb} = 25^{\circ}\text{C}$ , on heat sink ( $S \geq 50 \text{ cm}^2$ ), unless otherwise specified

Parameter	Test conditions	Symbol	Min	Typ	Max	Unit
Forward voltage	$I_F = 1 \text{ A}$	$V_F$		1.7	2.0	V
Radiant intensity	$I_F = 1 \text{ A}$	$I_e$		1.9		W/sr
Peak wavelength	$I_F = 1 \text{ A}$	$\lambda_p$	930	940	950	nm
Spectral bandwidth at 50%	$I_F = 1 \text{ A}$	$\Delta\lambda_{0.5}$		45		nm
Viewing angle	$I_F = 1 \text{ A}$	$\phi$		15		deg
Switching time	$I_F = 1 \text{ A}$	$t_r, t_f$		600		ns
Thermal resistance junction-case		$R_{thJC}$		10		K/W