

Color	Type	Technology	Case
Infrared	2q _{1/2} 20 (deg) 2q _{1/2} 120 (deg)*	GaAlAs / GaAlAs	plastic lenses, metal case

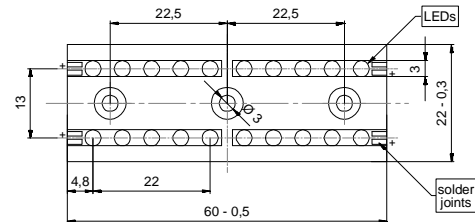
Description

High-power IRED module includes four arrays, soldered on light metal header, each with independent power supply, comprises five IREDS connected in series, diodes fitted with plastic dome

Applications

Illumination for CCD-cameras, alarm guard systems, target designation for night-vision systems, remote control and optical communications

Outlines



Maximum Ratings

T_{amb} = 25°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 ≤ 10μs, f ≤ 1kHz	I _{FRM}	2000	mA
Operating temperature range		T _{amb}	-60 to +70	°C
Storage temperature range		T _{stg}	-60 to +70	°C
Power dissipation	on heat sink	P	10	W
Operating life time	ideal heat sink	t	25.000	h
Junction temperature		T _{jmax}	100	°C

Optical and Electrical Characteristics

T_{amb} = 25°C, unless otherwise specified

Parameter	Test Conditions	Symbol	Min	Typ	Max	Unit
Forward voltage (5 diodes)	I _F = 250mA	V _F	9,0	9,5	10	V
Angle of half intensity	I _F = 250mA	2φ _{0,5}		20 120*		deg deg
Peak wavelength	I _F = 50mA	λ _p	870	880		nm
Spectral bandwidth	I _F = 250mA	Δλ _{0,5}	40	50		nm
Output power	I _F = 100mA x 4	Φ _e	300	400		mW
Output power	I _F = 250mA x 4	Φ _e		1000		mW
Switching time	I _F = 250mA	t _r , t _f	50	100	150	ns
External quantum efficiency		η _E	8	15		%
Temp. coeff. of radiant power		T _{KΦ}		-0,5		%/K
Temp. coeff. of wavelength		T _{Kλ}		0,25		%/K
Temp. coeff. forward voltage		T _{KVF}		-0,2		%/K
Total capacity	V _R =0V	c _t	100	110		pF

ROITHNER LASERTECHNIK

Schönbrunner Straße 7, A-1040 Vienna, Austria, Tel: +43-1-586 52 43-0, Fax: +43-1-586 52 43-44, office@roithner-laser.com