

Red LED - Module

ELJ-690-211

Preliminary

Radiation	Type	Technology	Case
Red	15 degrees	AllnGaP/GaAs	plastic lens, metal case

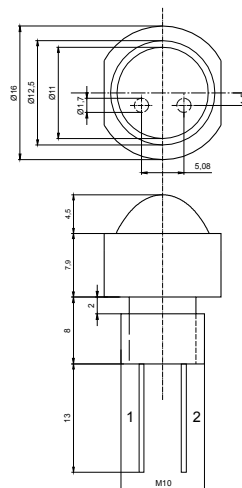
Description

High-power red-LED module, consisting of a 1 mm AllnGaP 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)
 Thread M10
 Pin 1 - cathode
 Pin 2 - anode



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	0.7	A
Peak forward current	$t_p \leq 10 \mu\text{s}$, $f \leq 500 \text{ Hz}$	I_{FM}	2	A
Reverse current	$V_R = 5 \text{ V}$	I_R	10	μA
Power dissipation	on heat sink	P	1.5	W
Operating temperature range		T_{amb}	-25 to +85	$^{\circ}\text{C}$
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	$I_F = 0,35 \text{ A}$	V_F		2.0	2.3	V
Radiant power	$I_F = 0,35 \text{ A}$	Φ_e		35		mW
Radiant Intensity	$I_F = 0,35 \text{ A}$	I_e		300		mW/sr
Peak wavelength	$I_F = 0,35 \text{ A}$	λ_p	680	690	700	nm
Spectral bandwidth at 50%	$I_F = 0,35 \text{ A}$	$\Delta\lambda_{0,5}$		25		nm
Viewing angle	$I_F = 0,35 \text{ A}$	φ		15		deg
Switching time	$I_F = 0,35 \text{ A}$	t_r, t_f				ns
Thermal resistance junction-case		R_{thJC}		10		K/W