

Color	Type	Technology	Case
Red	30 (deg)	GaAlAs / GaAlAs	plastic lenses, metal case

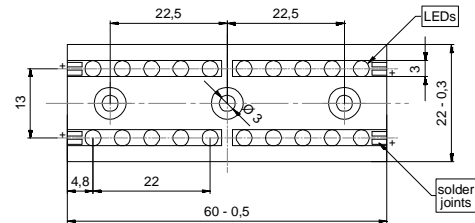
Description

High-power red LED module (array) includes four LED lines, soldered on light metal header, each with independent power supply, comprises five red LEDs connected in series, diodes are fitted with plastic domes

Applications

Illumination for CCD-cameras, alarm guard systems, measurement systems, remote control and optical communications

Outlines



Absolute Maximum Ratings (for each line)

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 pulsed forward current	$t_p \leq 10\mu\text{s}$, $f \leq 1\text{kHz}$	I_{FRM}	2000	mA
Reverse voltage*	$I_R = 10\text{i A}$	V_R	20	V
Operating temperature range		T_{amb}	-60 to +70	$^{\circ}\text{C}$
Storage temperature range		T_{stg}	-60 to +70	$^{\circ}\text{C}$
Power dissipation	on heat sink	P	3.5	W
Operating life time	ideal heat sink	T	25.000	h
Junction temperature		T_{jmax}	100	$^{\circ}\text{C}$

*Always protect the LED source against reverse currents

Optical and Electrical Characteristics (for each line)

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

Parameter	Test Conditions	Symbol	Min	Typ	Max	Unit
Forward voltage (5 diodes)	$I_F = 250\text{mA}$	V_F		14		V
Emission angle at half power points	$I_F = 250\text{mA}$	φ		30		Deg
Peak wavelength	$I_F = 250\text{mA}$	λ_p		660		nm
Spectral halfwidth	$I_F = 250\text{mA}$	$\Delta\lambda_{0,5}$		28		nm
Output power	$I_F = 250\text{mA}$	Φ_e	55	75		mW
Luminous flux	$I_F = 250\text{mA}$	Φ_v	3	4		lm
Switching time	$I_F = 250\text{mA}$	t_r, t_f	100	200		ns
External quantum efficiency		η_E		2		%